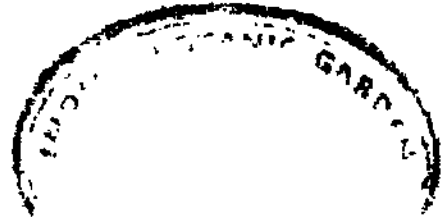


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Genkei MASAMUNE:

**FLORISTIC AND GEBOTANICAL STUDIES ON THE
ISLAND OF YAKUSIMA, PROVINCE OSUMI**



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**FLORISTIC AND GEBOTANICAL STUDIES ON THE
ISLAND OF YAKUSIMA, PROVINCE ÔSUMI**

(With 13 Illustrations in the Text)

Genkei MASAMUNE

(Accepted for publication, November 10, 1933)

FOREWORD

In 1922, from the 13th to the 18th of July, I stayed in the island of Yakusima and made a study of the plants there. It was my first botanical excursion to that island, and the luxuriance of its forests and the richness of its plant vegetation attracted my interest to so high a degree that I gave myself to the study of this island from the phytogeographical and floristical point of view. Since then I visited it eight times, and was able to get a fairly good collection of the higher cryptogamic and flowering plants, on which in the meantime I published (1929) a note entitled "Preliminary Report on the Vegetation of Yakusima". The report was an abstract from my graduation thesis for the Tokyo Imperial University, carried out under the guidance of Dr. B. HAYATA, Professor of Systematic Botany in that university. The present paper is also a revised abstract of my graduation thesis.

The author wishes to take this opportunity to express his most cordial thanks to Dr. B. HAYATA for his guidance and encouragement, to Dr. T. NAKAI, Prof. of Systematic Botany at the Tokyo Imperial University, for his valuable advice in the work of compilation, to Dr. M. HONDA of the same university who kindly determined nearly all the species of *Poaceae* (*Graminae*) collected in this island, and to Mr.

A. KIMURA of the Tôhoku Imperial University who allowed me to use the specimens collected by him in the island in August 1922. Also he wishes to express his hearty gratitude to the late Dr. Y. KUDO, Prof, of Systematic Botany and Oecology in the Taihoku Imperial University for his advice in every way, to Mr. K. MORI of the Laboratory of Systematic Botany and Oecology of the University, who helped the author in drawing the maps which are used in the present paper and to Mr. M. KAWATA of the Forestry Experimental Station in Tokyo, who generously allowed him to use many photographs of the island taken by himself. Lastly the present author cannot conclude without expressing his sincere thanks to Dr. K. 6SHIMA, Dean of the Faculty, to Prof. S. HIBINO, and Assist. Prof. Y. YAMAMOTO of the Taihoku Imperial University for their kindness in giving the author the privilege of making this study.

April, 1933.

Genkei MASAMUNE.

GENERAL REMARKS

When we look at a map of South Japan, we see a number of large and small islands stretching like stepping stones between the two great islands of Kyûsyû and Taiwan (Formosa). These form what is known as the Ryûkyû (Loochoo) Archipelago. Yakusima is a small island situated in the northern part of this Archipelago, and with the island of Tanegasima and the adjacent small islands, forms the so-called "KUmage" group. The island extends roughly from 30° 14' to 30° 28' latitude north and 130° 6' to 130° 0' east of Greenwich. (Fig. 13) It is somewhat pentagonal in shape; the coast is precipitous and sandy beaches are feebly developed. The area of the island is of about 78 square kilometers and it is 25 kilometers in width. The island is rather mountainous and the lowlands stretch feebly along the sea coast. The island itself forms a mountain group, of which the more elevated part is situated in the center of the island and is called Yaegatake. The highest peak of the Yae-

gatake is named Miyanouragadake which is 1938 m. above the sea level. This is not only the highest mountain in the island, but also in the main land of Kyûsyû and in the Ryûkyû Archipelago. A chart of this district shows that Yakusima is encircled within the 100-fathom line by the main land of Kyûsyû and by Tanegasima and other small adjacent islands, and that the island Yakusima is separated from Amami-dsima and from its neighbouring small islands by a deep channel. The fact that the southern part of Kyûsyû, Tanegasima, and Yakusima formed once an integral group and that, consequently, the island of Yakusima belongs physiographically to the main land of Kyûsyû has been pointed out by Dr. KOTO¹; a similar conclusion has also been reached along different lines by several zoogeographers, for instance, by Dr. WATASE from a study of the distribution of the termites, by Prof. AOKI and Dr. BRAUNS from their study of the mammals, and by Marquis KURODA from his investigation of the Avifauna. These and others who studied the distribution of the Fauna of southern Japan mostly came to the conclusion that the sea which lies between Amami-Ôsima and Yakusima separates the Oriental Region from the Palaeartic Region. This intervening channel is generally known by zoologists as the "Watase Line". On the other hand some scientists assert that the line of demarcation between these two regions is situated between the main land of Kyûsyû and Tanegasima. For instance, Dr. ESAKI asserts this view basing it upon the distribution of insects.

The problem of the phytogeographical position of the island of Yakusima has been discussed by several botanists such as Dr. WILSON,² Dr. NAKAI³ and Dr. KOIDZUMI.⁴ These botanists attribute some importance to the sea which separates the two islands, namely Amami-Osima and Yukusima, but their conclusions were derived from the

-
1. KOTO, B.; Great Eruption of Sakura-jima p. 22 (1916).
 2. WILSON, E.; "The Liukiu Islands and Their Ligneous Vegetation" in Journ. Arnold Arb. I. pp. 171-181 (1920);
 3. NAKAI, T.; *Jmffltim* U93D-
 4. KOIDZUMI, G.; "The Tokara Channel as the Floristic Demarcation Line" in Act. Phot, et Geogr. I. pp. 18&-184 (1932).

study of the distribution of only some of the important determining elements. The problem, however, has not yet been discussed in connection with a thorough study of the flora of Yakusima. Upon investigating the flora of Yakusima, I have come to support the views held by those senior zoologists and botanists who consider that the sea intervening between the two islands of Amami-Ôsima and Yakusima, divides the flora of Japan into two districts. This argument does not always hold good for every group of the vegetable kingdom. For instance, while A-group of plants in Yakusima is closely related to the flora of the northern districts, B-group is related rather to that of the southern districts, and C-group offers data which coincide with the opinion of Drs. MIYAKE and ESAKI who, from the distribution of insects, argued that both Yakusima and Tanegasima belong to the southern districts. I propose to discuss the problem of the phytogeographical position of Yakusima, family by family, from this point of view in the latter part of this paper. On the whole the so-called Watase Line of the zoogeographers has also an important significance for phytogeography. This will become clearer if we take the flora of Amami-Ôsima into consideration, for there are quite a considerable amount of species and genera, and a few families which have their northern limit in this island (Amami-Ôsima). I wish to discuss the flora of Amami-Ôsima in detail in another paper, but here I will enumerate some plants which are not found in Yakusima and other places situated further north than Amami-Ôsima although they are found in Amami-Ôsima and some other lands further south viz *i*—*Alsophila forrnosana*, BAK., *A. podophylla*, HOOK., *A. pustulosa*, CHR., *Aspidium devexurn*, KUNZ., *Dryopteris aurita*, CHR., *D. patens*, KUNTZE, *Pinus luchuensis*, MAY., (This species is found in Akuseki Island but not in Yakusima.) *Pandanus tectorius*, SOL., (Pandaceae are found in Akuseki Isl. but not in lands further north than this island.) *Enhalus Koenigii*, RICH., (not only the species but also this genus has its northern limit at Amami-Ôsima) *Manisuris granularis*, Sw., *Sporoborus virginicus*, KUNTH, *Thuarea sarrnentosa*, PERS., *Alocasia cucullata*, SCHOTT, *Commelina obliqua*, HAM., *Heterosmilax japonica*,

KUNTH, *Castanopsis forrnosana*, HAY., *Trema arnboinensis*, BL., *T. virgata*, BL., *Ficus Beecheyana*, HK. et AR., *F. vasculosa*, WALL., *Sesuvium portulacastrum*, LINN., *Drymaria cordata*, WILLD., *Illicium Tashiroi*, MAX., *Cinnamomum Doederleinii*, ENGL., *Senebiera integrifolia*, DC, *Itea chinensis*, HOOK, et ARNOTT, *Osteomeles anthyllidifolia*, LINDL. var. *subrotunda* (KOCH), *Photinia Maximowiczii*, DECNE., *Rosa ampullicarpa*, KOIDZ., *Derris uliginosa*, BENTH., *Indigofera liukuensis*, MAK., *Mucuna gigantea*, DC, *Ormocarpus sennoides*, DC, *Sophora tomentosa*, LINN., *Thermopsis chinensis*, BENTH., *Citrus depressa*, HAY., *Toddalia aculeate*, PERS., *Alchornea liukuensis*, HAY., *Croton Cumingii*, MUELL-ARG., *Exoecaria Agallocha*, LINN. var. *genuina*, MUELL.-ARG., *Glochidion bicolor*, HAY., *G. Fortuni*, HANCE, *Macaranga Tanarius*, MUELL. ARC, *Phyllanthus Niruri*, LINN., *Putranjiva Matsurnuræ*, KOIDZ., *Ilex cinerea*, CHAMP., / *Mertensii*, MAX., *Euonymus Spraguei*, HAY., *Gymnosporia diversifolia*, MAX., *Meliosma lutchuensis*, KOIDZ., *M. rhoifolia*, MAX., *Berchemia lineata*, DC, *Columella corniculata*, (PLANCH.), *Abelmoschus moschatus*, MEDIA, *Heritiera littoralis*, AIT., *Actinidia Iatifolia*, NAK., *Camellia Miyagii*, KOIDZ., *Eurya symplocina*, BL., *Schima liukuensis*, NAK., *Barringtonia racemosa*, BL., (Lecythidaceous plants are not yet reported in lands further north than Amami-Osima) *Shortia rotundifolia*, MAK., *Rhododendron ellipticum*, MAX., *R. sublanceolatum*, MIQ., *Vaccinium Wrightii*, A. GRAY, *Statice sinensis*, GIRARD, *Bobua modesta* (BRAND.), *B. Sonoharai*, (KOIDZ.), *Fraxinus insularis*, HEMSL., *Ligustrum liukuense*, KOIDZ., *Osmanthus bracteatus*, MATSUM., *Cerbera odollam*, GAERTN., *Marsdenia tinctoria*, R. BR., *Ipomoea palmata*, FORSK., *Ehretia buxifolia*, ROXB., *E. macrophylla*, WALL., *Tourneortia argentea*, LINN. f., *Premna integrifolia*, LINN., *Ajuga bracteosa*, WALL., *Leucas mollissima*, WALL., *Salvia pygmaea*, MATSUM., *Solanum verbascifolium*, LINN., *Dicliptera chinensis*, NEES, *Diplospora viridiflora*, DC, *Randia canthioides*, CHAMP., *Damnacanthus biflora* (REHD.) *Thysanospermum diffusum*, CHAMP., *Wendlandia formosana*, COWAN, *Viburnum Sandankwa*, HASSK., *Blyonopsis laciniosa*, NAUD., *Trichosanthes bracteata*, VOIGHT, *Campanumaea truncata*, DIELS, *Ainsliaea Okinawensis*, HAY., *Erigeron Miyagii*, HONDA, *Crossostephium chinense*, MAK., etc..

A Brief History of Botanical Explorations in the Island.

•So far as I am aware, the first botanist to collect plants in this island was Mr. OWATARI whose name is commemorated in the name of "Pseudosasa Owatarii". He visited the island in 1890 and the specimens gathered by him are preserved in the Herbarium of Tōkyō Imperial University. The next botanist was Dr. Y. KUDO who visited the island in 1907 and 1908. He collected many of the plants of the island and specimens of Yakusiman plants were made, among which some were reported as new species such as *Gentiana yakushimensis* (*Kudoa yakushimensis*) and *Wikstroemia Kudoi*. In 1908 Dr. MAKINO made a botanical excursion to this island and collected a large number of herbaceous and ligneous plants, and as a result of the visit the following new plants were described by him in the Tōkyō Botanical Magazine: *Polypodium Engleri*, var. *yakushimense*, *Euonymus yakushimensis*, *Wikstroemia Kudoi*, *W. pauciflora*, var. *yakushimensis*, *Pedicularis Ochiaiana*, etc.. Several other botanists also visited the island at various times, e.g. Drs. IKENO, KUSANO, FUJII, YOSHII, MM. KIMURA, KODAMA, TAKENOUCI, TASHIRO, KAWATA and Father FAURIE. Some of them collected plants and some studied the magnificent Cryptomeria forest. I visited the island eight times during the years 1922-31 and explored various parts of the island making a fair collection of vascular plants which became the basis for the present work. I have not yet had the opportunity to see all the collections of the above mentioned botanists, but fortunately through the kindness of Dr. HAYATA I was able to study some of Dr. YOSHII'S and Mr. OWATARI'S collections which are now preserved in the Herbarium of the Botanical Institute of the Tōkyō Imperial University. I was also allowed to look over the whole collection of Mr. A. KIMURA in his private herbarium and a part of the collection of Dr. KUDO preserved in the Herbarium of the Agricultural College of Kyūsyū Imperial University and in the Herbarium of Taihoku Imperial University. As for my own collection, a large portion of it is kept in the Herbarium of the Botanical Institute of Tokyo Imperial

University and a part of it in the Herbarium of Taihoku Imperial University and of the New York Botanic Gardens.

Climatic Features and Geology of the Island.

The island is situated on the western edge of the Oriental Gulf-stream or "Kurosio" by which the climate is very naturally influenced. The climate of the island is agreeable and healthy, but owing to the lack of a meteorological observatory, reliable climatical data are not available for the island. In spite of this one may gain a general idea of the climate of the island from the following tables.

Rainfall in Yakusima in millimeters.

Stations	Months												Annual
	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
Kosugidani Forest-Station	292	413	472	403	652	1105	566	938	1125	649	359	359	7354
Nagata Lighthouse	203	166	180	238	242	609	334	381	263	276	235	171	3335
Onoaida Village Office	413	130	230	364	251	419	284	531	389	342	212	403	259

Note: Kosugidani is situated nearly in the center of the island about 650m above the sea level.

Nagata Lighthouse stands on the extreme point of the north western side of the island.

Onoaida Village Office is on the southern part of the island.

Temperature (mean) (C°).

Stations	Months											
	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Kosugidani Forest-Station	10	7	10	13	16	22	25	26	19	17	13	10
Nagata Lighthouse	11	12	15	18	21	25	28	28	27	22	18	14
Ambo Forest Office	16	36	17	20	25	25	28	29	28	26	22	17

Note: Ambo Forest Office is situated near the sea level on the eastern part of the island.

As has been remarked above, it will be seen that the climate of the lower part of the island is warm and moist in summer and somewhat cooler and less moist in winter. These climatic conditions lead one to conclude that the physiognomy of the vegetation of the island will coincide with that of the so-called Laurisilvae which has some affinity with the Pluvialvae. I will discuss this problem in the latter part of this paper.

Not having seen any geographical and geological survey of this island, I availed myself of every opportunity to verify the geological data in spite of my insufficient knowledge in this direction, and finally came to the following conclusions: the island is built up of a kind of batholithic granite which intruded into the mesozoic stratum of slate and sandstone. This is proved by the fact that the mesozoic rock that has undergone contact metamorphosis is found in lower part of the island. This granite is also observed in the central and in the north-eastern part of the island and the mesozoic slate and sandstone, encircling this granite rock just like a horseshoe, is found along the sea coast. (Fig. 1.) I would add here that several parts of the island are covered with a thin layer of lapilli, pumice and ash. In the lower part of the island, along the sea shore, a quaternary deposit is found which specially abounds on the south-eastern side of the island. These geological features are quite in agreement with the ecological distribution of plants in the island. This problem will be discussed later.

PHITTOGEOGRAPHY OF THE B U M , O P YAKDSIMA.

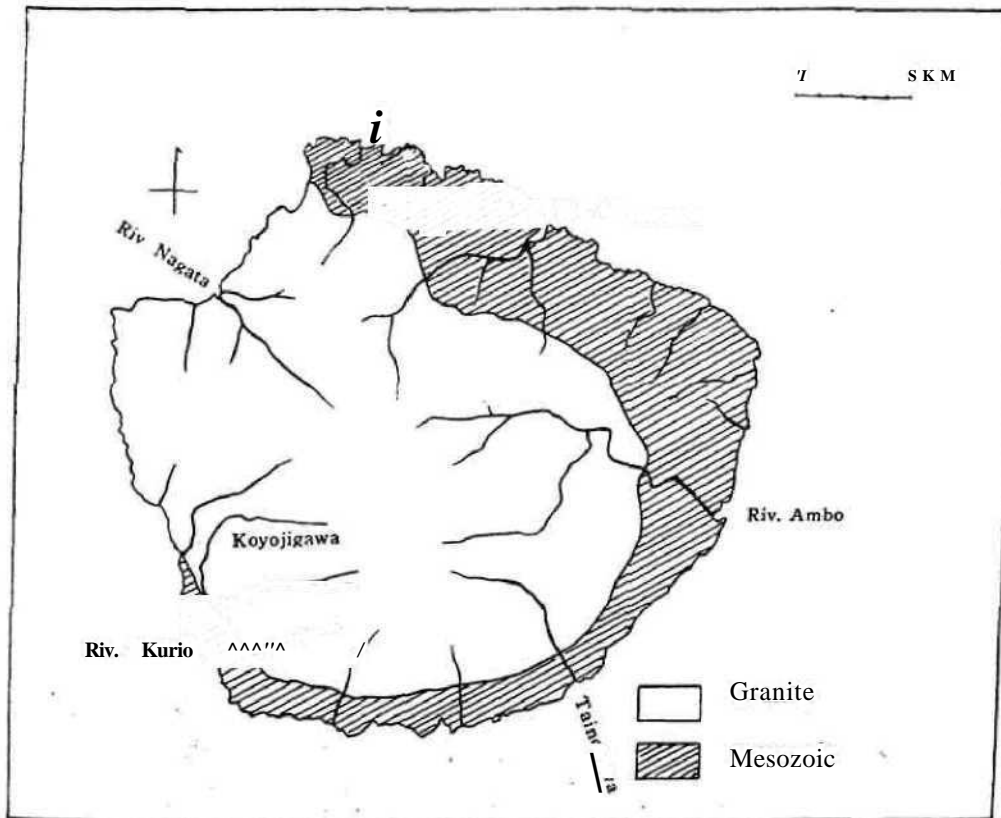
Characteristics of the Flora of the Island.

The number of species, varieties, and forms, mentioned in this paper amounts in all to 1143. The families which are rich in genera and species, including a few with their ratio to the whole number of genera or species in the island.

Families	Number of genera	Ratio to the whole number of genera. 1562). in <i>Yo</i>	Families	Number of plants	Ratio to the whole number of species, varieties, and forms (1143; in <i>yf</i>
Gramineae	44	7.8	Poly pod iaceae	149	13
Compositae	39	6.9	Gramineae	78	6.7
Polypodiaceae	34	6	Compositae	70	6
Orchid acae	34	6	Orchidaceae	68	5.9
Lili acae	21	3.7	Cyperaceae	52	4.5
Fabaceae	21	3.7			

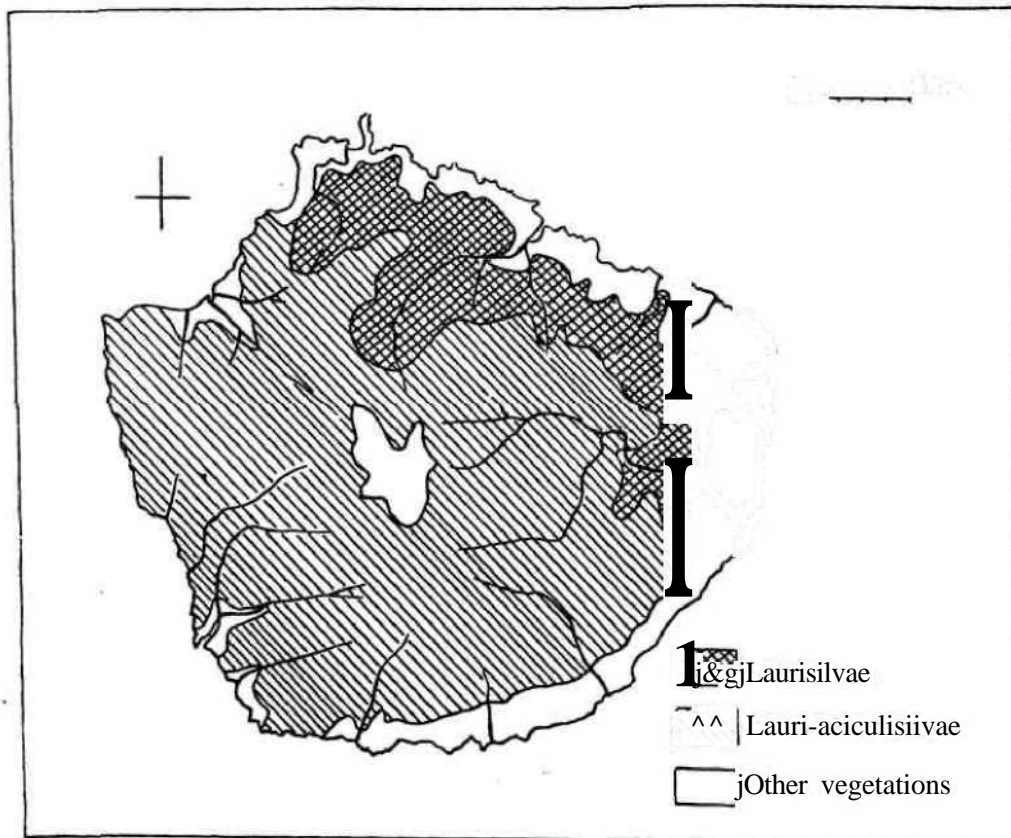
So far as the floristic relation of the island to its neighbouring districts is concerned, I shall study it *in detail when enumerating*

Fig. 1.



the plants in the island, so I will not deal with this question here except for a few words explaining why I observed every family in order to study this problem. In my opinion, each taxonomical group of plants such as, family, genus, or order, etc. has a different center of distribution and each of them consequently has a different range of distribution, some groups coinciding with each other, others differing in their geographical range of distribution. When I had summed up all the species, varieties, and forms and made the ratio which indicates their relation to the neighbouring districts, I obtained the following figures which denote some aspects of the phytogeographical relation of the island to its neighbouring floral districts. The number of species, varieties, and forms indigenous to the island amounts to 1143,

Fig. 2.



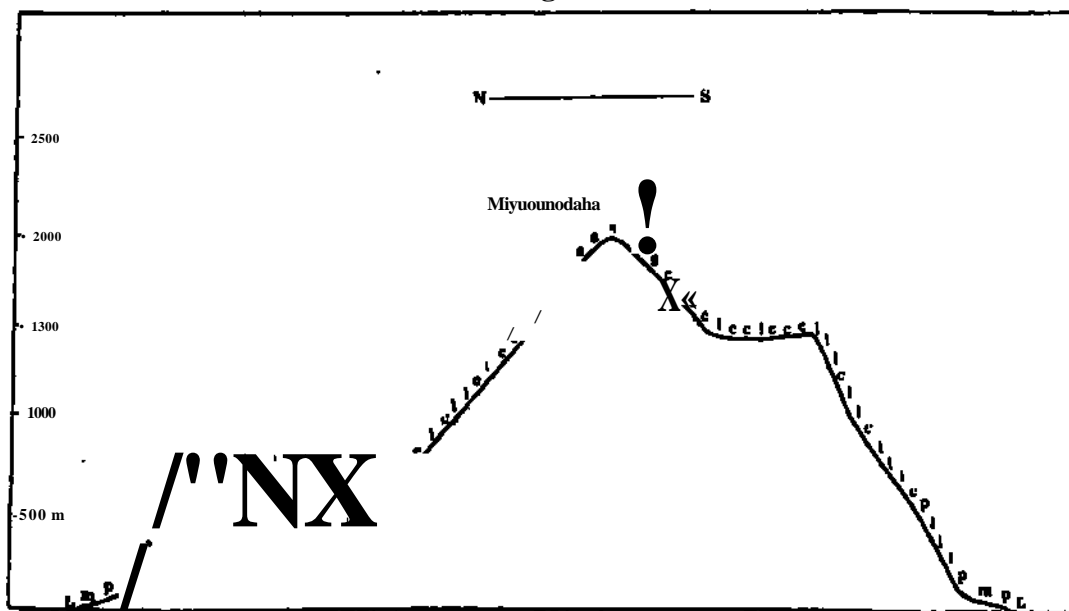
76% of which is found in Kyusyu, 67% in Honsyu, 63% in Sikoku and 52% in Amami-Osima. So it may be said the island is most closely related to Kyusyu, after that to Honsyu, and Sikoku.

THE ISLAND SEEN FROM THE OECOLOGICAL POINT OF VIEW.

I. Relation between plant distribution and nature of ground.

As I have already stated, geological construction plays an important part in constructing formation and association of plants. The relation between oecological distribution of plants and the geological construction can easily be seen in the distribution of coniferous plants and ever-green broad leaved trees in the island. As shown on the geological maps (Fig. 1 & 2), it appears that the ever-green broad leaved trees usually predominate on mesozoic slate, and the coniferous plants predominate on granite ground. I can not clearly explain why there exists such a difference in distribution due to geological structure. This may be said, however, that the conifers are somewhat more light loving plants than the ever-green dicotyle-

Fig. 3.



Diagrammatic Profile from Sitogo to Hirauti.

- S. *Pseudosasa Owatarii* (Representative of the *Pseudosasa Owatarii* Association).
- C. *Cryptomeria japonica* (Representative of *Aciculisilvae*).
- l. *Laurilignosa*.
- p. *Pinus* spp.
- m. *Miscanthus* (Representative of Submountain zone).
- L. Littoral plant.

donous trees, and since granite of the island has a more crumbly nature than slate, a crumbled surface often occurs on it which affords the light-loving conifers a better chance to invade it than the ever-green broad-leaved dicotyledonous trees.

I have shown in the appended map and in Fig. 3. the altitudinal zonation of the vegetation of Yakusima and here I will try to give some explanation for it. I have divided the vegetation of the island into the following groups for the sake of convenience.

1. Littoral Zone.
2. Submountain Zone.
3. Zone of Laurisilvae.
4. Zone of Lauri-aciculisilvae.
5. Pseudosasa Owatarii Association.

1. Littoral Zone (Formation)

The littoral zone occupies a very small area that stretches along the sea shore and includes beach, coast, and estuaries of rivers and streams. In this region there are three federations, i.e. that of Lithophyte, that of *Bladhia Sieboldii* and that of Psammophyte.

Federation of Lithophyte. This federation expands on rocks by the sea shore or on cliffs and is made up of various sociations. I describe below some of the more important sociations. *Statice, arlnmmla sociation.* This develops on the surface of rocks scattered on the beaches and often submerged at high tide. It is composed of pure stand of *Statice*, but sometimes it is accompanied with *Philoxerus Wrightii*, *Oldenlandia diffusa*, *Lysimachia mauritiana*, *Sedum uniflorum*, *Erythraea spicata*, etc., and often it is temporarily invaded by cosmopolitan species. Though this sociation is remarkable in the island, it occurs only over a small area in the southern and northern parts of the island. It is worthy of notice, however, that while it is widely found in lands further south than Yakusima, it has its northern limit of existence in this island. Under nearly the same conditions, the following sociations also develop: *Philoxerus Wrightii*

Sociation, *Zoysia tenuifolia* sociation, etc.. *Cinnamomum ilapimoides* association. The association spreads on rocky cliffs and on the ground near the sea shore and is composed of the following trees, shrubs, and herbaceous plants; *Cinnamomum daphnoides*, *Raphiolepis umbellata*, *Pinus Thunbergii*, *Daphniphyllum macropodium*, *Eurya emarginata*, *Litsea japonica*, *Euonymus japonicus*, *Crepidiastrum lanceolatum*, var. *typicum*, *Lysimachia mauritiana*, *Peperomia japonica*, *Odontosoria chinensis*, *Dianella ensifolia*, etc..

Bladhia Sieboldii Federation. This federation develops near the sea shore where the ground is somewhat rocky and has more undergrowth, lianes, and epiphytes than in the *Cinnamomum* association. The federation has a tendency to separate itself into two associations, *Litsea* Association and *Bladhia* Association. In *Litsea* association more accompanied species occur than in the *Cinnamomum* association. I will now describe the members of the plants which constitute the association. *Pinus Thunbergii*, *Bladhia Sieboldii*, *Rapanea nerii/olia*, etc. are the members that constitute the higher zone of the association, *Ligularia tussilaginea*, *Odontosoria chinensis*, *Polypodium Wrightii*, *Pleioblastus Hindsii*, *Eurya emarginata*, *Oplismenus compositus*, *Peucedanum japonica*, and *Nephrolepis cordifolia* are found as undergrowth in the *Litsea* Association. In the *Bladhia* association apart from the dominant species, *Bladhia Sieboldii*, there occur *Pinus Thunbergii*, *Cinnamomum daphnoides*, *Litsea japonica*, *Rapanea nerii/olia*, *Shiia cuspidata*, *Cudrania cochinchinensis*, *Pittosporum Tobira*, *Oreocnide fruticosa*, *Eurya emarginata*, *Elaeagnus glabra*, *Oreocnide pedunculata*, *Elaeagnus macrophylla*, *Pleioblastus Hindsii*, *Ligustrum japonicum*, *Kuromatea edulis*, *Citrus* sp. etc.. Among the lianes, *Piper jutokadsura*, *Lonicera japonica*, *Cynanchum japonicum*, *Hoya carnosae*, *Tylophora Tanakae*, *Paederia chinensis*, *Smilax stenopetala*, *Clematis Meyeniana*, *C. Pierotii*, *Gynostemma pentaphyllum* may be seen and among the epiphytes, *Neopteris* nidus*. In the rich humus soil in the *Bladhia* association *Alocasia macrorrhiza*, *Liparis nervosa*, *Alpinia chinensis*, *Polystichum falcatum*, *Achyranthes japonica*, var. *hachijoensis*, *Polypodium Wrightii*, *Polystichum aculeatum*,

var. *japonicum*, *P. aristatum*, *Selaginella atroviridis*, *OpHsmentts compositus*, *Caret tigata*, var. *siridior*, *Arisaema ringens*, and *Goodyera yakushimensis* are found as undergrowth. In the above mentioned associations sometimes mingle herbaceous consociations like *Miwait-thtft eoiixortathm* and *Ititf*rr(itt ctinxoriation*, etc. which are in the invading stage of development. The consociations covered with these grasses are invaded by the species which are temporarily found in them such as *Elaeagnus crispa*, *E. macrophylla*, *Clerodendron yakusimensis*, etc, in the course of a long time the area will be occupied once more by the above mentioned species of the association. It is an interesting fact that *Pinus Tkunbergii* is found both in the associations and consociations. I think the pine is one of the invaders in the early stages, when the above mentioned associations have not yet reached the stage of climax but are still in **that** of development, and the pine and other secondary plants are not yet exterminated in the associations. This should be proved by the fact that we only find old trees of pine in the associations but no young

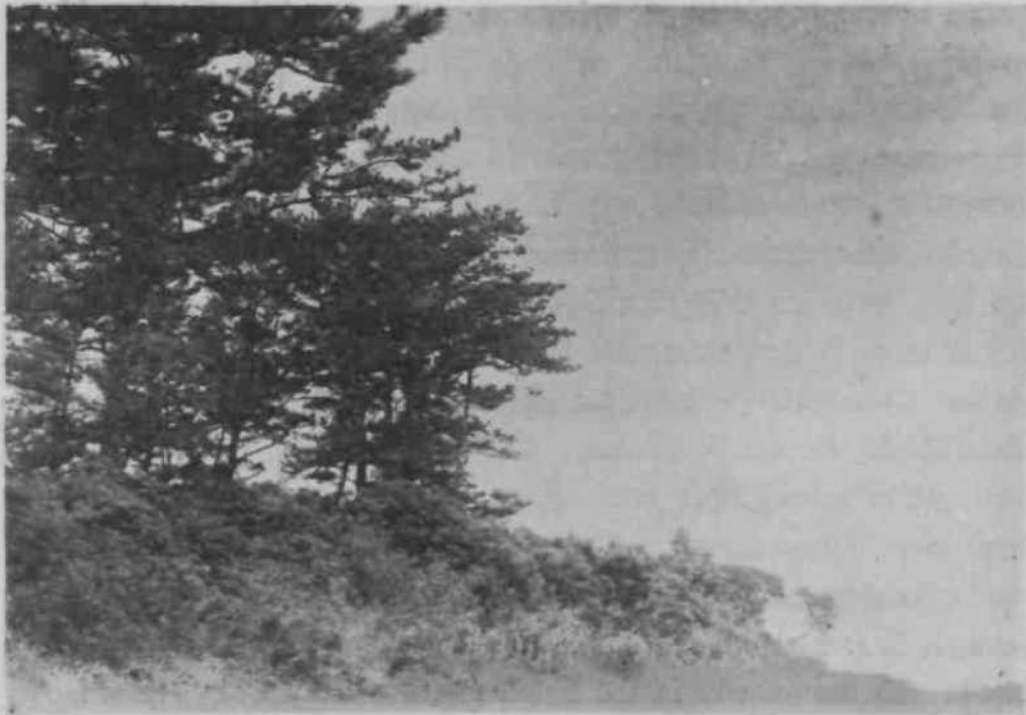


Fig. 4. Phot. K A WAT A.
Forest of *Pinus Thunbergii*, invaded and replaced by evergreen broad-leaved trees in the Littoral Zone.

ones. (Fig. 4.) Apart from these consociations there is one more conspicuous consociation which is found on dry land and is composed of *Rhododendron Tamurai* and other shrubs like, *Eurya emarginata*, *Vaccinum bracteatum*, etc..

Federation of Psammophyte (Sandy-Beach Federation)

The federation extends on sandy beaches where the soil is mostly composed of sand and pebbles produced by the cracking of granite rocks, mingled with fragments of sedimentary rocks and those of shells and coral. In the federation there are many sociations some of which I shall mention here. In the pebbly soil there develops the *Canavalia lineata* sociation. This sociation is composed of the following elements: *Canavalia lineata*, *Vigna marina*, *Wedelia chinensis*. These are the characteristic plants of the sociation while the following companionate plants are found: *Lysimachia mauritiana*, *Peucedanum japonicum*, *Ipomoea pes-caprae*, *Rumex japonicus*, *Crinum asiaticum*, var. *japonicum*, *Elaeagnus crispera*, var. *subcoriacea*, *Lathyrus maritimus*, *Panicum repens*, *Zoysia tenuifolia*, *Ischaemum antheptroides*, var. *eristachyum*, *Vitex rotundifolia*, etc.. This sociation develops in nearly all the sandy and pebbly beaches of the islands. In the sandy soil the following sociations are seen. *Panicum repens* sociation. The sociation has an inclination to develop on somewhat wet places but sometimes also on tolerably dry pebbly soil. The sociation frequently develops in the submountain region in wet places and very often as a pure stand of *Panicum repens* which is a characteristic species of the sociation, while as companionate species, I found *Wedelia calendulacea*, *Persicaria Thunbergii*, *Rumex japonicus*, *Spinifex squarrosus*, *Vitex rotundifolia*, etc.. A typical example of the sociation is found near the estuary of the Kurio River where the sociation spreads over a considerable tract. *Spinifex squarrosus* sociation. The sociation is found in dryer places than the above *Panicum* sociation and in the island it develops in one place, that is, near the estuary of the Kurio River, adjoining to the *Panicum repens* sociation, and extends to the southeast along the sea where the soil is sandy

and much drier than that of the *Panicum repens* sociation. The characteristic plant of this sociation is, of course, the *Spinifex*, and as companionate plants we can see the following : *Cassytha filiformis*, *Panicum repens*, *Ischaemum antheptroides*, *Vitex rotundifolia*, *Crinum asiaticum*, var. *japonicum*, *Rosa Wichuraiana*, *Ipomoea pes-caprae*, *Calystegia soldanella*, *Wedelia chinensis*, *W. chinensis*, var. *robusta*, *Peucedanum japonicum*, *Phellopterus littoralis*, *Angelica kiusiana*, *Chenopodium acuminatum*, var. *japonicum*, etc.. The sociation is a characteristic one in the littoral region of tropical and subtropical seashores and it is a remarkable fact to find this sociation developing so flourishingly in the island, even though it has its northern limit of habitat in this island. *Cassytha filiformis* sociation. I know it is unnatural to choose such a parasitic plant as a characteristic one, but the parasites flourish so well here that if we set a quadrat of 10 cm. square on any piece of land where the sociation develops we shall certainly find parasites in it. The hosts of the parasite that grow in this sociation are nearly all of the same species as the plants of the preceding sociation. *Ipomoea pes-caprae* sociation. The sociation develops on sandy places and its companionate plants are rather few. I found in the sociation the following species as companionate species: *Ischaemum* spp., *Lactuca repens*, *Calystegia soldanella*, *Lippia nodiflora*, etc.. In drier places the species of *Ischaemum* predominates and forms a consociation with it; the following plants are quoted as its companionate elements: *Crinum asiaticum*, var. *japonicum*, *Calystegia soldanella*, *Lysimachia mauritiana*, *Angelica kiusiana*, *Rumex japonicus*, *Panicum repens*, *Zoysia tenuifolia*, etc.. Some further sociations are found in this federation in the island but as they are not very remarkable I will not mention them specifically.

JFant/rore Formation.

In the island on the estuary of the Kurio River there develops a trace of Mangrove formation composed of *Kandelia candel*, *Hibiscus hamabo*, *Maackia Tashiroi*, *Cladium mariscus*, etc.. This formation is

also found in Tanegasima and Kiire (in Prov. Satuma, Kyûsyû) more northerly districts than this island, but there is considerable doubt as to whether the plant in Kiire must not have been introduced from some other district. It is believed the *Kandelia* sociations of this island and of Tanegasima are the most northerly representatives of the Mangrove forest. From this fact we may conclude that the Strait of 6sumi which lies between Tanegasima and Kyûsyû has a deep significance as being the line of demarkation dividing the distribution of the Mangrove formation, and this conclusion agrees with the opinions reached by the entomologists (Drs. MIYAKE and ESAKI), who have concluded that the strait divides the entomological fauna into Palaeoarctic and Ind-Oriental regions.

Swamp and Aquatic Societies

In this zone there are few marshes, ponds, or moors worthy of mention, so that this society develops only on the borders of rivers and rice fields, and its development is very feeble. The following associations form the society. *Cladhorn association*. This is found in wet places near the estuaries of rivers and it is one of the associations which compose the society. *Podostemon Formation*. The formation is represented by *Hydrohriuin sociaUon* composed of only one species of *Hydrobrium*. It is found on rocky surfaces of the River Issô, where the river passes from the mountain region into the plain. Though this is found in the southern part of Kyûsyû, it has not yet been found in other parts of Japan.

2. Submountain Zone.

The zone extends from the upper part of the littoral region to about 100 m above the level of the sea and chiefly on the sea-eroded surface on the eastern side of the island which was recently raised. The soil on the eastern side is composed of sand, gravel and laterite like mud while the zones on the western and northern sides are composed of granite soil with gravel, sand and conglomerate rocks.

This region has been changed artificially and now it is cultivated and occupied by villages, virgin forests being seen only near the river side where the ground is steep, and in the sacred grove by the village shrine. From the above mentioned facts it naturally follows that two formations are found in this region, one of which is grassland and the other laurisilvae (composed of ever-green broad-leaved trees of Plurifrutices and laurilignosae). The former is a secondary society that developed in the area after the latter had been destroyed. In the grassland we can observe the following associations. *Miscanthus Association*. This association develops on both gravel and sandy soil or on laterite like mud, and its chief components are as follows; *Eurya emarginata*, *Bobua japonica*, *Smilax china*, *Hypoxis aurea*, *Lycoris radiata*, *Rhaphiolepis umbellata*, *Osbeckia chinensis*, *Centranthera Brunoniana*, *Quercus Wrightii*, *Pteridium aqualinum*, var. *japonicum*, *Pinus Thunbergii*, *Elaeagnus crispa*, var. *typica*, *Trema orientalis*, *Imperata cylindrica*, var. *Koenigii*, *Miscanthus sinensis*, *M. sinensis*, var. *condensates*, *Panicum repens*, *Pleioblastus Hindsii*, *Smilax stenopetala*, *Dianella ensi/olia*, *Myrica rubra*, *Cudrania cochinchinensis*, var. *gerontogea*, *Helida cochinchinensis*, *Achyranthes japonica*, *Cocculus trilobus*, *Lindera dtrata*, *Macleya cordata*, *Drosera rotundifolia*, *Pittosporum tobira*, *Rosa poly ant ha f* var. *genuina*, *Rubus Sieboldii*, *R. trpihyllus*, *Desmodium laburnijolium*, *Pueraria Thunbergii*, *Polygala japonica*, *Glochidion hongkongense*, *G. obovatum*, *Phyllanthus flexuosus*, *Rhus sernialata*, var. *Osbeckii*, *Celastrus articulatus*, *Triumfetta japonica*, *Hibiscus mutabilis*, *Sida rhombijolia*, *Urena lobala*, var. *tomentosa*, *Eurya japonica*, *Hypericum erectum*, *Viola grypoceras*, *V. oblongo-sagittata*, *Stachyurus landjolia*, *Wikstroemia gampi*, *Elaeagnus pungens*, *Centella asiatica*, *Hydrocotyle javanica*, *Rhododendron Tamurai*, *Buddleia curviflora*, var. *venenifera*, *Mitrascme polymorpha*, *Cynanchum japonicum*, *Dichondra repens*, *Ipomoea indica*, *Clerodendron yakusimense*, *Ajuga decumbens*, *Solarium xanthocarpum*, *Aeginetia japonica*, *Justicia procumbens*, *Plantago major*, var. *asiatica*, *Paedaria chinensis*^ *Ebulus chinensis*, *Lonicera japonica*, *Aster indicus*, *Bidens pilosa*, *Chrysanthemum ornatum*, *Senedo sonchifolia*, *Siegesbeckia orientalis*, etc, In

this association we can distinguish several consociations, such as the *hchaemum* consociation, the *Pleioblastus* consociation, the *Phylostachis* consociation, the *Diclanopteris dichotoma* consociation, etc.. *Ischaemum* Consociation. This specially develops on bare ground due to burning, clearing, wasting of cultivated land, land slides, or crumbling. In the consociation except *Ischaemum*, we find *Elaeagnus crispera*, var. *rotundifolia*, *Curculigo orchoides*, *Hypoxis aurea*, *Dicranopteris dichotoma*, *Aneilema nudiflorum*, *Mitrascme polymorpha*, *Lespedeza cuneata*, *Centranthera Brunoniana*, *Gnaphalium multiceps*, *G. japonicum*, *Chenopodium bryoniaefolium*, *Salomonina ciliata*, *Osbeckia chinensis*, etc.. This consociation is rather a consociation and develops into a *Miscanthus* association which will be invaded by the ever-green broad leaved trees and will become the association of laurisilvae. Following the invasion of *Pinus Thunbergii* the *Miscanthus* association becomes the *Pinus Thunbergii* Association. But this association is in turn invaded by ever-green broad-leaved trees and becomes the association of laurisilvae. *PIHUM ThuiibevfjU* Association. The constitution of this association is almost similar to that of the *Miscanthus* association, but when *Pinus Thunbergii* once invades the *Miscanthus* association, the plants that constitute the *Miscanthus* association and the light-loving species gradually die away and instead of them shade-loving evergreen trees and shrubs begin to predominate under the shelter of *Pinus Thunbergii*, until at last, the seedling of the *Pinus* itself can not unfold and the invading species gradually drives out the former dwellers and establishes its own association.

The Ever-Green Jiroart-Leave! Tree F;>rnrt;on.*

The formation is almost the same as the next formation,—laurigneous vegetation, and although there is no need to separate this formation from it, I do so because this association is a transitional one that stands between the littoral zone and that of the laurisilvae. In this formation we can find the following plants: *Shiia cuspidata*, *S. Sieboldi*, *Glochidion obovatum*, *Michelia compressa*, *Bladhia quinquegona*, *Bobua neriifolia*, *B. glauca*, *Meliosma rigida*,

Myrica rubra, *Trackelospermuni asiaticum*, *Piper julokadsura* (PL VI. Fig. 3.) *Anodendron affne*, *Erycibe acutifoUa*, *Ourouparia rhy-nchophylla*, *Maesa sinetssis*, *Naudea orientalis*, var. *macrophylla*, *Eugenia Jambos*, *Mackilus Thunbergii*, *Diospyros nipponica*, *Bobua kotoensis*, *B. japonica*, *Styrax japonica*, *Euonymus Siebotdianus*, *Helicia cochimhi* nensis*, *Ficus Wightiana*, (Fig. 5.) *F. erecfa*. *Kuromatea edttlis*, *Cyclobala-*



Fig. 6.

Phot. KAWATA.

Fiats Wighttma in the Submountain Zone.

rtopsis Miyagii, etc.. As undergrowth and parasitic or mycorrhiza plants we can find *Mitrastemon Yamamotoi*, *Aphyllorchis tanegashimensis*, *Burmannia cryptopetala*, *Lecanorchis japonica*, and ferns like *Diplarium Taquetii*, *D. latijolium* (Fig. 6.) *D. fraxintfolium*, *Alsopkilta acaulis*, *Polypodium Hancockii* > *Hypodemaiium crenatum*, *Drymoglossum micro-pkyllum*, *Polypodium ensatum*, *P. ellipticum*, var. *pothifolium*, *Histiop-te-ris insisa*, *Lycopodium serratum*, *Selaginella atroviridis*, and *S. caulescens*. As epiphytes the following predominate; *Neottopteris nidus*, *Lycopo-dium subdistichutn*, *L. Phlegntarii*, *L. tereticaule*, *Lysionottts paucifb-rus*, *Ophioderma pendulum*^ *Vittaria elongata*, *Opkiopogon Jaburan*,

Dendrobium tosoense, *Aerides japonicum*, *Finetia jalcaia*, *Liparis plkata*, *Luisia teres*, etc.. We can divide this association into several consociations, for example, *Shiia cuspidata* consociation, *Bladhia Sieboldii*



Fig. 6.

Phot. KAWATA.

Diplazhmi latifolium growing as undergrowth in the Submountain Zone.

consociation, *Cyclobalanopsis* consociation, etc.. I should like to draw attention to the fact that there is a remarkable sociation of pure stand of *Rkapis humilis* in the grove of the village shrine at Hirauti. This sociation perhaps came through human agencies but none the less this does not affect its value, moreover it is interesting to find this species in such a state in this island because at present the species is not yet found growing in its wild state in any part of Japan except in this place.

3. Zone of Laurisilvae.

The laurisilvae being almost destitute of coniferous plants, extends from the upper part of the previous belt to about 800 m above the sea level in the north east of the island. This mode of

distribution of *laurilignosa* and *aciculignosa* has a profound relation to the nature of the soil where the trees stand, as I have already mentioned in this paper. (Fig. 1.2.) The formation seems to have an inclination to develop on sedimental rocks. It extends as high as 800 m above the sea level in the north-eastern part of the island where the sedimental rocks occur, while on the contrary, on the south-western flank of the island where the granite rocks prevail, this formation is feebly developed. The trees and shrubs that compose the formation are as follows: *Ternstroemia Mokof*, *Shiia cuspidata*, *5. Sieboldi*, *Illicium anisatum*, *Diospyros nipponica*, *Prunus macrophylla*, *Osmanthus Zentaroanus*, *Stewartia monadelphica*, *Lagerstroemia Fauriei*, *Microtropis japonica*, *Neolitsea joliosa*, *Cinnamomum japonicum*, *Cyathea boninsimensis*, *Ilex mutchagara*, *Carpinus laxiflora*, *Sakakia ochracea*, *Podocarpus nagi*, *Lindera Thunbergii*, *Gilibertia trifida*, *Fagara piperita*, *Cyclobalanopsis Miyagii*, *C. acuta*, *Oblicarpa yakusimensis*, *Acer insulare*, *Euscaphis japonica*, *Machilus Thunbergii*, *M. japonica*, *Agalma luchuense*, *Actinidia longifolia*, *Turpinia ternata*, *Psychotria Reevesii*, *Camellia japonica*, var. *macrocarpa*. *Ilex pedunculosa*, *I. integra*, *L. Hancenana*, *Myrica rubra*, *Aucuba japonica*, *Bladhia quinquegona*, *Tarenna zeylanica*, *Aleurites cordata*, *Daphniphyllum macropodium*, *Rhododendron Tashiroi*, *Styrax japonica*, *Syzygium buxijolium*, etc.. While as lianes we can find the following species: *Ouroparia rhynchophylla*, *Lonicera hypoglauca*, *Anodendron affine*, *Vitis ficifolia*, var. *Thunbergii*, *Ampelopsis heterophylla*, *Erychibe acutifolia*, *Smilax Sieboldii*, *S. China*, *Vitis ftexuosa*, *Hedera Tobleri*, *Rhus Toxicodendron*, var. *vulgaris*, *Piper futokadsura*, *Trachelosperum asiaticum*, var. *intermedium*, *Pureria Thunbergii*, *Dioscorea japonica*, *D. bulbijera*, *D. Tokoro*, *Actinidia callosa*, var. *ruja*, *Stauntonia hexaphylla*, *Clematis crassijolia*, *C. paniculata*, *Marsdenia acuta*, *Hoya carnosa*, *Stephanotis japonica*, etc.. As epiphytes the following species are seen: *Vittaria japonica*, *Neottopteris Nidus*, (Pl. III. Fig. 2.) *Polypodium jormosanum*, *P. lineare*, *Asplenium Sarelii*, *A. Nakanoanum*, *Trichomanes auriculatum*, *Lysionotus pauciflora*, *Dendrobium monile*%, *Aerides japonicum*, *Luisia teres*, *Oberonia Makinoi*, *Liparis plicata*.

Bulbophyllum drymoglossum, *B. inconspicum*, *Cirrhopetalum japonicum*, *Lycopodium sudistichum*, *L. tereticaule*, *Humata repens*, *Finetia falcatum*, *Psilotum nudum*, etc.. Under these trees and shrubs we find as undergrowth: *Lecanorchis japonica*, *L. purpurea*, *Burmannia cryptopetala*, *B. Itoana*, *B. japonica*, *Sciaphila japonica*, *Didymoplexis japonica*, *Galeola septentrionalis*, *Monotropa uniflora*, all of which are mycorrhiza plants. We also find the following ferns: *Diplazium Taquetii*, *Dennstaedtia scabra*, *Diplazium lanceum*, *Lindsaya cultrata*, *Alsophylla acaulis*, *Athyrium Nakanoi*, *A. rigescens*, *Diplazium Morii*, *D. maximum*, *Plagiogyria japonica*, *P. euphlebia*, *Cystopteris japonica*, *Woodwardia Harlandii*, var. *Takeoi*, *Diplazium Fauriei*, *D. fraxinifolium*, *Hymenophyllum integrum*, *H. barbatum*, *H. crispatum*, *Cheiropleuria bicuspis*, var. *integrifolia*, *Cyclophorus lingua*, *Asplenium Wrightii*, *Hymenoasplenium unilaterale*, *Leptochilus cuspidatus*, *Microlepia marginata*, *M. strigosa*, *Polypodium Wrightii*, etc.. In addition to these we can find the following undergrowth: *Bladhia crispa*, *Croomia kiusiana*, *Phajus minor*, *Cymbidium nagifolium*, *Cymbidium kanran*, *Calanthe Fauriei*, *Goodyera Ogatai*, *G. Schlechtendoliana*, *Tropidia nipponica*, *Mephitidia satsumensis*, *Tarennia zeylanica*, *Bredia hirsuta*, *Blastus cochinchinensis*, *Bladhia lentiginosa*, *Asarum yakusimensis*, *Teucrium japonicum*, *Isanthera discolor*, *Ophiorrhiza Tasiroi*, *Hydrangea grosseserrata*, *Tovara filiformis*, *Pollia japonica*, *Zingiber mioga*, *Alpinia satsumensis*, *Ligularia hiberniflora*, etc..

4. Zone of Lauri-Aciculisilvae.

The zone extends on the upper part of the former zone and forms laurisilvae and aciculisilvae reaching an altitude of almost 1600 m above sea level. It also develops in the lowlands, chiefly on the southwestern side of the island. But in the lower zone the vegetation shows a somewhat different appearance in construction from that in the higher zone of the island. So I distinguished the formation on the lower altitude as a different formation from the higher one and I propose to denote it as the lower part of lauri-aciculisilvae (Subformation).

I cannot exactly explain why the subformation develops on the south western side of the island but I think one of the most important causes should be attributed to the fact that by nature granite is more liable to crumble and has more chance to expose its planted surface to the light of the sun and on which sun-exposed surface there develop some sun loving conifers which are easier to be invaded than the ever-green broad leaved trees. (PL. II. Fig. 2.) After this invasion, the ever-green broad-leaved trees begin to invade the shelter of the conifers and the formation gradually changes to laurisilvae. But before the formation attains to its climax, or before its completion, the vegetation is liable itself to be destroyed owing to landslides and other agencies above mentioned. One more cause to be added here is that since this granite holds less water than the slate, and conifers evaporate less water than broad-leaved trees, the broad-leaved tree forest finds itself under less favourable conditions for growth on granite. These and some other unknown causes would explain the lesser development of laurisilvae on this side of the island. But as in this island there is a fair rainfall in winter, in this subformation we find more ever-green broad-leaved trees than conifers and its nature is almost equal to that of the laurisilvae of the above described zone. It might have been better to include this subformation in that zone of laurisilvae were it not that it includes coniferous trees. The chief representatives of the lower part of the lauri-aciculilvae are as follows: *Pinus densiflora*, *Cryptomeria japonica*, *Abies firma*, *Pinus amamiana*, *P. Thunbergii*, *Podocarpus nagi*, *Ilex Integra*, *Clerodendron yakusimensis*, *Shiia cuspidata*, *S. Sieboldi*, *Myrica rubra*, *Distylium racemosum*, *Ilex pedunculosa*, *Aucuba japonica*, *Rapanea neriifolia*, *Osmanthus ilicifolius*, *Lagerstroemia Fauriei*, *Euscaphis japonica*, *Eurya japonica*, *Syzygium buxifolium*, *Agalma lutchuense*, *Osmanthus Zentaroanus*, *Rhododendron Tashiroi*, *Bobua glauca*, *B. japonica*, *Neolitsea foliosa*, *Prunus chikusiensis*, *Acer insulare*, *Camellia japonica*, *var macrocarpa*, *C. Sasanqua*, *Ficus Wightiana*, *Cyclobalanopsis Miyagii*, *Sakakia ochracea*, etc.. Other components of this formation such as lianes and undergrowth are the same as those of the laurisilvae so I will

omit mention of them here, but proceed to describe the other subformation that extends in the upper part of this lauri-aciculisilvae and that of the laurisilvae. (Fig. 7.)

Cryptomeria japonica is one of the chief representatives of this formation and characterizes the vegetation. The species is found on



Fig. 7. *Mini. K A WAT A.*
The upper part of the Laurisilva; about 400m above sea level gradually changing to Lauriaciculisilva.

the southern side from about 300 m above sea-level, 600 m on the eastern, 800 m on the northern and 700 m on the western sides. The higher up we go, the more *Cryptomeria* we find, although it is not quite so on every side* The most conspicuous examples of the stand



Fig. a

of this forest are seen in the catchment of the stream Koyozigawa and in the upper portion of the River Ambo near Kosugidani (Pl. III. Fig. 1.) which literally means the valley



Fig- 9. *Cryptomeria japonica* showing the "Krummholz" like structure- Phot. KAWATA.

where a medium sized *Cryptomeria* forest exists. On the contrary the species is quite rare in some parts of the catchments of the R. Miyanoura and the R. Tainokawa, etc.. When we reach about 1500 m above the level of the sea, we find a virgin forest of *Cryptomeria* which has become rather shrubby and looks like "Krummholz". (Fig. 8, 9.) Beside *Cryptomeria* we can observe several components of Aciculisilvae and Laurisilvae in the subformation. *Abies finna*, (PL IV. Fig. 2.) *Tsuga Sieboldii*, *Torreya tucifera*, *Cephalotaxus drupaceae*, and *Chamaecyparis obtusa*, (Fig. 10.) are the representatives of aciculili-



Fig. 10. *Chamaecyparis obtusa* in the Lauri-Ticiculisilvae. Phot. KALWATA.

rious plants while among the broad-leaved trees we find the following aestiligneous plants: *Primus chikusiensis*, *Acer Sieboldianum*, var. *tnicrophyllum*, *A. insulare*, *Palura argutidens*, *Viburnum urceolatum*, form, *brevijolium*, *V. furcatitm*, *Lindera Thunbergii*, *Rkammis crenata*, var. *yakusimcnsis*, *Kalopanax anlumnalis*, *Carpinus lanfiora*, *Rhus Toxicodendron*, var. *vulgaris*, *Clethra barbinervis*, *Tripterygium Regelii*, *Fagara ailatHhoides*, *Stewartia momideipha*, (Fig. 11.) *Sorbus japonica*, *Hydrangea paniculata*, etc.. As examples of taurigneous

plants we can find the following species: *Trochodendron aralioides*, *Hex Hanceana*, *I. pedunculosa*, *Bobua myrtacea*, *B. Ta?takae*, *Giliberia Irifida*, *Dapkniphyllum macropodum*, *Neolitsea foliosa*, *Cinnamomum japonicum*, *Distylimn racmosum*, *Camellia japonica*, var. *macrocarpa*, *Cylobalanopsis acuta*, *Madulus Tkunbergii*, *Act'modaphne lancifolia*,

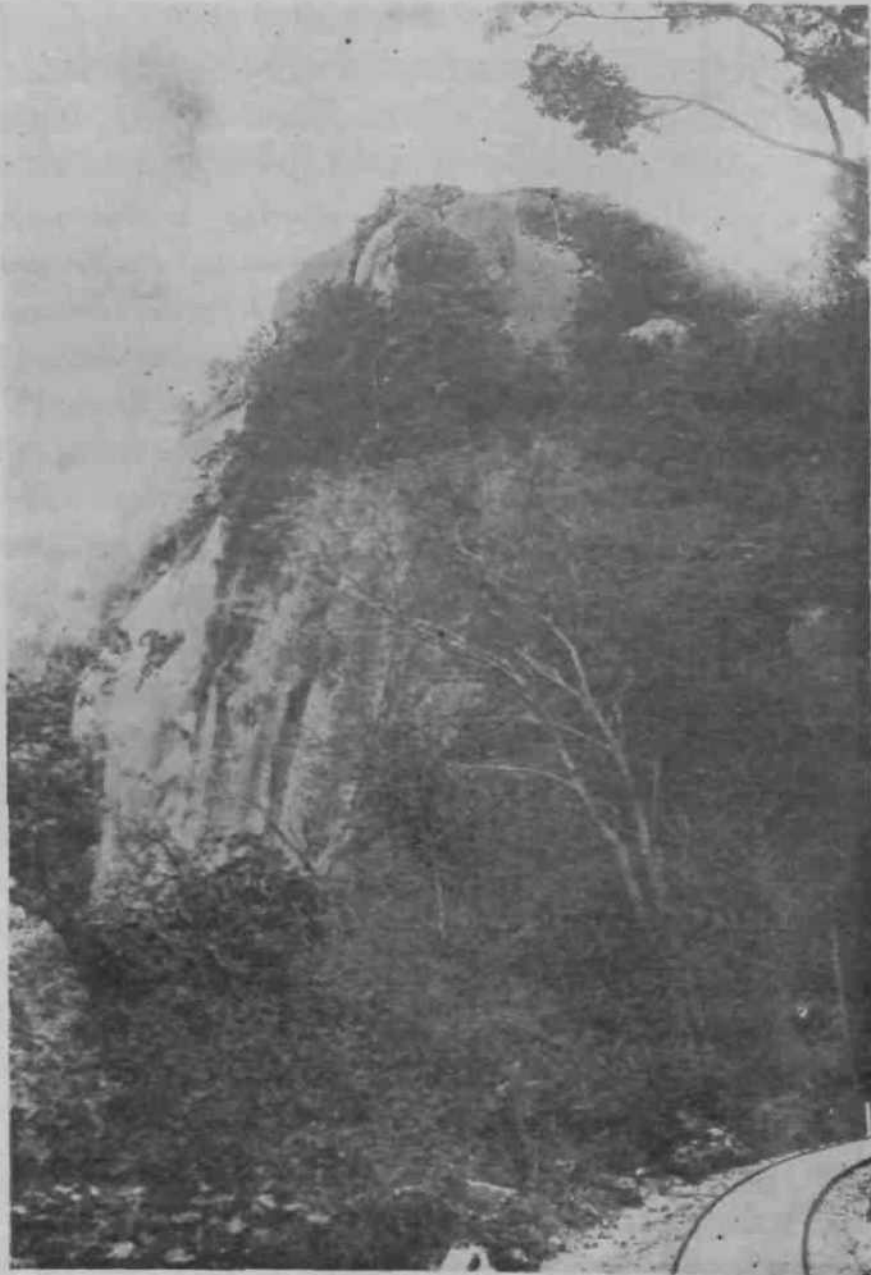


Fig. 11.

Phot. KAWATA.

Stewartia monadelphica in the Laurt-aciculisivae at about 500 m above sea level.

*Temstroemia Moko*J, *Camellia sasanqua*, *Sakakia ochracea*, *Eurya japonica*, *E. yakushimensis*, *Ilex mutchagara*, *Ilidium anisatum*, var. *rosea*, *Aucuba japonica*, *Rhododendron Tashiroi*, *Rhododendron yakusimanum*, etc.. (PL V. Fig. 3.) These laurigneous plants are more frequently seen in the lower part of the zone. The undergrowth is composed of various plants such as, *Bladhia crispa*, *B. lentiginosa*, *B. japonica*, var. *angusta*, *Skimmia japonica*, *Anantia stolonifera*, *Athyrium Nakanoi*, (PL VII. Fig. 3.) *Lindsaya cultrata*, *Diplazium lanceum*, *Dryopteris gracilescens*, var. *glanduligerum*, *Diplazium Conilii*, *D. Hookerianum*, *D. Taquetii*, *Cystopteris japonica*, *Acrophorus stipellatus*, *Woodwardia virginica*, *Dryopteris gymnosora*, *D. lepigera*, *D. erythrosora*, *Hypolepis punctata*, *Histiopteris incisa*, *Polystichum amabile*, *Hymenophyllum barbatum*, *H. unilateral*, *Trichomanes bipunctatum*, *Burmanna japonica*, *Liparis yakusimensis*, *Trichomanes flava*, (PL VI. Fig. 2.) *Anoetochilus yakusimensis*, *Goodyera velutina*, *Tainia lanflora*, etc.. As epiphytes we find: *Rhododendron Keisukei*, var. *cordifolia*, *Euonymus yakushimensis*, *Vaccinium yakushimensis*, *Elaphoglossum Yoshinagae*, *E. tosaense*, *Bulbophyllum inconspicuum*, *Cirrhopetalum japonicum*, *Bulbophyllum drymoglossum*, *Eria reptans*, *Gastrochilus matsuran*, *Goodyera pendula*, *Oberonia japonica*, *Dendrobium moniliforme*, *Sorbus japonica*, etc.. Other mosses and liverworts grow on the granite rocks, tree trunks, dead stumps and rotting logs, in a wonderful variety and give a complicated aspect to the vegetation exhibiting a type of forest which is almost virgin in nature. In recent years a part of this forest having been cut down, the natural forest was consequently destroyed. In the clearings we can see every stage of renaturalization of the forest. With regard to succession in such bare areas due to the cutting down of the forest, I should like to observe that the pioneers invading such places are of the light-loving species, the first invaders of the clearings being therophyte and broad leaved deciduous trees such as; *Mallotus japonicus*, *Acer insulare*, *Lindera dtrata*, *Clethra barbinervis*, *Aleurites cordata*, *Stewartia monadelphica*, *Fagara ailanthoides*, *Kalopanax autumnalis*, *Lindera Thunbergii*, *Rubus* sp., *Callicarpa yakusimensis*, *C. mollis*f

van *microphylla*, *Miscanthus sinensis*, *Oplismenus japonica*, *O. microphyllus*, *Isachne myosotis*, var. *minor*, *Gnaphalium japonicum*, *G. multi-ceps*, *Carpesium rosulatum*, *Eupatorium Reevesii*, *Desmodium racemosum*, *Plagiogyria japonica*, *Histiopteris incisa*, *Cyclophorus lingua*, etc.. Among these light-loving plants grow *Cryptomeria japonica*, *AUes firma*, *Tsuga Sieboldii*, etc.. These less light-loving trees begin to germinate and find shelter from the strong sunlight under these first invaders and when these second invaders have developed, the following plants begin to invade: *Trochodendron aralioides*, *Bobua myrsinea*, *B. japonica*, *B. Tanakae*, *Gilibertia trifida*, *Elaeocarpus japonicus*, the seedlings of which have less resistance against the sunlight than the other seedlings which developed in the earlier stages of the forest succession; In the higher part of this zone coniferous trees like *Cryptomeria japonica* (PL IV. Fig. 1:) and *Tsuga Sieboldii* are so predominant that it may be reasonable to distinguish this region as the belt of aciculisilvae, but from my present investigation I cannot decide at which altitude a demarcation line should be drawn. So I shall include the belt of coniferous trees in that of lauri-aciculisilvae.

I wish to draw attention to the fact that the aestisilvae is quite poor in this island while it is found in Kyūsyū, for example, on Mt. Takakuma, situated in Prov. Ōsumi in the southern part of Kyūsyū. The aestisilvae which develops is represented by a *Fagus crenata* sociation which extends from about 900 m above sea level where the laurisilvae gradually disappears. In the island the aestisilvae is deficient in the upper part of the laurisilvae which is directly succeeded by aciculisilvae. This kind of forest zonation in the island is quite the same as that found in the mountains of Formosa and some other tropical regions. From this point of view the vegetation of Yakusima has the character of the forest zonation of some tropical and subtropical lands.

Wet Ground Society.

Along river banks, or on depressions a special wet ground plant society develops. This society, is scattered in the lauri-aciculisilvae of this island, especially at high altitudes. In this society the develop-

ment of *Spagnum* is not very vigorous while the following species are predominant: *Drosera rotundifolia*, *Pamassia palustris*, f. *minima*, *Utricularia yakusimensis*, *Metanarjecittm luteovlrde*, *Pogonia minor*, *Platantkera nipponica*, *Ranunculus yakushimensis*, *Saxifraga cortusae-folia*, var. *obtusocuneata*, *Astilbe glaberrima*, etc., and among the ligneous plants, *Ilex ntutchagara*, *Wikstroemia yakushimensis*, and *W. Kudoii* etc., and mosses. It is an interesting fact that most of the plants which are found in this society are endemic to the island.

5. Zone of the *Pseudosasa Owatarii* Association.

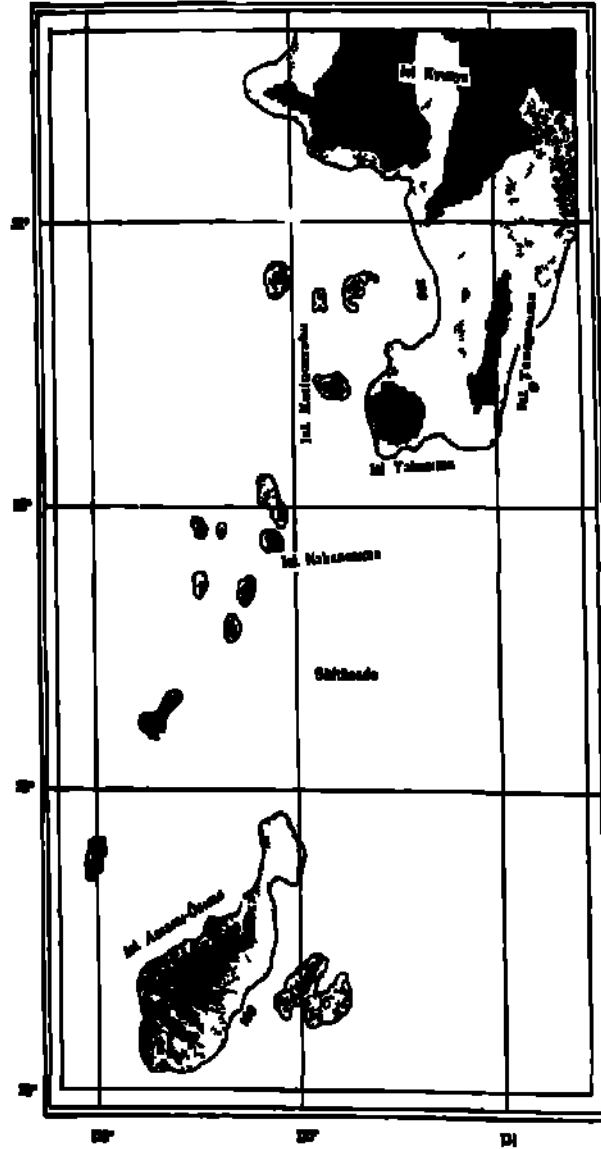
This zone is found in the high altitudes of the island and occurs on the peaks and ridges rising above the timber line. The zone is chiefly composed of the *Pseudosasa Owatarii* Association which predominates and occupies the area about 1800 m above the level of the sea until it looks like a green mat. (Fig. 12.) In this association besides this *Pseudosasa Owatarii* we can find



Fig. 12.

The zone of the *Pseudosasa Owatarii* Association at Miyanourodake.

Fig. 21.



several accessory members such as *Rhododendron yakusimanum*, *Pieris japonica*, *Pedicularis gloriosa*, var. *Ochiaiana*, *Viola biflora*, *Hypericum yakusimense* (PL. VII. Fig. 2.) *Geranium Yoshiianum*, *Anthoxanthum odoratum*, *Wikstroemia Kudoi*, *Lysimachia minina*, *Melampyrum laxum*, *Anaphalis yakusimensis*, (PL. VII. Fig. 1.) *Cirsium yakumontanum*, *Gentiana yakumontana*, *Crawfordia japonica*, var. *tennis*, *Lycopodium sitchense*, var. *nikoense*,* *L. chinensis*, *Carex* sp., *Juniperus tsukusiensis*, etc.. The association is broken by patches of wet ground scattered here and there in this zone near small streams or springs on which ground a special plant association develops. The association is composed of the following plants: *Drosera rotundifolia*, *Solidago virgaurea*, var. *minutissima*, *Pogonia minor*, *Utricularia yakusimensis*, *Ranunculus yakushimensis*, *Metanalthesium luteoviride*, *Shortia soldanelloides*, var. *minima*, *Juncus prismatocarpus*, var. *viviparus*, *Lycopodium chinense*, var. *Somai*, *Astilbe glaberrima*, *Calamagrostis hakonensis*, *C. Masamunei*, *Wikstroemia Kudoi*, etc.. This type of association extends not only in this zone but also in the upper part of the lauriculisilvae, and a well-developed association of this kind is found at the place called "Hananoego" because of its beautiful scenery, where these two zones meet. As opposed to this wet association, we find a very desiccated association developing on the granite blocks scattered here and there in this zone. The typical representatives of the association are lithophytes such as *Kudoa yakushimensis*, *Aleurites platipetala*, *Abelia serrata*, *Rhododendron Keiskei*, var. *cordifolia*, *Menziesiapurpurea*, *Deschampsia flexuosa*, *Potentilla Dickinsii*, *Juniperus tsukusiensis*. The Pseudosasa Owatarii (PL. V. Fig. 2.) Association and the marshy association (PL. VI. Fig. 1.) seem to be reciprocally interchangeable according to the quantity of water in the ground where the associations develop.

II. Life Form.

Life-form is an index of the habitat where plants live: that is, when we steadily observe the life-form of plants in a given vegetation we can deduce the habitat of the vegetation and at the same

time we can learn to what phytogeographical position the locus of the vegetation belongs from the standpoint of oecological plant geography. In view of the above consideration, I have examined the life-form of plants in three localities in the island, namely in the lowlands near Aiftbo, in Kosugidani about 600 m above the level of the sea where *Cryptomeria japonica* predominates and in the Pseudosasa Owatarii Association in the higher regions, using the widely-used life form system of RAUNKIAER for the sake of convenience. As a result of my investigations I obtained the following biological spectra of the three localities.

Biological Spectra

Localities	Number of species	Percentage number distributed among the species									
		S.	E.	M.M.	M.	N.	Ch.	H.	G.	H.II.	Th.
Lowland	299	0	9	3	20	15	11	12	5	1	24
Kosugidani	145	0	8	10	21	17	10	21	8	0	5
Pseudosasa Owatarii Association	94	0	1	0	14	19	4	49	7	0	5
Normal spectrum	400	1	3	6	20	9	27	3	1	13	

The above table shows that in the lowland (near Ambô) epiphyte and therophyte predominate and that in Kosilgidani, about #600 m-700 m above the sea level, therophyte recedes and epiphyte and geophyte predominate, while in the Pseudosasa Owatarii Association instead of epiphyte, hemicriptophyte and geophyte predominate. The fact of the dominance of therophyte in the lowlands, and of hemicriptophyte in the high region indicates that the vegetation of the island expresses in its life-form a somewhat arctic nature in the higher and a subtropical one in the lower regions.

THE PHYTOGEOGRAPHICAL POSITION OF THE ISLAND.

Dr. DRUDE in his "Die Florenreiche der Erde (1884)," included the island in "Kusterländer der Chinischen und Japanischen Seen"

and also in his "Pflanzengeographie p. 424 (1890)," he included the island in "Ostasiatische Ländergrupe" in which region he recognized several minor groups including the island in one of the subdivisions "B. Inseln zwischen 30°-50° N". The island is situated in the most southern part of this subdivision and is treated together with the southern extremity of Kyûsyû and is stated to possess some characteristics of tropical regions even though they be weak. This suggestion of Dr. DRUDE concerning the phytogeographical position of our island is confirmed by my present investigation.

Dr. SCHIMPER* has treated southern Japan as "Der Temperirte Regenwald" and the island seems to be included in this region.

In "Pflanzengesellschaften der Eide (1930)" Dr. ROBEL included the vegetation of the island in the Formation Class of Pluviilignosa (Regengehölze) together with that of the southern extremity of Kyûsyû and Ryûkyû and the lowlands of Formosa. But here we have to note that the climate of the island does not exactly agree with the definition given by him; i. e. while the rainfall in the island coincides with the definition, the temperature does not wholly confirm it. As I showed in another place in this work, the temperatures taken at Nagata lighthouse and at Ambô are as follows.

Nagata

	Dec. 14°		July 28°
Winter	'Jan. 11°	Summer	Aug. 28°
	/Feb. 12°		Sept. 27°

Ambo

	(Dec. 17°		July 28°
Winter	JJan. 16°	Summer	'Aug. 29°
	/Feb. 16°		'Sept. 28°

The differences in temperature between the warmest month and the coldest is superior to 6°C and the coldest temperature is below 18°. On the other hand the representatives of Pluviilignosa are few. But the richness in epiphyte and lianes indicates that the vegetation shows the nature of Pluviisilvae in the lower part of

* A. F. W. SCHIMPER; Pflanzen-Geographie 1898,

the island, though on the whole the vegetation exhibits the nature of Laurisilvae. So in this sense I propose to include the island and the southern part of Kyûsyû in the region of Laurilignosa at the southern extremity of which the island is, of course, situated. The limit of the distribution of Pluvilignosa will be found in Amami-dsima or in some more southern land in the Ryûkyû Archipelago.

Dr. ENGLER and Dr. GILG wrote in the chapter "Die Florenreich und Florengebiete der Erde" in "Syllabus der Pflanzenfamilien" (1924) that in the Japanese Empire the lands further north than Kyûsyû belong to the "Temperiertes Ostasien" and those further south than Okinawa belong to "Monsungebiet"; and that the regions where *Fagus Sieboldii* and *Pinus cembra* occur are included in "Temperiertes Ostasien" but he did not specifically mention the phytogeographical position of the island. In the island we can not find these two species, but I believe the island should be included in "Temperiertes Ostasien" because in it I was able to find 941 elements (species, \ varieties, and forms indigenous to the island) which are also found in Tanegasima and lands further north of it, and 803 elements which are also found in Amami-dsima and lands further south of it. From these phytogeographic investigation of the island I reached the conclusion that the Flora of the island of Yakusima belongs to the same region as that of Kyûsyû, Sikoku, and of the southern part of Honsyû, even though it is more or less intimately related to the Flora of Amami-Ôsima, Okinawa and Formosa.

PLATE I.

Explanation of Plate I.

Anaphaltis yakusimensis, MASAMUNE.

- Fig. 1. The plant.
2. An inner bract.
 3. An outer-most bract, front view.
 4. The same, back view.
 5. A perfect, sterile flower.
 6. A female, fertile flower.
 7. Apical portion of the style of a perfect flower.
 8. Apical portion of the style of a female flower.
 9. A bristle of the pappus of a perfect flower.

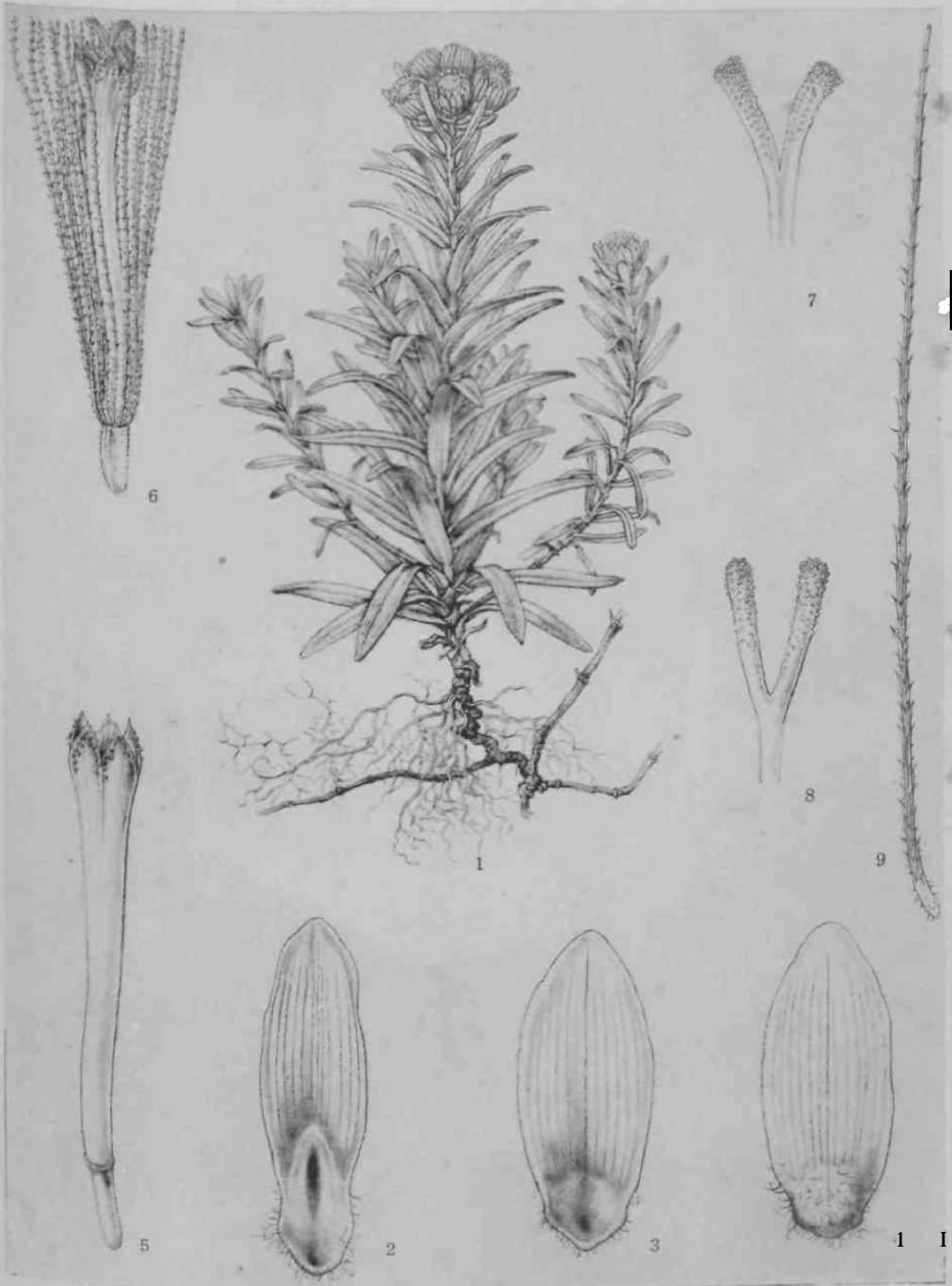


PLATE II.

Explanation of Plate II.

Fig. 1. *Ligularia hiberniflora*, growing as undergrowth in the laurisilvae.

Fig. 2. The lauri-aciculisilvae in the southern part of the island; showing the crumbly nature of the granite.



Fig. 1.

Phot. KAWATA



Fig. 2.

Phot. KAWATA

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PL AXE III.

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PLATE IV.

Explanation of Plate IV.

Fig. 1. Forest, mainly of *Cryptomeria japonica* about 1700 m above sea level.

Fig. 2. Forest in the lauri-aciculisilvae in which *Abies firma* predominates.

PLATE V.

Explanation of Plate V.

- Fig. 1.** *Cit^ium yakumontanum* in the lauri-aciculisilvae, about 1100 m above sea level.
- Fig. 2.** Pseudosasa Owatarii Association at about 1900 m.
- Fig. 3.** A typical forest in the lauri-aciculisilvae near Kosugidani.

PLATE VI.

Explanation of Plate VI.

Fig. 1. *Lycopodium selago*, var. *Somai* in the wet ground in the Pseudosasa Owatarii Association.

Fig. 2. *Tricyrtis flava* in the lauri-aciculisilvae near Kosugidani, about 700 m above sea level.

Fig. 3. *Piper futokadsura* in the submountain zone.

PLATE VII.

Explanation of Plate VII.

- Fig. 1.** *Anaphalis yakusimensis* in the Pseudosasa Owatarii Association about 1800 m above sea level
- Fig. 2.** *Hypericum yakusimense* in the Pseudosasa Owatarii Association.
- Fig. 3.** *Athyrium Nakanoi*, growing as undergrowth in the lauri-aciculisilvae.
- Fig. 4.** Stump of a *Cryptomeria japonica* in the Cryptomeria forest near Kosugidani, about 800 m above sea level: almost 5 metres in diameter.

**ENUMERATION OF ALL THE VASCULAR PLANTS,
Hitherto Known from the Island of Yakusima with Their
Geographical Distributions**

PTERIDOPHYTA

Danaceae

Danaceae, AGARDH, Aphorismi Bot. p. 117 (1822); LINDL., Nat. Syst. Bot. p. 402 (1836), et Veg. Kingd. ed. 3. p. 82 (1853); NAK., in Tokyo Bot. Mag. XLI. p. 74 (1927)

Syn. *Marattiaceae*, KAULEUSS, Enum. Fil. p. 31 (1824); ENDL., Gen. Pl. p. 63 (1836); BITT. in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 422 (1900)
Mesodmeae, BL., Enum. Pl. Jav. II. p. 260 (1830)

Angiopteris, HOFFM., Comm. Soc. Reg. Getting. XII. p. 29 (1796); SWARTZ, in Schrader Journ. Bot. I. pt. II. p. 107 (1801), et Syn. Fil. pp. 7 et 166 (1806); WILLD, Sp. Pl. V. pp. 36 et 69 (1810); CHRIST, Farnk. Erd. p. 357 (1897); BITTER, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 436 (1900); CHR., Ind. Fil. p. 59 (1906)

Syn. *Psiloclochea*, PRESL., Supp. Tent. Pterid. p. 28 (1845)

Angiopteris suboppositifolia, DE VRIESE, Monogr. p. 23 (1853) p.p.; NAK., in Tokyo Bot. Mag. XLI. p. 76 (1927), et in Bull. Biogeog. Soc. Jap. I. p. 250 (1930); MASAMUNE, Prel. Rep. Veg. Yak. p. 21 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1 (1931)

Syn. *Angiopteris evecta*, (non HOFFM.) KUNZE, in Bot. Zeit. VI. p. 492 (1848J; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 182 (1867); FR. et SAV., Enum. Pl. Jap. II. p. 252 (1876); LUERSS., in Engl. Bot. Jahrb. IV. p. 366 (1883); HENRY, List Pl. Formos. p. 117 (1896); CHRIST, in WARB., Mons. p. 94 (1900) p.p.; MATSUM., Ind. Pl. Jap. I. p. 286 (1904) p.p.; MATSUM. et HAY., Enum. Pl. Formos. p. 558 (1906) p.p.; MERR., Enum. Hainan Pl. p. 20 (1927)

Angiopteris crassipes, (non WALL.) COPEL., in Philipp. Journ. Sci. IV. p. 9 (1909); MAK. et NEM., Fl. Jap. ed. 1. p. 1563 (1925)

Aom. Jap. Ryubintai

Leg. Ipse, Aug. 7, 1924.

• *Distr.* Honsyu, Sikoku, Kytusyu, Tanegasima, Amami-Ôsima, Okinawa, Bonins, Taiwan, Philippines, China.

Note. It grows as undergrowth in the woods from the sea level up to about 600 m. The species is distributed in subtropical and tropical regions of Eastern Asia.

Name of Plant	Regions																
	Philippines	Bonins	Taiwan	Okinawa	Ryūkyūs	Amami-Osima	Tanegasima	Kyūsyū Prop.	Kyūsyū	Sikoku	Honsyū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China
Angiopteris suboppositifolia, DE VRIESE . .	+	+	+	+	+	+	+	+	+	+	+						+

From the above data I can not reach any conclusion as to the phytogeographical position of Yakusiroa.

Ophioglossaceae

Ophioglossaceae, LINDL., Nat Syst. Bot. p. 402 (1836)

Ophioglossum, (TOURN.) ex LINN., Sp. Pl. ed.

1. p. 1062 (1753) et Gen. Pl. ed. 5. p. 484 (1754); H. CHRIST, Farnk. Erde, p. 362 U897); BITTER, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 465 (1900.); NAK., in Tokyo Bot. Mag. XL. p. 373 (1926)

Ophioglossum vulgatum, LINN., Sp. Pl. ed. 1. p. 1062 (1753); SWARTZ, Syn. Fil. p. 169 (1806); WILLD., Sp. Pl. V. p. 58 (1810); PRANT., in Bot. Jahrb. Bot. Cart. III. p. 318, t. 7, ff. 12 et 16 (1883); H. CHRIST., Farnk. Erd. p. 363 (1897); MAK., in Tokyo Bot. Mag. XII. p. (376) (1898); BITTER, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 467 (1900); MATSUM., Ind. Pl. Jap. I. p. 331 (1904); C. CHRIST., Ind. Fil. p. 472 (1906); BRITT. et BR., Ill. Fl. I. p. 2. f. 1. (1913); MIY. et KUDO, Mat. Fl. Hokkaid. VI. p. 121 (1916), et Fl. Hokk. and Sagh. I. p. 1 (1930); NAK., in Tokyo Bot. Mag. XL. p. 374 (1926); MASAMUNE, Prel. Rep. Veg. Yak. p. 21 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 5 (1931)

Syn. *Ophioglossum nudicaule*, (non LINN.) CHRIST, in Bull. Herb. Boiss. IV. p. 675 (1896); MAK., in Tokyo Bot. Mag. XII. p. (376) (1898); MATSUM. et HAY., Enum. PL Formos. p. 557 (1906)

Ophioglossum alaskanum, BRITTON, in Bull. Torrey Bot. Club, XXIV. p. 556, t. 319 (1897)

Ophioglossum japonicum, (non THUNB. nee. PRANTL.) MATSUM., Ind. Pl. J*P-I. p. 330 (1904)

Ophioglossum nipponicum, MIY. et KUDO, Mat. Fl. Hokkaid. VI. p. 122 (1916)

Nom. Jap. *Hanayasuri*

Leg. Ipse, ca. Onoaida, April. 2, 1927.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Taiwan, Bonins, Korea, China.

Note. Distributed nearly all over the earth.

Ophioderma, BLUME, apud Endl., Gen. Pl. p. 66, no. 672 11836); NAK., in Tokyo Bot. Mag. XL. p. 371 (1926)

Syn. *Ophioglossum*, LINN., Sp. Pl. ed. 1. p. 1062 (1753) p.p.

Ophioglossum, Sect. *Ophioderma*, BL., Enum. Pl. Jav. II. p. 259 11830)

Cheiroglossa, PRESL, Suppl. Tent. Pterid. p. 56 (1843)

Ophioderma pendulum, PRESL, Suppl. Tent. Pterid. p. 56 (1843); NAK., in Tokyo Bot. Mag. XL. p. 372 (1926), et in Bull. Biogeogr. Soc. Jap. I. p. 250 (1930); MASAMUNE, Prel. Rep. Veg. Yak. p. 21 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 4 (1931)

Syn. *Ophioglossum pendulum*, LINN., Sp. Pl. ed. 2. p. 1518 (1763); HENRY, List Pl. Formos. p. 117 (1896); CHRIST, Farnk. Erd. p. 364 (1897); CHRIST, in Bull. Herb. Boiss. VI. p. 973 (1898); CHRIST., in WARB. Mons. I. p. 94 (1900); BITTER, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 469 f. 263 (1900); MATSUM., Ind. Pl. Jap. I. p. 330 (1904); MATSUM. et HAY., Enum. Pl. Formos. p. 557 (1906); COPEL., in Philip. Journ. Sc. IV. p. 5 (1909); MATH., in Journ. Linn. Soc. XXXIX. p. 375 (1911); A. ROSENB., Malay. Fern. Allies, Supp. I. p. 454 (1917); MAK. et NEM., Fl. Jap. ed. 1. p. 1562 (1925)

Ophioglossum reticulatum, HOOK, et BAK., Syn. Fil p. 446 (1868)

JNom. Jap. Kbburan

Leg. Ipse, ca. Ambō, Jul. 20, 1927.

Distr. Amami-6sima, Okinawa, Taiwan, Bonins, China, Hawaii, India.

Note. This is one of the representatives which have their northern limit of habitat in this island.

Names of Plants	Regions															
	Philippines	Bonins	Taiwan	Okinawa	Amami-Osima	Tosogasima	Kyūsyū Prop.	Kyūsyū	Sikoku	Honsyū	Korea	Yezo & Southern Kuriles	Saghalien	North Kuriles & Kamchatka	Manchuria, Amur & Ussuri	China
<i>Ophioglossum vulgatum</i> , LINN.		+	+				+		+	+	+	+				+
<i>Ophioderma pendulum</i> , PRESL	+	+	+	+	+											+

In respect of this family, the flora of the island has a closer relation to that of the southern regions than to that of the northern ones, because the island has a genus, *Ophioderma* which is not found in lands further north than Yakusima. From this point of view the phytogeographical position of the island has the same

important significance as that which has been deduced by some entomologists.*

Hymenophyllaceae

Hymenophyllaceae, PRESL, Hymenophyl. p. 9 (1843)

Trichomanes, LINN., Sp. Pl. ed. I. p. 1097 (1753)
p. p.; H. CHRIST, Farnk. Erd. p. 23 (1897); SADEBECK, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. pp. 104 et 108 (1898)

Trichomanes auriculatum, BLUM., Enum. Pl. Jav. II. p. 225 (1828); HOOK., Sp. Filic. I. p. 133 (1846); BOSCH v. d., in Miq. PL Junghun. I. p. 553 (1856); HOOK, et BAK., Syn. Filic. p. 82 (1868); FR. et SAV., Enum. Pl. Jap. II. p. 208 (1876); H. CHRIST, Farnk. Erd. p. 29 (1897); MAK., Phan. et Pterid. Jap. III. I. pt. 5. Pl. XXII. (1899); MATSUM., Ind. Pl. Jap. I. p. 348 (1904); YABE, in Tokyo Bot. Mag. XIX. p. 33 (1905); MATSUM. et HAY., Enum. Pl. Formos. p. 364 (1906); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 336 (1912); MAK. et NEM., Fl. Jap. ed. 1. P-1676 (1925), et ed. 2. p. 8 (1931); NAK., in Tokyo Bot. Mag. XL. p. 264 (1926); MERR., Enum. Hainan Pl. p. 7 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 22 (1929)

. **Syn.** *Trichomanes Belangeri*, BORY, in **Bflanger** Voy. II. p. 79, t. 8. f. 1 (1833); PRESL, Hymenophy. p. 16 (1843)

Cephalomanes auriculatum, BOSCH v. d., Nederl. Kruidk. Arch. IV. p. 352 (1859), et in Verh. Akad. Wet. Amst. X. p. 34, t. XXV (1861)

Lacostea auriculata, PRANTL, Hymenophyl. p. 50 (1875); LUERSS., in Engl. Bot. Jahrb. IV. p. 354 (1883)

Nom. Jap. *Turuhoragoke*

Leg. Ipse, Kusugawa, Mart. 17, 1923.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, China, Java, India.

Nate. This plant grows as an epiphyte or rather as a climbing plant in the laurisilvae. The species is common in southern Japan.

Trichomanes bipunctatum, PoiR., Encycl. VIII. p. 69 (1808); H. CHRIST, Farnk. Erd. p. 32 (1897); MATSUM., Ind. Pl. Jap. I. p. 348 (1904); YABE, in Tokyo Bot. Mag. XIX. p. 33 (1905); CHRIST., Ind. Filic. p. 636 (1906); MATSUM. et HAY. Enum. Pl. Formos. p. 564 (1906); HAY., Ic. Pl. Formos. IV. p. 137 (1914); A. ROSENBURGH, Malay. Fern, et Fern Allies Supp. I. p. 103 (1917)- MORI, Enum. Pl. Cor. p. 2 (1922); MAK. et NEM., Fl. Jap. ed. 1. p. 1676 (1925), et ed. 2. p. 8 (1931); NAK., in Tokyo Bot. Mag. XL. p. 254 (1926); MASAMUNE, Prel. Rep. Veg. Yak. p. 22 (1929);

ESAKI, Teiso: On the Geographical Distribution of Insects in Japan, with some Notes on its Boundary Lines. Dobutsugaku Zasshi, Tokyo, XXXIII. p. 444-466 (1921)

ESAKI, Teiso: A japani sbigetvilag allargoldrajzi tekintetben ^tiber die Zoogeographie des japanischen Archipels) Allatani Közleenyek, Budapest, XXIII. op. 10-15, 116-122 (1926)

ESAKI, Teiso: Zoogeographische Beziehung der Insel Yakushima und Kyushu nach der Verbreitung der Tagfalter in Bull. Biogeogr. Soc. Jap. I. 2. pp. 47-56 (1929)

- * *Syn. Hytnenophyllum datum*, SCHKUHR, Kr. Gew. I. p. 133, t. 135b (1809)
Trichomanes filicula, BORY, in Duperrey. Voy. I. p. 283 (1828); HOOK., Sp. Filic. I. p. 124 (1846); HOOK., et BAK., Syn. Filic. p. 81 (1867); FR. et SAV., Enum. Pl. Jap. II. p. 207 (1874); BAKER, in Journ. Bot. XXIII. p. 103 (1885); MAK., in Tokyo Bot. Mag. XII. p. (193) (1898); YABE, in Tokyo Bot. Mag. XVI. p. 47 (1902)
Trichomanes insigne, BEDD., Ferns Brit. Ind. t. 284 (1868)
Trichomanes Tosae, CHR., ex MATSUM., in Tokyo Bot. Mag. XXIV. p. 240 (1910)
Nom. Jap. Aohoragoke
Leg. Ipse, Jul. 7, 1928.
Distr. Honsyū, Sikoku, Kyūsyū, Okinawa, Taiwan, Bonins, Korea.
Note. It grows as an undergrowth in the laurisilvae or in the lauri-aciculisilvae, sometimes on rocks, and is widely distributed in southern Japan.

Trichomanes orientate, C. CHRIST., Ind. Fil. p. 646 (1906); NAK., Fl. Kor. II. p. 385 (1911), et in Tokyo Bot. Mag. XL. p. 268 (1926), et in Bull. Biogeogr. Soc. Jap. I. p. 251 (1930); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 336 (1912); HAY., Ic. Pl. Formos. IV. p. 138. f. 77 (1914); MASAMUNE, Prel. Rep. Veg. Yak. p. 22 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 10 (1931)

Syn. Trichomanes japonic urn, (non THUNB. nee POIRET) FR. et SAV., Enum. Pl. Jap. II. pp. 212, 618 (1876); CHRIST, in Bull. Herb. Boiss. IV. p. 665 (1896); MAK., in Tokyo Bot. Mag. XII. p. 193 (1898), et Phan. et Pterid. Jap. III. I. pt 5, Pl. XXI. (1899); MATSUM., Ind. Pl. Jap. I. p. 349 (1904)

Trichomanes japonic urn, var. *abbreviation*, CHRIST., Ind. Fil. p. 646 (1906); MATSUM., Ind. Pl. Jap. I. p. 349 (1904)

Trichomanes stenosphon, CHRIST ex LcVEILLÉ, in Fedde. Rep. V. p. 10 (1908); NAK., in Tokyo Bot. Mag. XXVIII. p. 65 (1914)

Nom. Jap. Kbganesinobu

Leg. Ipse, Jul. 27, 1927.

Distr. Honsyū, Sikoku, Kyūsyū, Okinawa, Taiwan, Bonins, Korea, China.

Note. As undergrowth on rocks in the laurisilvae; common in southern Japan.

Trichomanes parvulum, POIR., Encycl. VIII. p. 64 (1808); HOOK., Sp. Fil. I. p. 118, t. 39-A (1846), et Kew Journ. IX. p. 334 (1857); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 183 (1867); HOOK., et BAK., Syn. Filic. p. 75 (1867); FR. et SAV., Enum. Pl. Jap. II. p. 207 (1876); H. CHR., Farnk. Erd. p. 27 (1897); MAK., in Tokyo Bot. Mag. XV. p. (193) (1898), et Phan. et Pterid. Jap. 01.1. pt. 3, Pl. XIV. (1899); CHRIST, in WARBURG, Mons. I. p. 55 (1900); YABE, in Tokyo Bot. Mag. XVI. p. (46) (1902), et XIX. p. 33 (1905); MATSUM., Ind. Pl. Jap. I. p. 349 (1904); MATSUM. et HAY., Enum. Pl. Formos. p. 567 (1906); NAK., Fl. Kor. II. p. 385 (1911); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 336 (1912); MAK. et NEM., Fl. Jap. ed. 1. p. 1679 (1925), et ed. 2. p. 10 (1931); MERR., Enum. Hainan Pl. p. 7 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 22 (1929)

Nom. Jap. Utiwagoke

Leg. Ipse, Amb6, Jul. 7, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Okinawa, Taiwan, Korea, China, Madagascar, Reunion, Tropical Asia, Polynesia.

Note. As an epiphyte on tree trunks and rocks in the laurisilvae; one of the rather pandemic species; not common in the island.

Hymenophyllum, J. E. SMITH, in M6m. Acad.

Turin. V. p. 418 (1793); SWARTZ, Syn. Fil. p. 145 (1806); SADEBECK, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 108 (1898)

Hymenophyllum barbatum, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 183 (1867); HOOK, et BAK., Syn. Fil. ed. 2. p. 68 (1874); FR. et SAV., Enum. PL Jap. II. p. 206 (1876); MAK., Phan. et Pterid. Jap. 111. I. pt. 4, Pl. XX. (1899); CHRIST., in WARBURG, Mons. I. p. 55 (1900); MATSUM., Ind. Pl. Jap. I. p. 309 (1904); MATSUM. et HAY., Enum. Pl. Formos. p. 568 (1906); MORI, Enum. Pl. Cor. p. 1 (1922); MAK. et NEM., Fl. Jap. ed. 1. p. 1674 (1925), et ed. 2. p. 5 (1931); NAK., in Tokyo Bot. Mag. XL. p. 240 (1926); MASAMUNE, Prel. Rep. Veg. Yak. p. 21 (1929)

Syn. *Leptocionium barbatum*, BOSCH, v. d., in Nederl. Kruid. Arch. V. 3. p. 416 (1863)
Hymenophyllum japonicum, MIQ., in Ann. Mus. Bot. Lugd. Bat. HI. p. 183 (1867); FR. et SAV., Enum. Pl. Jap. II. p. 206 (1876); CHRIST., Ind. Fil. p. 363 (1906); MAK. et NEM., Fl. Jap. ed. 1. p. 1674 (1925)
Hymenophyllum tunbridgensis, (non SMITH) BAKER, in Journ. Bot. XXIII. p. 103 (1885) partim; MATSUM. et HAY., Enum. Pl. Formos. p. 569 (1905)

Nom. Jap. Kdyakokesinobu

Leg. Ipse, Kosugidani, Sept. 5, 1926.

Distr. Honsyfi, Sikoku, Kyfisyfi, Amami-6sima, Okinawa, Taiwan, Korea, China.

Note. This is a widely distributed species in southern Japan. It grows as an epiphyte on rocks and on tree trunks.

Hymenophyllum crispatum, WALLICH, Cat. no. 169 (1828) nom. nud.; HOOK, et GREVILLE, Ic. Filic. I. t. LXXII. (1831); HOOK, Sp. Fil. I. p. 105 (1844); NAK., in Tokyo Bot. Mag. XL. p. 245 (1926); MASAMUNE, Prel. Rep. Veg. Yak. p. 21 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 6 (1931)

Syn. *Hymenophyllum fitzbriatum*, J. SMITH, in Hook. Journ. Bot. III. p. 418 (1841); HOOK, Sp. Fil. I. p. 102, t. 36, c. (1844)
Hymenophyllum sanguinolentum, (non SWARTZ) J. SMITH, Enum. Fil. Philipp. p. 418 (1841)

Nom. Jap. Yakusima-kokesinobu

Leg. Ipse, April. 5, 1927.

HTtr. Philippines, Nepale.

Note. This plant grows in the laurisilvae, on rocks, or in somewhat dark places. So far as I am aware at present, this species is known to be found in Japan only in Yakusima, but I think there is a probability of finding it in some other places in southern Japan.

Hymenophyllum flexile, MAK., in Tokyo Bot. Mag. XIII. p. (112), p. 45 (1899), et Phan. et Pterid. HI. I. pt. 4, Pl. XVIII. (1899); MATSUM., Ind. Pl. Jap. I. p. 309 (1904); CHRIST., Ind. Filic. p. 361 (1905); MAK. et NEM., Fl. Jap. ed. 1. p. 1674 (1925), et ed. 2. p. 6 (1931); NAK., in Tokyo Bot. Mag. XL. p. 245 (1926); MASAMUNE, Prel. Rep. Veg. Yak. p. 22 (1929)

Syn. *Hymenophyllum fimbriatum*, (non SMITH) MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 183 (1867)

Hymenophyllum javanicum, (non SPRENGEL) FR. et SAV., Enum. Pl. Jap. II. pt. 1. p. 206 (1876)

Nom. Jap. Okokesinobu

Leg. Ipse, Kosugidani, Mart. 19. 1923.

Distr. Honsyū, Sikoku, Kyūsyū, Okinawa, Taiwan.

Note. The plant grows on rocks or in somewhat wet places as undergrowth in the laurisilvae and the lauri-aciculisilvae. The species is found throughout the southern parts of Japan, but it is not so common in those districts.

Hymenophyllum fujisanense, NAK., in Tokyo Bot. Mag. XL. p. 249 (1926); MASAUNE, Prel. Rep. Veg. Yak. p. 22 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 6 (1931)

Syn. Hymenophyllum polyanthos, (non SWARTZJ MATSUM, Ind. Pl. Jap. I. p. 310 (1904) partim.

Nom. Jap. Hosoba-himekokesinobu

Leg. Ipse, Aug. 30, 1924.

Distr. Honsyū, Sikoku, Kyūsyū, Taiwan.

Note. Grows as undergrowth on rocks in the laurisilvae; widely distributed in southern Japan.

Hymenophyllum integrum, BOSCH, v. d., in Miq. Pl. Junghum. I. p. 563 (1856), Nederl. Kruidk. Archif. IV. p. 390 (1859), et *Hymenophyil. Jav.* p. 49, t. XXXVIII (1861); ; NAK., in Tokyo Bot. Mag. XL. p. 248 (1926); MASAMUNE, Prel. Rep. Veg. Yak. p. 22 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 6 (1931);

Syn. Hymenophyllum pycnocarpum, BOSCH, v. d., in Miq. Pl. Junghum. I. p. 564 (1856), Nederl. Kruidk. Archif. IV. p. 391 (1859), et in Verh. Ak. Wet. Amst. p. 48. t. XXXVII. (1861)

Hymenophyllum polyanthos, (non SWARTZ) FR. et SAV., Enum. Pl. Jap. II. p. 206 (1876); LUERSS, in Engl. Bot. Jahrb. IV. p. 354 (1833); H. CHRIST, Farnk. Erd. p. 16 (1897) p.p.; MAK., Phan. et Pterid. Jap. III. I. pt 5, Pl. XXIII. (1899); MATSUM, Ind. Pl. Jap. I. p. 310 (1904); MATSUM et HAY., Enum. Pl. Formos. p. 569 (1906); HAY., Ic. Pl. Formos. IV. p. 142 (1914); MAK. et NEM., Fl. Jap. ed. 1. p. 1675 (1925); MERR., Enum. Hainan Pl. p. 7 (1927)

Nom. Jap. Hosoba-kokesinobu

Leg. Ipse, Kosugidani, Jun. 7, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Amami-6sima, Okinawa, Taiwan, Philippines, China, Malay, Java.

Note. The species is widely distributed in South Japan.

Hymenophyllum oligosorum, MAK., in Tokyo Bot. Mag. XIII. p. 44 (1899), et Phan. et Pterid. Jap. III. I. pt. 4. Pl. XIX. (1899); MATSUM, Ind. Pl. Jap. I. p. 310 (1904); CHRIST, Ind. Fil. p. 365 (1906); MORI, Enum. Pl. Cor. p. 1 (1922); NAK., in Tokyo Bot. Mag. XL. p. 247 (1926); MAK. et NEM., Fl. Jap. ed. 2. p. 7 (1931)

Nom. Jap. Kiyozumikokesinobu

Leg. Ipse, Jun. 15, 1928.

Distr. Honsyū, Korea.

Note. It grows on rocks in the laurisilvae. This species is reported to be found only on Mt. Kiyozumi (middle Honsyū), and in Querpat in Korea, the island being the third place of habitat to be reported.

Hymenophyllum riukiense, CHRIST, in Ann. Cons. Jard. Bot. Genève IV. p. 208 (1900); MATSUM, Ind. Pl. Jap. I. p. 310 (1934); MAK. et NEM., Fl. Jap. ed. 1. p. 1675, (1925_{ff} et ed. 2. p. 7 (1931); NAK., in Tokyo Bot. Mag. XL. p. 244 (1926); MASAMUNE, Prel. Rep. Veg. Yak. p. 22 (1929)

Nom. Jap. Ryukyu-kokesinobu

Leg. A. KIMURA! Aug. 6, 1922.

Dist. Amami-6sima, Okinawa.

Note. The species grows in dark or wet places in the laurisilvae. It has its northern limit of habitat in this island.

Hymenophyllum Simonsianum, HOOK., 2nd. Cent. Fern. t. XIII. (1861); HOOK., et BAK., Syn. Fil. p. 68 (1867); SADEBECK, in ENGL. U. PRANT Nat. Pfl.-fam. I. iv. p. 110 (1898); CHR., Ind. Fil. p. 368 (1906); HAY., Ic. Pl. Formos. V. p. 258, f. 92 (1915); NAK., in Tokyo Bot. Mag. XL. p. 211 (1926); MAK. et NEM., Fl. Jap. ed. 2. p. 7 (1931)

Syn. Didymoglossum Simonsianum, EO3CH, v. d., in Nederl. Kruid. Archif. V. 3. p. 145 (1863)

Nom. Jap. Simon-kokesinobu

Leg. Ipse. Jul. 27, 1922.

Distr. Taiwan, India.

Note. The species grows as undergrowth on rocky ground in the laurisilvae, and has its northern limit in this island.

Hymenophyllum Wrightii, BOSCH, v. d., in Nederl. Kruidk. Archif. IV. p. 391 (1859); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 183 (1867); FR. et SAV., Enum. Pl. Jap. II. pp. 205, 617 (1876); MAK., Phan. et Pterid. III. I. pt. 4, Pl. XVII. (1899); MATSUM., Ind. Pl. Jap. I. p. 310 (1904); CHRIST., Ind. Fil. p. 369 (1905); TAKEDA, in Tokyo Bot. Mag. XXIV. p. 179 (1910); MORI, Enum. Pl. Cor. p. 1 (1922); MAK. et NEM., Fl. Jap. ed. 1. p. 1676 (1925), et ed. 2. p. 7 (1931); NAK., in Tokyo Bot. Mag. XL. p. 247 (1926); MASAMUNE, Prel. Rep. Veg. Yak. p. 22 (1929)

Syn. Hymenophyllum paniculiflorum, (non PRESL.) FR. et SAV., Enum. Pl. Jap. II. p. 205 (1876); CHR., in Bull. Herb. Boiss. IV. p. 665 (1896)

Nom. Jap. Kokesinobu

Leg. Ipse, Jul. 26, 1927.

Distr. Honsyû, Kyûsyû, Korea.

Note. The plant grows in the laurisilvae or in the lauri-aciculisilvae as undergrowth and occurs rather on rare occasions in the above mentioned regions. It is not yet found in lands further south than this island.

Names of Plants	Regions														
	Philippines	Bonins	Taiwan	Okinawa	Amami-Ôsima	Tanegasima	Kyûsyû Prop.	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China
<i>Trichomanes auriculatum</i> , BL.			+	+	+	+	+	+	+						+
<i>Trichomanes bipunctatum</i> , POIR.	+	+	+	+			+	+	+	+					+

Trichomanes orientale, C. CHRIST.		+	+	+			+	+	+	+									+
Trichomanes parvulum, POIR.			+	+		+	+	+	+	+									+
Hymenophyllum barbatum, MIQ.			+	+	+			+	+	+	+								+
Hymenophyllum crispatum, WALLICH	+																		
Hymenophyllum flexile, MAK.			+	+				+	+	+									
Hymenophyllum fujisanense, NAK.			+					+	+	+									
Hymenophyllum integrum, BOSCH.		+	+	+	+			+	+	+									+
Hymenophyllum oligosorum, MAK.											+	+							
Hymenophyllum riukiense, CHRIST.				+	+														
Hymenophyllum Simonsianum, HOOK.			+																
Hymenophyllum Wrightii, BOSCH.								+		+	+								
Total	13	3	2	9	8	4	2	9	8	10	6								6
Percentage		15	15	69	62	31	15	69	62	77	46								r

*(Southern elements 11)

*(Northern elements 10)

Hymenophyllaceous plants abound in this island, and this is perhaps caused by its geographical conditions. The island is mountainous and damp forests are found here and there. These conditions are favourable to the existence of plants of this family. Concerning this family the phytogeographical position of this island shows no close relation either with the north or with the south, but some of the plants in question have their southern or northern limit in this island. From this fact the island seems to be situated in a transitional place for these species.

Cyatheaceae

Cyatheaceae, ENDL., Prodr. Fl. Norf. p. 15 (1833), et Gen. PL p. 63 (1836)

Cyathea, J. E. SMITH, in M6m. Acad. Turin. V. p. 416 (1793); SWARTZ, in Schrader Journ. Bot. I. pt. 2. p. 93 (1801), et Syn. Fil. p. 139 (1806); ENDL., Gen. PL p. 63 (1836); PRESL., Tent. Pt. p. 54 (1836); HOOK., Sp. Fil. I. p. 14 (1846); DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 123 (1898)
 Syn. *Disphenia*, PRESL., Tent. Pt. p. 55 (1836)
Schizochaena, J. SMITH, in Hook. Gen. Fil. t. 2 (1838)
Eatoniopteris, BOMMER, Bull. Soc. Fr. 20, XIX. (1873)

* In the tables " Southern elements" refers to the plants which are indigenous to Yakusima and are found in lands further south beyond Yakusima in Japan. The same is denoted by " Northern elements ".

Cyathea boninsimensis, COPELAND, in Philipp. Journ. Sci. IV. p. 38 (1909); NAK., in Tokyo Bot. Mag. XLI. p. 67 (J927^; MAK.'et NEM., Fl. Jap. ed. 2. p. 13 (1931)
 Syn. *Cyathea spinulosa*, (non WALL.) HOOK, et BAK., Syn. Fil. p. 23 (1865) p.p.; FR. et SAV., Enum. Pl. Jap. II. 1. p. 204 (1876); DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 127 (1898) partim; LUERSS., in Engl. Bot. Jahrb. IV. p. 365 .1883); MATSUM., Ind. Pl. Jap. I. p. 301 (1904) p.p.; HATTORI, Pfl. Geogr. Bonn. p. 16 (1908); MASAMUNE, Prel. Rep. Veg. Yak. p. 23 (1929)
Alsophila boninsimensis, CHRIST, in Warb. Mons. I. 90 (1900)
Hemitelia boninsimensis, DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 132 (1898); CHRIST., Ind. Fil. p. 347 (1906)

Norn. Jap. Hego

Leg. Ipse, Jul. 14, 1922.

Distr. Honsyu, Kyúsyú, Tanegasima, Amami-Osima, Okinawa, Bonins.

Note. The tree fern is found in the laurisilvae or in the lauri-aciculisilvae from the sea level to 600 m, and very often it is found in dark and wet places, but it also grows in sunny places.

Alsophila, R. BR., Prodr. Fl. Nov. Holl. p. 158 (1810); DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 132 (1898)

Syn. *Gymnosphaera*, BL., Enum. Pl. Jav. p. 242 (1828)

Trichopteris, PRESL, apud SCHOTT. Gen. Fil. t. 5 (1834), et Tent. Pt. p. 58 t. 1 * (1836)

Amphidesmidum, SCHOTT, Gen. Fil. t. 5 (1834)

Metaxya, PRESL., Tent. Pt. p. 59 (1836)

Alsophila acaulis, MAK., in Tokyo Bot. Mag. XXVIII. p. 335 (1914); MAK. et NEM., Fl. Jap. ed. 1. p. 1671 (1925), et ed. 2.'p. 11 (1931); NAK., in Tokyo Bot. Mag. XLI. p. 70 (1927)

Syn. *Alsophila denticulata*, (non BAK.) MASAMUNE, Prel. Rep. Veg. Yak. p. 22 (1929)

Norn. Jap. Kusamaruhati

Leg. Ipse, Hunayuki, Jul. 20, 1927.

Distr. Honsyu, Sikoku, Amami-6sima, Okinawa, Taiwan.

Note. Grows in the laurisilvae as undergrowth; occurs somewhat rarely.

Regions	Names of Plants														
	Philippines	Bonins	Taiwan	Okinawa	Amami-Osima	Tanegasima	Kyúsyú Prop.	Sikoku	Honsyú	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China
<i>Cyathea boninsimensis</i> , COPELAND	+			+	+	+	+	+	+						
<i>Alsophila acaulis</i> , MAK.		+		+	+		+	+	+						

Two species of Cyatheaceous plants grow in this island, and both of them are found in lands further north or south of Yakusima. Thus considering this family, the island does not show any closer relationship either northern or southern regions. But the abundance of these plants and their vigorous growth show that they live under quite favourable conditions in the island. Thus, oecologically, the island is more closely related to the southern than to the northern lands where the tree fern can scarcely find a living.

Cheiropleuriaceae

Cheiropleuriaceae, NAK., in Tokyo Bot. Mag. XLIL p. 210 (1928)

Cheiropleuria, PRESL, Epim. Bot. p. 189 (1849);

DIELS, in ENGL U. PRANT. Nat. Pfl.-fam. I. iv. p. 336 (1899)

Cheiropleuria bicuspis, PRESL. var. *integrifolia*, EAT., apud MATSUM. et HAY., Enum. Pl. Formos. p. 641 (1906); HAY., in Tokyo Bot. Mag. XXIII. p. 80 (1909); NAK., in Tokyo Bot. Mag. XLIL p. 214 (1928); MASAMUNE, Prel. Rep. Veg. Yak. p. 25 (1929J; MAK. et NEM., Fl. Jap. ed. 2. p. 37 (1931)

Syn. *Acrostichum bicuspe*, HOOK. var. *integrifolia*, EAT., in Herb. Hook, ex Hook. Sp. Fil. V. p. 272 (1864); MAK., in Tokyo Bot. Mag. X. p. 55 (1896)

Acrostichum bicuspe, HOOK. var. *integrifolium*, HOOK, et BAK., Syn. Fil. p. 421 (1868); BAK., in Journ. Bot. XXIII. p. 107 (1885); HENRY, List Pl. Formos. p. 116 (1896)

Cheiropleuria bicuspis, PRESL, form, *integrifolium*, EAT., apud LUERSS., in Engl. Bot. Jahrb. IV. p. 354 (1883); MATSUM., Ind. Pl. Jap. I. p. 293 (1904)

Cheiropleuria bicuspis, (non PRESL) DIELS, in ENGL. u. PRANT. Nat. Pfl. fam. I. iv. p. 336 (1899) p.p.; CHR., Ind. Fil. p. 181 (1906) p.p.; MATH., in Journ. Linn. Soc. XXXIX. p. 353 (1911); MAK., et NEM., Fl. Jap. ed. 1. p. 1594 (1925)

JSom. **Jap.** *Suzi-hitotuba*

Leg. Ipse, Jul. 7, 1928.

Ztistr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Ōsima, Okinawa, Taiwan, China.

Note. Although H. CHRIST wrote in his "Geographie der Farns. 18" that the fern is a calcareous plant, it is often found in soil which is not calcareous. In this island, it grows on the forest edges and ranges from the low altitude up to about 600 m. It is rather common in South Japan.

The family, Cheiropleuriaceae, has a close relation to Dipteridaceae which is found in tropical and subtropical regions. The family is also found in warmer lands. The representative of this

Name of Plant	Regions															
	Philippines	Bonins	Taiwan	Okinaawa	Amami-Osima	Ryûkyûs	Tanegasima	Kyûsyû Prop.	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China
Cheirophleuria bicuspis, PRESL, var. integrifolia, EAT.	+		+	+	+		+	+	+							+

family in Yakusima, is found in the southern parts of Honsyû, Sikoku, Kyûsyû beyond Yakusima-

Polypodiaceae

Polypodiaceae, R. BR., Prodr. Fl. Nov. Holland, p. 145 (1810) p.p.; *DIELS*, in *ENGL. U.*, PRANT. Nat. Pfl.-fam. I. iv. p. 139 (1898) p.m.

Cystopteris, BERNHARDI, in Schrad. Neu. Journ. I². 5. p. 26 (1806); HOOK, et BAK., Syn. Fil. p. 103 [1867]; J. SMITH, Ferns Brit. and Foreign, p. 159 (1896); H. CHR., Farnk. Erd. p. 280 ^ 1897 i; *DIELS*, in *ENGL. u.* PRANT. Nat. Pfl.-fam. I. iv. p. 163 (1898)

Syn. *Cyclopteris*, GRAY, Nat. Arr. Br. Bl. II. p. 9 (1821)

Cystea, SMITH, Engl. Flora. IV. p. 275 (1828)

Cystopteris formosana, HAY., Ic. Pl. Formos. IV. p. 143. f. 83 (1914); MAK. et NEM., Fl. Jap. ed. 2. p. 40 (1931)

Norn. Jap. *Hôrai-himewarabi*

Leg. Ipse, Jul. 8, 1928.

Diatr. Taiwn.

Note. It is found in the lauri-aciculisilvae where the *Cryptomeria* predominates. This species is not yet found in other districts beside Taiwan and Yakusima.

Cystopteris japonica, LUERSS., in Engl. Bot. Jahrb. IV. p. 363 ; 1883 ; BAK., in Ann. Bot. V. p. 203 (1874); MATSUM., Ind. Pl. Jap. I. p. 301 (1904) ; MAK. et NEM., Cat. Jap. Pl. Herb. Nat. Hist. Dep. Imp. Mus. p. 423 (1914) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 25 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 40 (1931)

Mom. Jap. *Usuhime-warabi*

Leg. Ipse, Kosugidani, Jul. 24, 1928.

Dittr. Sikoku, Kyûsyû, Amami-Osima.

Note. It grows as undergrowth in the lauri-aciculisilvae, and is not yet found in lands further south than Amami-Osima.

Acrophorus, PRESL., Tent. Pterid. p. 93 (1836¹);
 J. SMITH, Histor. Fil. p. 221 11875-; DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I.
 iv. p. 164 (1898i)

Acrophorus stipellatus, MOORE, Gard. Chr. p. 135 (1854); CHR., Ind. Filic. p. 4 (1906.;
 HAY., in Tokyo Bot. Mag. XXIII. p. 4 (1909), et Mat. Fl. Formos. p. 413 (1911);
 MASAMUNE, Prel. Rep. Veg. Yak. p. 23 (1929); MAK. et NEM., Fl. Jap. ed. 2. p.
 17 Q931)

Syn. Davallia stipellata, WALL., List. n. 260 (1828)

Aspidium no do sum, BL., Enum. p. 171 (1828ⁱ)

Acrophorus nodosus, PRESL., Tent. Pterid. p. 94, t. 3. f. 2. (1836); CHR., Farnk.
 Erd. p. 285 (1897)

Davallia? nodosa, HOOK., Sp. Fil. I. p. 157 (1846); HOOK., et BAK., Syn. Fil. p.
 92 (1867);

Cystopteris nodosa, METT., in Miq. Ann. Mus. Bot. Lugd. Bat. I. p. 241 (1864)

Leucostegia nodosa, BEDD., Fern. Br. Ind. Supp. p. 4 (1876)

Aom. Jap. Taiwan-himewarabi

Leg. Ipse, Kosugidani, Jun. 10, 1928.

Distr. Taiwan, India, Ceylon, Himalaya.

Note. This species grows as undergrowth in the lauri-aciculisilvae about 700 m
 above sea level. The species is not found in lands further north than Yakusima, but
 it is found in Formosa, and the Himalayan regions. With regard to this genus the
 island is related to the southern lands, and if we take this plant into consideration we
 find there is a line of phytogeographical demarcation between our island and Kyfisyū
 proper.

Dryopteris, ADANS., Fam. PI. II. p. 20 (1763); O.

KUNZE, Rev. Gen. PI. II. p. 808 (189r).

Syn. Mensicium, SCHREBER, Linn. Gen. PL ed. VIII. II. p. 757 (1791)

Nephrodium, RICHARD, in MARTHE, Cat. Jard. Méd. Paris, p. 120 (1801); DIELS,
 in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 167 (1898)

Lastrea, BORY, Diet. Class. d'Hist. Nat. VI. p. 588 (18241, et IX. p. 232 (1826)

Cyclosorus, LINK, Hort. Berol. II. p. 128 (1833[^])

Leptogramma, J. SM., in Journ. Bot. IV. p. 51 (1841)

Amauropelta, KUNZE, Farnkr. I. pp. 68, 109 (1843)

Abacopteris, FfE, Congr. Sc. France X^{MI} sess. I. p. 178 (1843) et Gen. Fil. p.
 309 (1850-52) *

Glaphyopteris, PRESL, Abhandl. Böh. Ges. Wiss. V. 5. p. 344 (1848)

Anisocampium, PRESL, Epim. Bot. p. 58 (1849)

Camptodium, FfE, Gen. Fil. p. 298 (1850-52)

Dickasium, FfE, Gen. Fil. p. 302 (1850-52)

Phegopteris, FfE, Gen. Fil. p. 242 (1850-52,

Hemestheum, NEWMAN, Phytol. IV. app. XXII. '1851;

Lophodium, NEWMAN, in Phytol. IV. p. 371. app. XVI. '1851,

Pycnopteris, MOORE, in Gard. Chr. p. 468 (1855)

Dryopteris abbreviatipinna, MAK. et OGATA, in Journ. Jap. Bot. VI. p. 10 (1929), et
 in Ogata, Ic. Fil. Jap. III. PL 116- (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 51
 (1931)

Syn. Dryopteris gracilescens, subsp. *glandulifera*, var. *abbreviata*, KODAMA, in MATSUM.

Ic. PI. Koisik. II. p. 43, t. 106 il914>; MASAMUNE, Prel. Rep. Veg. Yak.
 p. 27 (1929[^])

Nom. Jap. Hime-hasigosida

Leg. Ipse, Kosugidani, Jul. 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Ôsima.

Note. It grows on the edges of forests or in some dry places like waste land or in forest clearings. In the island it occurs from sea level up to an elevation of about 600 m and often on granite, or on newly made mountain passes.

Dryopteris acuminata, NAK., in Tokyo Bot. Mag. XLII. p. 217 (1928); MASAMUNE, Prel. Rep. Veg. Yak. p. 27 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 51 (1931)

Syn. Polypodium acuminatum, HOUTTUYN, Nat. Hist. XIV. p. 181 Pl. XCIX. f. 2. (1783)

Polypodium unit urn, (non LINN.) THUNB., Fl. Jap. p. 336 (1784)

Polypodium sophoroides, THUNB., in Trans. Linn. Soc. II. p. 341 (1794)

Aspidium sophoroides, SW., Schrad. Journ. 1800. p. 33 (1801); METT., in Ann. Mus. Bot. Lugd. Bat. I. p. 231 (1864); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 178 (1867); FR. et SAV., Enum. Pl. Jap. II. p. 242 (1876); LUERSS, in Engl. Bot. Jahrb. IV. p. 360 (1883); CHRIST, in Warb. Mons. I. p. 79 (1900)

Nephradiutn sophoroides, DESV., in Mem. Soc. Linn. Paris IV. p. 256 (1827); HARRINGT., in Journ. Linn. Soc. XVI. p. 30 (1877); BAKER, in Journ. Bot. XXIII. p. 105 (1885); HENRY, List Pl. Formos. p. 113 (1896); DIELS, in Engl. Bot. Jahrb. XXIX. p. 191 (1900); YABE, in Tokyo Bot. Mag. XVI. p. 48 (1902); MATSUM., Ind. Pl. Jap. I. p. 324 (1901); MATSUM. et HAY., Enum. Pl. Formos. p. 576 (1906)

Dryopteris sophoroides, O. KUNTZE, Rev. Gen. Pl. II. p. 813 (1891); MATH., in Journ. Linn. Soc. XXXIX. p. 367 (1911); NAK., Fl. Kor. II. p. 389 (1911); MAK. et NEM., Cat. Jap. Pl. Herb. Hist. Tokyo Imp. Mus. p. 427 (1914)

Norn. Jap. Hosida

Leg. Ipse, Jul. 21. 1924.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China.

Mote. In open lands along the road sides at low altitude; rather common in the southern part of Japan.

Dryopteris constantissima, HAY., Ic. Pl. Formos. IV. p. 191, f. 129 -, 1914)

Syn. Polystichum constantissim urn, HAY., Ic. Pl. Formos. IV. p. 191, i. 12! (1914 J; MAK. et NEM., Fl. Jap. ed. 2. p. 99 (1931)

Nom. Jap. Taiwan-itatisida-tnodoki

Leg. Ipse, Jun. 10, 1928.

Distr. Taiwan.

Nate. This species has its northern limit in this island. And it grows as undergrowth in the lauri-aciculisilvae where *Cryptomeria* is dominant

Dryopteris decursive-pinnata, O. KUNTZE, Rev. Gen. Pl. II. p. 812 (1891); NAK., Fl. Kor. II. p. 393 (1911); MATH., in Journ. Linn. Soc. XXXIX. p. 361 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 27 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 54 (1931)

Syn. Polypodium decursive-pimatum, VAN HALL, Nieuwe Verh. Kl. I. Nederl. Inst. Wet. Ams. Ser. II. v. p. 204, C. tab. U836;

Aspidium decursive-pmna turn, KUNTZE, Bot. Zeit. Pterid. Jav. p. 555 1818; METT., in MIQ. Ann. Mus. Bot. Lugd. Bat. I. p. 229 ;1864; MIQ., in id. III.

p. 178 (1867); FR. et SAV., Enum. Pl. Jap. II. p. 235 (1876); LUERSS., in Engl. Bot. Jahrb. IV. p. 360 (1883)

Lastera decursive-pinnata, J. SM., Ferns Brit. and Foreign, p. 154 (1866);

Nephrodium decursive-pinnata turn, BAK., in HOOK, et BAK. Syn. Fil. p. 259 (1867); HARRINGT., in Journ. Linn. Soc. XVI. p. 29 (1877); BAK., in Journ. Bot. XXIII. p. 105 (1885); HENRY, List Pl. Formos. p. 113 (1896); DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 170 (1889), et in Engl. Bot. Jahrb. XXIX. p. 189 (1900); YABE, in Tokyo Bot. Mag. XVI. p. 48 (1902); MATSUM., Ind. Pl. Jap. I p. 316 (1904); MATSUM. et HAY., Enum. Pl. Formos. p. 573 (1906); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 347 (1912)

Atom. Jap. *Gezigezi-sida*

Leg. Ipse, Aug. 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Taiwan, Korea, China.

Note. The species is common in the southern part of Japan. In Yakusima it grows in wet places from the sea level up to about an altitude of 100 m.

Bryopteris Dickinsii, CHR., Ind. Fil. p. 262 (1906); MATH., in Journ. Linn. Soc. XXXIX. p. 361 (1911); MIY. et KUDO, Fl. Hokk. and Sagh. I. p. 12 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 55 (1931)

Syn. *Aspidium Dickinsii*, FR. et SAV., Enum. Pl. Jap. II. pp. 236, et 629 (1876)

Nephrodium Dickinsii, BAK., in Hook. Ic. Pl. p. 1659 (1886); MAK., in Tokyo Bot. Mag. XII. p. (87) (1898); MATSUM., Ind. Pl. Jap. I. p. 317 (1904)

Dryopteris okushiriensis, MIY. et KUDO, in Trans. Sapp. Nat. Hist. Soc. VII. p. 23 (1918)

Nom. Jap. *6-kuzyakusida*

Leg. Ipse, Jul. 18, 1928.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, China.

Note. The species is found as undergrowth in the laurisilvae. It has not yet been found in lands further south beyond Yakusima.

Bryopteris Eatoni, O. KUNTZE, Rev. Gen. Pl. II. p. 812 (1891); CHR., Ind. Fil. p. 262 (1906); MATH., in Journ. Linn. Soc. XXXIX. p. 361 (1911); HAY., Ic. Pl. Formos. IV. p. 150 (1914); MERR., Enum. Hainan Pl. p. 8 (1927); OGATA, Ic. Fil. Jap. II. t. 70 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 55 (1931)

Syn. *Nephrodium Eatoni*, BAK., in HOOK, et BAK. Syn. Fil. p. 276 (1867); YABE, in Tokyo Bot. Mag. XVI. p. 48 (1902); MATSUM., Ind. Pl. Jap. I. p. 317 (1904)

Nom. Jap. *Horakaguma*

Leg. Ipse, Aug. 11, 1928.

Bi*tr. Okinawa, Taiwan, Philippines, China.

Note. The species is found as undergrowth in the laurisilvae from the sea level up to about 400 m. This is not yet found in lands further north beyond Yakusima.

DBryopteris erythrosora***, O. KUNTZE, Rev. Gen. Pl. II. p. 812 (1891); NAK., Fl. Kor. II. p. 392 (1911); MATH., in Journ. Linn. Soc. XXXIX. p. 362 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 27 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 56 (1931)

Syn. *Aspidium erythrosorum*, EAT., in Perry, Narr. Exp. China II. p. 330 (Pl. Jap.) (1856); MIQ., in Ann. Mus. Bot. Lugd. Bat. HI. p. 178 (1867); FR. et SAV., Enum. Pl. Jap. II. p. 239 (1876); CHR., in Warb. Mons. I. p. 80 (1900);

Lastrea erythrosora, MOORE, Ind. Fil. p. 91 (1858)

Nephrodium erythrosorum, HOOK., Sp. Fil. IV. p. 120, t. 253 (1862); DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 173 (1899); KOM., Fl. Mansh. I. p. 120 (1901); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 348 (1912)

Aspidium Filix-Mas, var. *erythrosorum*, CHR., in Bull. Herb. Boiss. VII. p. 821 (1899)

Nephrodium Filix-Mas, RICH. var. *erythrosorum*, CHR.; MATSUM., Ind. PL Jap. 1. p. 319 (1904)

Norn. Jap. *Benisida*

Leg. Ipse, Jul. 2, 1924.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan. Bonins, Korea, Manchuria, Philippines, China.

Note. It grows as undergrowth from low altitudes up to about 700 m above sea level.

Dryopteris fluvialis, HAY., Ic. Pl. Formos. IV. p. 152 (1914); MAK. et NEM., Fl. Jap. ed. 2. p. 56 (1931)

Norn. Jap. *6ba-miyama-inuwarabi*

Leg. Ipse, Aug. 31, 1926.

Distr. Taiwan.

Note. In the lauri-aciculisilvae and the laurisilvae at about 600 m, the plant is found.

Dryopteris gracilescens, O. KUNTZE, Rev. Gen. Pl. II. p. 812 (1891); NAK., Fl. Kor. II. p. 395 (1911); MAK., in Journ. Jap. Bot. VI. p. 10 (1929); OGATA, Ic. Fil. Jap. HI. Pl. 120 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 56 (1931)

Syn. *Aspidium gracilescense*, BL., Enum. Pl. Jav. p. 155 (1828)

Lastera gracilescens, MOORE, Ind. Fil. p. 93 (1858)

Nephrodium gracilescens, HOOK., Sp. Fil. IV. p. 93 (1862), et HOOK., et BAK' Syn. Fil. p. 262 (1867)

Lastera hirsutipes, BEDD., Hand. Suppl. p. 85 (1892)

Nom. Jap. *Ko-hasigosida*

Leg. Ipse, Kosugidani, Mart. 17, 1927.

Distr. Honsyū, Sikoku, Kyūsyū, Okinawa, Korea.

Note. It grows on sunny and dry granite ground, sometimes along the road side from the sea level up to nearly 800m.

var. **glanduligerum**, MAK. in MAK. et NEM. Cat. Jap. Pl. Herb. Nat Hist. Dep. Tokyo Imp. Mus. p. 426 (1914), (ut *glanduliferum*) Fl. Jap. ed. 1. p. 1613 (1925), ed. 2. p. 57 (1931); MASAMUNE, Prel. Rep. Veg. Yak. p. 27 (1929);

Syn. *Aspidium granduligerum*, KUNTZE, in METT. Abh. Sebkenb. II. p. 370 (1858); LUERSS. in Engl. Bot. Jahrb. IV. p. 360 (1883); CHR., in Bull. Herb. Boiss. 2. sér. I. 1. p. 1015 (1901)

Aspidium angustifrons, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 178 (1867); FR. et SAV., Enum. Pl. Jap. II. p. 237 (1876)

Nephrodium glanduligerum, MAK., in Tokyo Bot. Mag. X. p. 58 (1896); MATSUM., Ind. Pl. Jap. I. p. 320 (1904)

Nom. Jap. *Hasigosida*

Leg. Ipse, Kosugidani, Jul. 9, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Amami-6sima, Okinawa, Taiwan.

Note. The fern grows from the submountain up to about 700 m above the sea level

Dryopteris gymnosora, C. CHR., Ind. Fil. p. 269 (1905) et (1906); MASAMUNE, Prei. Rep. Veg. Yak. p. 27 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 57 (1931)

Syn. *Nephrodium gymnosorum*, MAK., in Tokyo Bot. Mag. XIII. p. 64 (1899); MATSUM., Ind. Pl. Jap. I. p. 320 (1904)

Nom. Jap. *Nuka-itatisida*

Leg. Ipse, Kosugidani, Sept. 3. 1926.

Distr. HonsyG, Sikoku.

Note. The species grows as undergrowth in the *Cryptomeria* association of the lauri-aciculisilvae about an altitude of 700 m.

var. **indusiatum**, MAK. et NEM., Fl. Jap. ed. 2. p. 57 (1931)

Syn. *Nephrodium gymnosorum*, var. *indusiatum*, MAK., in Tokyo Bot. Mag. XIII. p. 65 (1899)

Nom. Jap. *Nuka-itatisida-modoki*

Leg. Ipse, Jul. 1928.

Distr. Sikoku, Taiwan.

Note. The variety has its southern limit of habitat in this island. And it grows as undergrowth in forests of *Cryptomeria*, and other evergreen broad-leaved trees from 400 m to 700 m above the sea level.

Dryopteris hirsutisquama, HAY., Ic. Pl. Formos. V. p. 277 (18151; MAK. et NEM., Fl. Jap. ed. 2. p. 57 (1931)

Nom. Jap. *Taiuan-harigane-warabi*

Leg. Ipse, Jul. 21, 1927.

Bitr. Taiwan.

Note. It is found in the lauri-aciculisilvae at an altitude of about 700 m. above the level of the sea. This species is not yet known to be found in lands further north than this island.

Dryopteris Kodamai, HAY., Ic. Pl. Formos. IV. p. 156, f. 97 [1914]; MAK. et NEM., Fl. Jap. ed. 2. p. 58 (1931)

Nom. Jap. *Ukimi-sida*

Leg. Ipse, Aug. 5, 1924.

&*tr. Taiwan.

Note. In the lower part of the island or in the lauri-aciculisilvae it grows as undergrowth. This species also has its northern limit in this island.

Eryopteris lacwa, O. KUNTZE, Rev. Gen. Pl. II. p. 813 (1891); NAK., Fl. Kor. II. p. 391 (1911); MATH., in Journ. Linn. Soc. XXXIX. p. 364 (1911); MAK. et NEM., Fl. Jap. ed. 2. p. 59 (1931)

Syn. *Polypodium lacerum*, THUNB., Fl. Jap. p. 337 (1784)

Aspidium lacerum, Sw., Schrad. Journ. 1800* p. 39 (1801), et Syn. Fil. p. 55 (1806); WILLD., Sp. Pl. V. p. 265 (1810); KUNZE, Pterid. Jap. p. 572 (1848); A. GRAY., Pl. Jap. p. 329 (1859); METT., in Ann. Mus. Bot. Lugd. Bat. I. p. 228 (1864); FR. et SAV. Enum. Pl. Jap. II. p. 238 (1876); H. CHR., in Bull. Herb. Boiss, 2. sér. II. p. 828 (1902)

Polystichum lacerum, PRESL, Epim. p. 56 (1849)

Lastrea lacera, EAT., Proc. Am. Acad. IV. p. 110 (1858)

Nephrodium lacerum, BAK., in HOOK, et BAK. Syn. Fil. p. 273 (1867); DIELS. in ENGL. U. PR ANT. Nat. Pflv. I. iv. p. 173 (1899);

Aspidium Filixmas, RICH. var. *lacerum*, CHR., in Bull. Herb. Boiss. VII. p. 821 (1899)

Nephrodium Filix-mas, RICH. var. *laccrum*, MATSUM., Ind. Pl. Jap. I. p. 318 (1904)

Nom. Jap. Kumawarabi

Leg. Ipse, Aug. 9, 1922.

Distr. Honsyū, Sikoku, Kyūsyū, Korea, China.

Note. It grows as undergrowth in the lauri-aciculisilvae. This species has not yet been found in lands further south than Yakusima.

Dryopteris laxa, C. CHR., Ind. Fil. p. 274 (1906); MATH., in Journ. Linn. Soc. XXXIX. p. 364 1911 ^; MAK. et NEM., Fl. Jap. ed. 2. p. 59 (1931)

Syn. *Aspidium laxum*, FR. et SAV., Enum. Pl. Jap. II. pp. 237, 631 (1876); MATSUM., Ind. Pl. Jap. I. p. 287 (1904)

Nephrodium laxum, DIESL., in Engl. Bot. Jahrb. XXIX. p. 189 (1900)

Nom. Jap. Yawara-sida

Leg. Ipse, Jul. 25, 1924.

Distr. Honsyū, Sikoku, Kyūsyū, China.

Note. The species occurs as undergrowth in the laurisilvae in the lower part of the island. It is not yet known to be found in lands further south than Yakusima.

Dryopteris lepiger, O. KUNTZE, Rev. Gen. Pl. II. p. 813 (1891); MATH., in Journ. Linn. Soc. XXXIX. p. 364 ^1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 27 (1929); NAK., in Bull. Biogeogr. Soc. Jap. I. p. 251 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 60 (1931)

Syn. *Nephrodium lepigerum*, BAK., in HOOK, et BAK. Syn. Fil. p. 284 (1867)

Aspidium lepigerum, BAK.; CHR., in WARE. Mons. I. p. 82 (1900); MATSUM., Ind. Pl. Jap. I. p. 288 (1901); MATSUM. et HAY., Enum. Pl. Formos. p. 579 (1906)

Nom. Jap. Kinmo-inode

Leg. Ipse, Jul. 21, 1924.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Bonins.

Note. The species is found in the lauri-aciculisilvae. It is rather common in Eastern Asia.

Dryopteris leptorhachia, HAY., Ic. Pl. Formos. IV. p. 162 (1914); MAK. et NEM., Fl. Jap. ed. 2. p. 60 (1931);

Nom. Jap. Ho'rai-himewarabi

Leg. Ipse, Aug. 1928.

Distr. Taiwan.

Note. The fern grows as undergrowth in the wet ground near streamlets in the Cryptomeria forests, about 700 m above the sea level. This species is not yet found in lands further north than this island.

Dryopteris ligulata, O. KUNTZE, Rev. Gen. Pl. II. p. 813 (1891); ROSENB., Malay. Fern, p. 1W (1909); KOIDZ., in Tokyo Bot. Mag. XXXVIII. p. 112 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 27 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 60 (1931)

Syn. *Lastrea ligulata*, J. SMITH, in Journ. Bot. III. p. 412 (1811) nomen; PRESL., Epim. Bot. p. 35 (1849)

Lastrea Philippine, PRESL., Epim. Bot. p. 36 (1849);

Nephrodium ligulatum, HOOK., in HOOK, et BAK. Syn. Fil. p. 264 (1867)

Dryopteris immersa, O. KUNTZE, var. *ligulata*, CHR., in Phil. Journ. Sci. II. C. p. 208 (1907)

Nom. Jap. Oibukisida

Leg. Ipse, Jul. 19, 1928.

Wtfr. Sikoku, Kyūsyū, Amami-6sima. Okinawa, Taiwan, Philippines, Malay, India.

Note. The fern grows on somewhat wet ground in the laurisilvae. This species is common in the southern parts of Japan.

Dryopteris mingetsuensis, HAY., Ic. Pl. Formos. V. p. 281 (1915!; MAK. et NEM., Fl. Jap. ed. 2. p. 61 (1931)

Nom. Jap. *Mingetu-sida*

Leg. A. KIMURA! Aug. 1922.

Dittr. Taiwan.

Note. We can find this Formosan species in this island, as undergrowth in the mixed forests of Conifers and laurigenous trees, at about 700 m above the sea level. The species has its northern limit of habitat in this island.

Dryopteris mutica, C. CHR., Ind. Fil. p. 279 (1905) et (1906); MORI, Enum. Pl. Cor. p. 11 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 27 (1929); MIY. et KUDO, Fl. Hokk. and Sagh. I. p. 16 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 62 (1931)

Syn. *Aspidimut muticum*, FR. et SAV., Enum. Pl. Jap. II. p. 240 (1876). et p. 635 (1879); MATSUM., Ind. Pl. Jap. I. p. 288 (1904)

Nom. Jap. *Sinobu-kaguma*

Leg. Ipse, Jul. 18, 1928.

Distr. Southern Kuriles, Yezo, Honsyū, Sikoku, Kyūsyū, Korea.

Note. The fern grows as undergrowth with mosses in the lauri-acicuhsilvae or in the aciculisilvae, very often on rocks, from 1000 m to 1700 m above the level of the sea. The species has its southern limit of habitat in this island.

Dryopteris ochthodes, C. CHR., Ind. Fil. p. 280 (1905) et (1906.; NAK., Fl. Kor. II. p. 394 (1911); MATH., in Journ. Linn. Sci. XXXIX. p. 365 (1911); HAY., Ic. Pl. Formos. IV. p. 167, f. 107 (1914); MERRILL, Enum. Hainan, p. 9 (1915); MASAMUNE, Prel. Rep. Veg. Yak. p. 28 (1929); OGATA, Ic. Fl. Jap. III. Pl. 125 (1930); MAK. et NEM., Fl. Jap. ed. 2, p. 62 (1931)

Syn. *Aspidium ochthodes*, KUNZE, in Linn. XXIV. p. 282 U851i

Lastrea ochthodes, MOORE, Ind. Fil. p. 98 (1858)

Nephrodium ochthodes, HOOK., Sp. Fil. IV. p. 109 118621

Nephrodium multijugum, BAK., Syn. Fil. p. 291 (1867;

Nephrodium punctolum, BAK., Syn. Fil. p. 503 (1874)

Nephrodium prolixum, (non DESV.) MATSUM., Ind. Pl. Jap. I. p. 288 U li»W

Nom. Jap. *Ibuki-sida*

Leg. A. KIMURA! Aug. 6, 1922.

Diatr. Honsyū, Sikoku, Kyūsyū, Okinawa, Taiwan, Korea, China, Malay, India.

Note. The species is rather common in southern Japan.

Dryopteris oligophlebia, (BAK.) C. CHR., Ind. Fil. p. 280 ; 1906. et (1906.; NAK., Fl. Kor. II. p. 394 (1911); MATH., in Journ. Linn. Soc. XXXIX. p. 365 ,1911); MASAMUNE Prel. Rep. Veg. Yak. p. 28 .1929.; MAK. et NEM., FL Jap. ed. 2. p. 6J (1931)

Syn. *Nephrodium setigerum*, inon (BAK.) in H(X)K. et BAK., Syn. Fil. p. 284 iU27>; HENRY, List Pl. Formos. p. 113 11896'

Aspidium uliginosum, KUNTZE, in Linn. XX. p. 9 • 1847 •; MBTT, in Ann. Mus. Bot. Lugd. Bat I. p. 229 a864); MIQ., in id. III. p. 178 (1867;; FIL et SAV., Enum. PL Jap. IL p. 241 (1876. ; H. CHR., Farnk. Erd. p. 265 (1897,

Nephrodium oligophlebium, BAK., in Journ. Bot. IV. p. 291 (1875); H. CHR., in Bull. Herb. Boiss. IV. p. 671 (1896)

Aspidium setigerum, (non KUHN.) LUERSS., in Engl. Bot. Jahrb. IV. p. 360 (1883)

Aspidium oligophlebium, (BAK.) CHRIST, in WARB. Mons. I. p. 81 (1900), et in Bull. Herb. Boiss. 2. sér. IV. p. 616 (1900); MATSUM., Ind. Pl. Jap. I. p. 288 '1904'; MATSUM. et HAY., Enum. Pl. Formos. p. 580 (1905)

Norn. Jap. Himewarabi

Leg. Ipse, Aug. 20, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Amami-Ōsima, Okinawa, Taiwan, Bonins, Korea, China, Malay, Polynesia.

Note. It grows on somewhat sunny ground in the lauri-aciculisilvae, and is common in the Far East.

Dryopteris pirasitica, O. KUNTZE, Rev. Gen. Pl. II. p. 811 (1891); HAY., Mat. Fl. Formos. p. 421 (1911); NAK., Fl. Kor. II. p. 394 (1911), et in Bull. Biogeogr. I. p. 251 (1930); MATH., in Journ. Linn. Soc. XXXIX. p. 365 (1911); MERR., Enum. Hainan Pl. p. 9 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 28 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 64 (1931); OGATA, Ic. Fil. Jap. IV. Pl. 174 (1931)

Syn. Polypodium parasiticum, LINN., Sp. Pl. ed. I. p. 1090 (1753)

Aspidium parasiticum, SW., in Schrad. Journ. 1800-° p. 35 (1801); H. CHR., Farnk. Erd. p. 243 '1897'; CHR., in WARB. Mons. I. p. 78 (1900)

Aspidium molle, SW., in Schrad. Journ. 1800-' p. 34 (1801); FR. et SAV., Enum. Pl. Jap. II. p. 242 (1876)

Nephrodium molle, R. BR., Prodr. Fl. Nor. Holl. p. 149 (1810); BAK., in Journ. Bot. XXIII. p. 105 (1885); YABE, in Tokyo Bot. Mag. XVI. p. 48 (1902); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 349 (1912)

Nephrodium parasiticum, DESV., Prodr. Fam. Foug. p. 260 (1827); MATSUM., Ind. Pl. Jap. I. 322 (1904)

Nom Jap. Kehosida*

Leg. Ipse, ca. Issō, Mart. 21, 1923.

Distr. Kyūsyū, Amami-Ōsima, Okinawa, Taiwan, Bonins, Korea, China, India, Australia, New-Zealand, Tropical Africa.

Note. The fern grows in the lauri-aciculisilvae and in the laurisilvae, from a low altitude to about 700 m above the sea level. The species is common in southern Japan.

Dryopteris Sabaei, C. CHR., Ind. Fil. p. 290 (1905) et '1906'; MATH., in Journ. Linn. Soc. XXXIX. p. 367 (1911); TAKEDA, in Tokyo Bot. Mag. XXIV. p. 319 (1910); KODAMA, in MATSUM. Ic. Pl. Koishik. I. pp. 137, 138, Pl. LXIX. (1913); MASAMUNE, Prel. Rep. Veg. Yak. p. 28 (1929); OGATA, Ic. Fil. Jap. I. Pl. 24 (1929); MIY. et KUDO, Fl. Hokk. and Sagh. I. p. 16 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 66 (1931)

Syn. Aspidium Salad, FR. et SAV., Enum. Pl. Jap. II. p. 259 (1876), et p. 632 (1879)

Nephrodium Filix-mas, RICH. var. *Sabaei*, CHR., in Bull. Herb. Boiss. VII. p. 822 (1899); MATSUM., Ind. Pl. Jap. I. pp. 319, 384 (1904)

Norn. Jap. Miyama-itatisida

Leg. Ipse, Jun. 11, 1928.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Okinawa, China.

Note. The fern occurs as undergrowth in the forests of laurisilvae and in the lauri-aciculisilvae. The species is common in the mountain regions of Eastern Asia.

Dryopteris spirsa, O. KUNTZE, Rev. Gen. PL II. p. 813 (1891); MATH., in Journ. Linn. Soc. XXXIX. p. 367 (1911); HAY., Mat. FL Formos. p. 422 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 28 (1929); MAK. et NAM., FL Jap. ed. 2. p. 68 (1931)
 ' *Syn. Nephrodium spar sum*, DON., Prodr. FL Nepal. VI. (1925); HOOK, et BAK., Syn. Fil. p. 276 (1867); DIELS, in FL Cent. Chin. p. 191 (1900)
Aspidium sparsum, SPR., Syst. IV. p. 106 (1827); CHR., Farnk. Erd. p. 262 (1897)
Lastrea sparsa, MOORE, Ind. Fil. pp. 87 et 104 (1858)
Polystichum spar sum, KEYS, Pol. Cyath. Herb. Bung. pp. 43, 104 (1873)
 Norn. Jap. *Nagabanoitatisida*
 • Leg. Ipse, Jun. 8, 1928.
 Distr. Honsyu, Sikoku, Kyûsyu," Amami-Ôsima, Okinawa, Taiwan, China, India, Ceylon, Malay.
 Note. The fern grows on the trunks of laurigneous trees or in the lauri-aciculisilvae, and it is rather rare in the island.

Dryopteris subexaltata, CHR., Ind. Fil. p. 295 (1905); MATH., in Journ. Linn. Soc. XXXIX. p. 367 (1911); OGATA, Ic. Fil. Jap. II. PL 75 (1929); MAK. et NEM., FL Jap. ed. 2. p. 68 (1931)
Syn. Aspidium subexaltatum, CHRIST, in Bull. Herb. Boiss. 2. sér. IV. p. 616 (1904)
 Abut. Jap. *Inutama-sida*
 Leg. Ipse, Onoaida, Mart. 16, 1930.
 Distr. Okinawa, Taiwan.
 Note. The fern grows in the submountain or in the laurigneous forests, and the species has its northern limit in this island.

Dryopteris sublaxa, HAY., Ic. PL Formos. IV. p. 183, f. 121 (1914); MASAMUNE, Prel. Rep. Veg. Yak. p. 28 (1929); MAK. et NAM., FL Jap. ed. 2. p. 69 (1931);
Syn. Dryopteris arisanensis, ROSENB., in Hedwig. LXI. p. 340 (1915)
 Nom. Jap. *Sima-yawarasida*
 Leg. Ipse, Kosugidani, Mart. 18, 1923.
 Distr. Taiwan.
 Note. In the Cryptomeria forest, the fern grows as undergrowth. The species is not known to be found in lands further north than this island.

Dryopteris subtripinnata, O. KUNTZE, Rev. Gen. PL II. p. 811 (1891); MATH., in Journ. Linn. Soc. XXXIX. p. 368 (1911); NAK., FL Kor. II. p. 390 (1911); YAMAZUTA, List Manch. PL p. 4 (1930); MIY. et KUDO, FL Hokk. and Sagh. I. p. 14 (1930); MAK. et NEM., FL Jap. ed. 2. p. 69 (1931)
Syn. Aspidium subtripinnatum, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 179 (1867)
Nephrodium chinense, BAK., in HOOK, et BAK. Syn. Fil. p. 278 (1867)
Nephrodium subtripinnatum, BAK., in HOOK, et BAK., Syn. Fil. p. 455 (1868)
 Nom. Jap. *Hosobano-itatisida*
 Leg. Ipse, Aug. 13, 1924.
 " Distr. Yezo, Honsyu, Kyûsyu, Korea, Manchuria, China.
 Note. The fern grows as undergrowth in the lauri-aciculisilvae about 800 m above the sea level. The species is rather common in Japan, but is not yet reported in Ryûkyû and Taiwan.

Dryopteris totta, (WILLD.) MASAMUNE, comb. nov.

Syn. Polypodium tottum, WILLD., Sp. Pl. V. p. 201 (1810)

Gymnogramme Totta, SCHL., Adumb. p. 15. t. 6 (1825); BL., Fl. Jav., I. t. 38, p. 90 (1828); HOOK_p, Sp. Fil. V. p. 138 (1865); HOOK, et BAK., Syn. Fil. p. 376 '1868'; FR. et SAV_r, Enum. Pl. Jap. II. p. 247 (1876)

Polypodium africanum, DESV., Prodr. Fam. Foug. p. 239 (1827)

Gymnogramma apidioides, BL., Enum. Pl. Jav. I. p. 112 (1828)

Grammitis Blumeana, PRESL., Tent. Pterid. p. 209 (1836)

Leptogramma Lovei, J. SM., in Journ. Bot. IV. p. 52 (1841)

Leptogramma totta, J. SM., in HOOK. Journ. Bot. IV. p. 52 (1841), et Fern. Brit. and Foreign, p. 24 (1896); NAK., in Tokyo Bot. Mag. XLV. p. 104 (1931)

Phegopteris totta, METT., Pheg. u. Asp. p. 18, n. 31 (1858), et in Ann. Mus. Bot. Lugd. Bat. I. p. 223 (1864); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 176 (1867); MAK., in Tokyo Bot. Mag. IX. p. 246 (1895); CHR_r, Farnk. Erd. p. 272 (1897); et in WARB. Mons. I. p. 82 (1900)

Aspidium totta, ENGL., Hochgebirgsf. Trop. Afr. p. 99 (1892)

Nephrodium Totta, DIELS, in ENGL. u. PR ANT. Nat. Pfl.-fam. I. iv. p. 170 (1898); MATSUM., Ind. Pl. Jap. I. p. 326 (1904)

Dryopteris africana, C. CHR., Ind. Fil. p. 251 (1906); NAK., Fl. Kor. II. p. 394 (1911); et Veg. Isl. Quelp. no. 11 (1914); MAK. et NEM., Fl. Jap. ed. 1. p. 1608 (1925), et ed. 2. p. 51 (1931); MASAMUNE, Prel. Rep. Veg. Yak. p. 27 (1929); OGATA, Ic. Fil. Jap. I. Pl. 20 (1928); MIY. et KUDO, Fl. Hokk. and Sagh. I. p. 21 (1930)

Leptogramma africana. (DESV.. NAK. apud MORI, Enum. Pl. Cor. p. 13 (1922)

Rom. Jap. Mizosida

Ley. Ipse, Jul. 16. 1928.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-dsima, Okinawa, Taiwan, Korea, China, India.

Rote. This species grows from a low altitude up to about 700 m above the level of the sea, and it is rather common in southern Japan.

Dryopteris unita, O. KUNTZE, Rev. Gen. Pl. II. p. 811 (1891); MASAMUNE, Prel. Rep. Veg. Yak. p. 28 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 71 (1931)

Syn. Polypodium unit urn, LINN., Syst. Nat. ed. 10. II. p. 1326 (1759)

Polystichum unitum, GAUD., Freycinet. Voy. Bot. p. 325 (1827)

Nephrodium unitum, BORY, Bel. Voy. Bot. II. p. 61 (1833); HOOK, et BAK., Syn. Fil. p. 289 (1867); DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 178 (1899); MATSUM., Ind. Pl. Jap. I. p. 327 (1904); MATSUM. et HAY., Enum. Pl. Formos. p. 578 (1906); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 348 (1912);

Aspidium unitum, SIEB.; METT., Pheg. u. Asp. p. 107 n. 257 (1858)

Abut. Jap. Tctu-hosida

Lty. Y. KUDO! Aug. 1907.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Ōsima, Okinawa, Taiwan, China, India.

Rote. I have not yet found this species in the island, but Dr. KUDO told me that he had collected the species in the island. The species is rather common in the southern lands of Japan.

Dryopteris Yabei, HAY., Mat. Fl. Formos. p. 424 (1911); MAK. et NEM., Fl. Jap. ed. 2. p. 72 (1931);

Norn. Jap. *Itati-sida-tnodoki***Leg.** Ipse, Jul. 25, 1924.**Distr.** Taiwan.**Note.** The species occurs rarely in the lauri-aciculisilvae about 400 m above the sea level. It has its northern limit in this island.**Dryopteris yaku-montana**, MASAMUNE, in Journ. Trop. Agr. IV. p. 76 (1932)**Norn. Jap. *Yakusima-syorima*****leg.** Ipse, Aug. 31, 1926.**Note.** On sandy soil formed by the crumbling of granite, from a high altitude of about 1700 m up to almost the top of Yaegatake.**Hypodematium**, KUNZE, in Flora 1833- p. 690 (1833)**Hypodematium crenatum**, KUHN., V. Deck. Reis. III. Bot. p. 37 (1879); MASAMUNE, Prel. Rep. Veg. Yak. p. 29 (1929)**Syn.** *Polypodium crenatum*, FORSK. Fl. Aegypt. Arab. p. 185 (1775)*Nephrodium hirsutum*, DON, Prodr. Fl. Nep. p. 6 (1825)*Cystopteris odorata*, DESV., Prodr. Foug. p. 264 (1827)*Aspidium eriocarpum*, WALL., List n. 342 (1828)*Lastrea eriocarpa*, PRESL, Tent. Pt. p. 77 (1836)*Nephrodium eriocarpum*, DECNE, Arch. Mus. II. p. 185 (1841)*Nephrodium odoratum*, BAK., in HOOK, et BAK. Syn. Fil. p. 280 (1867)*Aspidium crenatum*, KUHN, Fil. Afr. p. 129 (1868)*Lastrea crenata*, BEDD., Fern. Br. Ind. Supp. p. 18 (1876)*Nephrodium crenatum*, BAK., Fl. Maur. p. 497 (1877); DUNN et TUTCH., Fl.

Kwangt. and Hongk. p. 348 (1912)

Dryopteris crenata, O. KUNZE, Rev. Gen. Pl. II. p. 811 (1891); MATH., in

Journ. Linn. Soc. XXXIX. p. 361 (1911); HAY., Ic. PL Formos. IV. p. 149.

f. 88, A-B (1914); MAK. et NEM., Fl. Jap. ed. 2. p. 54 (1931)

Norn. Jap. *Kinmd-voarabi***Leg.** Ipse, Inter Ambō et Kosugidani, Jul. 1928.**Distr.** Honsyfi, Sikoku, Taiwan, China, India.**Note.** In the island the fern grows from the sea level up to about 500 m, and very often it is found as undergrowth in the laurisilvae. The species is common in the Far East.**Aspidium**, SWARTZ, in Schrad. Journ. 1800 p.

29 (1801) p.p.; DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 183 (1899)

Syn. *Deparia*, HOOK, et GREIV., Ic. Fil. t. 154 (1829)*Dictyopteris*, PRESL, Tent. Pt. p. 194 (1836)*Pleocnemia*, PRESL, Tent. Pt. p. 183 (1836)*Sagenia*, PRESL, Tent. Pt. p. 86 (1836)*Bathmium*, LINK, Fil. Sp. pp. 99, 144 (1841)*Cardiochlaena*, FÉE, Gen. Fil. p. 314 (1850-52)*Dryomenis*, FÉE, Gen. Fil. p. 225 (1850-52)*Podopeltis*, FÉE, Gen. Fil. p. 286 (1850-52)*Cionidium*, MOORE, Gard. Comp. p. 143 (1852), et in Proc. Linn. Soc. II. p. 212

(1854)

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Dictyocll, MOORE, Gard. Chron. p. 854 (1855). et **Ind.** Fil. **LIX.** (1857)

- Aspidium Griffithii*, DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 186, f. 96 G. (1899); MATSUM., Ind. PL Jap. I. p. 287 (1904); MATSUM. et HAY., Enum. PL Formos. p. 579 (1906); CHR., Ind. Fil. p. 76 (1906); MATH., in Journ. Linn. Soc. XXXIX. p. 343 (1911); OGATA, Ic. Fil. Jap. I. PL 6 (1928); MASAMUNE, Prel. Rep. Veg. Yak. p. 23 (1929); MAK. et NEM., Fl. Jap. ed. 2. D. 20 (1931)
- Syn.* *Dictyocline Griffithii*, MOORE, Ind. Fil. LIX. (1857)
Hemionitis Wilfordii, HOOK., Fil. Exot. t. 93 (1859)
Hemionitis Griffithii, HOOK. f. et THOM.; HOOK. f., Sp. Fil. V. p. 192 (1864); HOOK. et BAK., Syn. Fil. p. 399 (1868); BAK., in Journ. Bot. XXIII. p. 107 (1885); CHRIST, in Bull. Herb. Boiss. IV. p. 674 (1896); HENRY, List PL Formos. p. 116 (1896)
Dictyocline Wilfordii, J. SM., Hist. Fil. p. 149 (1875)
Hemionitis Griffithii, HOOK. f. et THOM. var. *pimata*, MAK., in Tokyo Bot. Mag. X. p. 286 (1896)
- Norn. Jap. Amisida*
Leg. Ipse, ca. Onoaida, Jul. 1928.
Distr. Honsyu, Sikoku, Kyūsyū, Amami-Ōsima, Taiwan, China.
Note. The species is rather common in the Far East. It occurs in the laurisilvae or in the lauri-aciculisilvae at a low altitude, up as far as 600 m.

- Polystichum*, ROTH, Röm. Mag. II. 1. p. 106 (1799); BERNH., in Schrad. Journ. p. 298 (1799); ROTH, Tent. FL Germ. III. p. 69 (1800); DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 189 (1899)
- Syn.* *Hypopeltis*, MICHAUX, FL Bor. Am. II. p. 226 (1803)
Cyrtomium, PRESL, Tent. Pt. p. 86 (1836)
Ptilopteris, HANCE, in Journ. Bot. XII. p. 138 (1884)
Adenoderris, J. SMITH, Hist. Fil. p. 222 (1875)

- Polystichum aculeatum*, SCHOTT. var. *japonicum*, CHRIST, in Ber. Schweiz. Bot. Ges. p. 3. (1893); NAK., FL Kor. II. p. 398 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 31 (1929); MAK. et NEM., FL Jap. ed. 2. p. 97 (1931)
- Syn.* *Polystichum aculeatum*, ROTH; MATSUM. et HAY., Enum. PL Formos. p. 581 (1906) p.p.
- Nom. Jap. Inode*
Leg. Ipse, Aug. 3, 1924.
Distr. Honsyu, Sikoku, Kyūsyū, Taiwan, Korea.
Note. The fern abundantly grows in the Cryptomeria forest from 700 m to 900 m above the sea level. The species is widely distributed in southern Japan.

- Polystichum amabile*, (BL.) J. SMITH, Ferns. Br. and For. p. 152 (1866), et p. 152 (1896); DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 193 (1899); MATSUM., Ind. PL Jap. I. p. 340 (1904); COPEL., Polyp. Philipp. p. 17 (1905J); MATSUM. et HAY., Enum. PL Formos. p. 582 (1906); MATH., in Journ. Linn. Soc. XXXIX. p. 385 (1911); MAK. et NEM., FL Jap. ed. 1. p. 1655 (1925), et ed. 2. p. 98 (1931); MASAMUNE, Prel. Rep. Veg. Yak. p. 32 (1929)
- Syn.* *Aspidium amabile*, BL., Enum. PL Jav. p. 165 (1828); HOOK., Sp. Fil. IV. p. 25, t. 225 (1862); METT., in Ann. Mus. Bot. Lugd. Bat. I. p. 227 (1864); HOOK. et BAK., Syn. Fil. p. 254 (1867); FR. et SAV., Enum. FL Jap. II. p. 232 (1876); HARRINGT., in Journ. Linn. Soc. XVI. p. 29 (1877); BAK., in Journ. Bot. XXIII. p. 105 (1885); MAK., in Tokyo Bot. Mag. X. p. 286 (1896); HENRY, List PL Formos. p. 113 (1896); CHR., in Warb. Mons. I. p. 78

(1900); COPEL., Polyp. Phiiipp. p. 17 (1905); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 345 (1912)

Polystichum rhomboideum, SCHOTT., Gen. Fil. ad t. 9 (1834)

Lastrea amabilis, MOORE, Ind. Fil. p. 85 (1858)

Dryopteris amabilis, O. KUNTZE, Rev. Gen. PL II. p. 812 (1891)

Polystichum aristatum, (non PRESL) MORI, Enum. Pl. Cor. p. 16 (1922)

Norn. Jap. Kana-warabi

Leg. Ipse, Aug. 5 1924.

Diatr. Honsyfi, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China, Philippines. Java.

Note. The fern grows as undergrowth in forests from nearly the sea level up to about 800 m. It is rather common in southern Japan.

Polystichum aristatum, PRESL, Tent. Pterid. p. 83 (1836); MATSUM., Ind. Pl. Jap. I. p. 341 (1904); COPEL., Polyp. Phiiipp. p. 17 (1905); MATSUM. et HAY., Enum. Pl. Formos. p. 582 (1906); MATH., in Journ: Linn. Soc. XXXIX. p. 355 (1911); NAK., Fl. Kor. II. p. 400 (1911); MASAMUNE Prel. Rep. Veg. Yak. p. 32 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 98 (1931)

Syn. *Polypodium aristatum*, FORST, Fl. Ins. Aust. Prodr. p. 82 (1786)

Aspidium aristatum, Sw., in Schrad. Journ. 1800². p. 37 (1801); HOOK, et BAK., Syn. Fil. p. 255 (1868); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 346 (1912)[^]

Nephrodium aristatum, PRESL, Pt. Relid. Haenk. I. p. 37 (1825)

Lastrea aristata, MOORE, Ind. Fil. p. 85 (1858)

Dryopteris aristata, O. KUNTZE, Rev. Gen. Pl. II. p. 812 (1891)

Norn. Jap. Hosoba-kanawarabi

Leg. Ipse, Jul. 14, 1922.

Dirtr. Honsyfi, Kyûsyû, Tanegasima, Amami-6sima, Taiwan, Korea, China, Philippines.

Note. The species is found as undergrowth in the laurisilvae or in the lauriculisilvae, and it is rather common in the southern parts of Japan.

Polystichum auriculatum, PRESL, Tent. Pterid. p. 83 (1836); BEDD., Fern. South. Ind. p. 41. t. 120 (1863); DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 189 (1899), et Fl. Cent. Chin. p. 192 (1900); COPEL., Polyp. Phiiipp. p. 16 (1905); MATSUM. et HAY., Enum. PL Formos. p. 583 (1906); MATH., in Journ. Linn. Soc. XXXIX. p. 385 (1911); MAK. et NEM., Fl. Jap. ed. 2. p. 99 (1931)

Syn. *Polypodium auriculatum*, LINN., Sp. Pl. ed. 1. p. 1088 (1753)

Aspidium auriculatum, SW., Schrad. Journ. 1800². p. 31 (1801); HOOK, et BAK., Syn. Fil. p. 251 (1867)

Nephrodium auriculatum, RICH., Sert. Astrol. XLIV. (1834)

Dryopteris auriculata, O. KUNTZE, Rev. Gen. PL II. p. 812 (1891)

Norn. Jap. Taiwan-nokogiri-sida

Leg. Ipse, Onoaida, Jul. 1. 1928.

Diatr. Taiwan, Philippines, China, India.

Note. It grows in the laurisilvae as undergrowth. The species has not yet been known to be found in lands further north than Yakusima.

Polystichum falcatum, DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. L. iv. p. 194 (1899); MAK. et NEM., FL Jap. ed. 2. p. 100 (1931)

var. **genuine**, MAK., in Tokyo Bot. Mag. X. p. (212) (1896); MATSUM., Ind. PL Jap. I. p. 342 (1904); MASAMUNE, Prel. Rep. Veg. Yak. p. 32 (1929); YAMAZUTA, List Manch. PL p. 6 (1930)

Nom. Jap. *Oni-yabusotetu*

Leg. Ipse, Kusugawa, Jun. 14, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Ôsima, Taiwan, Bonins, Manchuria.

Note. The fern grows near the seashore, on lowlands, or on rocky places.

Polystichum lepidocaulon, J. SMITH, Fern. Brit. and Foreign, p. 286 (1896); DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 190 (1899[^]); MATSUM., Ind. PL Jap. I. p. 343 (1904); MATSUM. et HAY., Enum. PL Formos. p. 584 (1906); NAK., Fl. Kor. II. p. 400 (1911); MAK. et NEM., Fl. Jap. ed. 1. p. 1568 (1925), et ed. 2. p. 102 (1931)

Syn. *Aspidium lepidocaulon*, HOOK., Sp. Fil. IV. p. 12. t. 217 (1862); METT., in Ann. Mus. Bot. Lugd. Bat. I. p. 226 (1864[^]); FR. et SAV., Enum. PL Jap. II. p. 230 (1876J)

Nom. Jap. *Orizuru-sida*

Leg. Ipse, Nagata, Aug. 21, 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-Ôsima, Taiwan, Korea.

Note. The fern grows as undergrowth in the laurisilvae, mostly at the low altitudes. Sometimes it grows on rocks. The species is common in the southern parts of Japan.

Polystichum Tachiroanum, TAG AW A., in Act. Phit. Geogr. I. p. 29 (1932)

Syn. *Polypodium Tachiroanum*, LUERS., in Engl. Bot. Jahrb. IV. p. 362 (1883)

Polystichum integripinnum, HAY., Ic. PL Formos. IV. p. 196 r 1914)

Cyrtomium integripinnum, COPL., in Philip. Journ. Sc. XXXVI. p. 136 (1929)

Cyrtomium Tachiroanum, CHR., in Amer. Fern. Journ. XX. p. 45 (1930)

Nom. Jap. *Hosoba-yabu-sotetu*

Leg. Ipse, Onoaida, 1928.

Distr. Kyûsyû, Okinawa.

Note. The species occurs rarely in the laurisilvae as undergrowth and is rare in southern Japan.

Polystichum Thunbergii, KOIDZ., in Tokyo Bot. Mag. XXXVIII. p. 106 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 32 (1929)

Syn. *Polypodium setosum*, THUNB., Fl. Jap. p. 337 (1784;

Aspidium setosum, SWARTZ, Syn. Fil. p. 56 (1806); SPRENG., Syst. Veget. IV. p. 108 (1827); KUNZE, in Bot. Zeit. p. 572 (1848;

Aspidium varium, (non SW.) FR. et SAV., Enum. PL Jap. II. p. 233 (1876); CHR., in Bull. Herb. Boiss. 2. sér. I. p. 1015 (1901); KOM., Fl. Mansh. I. p. 130 (1901)

Polystichum varium, (non PRESLJ MATSUM., Ind. PL Jap. I. p. 344 (1904 ; MATH., in Journ. Linn. Soc. XXXIX. p. 388 (1911); NAK., Fl. Kor. II. p. 399 (1911); MAK. et NEM., Fl. Jap. ed. 2. p. 104 '193D

Nom. Jap. *Itati-sida*

Leg. Ipse, Jul. 13, 1922.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Ôsima, Taiwan, Korea, Manchuria, China.

Note. This is a common species in Japan. In Yakusima it grows in the lauriculisilvae or in the laurisilvae from the sea level up to 900 m.

Leptochilus, KAULFUSS, Enum. Fil. p. 147 (1824)

Syn. *Bolbitis*, SCHOTT, Gen. Fil. t. 14 (1834)

Gymnopteris, PRESL, Tent. Pterid. p. 244 (1836); DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 198 (1899)

Campium, PRESL, Tent. Pt. p. 238 (1836)

Foecilopteris, PRESL, Tent. Pt. p. 241 (1836)

Cyrtogonium, J. SM., in Journ. Bot. III. p. 402 (184D, et IV. p. 154 (1842)

Heteronevron, FEE, Hist. Acrost. pp. 20, 91 (18451)

Cheilolepton, FEE, Hist. Acrost. p. 19 (1845)

Dendroglossa, PRESL, Epim. Bot. p. 149 (1849)

Anapausia, PRESL, Epim. Bot. p. 185 (1849)

Leptochilus virens, C. CHR., Ind. Fil. pp. 20, et 388 (1905); HAY., Ic. Pl. Formos. V. p. 301 (1915); MAK. et NEM., Fl. Jap. ed. 2. p. 76 (1931)

Syn. *Acrostichum virens*, WALL., List n. 1033 (1828) nom.; HOOK, et GREV., IC. Fil. II. t. 221 (1831); HOOK, et BAK., Syn. Fil. p. 420 (1868) p.p.

Bolbitis virens, SCHOTT., Gen. Fil. ad. t. 14 (1834);

Campium virens, PRESL, Tent. Pt. p. 239 (1836)

Cyrtogonium virens, J. SM., in Journ. Bot. IV. p. 154 (1841)

Poechilopteris virens, MOORE, Ind. Fil. XX. (1857)

Gymnopteris contaminans, BEDD., Fern. Br. Sup. p. 27 (1876)

Leptochilus cuspidatus, (non CHR.) MASAMUNE, Prel. Rep. Veg. Yak. p. 29 (1929)

Nom. Jap. *Hekkasida*

Leg. Ipse, ca. Kosugidani, Jul. 16, 1928.

Distr. Kyūshū, Amami-Ōsima, Taiwan, Bonins, Philippines, India, Australia.

Note. The fern grows as undergrowth in wet places, very often in the valleys. We can find it from the level of the sea up to 600 m. It occurs somewhat rarely in southern Japan.

Nephrolepis, SCHOTT., Gen. Fil. t. 3 (1834);

DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 205 (1899)

Syn. *Lepidonevron*, FEE, Gen. Fil. p. 301 (1850-52)

Nephrolepis biserrata, SCHOTT., Gen. Fil. t. 3 (1834), et Etting. Farn. tt. 134,145 (1865); MAK., in Tokyo Bot. Mag. IX. p. 12 (1895); MATH., in Journ. Linn. Soc. XXXIX. p. 374 (1911); NAK., in Bull. Biogeogr. Soc. Jap. I. p. 252 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 80 (1931)

Syn. *Aspidium biserratum*, SW., Schrad. Journ. 1800-7 p. 32 (1801)

Aspidium acutum, SCHKUH, Kr. Gew. I. p. 32, t. 31 (1806)

Nephrodium biserratum, PRESL, Rel. Haenk. I. p. 31 (1825)

Nephrodium acutum, PRESL, Rel. Haenk. I. p. 31 (1825)

Nephrodium acuminatum, PRESL, Rel. Haenk. I. p. 31 (1825)

Nephrodium splendens, DESV., Prodr. Foug. p. 253 (1827)

Hypopeltis biserrata, BORY, Bel. Voy. Bot. II. p. 65 (1833)

Nephrolepis splendens, PRESL, Tent. Pt. p. 79 (1836)

Nephrolepis Sieberi, PRESL, Tent. Pt. p. 79 (1836)

Nephrolepis acuta, PRESL, Tent. Pt. p. 79 (1836); HOOK., Sp. Fil. IV. p. 153

(1862); BEDD., Fern. South. Ind. p. 33, t. 94 (1863); HOOK, et BAK., Syn. Fil. p. 301 (1867); BAK., in Journ. Bot. XXIII. p. 105 (1885); CHR., in Warb. Mons. I. p. 84 (1900); HENRY, List Pl. Formos. p. 114 (1896); MATSUM., Ind. Pl. Jap. I. p. 328 (1904); COPEL., Polyp. Philipp. p. 47 (1905); MATSUM. et HAY., Enum. Pl. Formos. -p. 587 (1906); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 349 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 30 (1929)

Norn. Jap. Hōbi-kamyu

Leg. Y. YUDO! Aug. 1907.

Distr. Sikoku, Kyūsyū, Tanegasima, Amami-dsima, Okinawa, Taiwan, Bonins, China, Philippines.

Note. I have never collected this species in Yakusima, but Dr. KUDO told me that he had found it in the island. This species is one of the common species in Formosa and the Ryūkyūs, while it is quite rare to find it in northern lands.

Nephrolepis cordifolia, PRESL, Tent. Pt. p. 79 (1836); HOOK, et BAK., Syn. Fil. p. 300 (1868); LUERSS, in Engl. Bot. Jahrb. IV. p. 360 (1883); BAK., in Journ. Bot. XXIII. p. 105 (1885); HENRY, List Pl. Formos. p. 114 (1896); DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 206 (1899); CHR., in WARB. Mons. I. p. 84 (1900); MATSUM., Ind. Pl. Jap. I. p. 328 (1904); COPEL., Polyp. Philipp. p. 46 (1905); MATSUM. et HAY., Enum. Pl. Formos. p. 588 (1906); MATH., in Journ. Linn. Soc. XXXIX. p. 374 (1911); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 349 (1912); MERR., Enum. Hainan Pl. p. 11 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 30 (1929); NAK., in Bull. Biogeogr. Soc. Jap. I. p. 252 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 80 (1931)

Syn. Polypodium cordifolium, LINN., Sp. PL ed. 1. p. 1089 (1753)

Aspidium undulatum, AFZ.; SW., in Schrad. Journ. 1800². p. 42 (1801)

Aspidium cordifolium, SW., in Shrad. Journ. 1800². p. 32 (1801)

Aspidium tuberosum, BORY.; WILLD., Sp. Pl. V. p. 234 (1810)

Nephrodium tuberosum, DESV., Prodr. Foug. p. 252 (1827)

Nephrolepis tuberosa, PRESL, Tent. Pt. p. 79 (1836); HOOK., Sp. Fil. IV. p. 151 (1862); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 179 (1867); FR. et SAV. Enum. Pl. Jap. II. p. 243 (1876)

Nom. Jap. Tamasida

Leg. Ipse, Miyanoura, JuJ. 14, 1922.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-dsima, Okinawa, Taiwan, Bonins, Philippines, China.

Note. By the roadside, on rocky ground, or in sunny places; grows abundantly; common species in southern Japan.

Hwnata, CAVANILLES, Descrip. PL p. 272 (1802);

DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 208 (1899)

Syn. Pachypleuria, PRESL, Epim. Bot. p. 98 (1849)

Pteronevron, F&E, Gen. Fil. p. 320 (1850-52)

Humata repens, DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 209 (1899); CHRIST, Geogr. Farn. pp. 194, 202, et 266 (1910); MATH., in Journ. Linn. Soc. XXXIX. p. 370 (1911); MERR., Enum. Hainan Pl. p. 11 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 28 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 73 (1931)

Syn. Adiantum repens, LINN., f., Supp. p. 446 (1781)

Davallia pedata, SM., Mem. Acad. Turin. V. p. 415 (1793); HOOK., Sp. Fil. I. p. 154 (1846); BAK., in Journ. Bot. p. 103 (1885); MATSUM., Ind. Pl. Jap. I. p. 302 (1904)

Davallia repens, KUHN. Fil. Deck. p. 27 (1867)

Norn. Jap. *Kiku-sinobu*

Leg. Ipse, Kosugidani, Jul. 11. 1928.

Distr. Honsyu, Kyûsyû, Amami-6sima, Okinawa, Taiwan, China, Malay, Africa.

Note. As an epiphyte in the laurisilvae, at an altitude of about 400 m; rather a rare species in southern Japan.

Davallia, SMITH, Mém. Acad. Turin. V. p. 414

(1793); DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 212 (1899)

Syn. *Prosaptia*, PRESL, Tent. Pt. p. 165 (1836) p.p.

Stenolobus, PRESL, Tent. Pt. p. 130 (1836)

Parestia, PRESL, Epim. Bot. p. 99 (1849)

Scypkularia, FEE, Gen. Fil. p. 324 (1850-52);

Davallia Mariesii, MOORE, apud BAK., in Ann. Bot. V. no. 18, p. 201 (1891); NAK., in Tokyo Bot. Mag. XXXIX. p. 120 (1825); MAK. et NEM., Fl. Jap. ed. 2. p. 41 (1931)

Syn. *Davallia bulb at a*, [non WALL. List n. 258 (1828) nom. nud.] HOOK., Sp. Fil. I. p. 169, t. 50. B. (1846) p.p.; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 180 (1867); FR. et SAV., Enum. Pl. Jap. II. p. 208 (1876); CHR., Farnk. Erd. p. 301 (1897); PALIBIN, Consp. Fl. Kor. III. p. 141 (1901); MATSUM., Ind. Pl. Jap. I. p. 301 (1904); NAK, Fl. Kor. II. p. 402 (1911); MATH., in Journ. Linn. Soc. XXXIX. p. 355 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 25 (1929)^

Norn. Jap. *Sinobu*

Leg. Ipse, Jul. 8, 1928.

Distr. Honsyu, Shikoku, Kyûsyû, Amami-6sima, Taiwan, Korea, China.

Note. As an epiphyte in forests, at an altitude of about 400 m, rising to 1100 m; rather a common species in Eastern Asia.

Microlepia, PRESL, Tent. Pterid. p. 124 (1836);

DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 215 (1875) p.p.

Syn. *Scypholepia*, J. SMITH, Hist. Fil. p. 261 (1875)

Microlepia marginata, C. CHR., Ind. Fil. pp. 212, 427 (1905) et (1906); MATH., in Journ. Linn. Soc. XXXIX. p. 372 (1911); MORI, Enum. Pl. Cor. p. 14 (1922); MERR., Enum. Hainan Pl. p. 12 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 29 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 78 (1931)

Syn. *Polypodium rnarginale*, (non LINN.) THUNB., Fl. Jap. p. 337 (1784)

Polypodium marginal urn, HOUTT., Pfl. Syst. XIII. 1. p. 199 (1786)

Dicksonia Marginalis, SW. in Schrad. Journ. 1800*. p. 92 (1801)

Davallia scabra, DON, Prodr. Fl. Nep. p. 9 (1825)

Davallia villosa, WALL., Cat. 244 (1828); HOOK., Sp. Fil. I. p. 172, t. 48 A (1846); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 180 (1867)

Davallia urophylla, WALL., Cat. n. 2683 (1829)

Microlepia scabra, J. SM., Lond. Journ. Bot. I. p. 427 (1842)

Davallia calvescens, HOOK., Sp. Fil. I. p. 172, t. 48 (1846)

Microlepia urophylla, MOORE, Ind. Fil. p. 290 (1861)

Davallia Sieboldiana, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 180 (1867)

Davallia marginalis, BAK., in HOOK., et BAK. Syn. Fil. ed. 1. p. 452 (1868), ed. 2. p. 98 (1874); FR. et SAV., Enum. Pl. Jap. II. p. 209 (1876)

Microlepia tnarginalis, HANCE; H. CHR., Farnk. Erd. p. 307, f. 975 (1897) et in
WARB, Mons. I. p. 87 (1900); MATSUM., Ind. Pl. Jap. I. p. 314 (1904);
MATSUM. et HAY., Enum. Pl. Formos. p. 592 (1906)

Norn. Jap. Humoto-sida

Leg. Ipse, Jul. 15, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Okinawa, Taiwan, Korea, China, India,
Ceylon.

Note. As undergrowth at a low altitude, up to 500 m; common in the southern
part of Japan.

Microlepia pilosella, MOORE, Ind. Fil. ;o 298 (1861); MASAMUNE, Prel. Rep. Veg. Yak.
p. 29 (1929); YAMAZUTA, List Manch. Pl. p. 4. (1930); MAK. et NEM., Fl. Jap.
ed. 2. p. 78 (1931)

Syn. *Trichomanes hirsutum*, (non LINN.) THUNB., Fl. Jap. p. 339 (1784)

Davallia hirsuta, SW., in Schrad. Journ. 1800\ p. 87 (1801)

Trichomanes japonicum, (non THUNB.) POIR., Encyc. VIII. p. 79 (1808)

Humata hirsuta, DESV., Prodr. Foug. p. 324 (1827)

Davallia pilosella, HOOK., 2nd. Cent. Fern. t. 96 (1861)

Dennstaedtia hirsuta, METT., in Ann. Mus. Bot. Lugd. Bat. III. p. 181 (1867)

Microlepia hirsuta, (non FRESL.) MATSUM., Ind. Pl. Jap. I. p. 313 (1904); NAK.,
Fl. Kor. II. p. 402 (1911)

Norn. Jap. Inusida

Leg. Ipse, Mt. Isizuka, Jul. 10, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Taiwan, Korea, Manchuria, Philippines.

Note. The fern grows on rocky or sandy, but somewhat sunny places, and is a
common species in southern Japan. I have found it in higher places, but it will be
found also at low altitudes.

Microlepia strigosa, PRESL, Epim. Bot. p. 95 (1849); BEDD., Fern. South. Ind. p. 85, t
255 (1863); LUERSS., in Engl. Bot. Jahrb. IV. p. 354 (1883); DIELS, in ENGL. u.
PRANT. Nat. Pfl.-fam. I. iv. p. 215 (1899); CHR., in WARB. Mons. I. p. 87 (1900);
DIELS, in Engl. Bot. Jahrb. XXIX. p. 196 (1900); YABE, Jp Tokyo Bot. Mag. XVI.
p. 49 (1902); MATSUM., Ind. Pl. Jap. I. p. 314 (1904); COPEL., Polyp. Philipp. p. 55
(1905); MATSUM. et HAY., Enum. Pl. Formos. p. 592 (1906); NAK., Fl. Kor. II.
p. 402 (1911); MERR., Enum. Hainan Pl. p. 12 (1922); MASAMUNE, Prel. Rep.
Veg. Yak. p. 29 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 79 (1931)

Syn. *Trichomanes strigosum*, THUNB., Fl. Jap. p. 339 (1784)

Polypodium cristatum, \non LINN HOUTT., Pfl. Syst. XIII. 1. p. 208, t. 99, f. 3
(1786)

Dicksonia strigosa, THUNB., in Trans. Linn. Soc. Lond. II. p. 341 (1794)

Dicksonia japonica, SW., in Schrad. Journ. 1800". p. 92 (1801)

Davallia strigosa, SW., Adnot. Bot. p. 69 (1829) apud KUNTZE, in Bot. Zeit p.
542 (1848); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 180 (1867); HOOK.
et BAK., Syn. Fil. p. 98 [1867]; FR. et SAV., Enum. Pl. Jap. II. p. 210
11876; HARRINGT., in Journ. Linn. Soc. XVI. p. 27 (1877); BAK., in Journ.
Bot. XXIII. p. 103 (1885;); HENRY, List Pl. Formos. p. 110 (1896)

Microlepia cristata, J. SMITH, in Journ. Bot III. p. 416 (1841)

Dennstaedtia strigosa, J. SMITH, Hist. Fil. p. 265 (1875)

Nom. Jap. Isikaguma

Leg. Ipse, Mugio, Aug. 22, 1930,

Distr. Honsyfi, Sikoku, Kyúsyuf, Tanegasima, Amami-Ôsima, Okinawa, Taiwan, Bonins, Korea, China, India, Malay.

Note. The fern grows in dry places in forests, and in sunny places at a low altitude.

Odontosoria, FÉE, Gen. Fil. p. 325 (1850-52);

DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 215 (1899)

Syn. *Davallia*, sect. *Odontosoria*, PRESL, Tent. Pt. p. 129 (1836)

Stenoloma, FÉE, Gen. Fil. p. 330 (1850-52)

Lindsayopsis, KUHN. Die Chaetopterides p. 347 (1882)

Odontosoria chusana, (LINN.) MAS AM. comb. nov.

Syn. *Adiantum chusanum*, LINN., Sp. Pl. ed. 1. p. 1095 (1753)

Trichomanes chinensis, LINN., Sp. Pl. ed. 1. p. 1099 [1753]; THUNB., Fl. Jap. p. 340 (1784)

Adiantum chinense, BURM., Fl. Ind. p. 236 (1768)

Davallia chinensis, SM., Mem. Ac. Turin. V. p. 414 (1793)

Microlepidia chinensis, METT., Fil. Lip. p. 103 (1856)

Odontosoria chinensis, J. SMITH, Bot. Voy. Herald, p. 430 (1857); MATSUM., Ind. Pl. Jap. I. p. 329 (1904); NAK., Fl. Kor. II. p. 403 (1911); MATH., in Journ. Linn. Soc. XXXIX. p. 374 (1911) p.p.; MERR., Enum. Hainan Pl. p. 12 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 30 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 81 (1931)

Davallia tenuifolia, SW. var. *chinensis*, MOORE, Ind. Fil. p. 302 (1861); MAK., Phan. et Pterid. Jap. VIII. Pl. XXXVII (1900)

Lindsaya chinensis, METT.; KUHN. Fl. Afr. p. 67 (1868); CHR., Farnk. Erd. p. 296 (1897) p.p.

Stenoloma chinensis, BEDD., Handb. Fern. Brit. Ind. p. 70 (1883)

Nom. Jap. *Hama-hora-sinobu*

Leg. Ipse, Aug. 20. 1928.

Distr. Honsyû, Sikoku, Kyúsyô, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China.

Note. The fern grows along sunny roadside, or on the forest edges at a low altitude, and is rather a common species in southern Japan.

var. *tenuifolia*, (MAK) MASAM. comb. nov.

Syn. *Davallia tenuifolia*, SW., in Schrad. Journ. 1800*. p. 88 (1801); BENTH., Fl. Hongk. p. 462 (1861); BEDD., Fern. South Ind. p. 6, t. 16. (1863); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 180 (1867); FR. et SAV., Enum. Pl. Jap. II. p. 210 (1876); HARRINGT., in Journ. Linn. Soc. XVI. p. 27 (1877); HENRY, List Pl. Formos. p. 110 (1896); MAK., Phan. et Pterid. Jap. I. p. 8. Pl. XXXVI. (1900); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 337 (1912) p.p.

Odontosoria chinensis, var. *tenuifolia*, MAK., in Tokyo Bot. Mag. X. p. 152 (1896); MATSUM., Ind. Pl. Jap. I. p. 330 (1904); MASAMUNE, Prel. Rep. Veg. Yak. p. 30 (1929); NAK., in Bull. Biogeogr. Soc. Jap. I. p. 252 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 81 (1931)

Odontosoria chinensis, MATH., in Journ. Linn. Soc. XXXIX. p. 374 (1911) p.p.

Nom. Jap. *Horasinobu*

Leg. Ipse, ca. Kosugidani, 1928,

Distr. Honsyu, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Bonins, China.

Note. The variety grows in somewhat darker places, such as the edges of forests, by the banks of small streams, etc., rather than in the places where the typ is generally found.

Dennstaedtia, BERNHARDI, in Schrad. Journ.

1800². p. 124 (1801); DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 217 (1899)

Syn. *Patania*, PRESL, Tent. Pt. p. 137 (1826)

Sitoblium, DESVOUX, Prodr. Forg. p. 262 (1827)

Aeductum, LINK, Fil. Sp. pp. 41, 42 (1841)

Sitolobium, J. SMITH, in Journ. Bot. III. p. 418 (1841)

Dennstaedtia formosae, CHR., in Bull. Herb. Boiss. 2. sér. IV. p. 617 (1904[^]; MATSUM. et HAY., Enum. Pl. Formos. p. 594 (1906;; CHR., Ind. Fil. p. 217 (1906); MATH., in Journ. Linn. Soc. XXXIX. p. 356 (1911;; MAK. et NEM., Fl. Jap. ed. 2. p. 42 (1931)

Norn. Jap. *Taiwan-kaguma*

Leg. NAOHARA! Mugio, Jul. 22, 1930.

Distr. Taiwan, China.

Note. It grows in the laurisilvae as undergrowth. The species is not yet found in lands further north than this island.

Dennstaedtia scabra, MOORE, Ind. Fil. p. 307 (1861); MAK., in Tokyo Bot. Mag. IX. p. (246) (1895); H. CHR., Farnk. Erd. p. 312 (1897); DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 218 (1899); CHR., in Bull. Herb. Boiss. 2. sér. IV. p. 617 (1904); MATSUM., Ind. Pl. Jap. I. p. 302 (1904); COPEL., Polyp. Philipp. p. 58 (1905); MATSUM. et HAY., Enum. Pl. Formos. p. 594 (1906;; MATH., in Journ. Linn. Soc. XXXIX. p. 356 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 25 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 43 (1931)

Syn. *Dicksonia scabra*, WALL., List n. 2173 (18291; BAK., in Journ. Bot. XXIII. p. 103 (1885); CHR., in Bull. Herb. Boiss. IV. p. 664 (1896)

Dicksonia deltoid ea, HOOK., Sp. Fil. I. 80, t. 27 A. (1846)

Norn. Jap. *Kobano-isikaguma*

Leg. Ipse, 1700 m. Aug. 31, 1926.

Distr. Honsyu, Sikoku, Kyûsyû, Okinawa, Taiwan, China, Philippines, India.

Note. The fern grows in the lauri-aculisilvae about 500-1800 m above the level of the sea, where fallen leaves are plentiful. This is a common species in southern Japan.

Lindsay a, DRYANDER, J. Smith, Mém. Ac.

Turin. V. p. 413 (1793); DYANDER, in Tran. Linn. Soc. III. p. 39 (1797); DIELS in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 219 (1899);

Syn. *Odontoloma*, J. SMITH, in Journ. Bot. III. p. 415 (1841)

Synaphlebium, J. SMITH, in Journ. Bot. III. p. 415 (1841), et in HOOK., Gen. Fil. t. 101 (1842);

Lindsaya cultrata, Sw., Syn. p. 119 (1806); HOOK., et GREV., IC. Fil. II. t. 144 (1831); HOOK., Sp. Fil. I. p. 203 (1846). et Fil. Exot. t. 67 (1858); METT., Fil. Hort. Bot. p. 104 (1856) ; BEDD., Fern. South. Ind. p. 7 (1863* ; HOOK., et BAK., Syn. Fil. p. 105 (1868); BENTH., Fl. Austral. VII. p. 719 (1878;; BAK., in Journ. Bot. XXIII. p. 103 (1885); CHR., Farnk. Erd. p. 292 (1897), et in Warb. Mons. I. p. 85 (1900); MAK., in Tokyo Bot. Mag. XII. p. (14) (1898'; DIELS, in Engl. Bot. Jahrb. XXIX.

p. 196 (1900); YABE, in Tokyo Bot. Mag. XVI. p. 49 (1902); MATSUM., Ind. PI. Jap. I. p. 311 (1904); COPEL., Polyp. Philipp. p. 62 (1905); CHR., Ind. Fil. p. 396 (1906); MATSUM. et HAY., Enum. PI. Formos. p. 595 (1906); NAK., Fl. Kor. II. p. 403 (1911); MATH., in Journ. Linn. Soc. XXXIX. p. 371 (1911); DUNN et TUTCH., Fl. Kwangt. and Hong. p. 337 (1912); MERR., Enum. Hainan PI. p. 13 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 29 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 76 (1931)

Syn. *Adiantum cultratum*, WILLD., Phytogr. p. 14, t. 10, f. 2 (1794)

Lindsaya apiculata, KUNZE, Farnk. I. p. 206, t. 85, f. 2 (1846)

Lindsaya Calomelanos, KUNZE, in Bot. Zeit. p. 214 (1848)

Davallia brachypoda, BAK., Syn. Fil. ed. 2. p. 468 (1874)

Aom. Jap. Hongŭ-sida

Leg. Ipse, Kusugawa, Mart. 17, 1924.

Distr. Honsyfi, Sikoku, Kyŭsyfi, Amami-dsima, Okinawa, Taiwan, Korea, China, Philippines, India, Australia, Malay, Madagaskar.

Note. It grows along rivelets, or in somewhat wet places, or on rocks within the influence of drops of water, from a low altitude up to almost 1000 m, and especially richly in the lauri-aculisilvae. The species is common in southern Japan.

Lindsaya orbiculata, METT., ex KUHN. in Ann. Mus. Bot. Lugd. Bat. IV. p. 279 (1869); MATSUM., Ind. PI. Jap. I. p. 312 (1904); C. CHR., Ind. Fil. p. 396 (1906); MATH., in Journ. Linn. Soc. XXXIX. p. 371 (1911); MERR., Enum. Hainan PI. p. 13 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 29 (1929); NAK., in Bull. Biogeogr. Soc. Jap. I. p. 252 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 77 (1931)

Syn. *Adiantum orbiculatum*, LAM., Encyc. I. p. 41 (1783)

Lindsaya flabellulata, DRY., in Trans. Linn. Soc. III. p. 41, t. 8, f. 2 (1797); HOOK., Sp. Fil. I. p. 211, t. 63, C. (1846); BENTH., Fl. Hongk. p. 445 (1861); HOOK. et BAK., Syn. Fil. p. 107 (1867); HARRIN., in Journ. Linn. Soc. XVI. p. 27 (1877); BAK., in Journ. Bot. XXIII. p. 103 (1885); HENRY, List PI. Formos. p. 110 (1896); CHR., Farnk. Erd. p. 292 (1897), et in WARB. Mons. I. p. 85 (1900); MATSUM. et HAY., Enum. PI. Formos. p. 596 (1906)

Adiantum triangulare, POIR., Encyc. Supp. I. p. 140 (1820)

Lindsaya javanensis, BL., Enum. PI. Jav. p. 219 (1828)

Davallia trichomanoides, BEDD., Fern. Br. Ind. t. 178 (1866)

Davallia shizophylla, BAK., in HOOK. et BAK. Syn. Fil. ed. 2. p. 468 (1874)

Schizoloma orbiculatum, KUHN, Caetopt. Polyp. p. 346 (1882)

Abut. Jap. Edauti-hongŭ-sida

Leg. Ipse, Kosugidani, Aug. 1, 1928.

Diatr. Honsyfi, Sikoku, Kyfisyfi, Tanegasima, Amami-6sima, Okinawa, Taiwan, Bonins, China, India, Ceylon, Malay, North Australia.

Note. This species grows in lower and dryer places than the habitat of the previous species, and seldom on rocks. The species is abundant in the Far East.

Athyrium, ROTH, Röm. Mag. II. 1. p. 105 (1799),
et Tent. Fl. Germ. III. p. 58 (1800); DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam.
I. iv. p. 222 (1899)

Syn. *Brachysorus*, PRESL, Epim. Bot. p. 70 (1849)

Hypochlamys, FfeE, Fil. p. 200 (1850-52)

Athyriwn aypptogrammoides, HAY., Ic. PL Formos. VI. p. 156 (1916); MAK. et NEM.,
Fl. Jap. ed. 2. p. 30 (1931);

Norn. Jap. *Coñan-tatisinobu***Leg.** Ipse, Kosugidani, Aug. 1, 1928.**Distr.** Taiwan.**Note.** It is found very rarely in dark places on the humus ground in Cryptomeria forests. It is not yet known to be found in lands further north than Yakusima.**Athyrium cystopteroides**, EAT., Proc. Amer. Acad. IV. p. 110 (1858); CHR., in Bull. Herb. Boiss. 2. sér. I. p. 1015 (1901)**Syn.** *Athyrium cystopteroides*, HOOK., Sp. Fil. III. p. 220 (1860)*Hypodematium cystopteroides*, KUHN, Forsch. Gazelle, IV. Fame. p. 8 (1889)**Leg.** (fid. Chr.)**Distr.** Endemic ?**Athyrium Goeringianum**, MOORE, Ind. p. 185 (1860); CHR., in Bull. Herb. Boiss. IV. p. 668 (1896); MAK., in Tokyo Bot. Mag. XIII. p. 79 (1899); MATSUM., Ind. Pl. Jap. I. p. 294 (1904); CHR., Ind. Fil. p. 143 (1906); NAK., Fl. Kor. II. p. 405 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 24 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 31 (1931)**Nom. Jap.** *Hosoba-inuwarabi***Leg.** Ipse, Kosugidani, Jul. 8, 1928.**Distr.** Sikoku, Kyûsyû, Korea.**Note.** The species flourishes as undergrowth in the forests of Cryptomeria and other Conifers and broad-leaved trees. It occurs on rather rare occasion in southern Japan.**Athyrium Nakanoi**, MAK., in Tokyo Bot. Mag. XXIII. p. 247 (1909); CHR., Ind. Fil. Supp. I. p. 15 (1913); MASAMUNE, Prel. Rep. Veg. Yak. p. 24 (1929); NAK., in Tokyo Bot. Mag. XLIII. p. 5 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 32 (1931)**Syn.** *Nephrolepis tenuissima*, HAY., Ic. Pl. Formos. IV. p. 202. f. 137 (1914)*Athyrium obtusifolium*, ROSENB., in Hedwigia, LVI. p. 335 (1915)*Athyrium tenuissimum*, MERR., in Philipp. Journ. Sci. VIII. p. 126 (1918)**Nom. Jap.** *Hime-hôbisida***Leg.** Ipse, Kosugidani, Mart. 17, 1923.**Distr.** Taiwan, China.**Note.** The species has its northern limit in this island. It grows in dark places in Cryptomeria forests, about an altitude of 700 m.**Athyrium nipponicum**, HANCE, in Journ. Linn. Soc. XIII. p. 92 (1873); DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 224 (1899) et in Engl. Bot. Jahrb. XXIX. p. 196 (1900); KOM., Fl. Mansh. I. p. 134 (1904); CHR., in Ind. Fil. p. 144 (1906); NAK., Fl. Kor. II. p. 404 (1911); MIY. et KUDO, Fl. Hokk. and Sagh. I. p. 27 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 32 (1931)**Syn.** *Asplenium nipponicum*, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 240 (1866); HOOK. et BAK., Syn. Fil. p. 227 (1867-); FR. et SAV., Enum. Pl. Jap. II. p. 224 (1876)**Nom. Jap.** *Inu-warabi***Leg.** Ipse, Jun. 12, 1928.**Distr.** Yezo, Honsyû, Sikoku, Kyûsyû, Korea, Manchuria, China.**Note.** As undergrowth on the humus soil in the lauri-aciculisilvae, at an altitude of about 700 m; common in southern Japan.

- Athyrium reflexipinnum*, HAY., Ic. Pl. Formos. IV. p. 234 (1914); MAK. et NEM., Fl. Jap. ed. 2. p. 32 (1931)
Norn. Jap. Sakaba-inuwarabi
Leg. Ipse, Jul. 25, 1927.
Distr. Taiwan.
Note. It grows in the high portion of the island, namely in the Pseudosasa Owatarii Association, near the timber line where Conifers begin to cease to appear. It is not yet found in lands further north than this island.
- Athyrium rigescens*, MAK., in Tokyo Bot. Mag. XIII. pp. 27. et (79) (1899); MATSUM., Ind. Pl. Jap. I. p. 296 (1904); CHR., Ind. Fil. p. 145 (1906); NAK., Fl. Kor. II. p. 407 (1911); MATH., in Journ. Linn. Soc. XXXIX. p. 350 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 24 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 33 (1931)
Syn. Athyrium oxyphyllum, (non MOOR.) MAK., in Tokyo Bot. Mag. X. p. (109) (1896)
Asplenium rigescens, MAK., in Tokyo Bot. Mag. XIII. p. (79) (1899)
Norn. Jap. Tani-inuwarabi
Leg. Ipse, Jul. 29, 1924.
Distr. Honsyû, Sikoku, Kyûsyû, Korea, China.
Note. As undergrowth in the laurisilvae; rather rare in southern Japan.
- Athyrium tozanense*, HAY., Ic. Pl. Formos. IV. p. 235 (1914); KODAMA, in MATSUM. Ic. Pl. Koishik. III. no. 5. Pl. 197, p. 103 (1917); CHR., Ind. Fil. Supp. II. p. 8 (1917); MASAMUNE, Prel. Rep. Veg. Yak. p. 24 (1925); MAK. et NEM., Fl. Jap. ed. 2. p. 33 (1911)
Norn. Jap. Hôrai-inuwarabi
Leg. Ipse, Jul. 29, 1927.
Distr. Taiwan
Note. In damp and thick forests of laurisilvae and lauri-aciculisilvae at about an altitude of 600 m, ascending to 1000 m. It has its northern limit in this island.
- Athyrium Wardii*, MAK., in Tokyo Bot. Mag. XIII. pp. 28, (79) (1899); MATSUM., Ind. Pl. Jap. I. p. 296 (1904); CHR., Ind. Fil. p. 147 (1906); CHRIST, in Bull. Acad. Géogr. Bot. XI. p. 246 (1910); MATH., in Journ. Linn. Soc. XXXIX. p. 350 (1911); MAK. et NEM., Fl. Jap. ed. 2. p. 34 (1931)
Syn. Asplenium Wardii, HOOK., Sp. Fil. III. p. 189 il860', et 2nd. Cent. Fern, t XXXIII. (1861)
Norn. Jap. Hiroha-nO'inuwarabi
Leg. Ipse, Aug. 6, 1922.
Distr. Honsyû, Sikoku, Kyûsyû, China.
Note. It grows in the laurisilvae, from the sea level up to an altitude of about 700 m, and is a common species in southern Japan.
- Athyrium yokoscense*, (ut *Yocoscense*) CHR., in Bull. Herb. Boiss. IV, p. 668 (1896); YABE, in Tokyo Bot. Mag. XVII. p. 66 (1903), et Enum. Pl. Mansh. p. 1 (1912); CHR., Ind. Fil. p. 147 (1906); KOIDZ., in Tokyo Bot. Mag. XXXVIII. p. III (1924); MIY. et KUDO, Fl. Hokk. and Sagh. I. p. 26 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 34 (1931)
Syn. Asplenium yokoscense, FR. et SAV., Enum. Pl. Jap. II. pp. 225, et 622 (1876)
Athyrium yokoscense, MAK., in Tokyo Bot. Mag. XIII. p. (80) [1899]; MATSUM.,

Ind. PL Jap. I. p. 296 (1904); NAK., Fl. Kor. II. p. 403 (1911), et in Tokyo Bot. Mag. XXVIII. p. 82 (1914)

Athyriwn flaccidum, H. CHR., in Fedd. Rep. V. p. 11 (1908);

%Norn. Jap. Hebi-no-negoza

Leg. Ipse, Aug. 23, 1928.

Distr. Yezo, Honsyu, Sikoku, Kyûsyû, Okinawa, Korea, Manchuria.

Note. The fern is found in warm sunny places in the laurisilvae, and is common in southern Japan.

Diplazium, SWARTZ, in Schrad. Journ. 1800², p.

61 (1801); DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 224 (1899) p.p.

Syn. Callipteris, BORY, Voy. I. p. 282 (1804)

Anisogoniurn, PRESL, Tent. Pt. p. 115 (1836)

Oxygonium, PRESL, Tent. Pt. p. 117 (1836)

Microstegia, PRESL, Epim. Bot. p. 90 (1849)

Ochlogramma, PRESL, Epim. Bot. p. 93 (1849)

Diplazium arisanense, HAY., Ic. Pl. Formos. IV. p. 212 (1914); MAK. et NEM., Fl. Jap. ed. 2. p. 43 (1931)

Norn. Jap. Arisan-warabi

Leg. A. KIMURA! Aug. 7, 1922.

Distr. Taiwan.

Note. It grows as undergrowth in the lauri-aciculisilvae, and has its northern limit in this island.

Diplazium Conilii, MAK., in Tokyo Bot. Mag. XXVII. p. 253 (1913); CHR., Ind. Fil. Supp. II. p. 12 (1917); MASAMUNE, Prel. Rep. Veg. Yak. p. 25 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 44 (1931)

Syn. Asplenium Conilii, FR. et SAV., Enum. Pl. Jap. II. p. 227 (1876)

Diplazium Oldhami, H. CHR., in Bull. Herb. Boiss. VII. p. 819 (1899); MATSUM., Ind. Pl. Jap. I. p. 304 (1904); NAK., Fl. Kor. II. p. 409 (1911), et in Tokyo Bot. Mag. XXVIII. p. 85 (1914); MIY. et KUDO, Fl. Kokk. and Sagh. I. p. 32 (1930);

Diplazium japDnicum, var. *COAHU*, MAK., in Tokyo Bot. Mag. XX. p. 32 (1903)

Nom. Jap. Hosoba-sikesida

Leg. Ipse, Jul. 25, 1924.

Distr. Yezo, Honsyu, Sikoku, Kyûsyû, Amami-6sima, Korea.

Note. The fern thickly grows as undergrowth in the Cryptomeria forests, at an altitude of about 703 m and is common in Eastern Asia.

Diphzium costalisorum, HAY., Ic. Pl. Formos. IV. p. 213 (1914); MAK. et NEM., Fl. Jap. ed. 2. p. 44 (1931)

Nom. Jap. Nankoku-sida

Leg. A. KIMURA! Aug. 9, 1922.

Distr. Taiwan.

Note. It flourishes on rich humus soil in Cryptomeria forests, at an altitude of about 700 m, and has its northern limit of habitat in this island.

Diplazium Fauriei, CHR., in Bull. Herb. Boiss. 2. sér. I. p. 1015 (1901); MAK. et NEM., Fl. Jap. ed. 1. p. 1602 (1925) et ed. 2. p. 45 (1931); MASAMUNE, Prel. Rep. Veg. Yak. p. 25 (1929)

Norn. Jap. *Hosoba-nokogiri-sida*

Leg. Ipse, Mart 20, 1923.

Distr. Amami-6sima.

Note. It grows on some rocky places in the laurisilvae about 500 m above the sea level.

Diplazium fraxinifolium, PRESL, Rel. Haenk. I. p. 49 (1825); MAK. et NEM., Fl. Jap. ed. 1. p. 1602 (1925), et ed. 2. p. 45 (1931); MASAMUNE, Prel. Rep. Veg. Yak. p. 25 (1929)

Syn: *Diplazium luzoniense*, SPRENG., Syst. Veg. IV. p. 68 (1827)

Asplenium fraxinifolium, WALL., List no. 194 (1829); HOOK., 2nd. Cent. Fern. t. 19 (1861)

Diplazium bantamense, BL., Enum. PL Jav. p. 191 (1828); CHRIST, Farnk. Erd. p. 216 (1897); DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 226 (1899); MATSUM., Ind. PL Jap. I. p. 302 (1904); COPEL., Polyp. Philipp. p. 72 (1905); MATSUM. et HAY., Enum. Pl. Formos. p. 597 (1906); CHR., Ind. Fil. p. 228 (1906)

Anisogonium fraxinifolium, PRESL, Tent. Pt. p. 116, t. 4. f. 18 (1836)

Callipteris elegans, J. SM., in Journ. Bot. III. p. 409 (1841)

Oxygonium elegans, J. SM., in Journ. Bot. IV. p. 178 (1841)

Anisogonium elegans, PRESL, Epim. Bot. p. 93 (1849)

Anisogonium grossum, PRESL, Epim. Bot. p. 93 (1849)

Callipteris fraxinifolia, J. SM., in MOOR. Ind. Fil. p. 217 (1861)

Anisogonium lineolatum, BEDD., Ferns Br. Ind. t. 330 (1869)

Athyrium fraxinifolium, MILDE, in Bot. Zeit. p. 353 (1870)

Asplenium batamense, BAK., in Journ. Bot. XXIII. p. 104 (1885); HENRY, List Pl. Formos. p. 112 (1896)

Norn. Jap. *Kinobori-sida*

Leg. A. KIMURA! Aug. 13, 1922.

Distr. Amami-Ôsima, Okinawa, Taiwan, China, Philippines, India.

Note. The plant grows in abundance along the edges of forests or by the roadside, especially thickly in places where the laurigneous trees have been cleared, from about 100 m to 400 m above the sea level. This is a common species in **southern Japan**, but it is not known in lands further north than this island.

Diplazium Hookerianum, KOIDZ., in Tokyo Bot. Mag. XXXVIII. p. 105 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 26 (1929); MAK. et NEM., FL Jap. ed. 2. p. 45 (1931)

Syn. *Gymnogrammc decurrenti-alatum*, HOOK., Sp. Fil. V. p. 142, t. 294 (1865); FR. et SAV., Enum. PL Jap. II. p. 248 (1876)

Phegopteris decurrenti-alatum, CHR., Farnk. Erd. p. 274 (1897)

Nephrodium decurrenti-alatum, DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 171 (1899); MATSUM., Ind. PL Jap. I. p. 316 (1904)

Dryopteris decurrenti-alatum, C. CHR., Ind. Fil. p. 261 (1906)

Athyrium decurrentialatum, COPEL., in Philipp. Journ. Sc. HI. p. 279 (1909)

Norn. Jap. *Siketisida*

Leg. Ipse, Kosugidani, 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Taiwan.

Note. Grows as undergrowth in somewhat wet places in the lauri-aciculisilvae, especially thickly in the Conifer forest, at about an altitude of 700 m.

Diplazium isobasis, CHR., in Bull. Herb. Boiss. 2. sér IV. p. 618 (1904); CHR., Ind. Fil. p. 234 f 1906;; HAY., Ic. PL Formos. IV. p. 214 (1914); MAK. et NEM., Fl. Jap. ed. 2. p. 45 11931)

Norn. Jap. Morozokosida

Leg. Ipse, Jul. 21, 1924.

Distr. Taiwan.

Note. I found this interesting fern as undergrowth in the mixed forests of Conifers and evergreen broad-leaved trees, about 700 m above the sea level. This species has its northern limit in this island.

Eiplazium japonicum, BEDD., Fer. Br. Ind. Supp. p. 12 (1876) et Handb. Fern. Brit. Ind. p. 180 1883 ; CHRIST, Farnk. Erd. p. 218 (1897); DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 226 1899 ; CHRIST, in WARB. Mons. I. p. 74 (1900); YABE, in Tokyo Bot. Mag. XVI. p. 49 (1902); MATSUM., Ind. PL Jap. I. p. 303 (1904); MATSUM. et HAY., Enum. PL Formos. p. 598 (1906); NAK., FL Kor. II. p. 409 1911 ; MATH., in Journ. Linn. Soc. XXXIX. p. 357 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 26 :1929*; MAK. et NEM., Fl. Jap. ed. 2. p. 46 (1931)

Syn. *Asplenium japonicum*, THUNB., Fl. Jap. p. 331 (1784.); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 176 1867 ; FR. et SAV., Enum. PL Jap. II. p. 227 (1876); BAK., in Journ. Bot. XXIII. p. 105 (1835 ^; HENRY, List PL Formos. p. 112 1896:

Asplenium Schkuhrii, non METIV HOOK., Sp. Fil. HI. p. 251 (1860)

Mom. Jap. Sikcsida

Leg. Ipse, Jul. 7, 1928.

Distr. Yezo, Honsyu, Sikoku, KyusyG, Amami-Osima, Okinawa, Taiwan, Korea, China, India.

Note. It ranges from the sea level up to an altitude of about 1000 m. As its Japanese name indicates, it grows in wet places.

Dipldizium lanceum, PRESL, Tent. Pt. p. 113 il836); A. GRAY, PL Jap. p. 329 (1859); BEDD., Handb. Fern. Brit. Ind. p. 174 1883); CHR., Farnk. Erd. p. 215 (1897); DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 225 (1899); CHR., in WARB. Mons. I. p. 74 11900j; YABE, in Tokyo Bot. Mag. XVI. p. (49) (1902); MATSUM., Ind. PL Jap. I. p. 303 (1904 ; MATSUM. et HAY., Enum. PL Formos. p. 599 1906 ; MATH., in Journ. Linn. Soc. XXXIX. p. 357 (1911); MORI, Enum. PL Cor. p. 8 1922J; MASAMUNE, Prel. Rep. Veg. Yak. p. 26 (1929); MAK. et NEM., FL Jap. ed. 2. p. 46 1931

Syn. *Asplenium lanceum*, THUNB., Fl. Jap. p. 333 11784^l*, KUNZE, Pterid. Jap. p. 526 1818 ; METT., in Miq. Ann. Mus. Bot. Lugd. Bat. II. p. 236 (1866); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 175 il867); FR. et SAV., Enum. PL Jap. II. p. 226 11876: ; HOOK, et BAK., Syn. Fil. p. 229 (1867»); HARRINGT., in Journ. Linn. Soc. XVI. p. 29 (1878 ; LUERSS., in Engl. Bot. Jahrb. IV. p. 337 1833^l.; BAK., in Journ. Bot. XXIII. p. 104 (1885); HENRY, List PL Formos. p. 112 (1896.

Scolopendrium dubium, DON, Prodr. FL Nep. p. 9 (1825'

Asplenium subsinuatum, WALL, ex HOOK, et GREV., IC. Fil. t 27 (18271

Athyrium lanceum, MILDE, in Bot. Zeit. p. 354 (1870)

Micropodium lanceum, J. SMITH, Hist. Fil. p. 323 x 1875j

Xom. Jap. Her aside

Ley. Ip'se, Jul. 17, 1922.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Ôsima, Okinawa, Taiwan, Bonins, Korea, China, India.

Note. Grows in the laurisilvae from a low altitude up to about 700 m; very often on mountain passes; rather common in southern Japan.

Diplazium lutchuense, KOIDZ., in Tokyo Bot. Mag. XXXVIII. p. 106 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 26 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 47 (1931)

Norn. Jap. Yakusima-kuzyaku

Note. I have never collected this plant in the island but Dr. KOIDZUMI reported that it grows in the island.

Distr. Endemic plant.

Diplazium maximum, (DON) C. CHR., Ind. Fil. p. 235 i, 1905; MATH., in Journ. Linn. Soc. XXXIX. p. 358 (1911); MAK. et MEM., Fl. Jap. ed. 2. p. 47 (1931)

Syn. *Asplenium maximum*, DON, Prodr. Fl. Nep. p. 8 (1825); HOOK, et BAK., Syn. Fil. p. 239 (1867); BAK., in Journ. Bot. p. 200 (1875)

Asplenium latifolium, (non CAV.) DON, Prodr. Fl. Nep. p. 8 (1825); METT., in Miq. Ann. Mus. Bot. Lugd. Bat. II. p. 239 (1866); HOOK, et BAK., Syn. Fil. p. 239 (1867); HARRING., in Journ. Linn. Soc. XVI. p. 29 (1877); LUERSS., in Engl. Bot. Jahrb. IV. p. 357 (1883)

Diplazium dilatatum, BL., Enum. Pl. Jav. p. 194 (1828)

Microstegia dilatata, PRESL, Epim. Bot. p. 91 (1849)

Diplazium latifolium, MOORE, Ind. Fil. p. 141 (1859); CHRIST, Farnk. Erd. p. 220 (1897), et in WARB. Mons. I. p. 74 (1900); DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 226 (1899) et in Engl. Bot. Jahrb. XXIX. p. 197 (1900); MATSUM., Ind. Pl. Jap. I. p. 304 (1904); COPEL., Polyp. Philipp. p. 75 (1905); MATSUM. et HAY., Enum. Pl. Formos. p. 599 (1906); MATH., in Journ. Linn. Soc. XXXIX. p. 357 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 26 (1929)

Asplenium dilatatum, HOOK., Sp. Fil. III. p. 258 (1860)

Asplenium sororium, METT., in Ann. Sc. Nat. IV. 15. p. 73 (1861)

Athyrium latifolium, MILDE, in Bot. Zeit. p. 354 (1870)

Athyrium dilatatum, MILDE, in Bot. Zeit. p. 353 (1870)

Diplazium sororium, CARR., in Seem. Fl. Vit. p. 356 (1873)

Gymnogramme gigantea, BAK., in Journ. Bot. p. 177 (1889)

Nephrodium giganteum, DIELS, in Engl. Bot. Jahrb. XXIX. p. 189 (1900)

Norn. Jap. Hirohanokogirisida

Leg. Ipse, Jul. 15, 1922.

Distr. Tanegasima, Amami-6sima, Okinawa, Taiwan, China, Polynesia, Malay, Philippines, Australia.

Note. The plant grows as undergrowth in the forests from a low altitude up to about 500 m. In some places, for example, near Ambô, the fern is so predominant in the laurisilvae that a considerable area of forest bed is entirely covered with it. I have not yet found the species in lands further north than Tanegasima.

Diplazium Mettenianum, C. CHR., Ind. Fil. p. 236 (1905)

Syn. *Asplenium Mettenianum*, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 174 (1867);

Asplenium Textori, MIQ., Cat. Mus. Bot. Lugd. Bat. p. 126 (1870)

Diplazium Textori, (MIQ.) MAK., in Tokyo Bot. Mag. XIII. p. 31 (1899); MA-

SAMUNE, Prel. Rep. Veg. Yak. p. 26 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 49 (1931)

Nom. Jap. *Miyama-nokogiri-sida*

Leg. Ipse, Mart. 20, 1923.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-Ôsima.

Note. Grows on rocky ground, or in wet places, as undergrowth, in the lauri-aciculisilvae at an altitude of about 500 m; rather a common species in southern Japan.

Diplazium Morii, HAY., Mat. Fl. Formos. p. 437 (1911)

Syn. *Asplenium Doederleinii*, LUERSS., in Engl. Bot. Jahrb. IV. p. 358 (1883)

Diplazium Doederleinii, (non MAK.) KODAMA, in MATSUM. Ic. Pl. Koishik. I. n. 5. p. 139, t. 70 (1913); MAK. et NEM., Fl. Jap. ed. 2. p. 44 (1931)

Nom. Jap. *Sima-siroyamasida*

Leg. Ipse, Kosugidani, Jul. 26, 1927.

Distr. Amami-Ôsima, Okinawa, Taiwan.

Note. The plant flourishes as un'dergrowth occupying a large area in the laurisilvae, and is widely distributed in southern Japan. It is not found in lands further north of this island.

Diplazium simplicifolium, KODAMA, in MATSUM. Ic. Pl. Koishik. I. 5. p. 135. Pl. 68 (1913); MAK. et NEM., Fl. Jap. ed. 2. p. 48 (1931)

Nom. Jap. *Hiroha-herasida*

Leg. Ipse, Jul. 15, 1922.

Distr. Honsyû.

Note. The plant grows as undergrowth in the laurisilvae.

Diplazium subrigescens, HAY., Ic. Pl. Formos. IV. p. 219 ;1914;; MAK. et NEM., Fl. Jap. ed. 2. p. 49 (1931)

Nom. Jap. *Hôrai-inuwarabi*

Leg. Ipse, Aug. 1, 1924.

Distr. Taiwan.

Note. The species has its northern limit in this island. It grows as undergrowth on humus soil in the lauri-aciculisilvae, at an altitude of about 700 m.

Diplazium Taquetii, C. CHR., in Bull. Géogr. Bot. Mans. p. 69 (1911); MORI, Enum. Pl. Cor. p. 8 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 26 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 49 (1931)

Syn. *Diplazium Doederleinii*, (non LUERSS.) MAK., in Tokyo Bot. Mag. XIII. p. 15, (1899)

Asplenium Doederleinii, (non LUERSS.) MATSUM., Ind. Pl. Jap. I. p. 289 (1904) p.p.

Nom. Jap. *Siroyama-sida*

Leg. Ipse, Jul. 30, 1924.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Ôsima, Okinawa, Korea.

Note. The species is found on humus ground in the laurisilvae or in the lauri-aciculisilvae from the sea level up to an altitude of about 700 m. It is common in southern Japan.

Diplazium Tomitaroanum, MASAMUNE, in Journ. Soc. Trop. Agr. II. p. 33 (1930);

Syn. *Diplazium lance urn*, PRESL, var. *stnuatolobatum*, MAK., in Tokyo Bot. Mag. XX. p. 32 (1906; p.p.)

Diplazium lanceum, PRESL, van *crenatum*, MAK., in Tokyo Bot Mag. XXVII. p. 253 (1913); MASAMUNE, Prel. Rep. Veg. Yak. p. 26 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 46 (1931)

Norn. Jap. Nokogiri-herasida

Leg. Ipse, Kusugawa, Aug. 5, 1924.

Distr. Honsyū, Sikoku, Okinawa, Taiwan.

Note. The plant grows in the lauri-aciculisilvae from 500 m to 700 m above the sea level and is rare in the southern part of Japan.

Diplazium virescens, O. KUNTZE, in Bot. Zeit. VI. p. 537 (1848); DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 226 (1899); MATSUM., Ind. Pl. Jap. I. p. 304 (1904); NAK., Fl. Kor. II. p. 409 (1911), et in Bull. Biogeogr. Soc. Jap. I. p. 251 (1930); MATH., in Journ. Linn. Soc. XXXIX. p. 358 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 26 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 49 (1931)

Syn. Asplenium virescens, METT., Aspl. p. 191, n. 227 (1859), et in Ann. Mus. Bot. Lugd. Bat. II. p. 239 (1866); KUNZE, in Bot. Zeit. IV. p. 537 (Pterid. Jap.) (1848); HOOK., Sp. Fil. III. p. 260 (1860)

Nom. Jap. Kokumô-kuziyaku

Distr. Amami-dsima, Bonins, Korea, China.

Note. I have never collected this plant in the island but it is reported to be indigenous to this island. It may occur on rare occasion.

Diplazium Wichurae, DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 226 (1899), et in Engl. Bot. Jahrb. XXIX. p. 197 (1900); MATSUM., Ind. Pl. Jap. I. p. 305 (1904); MATSUM. et HAY., Enum. Pl. Formos. p. 600 (1906); NAK., Fl. Kor. II. p. 409 (1911); MATH., in Journ. Linn. Soc. XXXIX. p. 358 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 26 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 49 (1931)

Syn. Asplenium Wichurae, METT., in Ann. Mus. Bot. Lugd. Bat. II. p. 237 (1866); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 175 (1867); LUERSS., in Engl. Bot. Jahrb. IV. p. 357 (1833); BAK., in Journ. Bot. XXIII. p. 105 (1885); MAK., in Tokyo Bot. Mag. IX. p. 245 (1895)

Nom. Jap. Nokogirisida

Leg. FAURIE, Jul. 1900.

Diatr. Honsyū, Sikoku, Kyūsyū, Amami-Ōsima, Taiwan, Korea, China.

Note. Species common in southern Japan.

Asplenium, LINN., Sp. Pl. ed. 1. p. 1078 (1753);

DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 233 (1899) p.p.

Syn. Caenopteris, BERGIUS, Act. Acad. Petrop. 1782¹. p. 249 (1786)

Darea, JUSS., Gen. Pl. p. 15 (1789); SMITH, N6m. Acad. Turin. V. p. 409 (1793)

Phyllistis, MOENCH, Method. Pl. p. 724 (1794)

Tarachia, PRESL, Epim. Bot. p. 74 (1849)

Thamnopteris, PRESL, Epim. Bot. p. 68 (1849)

Loxoscaphe, MOORE, in Journ. Bot. V. p. 227 (1853),

Asplenidictyum, J. SM., in HOOK. Ic. Pl. t. 937 (1854), et Hist. Fil. p. 333 (1875);

Micropodium, METT., in Ann. Mus. Bot. Lugd. Bat. II. p. 232 (1866) p.p.

Asplenium abbreviatum, MAK., in Tokyo Bot. Mag. XIII. p. 12 (1899); MATSUM., Ind. Pl. Jap. I. p. 289 (1904); CHR., Ind. Fil. p. 98 (1906); MASAMUNE, Prel. Rep. Veg. Yak. p. 23 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 23 (1931)

Syn. *Aspvitium Sarelii*, MORI Enum. Pl. Cor. p. 3 (1922)

Nom. Jap. *Tokiwa-toranô*

Leg. Ipse, ca. Miyanoura.

Distr. Honsyû, Sikoku, Korea.

Note. The species is found along stone walls, or on rocky places, or in villages. The species is common in the Japanese territory.

Asplenium achilleifolium, (LAM.) C. CHR., Ind. Fil. p. 99 (1905); MATH., in Journ. Linn. Soc. XXXIX. p. 344 (1911); MORI, Enum. Pl. Cor. p. 3 (1922); MERR., Enum. Hainan PL p. 14 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 23 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 23 (1931)

Syn. *Adiantum achilleaefolium*, LAM., Encyc. I. p. 43 (1783)

Adiantum borbonicum, JACQ., Coll. Bot. III. p. 286, t. 21. f. 1 (1799)

Darea rutaefolia, WILLD., Sp. Pl. V. p. 298 (1810)

Darea obtusa, DESV., Berl. Mag. V. p. 323 (1811)

Darea stans, BORY, Bél. Voy. Bot. II. p. 53 (1833)

Asplenium rutaefolium, KUNZE, in Linn. X. p. 521 (1836); FR. et SAV., Enum. Pl. Jap. II. p. 222 (1876); CHR., in Farnk. Erd. p. 208 (1897); MAK., Phan. et Pterid. Jap. Ic. III. PL LXV. (1900); MATSUM., Ind. PL Jap. I. p. 291 (1904)

Asplenium pro longa turra, HOOK., 2nd. Cent. Fer. t. 42 (1861); METT., Fil. Trian. Plane, in Ann. Sc. Nat. II. p. 234 (1865); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 173 (1867); LUERSS, in Engl. Bot. Jahrb. IV. p. 357 (1883)

Nom. Jap. *Hinoki-sida*

Leg. Ipse, ca. Onoaida, Aug. 8th 1924.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-6sima, Taiwan, Korea, China, India.

Note. Grows as an epiphyte on the surface of rocks, or as undergrowth in broad-leaved tree forests; rare in southern Japan.

Asplenium cheilosorum, KUNZE, in Mett. Aspl. n. 104, t. 5, ff. 12-13 (1859); CHR., Ind. Fil. p. 105 (1906); MATH., in Journ. Linn. Soc. XXXIX. p. 344 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 23 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 24 (1931)

Syn. *Asplenium heterocarpum*, WALL., List n. 218 (1828) nom nud.; HOOK., et BAK., Syn. Fil. p. 210 (1867); CHR., Farnk. Erd. p. 194 (1897), et in WARB. Mons. I. p. 71 (1900); MATSUM. et HAY., Enum. PL Formos. p. 603 (1906)

Nom. Jap. *Usuba-kuzyaku*

Leg. Ipse, Kosugidani.

Distr. Taiwan, China, India, Ceylon.

Note. The fern grows along rivulets or on rocks moistened by drops of water-springs in the mountains. The northern limit of habitat of this species is in this island.

Asplenium incisum, THUNB., Trans. Linn. Soc. II. p. 342 (1794); KUNZE, G., Pterid. Jap. p. 523 (1848); HOOK., et BAK., Syn. Fil. p. 217 (1867); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 173 (1867); FR. et SAV., Enum. PL Jap. II. p. 221 (1876); CHR., Farnk. Erd. p. 203 (1897); KOM., Fl. Mansh. I. p. 139 (1901); MATSUM., Ind. PL Jap. I. p. 290 (1904); CHR., Ind. Fil. p. 116 (1906); NAK., Fl. Kor. II. p. 407 (1911); MATH., in Journ. Linn. Soc. XXXIX. p. 345 (1911); HULT, Fl. Kamtch. I. p. 42 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 23 (1929); MIY. et KUDO, Fl. Hokk. and Sagh. I. p. 33 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 24 (1931)

Syn. *Asplenium trichomanes*, (non LINN.) THUNB., Fl. Jap. p. 334 (1784)
Athyrium fontanum, A. GRAY, Bot. Jap. p. 421 (1859)
Asplenium elcgantulum, HOOK., Sp. Fil. III. p. 190 (1860)

Nom. Jap. *Torawosida*

Leg. KUDO, Aug. 1906.

Distr. Kamchatka, Saghalien, Yezo, Honsyû, Sikoku, Kyûsyû, Korea, Manchuria, China.

Note. The fern is found at a low altitude near cultivated land or houses, or on stone walls. The species has its southern limit in this island.

Asplenium hi nu la turn, SW., in Schrad. Journ. 1800². p. 52 (1801); SALOMON, Nomend. Gefässk. p. 92 (1883); CHR., Farnk. Erd. p. 193 (1897); MATSUM., Ind. fl. Jap. I. p. 290 (1904); CHR., Ind. Fil. p. 119 (1906); MAK. et NEM., Fl. Jap. ed. 1. p. 1581 (1925j, et ed. 2. p. 25 (1931); MASAMUNE, Prel. Rep. Veg. Yak. p. 24 (1929)

Nom. Jap.

Leg. ? (fid MAKINO et NEMOTO.)

Distr. Africa.

Note. I have never found this species in the island, but the species is said to be indigenous to this island.

Asplenium Nakanoanum, MAK., in Tokyo Bot. Mag. XXVIII. p. 176 (1914); CHR., Ind. Fil. Supp. II. p. 6 (1917); MASAMUNE, Prel. Rep. Veg. Yak. p. 24 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 25 (1931)

Nom. Jap. *Husasaziran*

Leg. Ipse, ca. Mugio, Jul. 24, 1928.

Distr. Taiwan.

Note. The species grows as undergrowth in the laurisilvae and in the lauri-aciculilvae, sometimes on the surface of mossy rocks. The species is restricted to this island and Taiwan.

Asplenium normale, DON, Prodr. Fl. Nep. p. 7 (1825); FR. et SAV., Enum. Pl. Jap. II. p. 219 (1876); BEDD., Handb. Fern. Brit. Ind. p. 144 (1883); BAK., in Journ. Bot. XXIII. p. 104 (1885); DIELS, Fl. Cent. Chin. p. 198 (1900); MATSUM., Ind. Pl. Jap. I. p. 291 (1904); CHR., Ind. Fil. p. 123 (1906); MATH., in Journ. Linn. Soc. XXXIX. p. 346 (1911); MERR, Enum. Hainan Pl. p. 14 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 24 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 26 (1931)

Syn. *Asplenium opacum*, KUNZE, in Linn. XXIV. p. 261 (1851)

Asplenium multijugum, WALL., Cat. n. 207 (1828); HOOK., Sp. Fil. III. p. 139 (1860)

Asplenium pavonicum, BRACK., Expl. Exp. XVI. p. 150, t. 20, f. 1 (1854)

Nom. Jap. *Nuri-toraw*

Leg. Ipse, Aug. 1, 1924.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-Ôsima, Okinawa, Taiwan.

Note. The plant grows in the laurisilvae and in the lauri-aciculilvae as undergrowth, sometimes on rocky ground or on mossy rocks, and it is common in the Far East.

Asplenium oligophlebium, BAK., in Gard. Chron. n. s. XIV. p. 494 (1880); MAUSUM., Ind. Pl. Jap. I. p. 291 (1904); CHR., Ind. Fil. p. 124 (1906); MASAMUNE, Prel. Rep. Veg. Yak. p. 24 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 26 (1931)

Nom. Jap. *Tyasensida*

Leg. Ipse, Kosugidani, Sept. 2, 1926.

Distr. Honsyū, Amami-Ōsima, Okinawa.

Note. The fern grows on rocks or on rocky ground in the laurisilvae and in the lauri-aculisilvae. The species is rather rare in the above mentioned regions.

Asplenium Sarellii, HOOK., in Blackiston Yang-tsze. pp. 363, 364 (1862); NAK., Fl. Kor. II. p. 408 (1911); MATH., in Journ. Linn. Soc. XXXIX. p. 347 (1911); MAK. et NEM., Fl. Jap. ed. 2. p. 26 U931)

Syn. *Asplenium Blakistoni*, BAK., in HOOK, et BAK. Syn. Fil. ed. 1. p. 216 (1867)

Asplenium pekinense, HANCE, in Journ. Bot. p. 262 (1867); MAK., in Tokyo Bot. Mag. IX. p. (245) (1895), e. XII. p. (87) (1898); MATH., in Journ. Linn. Soc. XXXIX. p. 346 (1911)

Asplenium Saulii, BAK., in HOOK, et BAK. Syn. Fil. ed. 2. p. 216 (1874); CHR., Farnk. Erd. p. 203 (1897); KOM., Fl. Maush. I. p. 139 (1901); MATSUM., Ind. Pl. Jap. I. p. 292 (1904); MASAMUNE, Prel. Rep. Veg. Yak. p. 24 (1929)

Nom. Jap. *Kobano-hinoki-sida*

Leg. Ipse, Jun. 7, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Korea, Manchuria, China, Himalaya.

Note. The fern grows on rocks in the laurisilvae, at altitudes between 200-400 m and is rather rare in southern Japan.

Asplenium Wilfordii, METT.; KUHN, in Linn. XXXVI. p. 94* (1869); BAK., in HOOK, et BAK. Syn. Fil. ed. 2. p. 487 (1874); FR. et SAV., Enum. Pl. Jap. II. p. 220 (1876); LUERSS., in Engl. Bot. Jahrb. IV. p. 356 (1883); MAK., in Tokyo Bot. Mag. XII. p. (87); (1898); MATSUM., Ind. Pl. Jap. I. p. 293 (1904); CHR., Ind. Fil. p. 138 (1906); NAK., Fl. Kor. II. p. 408 (1911); MATH., in Journ. Linn. Soc. XXXIX. p. 347 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 24 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 28 (1931)

Nom. Jap. *Aoganesida*

Leg. Ipse, Nagata, Mart. 22, 1923.

Distr. Sikoku, Kyūsyū, Tanegasima, Amami-dsima, Okinawa, Taiwan, Korea, China.

Note. The species grows in the lauri-aculisilvae, and **occurs rarely in Japan.**

Asplenium Wrftehtii, EAT.; HOOK., Sp. Fil. III. p. 113, t. 182 (1860); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 175 (1867); FR. et SAV., Enum. Pl. Jap. II. p. 219 f 1876); MATSUM. et HAY., Enum. Pl. Formos. p. 607 (1906); COPEL., in Philipp. Journ. Sc. III. 5. p. 280 (1908); NAK., Fl. Kor. II. p. 407 (1911); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 343 (1912); MERR., Enum. Hainan Pl. p. 15 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 24 f 1929); MAK. et NEM., Fl. Jap. ed. 2. p. 29 (1931),

Nom. Jap. *Kuruma-sida*

Leg. Ipse, Aug. 7, 1924.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Osima, Taiwan, Korea, China, Philippines.

Note. Grows on some damp spots, such as, near springs or along brooks in the laurisilvae; rather rare in South Kyūsyū, Sikoku, and Honsyū.

Asplenium yakumontanum, MASAMUNE, sp. nov.

Rhizoma electum ca. 3 cm longum. Frondes ab apice rhizomatis evoluti 10-25 cm longi. Stipes frondorum 5-10cm longi, squamis castaneis dense vestiti superiore sparsim et teniore squamati. Lamina frondorum pinnata ambitu ovata vel lanceolato-oblonga 6-17 cm. longa 4-7 cm. lata, supra viridis infra vix pallida. Pinnae oblique lanceolatae vel ovatae crenulatae vel' pinnatisectae oppositae vel suboppositae, margine vix aculeato-serratis, nervulis lateralibus furcatis. Sori sub lobulis pinnearum singuli oblongi 2 mm longi.

Nom. Jap. Yakusima-sida

Leg. Ipse, Jul. 16, 1928.

Note. Species endemic to this island; grows as undergrowth in the laurisilvae, but is rarely found.

Asplenium Yoshinagae, MAK., Phan. et Pterid. Jap. Ic. I. 2. p. 1. t. 64 (1900); MAK. et NEM., Fl. Jap. ed. 2. p. 29 (193D)

Nom. Jap. Tokiwasida

Leg. Ipse, Kosugidani, Jul. 24, 1928.

Distr. Honsyu, Sikoku, Kyûsyû, Tanegasima, Amami-6sima.

Note. This species grows as an epiphyte on rocks in the lauri-aciculisilvae.

Neottopteris, J. SMITH, in Journ. Bot. III. p. 409

(1841), et IV. p. 175 (1841)

Syn. Asplenium LINN.; DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 233 (1899) p.p.

Neottopteris Nidus, J. SMITH, in HOOK. Gen. Fil. t. 113. B. (1842), et Ferns. Brit. and Foreign, p. 226 '1896;; HAY., in Tokyo Bot. Mag. XLI. p. (711) (1921) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 29 U929, ; NAK., in Bull. Biogeogr. Soc. Jap. I. p. 252 (1930)

Syn. Asplenium Nidus, LINN., Sp. Pl. ed. 1. p. 1079 (1753) ; HOOK., in Bot. Mag. t. 310 H831); HOOK., et ARNOT., Bot. Capt. Beech. Voy. p. 74 (1832), p. 256 (1836'), et p. 312 '1840'; HOOK., Sp. Fil. III. p. 77 (1860); BLANCO, Fl. Filip. t. 36 '1878-80); BENTH., Fl. Hongk. p. 450 (1861), et Fl. Austral. VII. p. 744 (1878) ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 173 (1867); HOOK. et BAK., Syn. Fil. p. 190 (1867^); FR. et SAV., Enum. Pl. Jap. II. p. 218 (1876); BAK., in Journ. Bot. XXIII. p. 104 (1885); LUERSS., in Engl. Bot. Jahrb. IV. p. 355 (1883;; HENRY, List Pl. Formos. p. 112 (1896); CHR., Farnk. Erd. p. 188 (1897;; in WARB. Mons. I. p. 71 '1900), et Geogr. Farn. p. 83 (1910); YABE, in Tokyo Bot. Mag. XVI. p. 49 (1902); MATSUM., Ind. Pl. Jap. I. p. 291 (1904); COPEL., Polyp. Philipp. p. 78 (1905); MATSUM. et HAY., Enum. Pl. Formos. p. 605 '1906); ROSENB., Malayan Ferns, p. 439 (1908); MATH, in Journ. Linn. Soc. XXXIX. p. 346 (1911); DUNN et TUTCH, Fl. Kwangt. and Hongk. p. 343 U912); MERR, Enum. Hainan Pl. p. 14 (1927J ; MAK. et NEM., Fl. Jap. ed. 2. p. 26 (1931.)

Nom. Jap. 6-taniwatari

Leg. Ipse, Jul. 15, 1928.

Distr. Honsyut, Sikoku, Kyûsyu, Tanegasima, Amami-Ôsima, Okinawa, Bonins, Taiwan, Philippines, China, Malay, Polynesia, Australia, East-Africa.

Note. Grows as an epiphyte on the laurigneous trees, from a low altitude up to about 700 m and is a common species in tropical and subtropical lands.

Hymenoasplenium, HAY., in Tokyo Bot. Mag. XLI. p. (712) (1927)

Hymenoasplenium unilaterale, HAY., in Tokyo Bot. Mag. XLI. p. (712) (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 28 (1929)

Syn. Asplenium unilaterale, LAM., Encyc. II. p. 305 (1786); HENRY, List Pl. Formos. p. 112 (1896); YABE, in Tokyo Bot. Mag. XVI. p. 50 (1902); MATSUM., Ind. Pl. Jap. I. p. 292 (1904); MATH., in Journ. Linn. Soc. XXXIX. p. 347 < 191r ; HAY., Ic. Pl. Formos. VIII. p. 142 (1919[^]); MORI, Enum. Pl. Cor. p. 4 (1922); MERR., Enum. Hainan Pl. p. 14 (1927); NAK., in Bull. Biogeogr. Soc. Jap. I. p. 251 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 27 (1931)

Asplenium resectum, SMITH, Ic. Ined. III. t. 72 (1791); HOOK, et GREV., Ic. Fil. t. 114 (1828); HOOK, et ARNOT., Bot. Capt. Beech. Voy. p. 106 (1832); HOOK., Sp. Fil. III. p. 130 (1830); BEDD., Fern. South. Ind. p. 45, t. 132 (1863); HOOK, et BAK., Syn. Fil. p. 210 (1867); FR. et SAV., Enum. Pl. Jap. II. p. 219 (1876); HARRINGT., in Journ. Linn. Soc. XVI. p. 29 (1877); BAK., in Journ. Bot. XXIII. p. 104 (1885); CHR., Farnk. Erd. p. 194 (1897); DIELS, in Engl. Bot. Jahrb. XXIX. p. 198 (1900); COPEL., Polyp. Philipp. p. 81 (1905); MATSUM. et HAY., Enum. Pl. Formos. p. 605 (1906[^])

Norn. Jap. Hôbisida

Leg. Ipse, ca. Miyanoura, Jul. 25. 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-dsima, Okinawa, Taiwan, Bonins, Korea, China, Philippines, Hawaii, Africa, India, Ceylon.

Note. It very often grows in wet places, and is common in South Japan.

var. *obliquissimum*, HAY.; SASAKI, List Pl. Formos. p. 26 (1928); MASAMUNE, Prel. Rep. Veg. Yak. p. 29 (1929)

Syn. Asplenium unilaterale, LAM. var. *obliquissimum*, HAY., Ic. Pl. Formos. IV. p. 230, f. 160 A-B (1914); MAK. et NEM., Fl. Jap. ed. 2. p. 28 (1931)

Norn. Jap. Taiwan-himehobisida

Leg. Ipse, Kosugidani, Mart. 19, 1923.

Distr. Taiwan.

Note. The variety is not yet found in lands further north than this island. It grows nearly under the same conditions as the type species.

Blechnum, LINN., Sp. Pl. ed. 1. p. 1077 (1753);

DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 245 (1899) partim.

Syn. Salpichlaena, J. SMITH, in HOOK. Gen. Fil. t. 93 (1842)

Blechnopsis, PRESL, Epim. Bot. p. 115 (1849)

Elechnum orientale, LINN., Sp. Pl. ed. 1. p. 1077 (1753), et ed. 2. p. 1535 (1763); HOOK. et ARNOT., Bot. Cap. Beech. Voy. p. 75 (1832) et p. 257 (1836); HOOK., Sp. Fil. III. p. 52 (1860); HARRINGT., in Journ. Linn. Soc. XVI. p. 28 (1877); LUERSS., in Engl. Bot. Jahrb. IV. p. 355 (1883[^]); MAK., in Tokyo Bot. Mag. IX. p. 9 (1895); HENRY, List Pl. Formos. p. 111 (1896); CHR., Farnk. Erd. p. 182 (1897), et in WARB. Mons. I. p. 65 (1900); MATSUM., Ind. Pl. Jap. I. p. 297 (1904); COPEL., Polyp. Philipp. p. 89 (1905); MATSUM. et HAY., Enum. Pl. Formos. p. 608 (1906); ROSENB., Malayan Ferns, p. 387 (1908); MATH., in Journ. Linn. Soc. XXXIX. p. 351 (1911); MERR., Enum. Hainan Pl. p. 15 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 25 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 35 (1931)

Syn. Asplenium orientale, BERHN., in Schrad. Journ. 1801¹. p. 17 (1802)

Blechnopsis orientalis, PRESL, Epim. Bot. p. 117 (1849); NAK., in Bull. Biogeogr. Soc. Jap. I. p. 251 (1930)

Norn. Jap. Hirysida

Leg. Ipse, Haro. Aug. 2, 1927.

IHatr. Amami-Ôsima, Okinawa, Taiwan, Bonins, Philippines, China, Malay, India, Tahiti.

Note. The fern grows as undergrowth in wet places at a low altitude, but not so well. It is rarely found in this island, while flourishes in tropical and subtropical regions. It is not yet found in lands further north than Yakusima.

Spicanta, PRESL, Epim. Bot. p. 114 (1849*); O. KUNTZE, Rev. Gen. Pl. II. p. 820 (1891); HAY, in Tokyo Bot. Mag. XLI. p. 700 (1927)

Spicanta nipponica, HAY., in Tokyo Bot. Mag. XLI. p. 700 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 33 (1929)

Syn. Lomaria nipponica, KUNZE, in Bot. Zeit. p. 508 '1848'; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 172 (1867)

Lomaria spicant, DESV. var. *japonica*, HOOK., Sp. Fil. III. p. 16 (1860)

Blechnum nipponicum, MAK., in Tokyo Bot. Mag. XL p. 82 (1897); CHR, Ind. Fil. Suppl. I. p. 16 (1913); MAK. et NEM., Fl. Jap. ed. 2. p. 35 (1931)

Blechnum Spicant, var. *subserrata*, LOW.; MATSUM., Ind. Pl. Jap. I. p. 297 (1904)

Blechnum Spicant, WITHER, var. *nipponicum*, MIY. et KUDO, Fl. Hokk. and Sagh. I. p. 35 (1930)

•Atom. Jap. *Sisigasira*

Leg. Ipse, ca. Kosugidani, Jul. 12, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû.

Note. The fern grows in the forests at an altitude from about 600 m up to 1700 m. This species has its southern limit in this island.

var. *reflexipinnula*, MASAM., in Journ. Soc. Trop. Agr. IV. p. 303 (1932)

Abut. Jap. Sakabasisigasira

Leg. Ipse, Aikodake, 1928.

Note. The fern occurs on somewhat rare occasions at an altitude of about 1000 m.

Woodwardia, SMITH, Mém. Acad. v. p. 411

(1793); DIELS., in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 253 (1899)

Syn. Lorinseria, PRESL., Epim. Bot. p. 72 (1849)

Woodwardia Harlandii, HOOK. var. *Takeoi*, MASAMUNE, in Journ. Soc. Trop. Agr. II. p. 151 (1930)

Syn. Woodwardia Takeoi, HAY., Ic. Pl. Formos. V. p. 348 (1915); MASAMUNE, Prel. Rep. Veg. Yak. p. 33 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 113 (1931)

Norn. Jap. Hosobadkaguma

Leg. Ipse, ca. Koseda, Jul. 12, 1928.

Distr. Taiwan.

Note. I found this interesting plant among fallen foliage in the laurisilvae, at an altitude of about 500 m. This species has its northern limit in this island.

*Woodwardia japonica**, SW., in Mém. Acad. Turin. V. p. 411 (1793); SWARTZ, Syn. Fil. p. 116 (1806); WILLD., Sp. Pl. V. p. 417 (1810); SPRENG., Syst. IV. p. 94 (1827); HOOK, f, Sp. Fil. III. p. 69 (1860); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 173 (1867); HOOK, et BAK., Syn. Fil. p. 188* (1867); FR. et SAV., Enum. Pl. Jap. II. p. 217 (1876); DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 253 (1899); MATSUM.

ct HAY., Enum. Pl. Formos. p. 610 (1906[^]; MATH., in Journ. Linn. Soc. XXXIX. p. 393 «1911 ; MAK. et NEM., Fl. Jap. ed. 2. p. 112 :1931)

Syn. *Blechnum japonicum*, LINN, f., Supp. Syst. Veg. p. 447 (1781)

Woodwardia virginica, (non SMITH' MATSUM., Ind. PL Jap. I. p. 352 (1904); MASAMUNE, Prel. Rep. Veg. Yak. p. 33 J929-

Nom. Jap. *O-kaguma*

Leg. Ipse, Kosugidani, Aug. 8; 1924.

Distr. Honsyû, Sikoku, Kyûsyû, Taiwan, China.

Note. It grows as undergrowth in the lauri-aciculisilvae, at an altitude from 200 m to 700 m, and it is a common species in southern Japan.

Woodwardia orientalis, SW., in Schrad. Journ. 1800. pt. 2. p. 76 (1801), et *Syn. Fil.* p. 116 (1806 ; WILLD., Sp. Pl. V. p. 417 (1810) ; SPRENGL, Syst. Veg. IV. p. 94 (1827); HOOK., Sp. Fil. III. p. 68 (1860); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 173 11867;; HOOK., et BAK., *Syn. Fil.* p. 188 (1867); FR. et SAV., Enum. Pl. Jap. II. p. 216 (1876); NAK., in Tokyo Bot. Mag. XXXIX. p. 104 (1926); MAK. et NEM., Fl. Jap. ed. 2. p. 112 (1931)

Syn. *Blechnum japonicum*, (non LINN.) HOUTTUYN, Nat. Hist. XIV. t. 97, f. 1 (1783)
Woodwardia radicans, mon SMITHKI EATON, in Perry's Exp. p. 329 (1856); CHR., in WARB. Mons. I. p. 66 11900); MATSUM., Ind. Pl. Jap. I. p. 352 11904)

Woodwardia radicans, SW. var. *orientalis*, LUERSS., Fl. p. 292 (1876); CHR., Ind. Fil. p. 155 '1906); MASAMUNE, Prel. Rep. Veg. Yak. p. 33 (1929)

Woodwardia intermedia, CHRIST, in Bull. Herb. Boiss. 2. sér. IV. p. 618 (1904)

Woodwardia radicans, var. *japonica*, CHR., Ind. Fil. p. 658 (1906)

Aô/Ti. Jap. *Komoti-sida*

Leg. Ipse, Jul. 14 1922.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan.

Note. Grows in sunny places at a low altitude; common in southern Japan.

Coniogramme, FKE, Gen. Fil. p. 167 (1850-52);

DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 261 (1899; p.p.

Coniogramme fraxinea, DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 262 (1899); KOM., Fl. Mansh. I. p. 140 (1901[^] ; MATSUM., Ind. Pl. Jap. I. p. 299 (1906); HAY. Fl. Mont. Formos. p. 244 (1908¹ ; NAK., Fl. Kor. II. p. 410 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 25 ^ 1929;; MAK. et NEM., Fl. Jap. ed. 2. p. 37 (1931)

Syn. *Diplazium fraxincum*, DON, Prodr. Fl. Nep. p. 12 '1825)

Gymnogramme javanica, BL., Enum. Pl. Jav. p. 112 (1828), et Fl. Jav. II, p. 95, t. 41 :1829;; HOOK., Sp. Fil. V. p. 145 (1864); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 177 (1867;; FR. et SAV., Enum. Pl. Jap. II. p. 248 (1876); HENRY, List Pl. Formos. p. 116 (1896,; MAK., in Tokyo Bot. Mag. X. p. 180 J896,

Gymnogramme serrulata, BL., Fl. Jav. II. p. 96, t. 42 (1829)

Gymnogramme fraxinea, BEDD., Fern. Br. Ind. Supp. p. 24 (1876)

Syngramme fraxinea, BEDD., Handb. Fern. Brit. Ind. p. 386 (1883)

Coniogramme falcata, SALOM., Norn. Gefässk. p. 139 (1883)

Gymnogramme javanica, var. *serrulata*, MAK., in Tokyo Bot. Mag. X. p. (181) '1896/

Neurogramme fraxinea, CHR., Farnk. Erd. p. 63 1897/

Nom. Jap. *Ivaganc-zenmai*

Leg. Ipse, ca. Nakama, Jul. 7, 1928.

Distr. Kuriles, Saghalien, Yezo, Honsyû, Sikoku, Kyûsyû, Amami-6sima, Taiwan, Korea, Manchuria, China, India, Australia.

Ncte. Grows on rocky ground or on rocks in the laurisilvae; distributed throughout tropical and subtropical regions.

Hypolepis, BERNHARDI, in Schrad. neu. Journ.

I. p. 34 (1806); DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 277 (1899)

Hypolepis punctata, METT.; KUHN., Fil. Afr. p. 120 (1886); CHRIST, in Bull. Herb. Boiss. VII. p. 818 (1899); MATSUM., Ind. Pl. Jap. I. p. 310 (1904); MATSUM. et HAY., Enum. Pl. Formos. p. 613 (1906); NAK., Fl. Kor. II. p. 412 (1911); MATH., in Journ. Linn. Soc. XXXIX. p. 371 (1911); HAY., in Tokyo Bot. Mag. XLI. p. 717; (1927); MERR., Enum. Hainan Pl. p. 15 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 29 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 74 (1931)

Syn. *Folypodium punctatum*, THUNB., Fl. Jap. p. 337 (1784); HOOK, et BAK., Syn. Fil. p. 312 (1867)

Phegopteris punctata, METT., in Ann. Mus. Bot. Lugd. Bat. I. p. 222 (1864)

Nephrodium punctatum, DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 177 (1899)

Dryopteris punctata, C. CHR., Ind. Fil. p. 287 (1905)

Norn. Jap. Iuahimeuarabi

Leg. Ipse, Kosugidani Jul. 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-6sima, Taiwan, Korea, China, Philippines, Polynesia, Australia.

Note. It grows in dry and sunny places, mostly in the lauri-aciculisilvae, and is common in southern Japan.

Onychium, KAULFUSS, Jahr. d. Pharm. Berlin, p. 45 (1820); II. CHR., Farnk. Erd. p. 154 (1897);

Onychium japonicum, KUNTZE, in Bot. Zeit. p. 507 (1848); HOOK, et BAK., Syn. Fil. p. 143 (1867); CHR., Farnk. Erd. p. 155 (1897); NAK., Fl. Kor. II. p. 412 (1911), et in Bull. Biogeogr. Soc. Jap. I. p. 252 (1930); MATH., in Journ. Linn. Soc. XXXIX. p. 375 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 30 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 81 (1931)

Syn. *Trichomanes japonicum*, THUNB., Fl. Jap. p. 340 (1784)

Caenopteris japonica, THUNB., Nov. Act. Petr. IX. p. 161, t. G. f. 2 (1795)

Darea japonica, WILLD., Sp. Pl. V. p. 302 (1810)

Leptostegia lucida, DON, Prodr. Fl. Nep. p. 14 (1825)

Onychium lucida, SPR., LINN. Syst. Veg. IV. p. 66 (1827);

Cheilanthes contigua, WALL., Cat. n. 72 (1828)

Cheilanthes lucida, WALL., Cat. n. 69 (1828);

Allosorus capensis, PRESL. Tent. Pt. p. 152 (1836)

Pteris japonica, METT., Fil. Lips. p. 54 (1856)

Cryptogramme japonica, PRANT., in Engl. Bot. Jahrb. III. p. 413 (1882);

MATSUM., Ind. Pl. Jap. I. p. 300 (1904); MATSUM. et HAY., Enum. Pl.

Formos. p. 614 (1906)

Abut. Jap. Tatisinobu

Leg. Ipse, ca. Kurio, Jun. 27. 1928.

Diatr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Bonins, Korea, China, Philippines, Java, India.

Note. It is found along the roadside, or margins of forests at low altitude, and is widely distributed in southern Japan.

- Pteris, LINN., Sp. Pl. ed. 1. p. 1073 (1753[^];
 DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 290 (1899)
- Syn.* *Campteria*, PRESL, Tent. Pt. p. 146 (1836;
Litobrochia, PRESL, Tent. Pt. p. 148 (1836; p.p.
Pyoiodorica, PRESL, Epim. Bot. p. 100 (1849;
- Pteris biaurita*, LINN., Sp. Pl. ed. 1. p. 1076 (1753); HOOK., Sp. Fil. II. p. 203 (1858);
 HOOK., et BAK., Syn. Fil. p. 164 (1867); MATSUM., Ind. Pl. Jap. I. p. 345 (1904);
 MATSUM. et HAY., Enum. Pl. Formos. p. 618 (1906); MATH., in Journ. Linn.
 Soc. XXXIX. p. 388 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 32 (1929)
- Syn.* *Pteris nemoralis*, WILLD., Enum. Pl. Hort. p. 1073 (1809); et Sp. Pl. V. p. 386
 (1810)
Campteria biaurita, HOOK., Gen. Fil. t. 65-A (1842)
Campteria mmoralis, J. SMITH, Bot. Mag. LXXII. Comp. p. 23 (1846)
Pteris dispar, KUNZE, in Bot. Zeit. p. 539 (1848); MAK. et NEM., Fl. Jap. ed.
 2. p. 106 (1931)
Litobranchia biaurita, J. SMITH, Cat. Cult. Fern. p. 37 (1857)
Pteris Grevilleana, (non WALL.); HENRY, List Pl. Formos. p. III (1896)
Pteris Kleiniana, CHR., in Bull. Herb. Boiss. IV. p. 666 (1896); et in WARB.
 Mons. I. p. 70 (1900)[^]
- Norn. Jap. Kokcsida*
Leg. Ipse, Jul. 15, 1922.
Distr. Honsyū, Sikoku, Kyūsyū, Amami-6sima, Taiwan, China.
- Note.* The fern grows in somewhat sunny places, such as along roadside, or in clearings in the laurisilvae or lauri-aciculisilvae, and is common in southern Japan.
- var. *quadriaurita*, LUERSS., in Engl. Bot. Jahrb. IV. p. 355 (1883); MAK., in Tokyo Bot. Mag. X. p. 151 (1896); MATSUM., Ind. Pl. Jap. I. p. 345 (1904); MATSUM. et HAY., Enum. Pl. Formos. p. 618 (1906); MASAMUNE, Prel. Rep. Veg. Yak. p. 32 (1929)
- Syn.* *Pteris quadriaurita*, RETZ., Obs. VI. p. 38 (1891J); HOOK., Sp. Fil. II. p. 179, t. 134-B (1858); BEDD., Fern. South. Ind. p. 11 (1863); HOOK., et BAK., Syn. Fil. p. 158 (1867); FR. et SAV., Enum. Pl. Jap. II. p. 214 (1876); HARRINGT., in Journ. Linn. Soc. XVI. p. 28 (1877); BAK., in Journ. Bot. XXIII. p. 103 (1885); HENRY, List Pl. Formos. p. III (1896); CHR., in Warb. Mons. I. p. 69 (1900); YABE, in Tokyo Bot. Mag. XVI. p. 51 (1902)
- Pteris hachijocnsis*, NAK., in Bull. Biogeogr. Soc. Jap. I. p. 252 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 106 (1931)[>]
- Nom. Jap. Hatizyō-sida*
Lea. Ipse, Onoaida, Mart. 4, 1927.
Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Ōsima, Okinawa, Taiwan, Bonins.
- Ntie.* The variety is found in almost the same conditions as the type species.
- Pteris flaviculis*, HAY., Mat. Fl. Formos. p. 443 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 32 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 106 (1931)
- Nom. Jap. Hosoba-hatizyō-sida*
Lea. Ipse, Jul. 17, 1922.
Dislr. Tiiwnn.

Note. The species grows in the laurisilvae or in the lauri-aciculisilvae, and it is restricted to Formosa and to this island, as far as I am aware.

Pteris longipinnula, WALL., Cat. n. 108, 1823; HOOK., Sp. Fil. II. p. 179, t. 134-A. (1858); HOOK., et BAK., Syn. Fil. p. 158 (1867); FR. et SAV., Enum. Pl. Jap. II. p. 214 (1876); BEDD., Handb. Fern. Brit. Ind. p. 112 (1892); CHR., in Bull. Herb. Boiss. VI. p. 956 (1898); MATSUM., Ind. Pl. Jap. I. p. 346 (1904); MATH., in Journ. Linn. Soc. XXXIX. p. 389 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 32 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 107 (1931)

Norn. Jap. *Oba-no-haiizyo-sida*

Leg. Ipse, Aug. 6, 1921.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-Ôsima, China, India.

Note. It grows as undergrowth on damp spots in the laurisilvae and occurs on rare occasions in the southern part of Honsyû, and Kyûsyû in Japan.

Pteris multifida, PoIR., Encycl. V. p. 714 (1804); NAK., Fl. Kor. II. p. 397 (1911); MATH., in Journ. Linn. Soc. XXXIX. p. 389 (1911) p.p.; MASAMUNE, Prel. Rep. Veg. Yak. p. 32 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 107 (1931)

Syn. *Pteris serrulata*, LINN., f. Supp. p. 445 (1781); HOOK., Sp. Fil. II. p. 167 (1868); HOOK., et BAK., Syn. Fil. p. 155 (1867); DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 292 (1899); MATSUM., Ind. Pl. Jap. I. p. 349 (1904)

Nom. Jap. *Inomotosô*

Leg. Miyanoura.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Ôsima, Okinawa, Korea, China.

Note. Grows in crevices of stone walls or on rocky ground near dwellings; common in Japan.

Pteris semipinnata, LINN., Sp. Pl. ed. 1. p. 1076 (1753); THUNB., Fl. Jap. p. 333 (1784); HOOK., Sp. Fil. II. p. 169 (1858); BKNTH., Fl. Hongk. p. 418 (1861); HOOK., Gard. Fern. t. 59 (1852); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 172 (1867); HOOK., et BAK., Syn. Fil. p. 157 (1867); FR. et SAV., Enum. Pl. Jap. II. p. 214 (1876); HARRINGT., in Journ. Linn. Soc. XVI. p. 27 (1877); BAK., in Journ. Bot. XXIII. p. 103 (1885); BEDD., Fern. Brit. Ind. p. 109 (1892); HENRY, List Pl. Formos. p. 111 (1896); MAK., in Tokyo Bot. Mag. X. p. 148 (1896); CHR., Farnk. Krd. p. 166, f. 499 (1897), et in WARB. Mons. I. p. 69 (1900); DIKLS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 292 (1899), et in Kngl. Bot. Jahrb. XXIX. p. 202 (1900); MATSUM., Ind. Pl. Jap. I. p. 316 (1904); COE, Polyp. Philipp. p. 101 (1905); MATSUM. et HAY, Enum. Pl. Formos. p. 622 (1906); NAK., Fl. Kor. II. p. 398 (1911); MATH., in Journ. Linn. Soc. XXXIX. p. 390 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 33 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 108 (1931)

Syn. *Pteris inaequalis*, BAK., in Journ. Bot. IV. p. 199 (1873);

Nom. Jap. *6-amakusasida*

Leg. Ipse, ca. Hunayuki, Mart. 24, 1923.

Bittr. Kyûsyû, Amami-Ôsima, Taiwan, Korea, China, Philippines, India.

Note. As undergrowth, especially on rocky ground, from a low altitude up to about 1000m; widely distributed in South Japan.

Pteris quadriaurita, RETZ, Obs. VI. p. 38 (1791); MAK. et NEM., Fl. Jap. ed. 2. p. 108 (1931)

Syn. *Pteris semipinnata*, LINN. var. *dispar*, BAK. et HOOK., Syn. Fil. p. 157 (1867);

HARRINGT., in Journ. Linn. Soc. XVI p. 27 (1877); MAK, in Tokyo Bot. Mag. X. p. 149 (1896); CHR., in WARB. Mons. I. p. 69 (1900), et in Bull. Soc. Bot. Ital. p. 293 (1901); MATSUM., Ind. Pl. Jap. I. p. 346 (1904); MATSUM. et HAY., Enum. Pl. Formos. p. 622 (1906); MATH., in Journ. Linn. Soc. XXXIX. p. 390 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 33 (1929)

Nom. Jap. Amakusa-sida

Leg. Ipse, Aug. 12, 1922.

Distr. Honsyū, Sikoku, Kyūsyū, Taneisima, Amami-Osima, Okinawa, Taiwan, China.

Note. The fern grows in abundance in the same condition as the previous species, and is common in South Japan.

Pteris Wallichiana, AGR., Rec. Sp. Gen. Pt. p. 69 (1839); HOOK., Sp. Fil. II. p. 206 (1858) HOOK. et BAK., Syn. Fil. p. 165 (1857); CHR., in WARB. Mons. I. p. 70 (1900) MATSUM., Ind. Pl. Jap. I. p. 347 (1904); COPEL., Polyp. Philipp. p. 103 (1905); MATSUM. et HAY., Enum. Fl. Formos. p. 623 (1906); MATH., in Journ. Linn. Soc. XXXIX. p. 390 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 33 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 103 (1931)

Nom. Jap. Nati-sida

Leg. Ipse, ca. Ambo, Aug. 29, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Osima, Okinawa, Taiwan, China, Philippines.

Note. It is found in wet places from the sea level up to about 500 m sometimes in sunny places and is distributed from Honsyū to Formosa, but it is not so common in Japan.

Histiopteris, J. SMITH, Hist. Fil. p. 294 (1875);

DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 294 (1899)

Syn. *Pteris*, Sect. *Histiopteris*, AGARDH, Rec. Gen. Pt. p. 76 (1839)

Histiopteris incisi, J. SMITH, Hist. Fil. p. 295 (1875); DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 294 (1899); MATSUM., Ind. Pl. Jap. I. p. 309 (1904); COPEL., Polyp. Philipp. p. 101 (1905); MATSUM. et HAY., Enum. Pl. Formos. p. 624 (1906); MATH., in Journ. Linn. Soc. XXXIX. p. 369 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 23 (1929); NAK., in Bull. Bio-geogr. Soc. Jap. I. p. 251 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 73 (1931); MERR., in Linn. Soc. Journ. XL p. 37 (1932)

Syn. *Pteris incisa*, THUNB., Prod. Fl. Cap. p. 171 (1800); HOOK., Sp. Fil. II. p. 230 (1858); HOOK. et BAK., Syn. Fil. p. 172 (1867); HARRINGT., in Journ. Linn. Soc. XVI. p. 28 (1877); BAK., in Journ. Bot. XXIII. p. 103 (1885); HENRY, List Pl. Formos. p. 111 (1896); CHR., in Farnk. Erd. p. 163 (1897), et in WARB. Mons. I. p. 68 (1900)

Pteris Vespertilionis, LAB., Nov. Holl. Pl. Sp. II. p. 96, t. 245 (1806)

Pteris elegans, SW., Vet. Ak. Handl. p. 70 (1817)

Lithobrachia incisa, PRESL, Tent. Pt. p. 149 (1836)

Phegopteris incisa, KEYS., Pol. Cyath. Herb. Bung. p. 51 (1873)

Nom. Jap. Yunominesida

Leg. Ipse, Kusugawa, Mart. 17, 1923.

Distr. Honsyū, Kyūsyū, Amami-Osima, Okinawa, Taiwan, Bonins, China, Philippines, Malay.

Note. The species ranges from a low altitude up to about 600 m in wet places.

It is found from southern Honsyū to Formosa and abundantly occurs in tropical and subtropical regions of both hemispheres.

Pteridium, GLEDITCH; SCOPOLI, Fl. Carniolica.

p. 169 (1760); DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 296 (1899);

Sun. *Ornithopteris*, J. SMITH, Hist. Fil. p. 297 (1875) p.p.

Pteris, Sect. *Ornithopteris*, AGARDH, Rec. Gen. Pt. p. 45 (1839)

Pteridium aquilinum, KUHN. var. japonicum, NAK., in Tokyo Bot. Mag. XXXIX. p. 106 (1925); MASAMUNE, Prel. Rep. Veg. Yak. p. 32 (1929); MIY. et KUDO, Fl. Hokk. and Sagh. I. p. 39 (1930^x); MAK. et NEM., Fl. Jap. ed. 2. p. 105 (1931)

Suit. *Pteridium [aquilinum]*, (non KUHN.) LUERSS., in Engl. Bot. Jahrb. IV. p. 355 (1883); PALIB., Consp. Fl. Kor. III. pp. 142 (42) (1901); KOM., Fl. Mansh. I. p. 144 (1901); MATSUM., Ind. Pl. Jap. I. p. 345 (1904); MATSUM. et HAY., Enum. Pl. Formos. p. 624 (1906); NAK., Fl. Kor. II. p. 412 (1911)

Pteris aquilina, THUNB., Fl. Jap. p. 332 (1784); BENTH., Fl. Hongk. p. 449 (1861); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 172 (1867J); FR. et SAV., Enum. Pl. Jap. II. p. 215 (1876); CHRIST, in WARB. Mons. I. p. 68 (1900)

Norn. Jap. Warabi

Leg. A. KIMURA! Aug. 9, 1922.

Distr. Saghalien, Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Ōsima, Okinawa, Taiwan, Bonins, Korea, Manchuria, China.

Note. Found in waste places at a low altitude; common in Japan.

Vittaria, J. SMITH, Mém. Acad. Turin. V. p.

413, t. 9 (1793); DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 299 (1899)

Sun. *Haplopteris*, PRESL, Tent. Pt. p. 141 (1836)

Tacniopsis, J. SMITH, in Journ. Bot. IV. p. 67 (1841)

Vittaria formosana, NAK., in Tokyo Bot. Mag. XXXIX. p. 176 (1925); MAK. et NEM., Fl. Jap. ed. 2. p. 110 (1931)

Sun. *Vittaria elongate*, (non SW.,) MATSUM., Ind. Pl. Jap. I. p. 350 (1911); MATSUM. et HAY., Enum. Pl. Formos. p. 625 (1906); HAY., Ic. Pl. Formos. VI. p. 161 (1916); MASAMUNE, Prel. Rep. Veg. Yak. p. 33 (1929),

Norn. Jap. Sima-sisiran

Leg. Ipse, ca. Kosoda, Jul. 14, 1927.

Distr. Tanegasima, Amami-Ōsima, Okinawa, Taiwan, Bonins.

Note. It grows as an epiphyte on laurigenous trees at about 500 m above the sea level, and is distributed from Formosa to Tanegasima.

Vittaria japonica, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 169 (1867); MAK., Phan. et Pterid. Jap. Ic. III. I. Pl. 24 (1899); MASAMUNE, Prel. Rep. Veg. Yak. p. 33 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 110 (1931)

Sun. *Vittaria lineata*, (non SW.) MATSUM., Ind. Pl. Jap. I. p. 351 (1904)

Nom. Jap. Sisiran

Leg. Ipse, Kosugidani, Mart. 17, 1923.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Osima, Okinawa, Taiwan.

Note. It grows as an epiphyte on tree trunks, and on rocks, from a low altitude up to about 1000 m, and is common in southern Japan.

Drymoglossum, PRESL, Tent. Pt. p. 227 (1836);

DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 302 (1899)

Sun. *Lemmaphyllum*, PRESL, Epim. Bot. p. 157 (1819); •

- Drymoglossum microphyllum**, C. CHR., Ind. Fil. p. 246 (1905), et (1906) p.p.; MATH., in Journ. Linn. Soc. XXXIX. p. 359 (1911[^]); MAK. et NEM., Fl. Jap. ed. 1. p. 1607 (1925), et ed. 2. p. 50 (1931); MASAMUNE, Prel. Rep. Veg. Yak. p. 26 (1929)
- Syn.** *Pteris piloselloides*, (non LINN.) THUNB., Fl. Jap. p. 331 (1784)
Nothlaem piloselloides, KAUL., Enum. Fil. p. 133 [1824*] p.p.
Lemmaphyllum microphyllum, FRESL., Epim. Bot. p. 263 (1819), excl. spec, ex Jav.
Tacnitis microphylla, METT. ex MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 170 (1867)
Drymoglossum carnosum, (non J. SMITH) FR. et SAV., Enum. Pl. Jap. II. p. 250 (1876)
Drymoglossum subcordatum, FKE. Trois. Mém. p. 29 (1852[^]); DIELS, in ENGL. U. PR ANT. Nat. Pfl.-fam. I. iv. p. 303 (1898[^]); CHR., in WARB. Mons. I. p. 66 (1900) p.p.
Drymoglossum carnosum, var. *microphyllum*, NAK., Fl. Kor. II. p. 413 (1911[^]), et in Tokyo Bot. Mag. XXVIII. p. 93 (1914)
- Nom. Jap.** *Mamezuta*
- Leg.** Ipse, Jul. 7, 1928.
- Distr.** Honsyû, Sikoku, Kyûsyû, Tancgasima, Amami-6sima, Taiwan, Korea, China.
- Note.** It is a common epiphyte in South Japan. It grows on tree trunks and on rocks in the lauri-aculisilvae.

Polypodium, LINN., Sp. Pl. ed. 1. p. 1082 (1753)

- p.p.; DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 306 (1899); p.p.
- Syn.** *Grammitis*, SWARTZ, Schrad. Journ. 1803[^]. p. 17 (1801)
Pleopeltis, HUMB. et BONPL. apud WILLD., Sp. Pl. V. p. 211 (1810)
Adenophorus, GAUD., Ann. Sc. Nat. III. p. 508 (1824)
Marginaria, BORY, Diet. Class. d'Hist. Nat. VI. p. 587 (1824) et X. p. 176 (1826);
Selliguca, BORY, Diet. Class. d'Hist. Nat. VI. p. 587 (1824)
Xiphopteris, KAUL., in Jahrb. f. d. Pharmacie, Berlin, 1820, p. 35, et Enum. Fil. p. 85 (1824)
Amphoradenium, DESV., Prodr. p. 335 (1827);
Calymmodon, PRESL., Tent. Pt. p. 203 (1836 j)
Campylotworum, PRESL., Tent. Pt. p. 189 (1836);
Goniophlebium, PRESL., Tent. Pt. p. 185 (1836);
Phymatodes, PRESL., Tent. Pt. p. 195 (1836)
Synnamina, PRESL., Tent. Pt. p. 212 (1836)
Cyrtophlelium, J. SMITH, in Journ. Bot. IV. p. 58 (1841)
Phlebodium, J. SMITH, in Journ. Bot. IV. p. 58 (1841)
Cryptosorus, FKE. Congr. Sc. France X. sess. I. p. 178 (1843), et Gen. Fil. p. 231 (1850-52)
Dictymia, J. SMITH, in Bot. Mag. LXXII. p. 16 (1846)
Mccosorus, KLOTZSCH, in Linn. XX. p. 401 (1847)
Colysis, PRESL., Epim. Bot. p. 146 (1819) p.p.
Plcuridium, FKE., Gen. Fil. p. 273 (1850-52)
Aruipcltis, J. SMITH, Cat. Fern. p. 5 (1857)
Paragramma, MOORE, Ind. XXXII. (1857)
Schellolepsis, J. SMITH, Fern. Brit. and Foreign, p. 82 (1866)
Phymatopsis, J. SMITH, Hist. Fil. p. 104 (1875)

Polypodium Blumeum, CHR., Ind. Fil. p. 513 (1905)

Syn. *Loxogramme Blumeum*, PRESL. Tent. Ft. p. 215 (1836)

Selliguea Blumei, KUNZE, in Bot. Zeit. p. 420 (1846)

Polypodium avenium, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 170 (1867)

Gymnogramme Blumci, FR. et SAV., Enum. Pl. Jap. II. 1, p. 284 (1876) p.p.

Gymnogramme lanceolata, (non HOOK.) MATSUM., Nippon Shokubutsu, Mei-i, p. 89 (1884 ; HARRING., in Journ. Linn. Soc. XVI. p. 33 a887)

Polypodium Loxogramme, MAK., in Tokyo Bot. Mag. IX. p. (246) (1895) ; MATSUM. et HAY., Enum. Pl. Formos. p. 633 (1906)

Gymnogramme involuta, (non HOOK.) MAK., in Tokyo Bot. Mag. X. p. (179) (1896), et Phan. et Pterid. Jap. Ic. III. 6. Pl. XXXV. (1899)

Polypodium involutum, (non DESV. nee. METT.) MATSUM., Ind. Pl. Jap. I. p. 335 (1904) excl. syn.

Polypodium scolopendrium, (non CHR.) MAK. et NEM., Fl. Jap. ed. 1. p. 1650 (1925); MERR., Enum. Hainan Pl. p. 19 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 31 (1929)

Loxogramme Fauriei, COPEL., in Philipp. Journ. Sc. Bot. XL p. 45 (1916); MERR., in Philipp. Journ. Sc. Bot. XIII. p. 127 (1918)

Norn. Jap. Saziran

Leg. Ipse, Mart. 17, 1923.

Distr. Honsyu, Sikoku, Okinawa, Taiwan, China.

Note. The fern grows on tree trunks, or on rocks in the lauri-aciculisilvae.

Polypodium Buergerianum, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 170 (1867); FR. et SAV., Enum. Pl. Jap. II. p. 245 (1876); BAK., in Ann. Bot. V. p. 475 (1891); CHR., in WARB. Mons. I. p. 61 (1900) ; MATSUM., Ind. Pl. Jap. I. p. 333 (1904); MATSUM. et HAY., Enum. Pl. Formos. p. 628 (1906); MATH., in Journ. Linn. Soc. XXXIX. p. 377 (1911) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 30 (1929)

Syn. *Polypodium avenium*, METT., Fil. Lip. p. 37 (1856)

Gymnogramme Blumei, FR. et SAV., Enum. Pl. Jap. II. p. 248 (1876)

Polypodium brachylepis, BAK., in Gard. Chr. n. s. XIV. p. 494 (1880)

Polypodium Buergerianum, MIQ. var. *stipitatum*, TAKEDA, in Not. Roy. Bot. Gard. Edin. XXXIX. p. 290 (1915); MAK. et NEM., Fl. Jap. ed. 2. p. 85 (1931)^

Nom. Jap. Nukabosi-sida

Leg. Ipse, Ambo, Mart. 23, 1923.

Distr. Honsyu, Sikoku, Kyûsyû, Amami-6sima, Okinawa, Taiwan, China.

Note. The fern grows in the laurisilvae, from a low altitude up to about 400 m and is widely distributed in South Japan.

Polypodium ellipticum, THUNB. var. *pothifolium*, MAK., in Tokyo Bot. Mag. XXIII. p. 72 (1909); MASAMUNE, Prel. Rep. Veg. Yak. p. 30 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 86 (1931)

Syn. *Hemionitis pot hi folia*, HAMILL., ex Don, Prodr. Fl. Nep. p. 13 (1825)

Gymnogramme pot hi folia, SPR., Syst. Veg. IV. p. 39 (1827); MAK., in Tokyo Bot. Mag. XII. p. 166 (1898)

Graminitis decurrens, WALL., Cat. no. 5 (1828 ; HOOK., et GREV., IC. Fil. I. t. 6 (1827); BENTH., Fl. Hongk. p. 457 (1861)

Selliguea decurrens, PRESL, Tent. Pt. p. 216 (1836); HOOK., et ARN., Bot. Capt. Beech. Voy. p. 274 (1836-40); KUNZE, in Bot. Zeit. VI. p. 494 (1848); BEDD., Ferns Brit. Ind. t. 150 (1866j

Selliguea pothifolia, J. SMITH, in Journ. Bot. III. p. 399 (1840) et Ferns Brit. and Foreign, p. 97 (1896)

Polypodium pothifolium, METT., Far. Bot. Gart. Leip. p. 130, t. 25, f. 21 (1856)

Gymnogramme decurrens, HOOK., Sp. Fil. V. p. 161 (1864)

Gymnogramme elliptica, HOOK, et BAK., Syn. Fil. p. 389 (1868); CLARKE, in Trans. Linn. Soc. 2, ser. Bot. I. p. 570 (1880); HENRY, List Pl. Formos. p. 116 (1896)

Selliguea elliptica, BEDD., Handb. Ferns Brit. Ind. p. 392 (1892) excl. Syn. *P. ellipticum*, THUNB.

Polypodium ellipticum, (non THUNB.) CHR., Farnk. Erd. p. 107 (1897); DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 318 (1899); MATSUM. et HAY., Enum. Pl. Formos. p. 629 (1906) p.p.; ROSENB., Malayan Ferns, p. 677 (1908) \ MATH., in Journ. Linn. Soc. XXXIX. p. 378 (1911) p.p.

Norn. Jap. *Ô-iuahitode*

Leg. Ipse, Jul. 14, 1922.

Distr. Kyûsyû, Tanegasima, Amami-Ôsima, Okinawa, Taiwan, Bonins, China, Malay. India.

Note. The species is often found on rocks as undergrowth in the laurisilvae, and is common in southern Japan.

var. **typicum**, MAK., in Tokyo Bot. Mag. XXIII. p. 72 (1909); MASAMUNE, Prel. Rep. Veg. Yak. p. 30 (1929); MAK. et NEM, Fl. Jap. ed. 2. p. 86 (1931)

Syn. *Polypodium ellipticum*, THUNB., Fl. Jap. p. 335 (1784); SW., Syn. Fil. p. 63 (1806); MATSUM. et HAY., Enum. Pl. Formos. p. 629 (1906) p.p.; MATH., in Journ. Linn. Soc. XXXIX. p. 378 (1911) p.p.; MORI, Enum. Pl. Cor. p. 14 (1922)

Gymnogramme elliptica, (non HOOK, et BAK.) MAK., in Tokyo Bot. Mag. XII. p. 166 (1898)

Nom. Jap.' *Iwahitode*

Leg. Ipse, Jul. 18, 1928.

Distr. Kyûsyû, Tanegasima, Okinawa, Taiwan, Bonins, Korea, China.

Note. The fern is found on rocks in the laurisilvae as undergrowth and common in southern Japan.

Polypodium Engleri, LUERSS., in Engl. Bot. Jahrb. IV. p. 361 (1883); BAK., in Ann. Bot. V. p. 478 (1891); MATSUM., Ind. Pl. Jap. I. p. 334 (1904); MORI, Enum. Pl. Cor. p. 15 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 30 (1929J); MAK. et NEM., Fl. Jap. ed. 2. p. 86 (1931)

Nom. Jap. *Takanoha-urabosi*

Leg. Ipse, Kosugidani, Mart. 17, 1923.

Distr. Honsyû, Sikoku, Kyûsyû, Taiwan, Korea.

Note. The species grows as an epiphyte on tree trunks, and on rocks in the lauri-aciculisilvae.

Polypodium ensatum, THUNB., in Trans. Linn. Soc. II. p. 341 (1794); HOOK., Sp. Fil. V. p. 72 (1864); METT., in Ann. Mus. Bot. Lugd. Bat. II. p. 228 (1866); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 171 (1867); HOOK, et BAK., Syn. Fil. p. 361 (1868); FR. et SAV., Enum. Pl. Jap. II. p. 246 (1876); DIELS, in ENGL.u. PRANT. Nat. Pfl.-fam. I. iv. p. 315 (1899), et in Engl. Bot. Jahrb. XXIX. p. 203 (1900); CHR., in Bull. Herb. Boiss. IV. p. 673 (1896), et in WARB. Mons. I. p. 61 (1900); MATSUM., Ind. Pl. Jap. I. p. 334 ^1904); MATSUM. et HAY., Enum. Pl. Formos. p. 630 (1906); MATH., in Journ. Linn. Soc. XXXIX. p. 378 (1911); MORI, Enum. PL

Cor. p. 15 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 30 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 87 (1931)

Syn. *Polypodium phyllitis*, THUNB., Fl. Jap. p. 335 (1784)

Drynaria cnsata, EAT., in Perry, Narr. Exp. p. 329 (1856)

Pleopeltis cnsata, MOORE, Ind. Fil. p. 346 (1862)

Norn. Jap. *Kuriharan*

Leg. Ipse, ca. Ambô.

Distr. Honsyû, Sikoku, Kyûsyû, Taiwan, Korea, China.

Nctc. It grows as undergrowth in the laurisilvae and is common in South Japan.

Polypodium Hancockii, BAK., in Journ. Bot. XXIII. p. 105 (1885; et in Ann. Bot. V. p. 479 (1891); HENRY, List Pl. Formos. p. 115 (1896); MATSUM. Ind. Pl. Jap. I. p. 334 (1904); MATSUM. et HAY., Enum. Pl. Formos. p. 631 (1906); MASAMUNE, Prel. Rep. Veg. Yak. p. 31 (1929;); MAK. et NEM., Fl. Jap. ed. 2. p. 87 (1931)

Norn. Jap. *Hokozaki-urabosi*

Leg. Ipse, Jul. 11, 1928.

Distr. Okinawa, Taiwan.

Note. The species is found on the rocks by running waters, as undergrowth in the laurisilvae. It has its northern limit in this island.

Polypodium hastatum, THUNB., Fl. Jap. p. 335 (1784), et Ic. Pl. Jap. III. p. 10, t. 10 (1801); HOOK., Sp. Fil. V. p. 74 (1864); METT., in Ann. Mus. Bot. Lugd. Bat. II. p. 227 (1866;); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 171 (1867); HOOK., et BAK., Syn. Fil. p. 361 (1858¹); FR. et SAV., Enum. Pl. Jap. II. p. 247 (1876); HARRINGT., in Journ. Linn. Soc. XVI. p. 33 (1877); MAXIM., Fl. As. Or. Fragm. p. 73 (1879); BAKER, in Journ. Bot. XXIII. p. 106 (1885); MAK., in Tokyo Bot. Mag. IX. p. 246 (1895); HENRY, List Pl. Formos. p. 115 (1896); CHR., in Bull. Herb. Boiss IV. p. 673 (1896;); Farnk. Erd. p. 109 (1897), et in WARB. Mons. I. p. 62 (1900); HEMSL., in Journ. Linn. Soc. Bot. XXXV. p. 206 (1902); DIELS, in ENGL. Bot. Jahrb. XXIX. p. 205 (1900); MATSUM., Ind. Pl. Jap. I. p. 334 (1904); MATSUM. et HAY., Enum. Pl. Formos. p. 631 (1906); ROSENB., Malayan Ferns, pp. 660 et 832 (1908;); NAK., Fl. Kor. II. p. 415 (1919); OGATA, Ic. Fil. Jap. I. Pl. 391 (1928); MASAMUNE, Prel. Rep. Veg. Yak. p. 31 (1929); MIY. et KUDO, Fl. Hokk. and Sagh. I. p. 40 (1930); YAMAZUTA, List Manch. Pl. p. 5 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 88 (1931)

Syn. *Polypodium trifidum*, (non HOFF. nee. WITH.) DON, Prodr. Fl. Nep. p. 3 (1825);

HOOK., et BAK., Syn. Fil. p. 363 (1868)

Drynaria hastata, FEE, Gen. Fil. p. 270 (1850-52); EAT., in Perr. Exp. p. 329 (1856)

Pleopeltis hastata, MOORE, Ind. Fil. p. 346 (1862)

Pleuridium oxyloba J. SMITH Fern. Brit. and For. p. 96 (1866);

Phymatopsis trifida, J. SMITH, Hist. Fil. p. 105 (1875)

Nom. Jap. *Mit slide-urabosi*

Leg. Ipse, Nagata, Aug. 20, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Amami-Ôsima, Okinawa, Tawian, Korea, Manchuria, China, Philippines, Malay, Himalaya, Ceylon.

Note. It grows very often on precipitous ground as for instance, on the cut out surface of roads and is common in Japan.

Polypodium lineare, THUNB., Fl. Jap. p. 335 (1784), et Ic. Pl. Jap. II. t. 9 (1800); EAT., in Perr. Exped. p. 329 (1856); METT., in Ann. Mus. Bot. Lugd. Bat. II. p. 224

(1866); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 170 (1867); HOOK, et BAK., Syn. Fil. p. 354 (1868); FR. et SAV., Enum. Pl. Jap. II. p. 245 (1876); LUERSS., in Engl. Bot. Jahrb. IV. p. 360 (1883); BAK., in Journ. Bot. XXIII. p. 106 (1885); CHR., in Bull. Herb. Boiss. IV. p. 672 (1896), Farnk. Erd. p. 102 (1897), in WARB. Mons. I. p. 61 (1900), et in Bull. Herb. Boiss. 2, sér. I. p. 1014 (1901); HENRY, List Pl. Formos. p. 114 (1896); DIELS, in ENGL. u. PRANT., Nat. Pfl.-fam. I. iv. p. 315 (1899), et in Engl. Bot. Jahrb. XXIX. p. 204 (1900); KOM., Fl. Mansh. I. p. 146 (1901); MATSUM., Ind. Pl. Jap. I. p. 335 (1904); MATSUM. et HAY., Enum. Pl. Formos. p. 632 (1906); ROSENB., Malayan Ferns p. 637 (1908); NAK., Fl. Kor. II. p. 414 (1911); MERR., Enum. Hainan Pl. p. 18 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 31 (1929); MIY. et KUDO, Fl. Hokk. and Sagh. I. p. 41 (1930)

Syn. *Pleopeltis nuda*, HOOK., Exot. Fl. I. t. 63 (1823)

Pleopteris elongata, KAULF., Enum. Fil. p. 246 (1824)

Phymatodes elongate, PRESL, Tent. Pt. p. 196 (1836)

Polypodium nudum, KUNZE, in Linn. XXIII. p. 281 (1850)

Drynaria nuda, FfE, Gen.-Fil. p. 270 (1850-52)

Phymatodes nuda, J. SMITH, Bot. Voy. Herald, p. 425 (1857)

Pleopeltis linearis, MOORE, Ind. Fil. p. 346 (1862)

Niphobolus linearis, KEYS, Pol. Cyath. Herb. Bung. p. 39 (1873)

***Polypodium linearis*, THUNB. var. *Tnunbergianum*, TAKEDA, in Not. Roy. Bot.**

Card. Eding. XXXIX. p. 268 (1915) et in Tokyo Bot. Mag. XXVIII. p. (363) (1914); MAK. et NEM., Fl. Jap. ed. 2. p. 89 (1931)

Norn. Jap. *Nokisinobu*

Leg. Ipse, Jiil. 30, 1924.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China, Malay, Hawaii, Ceylon, North India, South Africa.

Note. The fern is found as an epiphyte from a low altitude up to about 500 m.

var. **Onoei**, MAK., in Tokyo Bot. Mag. XI. p. 282 (1897), et Phan. et Pterid. Jap. Ic. 111. I. t. 10 (1899); MATSUM., Ind. Pl. Jap. I. p. 336 (1904); MATH., in Journ. Linn. Soc. XXXIX. p. 380 (1911)

Syn. *Drynaria subspathulata*, HOOK., in Journ. Bot. IV. p. 356 (1857)

Polypodium Onoei, FR. et SAV., Enum. Pl. Jap. II. p. 246, (1876) et p. 642 (1879)

***Polypodium linearis a*, THUNB. var. *subspathulatum*, TAKEDA, in Tokyo Bot. Mag.**

XXVIII. p. (363) (1914); MAK. et NEM., Fl. Jap. ed. 2. p. 90 (1931)

Nom. Jap. *Hime nokisinobu*

Leg. Ipse, Aug. 4, 1924.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-Ôsima.

Note. As an epiphyte on trunks or on branches in the lauri-aciculisilvae, from altitudes of about 200 m up to 800 m.

Polypodium liukiense, CHR., in Bull. Herb. Boiss. 2, sér. II. p. 1014 (1901); MATH., in Journ. Linn. Soc. XXXIX. p. 380 (1911)

Syn. *Polypodium formosanum*, (non BAK.) HENRY, List Pl. Formos. p. 114 (1894); CHR., in WARB. Mons. I. p. 60 (1900); MATSUM., Ind. Pl. Jap. I. p. 334 (1904); MATSUM. et HAY., Enum. Pl. Formos. p. 631 (1906); MATH., in Journ. Linn. Soc. XXXIX. p. 379 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 30 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 87 (1931) p.m.

Polypodium fianspiananense, YAMAMOTO, in Journ. Trop. Agr. III. p. 236 (1931)

Atom. Jap. *Sima-aone-kazura*

Leg. Ipse, Inter Ambō et Kosugidani, April, 5, 1927.

Distr. Amami-Ōsima, Taiwan, China.

Note. The fern grows as an epiphyte in the laurisilvae from the sea level up to about 400 m.

Polypodium Makinoi, C. CHR., Ind. Fil. p. 543 (1905) et (1906); MORI, Enum. PL Cor. p. 15 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 31 (1929); MAK. et NEM., FL Jap. ed. 2. p. 90 (1931)

Syn. *Polypodium Loxogramme*, METT.; MAK., in Tokyo Bot. Mag. IX. p. 246 (1895); MATSUM., Ind. Pl. Jap. I. p. 336 (1904) p.p.

Gymnogramme lanceolata, HOOK., Sp. Fil. V. p. 156 (1864) p.p.; FR. et SAV., Enum. Pl. Jap. II. p. 248 (1876); MAK., in Tokyo Bot. Mag. X. p. 178 (1896)

Gymnogramme salicifolia, (non VAHL. nee WILLD.) MAK., Phan. et Pter. Jap. Ic. III. t. 34 (1899); MATSUM., Ind. Pl. Jap. I. p. 389 (1904)

Loxogramme salici folia, MAK., in Tokyo Bot. Mag. XIX. p. 138 (1905)

Loxogramme Makinoi, CHR., Ind. Fil. Supp. II. p. 22 (1917)

Nom. Jap. *Iwa-yanagisida*

Leg. Ipse, Kosugidani, Mart. 17, 1923.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Korea.

Note. As its Japanese name indicates, this fern grows on rocks, sometime on tree trunks, in the lauri-aciculisilvae. The species ranges from Amami-Osima to Honsyū.

Polypodium shintenense, HAY., Ic. Pl. Formos. VIII. p. 154, f. 85 (1919); MAK. et NEM., FL Jap. ed. 2. p. 94 (1931)

Syn. *Polypodium Wrightii*, METT., var. *lobata*, ROSENB., in Hedwigia, LVI. p. 347 (1915); MAK. et NEM., FL Jap. ed. 2. p. 96 (1931)

Nom. Jap. *Sinten-urabosi*

Leg. Ipse, Yosida, Mart. 21, 1923.

Distr. Kyūsyū, Taiwan.

Note. The species grows on rocks covered with mosses, or grows as undergrowth in the laurisilvae, from 100 m up to 300 m above the sea level. It is distributed from Kyūsyū to Formosa.

Polypodium superficial, BL., Enum. PL Jav. p. 123 (1828), et FL Jav. Fil. p. 136, t. 56, f. 1. (1828); HOOK. et BAK., Syn. Fil. p. 355 (1868); CHR., Farnk. Erd. p. 104 (1897), in WARB. Mons. I. p. 61 (1900), et in Bull. Herb. Boiss. 2, sér. I. p. 1014 (1901); LUERSS., in Engl. Bot. Jahrb. IV. p. 360 (1883); DIELS, in ENGL. u. PRANT. Nat. Pfl.fam. I. iv. p. 315 (1899), et FL Cent. Chin. p. 203 (1900); MATSUM. et HAY., Enum. PL Formos. p. 631 (1906); CHR., Ind. Fil. p. 568 (1906); ROSENB., Malayan Ferns p. 631 (1908); MATH., in Journ. Linn. Soc. XXXIX. p. 383 (1911); MAK. et NEM., FL Jap. ed. 2. p. 95 (1931)

Syn. *Polypodium kymenodes*, KUNZE, in Linn. XXIII. pp. 279, 319 (1850); METT., FL Hort. Lip. p. 37, t. 25, ff. 40-41 (1856); BENTH., FL Hongk. p. 458 (1861)

Pleopeltis superficial, BEDD., Fern. Brit. Ind. t. 75 (1865)

Colysis superficial J. SMITH, Hist. Fil. p. 101 (1875)

Norn. Jap. *Sima-nukabosiran*

Leg. (fide FAURIE!)

Distr. Taiwan, China, Queensland, India, Malay.

Note. The plant is found on rocky ground as undergrowth in the laurisilvae. It has its northern limit in this island. .

Polypodium Wrightii, METT.; DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 316 '1899^ ; CHR., in WARB. Mons. I. p. 62 ;1900 ; MATSUM., Ind. Pl. Jap. I. p. 340 (1904 ; MATSUM. et HAY., Enum. Pl. Formos. p. 637 (1906 ; MATH., in Journ. Linn. Soc. XXXIX. p. 384 • 1911 ; MORI, Enum. Pl. Cor. p. 16 ^ 1922) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 31 '1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 96 (1931)

Sijn. Gymnogramme Wrightii, HOOK., Sp. Fil. V. p. 160, t. 303 ^1864; HOOK., et BAK., Syn. Fil. p. 388 '1868 ; HARRINGT., in Journ. Linn. Soc. XVI. p. 33 (1877) ; BAK., in Journ. Bot. XXII'. > 106 '1885 ; HENRY, List Pl. Formos. p. 116 '1896 ; YABE, in Tokyo BJ. Mag. XVI. p. 50 :1902;

Selliguea Wrightii, SMITH, Hist. Fil. p. 102 1875 ; LUERSS., in Engl. Bot. Jahrb. IV. p. 364 '1883,

Nom. Jap. Yarinoho-kuriharan

Leg. Ipse, Onoaida, Jul. 25, 1928.

Distr. Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China.

Note. It grows on rocks, often on tree trunks, as undergrowth in the laurisilvae. It is found from Kyūsyū to Formosa, but rarely in Japan.

Polypodium yakuinsulare, MASAMUNE, in Journ. Trop. Agr. II. p. 35 ,1930)

Nom. Jap. Yakusima-urabosi

Leg. Ipse, Sept. 5, 1926.

Note. The species grows as an epiphyte in the lauri-aciculisilvae. It is restricted to this island.

Polypodium yakushimae, CHR., in Bull. Herb. Boiss. Sec. 2, sér. I. p. 1014 (1901); MASAMUNE, Prel. Rep. Veg. Yak. p. 31 '1929); MAK. et NEM., Fl. Jap. ed. 2. p. 96 (1931)

Syn. Polypodium Loxogramme, var. *minor*, BAK., ap. MATSUM., Ind. Pl. Jap. I. p. 337 '1904;

Loxogramme minor, MAK., in Tokyo Bot. Mag. XIX. p. 139 (1905)

Loxogramme yakushimae, CHR., Ind. Fil. Sup. II. p. 22 (1917*

Loxogramme yakushimae, NAK., in Tokyo Bot. Mag. XLIII. p. 8 (1929)

Nom. Jap. Himesaziran

Leg. Ipse, Jun. 15, 1928.

Distr. Honsyū, Sikoku, Kyūsyū.

Note. The fern grows chiefly on rocks, as undergrowth in the lauri-aciculisilvae, but rather rarely. It is not yet reported in lands further south than this island.

Polypodium yakusimense, MAK., in MAK. et NEM., Fl. Jap. ed. 1. p. 1653 (1925 ; et ed. 2. p. 97 '1931 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 31 ;1929)

Syn. Polypodium Engleri, LUERSS., var. *yakushimcusc*, MAK., in Tokyo Bot. Mag. XXIII. p. 248 '1909.

Nom. Jap. Hime-takanoha-urabosi

Leg. Ipse, Jul. 28, 1927.

Distr. Honsyū, Kyūsyū.

Note. The species very often grows on granite rocks in river beds exposed to the light of the sun, and has its southern limit of habitat in this island.

Micropolypodium, HAY., in Tokyo Bot. Mag.

XLII. p. 341 • 1928;

Micropolypodium Okuboi, HAY., in Tokyo Bot. Mag. XLII. p. 341 (1928); MASAMUNE, Prel. Rep. Veg. Yak. p. 29 (1929)

Syn. Polypodium Okuboi, Y AT ABE, in Tokyo Bot. Mag. V. p. 35, Pl. 21 (1891); MAK. et NEM., Fl. Jap. ed. 2. p. 92 (1931)

Polypodium trichomanoides, (non SWJ) MAK., in Tokyo Bot. Mag. XV. p. 59 (1901); MATSUM., Ind. Pl. Jap. I. p. 339 (1904)

Norn* Jap. *Okubosida*

Leg. Ipse, Hananoego, Aug. 8, 1928.

Distr. Honsyū, Sikoku, Kyūsyū.

Note. The species grows as an epiphyte on tree trunks at altitudes from about 1000 m up to 1600 m. It has its southern limit of habitat in this island.

Cyclophorus, DESV., Berl. Mag. V. p. 300 (1811)

Syn. Candollea, MIRBEL, Hist. Nat. Vég. V. p. 86 (1803), et Hist. Nat. Pl. IV. p. 69 (1803);

Niphobolus, KAUL., Enum. Fil. p. 124 (1824); DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 324 f. 168 (1899),

Apalophlebia, PRESL, Epim. Bot. p. 137 (1849)

Galeoglossa, PRESL, Epim. Bot. p. 132 (1849)

Gyrosorium, PRESL, Epim. Bot. p. 139 (1849);

Polycampitn, PRESL, Epim. Bot. p. 135 (1849)

Cyclophorus lingua, DESV., Prodr. Foug. p. 224 (1827); NAK., Fl. Kor. II. p. 417 (1911); MATH., in Journ. Linn. Soc. XXXIX. p. 354 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 25 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 39 (1931)

Syn. Acrostichum lingua, THUNB., Fl. Jap. p. 330, t. 33 (1784)

Polypodium lingua, SW., Syn. Fil. p. 29 (1806); METT., Polyp. n. 264 (1857); HOOK., Sp. Fil. V. p. 49 (1864); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 171 (1867); FR. et SAV., Enum. Pl. Jap. II. p. 245 (1876); LUERSS., in Engl. Bot. Jahrb. IV. p. 360 (1883); BAK., in Journ. Bot. XXIII. p. 106 (1885); HENRY, List PL Formos. p. 114 (1896); CHR., Farnk. Erd. p. 97 (1897), et in WARB. Mons. I. p. 60 (1900)

Niphobolus lingua, SPR., Linn. Sys. Veg. IV. p. 45 (1827); DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 325 (1899), et in Engl. Bot. Jahrb. XXIX. p. 206 (1900); KOM., Fl. Mansh. I. p. 147 (1901); MATSUM., Ind. Pl. Jap. I. p. 329 (1904); MATSUM. et HAY., Enum. Pl. Formos. p. 639 (1906)

Craspedaria chinensis, LINK, Fil. Sp. p. 118 (1841);

Polycampitn Lingua, PRESL, Epim. Bot. p. 136 (1849)

Niphobolus heteractis, J. SMITH, Fern. Brit. and For. ed. 2. p. 296 (1877)

Polypodium taiwanense, CHR., in WARB. Mons. I. p. 60 (1900);

Cyclophorus heteractis, C. CHR., Ind. Fil. p. 199 (1906)

Nom. Jap. *Hitotuba*

Leg. Ipse, Jul. 25, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China, India.

Note. It grows as an epiphyte and ranges from the sea level up to about 1600 m. It is common in South Japan.

Elaphoglossum, SCHOTT., Gen. Fil. ad. t. 14

(1834); DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 331 (1899).

Syn. Aconiopteris, PRESL, Tent. Pt. p. 236 (1836)

Hyttenodium, FKE, Hist. Acrost. pp. 20, 90 (1845)
Dictyoglossum, J. SMITH, Bot. Mag. LXXII. p. 18 (1846)

Elaphoglossum tosaense, MAK., Phan. et Pterid. Jap. Ic. I. tt. 53-54 (1901); MASAMUNE, Prel. Rep. Veg. Yak. p. 28 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 73 (1931)

Syn. *Acrostichum tosaense*, YATABE, in Tokyo Bot. Mag. V. p. 149, Pl. 24 (1891); MATSUM., Ind. Pl. Jap. I. p. 284 i 1904

Nom. Jap. *Hirohaatuita*

Leg. Ipse, ca. Mugio, Jul. 24, 1928.

Distr. Sikoku, Kyûsyû.

Note. It grows as an epiphyte in Wk places in the laurisilvae or in the lauri-aciculililvae; rather rare in South Jap.in. It has not yet been reported in lands further south than Yakusima.

Elaphoglossum Yoshinagae, MAK., Phan. et Pterid. Jap. Ic. I. tt. 51-52 (1901); MASAMUNE, Prel. Rep. Veg. Yak. p. 28 (1929^N) ; MAK. et NEM., Fl. Jap. ed. 2. p. 73 (1931)

Syn. *Acrostichum Yoshinagae*, YATABE, in Tokyo Bot. Mag. V. p. 109, Pl. 23 (1891); MATSUM., Ind. Pl. Jap. I. p. 284 (1904)

Nom. Jap. *Atuita*

Leg. Ipse, ca. Kosugidani, Jul. 21, 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-Ôsima, Hatizyôshima, Taiwan.

Note. The species is found under almost the same conditions as the previous species. It occurs from Honsyû to Formosa but rather rarely.

Names of Plants	Regions													
	Philippines	Bonins	Taiwan	Okinawa	Amami-Ôsima	Sasima	Kyûsyû prop.	Sikoku	Honsyû	Korea	Yokohama & Southern Kuriles	Saghalien	Northern Kuriles & Sachalin	Formosa, Aomori, & Utsurishima
<i>Cystopteris formosana</i> , HAY.														
<i>Cystopteris japonica</i> , LUERSS.														
<i>Acrostichum stipellatum</i> , MOORE.														
<i>Dryopteris abbreviatipinna</i> , MAK. and OGATA.														
<i>Dryopteris acuminata</i> , NAK.		+	+	+	+	+	+	+	+	+				+
<i>Dryopteris constantissima</i> , HAY.		+												
<i>Dryopteris decursive-pinnata</i> , O. KUNTZE.		+		+	+	+	+	+	+	+				+
<i>Dryopteris Dickinsii</i> , CHR.							+	+	+	+	+			+

Names of Plants	Regions																			
	Philippines	onins	aiw	3	c	+	Ryūkyūs	Ao ami-Ōsima	Tanegasima	Kyūsū Prop.	Kyū I	Sikoku	Honsyū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China	
<i>Polystichum auriculatum</i> , PRESL	+																			+
<i>Polystichum falcatum</i> , DIESS, var. <i>genuina</i> , MAK.		+	+					+	+	+						+				
<i>Polystichum lepidocaulon</i> , J. SMITH								+		+					+					
<i>Polystichum Tachiroanum</i> , TAGAWA									+											
<i>Polystichum Thunbergii</i> , KOIDZ.								+	+	+					+					+
<i>Leptochilus virens</i> , C. CHR.	+	+	+					+		+										
<i>Nephrolepis biserrata</i> , SCHOTT.	+	+	+					+	+	+										+
<i>Nephrolepis cordifolia</i> , PRESL	+	+	+					+	+	+										+
<i>Humata repens</i> , DIELS.								+		+										+
<i>Davallia Mariesii</i> , MOORE								+		+										+
<i>Microlepia marginata</i> , C. CHR.									+											+
<i>Microlepia pilosella</i> , MOORE	+									+										+
<i>Microlepia strigosa</i> , PRESL.		+	+					+	+	+										+
<i>Odontosoria chusana</i> , MASAM.								+	+	+										+
<i>O. c.</i> var. <i>tenuifolia</i> , MASAM.		+	+					+	+	+										+
<i>Dennstaedtia formosae</i> , CHR.																				+
<i>Dennstaedtia scabra</i> , MOORE	+		+							+										+
<i>Lindsaya cultrata</i> , SW.	+		+					+		+					+					+
<i>Lindsaya orbiculata</i> , METT.		+	+					+	+	+										+
<i>Athyrium cryptogrammoides</i> , HAY.. . . .			+																	
<i>Athyrium cystopteroides</i> , EAT.																				
<i>Athyrium Goeringianum</i> , MOORE										+					+					
<i>Athyrium Nakanoi</i> , MAK.			+																	+
<i>Athyrium nipponicum</i> , HANCE										+					+					+

Names of Plants	Regions																	
	Philippines	onins	Taiwan	Okinawa	Amami-Osima	Ryūkyūō	S	I	K	Kyūsyū Prop.	Sikoku	Honsyū	Shōshū	Southern Kuriles	Saghalien	N° I	M	Chin
<i>Asplenium Wilfordii</i> , METT.			+	+	+	+			+	+								+
<i>Asplenium Wrightii</i> , EAT.	+		+		+	+			+	+	+	+						+
<i>Asplenium yakumontanum</i> , MASAMUNE . . .									+	+	+	+						
<i>Asplenium Yoshinagae</i> , MAK.					+	+			+	+	+	+						
<i>Neottopteris Nidus</i> , J. SMITH.	+	+	+	+	+	+			+	+	+	+						+
<i>Hymenoasplenium unilaterale</i> , HAY.	+	+	+	+	+	+			+	+	+	+	+					+
<i>H. u.</i> var. <i>obliquissimum</i> , HAY.			+															
<i>Blechnum orientale</i> , LINN.	+	+	+	+	+													+
<i>Spicanta nipponica</i> , HAY.									+	+	+			+				
<i>S. n.</i> var. <i>reflexipinnula</i> , MASAMUNE																		
<i>Woodwardia Harlandii</i> , HOOK, var. <i>Takeoi</i> , MASAMUNE			+															
<i>Woodwardia japonica</i> , SMITH.			+						+	+	+	+						+
<i>Woodwardia orientalis</i> , SW.			+	+	+	+			+	+	+	+						
<i>Coniogramme fraxinea</i> , DIELS.			+		+	+			+	+	+	+	+	+	+		+	+
<i>Hypolepis punctata</i> , METT.	+		+		+	+			+	+	+	+	+					+
<i>Onychium japonicum</i> , KUNTZE	+	+	+	+	+	+			+	+	+	+	+					+
<i>Pteris biaurita</i> , LINN.			+		+	+			+	+	+	+						+
<i>P. b.</i> var. <i>quadriaurita</i> , LUERSS.			+	+	+	+			+	+	+	+						
<i>Pteris flavicaulis</i> , HAY.			+															
<i>Pteris longipinnula</i> , WALL.					+				V		+							+
<i>Pteris multifida</i> , POIR.				+	+	+			+	+	+	+						+
<i>Pteris semipinnata</i> , LINN.	+		+		+	+			+	+	+	+						+
<i>Pteris quadrialata</i> , RETZ.			+	+	+	+			+	+	+	+						+
<i>Pteris Wallichiana</i> , AGR.	+		+	+	+	+			+	+	+	+						+

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elements predominate. This theory is quite in agreement with my opinion and more especially so in the case of Polypodiaceae. 52 % of the ferns which are indigenous to Yakusima, are found in China.

From the above table we can see the phytogeographical relation of Yakusima to the northern and southern regions. So far as Polypodiaceous plants are concerned, the island is firstly related to Formosa and to the main land of Kyûsyû, secondly to Honsyû, and thirdly to Sikoku. According to my present knowledge, as regards Polypodiaceae, the island appears most closely related to the southern lands. When we compare the components of the floral elements of a certain region with those of other regions, we must be careful not to fall into error. For instance, when we wish to compare floral region A with B. and C. regions, etc., we say A.-region has a closer relation to B.-region, because B.-region has a larger number of elements possessed by A. than by C. and other regions. And if B.-region itself has a larger number of elements in it than C. and other regions, then one may accept for a fact that B.-region has more numerous representative elements of A.-region than the other regions provided the elements are homogeneously distributed. If we accept these fictions we are led to expect that the island possesses a larger number of elements of the southern regions (Formosa, Ryûkyû and etc.) than of those of the northern regions, because the former regions have larger number of Polypodiaceous plants than the latter. Considering the above table, the island seems to be situated at an intermediate point, since some of the northern elements, for example, some species of Polypodiaceae and others have their southern limit of habitat in this island, while some southern elements, *Aspidiae* and others have their northern limit in this island.

Gleicheniaceae

- Gleicheniaceae**, BL_f Enum. PL Jav. II. p. 248 (1830); DIELS. in ENGL. U. PRANT., Nat. Pfl.-fam. I. iv. p. 350 (1898)
 Syn. *Gleicheneae*, R. BR., Prodr. Fl. Nov. Holl. p. 160 (1810); KAUL., Enum. Fil. p. 36 (1824)
Filices Sect. *Gleicheneae*, LINDL., Introd. p. 315 (1830)

Filices, Subordo, *Gleicheniaceae*, BR. apud HOOK., Sp. Fil. I. p. 1 (1844); HOOK, et BAK., Syn. Fil. p. 11 (1865); BEDD., Handb. Fern. Brit. Ind. and Ceylon p. 1 (1883)

Dicranopteris, BERNHARDI, Schrad. Neu. Journ.

- T pp. 26, 38 (1806); NAK., in Tokyo Bot. Mag. XLI. p. 690 (1927);
 Syn. *Mertensia*, (non ROTH) WILLD., in Vet. Akad. Nya Handl. XXV. p. 163 (1804); SWARTZ, Syn. Fil. p. 163 (1806); WILLD., Sp. PL V. p. 71 (1810); HOOK., Gen. Fil. t. XXXIX. (1824); PRESL, Tent. Pt. p. 50 (1836); NAK., in Tokyo Bot. Mag. XXXIX. p. 177 (1925)
Platyzoma, R. BR, Prodr. Fl. Nov. Holl. p. 160 (1810)
Gleichenia, (non SM.) BL., Pl. Jav. II. p. 248 (1830); ENDL., Gen. Pl. I. p. 64 (1836) partim; BAK, in Hook, et Bak, Syn. Fil. p. 11 (1865) partim; DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 352 (1900) p.p.; ROSENB, Malay. Fern. p. 55 (1908), et Sup. I. p. 80 (Sect. *Mertensia*) (1916)
Sticherus, PRESL, Tent. Pt. p. 51 (1836)
Gleicheniastrum, PRESL, Abh. B'ohm. Ges. V. 5. p. 338 (1848)
Hicriopteris, PRESL, Epim. Bot. p. 26 (1849)
Mesosorus, HASSKARL, Observ. Bot. Fil. Bogor. I. p. 2 (1856)

Dicranopteris dichotoma, BERNH, in Schrad. Neu. Journ. I. pt. 2. pp. 38, et 49, t. 3, f. 13 (1806) p.pi; NAK, in Tokyo Bot. Mag. XLI. p. 695 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 33 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 113 (1930)

- Syn. *Polypodium dichotomurn*, THUNB, Fl. Jap. p. 338 (1784)
Mertensia dichotoma, WILLD, in Vetens Akad. Nya Handl. XXV. p. 167 (1804) ; et Sp. Pl. V. p. 71 (1810); SWARTZ, Syn. Fil. p. 163 (1806) p.p.; SCHKUHR, Krypt. Gew. p. 150. t. 148 (1809); PRESL, Tent. Pterid. p. 51 (1836); NAK., in Tokyo Bot. Mag. XXXIX. p. 178 (1925)
Gleichenia dichotoma, HOOK, Sp. Fil. I. p. 12 (1846) partim, et in Kew Journ. IX. p. 333 (1857); MIQ, in Ann. Mus. Bot. Lugd. Bat. III. p. 181 (1867); FR. et SAV, Enum. Pl. Jap. II. p. 203 (1876); HARRINGT, in Journ. Linn. Soc. XVI. 25 (1878); LUERSS, in Engl. Bot. Jahrb. IV. p. 365 (1883); BAK, in Journ. Bot. XXIII. p. 102 (1885); CHR, Farnk. Erd. p. 343 (1897)
Mesosorus dichotomus, HASSK, Obs. Bot. Fil. Bogor. I. p. 9 (1856)
Gleichenia dichotoma, 1. *normalis*, METT., in Ann. Mus. Bot. Lugd. Bat. I. p. 50 (1863)
Gleichenia pectinata, (non SPR.) STEUDEL, Norn. p. 178 (1885) p.p.; MATSUM., Ind. Pl. Jap. I. p. 308 (1904)
Gleichenia linear is, (non C. B. CLARKE) CHR, Farnk. Erd. p. 343 (1897) p.p.; DIELS, in ENGL.u. PRANT. Nat. Pfl.-fam. I. iv. p.355 (1899) p.p.; MATSUM, Ind. Pl. Jap. I. p. 307 (1904) p.p.; MATSUM. et HAY, Enum. Pl. Formos. p. 562 (1906); COPEL, in Philipp. Journ. Sc. IV. p. 25 (1909); MATH, in Journ. Linn. Soc. XXXIX. p. 369 (1911); NAK., in Tokyo Bot. Mag. XXVIII. p. 98 (1914); ROSENB, Malay. Fern and Fernallies Supp. I. p. 83 (1917); MAK. et NEM, Fl. Jap. ed. 1. p. 1567 (1925); MERR, Enum. Hainan Pl. p. 19 (1927)

Abut. Jap. *Kosida*

Leg. Ipse, Jul. 25, 1928.

Distr. HonsyQ, Sikoku, Kyfisyfi, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China, Philippines. Hainan. Indo-china, Himalaya, Polynesia.

Note. The plant is found in open lands from low altitudes up to about 100 m and common in southern Japan.

Dicranopteris glauca, NAK., in Tokyo Bot. Mag. XLI. p. 693 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 34 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 113 (1931)

Syn. *Polypodium glaucum*, HOUTT., Nat. Hist. XIV. p. 177 (1783)

Polypodium glaucum, THUNB. ex MURRAY, Syst. Veg. p. 938 (1784); THUNB., Fl. Jap. p. 338 (1784)

Mertensia glauca, WILLD., in Vet. Akad. Nya. Handl. XXV. p. 177 (1804); SWARTZ, Syn. Fil. p. 164 (1806); WILLD., Sp. Pl. V. p. 75 (1810); KUNZE, in Bot. Zeit. VI. p. 492 (1848); PRESL, Epim. Bot. p. 24 (1849); NAK., in Tokyo Bot. Mag. XXXIX. p. 178 (1925)

Gleichenia japonica, SPR., Syst. Veg. IV. p. 25 (1827); COPEL., in Philip. Journ. Sc. IV. p. 26 (1909)

Gleichenia glauca, (non SWARTZ) HOOK., Sp. Fil. I. p. 4 (1846); METT., in Ann. Mus. Bot. Lugd. Bat. I. p. 48 (1863); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 81 (1867); FR. et SAV., Enum. Pl. Jap. II. p. 203 (1876); CHR., Farnk. Erd. p. 340 (1897), et in WARB. Mons. I. p. 92 (1903) p.p.; DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 353 (1898) p.p.; MATSUM., Ind. Pl. Jap. I. p. 306 (1904); MATSUM. et HAY, Enum. Pl. Formos. p. 562 (1906); ROSENB., Malayan Ferns, p. 58 (1908); MATH., in Journ. Linn. Soc. XXXIX. p. 368 (1911); NAK., in Tokyo Bot. Mag. XXVIII. p. 98 (1914); MAK. et NEM., Fl. Jap. ed. 1. p. 1567 (1925)

Gleichenia longisima, (non BL.) HOOK. et BAK., Syn. Fil. p. 11 (1865); MATSUM., Cat. Pl. Herb. Sci. Coll. Imp. Univ. p. 242 (1886)

Nom. Jap. Uraziro

Leg. Ipse, Aug. 11, 1929.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Ōsima, Okinawa, Taiwan, Korea, China, Philippines, Malay, India.

Note. The species grows in open lands from a low altitude up to about 1000 m and is common in southern Japan.

Dicranopteris laevissima, NAK., in Tokyo Bot. Mag. XLI. p. 692 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 34 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 114 (1931)

Syn. *Gleichenia laevissima*, CHR., in Bull. Acad. Int. Geogr. Bot. 3, sér. XI. p. 268 (1902); ROSENB., Malayan Ferns p. 795 (1908); COPEL., in Philipp. Journ. Sc. IV. p. 25, Pl. XIV. (1909)

Gleichenia kiusiana, MAK., in Tokyo Bot. Mag. XVIII. p. 139 (1904); MAK. et NEM., Fl. Jap. ed. 1. p. 1567 (1925)

Mertensia laevissima, NAK., in Tokyo Bot. Mag. XXXIX. p. 182 (1925);

Nom. Jap. Kanekosida

Leg. Ipse, Wariisidake, Jul. 23, 1928.

Distr. Kyūsyū, China, Philippines.

Note. This plant is found in open lands in the Pseudosasa Owatarii Association at an altitude of about 1000 m. It is an interesting fact that this species has not yet been discovered in Formosa and in the Ryūkyū archipelago outside of Yakusima while it is reported in Luzon. This indicates that the species is an old one which might have once been widely distributed in these regions including Kyūsyū, Ryūkyū, Formosa, China, and the Philippines and at present, it is extinguished in Formosa and the Ryūkyūs.

Names of Plants	Regions														
	Philippines	Honshû	Shikoku	Kinawaz	Aman-i-Ôs	Tsûshû	Kyûsû	Si	Honshû	Korea	Yezo & other Kurils	Shan	Nippon	Manchuria, Korea & Ussuri	China
Dicranopteris dichotoma, BERNH.	+	+	+	+	+	+	+	+	+	+					+
Dicranopteris glauca, NAK.	+	+	+	+	+	+	+	+	+	+					+
Dicranopteris laevissima, NAK.	+														+

Three of the species of Gleicheniaceae are indigenous to this island and all of them are found in China, Philippines, and Kyûsû. So with regard to this family the island is closely related to those three districts.

Schizaeaceae

Schizaeaceae, KAULF., Wesen. der Farnk. p. 119 1827; DIELS. in ENGL. u. PRANT., Nat. Pfl.fam. I. iv. p. 356 (1900)

Syn. *Aneirniaceae*, LINK, Fil. Hort. Bot. Berol. p. 23 (1841)

Lygodium, SWARTZ, in Schrad. Journ. 1800¹ p. 106 (1801), et Syn. Fil. pp. 6 et 152 (1806); R. BR., Prodr. Fl. Nov. Holl. p. 162 (1810J; KAULF., Enum. Fil. p. 46 U824); DESV., in Ann. Soc. Linn. Paris. VI. p. 203 (1827); BL., Enum. Pl. Jav. II. p. 253 (1830); ENDL., Gen. Pl. p. 65 n. 663 (1836); HOOK., Gen. Fil. t. XXVIII. (1838); BEDD., Fern. South Ind. p. 21 (1863); DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 363 (1900); ROSENB., Malay. Ferns p. 109 (1908)

Syn. *Odontopteris*, BERNHARDI, in Schrad. Journ. 1800² p. 127 (1801)

Ramondia, MIRBEL, Bull. Soc. Philom. II. p. 179 (1801)

Ugcna, CAVANILLES, Ic. Descr. Pl. VI. p. 73 1180f-, et Anal. Cienc. IV. p. 249 (1801)

Hydroglossum, WILLD., Schr. Akad. Wiss. Erfurt, p. 20 11802)

Lygodictyon, J. SMITH, in HOOK. Gen. Fil. t. CXI. B U842;

Lygodium japonicum, SWARTZ, in Schrad. Journ. 1800¹ p. 106 (1801), et Syn. Fil. p. 154 (1806); DESV., in Ann. Soc. Linn. Paris, VI. p. 208 (1827); KUNZE, in Bot. Zeit. VI. p. 493 (1848); BENTH., Fl. Hongk. p.441 (1861) p.p.; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 182 (1867); HOOK, et BAK., Syn. Fil. p. 439 U8S8, partim.;

FR. et SAV., Enum. Pl. Jap. II. p. 251 (1876); LUERSS., in Engl. Bot. Jahrb. IV. p. 365 (1883); BAK., in Journ. Bot. XXIII. p. 107 (1885); CHR., Farnk. Erd. p. 356 \ 1897), et in WARB. Mons. I. p. 93 (1800) partim; MATSUM., Ind. Pl. Jap. I. p. 312 (1904); ROSENB., Malayan Ferns, p. 114 (1903), et Supp. I. p. 117 (1917); NAK., Fl. Kor. II. p. 417 (1911), in Tokyo Bot. Mag. XXVIII. p. 97 (1914), et in id. XLI. p. 687 (1927); MATH., in Journ. Linn. Soc. XXXIX. p. 372 (1911) p.p.; DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 356 (1912); MERR., Enum. Hainan PI. p. 20 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 34 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 114 (1931)

Syn. *Ophioglossum scandens*, inon LINN.) HOUTTUYN., Nat. Hist. XIV. p. 46, Pl. XCIV. f. 2 (1783)

Ophioglossum japonicum, THUNB. ex MURRAY, Syst. Veg. p. 926 (1784); THUNB., Fl. Jap. p. 328 (1784); HOUTT., Pflanzensyst. XIII. p. 52 t. I. f. 2 (1786)

Hydroglossum japonicum, WILLD., Schrift. Akad. Wiss. Erfurt, p. 26 (1802), et Sp. Pl. V. p. 81 (1910)

Nom. Jap. *Turu-sinobu*, *Kanikusa*.

Leg. Ipse, Jul. 21, 1924.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-ōsima, Okinawa, Taiwan, Korea, China, Malay.

Note. The species grows in open waste lands at a low altitude.

Regions													
Name of Plant	Hokkaido	Honshū	Taiwan	Okinawa	Amami-ōsima	Tanegasima	Kyūsyū	Sikoku	Honsyū	Yokohama	Kuriles	Kuriles & Kamtchatka	China
<i>Lygodium japonicum</i> , SWARTZ	+	+	+	+	+	+	+	+	+	+	+	+	+

In the island there is only one representative of this family which is common in southern Japan.

Osmundaceae

Osmundaceae, R. BR., Prodr. Fl. Nov. Holl. p. 161 (1810) p.p.; BL., Enum. Pl. Jav. p. 252 (1830) p.p.; ENDL., Gen. Pl. I. p. 65 (1836) p.p.

Syn. *Filices*, Sect. III. *Osmundaceae*, LINDL., Intr. p. 315 (1830)

Osmundaceae, S. L. *Osmundaeae* LINDL., Nat. Syst. p. 402 (1836) p.p.

Osmiida, (TOURN.) LINN., Sp. Pl. ed. 1. p. 1063 (1753) p.p., Gen. Pl. ed. 5. p. 484, n. 1036 (1754); JUSS., Gen. Pl. p. 15 (1789);

SWARTZ, Syn. Fil. XIII. pp. 7 et 160 (1806); WILLD., Sp. PL V. p. 96 (1810); LAM. et DE CANDOLLE, Fl. Fr. II. p. 568 (1815); BL., Enum. PL Jav. p. 252 (1830); ENDL., Gen. PL I. p. 65 n. 665 (1836); MILDE, Monogr. Gen. Osmund. p. 57 (1868); HOOK, et BAK., Syn. Fil. p. 426 (1868); DIELS, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 378 (1900)

Syn. *Struthiopteris*, BERHARDI, in Schrad. Journ. 1800' p. 126 (1801)

Aphyllocalpa, CAVANILLES, Anal. Cienc. V. p. 164 (1802)

Plenasium, PRESL, Tent. Pterid. p. 109, t III. f. 13 (1836)

Osmundastrum, PRESL, Abh. Bohm. Gesells. Wiss. V. 5, p. 526 (1848)

osmunda bromeliaefolia, COPEL., in Philipp. Journ. Sci. II. p. 147 (1907), et IV. p. 17 (1909); NAK., in Tokyo Bot. Mag. XLI. p. 675 (1927), et in Bull. Biogeogr. Soc. Jap. I. p. 250 (1930); MASAMUNE, Prel. Rep. Veg. Yak. p. 34 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 115' (1931)

Syn. *Nephrodium bromeliaefolium*, PRESL, Reliq. Haenk. I. p. 33 (1825)

Plenasium? bromeliaefolium, PRESL, Tent. Pterid. p. 110 (1836)

Osmunda Presliana, J. SMITH, in Journ. Bot. III. p. 420 (1841); MILDE, Fil. Europ. and Atl. p. 185 (1867); FR. et SAV., Enum. PL Jap. II. p. 250 (1876); DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 397, f. 205-A. (1899) excl. syn.

Osmunda oxyodon, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 182 (1867)

Osmunda javanica, (non BL.) HOOK, et BAK., Syn. Fil. p. 426 (1868) p.p.; MATSUM., Cat. PL Herb, Coll. Sc. Imp. Univ. p. 243 (1886), et Ind. PL Jap. I. p. 331 (1904); CHR., in Bull. Herb. Boiss. IV. p. 675 (1896), et in WARB. Mons. I. p. 91 (1900); YABE, in Tokyo Bot. Mag. XVI. p. 52 (1902); MATSUM. et HAY., Enum. PL Formos. p. 560 (1906); ROSEN., Malayan Ferns, p. 756 (1908)

Osmunda banksiacfolia, var. *bromeliaefolia*, KUNZE, in Ann. Mus. Bot. Lugd. Bat. IV. p. 299 (1869); MAK. et NAM., Fl. Jap. ed. 1. p. 1565 (1925)

Osmunda banksiac folia, (non KUNZE), LUERSS., in Engl. Bot. Jahrb. IV. p. 365 (1883)

Nom. Jap. *Siroyama-zenmai*

Leg. Ipse, Yosida, Mart. 21, 1923.

Distr. Sikoku, Kyūsyū, Tanegasima, Amami-dsima, Okinawa, Taiwan, Bonins, China, Philippines, Malay.

Note. Grows in the laurisilvae, along the forest edges; common in the southern Parts of Japan.

Osmunda cinnamomea, LINN., Sp. PL ed. 1. p. 1066 (1753); SW., Syn. Fil. p. 160 (1806); WILLD., Sp. PL V. p. 98 (1810); MAXIM., in Mém. prés Acad. Sci. St. Pétersb. div. sav. IX. p. 136 (1856); HOOK, in Kew. Journ. Bot. IX. p. 361 (1857); MILD., FL Europ. and Atl. p. 181 (1867), et Monogr. p. 93, t. V. f. 1-22, t. VI. f. 21 (1868); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 182 (1867); HOOK, et BAK., Syn. Fil. P. 426 (1868); FR. SCHM., Fl. Saghal. p. 205 (1868); FR. et SAV., Enum. PL Jap. II. p. 251 (1876); H. CHR., Farnk. Erd. p. 332 (1897); DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 379 (1900); KOM., FL Mansh. I. p. 149 (1901); MATSUM., Ind. PL Jap. I. p. 331 (1904); COPEL., in Philipp. Journ. Sc. IV. p. 16 (1909); NAK., Fl. Kor. II. p. 418 (1911), et in Tokyo Bot. Mag. XLI. p. 676 (1927); MAK. et NEM., Fl. Jap. ed. 1. p. 1566 (1925), et ed. 2. p. 115 (1931); KUDO, Contr. Fl. Nor. Sagh. p. 16 (1923); MASAMUNE, Prel. Rep. Veg. Yak. p. 35 (1929); MIY. et KUDO, FL Hokk. and Sagh. I. p. 43 (1930)

(43) (1901); YABE, in Tokyo Bot. Mag. XVII. p. 68 (1902); NAK., Fl. Kor. II. p. 419 (1911 p.p.; MASAMUNE, Prel. Rep. Veg. Yak. p. 35 (1929)
Osmunda biformis, MAK., in Journ. Jap. Bot. IV. p. 4 (1927)

A'OJII. **Jap.** *Zenmai*

Leg. Ipse, ca. Hananoego, Jul. 24, 1927.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Gsima, Korea, Philippines, China, India.

Note. The species is found from the sea level up to an altitude of about 1500 m, in open lands, and is widely distributed in southern Japan.

From the above table, we can see that the island is less closely related to Okinawa, Amami-Gsima and Tanegasima so far as the flora of this family is concerned.

Plagiogyriaceae

Plagiogyriaceae, BOWER. Fern. p. 275 (1926)

Syn. *Polypodiaceae-Pterideae-Cheilanthisae*, DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 265 (1899) p.p.

Plagiogyria, METT., in Abh. Senckenb. Nat. Gesells. II. p. 265, t. XV. (1858); BEDD., Fern. Brit. Ind. I. pp. 51-52 (1865); H. CHR., Farn. Erd. p. 175 (189J); DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 281 (1899); ROSENB., Malay, Fern. p. 340 (1908)

Syn. *Olferia*, PRESL, Epim. Bot. p. 232 (1836) p.p.

Lomaria, Sect. *Plagiogria*, KUNZE., Farnk. II. p. 61 (1850)

Plagiogyria euphlebia, METT., Abh. Senckenb. Nat. Gesells. II. p. 274 (1858); MIQ., in Ann. Mus. Bot. Lugd. Bat. HI. p. 172 (1867); MAK., in Tokyo Bot. Mag. VIII. p. 334 (1894); DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 282 (1899); MATSUM., Ind. PI. Jap. I. p. 332 (1904); ROSENB., Malayan Ferns p. 343 (1908); HAY., Mat. Formos. p. 443 (1911), et Ic. PI. Formos. IV. p. 239 (1914); ROSENB., Malay, Fern, and Fernallies Supp. I. p. 510 (1917); MORI, Enum. PI. Cor. p. 14 (1922); MAK. et NEM, Fl. Jap. ed. 1. p. 1640 (1925), et ed. 2. p. 83 (1931); NAK., in Tokyo Bot. Mag. XLII. p. 206 (1928); MASAMUNE, Prel. Rep. Veg. Yak. p. 34 (1929)

Syn. *Stenochlaena triquetra*, J. SMITH, in Hook. Journ. Bot. IV. p. 149 (1841) nom; PRESL, Epim. Bot. p. 165 (1849)

Lomaria euphlebia, KUNZE, in Bot. Zeit. VI. p. 521 (1848); HOOK., Sp. Fil. III. p. 20 (1860); HOOK, et BAK., Syn. Fil. p. 183 (1868) p.p.

Plagiogyria triquetra, METT., in Abh. Senckenb. II. p. 274 (1858); MATH., in Journ. Linn. Soc. XXXIX. p. 274 (1911)

Lomaria articulata, MUELLER, Frag. V. p. 187 (1866)

Nom. Jap. *6-kizinoo-sida*

Leg. Ipse, Jul. 3, 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Taiwan, Korea, China, Malay, New Guinea.

Note. Grows as undergrowth in the lauri-aciculisilvae, sometimes in clearings; common in southern Japan.

Plagiogyria japonica, NAK., in Tokyo Bot. Mag. XLII. p. 205 (1928); MASAMUNE, Prel. Rep. Veg. Yak. p. 34 (1929)

Syn. Plagiogyria adnata, (non BEDD.), LUERSS., in Engl. Bot. Jahrb. IV. p. 365 (1883); MAK., in Tokyo Bot. Mag. VIII. p. 333 (1894), et XXIII. p. 246 (1909); YABE, in Tokyo Bot. Mag. XVII. p. 97 (1903); MATSUM., Ind. PL Jap. I. p. 331 (1904); ROSENB., Malay. Ferns p. 342 (1908) Pl. ex Jap.; MAK. et NEM., FL Jap. ed. 1. p. 1640 (1925), et ed. 2. p. 83 (1931)

Plagiogyria euphlebia, (non KUNZE) HOOK., 2nd. Cent. t. 89 (1861); MATSUM. Shokubutsu Mei-i, I. p. 220 (1895)

Nom. Jap. Kizinoosida

Leg. Ipse, Jul. 16, 1928.

Distr. Honsyū, Sikoku, Kyfisyfi, Amami-6sima, Okinawa.

Note. It is found as undergrowth in the laurisilvae or in the 'lauri-aciculisilvae, and is a common species in South Japan except Formosa.

Plagiogyria Matsumuraeana, MAK., in Tokyo Bot. Mag. VIII. p. 333 (1894); MATSUM., Ind. PL Jap. I. p. 332 (1904); TAKEDA, in Tokyo Bot. Mag. XXIV. p. 320 (1910); KODAMA, Ic. PL Koishik. II. pp. 119, 120, PL 144 (1915); NAK., in Tokyo Bot. Mag. XLII. p. 209 (1928); MASAMUNE, Prel. Rep. Veg. Yak. p. 34 (1929); MIY. et KUDO, FL Hokk. and Sagh. I. p. 37 (1930); MAK. et NEM., FL Jap. ed. 2. p. 84 (1931)

Syn. Lomaria Matsumuraeana, MAK., in Tokyo Bot. Mag. VIII. p. 90 (1894)

Lomaria Fauriei, CHR., in Bull. Herb. Boiss. IV. p. 666 (1896)

Plagiogyria Fauriei, MATSUM., Ind. PL Jap. I. p. 332 (1904)

Blechnum Fauriei, TOKUBUCHI, in Tokyo Bot. Mag. XIX. p. (231) (1905)

Plagiogyria Fauriei, CHR., Ind. Fil. p. 495 (1906)

Abut. Jap. Yamasotetu

Leg. Ipse, Jul. 9, 1928.

Distr. Yezo, Honsyū, Sikoku.

Note. It grows in the lauri-aciculisilvae and has its southern limit of habitat in this island.

Plagiogyria stenoptera, DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 282 (1899); MATSUM., Ind. PL Jap. I. p. 332 (1904); MATSUM. et HAY., Enum. PL Formos. p. 615 (1906); ROSENB., Malay. Fern. p. 341 (1908); MAK., in Tokyo Bot. Mag. XXIII. p. 244 (1909); HAY., Ic. PL Formos. IV. p. 239 (1914); MAK. et NEM., FL Jap. ed. 1. p. 1641 (1925), et ed. 2. p. 84 (1931); NAK., in Tokyo Bot. Mag. XLII. p. 208 (1928); MASAMUNE, Prel. Rep. Veg. Yak. p. 34 (1929)

Syn. Blechnum stenopterum, HANCE, in Journ. Bot. XXI. p. 268 (1833)

Lomaria concinna, BAK., in Journ. Bot. XXIII. p. 103 (1885), et in Hook. Ic. PL XVII. t. 1644 (1886)

Lomaria stenoptera. BAK., in Ann. Bot. V. p. 220 (1891); HENRY, List PL Formos. p. III (1896)

Plagiogyria Henryi, CHR., in Bull. Herb. Boiss. VII. p. 8 (1899)

Plagiogyria Matsumuraeana, (non MAK.) HAY., in Tokyo Bot. Mag. XXIII. p. 32 (1909) p.p.

Lomaria decurrens, BAK., in Kew. Bull. Misc. p. 9. (1906)

Nom. Jap. Sima-yama-sotetu

Leg. Ipse, Jul. 21, 1928.

Distr. Taiwan, China, Philippines.

Note. Grows as undergrowth in the lauri-aciculisilvae; has its northern limit in this island.

Names of Plants	Regions															
	Philippines	Borneo	Taiwan	Okinawa	Amami-Oshima	Tanegasima	Kyûsyû Prop.	Kyûsyû	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Usuri	China
Plagiogyria euphlebia, METT.			+				+	+	+	+						+
Plagiogyria japonica, NAK.				+	+		+	+	+							
Plagiogyria Matsumuraeana, MAK.								+	+		+					
Plagiogyria stenoptera, DIELS	+	+														+

The island is a meeting place for the species of *Plagiogyriaceae*; that is *Plagiogyria Matsumuraeana* has its southern limit while *P. stenoptera* has its northern limit in this island.

Lycopodiaceae

Lycopodiaceae, LAMARCK and DC, Syn. Fil. Gall. p. 116 (1806) p.p.; PRITZEL, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 563 (1900)

Syn. *Lycopodineae*, SW., Syn. Fil. p. 87 (1806)

Lycopodium, LINN., Sp. PL ed. 1. p. 1100 (1754) p.p.; PRITZEL, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 592 (1900); ROSENB., Malay. Fern, and Fernall. p. 27 (1915)

Lycopodium cernuum, LINN., Sp. PL ed. 1. p. 1103 (1753); SW., Syn. Fil. p. 178 (1806); WILLD., Sp. PL V. p. 30 (1830); SPRING, Monogr. Lycopod. I. p. 79 (1842); BENTH., Fl. Hongk. p. 436 (1861); MILDE, Fil. Europ. and Atl. p. 254 (1867); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 184 (1867); MAXIM., in Mém. Biol. VII. p. 341 (1870); FR. et SAV., Enum. PL Jap. II. p. 197 (1876); LUERSS., in Engl. Bot. Jahrb. IV. p. 366 (1883); BAK., Handb. Fern.-All. p. 23 (1887); HENRY, List PL Formos. p. 117 (1896); PRITZEL, in DIELS, Fl. Centr. Chin. p. 210 (1900), et in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 602 (1900); WARB., Mons. I. p. 97 (1900); MATSUM., Ind. PL Jap. I. p. 357 (1904); MATSUM. It HAY., Enum. PL Formos. p. 555 (1906); TAKEDA, in Tokyo Bot. Mag. XXIII. p. 211 (1909); ROSENB., Malay. Fern, and Fern.-All. p. 47 (1915) p.p.; MERR., Enum. Hainan PL p. 20 (1927);

MASAMUNE, Prel. Rep. Veg. Yak. p. 35 (1929); NAK., in Bull. Biogeogr. Soc. Jap. I. p. 252 (1930); MIY. et KUDO, Fl. Hokk. and Sagh. I. p. 54 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 120 (1931)

Norn. Jap. Mizusugi

Leg. Ipse, Jun. 14, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Bonins, China, Philippines, Malay, Polynesia, India.

Note. It frequently grows in the waste land at a low altitude and along the edges of forests and is abundant in tropical and subtropical regions.

Lycopodium chinense, CHR., in Nuov. Giorn. Bot. Ital. Nuov. Ser. IV. p. 101. t. III. f. 4 (1897), et in Bull. Herb. Boiss. VII. p. 824 (1899); PRITZEL, in DIELS, Fl. Centr. Chin. p. 210 (1900); KOM, Fl. Mansh. I. p. 157 (1901); TAKEDA, in Tokyo Bot. Mag. XXIII. p. 204 (1909), et Fl. Shikotan p. 498 (1914); HERIER, in Engl. Bot. Jahrb. Beibl. Nr. 98 p. 31 (1909), ut *sinense*; NAK., Fl. Kor. II. p. 422 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 35 (1929); MIY. et KUDO, Fl. Hokk. and Sagh. I. p. 52 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 120 (1931)

Syn. *Lycopodium Selago*, (non LINN.) BONGRD., Veget. de Sitch. p. 75 (1883) p.p.; CHR., in Bull. Herb. Boiss. IV. p. 675 (1896)

Lycopodium Miyoshianum, MAK., in Tokyo Bot. Mag. XII. p. 36 (1898); YABE, in Tokyo Bot. Mag. XVII. p. 69 (1903)

Lycopodium Selago, LINN. form, *chinense*, PRITZEL, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 593 (1900)

Lycopodium Selago, van *Miyoshianum*, MAK., in Tokyo Bot. Mag. XVI. p. 199 (1902); MATSUM., Ind. Pl. Jap. I. p. 359 (1904)

Nom. Jap. Hime-sugiran

Leg. Ipse, Nagatadake, Jun. 1928.

Distr. Saghalien, Kuriles, Yezo, Honsyû, Sikoku, Kyûsyû, Korea, Manchuria, China.

Note. The species is found in the alpine region, and in the Pseudosasa Owatarii Association, and is not yet reported in lands further south than this island.

var. *Somai*, MASAMUNE

Syn. *Lycopodium Somai*, HAY., Ic. PL Formos. V. p. 255 (1915); MAK. et NEM., Fl. Jap. ed. 2. p. 123 (1931)

Lycopodium yakusimense, MASAMUNE, Prel. Rep. Veg. Yak. p. 36 (1929)

Affinis *L. chinensis* sed folia rigid a et breviora quam typica.

Nom. Jap. Kosugi-tôge-siba

Leg. Ipse, Jun. 12, 1928.

Distr. Taiwan.

Note. The variety is collected in wet ground in the Pseudosasa Owatarii Association.

Lycopodium clavatum, LINN. var. *Wallichianum*, SPRING, Monogr. Lycop. I. p. 90 (1842); NAK., in Tokyo Bot. Mag. XXXIX. p. 198 (1925); MAK. et NEM., Fl. Jap. ed. 2. p. 121 (1931)

Syn. *Lycopodium divaricatum*, WALL., Cat n. 131 (1828) £HOOK. et GREV., Enum. Filic. n. 76 (1833)

Lycopodium trichiatum, (non BORY) BL., Enum. Pl. Jav. II. p. 263 (1830)

Lycopodium clavatum, var. *nipponicum*, (non NAK.) MASAMUNE, Prel. Rep. Veg. Yak. p. 35 (1929); MIY. et KUDO, Fl. Hokk. and Sagh. I. p. 58 (1930) p.p.

Nom. Jap. Nangokuhikageno-kazura (nov^v)**Leg.** Ipse, Yaegadake, Aug. 18, 1928.**Distr.** Yezo, Honsyû, Kyûsyû, Taiwan, Korea.**Note.** The variety grows in opsn lands at high altitudes from about 700 to 1900m, and is common in South Japan.

Lycopodium cryptomerianum, MAXIM., in Mém. Biolog. VII. p. 340 (1870); FR. et SAV., Enum. Pl. Jap. II. p. 195 (1876); BAK., Handb. Fern. All. p. 11. (1887); PRITZEL, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 594 (1900); MAK_f in Tokyo Bot. Mag. XXII. p. (236) (1908); TARED A, in Tokyo Bot. Mag. XXIII. p. 208 (1909); MORI, Enum. Pl. Cor. p. 23 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 35 (1929); MIY. et KUDO, Fl. Hokk. and Sagh. I. p. 53 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 121 (1931)

Norn. Jap. Sugiran**Leg.** Ipse, Kôbandake, Jul. 2, 1928.**Distr.** Yezo, Honsyû, Sikoku, Kyûsyû, Korea.**Note.** Epiphyte; I have found it on the trunks of *Tsuga Sieboldii*, and *Distylium racemosum* at about an altitude of 1600 m. The species is not found in lands further south than Yakusima, as far as I am aware.

Lycopodium obscurum, LINN., Sp. Pl. ed. I. p. 1102 (1753); BAK., Handb. Fern. All. p. 24 (1887) p.p.; PRITZEL, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 603 (1900); KOM., Fl. Mansh. I. p. 159 (1901) p.p.; MATSUM., Ind. Pl. Jap. I. p. 358 (1904) excl. syn. *L. japonicum*, THUNB.; HAY., Fl. Mont. Formos. p. 241 (1908); H. CHR., in Bull. Acad. Geogr. Bot. XX. p. 168 (1909); TARED A, in Tokyo Bot. Mag. XXIII. p. 211 (1909); NAK., Fl. Kor. II. p. 423 (1911) pro. maj. excl. syn. THUNB.; BRITT. and Br. 111. Fl. I. p. 41 (1913); HULT., Fl. Kamtch. I. p. 61 (1927); MASAMUNE Prel. Rep. Veg. Yak. p. 35 (1929); MIY. et KUDO, Fl. Hokk. and Sagh. I. p. 55 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 122 (1931)

Syn. *Lycopodium dendroideurn*, MICH., Fl. Bor. Amer. V. 2. p. 282 (1803); SWARTZ, Syn. Fil. p. 178 (1806); AITON, Hort. Kew. ed. 2. V. p. 493 (1813); HOOK., Exot. Fl. t. 7 (1823); SPRING., Monogr. Lycopod. II. p. 40 (1849); LEDEB., Fl. Ross. IV. p. 498 (1853); REGEL, Tent. Fl. Uss. p. 174 (1861); MIQ. in Ann. Mus. Bot. Lugd. Bat. HI. p. 184 (1867) excl. Syn. THUNB.

Lycopodium japonicum, (non THUNB.) MAXIM., in Mém. Biolog. VII. p. 341 (1870); FR. et SAV., Enum. Pl. Jap. II. p. 197 (1876); MIY., Fl. Kuril, p. 272 (1890)

Nom. Jap. Mannen-sugi**Leg.** Ipse, Kuromidake, Jun. 11, 1928.**Distr.** Kamtchatka, Saghalien, Kuriles, Yezo, Honsyû, Sikoku, Kyûsyû, Okinawa, Taiwan, Korea, Manchuria.**Note.** The species is found in lands from about 1500 m to 1900 m above the sea level, and is widely distributed in the northern regions of Japan.

Lycopodium Phlegmaria, LINN., Sp. Pl. ed. I. p. 1101 (1753); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 184 (1867); FR. et SAV., Enum. Pl. Jap. II. p. 613 (1876); BAK., Fern. All. p. 22 (1887); MAK., in Tokyo Bot. Mag. XII. p. 13 (1898); MATSUM., Ind. Pl. Jap. I. p. 359 (1904); HAY., Mat. Fl. Formos. p. 412 (1911); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 357 (1912); ROSENB., Malay, Fern. All. p. 44 (1915) p.p.; MERR_f Enum. Hainan Pl. p. 20 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 36 (1929)^N; MAK. et NEM., Fl. Jap. ed. 2. p. 122 (1931)

Syn. *Lycopodium filiforme*, (non ROXB.) HAY., in MATSUM. et HAY., Enum. PL Formos. p. 555 [1906]

Lycopodium verticillatum, var. *filiforme*, HAY., in MATSUM. et HAY., Enum. PL Formos. p. 555 [1906];

Nom. Jap. Yořaku-hiba

Leg. Ipse, April. 2, 1927.

Disir. Amami-6sima, Okinawa, Taiwan, China.

Note. It grows as an epiphyte in the laurisilvae and has its northern limit of habitat in this island.

Lycopodium serratum, THUNB. f. **intermedium**, NAK., in Tokyo Bot. Mag. XXXIX. p. 196 (1925);

Syn. *Lycopodium serratum*, (non THUNB.) HOOK, et GREV., IC. Fil. t. XXXVII. (1827); MATSUM. et HAY., Enum. PL Formos. p. 555 (1906); HAY., in Tokyo Bot. Mag. XX. p. 20 (1906), et Fl. Mont. Formos. p. 242 (1908)

Lycopodium serratum, var. *longepetiolatum*, SPRING, Monogr. Lycop. II. p. 118 (1849)

Lycopodium serratum, THUNB. var. *javanicum*, (non *L. javanicum*, SW.) MAK., in Tokyo Bot. Mag. XII. p. 13, 1898; MATSUM., Ind. PI. Jap. I. p. 359 (1904); TAKEDA, in Tokyo Bot. Mag. XXIII. p. 207 (1909); MASAMUNE, Prel. Rep. Veg. Yak. p. 36 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 123 (1931),

Lycopodium serratum, var. *intermedium*, NAK. MIY. et KUDO, Fl. Hokk. and Sagh. I. p. 53 (1930),

Nom. Jap. Tořc-siba

Leg. Ipse, Jul. 12, 1928.

Disir. Yezo, Honsyū, Sikoku, Kyūsyū, Amami-6sima, Taiwan.

Acte. Grows as undergrowth on the humus ground from low altitudes up to almost 1000 m; a common species in Eastern Asia.

var. **Thunbergii**, MAK., in Tokyo Bot. Mag. XII. p. 12 (1896); MATSUM., Ind. PL Jap. I. p. 359 (1904); TAKEDA, in Tokyo Bot. Mag. XXIII. p. 205 (1896); NAK., Fl. Kor. II. p. 423 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 36 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 123 (1931);

Syn. *Lycopodium serratum*, THUNB., Fl. Jap. p. 341, t. 38 (1784^x); SW., Syn. Fil. p. 175 (1806); WILLD., Sp. Pl. V. p. 51 (1810); SPRING, Monogr. Lycop. II. p. 39 (1849); KUNTZE, in Bot. Zeit. VI. p. 587 (1848); FR. SCHM., Reise, Am. Saghal. p. 201 (1868); KOM., Fl. Mansh. I. p. 158 (1901)

Nom. Jap. Hosobatōcsiba

Leg. Ipse, Aug. 3, 1928.

Distr. Saghalien, Kuriles, Yezo, Honsyū, Sikoku, Kyūsyū, Amami-6sima, Taiwan, Korea, Manchuria.

Note. The species grows as undergrowth on humus ground in the lauri-aciculi-silvae and is a common species in Japan.

Lycopodium Sieboldi, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 184 (1867); MAXIM., in Mém. Biolog. VII. p. 341 (1870); FR. et SAV., Enum. PL Jap. II. p. 196 (1876); BAK., Handb. Fern. All. p. 13 (1837); MATSUM., Ind. PI. Jap. I. p. 359 (1904); NAK., Fl. Kor. II. p. 423 (1911); HAY., Ic. Pl. Formos. X. p. 72 (1920); MASAMUNE, Prel. Rep. Veg. Yak. p. 36 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 123 (1931),

Nom. Jap. Himoran

Leg. Ipse, Jul. 23, 1924.

Distr. Honsyû, Kyûsyû, Taiwan, Korea.

Note. It grows as an epiphyte in the laurisilvae and in the lauri-aciculisilvae and is found on rare occasions in southern Japan.

Lycopodium sitchense, RUPER. var. ***nikoense***, TAKEDA, in Tokyo Bot. Mag. XXIII. p. 221 (1909; ; MASAMUNE, [Prel. Rep. Veg. Yak. p. 36 ;1929); MIY. et KUDO, FL Hokk. and Sagh. I. p. 59 (1930)

Sun. *Lycopodium nikoense*, FR. et SAV., Enum. PL Jap. II. p. 198 (1876)

Lycopodium alpinum, var. *nikoense*, FR. et SAV., Enum. PI. Jap. II. p. 613 (1876); BAK., Handb. Fern. All. p. 27 (1887); MAK., in Tokyo Bot. Mag. XII. p. 33 (1898), et XVI. p. 198 (1902); PRITZEL, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 604 (1900); YABE, in Tokyo Bot. Mag. XVII. p. 16 (1903; ; MATSUM., Ind. PI. Jap. I. p. 357 (1904)

Lycopodium sabinaefolium, WILLD. var. *sitcliense*, FENALD. subv. *nikoense*, KOIDZ., in Tokyo Bot. Mag. XL. p. 330 (1926); MAK. et MEM., Fl. Jap. ed. 2. p. 122 1931j

Nom. Jap. Takane-hikagenokazura

Leg. Ipse, Yaegatake ca. 1800 m alt. Aug. 1928.

Distr. Saghalien, Yezo, Honsyû, Kyfisyfi.

Note. The species is found in the alpine region from an altitude of 1600 m up to 1900 m in the Pseudosasa Owatarii Association. It is rather commonly distributed in the alpine regions of central and north Japan, but it is rare in Kyfisyfi. It has its southern limit in this island, so this is one of the interesting elements that are found in the island.

Lycopodium subdistichum, MAK., in Tokyo Bot. Mag. XII. p. 37 (1898); MATSUM. et HAY., Enum. PI. Formos. p. 556 (19061; MASAMUNE, Prel. Rep. Veg. Yak. p. 36 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 123 (1931)

Sun. *Lycopodium aloifolium*, non WALL.; FR. et SAV., Enum. PI. Jap. II. p. 169 (1876/

Norn. Jap. Nankakuran

Leg. Ipse, Nagata, Mart. 22, 1923.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Ôsima, Okinawa, Taiwan.

Note. It grows as an epiphyte on tree trunks or on rocks in the laurisilvae or in the lauri-aciculisilvae, and it is rather common in South Japan.

Lycopodium teretkaule, HAY., Mat. Fl. Formos. p. 411 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 36 (1929; ; MAK. et NEM., Fl. Jap. ed. 2. p. 123 (1931;

Nom. Jap. Hosohimo-yôrakuhiba

Leg. Ipse, Jul. 6, 1928.

Distr. Taiwan.

Note. As an epiphyte in the laurisilvae or in the lauri-aciculisilvae.

As several species of this family have their limit of habitat in this island, the elements of north and south intermingle in this island. I cannot decide whether the island belongs to the northern floral regions or not. But we can see from the table that a few of

Names of Plants	Regions														
	Philippines	Bonins	Taiwan	Okinawa	Amami-Ôsima	Tanegasima	Kyûsyû Prop.	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Usuri	China
<i>Lycopodium cernum</i> , LINN.	+	+	+	+	+	+	+	+	+	+	+				+
<i>Lycopodium chinense</i> , CHR.							+	+	+	+	+	+		+	+
<i>L. c.</i> var. <i>Somai</i> , MASAMUNE			+												
<i>Lycopodium clavatum</i> , LINN, var. <i>Wallichianum</i> , SPRING			+				+	+	+	+	+				
<i>Lycopodium cryptomerianum</i> , MAXIM.							+	+	+	+	+				
<i>Lycopodium obscurum</i> , LINN.			+	+			+	+	+	+	+	+	+	+	
<i>Lycopodium Phlegmaria</i> , LINN.			+	+	+										+
<i>Lycopodium serratum</i> , THUNB. f. <i>intermedium</i> , NAK.			+		+		+	+	+	+	+				
<i>L. s.</i> var. <i>Thunbergii</i> , MAK.			+		+		+	+	+	+	+	+		+	
<i>Lycopodium Sieboldi</i> , MIQ.			+				+		+	+					
<i>Lycopodium sitchense</i> , RUPER. var. <i>nikoense</i> , TAKEDA							+		+		+	+			
<i>Lycopodium subdistichum</i> , MAK.			+	+	+	+	+	+	+						
<i>Lycopodium tereticaule</i> , HAY.			+												
Total	13	1	10	4	5	2	10	8	10	6	8	4	1	3	3
Percentage		8	77	31	38	15	77	62	77	46	62	31	8	23	23

(Southern elements 10; I (Northern elements 10)

the plants which are indigenous to Yakusima occur in Okinawa, Tanegasima, and in Amami-Ôsima. This fact can be explained by assuming that since those islands are comparatively small and have no high mountains and they lack several oecological conditions under which these plants exist. None the less the island of Yakusima has in respect of this family, some relation with the flora of the northern regions.

Selaginellaceae

Selaginellaceae, METT., Fil. Hort. Lips. p. 16 (1856) excl. *Isoetes*; G. HIERONYMUS, u. R. SADEBECK, in ENGL. U. PRANT. Nat. Pfl.-fam. I. iv. p. 621 (1900); ROSENB., Malay. Fern. All. p. 57 (1915)

Selaginella, SPRING, in Mém. Acad. Roy. Belg. p. 52 (1849); BAK., Handb. Fern. All. p. 31 (1887); G. HIERONYMUS, u. R. SADEBECK, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 669 (1900); ROSENB., Malay. Fern. All. p. 58 (1915)

Selaginella atroviridis, SPRING, Monog. II. p. 124 (1849); HARRING, in Journ. Linn. Soc. XVI. p. 34 (1877); BAK., Fern. All. p. 77 (1887); HENRY, List PI. Formos. p. 115 (1896); WARB., Mons. I. p. 114 (1900); DIELS, in Engl. Bot. Jahrb. XXIX. p. 211 (1900); MATSUM., Ind. PI. Jap. I. p. 360 (1904); MATSUM. et HAY., Enum. PI. Formos. p. 552 (1906); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 359 (1912); ROSENB., Malay. Fern. All. p. 79 (1915); MASAMUNE, Prel. Rep. Veg. Yak. p. 3 & (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 124 (1931)

Syn. Lycopodium atroviride, WALL.; HOOK, et GREV., IC. Fil. t. XXXIX. 1829

Nom. Jap. Midori-katahiba

Leg. Y. KUDO! Nagata, Aug. 1907.

Distr. HonsyG, Kyûsyû, Amami-6sima, Okinawa, Taiwan, China, India.

Note. It grows as undergrowth in the laurisilvae from the sea level up to about 600 m, and is widely distributed in South Japan.

Selaginella caulescens, SPRING, Monogr. II. p. 158 (1849); FR. et SAV., Enum. PI. Jap. II. p. 199 (1876); BAK., Handb. Fern. All. p. 94 (1887); HENRY, List PI. Formos. p. 117 (1896); DIELS, in Engl. Bot. Jahrb. XXIX. p. 211 (1900); MATSUM., Ind. PI. Jap. I. p. 361 (1904); MATSUM. et HAY., Enum. PI. Formos. p. 552 (1906); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 359 (1912); ROSENB., Malay. Fern. All. p. 137 (1915); MORI, Enum. PI. Cor. p. 24 (1922); MERR., Enum. Hainan PI. p. 21 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 37 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 124 (1931)

Syn. Lycopodium caulescens, WALL., Cat. no. 137 (1828/

Nom. Jap. Katahiba

Leg. Ipse, Jul. 21, 1924.

Digr. HonsyO, Sikoku, Kyûsyû, Amami-6sima, Tanegasima, Okinawa, Taiwan, Korea, China, India.

Note. As undergrowth on ground or on rocks in the laurisilvae and in the lauri-aciculisilvae.

Selaginella integerrima, SPRING, Monogr. II. p. 79 (1849); BAK., Handb. Fern. All. p. 66 (1887); MASAMUNE, Prel. Rep. Veg. Yak. p. 37 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 124 (1931)

Nom. Jap. Himekurama-goke

Leg. Ipse, Aug. 31, 1926.

Digr. HonsyG, Sikoku, Kyûsyû.

Note. The species grows on rocks in the laurisilvae or in the lauri-aciculisilvae as undergrowth.

Selaginella japonica, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 185 (1867); NAK., in Tokyo Bot. Mag. XXXIX. p. 202 (1925); MAK. et NEM., Fl. Jap. ed. 2. p. 125 (1931)

Syn. *Selaginella Kraussiana*, (non A. BRJ FR. et SAV., Enum. PL Jap. II. p. 200 (1876); BAK., Handb. Fern. All. p. 65 (1887) p.p.; MATSUM. et HAY., Enum. PL Formos. p. 553 (1906^; YABE, Enum. PL Manch. p. 7 '1912 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 37 (1929);

Norn. Jap. *Kuramagdke*

Leg. Ipse, Kosugidani, Jul. 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Okinawa, Taiwan, Manchuria.

Note. The species reaches its maximum flourishing point in the lauri-aciculisilvae.

Selaginella Savatieri, BAK. in Journ. Bot. XXII. p. 87 (1884 . et Handb. Fern. All. p. 66 '1887 ; MATSUM., Ind. PL Jap. I. p. 363 (1904); MASAMUNE, Prel. Rep. Veg. Yak. p. 37 (1929) ; YAMAZUTA, List Manch. PL p. 11 (1930) ; MAK. et NEM., FL Jap. ed. 2. p. 126 (1931);

Syn. *Selaginella denticulata*, (non LINK: FR. et SAV., Enum. PL Jap. II. p. 198 1876.

Nom. Jap. *Tati-kuramagoke*

Leg. Ipse, Jul. 7, 1928.

Distr. Honsyû, Sikoku. Tanegasima, Okinawa, Manchuria.

Note. The species is found as undergrowth in the lauri-aciculisilvae.

Names of Plants	Regions														
	Philippines	Bonins	Taiwan	Okinawa	Amami-Osima	Tanegasima	Kyûsyû Prop.	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Usuri	China
<i>Selaginella atroviridis</i> , SPRING			+	+	+										+
<i>Selaginella caulescens</i> , SPRING	+		+	+	+	+	+	+	+	+					+
<i>Selaginella integer rim a</i> , SPRING							+	+	+						
<i>Selaginella japonica</i> , MIQ.			+	+		+	+	+	+					+	
<i>Selaginella Savatieri</i> , BAK.				+		+		+	+					+	
Total	5	1	3	4	2	3	4	4	5	1				2	2
Percentage	20	60	80	80	40	60	80	80	100	20				40	40
	Southern elements 4'					Northern elements 5'									

There are some southern elements in this island, but in general

the island is more closely related to the northern than to the southern regions with regard to this family.

Psilotaceae

Psilotaceae, ENGL. Syllabus ed. 1. p. 58 (1892); PRITZEL, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 606 (1900); ROSENB., Malay. Fern. All. p. 23 (1915)

Psilotum, Sw._f in Bot. Zeit. p. 217 (1866); BAK._f Handb. Fern. All. p. 29 (1887); PRITZ., in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 619 (1900); ROSENB., Malay. Fern. All. p. 24 f 1915

Psilotum nudum, BEAUV., Prod. Aeth. p. 112 '1805; MASAMUNE, Prel. Rep. Veg. Yak. p. 37 (1929); NAK., in Bull. Biogeogr. Soc. Jap. I. p. 253 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 128 (1931)

Syn. *Lycopodium nudum*. LINN., Sp. Pl. ed. 1. p. 1100 (1753, p.p.?)

Psilotum triquetrum, SW._f Syn. Fil. p. 117; 1806; BAK., Hand. Fern. All. p. 30 (1887); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 185 (1867); FR. et SAV., Enum. Pl. Jap. II. p. 201 (1876); PRITZEL, in ENGL. u. PRANT. Nat. Pfl.-fam. I. iv. p. 619 (1900); WARB., Mons. I. p. 99 (1900); MATSUM., Ind. Pl. Jap. I. p. 360 (1904); MATSUM. et HAY., Enum. Pl. Formos. p. 556 (1906); NAK., Fl. Kor. II. p. 425 (1911); ROSENB., Malay. Fern. All. p. 24 (1915)

AOJII. *Jap. Matubaran*

Leg. Ipse, ca. Kurio. Mart. 22, 1923.

Dist. HonsyG, Sikoku, Kyûsyû, Tanegasima, Amami-Ôsima, Okinawa, Taiwan, Bonins, Korea, China.

Abfe. The species is found as an epiphyte in the laurisilvae.

Name of Plant	Regions													
	Philippines	Onon	Taiwan	Okinawa	Amami	Tanegasima	Kyûsyû Prop.	Sikoku	Honsyû	Im	liên	ern Kuriles & U	Manchuria, Amur & U	Chin
<i>Psilotum nudum</i> , BEAUV.	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Psilotum nudum is a common species widely distributed in the southern parts of Japaq. Therefore I can not deduce any special Phytogeographical relation between this island and its neighbouring districts with regard to this family.

PHANEROGAMAE

GYMNOSPERMAE

Taxaceae

Taxaceae, LINDL., Nat. Syst. ed. 2. p. 316 (1836); PILGER, in Engl. Bot. Jahrb. LIV. p. 33 (1916), et in ENGL. u. PRANT. Nat. Pfl.-fam. 2. auf. B. 13, p. 199 (1926)

Torreya, ARNOTT, in Ann. Nat. Hist. I. p. 130 (1838); BENTH. et HOOK. f. Gen. Pl. III. p. 432 (1880); PILGER, in ENGL. Pfl.-reich. IV. 5. (Heft. 18) p. 105 (1903), et in ENGL. u. PRANT. Nat. Pfl.-fam. 2 auf. B. 13. p. 211 (1926)

Syn. *Caryotaxus*, ZUCC, ex ENDL., Syn. Conif. p. 240 (1847)
Foetataxus, SENILIS, Pinac. p. 167 (1866)

Torreya nucifera, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 232 (1846) et Fl. Jap. 2. p. 64, t. 129 (1870); ENGL., Syn. Conif. p. 240 (1847); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 169 (1867); PARL., in DC. Prodr. XVI. 2. p. 505 (1868); FR. et SAV., Enum. Pl. Jap. I. p. 473 (1875); MASTER, in Journ. Linn. Soc. XVII. p. 500 (1881); SHIRASAWA, IC. ESS. For. Jap. I. p. 48, t. XV. (1899); WARB., Mons. I. p. 194 (1900); PILGER, in ENGL. Pfl.-reich. IV. 5, (Heft. 18) p. 105 (1903); BEISSNER, Handb. Nadelholzk. ed. 2. p. 58 (1909); MORI, Enum. Pl. Cor. p. 26 (1922); DALLIMORE and B. JACKSON, Handb. Conif. p. 75 f. 10 (1923); MASAMUNE, Prel. Rep. Veg. Yak. p. 38 (1929-); MAK. et NEM., Fl. Jap. ed. 2. p. 136 (1931)

Syn. *Taxus nucifera*, [KAEMPF., Amoen. Ex. p. 814 cum. Ic. J7120; LINN., Sp. Pl. ed. I. p. 1040 (1753); THUNB., Fl. Jap. p. 275 (1784); ENDL., Syn. Conif. p. 241 (1847)

Foetataxus nucifera, SMIL., Pinaceae p. 167 (1866)

Torreya Fargesii, FR., in Journ. de Bot. p. 264 (1899)

Norn. Jap. *Kaya*

Leg. Ipse, Kosugidani, Jul. 30, 1927.

Name of Plant	Regions														
	Philippines	Bonins	Taiwan	Okinawa	Amami-Ōshima	Tanegasima	Kyūsyū Prop.	Sikoku	Honsyū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China
<i>Torreya nucifera</i> , SIEB. et ZUCC.							+	+	+						

Distr. Honsyū, Sikoku, Kyfisyfi, Korea.

Note. It grows in the lauri-aciculisilvae but arther "rarely, and has its southern limit of habitat in this island.

***Torreya* is not found in lands further south than Yakushima (I mean in Amami-Ōsima, Okinawa, and in Taiwan), so with regard to this family, the sea between Amami-Ōsima and Yakuskna has a profound significance as a line of demarcation between phytogeographical regions.**

Podocarpaceae

Podocarpaceae, F. W. NEGER, Die Nadelhbl. in Sammlung Gbschen Nr. 355. pp. 23 et 31 (1907); PILGER, in ENGL. U. PRANT. Nat. Pfl.-fam. 2. auf. B. 13. p. 164 (1926)

Podocarpus, L'HERIT, ex PERSOON, Synopsis, II p. 580 (1807); ENDL., Gen. PI. n. 1800 (1836-40), et Syn. Conif. p. 206 (1847); L. C. et A. RICH., Comn. Bot. de Conif. p. 124 (1826); BENTH. et HOOK, f, Gen. PL III. p. 434 (1880); O. KUNTZE, Rev. Gen. PI. II. p. 798 (1891); BAILL., Hist. PI. XII. p. 40 (1892); PILGER, in ENGL. Pfl.-reich. IV. 5. (Heft. 18) p. 54 (1903, et in ENGL. U. PR ANT. Nat. Pfl.-fam. 2. auf. B. 13. p. 240 (1926)

Podocarpus nagi, ZOLL. et MORITZ, ex MAK., in Tokyo Bot. Mag. XVII. p. 113 (1903); PILGER, in ENGL. Pfl.-reich. IV. 5. (Heft. 18) p. 60 (1903); DALLIM. and JACKSON, Handb. Conif. p. 52 (1923); MASAMUNE, Prel. Rep. Veg. Yak. p. 38 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 134 (1931)

Syn. *Myrica Nagi*, THUNB., Fl. Jap. p. 76 (1784)

Nageia japonica, GAERTN., Fruct. et Sem. PI. 1.1. 39. p. 191 (1788) p.p.; WILLD., Sp. PI. IV. p. 749 (1805); SPRENG., Syst. Veg. I. p. 455 (1825); GORD. Pin. p. 137 (1858); CARR., Conif. p. 635 (1867)

Podocarpus Nageia, R. BR., ex MIRBEL, in Mém. du Mus. Par. XIII. p. 75 (1825); ENDL., Syn. Conif. p. 207 (1847); BL., Rumphia III. p. 217 (1847); PARLOT, in DC. Prodr. XVI. 2. p. 508 (1868); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 168 (1867); SIEB. et ZUCC, Fl. Jap. II. p. 71, t. 135 ed. Miq. (1870); MAXIM., in Mém. Biolog. VII. p. 562 (1870); FR. et SAV., Enura, PI. Jap. I. p. 474 (1875); MASTER, in Journ. Linn. Soc. XVIII. p. 501 (1881); VEITCH, Man. Conif. p. 319 (1881); HENRY, List PI. Formos. p. 91 (1896); MAK., in Tokyo Bot. Mag. XII. p. 257 (1898), et XVII. p. 113 (1903); SHIRASAWA, IC. ESS. For. Jap. p. 30, t. XIII. ff. 1-12 (1899)

Agathis Dammara, ENGL., in Engl. Bot. Jahrb. IV. p. 353 (1883)

Potodocarpus japonica, SENILIS, Pinac. p. 155 (1866)

Nageia Nagi, KUNTZE, Rev. Gen. PI. II. p. 798 (1891)

Norn. Jap. Nagi

Leg. Ipse, Yudomari, Jun. 22, 1928.

Diitr. Honsyū, Sikoku, Kyfisyfi, Amami-Ōsima, Okinawa, Taiwan.

Note In this island the species grows on the southern side of Yaegadake from the sea level up to an altitude of about 1000 m. It is rather common in South Japan.

Podocarpus macrophylla, (THUNB.) DON, in LAMB., Pin. ed. 1. II. p. 22 (1824), et ed. 2. II. p. 123 (1828); ENDL., Syn. Conif. p. 216 (1847); BL., Rumphia III. p. 215 (1847); CARR., Conif. p. 664 (1867); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 168 (1867); PARLAT, in DC, Prodr. XVI. 2. p. 517 (1868); SIEB. et ZUCC, Fl. Jap. II. p. 70 t. 133 (1870) ed. MIQ.; MAXIM., in Mél. Biolog. VII. p. 562 (1870); FR. et SAV., Enum. Pl. Jap. I. p. 475 (1875[^]); MASTER, in Journ. Linn. Soc. XVIII. p. 501 (1881); SHIRASAWA, IC. ESS. For. Jap. t. XIII. ff. 13-25 U899.; WARB., Mons. I. p. 192 (1900); PILGER, in ENGL. Pfl.-reich. IV. 5. [^]Heft, 18) p. 79 (1903); MATSUM., Ind. PL Jap. II. 1. p. 15 ¹⁹⁰⁵; BEISSN., Handb. Nadelholzk. ed. 2. p. 41 (1909); DALLIM. and JACKSON, Handb. Conif. p. 49 (1923); MASAMUNE, Prel. Rep. Veg. Yak. p. 38 (1929); MAK. et NEM., Fl. Jap. ed. 2 p. 133 (1931)

Syn. *Taxus macrophylla*, THUNB., Fl. Jap. p. 276 (1784)

Norn. Jap. Inumaki

Leg. A. KIMURA! Aug. 6, 1922.

Distr. Honsyū, Sikoku, KyGsyG, Amami-ōsima, Okinawa.

Note. Found near Onoaida, at about an altitude of 1000 m, in the lauri-aciculisilvae.

Names of Plants	Regions											
	PP Fonic Iawo	Okinawa	Amami-ōsima	Tanegasima	Kyōsyū Prop.	Sikoku	Honsyū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka Manchuria, Amur & Ussuri	China
<i>Podocarpus nagi</i> , ZOLL. and MORITZ . . .	+	+	+	+	+	+	+					
<i>Podocarpus macrophylla</i> , (THUNB.) DON . . .				+	+	+	+					

Concerning the distribution of the plants of *Podocarpaceae*, it is acknowledged that the island shows no special relation either to the southern or to the northern regions.

Cephalotaxaceae

Cephalotaxaceae, F. W. NEGER, Die Nadehölz. in Sammlung Gbschen no. 355 pp. 23, et 30 '19011 p.p.; PILGER., in ENGL. u. PRANT. Nat. Pfl.-fam. 2. auf. B. 13. p. 164 '1926*

Cephalotaxus, SIEB. et ZUCC. ex ENDL., Gen. Suppl. II. p. 27 '1842'; SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 103 (1846), et Fl. Jap. II. p. 65 '1870 ed. MIQ.; ENDL., Syn. Conif. p.237 '1847); CARR., Conif. p.

715 a867j; PARL., DC. Prodr. XVI. 2. p. 502 (1853, ; BENTH. et HOOK, f, Gen. PI. III. I. p. 430 (1830); EICHL. in ENGL. u. PRANT. Nat. iPfl.-fam. II. i. p. 109 v1889J; PILGER, in ENGL. Pfl.-reich. IV. 5. (Heft 18; p. 99 [1903 , et in ENGL. u. PRANT. Nat. Pfl.-fam. 2 auf. B. 13, p. 268 (1926)

Cephalotaxus drupacea, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 232 (1846 , et Fl. Jap. II. p. 66, tt. 130, 131 (1870; ed. MIQ.; ENDL., Syn. Conif. p. 239 (1847 ; CARR., Conif. p. 720 (1867; ; PARL. in DC, Prodr. XVI. 2. p. 504 (1868; ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 169 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 473 a875; et in Bull. Herb. Boiss. VI. p. 274 (1898); SHIRASAWA. Ic. Ess. For. Jap. I. t. XIV. ff. 1-12 (1899); WARB., Mons. I. p. 194 (1900); MASTER, in Journ. Linn. Soc. XXVI. p. 544 (1902); PILG., in ENGL. Pfl.-reich. IV. 5 (Heft 18' p. 100 ff. 19, 20 ,1903); MATSUM., Ind. Pl. Jap. II. 1. [p. 6 (1905); BEISSN., Handb. Nadelholz. ed. 2. p. 68 ;1909; NAK., Fl. Kor. II. p. 334 (1911: ; DALLIM. and JACKSON, Handb. Conif. p. 21 (1923); MASAMUNE, Prel. Rep. Veg. Yak. p. 38 ; 1929; MAK. et NEM., Fl. Jap. ed. 2. p. 132 (1931)

Syn. Taxus baccata, (non LINN.) THUNB., Fl. Jap. p. 275 (1784;

Taxus Inukaya, KNIGHT, Syn. Conif. p. 51 (1850'

Nom. Jap. Inugaya

Leg. Ipse, Kosugidani, Aug. 13, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Korea, China.

Note. The species is found in the lauri-aciculisilvae, and has its southern limit in this island.

Name of Plant	Regions												
	Philippines	Bonins	Taiwan	Okinawa	Amami-Oshima	Ryûkyû	Sakhalin	Kyûsyû	Honsyû	Korea	Yezo	Kuriles	Japan
Cephalotaxus drupacea, SIEB. et ZUCC..								+	+	+	+	+	+

Cephalotaxus drupacea is the sole representative of Cephalotaxaceae in this island, and it is not found in Amami-dsima, Okinawa, and in Formosa. From this fact I venture to state that with regard to this family, the flora of Yakusima decidedly belongs to Japan Proper (Kyûsyû, Sikoku, Honsyû, and Yezo) and to Korea, and that it can be separated from southern Japan (Amami-dsima, Okinawa, and Taiwan).

Pinaceae

Pinaceae, LINDL., Nat. Syst. Bot. Sec. p. 313-1836 \ et Veg. Kingd. p. 226 (1847) p.p;
PILG., in ENGL. U. PRANT. Nat. Pfl.-fam. 2 auf. B. 13, p. 271 (1926)

Abies, A. DIETRICH. Flora Gegend Berl. p. 795

1824 ; PILG., in ENGL. u. PRANT. Nat. Pfl.-fam. 2 auf. B. 13. p. 312 (1926)

Syn. Pinus, Sec. *Abies*, ENDL., Syn. Conif. p. 112 <1847>

Abies firma, SIEB. et ZUCC, Fl. Jap. II. p. 15. t. 107, ed. MIQ. 1843-; MURR., Pin. Jap. p. 53 1863 ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 166 (1867); FR. et SAV., Enum. PJ. Jap. I. p. 467 (1875); MASTER, in Journ. Linn. Soc. Bot. XVIII. p. 514 1831 , et in Bull. Herb. Boiss. VI. p. 273 (1898, ; MAYR., Monogr. Abiet. p. 31 (1890); WARB., Mons, I. p. 189 (1900,; MATSUM., Ind. PI. Jap. II. 1. p. 5 (1905); BEISSN., Handb. Nadelholzk. ed. 2. p. 143 (1909,; SHIRAZAWA, Ic. For. Tr. Jap. I. p. 19. PI. VI. ff. 1-21 1911 ; DALLIM. and JACKSON, Hand. Conif. p. 89, f. 17 (1923,; MASAMUNE, Prel. Rep. Veg. Yak. p. 39 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 137 1931

Syn. Abies Monti, SIEB., in Verh. Bat. Gen. XII. p. 12, 1830 ; KOCH, Dendr. II. p. 227 1873

Pinus firma, ANTOINE, Conif. p. 70, t. 27 > 1840-47 ; ENDL., Syn. Conif. p. 9f 1847 ; PARL., in DC. Prodr. XVI. 2. p. 424 ,1863' excl. Syn.

Abies bifida, SIEB. et ZUCC, Fl. Jap. II. p. 18 t. 109 1843.

Picea firma, GORDON, Pinet. p. 147 1858;

Abies holophylla, MAXIM., in Mém. Biolog. VI. p. 22 1866

Pinus holophylla, PARL. in DC, Prodr. XVI. 2. p. 424 1868

Mom. Jap. Monti

Leg. Ipse, Kosugidani, Mart. 19, 1923.

Distr. Honsyū, Sikoku, Kyūsyū.

Note. The species has its southern limit of habitat in this island, and "Sititonada" should be recognized as the sea which prevents the distribution of this species.

Tsuga, CARR. Conif. ed. 1. p. 185 (1855); BENTH. et HOOK, f, Gen. PI. III. 1. p. 440 (1830) ; EICHLER, in ENGL. u. PRANT. Nat. Pfl.-fam. II i. p. 80 (1889^A); PILGER, in id. ed. 2. p. 319 1926,

Syn. Tsuga, Sect. *Pinus* ENDL., Syn. Conif. p. 83 (1817)

Micropuce, GORDON, Pinet. Supp. p. 13 (1862)

Tsuga Sieboldii, CARR., Conif. p. 186 11855 , et ed. 2. p. 245 1867 ; MASTERS, in Journ. Linn. Soc. XVIII. p. 512 (1881), et in Bull. Herb. Boiss. VI. p. 273 (1898); MAYR., Monogr. Abiet. p. 59 (1890) ; WARB., Mons. I. p. 189 (1900); MATSUM., Ind. PI. Jap. I. p. 20 1905 ; BEISSN., Handb. Nadelholzk. ed. 2. p. 80 (1903); SHIRAZAWA, Ic. For. Tr. Jap. II. p. 12, PI. 4, ff. 16-33 (1912) ; MORI, Enum. PI. Cor. p. 29-1922 ; DALLIM. and JACKSON, Handb. Conif. p. 537 (1923) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 39 (1929, ; MAK. et NEM., Fl. Jap. ed. 2. p. 153 (1931)

Syn. Abies Araragi, SIEB. in Verh. Batav. Gen. XII. p. 12 1830

Abies Tsuga, SIEB. et ZUCC, Fl. Jap. II. p. 14, t. 105 (1843) , ed. MIQ.; FR. et SAV., Enum. PI. Jap. I. p. 468 (1875)

Pinus tsuga, ANTOINE, Conif. p. 83. f. 2. ; 1846 ; ENDL., Synop. Conif. p. 83 1847

Tsuga Tsuja, A. MURRAY, in Proc. Hort. Soc. Lon. II. p. 503 1862)

Nom. Jap. *Tsuga***Leg.** Ipse, Kosugidani, Sept. 4, 1926.**Diatr.** Honsyû, Sikoku, Kyûsyûfl, Korea.**Note.** The species grows on granite rocks, and in the lauri-aciculisilvae. It has its southern limit of habitat in this island. Not only this species, but also genus *Tsuga* have not yet been found in Amami-6sima and Okinawa.**Pinus**, LINN., Sp. Pl. ed. 1. p. 1000 1753 ; DC, Prodr. XVI. 2. p. 377 • 1868^v; BENTH. et HOOK, f., Gen. Pl. III. I. p. 438 :1880;; EICHLER, in ENGL. U. PRANT. Nat. Pfl.-fam. II. i. p. 70 (1880 ; MASTERS, in Journ. Linn. Soc. Bot. XXVII. pp. 227-328, XXXV. p. 560 1904. ; BEISSN., Handb., Nadelholz. ed. 2. p. 340 [1909 ; PILGER, in ENGL. u. PRANT. Nat. Pfl.-fam. 2 auf. B. 13. p. 331 (1926`**Syn.** Subgenus *Pinus*, ENDL., Syn. Conif. p. 137 ;1847. ; PARL., in DC. Prodr. XVI. 2. p. 378 1868**Pinus amamiana**, KOIDZ., in Tokyo Bot. Mag. XXXVIII. p. 113 1924 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 39 ;1929` ; MAK. et NEM., Fl. Jap. ed. 2. p. 147 1931;**Syn.** *Pinus Armandi*, non FR. ` WILS., Conif. and Tax. Jap. p. 20 1916 p.p.; MASAMUNE, in Journ. Trop. Agr. II. p. 31 (1930**Norn. Jap. *Yakusima-goyô*****Leg.** Ipse, Jun. 15, 1928.**Distr.** Tanegasima.**Note.** It grows on the southern side of the island at an altitude of 300 m up to **500 m** in the lauri-aciculisilvae. The pine is restricted to this island and to Tanegasima.**Pinus densiflora**, SIEB. et ZUCC, Fl. Jap. II. p. 22, t. 112 (1843 ; ENDL., Syn. Conif. p. 172 (1847 ; MURRAY, in Pines and Firs. Jap. p. 32, ff. 55-63 -1863 ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 165 ,1867.; FR. et SAV., Enum. Pl. Jap. I. p. 464 (1875); MASTERS, in Journ. Linn. Soc. XVIII. p. 503 ;1881 ; MAYR., Monogr. Abiet. Jap. p. 72, t. 5, f. 17 • 1890. ; SARGENT, Forest Fl. Jap. p. 79 • 1893;; SHIRAZAWA, IC. ESS. For. Jap. I. p. 10, t. 1. ff. 1-14 (1899 ; MATSUM., Ind. Pl. Jap. II. 1. p. 13 1905 ; BEISSN., Handb. Nadelholz. ed. 2. p. 437 1909 ; NAK., Fl. Kor. II. p. 380 ,1911) ; WILS., Conif. and Tax. Jap. p. 25 1916 ; MIURA, List Pl. Manch. and Mong. p. 17 1925;; REHDER, Manual Cult. Trees and Shrub, p. 59 (1927 ; MASAMUNE, Prel. Reg. Veg. Yak. p. 39 ;1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 148 1931**Syn.** *Pinus japonica*, FORB., Pinet. Woburn. p. 33 ;1839*Pinus rubra*%, non LAMB. MICHAUX, MILLER, nee MIQ., SIEBER, ex GORD. Pinet. Supp. p. 58 1852**Norn. Jap. *Akamatu*****Leg.** Ipse, Wariisidake, Jul. 25, 1923.**Distr.** Yezo, Honsyû, Sikoku, Kyûsyû, Korea.**Note.** In the island, the pine grows on the southern side of the Yae^adake, where the granite has been exposed by land slides and by other geographical agencies. It has its southern limit in this island.**Pinus Thunbergii**, PARLATORE, in DC. Prodr. XVI. 2. p. 333 1853 ; MASTERS, in Journ. Linn. Soc. XVIII. p. 501 1831., in Bull. Herb. Boiss. V. p. 272 • 1893 , et in Journ. Linn. Soc. Lond. XXXV. p. 629 1901 ; FR., Pl. Dav. I. p. 235 1834 ; MAYR., Monogr. Abiet. Jap. p. 69. t. 5. f. 16 1890 ; SARGENT, For. Fl. Jap. p. 79

.1893, ; WARB., Mons. I. p. 188 (1900.; MATSUM., Ind. Pl. Jap. II. 1. p. 15 U905); BEISSN., Handb. Nadelholzk. ed. 2. p. 414 (1909, ; NAK, Fl. Kor. II. p. 330 (1911); SHIRAZAWA, IC. For. Tr. Jap. I. p. 3. Pl. I. ff. 15-29 '191H ; MIURA, List Pl. Manch. and Mong. p. 18 (1925 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 39 ·1929 ; MAK. et NHM., Fl. Jap. ed. 2. p. 150 (1931)

Syn. *Pinus silvestris*, ;non LINN.) THUNB., Fl. Jap. p. 274 1784)

Pinus pinaster, mon SOLANDER) LOUDON, Arboret. 2218 (1838'

Pinus Massoniana, ^non D. DON, nee GORDON SIEB. et ZUCC, Fl. Jap. II. p. 24, tt. 113 et 114 (181-2

Nom. Jap. *Kuro-matu*

Leg. Ipse, Aug. 16, 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasimn, Korea.

Note. The species flourishes in the coastal regions of the island. It is an interesting fact that the species found in this island has a greater affinity to *P. luchuensis*, than to the pines of other regions. The species has its southern limit of habitat in Akuseki, a small islet situated among the Silitô Linschoten Islands that stretch between Amami-Osima and Yakusima, and in the island of Takarazima situated in the south next to Akuseki, where the Pine disappears and is replaced by *P. luchuensis*.

Regions	Ryûkyûs		Kyûsyû		Sikoku		Honsyû		Korea		Yezo & Southern Kuriles		Saghalien		Northd Kur & I hatka		Manchuria, A		China		
	Tanegas	Kyûsyû p.	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northd Kur & I hatka	Manchuria, A	China											
<i>Abies firma</i> , SIEB. et ZUCC																					
<i>Tsuga Sieboldii</i> , CARR																					
<i>Pinus amamiana</i> , KOIDZ																					
<i>Pinus densiflora</i> , SIEB. et ZUCC																					
<i>Pinus Thunbergii</i> , PARLATORE																					
Total	5																				
Percentage																					
Southern elements 0											Northern elements 5										

When only Pinaceae are considered the island seems to be intimately related to northern lands. WATASE'S line gives the same im-

portant meaning to Pinaceae so far as phytogeography as well as zoogeography are concerned.

Taxodiaceae

Taxodiaceae, F. W. NEGER, Die Nadelhblzer und librigen Gymnospermen pp. 24, et 127 U907); PILGER, in ENGL. U. PRANT., Nat. Pfl.-fam. 2. auf. B. 13. p. 165 (1926)

Cryptomeria, D. DON, in Trans. Linn. Soc. VIII. p. 166, t. 13, f. 1. (1839¹); SIEB. et ZUCC, Fl. Jap. II. pp. 41-54, tt. 124, 124-b. ed. Miq. (1844); HOOK., Ic. PL. VII. t. 668 (1844*); BENTH. et HOOK, f, Gen. PL. III. 1. p. 428 (1830[^]); WILS, Conif. and Tax. Jap. p. 66 (1916); PILG., in ENGL. u. PRANT. Nat. Pfl.-fam. 2 auf. B. 13, p. 355 (1926-

Cryptomeria japonica, D. DON, in Trans. Linn. Soc. XVIII. p. 166 t. 13, f. 1 (1841); HOOK., Ic. PL. VII. t. 668 -1844: ; SIEB. et ZUCC., Fl. Jap. II. p. 43, tt. 124,124-b. (1844), et Fl. Jap. Fam. Nat. II. p. 234 11846 ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 168 (1867[^]); FR. et SAV., Enum. PL. Jap. I. p. 469 ;1875;; MASTERS, in Journ. Linn. Soc. XVIII. p. 497 ↓1831 , XXVI. p. 544 (1902\ et p. 413 (1903); SARGENT, For. Fl. Jap. p. 74, t. 24 (1894<; MATSUM., Ind. PL. Jap. II. 1. p. 9 (1905); MAYR, Frendl. Wald. u. Parkb. p. 278 (1905 ; SHIRASAWA, IC. For. Tr. Jap. I. p. 29. PL. 9. ff. 25-42 (191U ; REHDER and WILS., in SARGENT PL. Wils. II. p. 52 (1914); WILS., Conif. and Tax. Jap. p. 66 • 1916 ; DALLIM. and JACKSON, Handb. Conif. p. 180 (1923ⁱ); REHDER, Manual Cult. Tree. Shrub, p. 26 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 39 (1929 ; GROFF, in Lingn. Sci. Journ. IX. p. 289 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 141 (1931

Syp. *Cupressus japonica*, LINN., f, Supp. p. 421 (1781)

Taxodiutn japonic urn, BRONGNIART, in Ann. Sc. Nat. Sér. I. XXX. p. 183 11833'

Cryptomeria Fortunci, OTTO et DIETRICH, Allg. Gartenz. p. 234 U853,

Cryptomeria Lobbiana, BILLAIN, in OTTO et DIETRICH, Allg. Gartenz. p. 234 (1853)

Cryptomeria nigricans, CARR., in Rev. Hort. p. 119 11870-71;

Nom. Jap. *Sugi*

Leg. Ipse, Jul. 12, 1928.

Diatr. Honsyuf, Sikoku, Kyûsyfi, Southern China?

Note. The *Cryptomeria* is the most useful, popular, and noblest tree of all the Japanese conifers. Many famous places, such as the shrines of Ise, the monumental avenues at Nikko, the magnificent grove at Hikosan in Prov. Buzen, the charming avenue up to Sano Shrine in Hiuga Province and so on, owe much of their beauty to the stately and impressive features of this conifers, or "*Sugi*". But the above mentioned beauty is a gift of man while the noblest beauty of the scenery of the natural forest of the conifers in our island is really a gift of nature and defies comparison with any other forest beauty that I have ever seen. The forest is not a pure stand of *Cryptomeria japonica*, but is associated with *Abies firma*, *Tsuga Sieboldii*, *Chamaecyparis obtusa*, *Bobua myrtaceae*, *Trochodeniron aralioides*, *Distylium racemosum*, *Stewartia monadelphica*, *Camellia japonica*, var. *macrocarpa*, *Tetraderda foliosa* *Machilus Thunbergii*, and *Rhododendron Tashiroi*, etc. The *Cryptomeria* or "*Sugi*" has been extensively planted in many parts of our Empire since ancient times, so it is a difficult problem to ascertain whether the "*Sugi*" forests in Japan are natural or artificial but it seems

to be an accepted fact that the plant is distributed over Honsyû, Sikoku, Kyûsyû, (i.e. so-called Japan proper,) and that Yakusima is the southern limit of habitat of this plant. In the island Cryptomeria forests mostly occur on granite, rather sparsely on mesozoic rocks from 300 m up to 1800 m above the sea level, where cloudy skies, damp weather prevail and abundant rainfall is recorded throughout the year. The species is not found in Amami-Ôsima, Okinawa, and Formosa. I would like therefore to suggest that WATASE's line denotes a significant fact in phytogeography as in zoogeography when this species is considered.

Name of Plant	Regions																	
	Ph B T	h o c o n	h o c o n	h o c o n	Okinawa	Amami-Ôsima	Ry I s	Tanegasima	Ky s s	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles	am h atka	Manchuria, Amur & suri	Chi o a
Cryptomeria japonica, DON									+	+	+							+

Cryptomeria is the sole representative of Taxodiaceae in Yakusima and from the distribution of this genus, we conclude that the island is included among the northern districts (Honsyû, Sikoku, Kyûsyû) and has no relation with the southern districts (Amami-Ôsima, Okinawa, and Formosa).

Cupressaceae

Cupressaceae. F. W. NEGER, Die Nadelhölz. und ubrigen Gymnospermen, pp. 24, 139 1907 ; PILGER, in ENGL. U. PRANT. Nat. Pfl.-fam. 2. auf. B. 13. p. 165 '1926;

Chamaecyparis, SPACH, Hist. Nat. Phan. XI. p. 329 1842 ; ENDL., Syn. Conif. p. 60 (1847); BEISSN, Handb. Nadelholzk. ed. 2. p. 528 1909 ; PILG., in ENGL. u. PRANT. Nat. Pfl.-fam. 2 auf. B. 13, p. 393 (1926, Syn. *Retinispora*, SIEB. et ZUCC., Fl. Jap. II. p. 36, tt. 121-123 (1844)

Chamaecyparis obtusa, SIEB. et ZUCC, apud Endl., Syn. Conif. p. 63 1847 ; CARR., Conif. p. 136 ^ 1855 ; FR. et SAV., Enum. Pl. Jap. I. p. 471 (1875! ; SARGENT, For. Fl. Jap. p. 73 ,1893;; SHIR AZ AW A, Ic. Ess. For. Jap. I. p. 32. t. 10, ff. 17-32 (1899.); MATSUM., Ind. Pl. Jap. II. 1. p. 7 ,1905; ; MAYR., Fremdl. Wald. u. Porkb. p. 277, t. 5. f. 4 1905 ; BEISSN., Handb. Nadelholzk. ed. 2. p. 554, f. 141 1909 ; WILS., Conif. and Tax. Jap. p. 76 1916 ; REHDER, Manual Cult. Tree. Shrub, p. 18

(1927J ; MASAMUNE, Prel. Rep. Veg. Yak. p. 39 (1929-; MAK. et NEM., Fl. Jap. ed. 2. p. 140 (1931)

Syn. *Cupressus obtusa*, KOCH, Dendr. II. 2. p. 168 (1873); DALLIM. and JACKSON, Handb. Conif. p. 214 (1923)

Retinospora obtusa, SIEB. et ZUCC., Fl. Jap. II. p. 38. t. 121 (1844)

Nom. Jap. *Hinoki*

Leg. A. KIMURA, Aug. 6, 1922.

Distr. Honsyû, Sikoku, Kyûsyû.

Note. It is found in the lauri-aciculisilvae from 603 m up to 1803 m above the level of the sea, and has its southern limit of habitat in this island. From this point of view the sea between Yakusima and Amami-Ôsima acts as a line of demarkation which divides the flora of Japan, even though other representatives of *Chamaecyparis* (*C formosencis*, and *C. taiivania* are found in Formosa.

Juniperus, [TOURN. ex LINN., Gen. Pl. p. 311 (1737)]; et Sp. Pl. ed. 1. p. 1038 [1753 ; BENTH. et HOOK, f, Gen. Pl. III. p. 427 (1883) ; BEISSN., Handb. Nadelholzk. ed. 2. p. 581 (1909. ; PILG., in ENGL. U. PRANT. Nat. Pfl.-fam. 2 auf. B. 13. p. 396 U926)

Juniper us tsukusiensis, MASAMUNE, Prel. Rep. Veg. Yak. p. 39 (1929), et in Tokyo Bot. Mag. XLIV. p. (50) (1930; nom. nud.

Syn. *Juniperus Sargentii*, (non TAKEDA) SASAKI, List Pl. Formos. p. 53 (1928)

Juniperus chinensis, LINN. var. *tsukumiensis*, MASAMUNE, in Trop. Agr. II. p. 152 (1930), et III. p. 20 a931)

Juniperus chinensis, LINN. var. *Sargentii*, ;non HENRY SASAKI, Governm. Herb. p. 57 (1930)

A'om. Jap. *Tukusi-byakmin*

Leg. Ipse, Tatyûdake, Jul. 22, 1927.

Digtr. Kyûsyû, Taiwan.

Note. The plant grows in open space from 500 m up to the highest altitude in the island.

Names of Plants	Philippines	Hokkaido	Taiwan	Okinawa	Bonin-Islands	Yakusima	Kyûsû	Sikoku	Honsyû	Corea	Yezo & Southern Kuriles	Japan	Formosa
<i>Chamaecyparis obtusa</i> , SIEB. et ZUCC.													
<i>Juniperus tsukusiensis</i> , MASAMUNE													

From the above table it will be clear that Yakusima is more

closely related to *Kyûsyû* than to the southern lands from the standpoint of the phytogeography of the Cupressaceae. From this fact we may conclude that WATASE'S line of zoogeography does in effect divide the Flora of Japan.

ANGIOSPERMAE

DICOTYLEDONEAE

Archichlamydea

Saururaceae

Saururaceae, LINDL., Nat. Syst. ed. 2. p. 181 (1333 ; ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. III. i. 11 (1889)

Saururus, [PLUM, ex LINN. Gen. ed. I. p. 103 '1737,] et Sp. Pl. ed. 1. p. 3U (1753< ; ENDL., Gen. Pl. n. 1824 (1835-40); BENTH. et HOOK, f., Gen. Pl. III. 1. p. 127 (1830, ; ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. III. 1. p. 2 (1839i

Syn. *Spathium*, LOUR., Fl. Cochinch. p. 217 (1790)

Mattuschkia, J. F. GMEL., Syst. II. p. 539 ;1791)

Saururopsis, TURCZ., in Bull. Soc. Nat. Moscou XXI. 1. p. 539 U81S)

Saururotus, TURCZ. ex ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. III. i. p. 2 (1837)

Saururus chinensis, BAIL., Adan[^]onia X. p. 69 (1850-69\ et Hist. Pl. III p. 467 (1857-69 ; C. DC, in LECOMTE, Fl. Ind. Chin. V. 1. p. 59 (19101; MERR., Enum. Hainan Pl. p. 57 :1927 . ; MASAMUNE, Prel. Rep. Veg. Yak. p. 63 (1929); HANDEL-MAGZ., Symb. Sin. VII. p. 155 (1929)

Syn. *Saururus cernur*, non LINN. THUNB., Fl. Jap. p. 151 [17SV ; HOOK, et ARN., Bor. Capt. Beech. Voy. p. 216 ,1835i

Spathium chinense, LOUR., Fl. Cochinch. p. 217 (1790;

Saururus Lourciri, DECNE, in Ann. Soc. Nat. 3^{UM} s&r. III. p. 102 (1815) ; FORB. et HEMSL., Ind. Fl. Sin. II. p. 353 (1891); MATSUM. et HAY., Enum. PL Formos. p. 3M :1903 ; MATSUM., Ind. Pl. Jap. II. 2. p. 1 (1912) ; DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 220 (1912- ; MORI, Enum. Pl. Cor. p. 107 :1922 ; MAK. et NEM., Fl. Jap. ed. 2. p. 156 (1931)

Sauropste chinoisis, TURCZ., in Bull. Soc. Nat. Mosc. XXI. 1. p. 59 (1848); C. DC, Prodr. XVI. p. 239 (1859)

Nom. Jap. *Hangesyô*

Leg. Ipse, Jul. 21, 1927.

Distr. Honsyut, Sikoku, Kytsyut, Tanegasima, Okinawa, Taiwan, Korea, China.

Ntte. The species grows on somewhat wet ground near the sea level.

Houttuyr.ia, THUNB., Fl. Jap. pp. 12, 234, t. 26 (1784); ENDL., Gen. Pl. n. 1825 U836-40 ; DC, Prodr. XVI. 1. p. 238 (1869);

BENTH, et HOOK. f., Gen. Pl. III. 1. p. 128 (1830); ENGL., in ENG. u. PRANT.
 Nat. Pf.-fam. III. i. p. 3 (1889); LEMÉE, Dic. Gen. Pl. II. p. 655 (1934)

Syn. *Houttuynia*, THUNB., Fl. Jap. p. 234, t. 26 (1784)

LOUR., Fl. Cochinch. p. 61 (1790)

LOUR., BATSCH, Tab. p. 159 (1802)

BAITSCH, CRAMER, Enum. Pl. p. 141 (1803)

BAITSCH, DECNE, in Ann. Sc. Nat. 3. sér. III. p. 100, t. 5 (1845)

Houttuynia cordata, THUNB., Fl. Jap. p. 234, t. 26 (1784); Bot. Mag. t. 2731 (1827);
 BENTH., Fl. Hongk. p. 34 (1851); DC., Prodr. XVI. l. p. 233 1859; FR., Pl. David.
 I. p. 258 (1834); HOOK. f., Fl. Brit. Ind. V. p. 78 (1830); FORB. et HEMSL., Ind.
 Fl. Sin. II. p. 354 (1891); DIELS, in Fl. Cent. Chin. p. 272 (1900); MATSUM. et
 HAY., Enum. Pl. Formos. p. 344 (1905); C. DC., in LECOQTE Fl. Ind. Chin. V.
 1. p. 60, f. 7 (1910); MATSUM., Ind. Pl. Jap. II. 2. p. 1. (1912); DUNN et TUTCH.,
 Fl. Kwang. and Hongk. p. 220 (1912); HANDEL-MAGZ. Symb. Sin. VII. p. 156
 (1929); MASAMUNE, Prel. Rep. Veg. Yak. p. 63 (1929); MAK. et NEM., Fl. Jap.
 ed. 2. p. 155 (1931)

Syn. *Polybara cochinchinensis*, LOUR., Fl. Cochinch. p. 61 (1790)

Nom. Jap. *Dokudami*!

Leg. Ipse, Jul. 13, 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Okinawa, Taiwan, China.

Note. The species is found as undergrowth in the laurisilvae or in the lauri-
 aciculsilvae.

		Regions	
N riles dans		Philippines	
		Bonins	
		Taiwan	
		Okinawa	Ryûkyûs
		Amami-Osima	
		Tanegasima	Kyûsyû
		Kyûsû Prop.	
		Sikoku	
		Honsyû	
		Korea	
		Yezo & Southern	Ku riles
		Saghalien	
		Northern Ku riles &	Kamtchatka
		Manchuria, Amur &	Usuri
		China	

In this family the island shows no peculiarity so far as its
 phytogeographical position is concerned.

Piperaceae

Piperaceae, C. RICH., in HUMBOLDT, BONPLAND et KUNTH, Nov. Gen. et Sp. (1815)

Piper, [LINN., Gen. ed. 1. p. 333] et Sp. Pl. ed. 1. p. 23 (1753; ENDL., Gen. Pl. n. 1820 11835-40); DC, Prodr. XVI. 1. p. 240 (1859; BENTH. et ItoOK. f., Gen. Pl. III. 1. p. 129 (1833); ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. III. i. p. 6 (1839)^

Syn. *Qucbitca*, AUBL., Hist. Pl. Gui. Franc. II. p. 833 (1775)

Piper iphontm, NECK. Elem. II. p. 294 (1791)

Peperidia, KOSTEL, Allg. Med.-pharm. Fl. II. p. 455 (1833)

Amalago, RAF., Sylv. Tellur. p. 8t (1833)

Suensonia, GAUDICH, ex MIQ., Syst. Piperac. p. 375 (1813-44)^

Caulobryon, KLOTZSCH, ex DC, Prodr. XVI. 1. p. 240 (1859)

Piperi, ST.-LAG. in Ann. Soc. Bot. Lyon VII. p. 132 (1830)

Piper futo-kadzura, SIEB., in SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 231 (1816) nom. nud. excl. Syn. MIQ.; MIQ_M in Ann. Mus. Bot. Lugd. Bat. III. p. 139 (1857); DC, Prodr. XVI. 1. p. 3tS (1859); FR. et SAV., Enum. Pl. Jap. I. p. 443 (1875)^N; MAXIM., in Mfl. Biolog. XII. p. 532 (1835); FORB. et HEMSL., Ind. Fl. Sin. II. p. 355 (1891); MATSUM. et HAY., Enum. Pl. Formos. p. 316 (1905); MATSUM., Ind. Pl. Jap. II. 2. p. 2 (1912); MORI, Enum. Pl. Cor. p. 107 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 63 (1929); NAK., Fl. Sylv. Kor. XVIII. p. 7, t. 1 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 157 (1931)

Nom. J:ip. *Hufo-kadzura*

Leg. Y. KUDO! Nngata, Aug. 1907.

Distr. Honsyu, Sikoku, Kyusyu, Amami-Osima, Tanegasima, Okinawa, Taiwan, Korea.

Atte. The species flourishes in the laurisilvae near the sea level.

Pepcroiria, RUIZ, et PAV., Fl. Peruv. et Chil. Prodr. p. 8 (1791); ENDL., Gen. Pl. n. 1820 (1835-40); DC, Prodr. XVI. 1. p. 392 (1859); BENTH. et HOOK, f., Gen. Pl. III. 1. p. 132 (1838*); ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. III. i. p. 10 (1839)

Syn. *Troxirum*, RAF., Sylv. Tellur. p. 85 (1833)^

Micropiper, MIQ., in Bull. Néerl. p. 417 (1839)

Acrocarpidwm, MIQ., Syst. Pip[^]rac. p. 51 (1813-IT)

Erasmia, MIQ., in In[^]it. Versl. et M.vld. p. 81 (1813)

Ptp.romia japonira, MAK., in Tokyo Bot. Mag. XV. p. 145 (193P); MATSUM., Ind. Pl. J:ip. II. 2. p. 2 (1912); MASAMUNE, Prel. Rap. Ve?. Yik. p. 63 (1929); MAK. et NKM, Fl. J:ip. eel. 2. p. 156 (1931).

Syn. *Vcpcromia portnlaroidc**, non DIETR.[^] MAK., in Tokyo Bot. Mag. I. p. 183 (1877), et III. Fl. Jap. II. Pl. 10 (1883)

Nom. Jap. *Sadaso*

Leg. Ip[^], Ono-mii, Sep. 9, 1926.

Diatr. Sikoku, Kytisyu, Amimi-Osima, Okinawa.

Note. The sp?cijs grows as undergrowth on rocky ground near the seashore.

Piperaceous plants abound in the tropical and subtropical regions, and the presence of a few representatives in the island show that the island has some relation to the southern lands. But these indigenous species b2ini also fouii in the southern part of HonsyQ,

Names of Plants	Regions											
	Philippines O _u P _Q H	Penins H _{ai} wan	O _h inaw _e	Am _o ri _{sh} is _{is}	Tai _y s _i ma	Ky _u s _h o	Siko _u	Hok _u s _h u	Korea	Y _u s _h o & S _u thern Kuril _{is}	Saghal _i	North _e Kuril _{ies} & S _h an _{to} & M _o cc _h ur _{ic} & U _{ss} ur _{ic}
Pipsr futo-kadzura, SIEB.		H	+	+	-	-	+	+	+			
Pepsromia japonica, MAK.		1	1	i		+	+					

Sikoku and Kyûsyû, the island is under the same phytogeographical position as these regions.

Chloranthaceae

Chloranthaceae, BL., Enum. Pl. Jav. I. p. 78 1830

Syn. *Chlorantheae*, R. BR., in Bot. Mag. t. 490 1821

Chloranthus, SWARTZ, in Phil. Trans. LXXVII.

p. 359 11787- ; ENDL., Gen. Pl. p. 265 n. 1819 1835-40 p.p.; SOL. LAUB., in DC, Prodr. XVI. 1. p. 473 1819 pp.; BENTH. et HOOK. f. Gen. Pl. III. 1. p. 134 1830 p.p.; ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. III. i. p. 12 1839^ p.p.; LEMKE, Diet. Gen. Pl. Phan. II. p. 125 1930j p.p.; KUDO et MASAMUNE, Gen. Pl. Formos. I. p. 5 (1932) p.p.

Syn. *Nigrina*, in LINN., THUNB., Nov. Gen. Pl. III. p. 58 1783 , et Fl. Jap. p. 5 U784)

Creodus, LOUR., Fl. Cochinch. p. 88 1790 , et ed. 2. p. 112 1793/

Aloranthus, F. S. VOVGT., in L. C. Rich. Anal. Fruit, p. 29 (1811)

Cryphaea, BUCH-HAM, in Edinburgh Journ. Sc. II. p. 11 11825j

Ascarina, non FORSTERi BL., Enum. Pl. Jav. I. p. 79 (1827; p.p., et Fl. Jav. p. 7 U829) p.p.

Peperidia, REICHB., Consp. p. 212a. 1828;

Tricercandra, A. GRAY, in Perry Exped. Jap. II. p. 318 1857/

Chloranthus serratae, ROEM. et SCHULT., Syst. Veg. III. p. 461 (1818- ; SOLMS., in DC. Prodr. XVI. 1. p. 475 1869, ; FR. et SAV., Enum. Pl. Jap. I. p. 444 1875;; FORB. et HEMSL., Ind. Fl. Sin. II. p. 369 1891, ; DIELS, Fl. Cent. Chin. p. 273 [1900; ; MATSUM. Ind. Pl. Jap. II. 2. p. 3 1912,; MASAMUNE, Prel. Rep. Veg. Yak. p. 63 1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 159 1931.

Syn. *Nigrina serrata*, THUNB., in Nov. Act. Acad. Upsal. VII. p. 142 t. 5, f. 1 1783-,
Nom. Jap. *Hutari-sizuka*

Leg. Ipse, Jun. 8, 1928.

Distr. Yezo, Honshû, Sikoku, Kyûsyû, Amami-Ôsima, Tanegasima, China.

Note. This is found as undergrowth in the lauri-aciculilivae from about 600 m up to 1600 m above the sea level.

Sarcandra, GARDNER, in Calcutta Journ. Nat.

Hist. VI. p. 348 (1846); WIGHT, Ic. VI. p. 5, t. 1946 (1853);

Syn. *Ascarina*, (non FORSTER) BL., Enum. Pl. Jav. fasc. I. p. 79 (1827), et Fl. Jav. p. 7 (1829) p.p.; ENDL., Gen. Pl. n. 1818 (1836-40) p.p.; SOLMS., in DC. Prodr. XVI. l. p. 473 (1819) p.p.; BENTH. et HOOK. f., Gen. Pl. III. l. p. 131 (1830) p.p.; ENGL., in ENGL. u. PRANT. Nat. Pl.-fam. III. i. p. 12 (1839) p.p.

Sarcandra glabra, NAK., Fl. Sylv. Kor. XVIII. p. 17, t. II. (1930).

Syn. *Bladhia glabra*, THUNB., in Trans. Linn. Soc. II. p. 331 (1793); WILLD., Sp.

Pl. I. p. 1122 (1797).

Chloranthus monander, R. BR., in Bot. Mag. t. 2190 (1821)

Chloranthus brachystachys, BL., Fl. Jav. Chloranth. p. 13, t. 2 (1829); HOFFM. et SCHULT., Nom. Indig. Pl. Jap. in Journ. Asiat. p. 233 (1852); MIQ., Fl. Ind. Bat. l. p. 801 (1855), et in Ann. Mus. Bot. Leyd. Bat. III. p. 129 (1867); BENTH., Fl. Hongk. p. 331 (1861); SOLMS., in DC. Prodr. XVI. l. p. 475 (1869); FK. et SAV., Enum. Pl. Jap. l. p. 414 (1875); ENGL., in Engl. Bot. Jahrb. VI. p. 55 (1886), et in ENGL. u. PRANT. Nat. Pl.-fam. III. i. p. 13 (1894); HOOK. f., Fl. Brit. Ind. V. p. 100 (1896); FORB. et HEMSL., Ind. Fl. Sin. II. p. 357 (1891); MATSUM. et HAY., Enum. Pl. Formos. p. 317 (1903); RIDLEY, Fl. Malay. Penn. III. p. 53, f. 140 (1907); MATSUM., Ind. Pl. Jap. II. 2. p. 3 (1912); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 221 (1912); REHDER, in SARGENT. Pl. Wils. III. p. 15 (1916); MORI, Enum. Pl. Cor. p. 107 (1922)

Ascarina serrata, BL., Enum. Pl. Jav. l. p. 80 (1830)

Ardisia glabra, A. DC., in Trans. Linn. Soc. XVII. p. 350 (1837), et in DC. Prodr. VIII. p. 135 (1844)

Sarcandra chloranthoides, GARDNER; WIGHT, Ic. Pl. Ind. Orient. t. 1916 (1853)

		Regions	
		Philippines	
		Bonins	
		Taiwan	
		Okinawa	Ryûkyûs
		Amami-6sima	
		Tanegasima	
		Kyûsyû Prop.	Kyûsyû
		Sikoku	
		Honshû	
		Korea	
		Yezo & Southern Kuriles	
		Saghalien	
		Northern Kuriles & Kamtchatka	
		Manchuria, Amur & Usuri	
		China	

NAMES 6
Plants

Ascarina serrata ROEM. et SCHULT. +

Sarcandra glabra NAK +

Chloranthus ilicifolius, BL., ex MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 129 (1867) p.p.

Chloranthus pjaberi, MAK. in Tokyo Bot Mag. XXVI. p. 335 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 63 (1910); MAK. et NKM, Fl. Jap. ed. 2. p. 158 (1931);

AYJR. Jap. Senryô

Leg. Ipse, Yosida, Mart. 21, 1923.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-6sima, Okinawa, Taiwan, Korea, China, Indo-china, Malay, India.

Note. The species is found in the lauri-aciculisilvae.

In this family the island shows no special affinity either with the north or with the south.

Salicaceae

Salicaceae, LINDL., Nat. Syst. ed. 2. p. 183 (1835)

Falix, [TOURN. ex LINN., Syst. ed. 1. (1735); LINN., Gen. Pl. ed. 1. p. 3(D (1737);] et Sp. Pl. ed. 1. p. 1015 (1753); ENDL., Gen. Pl. n. 1903 (1835-40); ANDERS., in DC. Prodr. XVI. 2. p. 191 (1853); BENTH. et HOOK, f., Gen. Pl. III. 1. p. 411 (1840); PAX, in ENGL. u. PRANT. Nat. Pfl.-fam. III. i. p. 35 (1889)

Syr. *Amerina*, RAF., Alsogr. Amer. p. 15 (1838)

Diplima, RAF., Alsogr. Amer. p. 13 (1833)

Helix, DUMORT, ex STUED., Norn. ed. 2. I. p. 745 (1840);

Salix pseudokoreensis, KOIDZ., in Tokyo Bot. Mag. XL. p. 3(6 (1926); MASAMUNE, Prel. Rep. Veg. Yak. p. 61 (1929)

Nom. Jap. *Nise-kôrai-yanagi*

Leg. Ipse, Yudomari, April. 2, 1927.

Distr. Honsyû, Kyûsyû, Amami-6sima

Note. The willow is found by running water in wet fields or ricefields, but rarely.

Name of Plant	Regions									
	Philippines	Bonins	Taiwan	Okinawa	Amami-O.	Ryûkyûs	Kyûsyû	Southern Kuriles	en Kuriles & 33	hatka
<i>Salix pseudokoreensis</i> , KOIDZ.					+		+	+		

Morella nibra, LOUR., Fl. Cochinch. p. 548 √1790,

Norn. Jap. Yamamomo

Lea. Ipse, Kosu^idani, Jul. 22, 1927.

Dlslr. Honsyû, Sikoku, Kyûsyû, Amumi-Ôsima, Tanegasima, Okinawa, Taiwan, Korea, China, Philippines, India, Malay.

Note. The species is found in the laurisilvae or in the lauri-aciculisilvae.

The Myricaceae have only one representative in the island which is widely distributed in South Japan.

Juglandaceae

Juglandaceae, LINDL., Nat. Syst. ed. 2. p. 180 (1813*

Sun. *Juglandeac*, DC, Theor. Elém. p. 215 '1813;

Jugians, [LINN., Gen. Pl. ed. 1. p. 291 (1737J]

et Sp. Pl. ed. 1. p. 937 il753 ; ENDL., Gen. Pl. n. 5890 11836-401; DC. Prodr. XVI. 2. p. 135 11851); BENTH., in BKNTH. et HOOK, f, Gen. Pl. III. 1. p. 393 11830'; ENGL., in ENGL. U. PKANT. Nat. Pfl.-fam. III. i. p. 24 (1889; LEMKE, Diet. Gen. Pl. Phan. III. p. 823 (1931)

Syn. *Nuxf* √TOUKN.) ex ADANS., Fam. II. p. 497 (1763)

Juglans Sieboldiana, MAXIM., in Mel. Biolog. VIII. p. 633 ^1872J; FR. et SAV., Enum. Pl. Jap. I. p. 453 '1875); DIPPEL, Handb. Laubholzk. II. p. 321 (1892;; SCHNEID., III. Handb. Laubholzk. I. p. 91. f. 47, d-i, ,1905, et II. p. 875, f. 547, aa¹⁴ (1912y; DODE, in Bull. Soc. Dendr. France, N" XL p. 31 :1909'; SHIRAZAWA, IC. For. Tree Jap. II. p. 15, Pl. 5. ff. 16 2J 1912'; MIY. et MIYAK., Fl. Saghal. p. 409 119151 ; MIY. et KUDO, Ic. Ess. For. Tr. Hokk. Fasc. VII. p. 65. t. 20 (1922); MASAMUNE, Prel. Rep. Vejj. Yak. p. 64 :1929, ; MAK. et NEM., Fl. Jap. ed. 2. p. 177 (1931;

Aom. Jap. Otugurumi

Leg. Ipse, Kusugawa, Jul. 13, 1928.

Distr. Saghalien, Yezo, Honsyû, Sikoku, Kyûsyû.

Note. The plant is found along streams at low altitudes, but rarely. It is not yet found in lands further south than this island.

Name of Plant	Regions									
	Philippines	Bor-neo	Hawan	Okinawa	Amami	Kyûsyû	Saghalien	Yezo & Southern Kuriles	Saghalien	Amur & Ussuri
<i>Juglans Sieboldiana</i> , MAXIM.						+	+	+	+	+

Considering the above table we can see that the flora of Yakusima is closely related to northern floral regions.

Betulaceae

Petulaceae, C. A. AGARDH, Aphor. p. 203 (1825) partim; A. BR., in ASCHERSON, Fl. Prov. Brondenburg. I. pp. 62, et 618 (1864)

Carpinus, [LINN., Gen. ed. 1. p. 292 (1737); et Sp. Pl. ed. 1. p. 993 (1753); SCOP., Fl. Cam. ed. 2. II. 243 (1773); JUSS., Gen. Pl. p. 409 (1789); ENDL., Gen. Pl. 2. n. 1843 (1836-40); DC, Prodr. XVI. 2. p. 125 (1864); BENTH. et HOOK, f., Gen. Pl. III. 1. p. 405 (1880); PRANTL, in ENGL. U. PR ANT. Nat. Pfl.-fam. III. i. p. 42 (1839); DIPPEL, Handb. Laubholz. II. p. 139 (1892); WINKLER, in ENGL. Pfl.-reich, IV. 61 (Heft. 19) p. 24 (1904)
 Syn. *Carpinum*, RAF., in Amer. Monthly Magaz. p. 263 (1818)
Distegocarpus, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 226. t. III. 3 (1846)

Carpinus laxiflora, B L, MUS. Bot. Lugd. Bat. I. p. 309 (1851); MIQ., in Ann. Mus. Bot. Lugd. Bat. I. p. 121 (1863); FK. et SAV., Enum. Pl. Jap. I. p. 451 (1875); MAXIM., in Mém. Biol. XI. p. 315 (1881), et in Bull. Acad. St. Pet. XXVII. p. 536 (1832); SARGENT, in Garden et Forest VI. p. 361 (1893) et For. Fl. Jap. p. 64 (1894); FORIB. et HEMSL., Ind. Fl. Sin. II. p. 501 (1899); SHIRAZAWA, IC. ESS. For. Jap. I. p. 48, t. 25, ff. 15-30 (1900), et Ic. For. Tree. Jap. I. p. 78, Pl. 25 (1911); DIELS, in Engl. Bot. Jahrb. XXIX. p. 280 (1900); WINKLER, in Engl. Pfl.-reich. IV. 61 (Heft 19) p. 33 (1905); SCHNEID., Ill. Handb. Laubholz. I. p. 138, f. 76 i. (1906), et II. p. 894, ff. 558 c, 559 f-g (1912), et in SARGENT Pl. Wilson. II. p. 433 (1916); NAK., Fl. Kor. II. p. 205 (1911); MATSUM., Ind. Pl. Jap. II. 2. p. 21 (1912); MERR., Enum. Hainan Pl. p. 60 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 65 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 187 (1931)
 Syr. *Distegocarpus latiflora*, SIEB. et ZUCC, Fl. Jap. Fam. Nat. no. 799 (1846); DC, Prodr. XVI. 2. p. 123 (1864)

Aom. Jap. Akaside, Soronoki

Leg. Ipse, Tatyūdake, Jul. 22, 1927.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Korea, China.

Note. The species is found in the lauri-aciculisilvae from about 500 m up to 1800 m above the sea level. It is not yet found in lands further south than this island in Japan.

Alnus, [TOURN. ex LINN. Syst. ed. 1 (1735), Fl. Lapon. p. 260 (1737); GAERTN., Fruct. et Sem. II. p. 54, t. 90 (1791); REGEL, in DC, Prodr. XVI. 2. p. 180 (1858); BAILL., Hist. Pl. VI. p. 254 (1877); BENTH. et HOOK, f., Gen. Pl. III. 1. p. 404 (1830); PRANTL, in ENGL. u. PRANT. Nat. Pfl.-fam. III. i. p. 45 (1889); DIPPEL, Handb. Laubholz. II. p. 145 (1892); WINKLE, in ENGL. Pfl.-reich. IV. 61 (Heft 19); p. 101 (1904); LEMEE, Die. Gen. Pl. Phan. I. p. 166 (1929);

Alnus firma, SIEB. et ZUCC. var. *Siefaoldiana*, WINKL, in Engl. Pfl.-reich. IV. 61. (Heft 19) p. 104 f. D-G. (1904); MATSUM., Ind. Pl. Jap. II. 2. p. 16 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 64 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 180 (1931)

Syn. *Alnus Sieboldiana*, MATSUM., Rev. Aln. Sp. Jap. p. 3. t. 1 (1902);

Alnus firma, SHIRASAWA, Ic. For. Tree. Jap. II. p. 33, pi. 12. ff. 1-20 (1912);
SARGENT, Pl. Wilson. II. p. 503 (1916 partim).

Norn. Jap. Yasyalusi

Leg. Ipse, Aug. 1, 1924.

Distr. Honsyû, Sikoku, Kyûsyû.

Note. The species is found in somewhat open and sunny spots from about 800 m up to 1803 m above the sea level. It has its southern limit in this island.

Names of Plants	Regions																
	Philippines	Bonins	Taiwan	Okinawa	Amami-Osima	Ryûkyûs	Tanegasima	Kyûsyû Prop.	Kyûsyû	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China
<i>Carpinus laxiflora</i> , BL.								+	+	+	+	+					+
<i>Alnus firmi</i> , SIEB. et ZUCC. var. <i>Sieboldiana</i> , WINKL.								+	+	+							

Both representatives of *Betulaceae* in this island have their southern limit of habitat in this island. From this fact, we can see that the flora of Yakusima is more closely related to the northern regions than to the southern floral regions so far as this family is concerned.

Fagaceae

Fagaceae, A. BR., in ASCHERSON, Fl. Prov. Brandenburg I. pp. 62, 615 (1864)

Castanea, [TOURN. ex LINN. Syst. ed. 1. 1735;]

P. MILLER, Gard. Diet. ed. 7 U759); ADANS., Fam. II. p. 375 (1763*; GAERTN., Fruct. Sem. I. p. 181, t. 37; 1788'; ENDL., Gen. Pl. n. 1848 11836-401; DC, Prodr. XVI. 2. p. 113 (1864); BENTH. et HOOK. f. Gen. Pl. HI. 1. p. 409 (1880); PRANT., in ENGL. U. PRANT. Nat. Pfl.-fam. III. i. p. 54 (1889; SCHNEID., III. Handb. Laubholz. I. p. 156 (1905<; LEMfE, Diet. Gen. Pl. Phan. I. p. 867 (1929)

Syr. Castanophorum, NECK., Elem. Bot. III. p. 257 (1790); *Casanophorum* emend STEUD.

Castanea crenata, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 224 (1846;; DIPPEL, Handb. Laubholz. II. p. 56. f. 23 (1892;; KOIDZ., in Tokyo Bot. Mag. XXX. p. 99 (1916), et XL. p. 338 (1926j; MIY. et KUDO, Ic. Ess. For. Tr. Hokk. II. p. 3, t. 33 (1925);

MASAMUNE, Prel. Rep. Vctf. Yak. p. 65 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 190 (1931)

S?jr. Fas us castanca, non LINN. THUNB., Fl. Jap. p. 193 (1737)

Castanca vesca, non GAKKIN BL., Bijdr. I. p. 521 (1825)

Castanea vesca, var. *pulinervis*, HASSK., Cat. Pl. Hort. Bogr. p. 73 (1844); nomen.

Castanea chinensis, non SPKG. HASSK., Catal. Pl. Hort. Bogr. p. 73 (1844)

Castanea stricta, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 225 (1846)

Castanea japonica, BL., MUS. Bot. Lugd. Bat. I. p. 284 (1850)

Castanea japonica, var. *crenata*, SIEB.; BL., MUS. Bot. Lugd. Bat. I. p. 285 (1850)

Castanea vulgaris, var. *elongata*, *subdentata*, DC, Prodr. XVI. 2, p. 115 (1864)

Castanea saliva, var. *japonica*, ITO, in Tokyo Bot. Mag. XIV. p. 18 (1900)

Castanea pubinervis, HASSK. C. K. SCHN., Ill. Handb. Laubholzk. I. p. 158 f. 91 t. (1906)

Castanea sativa, var. *pubitervis*, MAK., in Tokyo Bot. Mag. XXIII. p. 12 (1909); NAK., Fl. Kor. II. p. 210 (1911);

Aom. Jap. Kuri

Ley. Jul. 21, 1927.

Distrib. Yezo, Honsyu, Sikoku, Kyusyu, Korea.

Acte. The tree is found in somewhat open lands near the sea level.

Shiia, MAK., in Journ. Jap. Bot. V. p. 23 (1928);

KUDO et MASAMUNE, Gen. Pl. Formos. I. p. 13 (1932)

Syn. Pasaniopsis, KUDO, Nipp. Yu. Zyumoku. ed. 1. p. 131 (1921); MAK., Journ. Jap. Bot. V. p. 19 (1928);

Shiia cuspidata, MAK., in Journ. Jap. Bot. V. p. 23 (1923); MASAMUNE, Prel. Rep. Veg. Yak. p. 66 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 205 (1931);

Syn. Quercus cuspidata, THUNB., Fl. Jap. p. 176 (1781); DC., Prodr. XVI. 2. p. 103 (1851); SIEB. et ZUCC, Fl. Jap. I. p. 8. t. 2. (1835); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 117 (1857); FK. et SAV. Enum. Pl. Jap. I. p. 449 (1875); SKAN., in FOKB. et HEMSL., Ind. Fl. Sin. II. p. 510 (1899)

Pasama cuspidata, OERST., in Kjoeb. Vidensk. Meddel. p. 81 (1866); NAK., Fl. Kor. II. p. 207 (1911); MATSUM., Ind. Pl. Jap. II. 2. p. 24 (1912) p.p.

Pasania cuspidata et *Thunbergii*, MAK. in Tokyo Bot. Mag. XXIII. p. 141 (1909)

Castanopsis cuspidata, SCHOTT., in Engl. Bot. Jahrb. XLVII. p. 625 (1912)

Lithocarpus cuspidata, NAK., in Tokyo Bot. Mag. XXIX. p. 55 (1915) p.p.

Synaedrys cuspidata, KOIDZ., in Tokyo Bot. Mag. XXX. p. 186 (1916);

Pasaniopsis cuspidata, KUDO, Nipp. Yu. Zyumoku. ed. 1. p. 134 (1921); et ed. 2. p. 131 (1930);

Norn. Jap. Kozii

Leg. Ipse, April. 1, 1927.

Distr. Honsyu, Sikoku, Kyusyu, Okinawa, Korea.

Note. The species is found as a representative of the trees in the laurisilvae and in the lauri-aciculilvae, from the sea level up to about 500 m.

Shiia lutchuensis, KOIDZ., MASAMUNE, in Tokyo Bot. Mag. XLIV. p. 405 (1930),

Syn. Lithocarpus lutchuensis, KOIDZ., in Tokyo Bot. Mag. XXXIX. p. 3 (1925); MAK. et NEM., Fl. Jap. ed. 2. p. 195 (1931);

Norn, Jap. Ryukyū-zū

Leg. Ipse, AUK. 11, 1928.

Distr. Kyūsyū, Amami-Ōshima, Okinawa.

Note. The species grows in the laurisiivae near the sea level.

Shiia Sieboldi, MAK., in Journ. Jap. Bot. V. p. 23 (1928 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 66 (1929/; MAK. et NEM., Fl. Jap. ed. 2. p. 205 (1931)

Syn. Pasania cuspidata, OERST. var. Sieboldi, MAK., in Tokyo Bot. Mag. XXIII. p. 141 (1909)

Pasania Sieboldi, MAK., in Tokyo Bot. Mag. XXIV. p. 232 (1910)

Lithocarpus cuspidata, NAK., in Tokyo Bot. Mag. XXIX. p. 55 (1915)

Synaedrys Sieboldii, KOIDZ., in Tokyo Bot. Mag. XXX. p. 187 (1916)

Pasaniopsis Sieboldii, KUDO, Nipp. Yu. Zyumoku. ed. 1. p. 134 (192D, et ed. 2. p. 132 (1930 ; MAK., in Journ. Jap. Bot. V. p. 19 (1923)

Nom. Jap. Sti

Leg. Ipse, ca. Nakama, Mart. 21, 1923.

Distr. Honsyū, Sikoku, Kyūsyū, Korea Quelp.:

Note. The species is found in the same places as the previous species of the genus Shiia.

Kuromateia, KUDO in Trans. Nat. Hist. Soc.

Formos. XX. p. 162 (1930)

Kuromateia glabra, KUDO, in Trans. Nat. Hist. Soc. Formos. XX. p. 163 (1930)

Syn. Quercus glabra, -non THUNB.) SIEB. et ZUCC, Fl. Jap. I. p. 170, t. 89 (1811); BL., Mus. Bot. LuRd. Bat. I. p. 289 (1850); DC, Prodr. XVI. 2. p. 82 (1851); FR. et SAV., Knum. Pl. Jap. I. p. 417 (1875 J)

Quercus glabra, var. sublepidota, BL., Mus. Bot. Luid. Bat. I. p. 233 (1850)

Quercus edulis, MAK., in Tokyo Bot. Mag. XI. p. 38 (1897);

Pasania edulis, MAK., in Tokyo Bot. Mag. XI. p. 39 (1897), et in XIV. p. 185 (1903). et XX. p. 43 (1933 ; MATSUM., Ind. Pl. Jap. II. 2. p. 21 (1912)

Pasania glabra, -non OERST. MATSUM., in Tokyo Bot. Mag. XII. p. 2 (1893) excl. syn.

Synaedrys cduUs, KOIDZ., in Tokyo Bot. Mag. XXX. p. 195 (1916)

Lithocarpus cduls, MAK. KEHDER, in Journ. Arn. Arb. I. p. 125 (1919); KUDO, Nipp. Yu. Zyumoku. ed. 2. p. 135, f. 29 (1930 ; MAK. et NEM., Fl. Jap. ed. 2. p. 193 (1931)

Lithocarpus sub'epidota, KOIDZ., in Tokyo Bot. Mag. XL. p. 339 (1926); MASAMUNE, Prel. Rep. Veg. Yak. p. 65 (1929)

Nom. Jap. Mateba-sii

Leg. Ipse, Sept. 1, 1931.

Disir. Kyūsyū, Tanegasimn, Amami-fisima.

Note. The plant grows from the sea level up to almost 400 m.

Cyclobalanopsis, OERST, in Kjoeb. Vidensk.

Meddel. p. 77 (1866); KUDO et MASAMUNE, Gen. Pl. Formos. I. p. 15 (1932)

Syn. Quercus, Sect. Cyclobalanopsis, PRANT., in ENGL. U. PRANT. Nat. Pfl.-fam. III. i. p. 55 (1859 ; KING., in Ann. Roy. Bot. Gard. Silcutt. II. p. 27 (1859)

Cydobahnopsis acuta, OERST, in Kjoeb. Vidensk. Meddel. p. 73 (1835); SCHOTTKY in Engl. Bot. Jahrb. LXVII. p. 652 (1912)

Syn. Quercus acuta, THUNB., Fl. Jap. p. 175 (1781); SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 225 (1816; BL., Ann. Mus. Bot. Lugd. Bat. I. p. 299 (1850); MIQ., in Ann. Mus. Bot. Lugd. Bat. I. p. 115 (1863; FR. et SAV., Enum. Pl. Jap. I. p. 418 (1875); MATSUM., in Tokyo Bot. Map. IV. p. 75 (1890); DIPPEL, Handb. Laubholz. II. p. 125 (1892); YABE, in Tokyo Bot. Mag. XVII. p. 175 (1903); MATSUM. et HAY., Enum. Pl. Formos. p. 392 (1906); KUDO, Nipp. Yu. Zyumoku. ed. 1. p. 156 (1921) et ed. 2. p. 152, f. 40 (1930-; MORI, Enum. Pl. Cor. p. 118 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 65 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 196 (1931)

Quercus Buergeri, BL., in Mus. Bot. Lugd. Bat. I. p. 299 (1850)

Quercus laevigata, BL., in Mus. Bot. Lugd. Bat. I. p. 301 (1850)

Norn. Jap. Akagasi

Leg. Ipse, Aug. 27, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Okinawa, Taiwan, Korea.

Note. The oak is found in the laurisilvae or in the lauri-aciculisilvae, **from** the sea level up to about 1300 m.

Cyclobalanopsis glauca, OERST., in Kjoeb. Vidensk. Medd. XVIII. p. 78 (1866); SCHOTTKY, in Engl. Bot. Jahrb. LXVII. p. 655 (1912); KUDO et MASAMUNE, Gen. Pl. Formos. I. p. 16 (1932)

Syn. Quercus glauca, THUNB., Fl. Jap. p. 175 (1781); SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 226 (1816); BL., Mus. Bot. Lugd. Bat. I. p. 289 (1850); MIQ., in Ann. Mus. Bot. Lugd. Bat. I. p. 115 (1863; DC, Prodr. XVI. 2. p. 100 (1861); FR. et SAV., Enum. Pl. Jap. I. p. 448 (1875); HOOK, f, Fl. Brit. Ind. V. p. 601 (1838); SKAN, in Journ. Linn. Soc. XXVI. p. 515 (1899); SHIRASAWA, IC. ESS. For. Tree. Jap. I. p. 56, t. 30, ff. 13-21 (1893); MATSUM. et HAY., Enum. Pl. Formos. p. 392 (1903); MATSUM., Ind. Pl. Jap. II. 2. p. 27 (1912); NAK., in Tokyo Bot. Mag. XXIX. p. 61 (1915-; MORI, Enum. Pl. Cor. p. 119 (1922); MAK. et NEM., Fl. Jap. ed. 2. p. 199 (1931)

Norn. Jap. Aragasi

Leg. Y. KUDO! Aug. 1907.

Distr. Honsyū, Sikokij, Kyūsyū, Taneg-isima, Amami-6sima, Okinawa, Taiwan, Korea.

Note. I have not found this species in the island, but Dr. KUDO told me that he once found it.

Cyclobalanopsis Miyagii, KUDO et MASAMUNE, in Trans. Nat. Hist. Formos. XX. p. 161 (1930)

Syn. Quercus Miyagii, KOIDZ., in Tokyo Bot. Mag. XXVI. p. 167 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 65 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 203 (1931)

Nom. Jap. Okinawa-urazirogasi

Ltg. Ipse, Miyanoura, Sept. 1, 1931.

Distr. Amami-6sima, Okinawa.

Note. The oak is found in the laurisilvae. The plant is not yet reported in lands further north than this island, and the species is restricted to the Ryūkyū Archipelago.

Cyclobalanopsis myrsinaefolia, OERST., in Vidensk. Selsk. V. 9. p. 379 (1875); SCHOTTKY, in Engl. Bot. Jahrb. LXXVII. p. 656 (1912)

Syn. Quercus myrsinaefolia, BL., Mus. Bot. Lugd. Bat. I. p. 303 (1850); MIQ., in Ann. Mus. Bot. Lugd. Bat. I. p. 117 (1863); DC, Prodr. XVI. 2. p. 107 (1854);

FR. et SAV., Enum. Pl. Jnp. I. p. 449 1875'; MATSUM., Ind. Pl. Jap. II. 2. p. 28 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 65 1929'; MAK. et NEM., Fl. Jap. ed. 2. p. 20J (193P)

Nom. Jap. *Hosoba-gasi*

Leg. Ipse. Issô, Mart. 21, 1923.

Dish: Honsyû, Sikoku, Kyûsyû.

Note. I once found several individuals of this tree in the laurisilvae.

Cylobalanopsis stenophylla, SCHOTTKY, in Engl. Bot. Jahrb. LXVII. p. 657 (1912)

Syn. *Quercus glauca*, van *stenophylla*, BL., MUS. Bot. Lugd. Bat. I. p. 393 (1850); FR. et SAV., Enum. Pl. Jap. I. p. 443 (1875!)

Quercus stenophylla, MAK., in Tokyo Bot. Mag. XXIV. p. 17 (1910.); MORI, Enum. Pl. Cor. p. 121 (1922.); MASAMUNE, Prel. Rep. Veg. Yak. p. 65 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 203 (193r).

Nom. Jap. *Uraziro-gasi*

Leg. Ipse, Aug. 1931.

Hstr. Honsyû, Sikoku, Kyûsyû, Tanegsima, Amnmi-6sima, Korea.

Note. It is found in low altitudes as a member of the laurisilvae.

Quercus, [TOURN., ex LINN. Syst. ed. 1 (1735)]

et Sp. Pl. ed. 1. p. 931 (1753, p.p.); SCHOTT., in Encyl. Bot. Jahrb. XLVII. p. 630 (1912'); KUDO et MASAMUNE, Gen. Pl. Formoq. I. p. 16 1932!

Quercus acutissima, CARR., in Journ. Linn. Soc. VI. p. 33 (1852); MORI, Enum. Pl. Cor. p. 119 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 65 v 1929); MAK. et NEM., Fl. Jap. ed. 2. p. 197 (1931)

Syn. *Quercus serrata*, (non THUNBJ SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 226 (1816'); MIQ., in Ann. Mus. Bot. Lugd. Bat. I. p. 105 1853'; FR. et SAV., Enum. Pl. Jap. I. p. 447 (1875.); KOM., Fl. Mansh. II. p. 74 (190H); MATSUM., Ind. Pl. Jap. II. 2. p. 29 1912J", KUDO, Nipp. Yu. Zyumoku. p. 139 (1921), et ed. 2. p. 144 (1930^); CHUNG, Cat. Tree, and Shrub. Chin. p. 29 (1921)

Quercus glandulifera, BL., in Mus. Bot. Lugd. Bat. I. p. 295 (1850)

Nom. Jap. *Kunugi*

Leg. Ipse, Jul. 20, 1927.

Mstr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Korea, Manchuria, China.

Note. The species occurs on rare occasions, and grows near the sea level, and has not been reported in Okinawa and Formosa.

Quercus Wrightii, NAK., in Journ. Am. Arb. V. p. 75 (1921); MASAMUNE, Prel. Rep. Veg. Yak. p. & (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 20I (1931)

Nom. Jap. *SimaubamcRasi*

Leg. Ipse, April. 2, 1927.

Distr. Tanegasima.

Note. It is found in somewhat sunny and dry waste lands near the sea level. The oak is restricted to this island and Tanegasima.

Cylobalanopsis Miyagii, *Shiia lutchuensis* are the Ryûkyû elements; *Quercus Wrightii* is an endemic element to Yakusima and Tanegasima; *Castanea crenata*, *Quercus acutissima*, *Shiia cuspidata* are northern elements which are mainly distributed in Kyûsyû,

Names of Plants	Regions												
	Philippines	Formosa	China	Ussuri	Himalaya	Prop.	Szechwan	Hokkaido	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamchatka	Amur & Ussuri
<i>Castanea crenata</i> , SIEB. et ZUCC. •										+			
<i>Shiia cuspidata</i> . MAK			+							+			
<i>Shiia lutchuensis</i> . (KOIDZ.) MASAMUNE			+	+									
<i>Shiia Sieboldi</i> , MAK										+			
<i>Kuromateia glabra</i> , KUDO				+						+			
<i>Cyclobalanopsis acuta</i> , OERST.		+	+							+			
<i>Cyclobalanopsis glauca</i> , OERST.		+	+	+						+			+
<i>Cyclobalanopsis Miyagii</i> , KUDO et MASAMUNE			+	+									
<i>Cyclobalanopsis myrsinaefolia</i> , OERST.										+			+
<i>Cyclobalanopsis stenophylla</i> , SCHOTT.				+						+			+
<i>Quercus acutissima</i> , CARR.										+			+
<i>Quercus Wrightii</i> , NAK.										+			+
Total	12	2	5	5	6	10	8	8	7	1		1	3
Percentage		17	42	42	50	83	67	67	58	8		8	25

(Southern elements 7)

[Northern elements 11]

Sikoku and Honsyû, and the remaining members are distributed rather widely in South Japan. From these facts it will be understood that the island has some close relations with the northern regions.

Ulmaceae

Ulmaceae, MIRB., Elém. II. p. 905 (18151; PLANCH., in DC. Prodr. XVII. p. 151 (18731

Celtis, [TOURN., ex. LINN. Gen. Pl. ed. 1. p. 337 (1737J] et Sp. Pl. ed. 1. p. 1043 [U753; PLANCHON, in DC. Prodr. XVII. p. 168

(1873); ENDL., Gen. Pl. n. 1851 (1836-40); BENTH. et HOOK, f. Gen. Pl. III. 1. p. 354 (1880); ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. III. i. p. 63 (1889); LEMÉE, Diet. Gen. Pl. Phan. II. p. 7 (1930)

Syn. *Colletia*, SCOP., Introd. p. 207 (1777)

Saurobroma, RAF., Sylva, Tellur. p. 32 (1838)

Celtis boninensis, KOIDZ., in Tokyo Bot. Mag. XXVII. p. 183 (1913); NAK., in Bull. Biogeogr. Soc. Jap. I. p. 256 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 206 (1931)

Syn. *Celtis sinensis*, (non PERS.) MASAMUNE, Prel. Rep. Veg. Yak. p. 66 (1929) p.p.

Norn. Jap. *Kuwanoha-enoki*

Leg. Ipse, Jul. 28, 1927.

Distr. Okinawa, Bonins.

Note. It is an interesting fact that this Bonin element is distributed from Ryūkyū to this island. The species is found at low altitudes.

Celtis sinensis B, PERS. var. *japonica*, NAK., in Tokyo Bot. Mag. XXVIII. p. (264) fig. 1. eee, fig. 2. ee, (1914), et FL Sylv. Kor. XIX. p. 64, t. 24 (1932)

Syn. *Celtis sinensis*, (non PERS.) WILLD., Baumz. ed. 2. p. 81 (1811); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 197 (1866); MAXIM., in Mém. Biolog. IX. p. 27 (1873); FR. et SAV., Enum. Pl. Jap. I. p. 431 (1875); FORB. et HEMSL., Ind. Fl. Sin. II. p. 450 (1894) p.p.; NAK., Fl. Kor. II. p. 192 (1911), et in MATSUM. Ic. Pl. Koishik. I. 3, PL II. f. 2 (1914); SCHNEIDER, in SARGENT, Pl. Wils. III. 2. p. 277 (1916) p.p.; MASAMUNE, Prel. Rep. Veg. Yak. p. 66 (1929) p.p.; MAK. et NEM., Fl. Jap. ed. 2. p. 207 (1931)

Celtis Willdenowiana, SCHULT., Syst. Veg. VI. p. 306 (1820); SIEB. et ZUCC., Fl. Jap. Fam. Nat. II. p. 222 (1846)

Celtis japonica, PLANCHON, in DC. Prodr. XVII. p. 172 (1873); MORI, Enum. Pl. Cor. p. 121 (1922)

Norn. Jap. *Enoki*

Leg. Ipse, April. 3, 1927.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-fsima, Okinawa, Korea, China.

Trema, LOUR., Fl. Cochinch. p. 562 (1790);

BENTH. et HOOK, f., Gen. Pl. III. 1. p. 355 (1880); ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. III. i. p. 65 (1889)

Syn. *Sponia*, COMM., ex LAM. Encycl. IV. p. 139 (1796)

Trema orientalis, BL., MUS. Bot. Lugd. Bat. II. p. 62 (1856); HOOK, f., Fl. Brit. Ind. V. p. 484 (1888); FORB. et HEMSL., Ind. Fl. Sin. II. p. 451 (1894); MATSUM. et HAY., Enum. Pl. Formosa. p. 371 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 32 (1912); MERR., Enum. Philipp. PL II. p. 34 (1923), et Enum. Hainan PL p. 62 (1927); HANDEL-MAGZ., Symb. Sin. VII. p. 106 (1929); MASAMUNE, Prel. Rep. Veg. Yak. p. 66 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 207 (1931)

Syn. *Celtis orientalis*, LINN., Sp. Pl. ed. 1. p. 1044 (1753)

Spania velutina, PLANCH., in Ann. Sc. Nat. Bot. III. 10, p. 327 (1848); MIQ., Fl. Ind. Bat. I. 2. p. 216 (1859); BENTH., Fl. Hongk. p. 324 (1861)

Trema blancoi, BL., MUS. Bot. Lugd. Bat. II. p. 58 (1856)

Sponia amboinensis, (non BL.) MIQ., Fl. Ind. Bat. I. 2. p. 216 (1859); DECNE, in DC. Prodr. XVII. p. 198 (1873)

BOI ANIC G.

Trema amboinensis, (non BL.) F.-VILL. Novis App. p. 197 (1880); MERR., Fl. Manila p. 171 (1912)

Nom. Jap. Uraziro-enoki

Leg. Ipse, Mugio, Mart. 22, 1923.

Distr. Bonins, Tanegasima, Amami-6sima, Okinawa, Taiwan, China, Philippines, Polynesia.

Note. The species is found as an invader in the clearings and waste lands.

Names of Plants	Philippines	Bonins	H. n	O	S. ra	Hi-Osima	Tanegasima	Kyûsyû P	Sitoku	Honsyû	OO & thern Kur	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur	China
<i>Celtis boninensis</i> , KOIDZ.		+		+											
<i>Celtis sinensis</i> , PERS. var. japonica, NAK.					+	+	+	+	+	+					+
<i>Trema orientalis</i> , BL.		+	+		+	+	+								+

Two southern elements, *Celtis boninensis*, and *Trema orientalis* are found in the island, and this fact shows that the island has some close relations with the southern floral regions in respect of this family.

Moraceae

Moraceae, LINDL., Veg. Kingd. p. 266 (1847) emend. ENGL., in ENGL. u. PRANT. Nat. PflVfam. III. i. p. 66 (1889)

Fatoua, GAUDICH, in Bot. Voy. Freycinet p. 509, t. 84 (1826); ENDL., Gen. Pl. p. 278 (1836-40); BUREAU, in DC, Prodr. XVII. p. 255 (1873); BENTH. et HOOK, f, Gen. PL III. 1. p. 358 (1880); ENGL., in ENGL. u. PRANT. Nat Pfl-fam. III. i. p. 71 (1889); LEMÉE, Diet. Gen. PL Phan. III. p. 96 (1931) KUDO et MASAMUNE, Gen. Pl. Formos. I. p. 22 (1932)

Fatoua villosa, NAK., in Tokyo Bot. Mag. XLI. p. 516 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 66 (1929); HANDEL-MAGZ., Symb. Sin. VII. p. 89 (1929); MAK. et NEM., FL Jap. ed. 2. p. 211 (1931); KUDO et MASAMUNE, Gen. PL Formos. p. 22 (1932)

Syn. Urtica villosa, THUNB., FL Jap. p. 70 (1784)

Fatoua pilosa, (non GAUD.), SIEB. et ZUCC., Fl. Jap. Fam. Nat. II. p. 219 (1846); MATSUM. et HAY., Enum. Pl. Formos. p. 372 (1906); MORI, Enum. Pl. Cor. p. 124 (1922)

Fatoua japonica, BL., in Mus. Bot. Lugd. Bat. II. t. XXXVIII. (1856)

Fatoua aspera, (non GAUD.) MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 192 (1867)

Fatoua pilosa, var. *subcordata*, BUREAU, in DC. Prodr. XVII. p. 256 (1873^N p.p.); FR. et SAV., Enum. Pl. Jap. I. p. 434 (1875); MATSUM. et HAY., Enum. Pl. Formos. p. 372 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 35 (1912)

Norn. Jap. Kuwakusa

Leg. Ipse, Aug. 2. 1927.

Distr. HonsyG, Sikoku, KyûsyO, Amami-dsima, Tanegasima, Okinawa, Taiwan, Korea.

Note. The species is found in waste lands or by the roadside at low altitudes.

Morus, [TOURN., ex LINN. Syst. ed. 1. (1735)] et Sp. Pl. ed. 1. p. 986 (1753); ENDL., Gen. Pl. n. 1856 (1836-40); BUREAU, in DC. Prodr. XVII. p. 237 (1873); BAILL., Hist. Pl. VI. p. 190 (1877); BENTH. et HOOK. f. Gen. Pl. III. 1. p. 364 (1880); ENGL., in ENGL. U PRANT. Nat. PflvFam. III. i. p. 72 (1889); LEMfE, Diet. Gen. Pl. Phan. IV. p. 571 (1932); KUDO et MASAMUNE, Gen. Pl. Formos. I. p. 22 (1932)

Syn. *Morphorum*, NECK., Elem. III. p. 255 (1790)

Dicer as, RUDOLPHI, Entoz. Hist. Nat. II. p. 258 (1810); ENDL., Gen. Pl. Supp. II. p. 30 (1842)

Ditrachyceros, ENDL., Gen. Pl. Supp. II. p. 30 (1842)

Morus bombycis, KOIDZ., in Tokyo Bot. Mag. XXIX. p. 313 (1915), et in Bull. Imp. Sericult. p. 210, t. VI. ff. 1-2, t. VII. f. 1. (1916), et in Tokyo Bot. Mag. XXXI. p. 36 (1917); MORI, Enum. Pl. Cor. p. 124 (1922); MIURA, List Pl. Manch. and Mong. p. 112 (1925); MIY. et KUDO, Ic. Ess. For. Hokk. XIV. t. 41 (1926); MASAMUNE, Prel. Rep. Veg. Yak. p. 67 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 219 (1931); NAK., Fl. Sylv. Kor. XIX. p. 98. t. XXIX. A. et XXX (1932)

Syn. *Morus indie a*, (non LINN.) THUNB., Fl. Jap. p. 76 (1784); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 198 (1866)

Morus japonica, SIEB., in Verh. Bat. Genoot. XII. p. 27 (1830); SIEB. et ZUCC., Fl. Jap. Fam. Nat. II. p. 219 (1846) nom.

Morus alba, var. *stylosa*, BUREAU, in DC. Prodr. XVII. p. 243 (1873) p.p.; SHIRASAWA, IC. ESS. For. Tree. Jap. II. t. VI. ff. 1-11. (1908); MATSUM., Ind. Pl. Jap. II. 2. p. 40 (1912); MIY. et MIYAK., Fl. Sagh. p. 407 (1915)

Morus alba, var. *indica*, (non BUREAU) FR. et SAV., Enum. Pl. Jap. I. p. 433 (1875)

Morus longistyla, (non SERING) DIELS, in Notes Roy. Bot. Gard. Edingb. XXV. p. 293 (1910)

Morus acidosa, (non GRIFF.) SCHNEID., in SARGENT. Pl. Wils. III. p. 297 (1916); REHDER, Manual, p. 197 (1927)

Nom. Jap. Yamaguwa

Leg. Ipse, Onoaida Aug. 1927.

Distr. Saghalien, Yezo, Honsyû, Kyûsyû, Tanegasima, Okinawa, Taiwan, Korea, Manchuria, China.

Note. The species is found in open lands in the laurisilvae and in the lauriculisilvae.

Broussonetia, L'HERIT, ex VENTENAT, Tabl. Regn. Veg. III. p. 547 (1799); ENDL., Gen. PL n. 1858 (1836-40); BUREAU, in DC. Prodr. XVII. p. 223 (1873); BENTH. et HOOK, f., Gen. PI. III. 1. p. 361 (1880); ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. III. i. p. 76 (1889); LEMÉE, Diet. Gen. PI. Phan. I. p. 687 (1929); KUDO et MASAMUNE, Gen. PI. Formos. I. p. 23 (1932)
 Syn. *Papyrius*, POIRET, in Lam., III. III. p. 352, PI. IV. t. 762 (1798)
Stenochasma, MIQ., PI. Jungh. I. p. 45 (1851)

Broussonetia papyrifera, (L'HERIT) in VENTENAT, Tabl. Regn. Veg. III. p. 547 (1799); WILLD., Sp. PI. IV. 2. p. 743 (1806); AITON, Hort. Kew. ed. 2. V. p. 372 (1813); SIMONS, in Curtis's Bot. Mag. t. 2358 (1823); SIEB., in Verh. Bat. Genoot. XII. p. 28 (1830); SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 220 (1846); BL., MUS. Lugd. Bat. II. p. 85 (1849); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 198 (1865); KOCH, Dendrol. II. 1. p. 439 (1872); BUREAU, in DC. Prodr. XVII. p. 224 (1873); FR. et SAV., Enum. PI. Jap. I. p. 433 (1875); HOOK, f., Fl. Brit. Ind. V. p. 490 (1888); ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. III. i. p. 76, ff. 54-55 (1889); DIPPEL, Handb. Laubholz. II. p. 16 (1892); KOEHN, Deutsch. Dendr. p. 139 (1893); FORB. et HEMSL., Ind. Fl. Sin. II. p. 455 (1894); SHIRASAWA, IC. ESS. For. Tree. Jap. I. t. 38 (1900); SCHNEID., III. Handb. I. p. 241, ff. 151, e-g, a-c, g-m. 156, i-o (1904); MATSUM. et HAY., Enum. PI. Formos. p. 373 (1906); NAK., Fl. Kor. II. p. 193 (1911), et Fl. Sylv. Kor. XIX. p. 106 t. XXXIV. (1932); ASCHERSON et GRAEBN., Syn. Mitteleup. Fl. IV. p. 583 (1911); MATSUM., Ind. PI. Jap. II. 2. p. 35 (1912); SCHNEIDER, in SARGENT, PI. Wils. II. p. 303 (1916); REHDER, Manual, p. 199 (1927); MERR., Enum. Hainan PI. p. 62 (1927); WALKER, in Lingn. Sc. Journ. VI. p. 49 (1928); MASAMUNE, Prel. Rep. Veg. Yak. p. 66 (1929); HANDEL-MAGZ., Symb. Sin. VII. p. 91 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 210 (1931)
 Syn. *Morus papyri/era*, LINN., Sp. PI. ed. 1. p. 986 (1753) excl. syn.; HOUTTUYN, Nat. Hist. III. p. 283 (1774); THUNB., Fl. Jap. p. 72 (1784)
Streblus cordatus, LOUR., Fl. Cochinch. ed. 1. p. 615 (1790)
Papyrius japonicus, LAM., apud POIR. in Lam. Encycl. V. p. 3 (1804)
Broussonetia Kazi, in Hort. SIEB. ex BL., MUS. Bot. Lugd. Bat. II. p. 86 (1849)
ut syn?

Norn. Jap. *Kazinoki*

Leg. Ipse, Kurio, Jul. 13, 1928.

Distr. Amami-6sima, Taiwan, Korea, China, Malay, Polynesia, Australia.

Note. The species is found in waste lands or in cultivated lands at low altitudes.

Cudrania, TR&C, in Ann. Sc. Nat. 3. sè>. VIII. p. 122, t. 3 (1847); BUREAU, in DC. Prodr. XVII. p. 285 (1873); BENTH. et HOOK, f., Gen. PI. III. 1. p. 374 (1880); ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. III. i. p. 82 (1889); LEMÉE, Diet. Gen. PI. Phan. II. p. 408 (1930)
 Syn. *Vanieria*, LOUR., Fl. Cochinch. p. 564 (1790)
Cudranus, MIQ., Fl. Ind. Bat. I. 2. p. 290 (1859)
Cudranus, (RUMPH.) O. KUNTZE, Rev. Gen. PI. II. p. 625 (1891)

Cudrania cochinchinensis, (LOUR.) MASAMUNE, var. *gerontogea* (NAK.) MASAMUNE, in KUDO et MASAM., Gen. PI. Formos. I. p. 27 (1932)

Syn. *Cudrania javanensis*, FR. et SAV., Enum. PI. Jap. I. p. 434 (1875); MATSUM. et HAY., Enum. PI. Foios. p. 380 (1906); MATSUM., Ind. PI. Jap. II. 2. p. 35 (1912!)

Cudrania tectispina, HANCE, in Journ. Bot. XIV. p. 365 (1876); MATSUM. et HAY., Enum. Pl. Formos. p. 380 (1906)

Vanieria cochinchinensis, LOUR. var. *gerantogea*, NAK., in Tokyo Bot. Mag. XLI. p. 516 (1927) MASAMUNE, Prel. Rep. Veg. Yak. p. 67 j 1929); MAK. et NEM., Fl. Jap. ed. 2. p. 220 (1931)

Norn. Jap. KakatugayU

Leg. Ipse, Nagata, Aug. 20, 1928.

Distr. Kyūsyūfi, Tanegasima, Amami-6sima, Okinawa, Taiwan, China.

Note. The species is found along the forest edges of the laurisilvae, in strand forests or in waste lands.

Ficus, [(TOURN.) ex LINN. Syst. ed. 1. '1735]]
et Sp. Pl. ed. 1. p. 1059 (1753); ENDL., Gen. Pl. n. 1859 (1836-40); BUREAU, in DC. Prodr. XVII. p. 287 (1873); BENTH. et HOOK, f, Gen. Pl. III. 1. p. 367 '1880); G. KING., in Ann. Roy. Bot. Gard. Calcutt. I. p. 1 (1888); ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. III. i. p. 89 (1889); LEMÉE, Diet. Gen. Phan. III. p. 117 (1931); KUDO et MASAMUNE, Gen. Pl. Formos. I. p. 24 (1932)

Syn.-m. Gonosuke, RAF., Sylva. Tellur, p. 58 (1838)

Erosma, BOOTH., Cat. p. 113, ex ENDL., Gen. Suppl. IV. p. 34 (1847)

Bosscheria, DE VRIESE et TELJSM., in Tijdschr. Nederl. Ind. XXIII. p. 213 (1861)

Boscheria, CARR., in Rev. Hort. p. 199 (1872)

Ficus erecta, THUNB., Diss. Ficus. pp. 9. et 15, (1786), et in Trans. Linn. Soc. II. p. 327 (1793); WILLD., Sp. Pl. IV. p. 1140 (1806); ROEMER et SCHULT., Syst. Veg. I. p. 509 (1817); SPRENG., Syst. Veg. III. p. 781 (1826); SIEB., Syn. Pl. Oecon. p. 29 (1827); FR. et SAV., Enum. Pl. Jap. I. p. 435 (1875), et II. p. 490 (1876); MAXIM., in M61. Biolog. XI. p. 328 (1881); ENGL., in Engl. Bot. Jahrb. VI. p. 56 (1885); KING., in Ann. Roy. Bot. Gard. Calcutt. I. p. 141, t. 178 A. (1888); FORB. et HEMSL., Ind. Fl. Sin. II. p. 459 (1899); MATSUM. et HAY., Enum. Pl. Formos. p. 379 (1906); SHIRASAWA, IC. ESS. For. Tree. Jap. II. p. 16, ff. 1-8 (1908); NAK., Fl. Kor. II. p. 199 (1911), et Fl. Sylv. Kor. XIX. p. 121. t. 38 U932>; MATSUM., Ind. Pl. Jap. II. 2. p. 36 (1912); MERR., Enum. Hainan Pl. p. 65 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 66 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 212 (1931)

Syn. Ficus pumila, (non LINN.) THUNB., Fl. Jap. p. 33 (1784)

Ficus japonica, BL., Bijdr. IX. p. 440 U825); SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 222 (1846)

Urostigma pyriformium, MIQ., [non in Fl. Ind. Bat. I. 2. p. 338. ;i859.] Cat. Hort. Amst. p. 107, ex MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 199 (1866)

Ficus pyrifoia, (non BURM.) MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 199 (1866); FR. et SAV., Enum. Pl. Jap. I. p. 434 (1875)

Norn. Jap. Inubiwa

Leg. Ipse, Ambō, April. 1, 1927.

Distr. Honsyūfi, Sikoku, Kyūsyūfi, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea.

Note. The plant is often found in waste lands or in forest edges, and sometimes in the laurisilvae or lauri-aciculisilvae but rather rarely.

var. *Sieboldi*, KING., in Ann. Bot. Gard. Calcutt. I. p. 142 t. 178 B. (1888); MAK., in Tokyo Bot. Mag. V. p. 167 (1891); MATSUM., Ind. Pl. Jap. II. 2. p. 36 [1912];

MASAMUNE, Prel. Rep. Veg. Yak. p. 67 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 212 (1931); NAK., Fl. Sylv. Kor. XIX. p. 123, t. 39 (1932); KUDO et MASAMUNE, Gen. Pl. Formos. I. p. 25 (1932)

Syn. *Ficus Sieboldii*, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 199 (1866), et III. p. 295 (1867); MAXIM., in Mél. Biolog. XI. p. 327 (1881); FR. et SAV., Enum. Pl. Jap. I. p. 435 (1875), et II. p. 490 (1876); FORB. et HEMSL., Ind. Fl. Sin. II. p. 467 (1899); MATSUM. et HAY., Enum. Pl. Formos. p. 378 (1906)

Norn. Jap. *Hosoba-inubiwa*

Leg. Ipse, Amboŏ, Aug. 30, 1931.

Distr. Honsyuŏ, Sikoku, Kyŏsyuŏ, Taiwan, Korea.

Note. The variety is found in low, open, and somewhat sunny spots.

Ficus Miyagii, KOIDZ., in Tokyo Bot. Mag. XXVII. p. 184 (1913); MASAMUNE, Prel. Rep. Veg. Yak. p. 67 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 215 (1931)

Nom. Jap. *Akame-inubiwa*

Leg. Y. KUDO! Aug. 1907.

Distr. Amami-6sima, Okinawa.

Note. Dr. KUDO told me that he had once collected the plant in this island. It is not yet reported further north than this island.

Ficus nipponica, FR. et SAV., Enum. Pl. Jap. I. p. 436 (1875), et II. p. 491 (1876); MAK., in Tôkyô Bot. Mag. XIX. p. 112 (1905); MAK. et NEM., Fl. Jap. ed. 2. p. 215 (1931); NAK., Fl. Sylv. Kor. XIX. p. 126, t. 41 (1932)

Syn. *Ficus erecta*, (non THUNB.) MIQ., in HOOK. Lond. Journ. Bot. VII. p. 439 (1848; p.p., et in Ann. Mus. Bot. Lugd. Bat. II. p. 200 (1866); FR. et SAV., Enum. Pl. Jap. I. p. 435 (1875) p.p.

Ficus foveolata, (non WALL.) MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 294 (1867); FORB. et HEMSL., Ind. Fl. Sin. II. p. 460 (1899) p.p.; MATSUM. et HAY., Enum. Pl. Formos. p. 375 (1905); MATSUM., Ind. Pl. Jap. II. 2. p. 37 (1912)

Ficus foveolata, var. *nipponica*, KING., in Ann. Bot. Gard. Calcutt. I. p. 134 (1887); MASAMUNE, Prel. Rep. Veg. Yak. p. 67 (1929)

Nom. Jap. *Itabi-kazura*

Leg. Ipse, Kosugidani, Sept. 3, 1926.

Distr. Honsyuŏ, Sikoku, Kyŏsyuŏ, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China.

Note. The ficus flourishes best in waste dry lands or the edges of forests near the sea level.

Ficus Pumila, LINN., Sp. Pl. ed. 1. p. 1060 [1753; MAXIM., in Mél. Biolog. XI. p. 342 (1881); KING, in Ann. Bot. Gard. Calcutt. I. p. 124, t. 158 (1887-88); FORB. et HEMSL., Ind. Fl. Sin. II. p. 465 (1899); MATSUM. et HAY., Enum. Pl. Formos. p. 379 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 38 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 67 (1929); HANDEL-MAGZ., Symb. Sin. VII. p. 95 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 216 (1931); KUDO et MASAMUNE, Gen. Pl. Formos. I. p. 26 (1932)

Syn. *Ficus Hanceana*, MAXIM., in Mél. Biolog. XI. p. 341 (1881), et in Bull. Acad. Pet. XXVII. p. 553 (1881)

Nom. Jap. *6itabi*

Leg. Ipse, April. 3, 1927.

Distr. Honsyuŏ, Kyŏsyuŏ, Tanegasima, Amami-Osima, Okinawa, Taiwan, China.

Note. The plant flourishes in open sunny lands near the sea level.

Ficus retusa, LINN., Mant I. p. 129 (1767); WILLD., Sp. Pl. VI. p. 1147 (1805); BENTH., Fl. Hongk. p. 327 (1861), et Fl. Aust. VI. p. 166 (1873); KING., in Ann. Roy. Bot. Gard. Calc. I. p. 50, t. 61 (1887); HOOK. f., Fl. Brit. Ind. V. p. 511 (1888); FORB. et HEMSL., Ind. Fl. Sin. II. p. 466 (1899); MATSUM. et HAY., Enum. Pl. Formos. p. 376 (1906); MERR., Enum. Philipp. Pl. II. p. 62 (1923); WALKER, in Lingn. Sc. Journ. VI. p. 55 cum f. (1928); MASAMUNE. Prel. Rep. Veg. Yak. p. 67 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 216 (1931)

Syn. *Ficus nitida*, THUNB., Ficus. p. 14 (1786); WIGHT, Ic. Pl. Ind. Or. t. 642 (1843); KUDO et MASAMUNE, Gen. Pl. Formos. I. p. 26 (1932)

Urostigma nitidum, MIQ., in HOOK. Lond. Journ. Bot. VI. p. 582 (1847). et Fl. Ind. Bat. I. pt. 2. p. 345 (1855)

Ficus littoralis, BL., Bijdr. p. 455 (1825-26)

Norn. Jap. Gazumaru

Leg. Ipse, Ambô.

Distr. Kyûsyû, Tanegasima, Amami-Osima, Okinawa, Taiwan, China, India, Philippines, Malay, Australia, New Caledonia."

Note. The ficus is often found in the plain.

Ficus stipulate, THUNB., Dissert. Fie. pp. 5 et 8 (1786), et in Trans. Linn. Soc. II. p. 327 (1794); WILLD., Sp. Pl. IV. 2. p. 1139 (1806) p.p.; ROEMER et SCHULT., Syst. Veg. I. p. 501 (1817); STEUD., Nomend. Bot. ed. 2. I. p. 638 (1840) p.p.; SPRENG., Syst. Veg. III. p. 779 (1826); NAK., Fl. Sylv. Kor. XIX. p. 124, t. 40 (1932)

Syn. *Ficus pumila*, (non LINN.) MIQ., in Hook. Lond. Journ. Bot. VII. p. 439 (1848), et in Ann. Mus. Bot. Lugd. Bat. II. p. 199 (1866); FR. et SAV., Enum. Pl. Jap. I. p. 435 (1875) partim.

Ficus Thunbergii, MAXIM., in Mém. Biolog. XI. p. 339 (1881); MATSUM., Ind. Pl. Jap. II. 2. p. 39 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 67 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 217 (1931)

Ficus foveolata, var. *Thunbergii*, KING., in Ann. Bot. Gard. Calc. I. p. 134, t. 167 G (1888); REHDER, in Journ. Arnold. Arb. X. p. 125 (1929)

Ficus foveolata, (non WALLICH; NAK., Veg. Quelp. p. 38 (1914); MORI, Enum. Pl. Cor. p. 123 (1922)^

Norn. Jap. Hime-itabi

Leg. Ipse, Jul. 16, 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-Gsima, Okinawa, Korea.

Note. The species grows from low altitudes up to about 700 m above the sea level, and sometimes as an epiphyte on trees.

Ficus Wightiana, WALL., Cat. n. 4540 U828); BENTH., Fl. Hongk. p. 327 (1861); MAXIM., in Mém. Biolog. XL p. 333 (1831); KING., in Ann. Bot. Gard. Calc. I. p. 63 (1888); FORB. et HEMSL., Ind. Fl. Sin. II. p. 469 (1899); MATSUM. et HAY., Enum. Pl. Formos. p. 375 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 39 (1912); CHUN., Cat. Tree, and Shrub. Chin. p. 36 (1924); MERR., Enum. Hainan Pl. p. 66 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 67 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 217 (1931); KUDO et MASAMUNE, Gen. Pl. Formos. p. 27 (1932)

Syn. *Ficus superba*, var. *japonica*, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 200 (1866); FR. et SAV., Enum. Pl. Jap. I. p. 436 (1875)

Ficus superba, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 287 (1867); KING., in Ann. Roy. Bot. Gard. Calc. I. p. 59, tt. 72 et 84 (1887);

Norn. Jap. Akô

Leg. Ipse, Ambô. Jul. 14, 1922.

Distr. Honsyû, Sikoku, KyGsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, China.

Note. The *Ficus* is found in low altitudes and is distributed from the southern part of Honsyû as far as Formosa and South China.

HumuluB, [LINN., Syst. ed. 1. (1735)] et Sp. Pl.

ed. 1. p. 1028 (1753); ENDL., Gen. Pl. n. 1891 (1836-40); BENTH. et HOOK, f., Gen. Pl. III. 1. p. 356 (1880); ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. III. i. p. 96 (1889); LEMfE, Diet. Gen. **PI. ^II.** p. 671 (1931); KUDO et MASAMUNE, Gen. Pl. Formos. I. p. 28 (1932)

Syn. *Lupulus*, (TOURN.) ex MILL., Gard. Diet. ed. 6 (1752); MOENCH., Meth. p. 331 (1894)

Humulus japonicus, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 213 (1846; MAXIM., Prim. Fl. Amur. p. 246 (1859); REGEL, Tent. Fl. Uss. n. 422 (1861); FR. et SAV., Enum. Pl. Jap. I. p. 429 (1875); FORB. et HEMSL., Ind. Fl. Sin. II. p. 453 ;1894); KOM., Fl. Mansh. II. p. 92 (1904); MATSUM. et HAY., Enum. Pl. Formos. p. 372 (1906); NAK., Fl. Kor. II. p. 194 (1911); MATSUM., Ind. Pl. Jap. II. 2. p. 40 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 67 (1929^; MAK. et NEM., Fl. Jap. ed. 2. p. 217 (1931); KUDO et MASAMUNE, Gen. Pl. Formos. I. p. 28 1932.

Nom. Jap. Kanamugura

Leg. Y. KUDO! Aug. 1907.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-dsima, Taiwan, Korea, Manchuria.

Note. I have never collected the plant, but Dr. KUDO once collected it in the island. It is a common species in South Japan.

Names of Plants	Regions												
	Philippines	Bonins	Taiwan	Okinawa	Amami-Osima	Tanegasima	Kyûsyû Prop.	Sokoku	Honsyû	Korea	Yezo & Southern Saghalien	Northern Kuriles	Amur & Ussuri
<i>Fatoua villosa</i> , NAK.		+	+	+		+	+	+	+	+			+
<i>Moms bombycis</i> , KOIDZ.		+	+			+	+	+	+	+	+		+
<i>Broussonetia papyrifera</i> , (L'HERIT)		+	+	+		+	+	+	+				+
<i>Cudrania cochinchinensis</i> , (LOUR.) MASAM. var. <i>gerontogea</i> (NAK.) MASAMUNE		+	+	+		+	+						+
<i>Ficus erecta</i> , THUNB.		+	+	+		+	+	+	+				+

F. e. var. Sieboldi, KING.			+	+			+	+	+									
Ficus Miyagii, KOIDZ.					+	+												
Ficus nipponica, FR. et SAV.			+	+	+	+	+	+	+	+	+							+
Ficus Pumila, LINN.			+	+	+	+	+	+	+									+
Ficus retusa, LINN.	+		+	+	+	+												+
Ficus stipulata, THUNB.					+	+			+	+	+	+						
Ficus Wightiana, WALL.			+	+	+	+	+	+	+	+								+
Humulus japonicus, SIEB. et ZUCC.			+		+	+	+	+	+	+	+	+	+					++
Total. 13	1		11	12	11	9	11	10	9	7	2	1						2 10
Percentage	8		85	92	85	69	85	77	69	54	15	8						1577
(Southern elements 13)													(Northern elements 12)					

As we can see from the above table the flora of Yakusima, in respect of this family, is closely related to the flora of Okinawa.

Urticaceae

Urticaceae, ENDL., Gen. PL p. 282 (1837)

Syn. *Urticae*, JUSS., Gen. Pi. p. 400 (1789) p.p.

Pilea, LINDL., Collect. Bot. t. 4 (1821); ENDL.,

Gen. PI. n. 1882 (1836-40); WEDDELL, in DC. Prodr. XVI. 1. p. 104 (1869);

BENTH. et HOOK, f., Gen. PI. III. 1. p. 384 (1880); ENGL. in ENGL. u. PRANT.

Nat. Pfl.-fam. III. i. p. 108 (1889)

Syn. *Dubreullia*, GAUDICH, in Bot. Voy. Freycinet p. 495 (1826)

Dubreullia, DECNE., in Nouv. Ann. Mus. Paris. III. p. 489 (1834)

Adike, RAF., Neu. Fl. Amer. I. p. 63 (1836)

Adenia, TORR., Fl. New York. II. t 122 (1843)

Pilea peplodes, HOOK, et ARN., Bot. Capt. Beech. Voy. p. 96 (1832); WEDD., in Arch.

Mus. Hist Nat. Par. IX. p. 179 (1856). et in DC. Prodr. XVI. 1. p. 109 (1869);

MIQ., in Ann. Mus. Bot Lugd. Bat III. p. 130 (1867); HANCE, in Journ. Bot. XII.

p. 262 (1874); FR. et SAV., Enum. Pl. Jap. I. p. 438 (1875); MAXIM., in Mèl.

Biolog. IX. p. 630 (1876); FORB. et HEMSLE., Ind. Fl. Sin. II. p. 477 (1899); DIELS,

in Engl. Bot Jahrb. XXIX. p. 302 (1900); KOM, Fl. Mansh. II. p. 98 (1904); NAK.,

Fl. Kor. II. p. 198 (1911); DUNN et TUTCH., Fl. Kwang. and Hongk. p. 248

(1912); MASAMUNB, Prel. Rep. Veg. Yak. p. 68 (1929); MAK. et NEM., Fl. Jap.

ed. 2. p. 234 (1931)

Norn. Jap. *Kokemizu*

Leg. Ipst, Hunayuki, Mart 23, 1923.

DUtr. Honsyfi, KyQtyu, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China.

Note. The species is found in wet shady places at low altitudes and is common in South Japan.

Pilea viridissima, MAK., in Tokyo Bot. Mag. XXIII. p. 87 (1909); MAK. et NEM., Fl. Jap. ed. 2. p. 235 (1931)

Syn. *Pilea pumila*, (non A. GRAY) MAXIM., in Mém. Biolog. IX. p. 631 (1876); FR. et SAV., Enum. Pl. Jap. II. p. 492 (1876); MAK., in Tokyo Bot. Mag. X. p. (364) (1896)

Pilea petiolaris, (non BL.) FR. et SAV., Enum. Pl. Jap. II. p. 492 (1879) p.p.

Norn. Jap. Aomizu

Leg. Ipse, Aug. 5, 1924.

Distr. HonsyG, Sikoku, Kyûsyû, Amami-6sima, Okinawa.

Note. The species grows as undergrowth on wet land in the laurisilvae, and rarely occurs in southern Japan.

Achudemia, (*Achudemà*) BL., in Mus. Bot. Lugd.

Bat. II. p. 57. t. 20 (1852); WEDD., in DC. Prodr. XVI. 1. p. 163 (1869); BENTH. et HOOK, f, Gen. Pl. III. 1. p. 385 (1880); ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. III. i. p. 108 (1889); LEMÉE, Diet. Gen. Pl. Phan. I. p. 32 (1929)

Achudemia japonica, MAXIM., in Bull. Acad. Pet. XXII. p. 241 (1876), et in Mém. Biolog. IX. p. 627 (1876); FR. et SAV., Enum. Pl. Jap. II. p. 493 (1876); FORB. et HEMSL., Ind. Fl. Sin. II. p. 480 (1899); KOM., Fl. Mansh. II. p. 100 (1904); MATSUM., Ind. Pl. Jap. II. 2. p. 41 (1912); MORI, Enum. Pl. Cor. p. 124 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 68 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 222 (1931)

Nom. Jap. Yamamjzu

Leg. Ipse, Aug. 20, 1928.

Distr. HonsyG, Sikoku, Kyûsyû, Korea, Manchuria.

Note. The plant is found as undergrowth in the laurisilvae or in the lauri-aciculisilvae, and is rather common in the central part of Japan. It is not yet found in lands further south than this island.

Pellionia, GAUDICH, in Bot. Voy. Freycinet p.

494, t. 119 (1826); ENDL., Gen. Pl. n. 1883 (1836-40); WEDD., in DC. Prodr. XVI. 1. p. 165 (1869); BENTH. et HOOK, f, Gen. Pl. III. 1. p. 385 (1880); ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. III. i. p. 108 (1889)

Syn. *Polychroa*, LOUR., Fl. Cochinch. p. 559 (1790)

Pellea, ANDRÉ, in Illustr. Hort. XXVII. p. 177 (1830)

Pellionia minima, MAK., in Tokyo Bot. Mag. XXIII. p. 85 (1909); MASAMUNE, Prel. Rep. Veg. Yak. p. 68 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 231 (1931)

Nom. Jap. Sansyôso

Leg. Ipse, Jul. 31, 1924.

Distr. HonsyG, Sikoku, KyGsyG.

Note. I found this species as undergrowth in the lauri-aciculisilvae from about 600 m up to 1700 m above the sea level. It has its southern limit in this island.

Pellionia radicans, WEDD., in DC. Prodr. XVI. 1. p. 167 (1869); FORB. et HEMSL., Ind. Fl. Sin. II. p. 481 (1899); MATSUM. et HAY., Enum. Pl. Formos. p. 384 (1906); HAY., Mat. Fl. Formos. p. 280 (1911); MAK. et NEM., Fl. Jap. ed. 2. p. 231 (1931)

Nom. Jap. dsansyó-só

Leg. Ipse, Kusugawa, Mart. 17, 1923.

Distr. Honsyú, Sikoku, KyGsyú, Taiwan, China.

Note. The species grows as undergrowth in the laurisilvae.

Pellionia scabra, BENTH., FL Hongk. p. 330 (1861); WEDD., in DC. Prodr. XVI. 1. p. 166 (1869); MAXIM., in Mém. Biolog. IX. p. 633 (1876); FORB. et HEMSL., Ind. FL Sin. II. p. 481 (1899); MATSUM. et HAY., Enum. PL Formos. p. 384 (1906); MATSUM., Ind. PL Jap. II. 2. p. 45 (1912); MORI, Enum. PL Cor. p. 126 (1922j); MASAMUNE, Prel. Rep. Veg. Yak. p. 68 (1929); MAK. et NEM., FL Jap. ed. 2. p. 231 (1931)

Nom. Jap. Kimizu

Leg. Ipse, Jul. 18, 1928.

Distr. Honsyú, Sikoku, Kyúsyú, Amami-Osima, Okinawa, Taiwan, Korea, China.

Note. The species grows as undergrowth from the sea level up to about 400 m.

Elatostema, FORST., Char. Gen. p. 105, t. 53 (1776); WEDD., in DC. Prodr. XVI. 1. p. 171 (1869); BENTH. et HOOK, f., Gen. PL III. p. 386 (1880); ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. III. I. p. 109 (1889); LEMÉE, Diet. Gen. PL II. p. 817 (1930)

Syn. Horreola, NOR., in Verh. Batav. Gen. V. ed. 1. Art. IV. p. 2 (1790)

Langeveldia, GAUDICH, in Bot. Voy. Freycinet p. 494 (1826)

Elatostemma, ENDL., Gen. PL p. 283 (1837)

Langefeldia, STEUD., Nomenc. ed. 2. II. p. 7 (1841)

Elatostoma, WIGHT, Ic. VI. p. 35, t. 2091 (1853)

Elatosoma, FR. et SAV., Enum. PL Jap. I. p. 438 (1875)

Elatostema umbellatum, var. *yakusimensis*, MASAMUNE, var. nov.

Herbae perennes graciles glabrae ca. 7 cm altae. Folia alterna haud petiolata, rhomboideo-obovata membranacea, ca. 1 cm longa, 0,5 mm lata, margine dentato-serrata. Flores masculi cymosi haud pedunculati, feminei sessiles.

Nom. Jap. Yakusima-hime-uwabamisó

Leg. Ipse, Kurio, ca. 800 m. Jul. 31, 1927.

Distr. Endemic to this island.

Note. It is an endemic variety and rarely grows on somewhat wet ground in the lauri-aciculisilvae.

Boehmeria, JACQ., Enum. PL Carib. p. 9 (1760); ENDL., Gen. PL n. 1884 (1836-40); WEDD., in DC. Prodr. XVI. 1. p. 195 (1869); BENTH. et HOOK, f., Gen. PL III. 1. p. 387 (1880); ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. III. i. p. III (1889); LEMÉE, Diet. Gen. PL Phan. I. p. 605 (1929)

Syn. Ramium, [RUMPH., Herb. Amb. V. p. 214, t. 59, f. 1 (1747)] O. KUNTZE, Rev. Gen. PL II. p. 631 (1891)

Duretia, GAUDICH, in Bot. Voy. Freycinet p. 500 (1826)

Splitgerbera, MIQ., Comment. Phytogr. p. 133, t. 14 (1840)

Gymnogyne, F. DIDRICHSEN, Ind. Sem. Hort. Haun. (1850', ex Linnaea XXIX. p. 737 (1858)

Boehmeria holosericea, BL., MUS. Bot. Lugd. Bat. II. p. 221 (1856); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 131 (1867); FR. et SAV., Enum. PL Jap. I. p. 441 (1875); NAK., FL Kor. II. p. 198 (1911); MATSUM., Ind. PL Jap. II. 2. p. 41 (1912); MA-

- SAMUNE, Prel. Rep. Veg. Yak. p. 63 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 223 (1931)
- Syn.* *Boehmeria platyphylla*, var. *holoserida*, WBDD., in DC. Prodr. XVI. 1. p. 212 (1869)
- Nom. Jap.* *Oni-yabu-mao*
- Leg.* Ipse, Yudomari. April. 3, 1927.
- Distr.* Honsyfi, Kyfisyfi, Tanegasima, Okinawa, Korea.
- Note.* The species is frequently found along the forest edges at low altitudes.
- Boehmeria japonica*, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 131 (1867); MAXIM., in Mém. Biolog. IX. p. 642 (1876); KOM., Fl. Mansh. II. p. 101 (1904); NAK., Fl. Kor. II. p. 198 (1911); MAK. et NEM., Fl. Jap. ed. 2. p. 223 (1931)
- Syn.* *Urtica japonica*, LINN, f, Supp. p. 418 (1781)
- Urtica macrophylla*, THUNB., Fl. Jap. p. 69 (1784)
- Boehmeria macrophylla*, (non DON) SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 215 (1846)
- Boehmeria grandifolia*, WEDD., in Ann. Sc. Nat. 4^{me} sér. I. p. 199 (1854); FORB. et HEMSL., Ind. Fl. Sin. II. p. 485 (1899); MATSUM., Ind. Pl. Jap. II. 2. p. 41 (1912)
- Boehmeria platyphylla*, var. *macrophylla*, WEDD., in DC. Prodr. XVI. 1. p. 213 (1869)
- Boehmeria Miqueliana*, TANAKA, in Bult. Sc. Fakult. Terk. Kjusu, Imp. Univ. I. p. 198 (1925)
- Nom. Jap.* *Yabumao*
- Leg.* Ipse, Kurio, Jun. 27, 1928.
- Distr.* Honsyfi, Sikoku, Kyfisyû, Amami-dsima, Korea, Manchuria.
- Note.* The species is often found in the lowland along the forest edges or by the roadside.
- Boehmeria nivea*, GAUDICH, Bot. Freyc. Voy. p. 499 (1826); HOOK. et ARN., Bot. Capt. Beech. Voy. p. 214 (1836); WEDD., in Arch. Mus. Hist. Nat. Par. IX. p. 280, t. XI. f. 10-17 (1856), et in DC. Prodr. XVI. p. 206 (1869); BENTH., Fl. Hongk. p. 331 (1861); FR. et SAV., Enum. Pl. Jap. I. p. 439 (1875); MAXIM., in Mém. Biolog. IX. p. 639 (1876); HOOK, f., Fl. Brit. Ind. V. p. 576 (1888); FORB. et HEMSL., Ind. Fl. Sin. II. p. 486 (1899); MATSUM. et HAY., Enum. Pl. Formos. p. 335 (1935); MATSUM., Ind. Pl. Jap. II. 2. p. 42 (1912); DUNN et TUTCH., Fl. Kwang. and Hongk. p. 251 (1912); MERR., Enum. Philipp. Pl. II. p. 90 (1923); MORI, Enum. Pl. Cor. p. 125 (1922); HANDEL-MAGZ., Symb. Sin. VII. p. 152 (1929)
- Syn.* *Urtica nivea*, LINN., Sp. Pl. ed. 1. p. 985 (1753)
- Urtica utilis*, HORT. ex WEDD., in Arch. Mus. Hist. Nat. Par. IX. p. 330 (1856)
- Nom. Jap.* *Mao*
- Leg.* Kurio, Y. KUDO! Aug. 1907.
- Distr.* Honsyfi, Sikoku, Okinawa, Taiwan, Korea, China, Philippines, Malay.
- Note.* The species is often found on somewhat open lands and along the forest edges near the sea level.
- Boehmeria platanifolia***, FR. et SAV., Enum. Pl. Jap. I. p. 440 (1875); FORB. et HEMSL., Ind. Fl. Sin. II. p. 486 (1899); MATSUM., Ind. Pl. Jap. II. 2. p. 42 (1912); MORI, Enum. Pl. Cor. p. 125 (1922)
- Syn.* *Boehmeria platyphylla*, var. *japonica*, WEDD., in DC. Prodr. XVI. 1. p. 213. (1869)

Boehmeria longispica, var. *platanifolia*, FR. et SAV., Enum. PL Jap. II. p. 497 (1876)

Boehmeria japonica, MIQ. var. *platanifolia*, MAXIM., in Mél. Biolog. IX. p. 643 (1876); FR., Pl. David. I. p. 270 (1884); MAK. et NEM., Fl. Jap. ed. 2. p. 223 (1931)

Nom. Jap. *Meyabwnao*

Leg. Y. KUDO! Aug. 1907.

Distr. Honsyfi, Kyfisyfi, Korea.

Note. The species is found on rather rare occasions in the laurisilvae and has its southern limit in this island.

Boehmeria Sieboldiana, BL., MUS. Bot. Lugd. Bat. II. p. 220 (1856); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 130 (1867); FR. et SAV., Enum. PL Jap. II. p. 497 (1876); MATSUM., Ind. PL Jap. II. 2. p. 43 (1912); MORI, Enum. PL Cor. p. 125 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 69 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 224 (1931)

Norn. Jap. *Nagaba-yabwnao*

Leg. Ipse, Jul. 13, 1928.

Distr. Honsyfi, Sikoku, Kyfisyfi, Tanegasima, Amami-dsima, Okinawa, Korea.

Note. The species grows in sunny places near the sea level.

Boehmeria spicata, THUNB., in Trans. Linn. Soc. II. p. 330 (1794); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 131 (1867); FR. et SAV., Enum. PL Jap. I. p. 440 (1875); MAXIM., in Mél. Biolog. IX. p. 645 (1876); PALIB., Consp. FL Kor. II. p. (47) 193 (1900); DIELS, Fl. Centr. Chin. p. 304 (1900); NAK., FL Kor. II. p. 198 (1911); YABE, Enum. PL Manch. p. 39 (1912); MAK. et NEM., FL Jap. ed. 2. p. 224 (1931)

Syn. *Urtica spicata*, THUNB., FL Jap. p. 69 (1784)

Boehmeria longispica, STEUD., in Flora. XXXIII. p. 260 (1850)

Norn, Jap. *Koakaso*

Leg. Ipse, Aug. 1, 1924.

Distr. Honsyfi, Sikoku, KyOsyfi, Korea, Manchuria, China.

Note. The species ranges from the sea level up to about 700 m and is found in sunny spots in waste lands.

Boehmeria tricuspis, MAK., in Tokyo Bot. Mag. XXVI. p. 387 (1912); MAK. et NEM., FL Jap. ed. 2. p. 224 (1931)

Syn. *Boehmeria platyphylla*, var. *tricuspis*, HANCE, in Journ. Bot. XII. p. 261 (1874)

Boehmeria japonica, var. *tricuspis*, MAXIM., in Mél. Biolog. IX. p. 642 (1876)

Boehmeria longispica, p *tricuspis*, FR. et SAV., Enum. PL Jap. II. p. 497 (1897)

Boehmeria platanifolia, var. *tricuspis*, MATSUM., Ind. PL Jap. II. 2. p. 42 (1912)

Boehmeria japonica, MIQ; MORI, Enum. PL Cor. p. 125 (1922)

Norn. Jap. *Akaso*

Leg. Y. KUDO! Aug. 1907.

Distr. Yezo, Honsyfi, Sikoku, Korea.

Note. The species is found from the lowland up to about 600 m.

1. 387 (1880); ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. III. i. p. 112 (1889); KUDO et MASAMUNE, Gen. Pl. Formos. I. p. 37 (1932)

Pouzolzia indica, GAUD., var. *alienata*, WEDD., in DC. Prodr. XVI. 1. p. 221 (1869); MAXIM., in Mél. Biolog. IX. p. 647 (1876); FORB. et HEMSL., Ind. J1. Sin. II. p. 490 (1899); MATSUM. et HAY., Enum. Pl. Formos. p. 388 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 46 (1912); MAK. et NEM., Fl. Jap. ed. 2. p. 235 (1931)

Nom. Jap. *Ariehimemao*

Leg. Ipse, Kosugidani, Jun. 24, 1928,

Distr. Taiwan.

Note. The species occurs rather rarely on somewhat sunny ground in the laurisilvae and the lauri-aciculisilvae."

Gonostegia, TURCZ., in Bull. Soc. Nat. Mosc.

XIX. 2. p. 509 (1846); LEMÉE, Diet. Gen. Pl. Phan. III. p. 316 (1931)

Syn. *Memoralis*, BUCH-HAM., in WALL. Cat. n. 4598 (1831) nomen; WEDD., in DC. Prodr. XVI. 1. p. 235² (1869); BENTH. et HOOK, f., Gen. Pl. III. 1. p. 388 (1880); ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. III. i. p. 112 (1889)

Hyrtanandra, MIQ., Pl. Jungh. p. 25 (1851)

Gonostegia hirta, MIQ., in Ann. Mus. Bot. Lugd. Bat. IV. p. 303 (1869); MERR., Enum. Philipp. Pl. II. p. 92 (1923); MASAMUNE, in Journ. Trop. Agr. III. p. 113 (1931)

Syn. *Urtica hirta*, BL., Bijdr. p. 495 (1825)

Memoralis quinquenervis, BUCH-HAM., in WALL. Cat. n. 4601 (1828) nomen; WEDD., in DC. Prodr. XVI. 1. p. 235^s (1869)

Pouzohia hispida, BENN., Pl. Jav. Rar. p. 66 (1838); BENTH., in HOOK. Kew Journ. p. 23 (1854)

Pouzolzia hirta, HASSK., Cat. Hort. Bogor. p. 80 (1844); HOOK, f., Fl. Brit. Ind. V. p. 586 (1888); FORB. et HEMSL., Ind. Fl. Sin. II. p. 489 (1899); DIELS, in Engl. Bot. Jahrb. XXIX. p. 304 (1900); MATSUM. et HAY., Enum. PL Formos. p. 388 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 46 (1912)

Memoralis hirta, WEDD., in DC. Prodr. XVI. 1. p. 235* (1869); FR. et SAV., Enum. PL Jap. I. p. 441 (1875); MAXIM., in Mél. Biolog. IX. p. 648 (1876); YAMAMOTO, Supp. Ic. PL Formos. I. p. 23 (1925); HANDEL-MAGZ., Symb. Sin. VII. p. 153 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 228 (1931)

Nom. Jap. *Turumao*

Leg. Ipse, Jul. 18, 1928.

Distr. Honsyū, Kyūsyū, Amami-Gsima, Okinawa, Taiwan, China, Philippines, Malay.

Note. The species is found in some wet places at low altitudes.

Debregeasia, GAUDICH., Bot. Voy. Bonite. t. 90

(1844-52); WEDD., in DC. Prodr. XVI. 1. p. 235* (1869); BENTH. et HOOK, f., Gen. PL III. 1. p. 390 (1880); ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. III. i. p. 113 (1889); LEMÉE, Diet. Gen. PL II. p. 516 (1930)

Syn. *Morocarpus*, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 218 (1846)

Leucocnide, MIQ., Pl. Jungh. I. p. 36 (1851)

Debregeasia edulis, WEDD., Monog. Urt. p. 462 (1856), [et in DC. Prodr. XVI. 1. p. 235* (1869); FR. et SAV., Enum. PL Jap. I. p. 442 (1875); MAXIM., in M6L Biolog.

IX. p. 649 (1876); HANCE, in Journ. Bot. XX. p. 38 (1882); FORB. et HEMSL., Ind. Fl. Sin. II. p. 492 (1899); DIELS, in Engl. Bot. Jahrb. XXIX. p. 305 (1900); MATSUM. et HAY., Enum. Pl. Formos. p. 396 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 43 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 68 (1929); HANDEL-MAGZ., Symb. Sin. VII. p. 154 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 225 (1931); KUDO et MASAMUNE, Gen. Pl. Formos. I. p. 39 (1932)

Syn. *Morocarpus edulis*, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 218 (1846); BL., Mus. Bot. Lugd. Bat. II. p. 155, t. 16 (1856); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 130 (1867)

Norn. Jap. *Yanagi-itigo*

Leg. Ipse, April. 2, 1927.

Distr. Honsyū, Kyūsyū, Tanegasima, Amami-dsima, Okinawa, Taiwan, China.

Note. The plant is found along running waters from lowland up to about 500 m.

Oreocnide, MIQ., Pl. Jungh. I. p. 39 (1851), et Fl.

Nederl. Ind. I. 2. p. 269 (1859)

Syn. *Villebrunea*, GAUDICH, Bot. Voy. Bonite, tt. 91-92 (1844-52); WEDD., in DC. Prodr. XVI. 1. p. 235* (1869); BENTH. et HOOK, f., Gen. Pl. III. 1. p. 390 (1880); ENGL., in ENGL. U. PRANT. Nat. Pfl. Fam. III. i. p. 114 (1889)

Oreocnide fruticosa, HANDEL-MAGZ., Symb. Sin. VII. p. 154 (1929); MASAMUNE, in Journ. Trop. Agr. II. p. 32 (1930)

Syn. *Boehmeria fruticosa*, GAUDICH, in Freycinet Voy. p. 500 (1826)

Villebrunea frutescens, BL., MUS. Bot. Lugd. Bat. II. p. 168 (1856) *excl. Syn.*; BENTH., Fl. Hongk. p. 332 (1861); WEDD., in DC. Prodr. XVI. 1. p. 235^M (1869); FR. et SAV., Enum. Pl. Jap. I. p. 442 (1875); HOOK, f., Fl. Brit. Ind. V. p. 590 (1888); HEMSL., in Journ. Linn. Soc. XXVI. p. 491 (1899); MAK. et NEM., Fl. Jap. p. 1074 (1925), et ed. 2. p. 237 (1931)

Oreocnide frutescens, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 131 (1867); MERR., Enum. Hainan Pl. p. 67 (1927)

Villebrunea fruticosa, NAK., in Tokyo Bot. Mag. XLI. p. 514 (1927)

Nom. Jap. *Iwagane*

Leg. Ipse, Mart. 21, 1923.

Distr. Kyūsyū, China.

Note. The species is found along the streams in the lowlands.

Oreocnide pedunculata, (SHIRAI) MASAMUNE, in Journ. Trop. Agr. II. p. 33 (1930); KUDO et MASAMUNE, Gen. Pl. Formos. I. p. 40 (1932)

Syn. *Villebrunea pedunculata*, SHIRAI, in Tokyo Bot. Mag. IX. p. 160 (1895); MATSUM., Ind. Pl. Jap. II. 2. p. 48 (1912); MAK. et NEM., Fl. Jap. p. 1074 (1925), et ed. 2. p. 237 (1931); MASAMUNE, Prel. Rep. Veg. Yak. p. 69 (1929)

Nom. Jap. *HadonoH*

Leg. Ipse, Sept. 1, 1931.

Distr. Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan.

Note. Grows along the streams near the sea level.

In this island there are more numerous northern elements of this family than the southern ones. So the island is more closely related to

Names of Plants	Regions														
	Philippines	Bonins	Taiwan	Okinawa	Amami-Osima	Tanegasima	Kyūsyū Prop.	Sikoku	Honsyū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Muria, Amur & Ussuri	Chōshū
<i>Pilea peploides</i> , HOOK, et ARN.			+	+	+		+							+	+
<i>Pilea viridissima</i> , MAK.				+	+		+	+	+						
<i>Achudemia japonica</i> , MAXIM.							+	+	+	+				+	
<i>Pellionia minima</i> , MAK.							+	+	+						
<i>Pellionia radicans</i> , WEDD.			+				+	+	+						+
<i>Pellionia scabra</i> , BENTH.			+	+	+		+	+	+	+					+
<i>Elatostema umbellatum</i> , var. <i>yakusimensis</i> , MASAMUNE															
<i>Boehmeria holosericea</i> , BL.				+		+	+		+	+					
<i>Boehmeria japonica</i> , MIQ.					+		+	+	+	+				+	+
<i>Boehmeria nivea</i> , GAUDICH	+		+	+				+	+	+					+
<i>Boehmeria platanifolia</i> , FR. et SAV.							+		+	+					+
<i>Boehmeria Sieboldiana</i> , BL.				+	+	+	+	+	+	+					
<i>Boehmeria spicata</i> , THUNB.							+	+	+	+				+	+
<i>Boehmeria tricuspis</i> MAK.								+	+	+	+				
<i>Pouzolzia indica</i> , GAUD, var. <i>alienata</i> , WEDD.			+												+
<i>Gonostegia hirta</i> , MIQ.	+		+	+	+		+		+						+
<i>Debregeasia edulis</i> , WEDD.			+	+	+	+	+		+						+
<i>Oreocnide fruticosa</i> , HANDEL-MAGZ.							+								+
<i>Oreocnide pedunculata</i> , (SHIRAI) MASAMUNE			+	+	+	+	+	+							
Total	19	2	8	9	8	4	15	11	15	10	1			4	11
Percentage	10		42	47	42	21	79	58	79	5	35			21	58

(Southern elements 12)

(Northern elements 17)

the northern floral regions than to the southern regions.

Proteaceae

Proteaceae, J. ST. HILL., Expos. Fam. I. p. 185 (1805)

Syn. Proteae, JUSS., Gen. PL p. 78 (1789)

Helicia, LOUR., Fl. Cochinch. p. 83 (1790);

ENDL., Gen. PL n. 2150 (1836-40); MEISN., in DC. Prodr. XIV. p. 438 (1857);

BENTH. et HOOK, f., Gen. PL III. 1. p. 179 (1880); ENGL., in ENGL. u. PRANT.

Nat. Pfl-fam. III. i. p. 146 (1889); LEMSE, Diet. Gen. PL Phan. III. p. 500 (1931)

Syn. Castronia, NOR. in Verh. Bat. Gen. V. ed. 1. Art. IV. p. 2 (1790)

Helittophyllum, BL., Bijdr. p. 652 (1825)

Helicia cochinchinensis, LOUR., FL Cochinch. p. 83 (1790), et ed. WILLD. p. 105 (1793);

MEISN., in DC. Prodr. XIV. p. 442 (1857); BENTH., Fl. Hongk. p. 295 (1861);

FORB. et HEMSL., Ind. FL Sin. II. p. 394 (1891); MATSUM. et HAY., Enum. PL

Formos. p. 354 (1906); MATSUM., Ind. PL Jap. II. 2. p. 48 (1912); DUNN et

TUTCH., FL Kwangt. & Hongk. p. 226 (1912); LECOMTE, FL Ind. Chin. V. 2. p.

161 (1914); CHUN., Cat. Tree, and Shrub. Chin. p. 38 (1924); MERR., Enum. Hai-

nan PL p. 68 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 69 (1929); HANDEL-

MAGZ., Symb. Sin. VII. p. 157 (1929); MAK. et NEM., FL Jap. ed. 2. p. 238

(1931)

Syn. Helicia land folia, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 195 (1846); MEISN.,

in DC. Prodr. XIV. p. 439 (1857); MIQ., in Ann. Mus. Bot Lugd. Bat. III.

p. 137 (1867); FR. et SAV., Enum. PL Jap. I. p. 403 (1875)

Nom. Jap. Yamamo-gasi

Leg. Ipse, Onoaida, Mart. 23, 1923.

Distr. Honsyfi, Sikoku, Kyûsyfi, Tanegasima, Amami-6sima, Okinawa, Taiwan,

China, Cochinchina.

Note. The species is found from the sea level up to about 400 m.

Name of Plant	Regions													
	Philippines	Borneo	Okinawa	Amami-Ôsima	Tanegasima	Kyûsyû Prop.	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Seghalien	Northern Kuriles & Kamitchatka	Manchuria, Amur & Usuri	China
<i>Helicia cochinchinensis</i> , LOUR.			+	+	+	+	+	+						+

The only representative of this family which is indigenous to this island is widely distributed in South Japan. And the family being

rich in species in Malay and Australia, the above fact shows that the South Japan has some relationship with those districts.

Santalaceae

Santalaceae, R. BR., Prodr. p. 350 (1810); ENDL., Gen. Pl. p. 324 (1838); BENTH., in BENTH. et HOOK. f. Gen. Pl. III. p. 217 (1880) p.p.; HIERON, in ENGL. U. PRANT. Nat. Pfl.-fam. III. i. p. 202 (1889)

Thesium, [LINN., Gen. Pl. ed. 1. p. 60 (1737)] et Sp. Pl. ed. 1. p. 207 (1753); ENDL., Gen. Pl. n. 2072 (1838); DC, Prodr. XIV. p. 637 (1857); BENTH. et HOOK, f., Gen. Pl. III. 1. p. 221 (1880); HIERON, in ENGL. u. PR ANT. Nat. Pfl.-fam. III. i. p. 224 (1889)

Syn. *Linosyris*, [MOEHR., Hort Priv. p. 60 (1636)] O. KUNTZE, Rev. Gen. Pl. II. p. 587 (1891)

Thesiosyris, REICHB., Consp. p. 80 (1828)

Thesiosyris, SPACH., Hist. Nat. Veg. Phanér. X. p. 460 (1841)

Rhinostegia, TURCZ., in Bull. Soc. Nat. Mosc. XVI. p. 56 (1843)

Steinreitera, OPIZ., Seznam. p. 93 (1852)

Xerolophus, DULAC, Fl. Hautes-Pysén p. 160 (1867)

Thesium chinense, TURCZ., in Bull. Soc. Nat. Mosc. VII. p. 157 (1837); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 132 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 407 (1875); FORB. et HEMSL., Ind. Fl. Sin. II. p. 408 (1894); KOM., Fl. Mansh. II. p. 108 (1904); NAK., Fl. Kor. II. p. 180 (1911); MATSUM., Ind. Pl. Jap. II. 2. p. 50 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 69 (1929); HANDEL-MAGZ., Symb. Sin. VII. p. 157 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 240 (1931)

Syn. *Thesium decurrens*. BL., ex DC. Prodr. XIV. p. 652 (1857); FR. et SAV., Enum. Pl. Jap. I. p. 407 (1875)

Norn. Jap. *Kanabikisó*

Leg. Ipse, ca. Onoaida.

Disir. Honsyfi, Sikoku, Kyúsyfi, Tanegasima, Amami-Osima, Okinawa, Taiwan, Korea, Manchuria, China.

Note. It is found in low waste land.

Regions	Philippines	onins	Ōwan	Okinawa	Amami-Osima	Tanegasima	Kyúsyú Prop.	Ryú	Ky	Manchuria	China
Thesium chinense, TURCZ.				4+	+	+	+	+	+	+	+

In this family the island shows no special relation either with the northern or the southern floral regions.

Loranthaceae

Loranthaceae, D. DON, Prodr. Fl. Nepal, p. 142 (1825)

Syn. *Loranthaceae*, Juss., in Ann. Mus. XII. p. 292 (1808)

Loranthus, [LINN., Syst. ed. 2. p. 22 (1740) J et Sp. Pl. ed. 1. p. 331 (1753); DC, Prodr. IV. p. 286 (1830); ENDL., Gen. Pl. n. 4586 (1836-40); BENTH. et HOOK, f, Gen. Pl. III. 1. p. 207 (1880); ENGL., in ENGL. U. PR ANT. Nat. Pfl.-fam. III. i. p. 183 (1889), et Nach. p. 72 (1915)

Syn. *Scurrula*, LINN., Sp. Pl. ed. 1. p. 110 (1753); G. DON, Gen. Hist. III. p. 424 (1834)

Lonicera (PLUM.) ex GAERTN., Fruct. I. p. 132, t. 27 (1788)

Helixanthera, LOUR., Fl. Cochinch. p. 142 (1790)

Helicia. PERS., Syn. I. p. 214 (1805) p.p.

Helicanthera, ROEM. et SCHULT., Syst. V. pp. X. et 170 (1819)

Helisanthera, RAF., in Ann. Gener. Sc. Phys. VI. p. 87 (1820)

Glutago, COMM. et POIR., in Diet. Sc. Nat. XIX. p. 87 (1821)

Moquinia, SPRENG. f, Tent. Suppl. p. 9 (1828)

Tristerix. MART., in Fl. XIII. p. 108 (1830)

Chichlanthus, V. TIEG., in Bull. Soc. Bot. Fr. XLII. pp. 243, 253 (1895)

Phyllodesmis, V. TIEG., in Bull. Soc. Bot. Fr. XLII. p. 255 (1895)

Loranthus Kaempferi, MAXIM., in Mém. Biolog. IX. p. 612 (1876); FR. et SAV., Enum. Pl. Jap. II. p. 482 (1876); MATSUM., Ind. Pl. Jap. II. 2. p. 48 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 69 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 241 (1931)

Syn. *Viscum album*, 'non LINN.) THUNB., Fl. Jap. p. 63 (1784)

Viscum Kaempferi, DC, Prodr. IV. p. 285 (1830); MIQ., in Ann. Mus. Bot.

Lugd. Bat. III. p. 203 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 406 (1875)

Phyllodesmis Kaempferi, V. TIEGH., in Bull. Soc. Bot. Fr. XLIII. p. 118 (1896)

Nom. Jap. *Matugumi*

Leg. Ipse, Kosugidani, Sept. 5, 1926.

Distr. Honsyū, Sikoku, Kyūsyū, Amami-6sima.

Note. The plant grows in the lauri-aciculisilvae as a parasite on *Tsuga*.

Loranthus yadoriki, SIEB., in SIEB. et ZUCC. Fl. Jap. Fam. Nat. I. p. 193 (1845); FR. et SAV., Enum. Pl. Jap. II. p. 481 (1876); MAXIM., in Mém. Biolog. IX. p. 609 (1876); FORB. et HEMSL., Ind. Fl. Sin. II. p. 407 (1894); DIELS, in Engl. Bot. Jahrb. XXIX. p. 305 (1900); MATSUM. et HAY., Enum. Pl. Formos. p. 357 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 49 (1912); MORI, Enum. Pl. Cor. p. 128 (1922); CHUNG, Cat. Tree, and Shrub. Chin. p. 39 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 70 (1929); HANDEL-MAGZ., Symb. Sin. VII. p. 159 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 243 (1931)

Syn. *Cichlanthus Yadoriki*, V. TIEGH, in Bull. Soc. Bot. Fr. XLIII. p. 188 (1896)

Scurrula Yadoriki, DANSER, in Bull. Jard. Bot. Buit. sér. 3. X. p. 354 (1929)

Nom. Jap. *dba-yadorigi*

Leg. Ipse, Jun. 6, 1928.

Distr. Honsyū, Sikoku, Kyōsyū, Tanegasima, Amami-ōsima, Okinawa, Taiwan, Korea, China.

Note. Grows as a parasite on various dicotyledonous trees in the laurisilvae or in the lauri-aciculisilvae from the sea level up to about 600 m, and on rare occasions on conifers such as *Abies* and *Cryptomeria*.

Bifaria, V. TIEGH., in Bull. Soc. Bot. Fr. XLIII.

p. 164 (1896)

Syn. *Korthalsella*, frons V. TIEGH.) ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. Nach. I p. 138 (1897) p.

Pseudixus, HAY., Ic. Pl. Formos. V. p. 187 (1915) et in Tokyo Bot. Mag. XXX. p. 69 (1916)

Bifaria opuntia, MERR., Enum. Philipp. Pl. II. p. 113 (1923), et Enum. Hainan Pl. p. 69 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 69 (1929)

Syn. *Viscum opuntia*, THUNB., Fl. Jap. p. 64 (1784)

Viscum japonicum, THUNB., in Trans. Linn. Soc. II. p. 329 (1794); DC, Prodr. IV. p. 283 (1830); HOOK. f., Fl. Brit. Ind. V. p. 226 (1887); FORB. et HEMSL., Ind. Fl. Sin. II. p. 407 (1894); MATSUM., Ind. Pl. Jap. II. 2. p. 49 (1912)

Viscum articulatum, BENTH., Fl. Hongk. p. 141 (1861); FR. et SAV., Enum. Pl. Jap. I. p. 406 (1875)

Bifaria japonica, V. TIEGH., in Bull. Soc. Bot. Fr. XLIII. p. 173 (1896)

Korthalsella japonica, ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. Nacht. I. p. 138 (1897); GAMBLE, in Journ. As. Soc. Bengal. LXXV. p. 384 (1914); HANDEL-MAGZ., Symb. Sin. VII. p. 160 (1929); NAK. in Bull. Biogeogr. Soc. Jap. I. p. 256 (1930)

Pseudixus japonicus, HAY., Ic. Pl. Formos. V. p. 188, f. 64 (1915); MORI, Enum. Pl. Cor. p. 128 (1922); MAK. et NEM., Fl. Jap. ed. 2. p. 243 (1931)

Korthalsella opuntia, MERR., in Tokyo Bot. Mag. XXX. p. 68 (1916)

Norn. Jap. Hinohbayadorigi

Regions	Philippines		Taiwan	Okinawa	Ryūkyūs		Tanegasima	Kyūsyū Prop.	Sikoku	Honsyū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Usuri	China
	Palawan	Batavia			Kyūkyū	Kyūsyū										
Loranthus Kaempferi, MAXIM.																
Loranthus yadoriki, SIEB.			+	+	+	+	+	+	+	+	+					+
Bifaria opuntia, MERR.	+	+	+	+	+	+	+	+	+	+	+					+

Leg. Ipse, Nakazima, Aug. 10, 1928.

Distr. Honsyfi, Kyfisyfi, Tanegasima, Amami-6sima, Okinawa, Taiwan, Bonins, Korea, China, Philippines. Polynesia, Malay, Australia, India.

Note. The plant is parasitic on various dicotyledonus trees and is found in the laurisilvae and in the lauri-aciculisilvae, from the sea level up to about 600 m.

When we consider it from the phytogeographical point, Yakusima is somewhat intimately related to the northern lands together with Amami-Ôsima as the above table shows.

Balanophoraceae

Balanophoraceae, LINDL., Veg. Kingd. p. 89 (1847); EICHL., in DC. Prodr. XVII. p. 117 (1873)

Balanophora, FORST, Char. Gen. t. 50 (1776); ENDL., Gen. Pl. n. 718 U83&-40) p.p.; EICHL., in DC. Prodr. XVII. p. 143 (1873); BENTH. et HOOK, f., Gen. Pl. III. 1. p. 235 (1880); ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. III. i. p. 261 (1889); LEMÉE, Diet. Gen. Pl. Phan. I. p. 488 (1929)

Syn. *Sarcocordylis*, WALL., Cat. n. 7249 (1832)

Cynopsola, ENDL., Gen. Pl. n. 74 (1836)

Scynopsola, REICHB., Handb. p. 164 (1837)

Polyplethia, V. TIEGH., in Bull. Soc. Bot. Fr. XLIII. p. 198 (1896)

Balanophora japonica, MAK., in Tokyo Bot. Mag. XVI. p. 212 (1902); MATSUM., Ind. Pl. Jap. II. 2. p. 51 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 70 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 245 (1931)

Syn. *Balanophora dioica*, (non WALL.) ITO, in Journ. Linn. Soc. Lond. Bot. XXIV. p. 196 (1887J)

Nom. Jap. *Tuti-tori-moti*

Leg. Ipse, Kamiyaku, 1931.

Distr. Honsyfi, Sikoku, Kyfisyû, Amami-6sima.

Note. The species is found in the laurisilvae, but I think it will be found also in the lauri-aciculisilvae.

Name of Plant	Regions	
Balanophora japonica, MAK.		Jap Bonins Taiwan Okinawa Amami-Ôsima Tanegasima Kyfisyû Prop. Sikoku Honsyû Korea Yezo & Southern Kuroles Kuriles & Karafuto Manchuria, Amur & Ussuri China

Balanophora japonica is the only element of this family in this island that has its southern limit in Amami-Ôsima: I think *Bale-neikom tobiracola* is also indigenous to Yakusima, but I could not find it in the island.

Aristolochiaceae

Aristolochiaceae, BL., Enum. PL Jav. I. p. 81 (1830 ; LINDL., Nat. Syst. ed. 2. p. 205 '1836;; DUCH., in DC. Prodr. XV. 1. p. 421 (1864;
 Syn. *Aristolochiae*, B. JUSS., in Hort. Trianon (1759., ex JUSS., Gen. PI. LXIII. p. 72 ;1879,
Aristolochieae. JUSS., in Ann. Mus. Paris. V. p. 221 (1804' partim.

Asarum, [TOURN., ex LINN., Syst. ed 1. '1735,] et Sp. PI. ed. 1. p. 442 (1753;; ENDL., Gen. PL n. 2160 (1836-40'; BENTH. et HOOK, f., Gen. PL III. 1. p. 122 ;1880;; SOLEREDER, in ENGL. U. PRANT. Nat. Pfl.-fam. III. i. p. 271 ;1889;
 Syn. *Hexastylis*, RAF., Neogenyt. p. 3 (1825'
Heterotropa. MORREN et DECNE., in Ann. Sc. Nat. V. sér. II. p. 314, t. 10 '1834;

Asarum kiusianum, MAEKAWA. in Tokyo Bot. Mag. XLVI. p. 569 (1932,

Norn. Jap. Tukusi-aoi

Leg. Ipse, April. 1, 1927

Distr. Kyûsyû.

Note. The species is restricted to this island and Kyûsyû, and it is found in the laurisilvae in Yakusima.

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Asarum kumageanum, MASAMUNE, sp. nov.

Syn. *Asarum Fujinoi*, :non ITO) MASAMUNE, Prel. Rep. Veg. Yak. p. 70 (19291 p.p.

Herbae perennes, acaules. Rhizoma repens sparse radicans, radicibus teretibus incrassatis 1.5 mm in diametro. Folia longe petiolata, petiolis 4-8 cm longis vix hirsutis teretibus, basi plus minusve caulem semi amplexantibus intus subsulcatis. Lamina coriaceo-chartacea cordato-oblonga, saepe variegata, ab apice petioli usque apicem laminae 4-6 cm longa, 3-4 cm lata apice acuta vel cuspidato-acuta basi auriculato-cordata, vel vix hastato-auriculata, auriculis 1-2 cm longis 1-1.5 cm latis apice rotundatis, pagine utraque glabra, 5 nervia supra ad nervo hirsuta. Flores quasiterminales solitarii, pedicellis ca. 2 cm longis subglabris. Perianthii tubus 5-7 cm longus 0.8-1.3 cm latus obconicus extus glaber rugulosus, intus reticulatus, limbo patenti 3-lobato, lobis rotundato-triangularibus 1cm longis 1.1cm latis, apice rotundatis, intus rugosissimis. Stamina 12. Ovarium semi-superius. Semina eliposideo-subglobosa ca.4 mm longa 2 mm lata.

Norn. Jap. Kuwaiba-kanai'

Leg. Ipse, April. 1, 1927.

Note. The species is found as undergrowth in the laurisilvae and is restricted to this island.

Asarum yakusimense, MASAMUNE,

Acaulis. Rhizoma brevis cicateribus foliorum approximatis notatis. Folia

coriacea longe petiolata, petiolis 3-7 cm longis glabris. Lamina cordato-triangularis vel ovato-cordata ca. 6-8 cm longa, 5-9 cm lata apice obtuso-acuta vel acuta, basi cordata, lobis cordis 2-3 cm longis, 2.5-4 cm latis, apice rotundatis, distincte 7-nervia, nervis utrimque elevatis supra pubescentibus, subtus glabris utraque pagine glaberrima, stipulis crassis triangulari-lanceolatis, ca. 1.5 cm longis 0.7 cm latis. Flores crassiusculi quasixillares solitarii, pedicellis 6 mm longis glabris. Perianthii tubus campanulatus latior quam longior ca. 9 mm longus 14 mm latus, extus rugosus glaber, intus grosse tessellato-reticulatus, reticulis valde elevatis pubescentibus; limbo patenti cum lobis 3cm in diametro, extus glabro, intus atropurpureo circum orem tubi multiseriatim subcirculariter plicato-ruguloso, rugulis ca. 1 mm elevatis, 3-lobato, lobis triangulari-rotundatis ca. 15 mm latis 14 mm longis. Stamina 12 subsessilia, antheris oblongis cum connectivis ca 2.5 mm longis 1 mm latis. Ovarium superius.

Norn. Jap. Yakusima-ai

Leg. Ipse, Jun. 7, 1928.

Note. The species is restricted to this island, and grows as undergrowth in the lauri-aciculisilvae.

Aristolochia, [TOUR., ex LINN. Syst. ed. 1 (1735)]
 et Sp. Pl. ed. 1. p. 960 (1753); ENDL., Gen. Pl. n. 2162 (1836-40); DUCH., in DC. Prodr. XV. 1. p. 432 (1864); BENTH. et HOOK. f., Gen. Pl. III. 1. p. 123 (1880); SOLEREDER, in ENGL. U. PRANT. Nat. Pfl.-fam. III. i. p. 272 (1889);

Syn. *Isotrema*, RAF., in Amer. Monthly Mag. p. 195 (1819)

Cardiolochia, RAF., ex REICHENB., Consp. p. 85 (1828)

Aristolochia Kaemferi, WILLD., Sp. Pl. IV. p. 152 (1805); DUCH., in DC. Prodr. XV. 1. p. 439 (1864); FR. et SAV., Enum. Pl. Jap. I. p. 419 (1875); HANCE, in Journ. Bot. XVI. p. 233 (1878); FORB. et HEMSL., Ind. Fl. Sin. II. p. 352 (1891); MATSUM., Ind. Pl. Jap. II. 2. p. 52 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 70 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 246 (1931)

Names of Plants	Regions									
	Philippine Islands	Formosa	Yokohama	Korea	Manchuria	Yakusima	Prop.	China	Southern China	Japan
<i>Asarum kiusianum</i> , MAEKAWA										
<i>Asarum kumagranum</i> , MASAMUNE										
<i>Asarum yakusimense</i> , MASAMUNE										
<i>Aristolochia Kaempferi</i> , WILLD.			+	+		+	+	+		4

Norn. Jap. *Ô-umanosuzukusa*

Leg. Ipse, Nakama, Jul. 6, 1928.

Distr. Honsyû. Kyûsyû, Amami-6sima, Okinawa, China.

Note. I found this climbing plant in the lauri-aciculisilvae.

The island is more or less related to the northern regions, because some representatives of this family have their southern limit in this island.

Mitrastemonaceae

Mitrastemonaceae, MAKINO. in Tokyo Bot. Mag. XXV. p. 252 (1911)

Herb a e perennes, ad *Shiiarum* radices truncos ramulosque parasiticae, glabrae. Volva breviter globularis, distans vel aggregata, annua. Caulis volvae simplex, solitaris, annus, squamosus, squamis conspicuis opposito-decussatis. Flos solitaris, terminalis subsessilis ebracteatus, hermaphroditus. Calyx gamosepalus, faucis margine truncatus integerque, persistens. Corolla nulla. Stamina hypogena 1-seriata, tamen inter se mitram convata, et pistillum obiecta, antheris annulum latum connatis extrosis foramine dehiscentibus, connectivo parvo calyptriformi apice foramine minuto praedito vel subnullo, pollinibus carnosus. Ovarium superius, sessile, unilaculare, placentis labyrinthi-formibus ovulis numerosis anatropis integumento unico instructis. Stylus crassus solitaris, terminalis, brevis, stigmate hemispherico-conico. Fructus baccatus.

Mitrastemon, MAKINO, in Tokyo Bot. Mag. XXIII. pp. (326) (357) (1909). et XXV. p. 253 U911J; HAY., in Engl. Bot. Jahrb. LI. p. 165 (1914)

Harbae ad *Shiiarum* radices truncos ramulosque parasiticae, parvae. Caulis simplex, basi volva pauci-lobulata praeditus, squamis 5-6 jugis imbricatis sursum decussatis. Flos hermaphroditus, solitaris, locum nullum, sessilis. Calyx poculiformis, longitudine multi-nervatus, faucis margine truncatus. Corolla nulla. Stamina inter se connata et mitram formantia, tubo filamentorum membranaceo elongato longitudinaliter paralliterque striato, tubo antherarum brevi, loculis minutis numerosis dense obiecto, connectivo breviter producto calyptriformi apice foramine minuto praedito. Ovarium superius, uniloculare, placentis multilamellatis, stylo crasso brevi contracto et articulado, stigmate semisphaerico-conico apice umbellato, ovulis plus-minus stipitatis anatropis integumento unico instructis. Fructus baccatus. Species una, in Japonia meridionali, Formosa, Ryûkyû et Sumatra incola.

Mitrastemon Yamamotoi, MAK., in Tokyo Bot. Mag. XXV. p. 255 (1911); MASAMUNE,

Prel. Rep. Veg. Yak. p. 70 (1929J; MAK. et NEM., FL Jap. ed. 2. p. 410 (1931)

Norn. Jap. *Yakkosâ*

Leg. Ipse, Ambô, 1924.

Distr. Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa.

Note. The species is a parasite- on the genus *Shiia*, and is found in the laurisilvae near the sea level.

Name of Plant	Regions														
	Philippines	Borneo	Taiwan	Okinawa	Amami-Oshima	Tanegashima	Kyûsyû	Sikoku	Honsyû	Korea	Yezo & Southern Kurilo	Baghien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China
Mitrastemon Yamamotoi, MAK.			+	+	+	+	+	+							

The plants of this family are found in the southern part of Honsyii, Sikoku, Kyûsyû, Okinawa, Formosa, and Sumatra.

Polygonaceae

Polygonaceae, LINDL., Nat. Syst. ed. 2. p. 211 (1836); MEISSN., in DC. Prodr. XIV. p. 1 (1857); BENTH., in BENTH. et HOOK. f. Gen. PI. III. 1. p. 83 (1830)

Syn. *Polygoneae*, JUSS., Gen. PI. n. 22 (1789)

Rumex, [LINN., Syst. ed. 1. (1735)] et Sp. PI. ed.

1. p. 333 (1753); ENDL., Gen. PI. n. 1933 (1836-40); MEISN., in DC. Prodr. XIV. p. 41 (1857); BENTH. et HOOK. f., Gen. PI. III. 1. p. 100 (1830); DAMMER, in ENGL. u. PRANT. Nat. Pfl. Fam. III. i. a. p. 17 (1891)

Syn. *Analiton*, RAF., FL Tellur. p. 46 (1836)

Steinmannia, OPIZ., Senzam. p. 93 (1852)

Oxylapathon, ST. LAG., in Ann. Soc. Bot. Lyon. VIII. p. 159 (1881) pp.

Rumex japonicus, HOUTT., Nat. Hist. PI. VIII. p. 394, t. 47, f.2 (1777); KOIDZ., Symb. p. 12 (1930)

Syn. *Rumex japonicus*, MEISN., in MIQ. Ann. Mus. Bot. Lugd. Bat. II. p. 56 (1865); FR. et SAV., Enum. PI. Jap. I. p. 39Z (1875); NAK. Rev. Veg. Is. Ooryan. p. 18 (1919); MAK. et NEM., Fl. Jap. ed. 2. p. 268 (1931)

- *Rumex crispus*, LINN. var. *japonicus*, MAK., in Tokyo Bot Mag. VIII. p. 174 (1894); KUROIWA. in Tokyo Bot. Mag. XIV. p. 139 (1900); MATSUM., Ind. PI. Jap. II. 2. p. 65 (1912)

Norn. Jap. Gisigisi

Leg. Ipse, Ambô, 1928.

Dirtr. Kamtchatka, Northern Kurile, Yezo, Honsyii, Sikoku, Kyûsyû, Tanegashima, Amami-Oshima, Okinawa, Korea.

Note. A common species in the Far East.

Reynoutria, HOUTT., Hanleid. Plantenk. VIII. p.

639, t. 51 (1777)

Syn. Reynoutheria, STEUD., Nomencl. p. 684 (1821)

Reynoutheria japonica, HOUTT., Handleid. Plantenk. VIII. p. 640, t. 51 (1777)

var. *typica*, OHKI, in Tokyo Bot. Mag. XL. p. 49 (1926)

Syn. Polygonum multiflorum, THUNB., Fl. Jap. p. 169 (1784) p. m.

Polygonum cuspidatum, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 208 (1846); MEISS., in DC, Prodr. XIV. p. 136 (1857), et in Ann. Mus. Bot. Lugd. Bat. II. p. 64 (1865); REGEL, in Gartenf. IX. p. 152, t. 291 (1860); FR. et SAV., Enum. Pl. Jap. I. p. 402 (1875); HOOK., in Bot. Mag. t. 6503 (1880); HAY., Fl. Mont. Formos. p. 185 (1908); MATSUM., Ind. Pl. Jap. II. 2. p. 56 (1912)

Polygonum Reynoutheria, MAK., in Tokyo Bot. Mag. XV. p. 84 (1909); MAK. et NEM., Fl. Jap. ed. 2. p. 262 (1931)

Polygonum Reynoutheria, var. *typica*, NAK., in Tokyo Bot. Mag. XXIII. p. 384 (1909)

Norn. Jap. Itadori

Leg. Ipse, Inter Ambo et Kosugidani, Jun. 6, 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Taiwan.

Note. The species occurs on rare occasion in this island, at low altitudes.

Polygonum, [TOURN., ex LINN. Syst. ed. 1. U735] et Gen. Pl. ed. 1 p. 116 (1735) et Sp. Pl. ed. 1. p. 359 (1753) p.p.; ENDL., Gen. Pl. n. 1986 (1836-40.); BENTH. et HOOK, f., Gen. Pl. III. 1. p. 97 (1880) p.p.; DAMMER, in ENGL. U. PRANT. Nat. Pfl.-fam. III. i. a. p. 25 (1891) p.p.

Syn. Avicularia, STEUD., Nomencl. ed. 2. I. p. 174 (1840)

Polygonum plebeium, R. BR., Prodr. Fl. Nov. Holl. p. 420 (1810); MEISS., in DC. Prodr. XIV. p. 94 (1856); BENTH., Fl. Hongk. p. 287 (1861); HOOK, f., Fl. Brit. Ind. V. p. 27 (1886); FORB. et HEMSL., Ind. Fl. Sin. II. p. 346 (1891); DIELS, Fl. Cent. Chin. p. 312 (1900); MATSUM. et HAY., Enum. Pl. Formos. p. 336 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 60 (1912); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 217 (1912); MERR., Enum. Philipp. Pl. II. p. 124 (1923); MAK. et NEM., Fl. Jap. ed. 2. p. 261 (1931)

Syn. Polygonum aviculare, -non LINN.) LOUR., Fl. Cochinch. p. 241 (1790)

Polygonum hemiarioides, DELILE, Desc. Eryp. p. 61 (1813); MEISN., in DC. Prodr. XIV. p. 94 (1856)

Polygonum Miquelianum, MEISN., in DC. Prodr. XIV. p. 92 (1856)

Polygonum effusum, MEISN., in DC. Prodr. XIV. p. 93 (1856)

Polygonum Roxburgii, MEISN., in DC. Prodr. XIV. p. 93 (1856)

Polygonum illecerboides, MEISN., in DC. Prodr. XIV. p. 94 (1856)

Polygonum cliffortioides, MEISN., in WALL. Pl. As. Rar. HI. p. 62 (1832) et in DC. Prodr. XIV. p. 94 (1856)

Polygonum Perrottellii, MEISN., in DC. Prodr. XIV. p. 94 (1856)

Polygonum ciliosum, MEISN., in DC. Prodr. XIV. p. 95 (1856)

***Polygonum aviculare*, var. *minutiflorum*, FR., PL David, p. 253 (1834)**

Polygonum aviculare, var. *buxifolium*, MASAMUNE. Prel. Rep. Veg. Yak. p. 71 (1929)

Nom. Jap. Yanbaru-mitiyanagi

Leg. Ipse, Kurio.

Distr. Okinawa, Taiwan, South China, Philippines, Malay, Cochinchina, India, Egypt.

Note. The species is found in tropical and subtropical countries, and in Japan it has its northern limit in this island.

Tovara, ADANS., Fam. p. 276 (1763)

Syn. *Polygonwn*, Sect. *Tovara*, BENTH., in BENTH. et HOOK. f. Gen. Pl. III. 1. p. 98 (1880)

Tovara filiformis, NAK., New Class. Linn. Poly. 8 (1926); MASAMUNE, Prel. Rep. Veg. Yak. p. 71 (1929)

Syn. *Polygonwn filiforme*, THUNB., Fl. Jap. p. 163 (1784); MEISN., in DC. Prodr. XIV. p. 112 (1856), et in Ann. Mus. Bot. Lugd. Bat. II. p. 59 (1865); FR. et SAV., Enum. Pl. Jap. I. p. 396 (1875), et II. p. 478 (1876)

Polygonwn virginianwn, (non LINN.) FORB. et HEMSL., Ind. Fl. Sin. II. p. 352 (1891); MAK., in Tokyo Bot. Mag. X. p. 63 (1896); KUROIWA, in Tokyo Bot. Mag. XIV. p. 139 (1900); MATSUM., Ind. Pl. Jap. II. 2. p. 63 (1912)

Tovara virginiana, RAFIN. var. *filiformis*, STEW., Polyg. East. Asi. p. 14 (1930); KUDO et MASAMUNE, Gen. Pl. Formos. I. p. 54 (1932)

Nom. Jap. *Mizuhiki*

Leg. Ipse, Jul. 15, 1928.

Distr. Yezo, Honsyū, Sikoku, KyQsyū, Amami-Osima, Okinawa, Taiwan, China,

Note. The species grows as undergrowth in the lauri-aciculisilvae from the sea level up to about an altitude of 700 m.

Persicaria, [TOURN., Inst. Rei. Herb. I. p. 509. t.

290. f. 1 (1705); LINN., Syst. ed. 1. (1735)]; HILL., British Herball. p. 486 (1756

Syn. *Polygonwn*, Sect. *Persicaria*, MEISSN., in DC. Prodr. XIV. p. 101 (1857-; BENTH., in BENTH. et HOOK. f. Gen. Pl. III. 1. p. 93 (1830)

Persicaria auricula turn, (MAK.) comb. nov.

Syn. *Polygonum auriculatm*, MAK., in Tokyo Bot. Mag. XVII. p. 117 (1903); MAK. et NEM, Fl. Jap. ed. 2. p. 252 (1931)

Polygonum Cavaleriei, LÉVEL., in Fed. Rep. VIII. p. 172 U910

Persicaria hastato-auriculata, GROSS.; NAK., Fl. Quelp. Is. p. 41 (1914); MORI, Enum. Pl. Cor. p. 132 ^19221; MASAMUNE, Prel. Rep. Veg. Yak. p. 76 '1929j

Polygonwn strigosum, R. BR. var. *hastato-sagittatwn*, STEW., Polyg. East. As. p. 90 U930j; KUDO et MASAMUNE, Gen. Pl. Formos. I. p. 53 (1932) p.p.

Nom. Jap. *Hosoba-nO'Unagi-tukami*

Leg. Ipse, Jun. 21, 1928.

Distr. Yezo, HonsyG, Sikoku, KyGsyfi, Amami-6sima, Tanegasima, Okinawa, Taiwan, Korea.

Note. The species is often found in ditches among rice-fields.

Persicaria Blumei, GROSS, in LOES. Pfl. Welt. Kiautsch. Geb. p. III (1918); NAK., Fl. Quelp. Is. p. 40 (1914); MORI, Enum. Pl. Cor. p. 131 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 71 (1929); YAMAZUTA, List Manch. Pl. p. 93 (1930)

Syn. *Polygonwn longisetwn*, DE BRUYN., in MIQ. Pl. Jungh. p. 307 (1854^

Polygonum Donii, MEISN. var. *longisetum*, DE BRUYN., ex MIQ. Fl. Ind. Bat. I. p. 1000 (1855)

Polygonwn Blumei, MEISN., in MIQ. Ann. Mus. Bot. Lugd. Bat. II. p. 57 (1865'; FR. et SAV., Enum. PL Jap. I. p. 395 '1875', et II. p. 473 '1876; p.p.; FORB.

et HEMSL., Ind. Fl. Sin. II. p. 334 (1891); MATSUM., Ind. Pl. Jap. II. 2. p. 55 (1912); MAK. et NEM., Fl. Jap. ed. 2. p. 253 (1931)

Polygonum posumbu, MATSUM. et HAY., Enum. Pl. Formos. p. 340 (1906) p.p.
Polygonum caespitosum, B.L. var. *longisetum*, STEW., Polyg. East. As. p. 67 (1930)

Norn. Jap. Inu-tade

Leg. Ipse, Sept. 5, 1926.

Distr. Yezo, Honsyû, Sikoku, Kyûsyfi, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria.

Note. The species is rather common in the lowlands near cultivated fields.

Persicaria Blumei, NAK. var. *albiflora*, HONDA, in Tokyo Bot. Mag. XLV. p. 298 (1931)

Syn. *Persicaria caespitosum*, var. *longisetum* (STEW.) f. *album*, MASAM., MSS.

Norn. Jap. Sirobana-inutade

Leg. Ipse, Isso, Sept. 2, 1931.

Distr. Honsyû.

Note. The variety is often found in rice fields at low altitudes.

Persicaria conspicua, NAK., ex MORI, Enum. Pl. Cor. p. 131 (1922), et in Tokyo Bot. Mag. XL. p. 51 (1926)

Syn. *Polygonum japonicum*, f. *macranthae*, FR. et SAV., Enum. Pl. Jap. II. p. 474 (1876) p.p.

Polygonum japonicum, MATSUM. et HAY., Enum. Pl. Formos. p. 335 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 58 (1912); STEW., Polyg. East. As. p. 55 (1930) p.p.

Polygonum japonicum, var. *conspicuum*, NAK., in Tokyo Bot. Mag. XXII. p. (63) (1908), et Polyg. Kor. p. 10 (1908); MAK. et NEM., Fl. Jap. ed. 2. p. 257 (1931)

Polygonum conspicuum, NAK., in Tokyo Bot. Mag. XXIII. p. (389) (1909), et Fl. Kor. II. p. 168 (1911)

Nom. Jap. Sakura-tade leg. Y. KUDO! Aug. 1907.

Distr. Yezo, Honsyû, Sikoku, KyGsyG, Taiwan, Korea.

Note. It is found on waste land or near ditches in cultivated lands.

Persicaria ptrfoliata, H. GROSS., in LOESEN. Pfl. Welt. Kiautsch. Geb. p. 113 (1918)

Syn. *Polygonum perfoliatum*, LINN., Syst. ed. 10 (1759), et Sp. Pl. ed. 2. p. 521 (1763); MEISN., in DC. Prodr. XIV. p. 132 (1857); FORB. et HEMSL., Ind. Fl. Sin. II. p. 344 (1891); COURCHET, in LECOMTE, Fl. Indo-Chin. V. i. p. 38 (1910); NAK., Fl. Kor. II. p. 171 (1911); MERR., Enum. Philipp. Pl. II. p. 123 (1923), et Enum. Hainan Pl. p. 71 (1927); MIURA, List Pl. Manch. and Mongol, p. 120 (1925); MAK. et NEM., Fl. Jap. ed. 2. p. 260 (1931); STEW., Polyg. As. Or. p. 81 (1930)

Chylocalyx per/oliatus, (LINN) HASSK, in Fl. XXV. 11. Beibl. p. 20 (1842)

Echinocaulos per/oliatus, MEISN., ex HASSK., in Fl. XXV. 11. Beibl. p. 20 (1842)

Tracaulon perfoliatum, (LINN.) GREENE, in Leaf. I. p. 22 (1904)

Echinocaulon perfoliatum, (LINN.) HASSK. ex COURCHET, in LECOMTE, Fl. Ind. Chin. V. i. p. 38 (1910)

Nom. Jap. Isimikawa

Leg. Ipse, Jul. 16, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Amami-Oshima, Taiwan, Korea, Manchuria.

Note. The species is found near the rice fields at low altitudes.

Persicaria sagittatum, LINN. var. **aestivum** (MEISN.) MASAMUNE, com nov.

Syn. *Polygonum sagittatum* var. *aestivum*, MAX., in Tokyo Bot. Mag. VI. p. 49 (1892); KOIDZ., Symb. p. 13 (1930)

Polygonum sagittatum, LINN., var. *sibiricum*, (non MEISN.) MAK., in Tokyo Bot. Mag. XVII. p. 149 (1903); MATSUM., Ind. Pl. Jap. II. 2. p. 61 (1912); MAK. et NEM., Fl. Jap. ed. 2. p. 263 (1931)

Persicaria aestiva, OHKI, in Tokyo Bot. Mag. XL. p. 55 (1926)

Norn. Jap. Unagi-tukami

Leg. Ipse, April. 1927.

Distr. Saghalien, Yezo, Honsyû, Sikoku, Kyûsyû, Amami-Oshima, Taiwan.

Note. It is found in wet places in cultivated lands, and in waste places in the lowlands.

Persicaria senticosa, H. GROSS, in LOESEN., Pfl.-welt. Kiautsch-Geb. p. 113 (1918)

Syn. *Truellum japonicum*, HOUTI, Naturl. Hist. VIII. p. IV. p. 427, t. 48, f. 1 (1777)

Chylocalyx senticosum, MEISN., in MIQ. Ann. Mus. Bot. Lugd. Bat II. p. 65 (1865)

Polygonum Babingtonii, HANCE, in Ann. Sc. Nat. V. 5. p. 239 (1866)

Polygonum typhonifolium, HANCE, in Ann. Sc. Nat. V. 5. p. 239 (1866)

Polygonum senticosum, FR. et SAV., Enum. Pl. Jap. I. p. 401 (1875); FORB. et HEMSL., Ind. Fl. Sin. II. p. 349 (1891); NAK., Fl. Kor. II. p. 171 (1911); STEW., Polyg. East. Asi. Cont. p. 82 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 263 (1931)

Persicaria senticosa, NAK., ex MORI, Enum. Pl. Cor. p. 133 (1922); YAMAZUTA, List Pl. Manch. p. 94 (1930)

Polygonum Truellum, KOIDZ., in Tokyo Bot. Mag. XL. p. 334 (1926)

Persicaria Truellum, MASAMUNE, Prel. Rep. Veg. Yak. p. 71 (1929)

Nom. Jap. Mamakono-sirinugui

Leg. Ipse, Mart. 21, 1923.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Oshima, Okinawa, Taiwan, Korea, Manchuria, China.

Note. The plant is often collected in waste places or in rice fields at low altitudes.

Persicaria Sieboldii, OHKI, in Tokyo Bot. Mag. XL. p. 54 (1926)

Spn. *Polygonum sagittatum*, (non LINN.) THUNB., Fl. Jap. p. 167 (1784); MAXIM., in M&L. Biolog. IX. p. 617 (1876); FR. et SAV., Enum. Pl. Jap. II. p. 476 (1876)

Polygonum Sieboldii, MEIS., in DC. Prodr. XIV. p. 133 (1856), et in Ann. Mus. Bot. Lugd. Bat.: II. p. 63 (1865); FR. et SAV., Enum. Pl. Jap. I. p. 400 (1875); MAXIM., in M&L. Biolog. IX. p. 617 (1876)

Polygonum sagittatum, LINN. var. *sibiricum*, MEISS., in DC. Prodr. XIV. p. 132 (1856)

Polygonum sagittatum, var. *sibiricum*, form. *luxuriantum*, KORSCHINSKY, in Act Hort. Petr. XII. p. 383 (1892)

Polygonum sagittatwn, LINN. var. *americanum*, MEISN. form. *Sieboldi*, MAK., in Tokyo Bot. Mag. XVII. p. 150 (1903); MATSUM., Ind. Pl. Jap. II. 2. p. 62 (1912); MAK. et NEM., Fl. Jap. ed. 2. p. 262 (1931)

Polygonum sagittatwn, var. *Sieboldii*, MAXIM., ex MAK. in Tokyo Bot. Mag. XVII. p. 150 (1903); KOM., Fl. Mansh. II. p. 132 (1904); NAK., Fl. Kor. II. p. 170 (1911)

Persicaria sagittata, GROSS, apud MORI, Enum. Pl. Cor. p. 133 (1922) p.p.

Norn. Jap. *Akino-unagi-tukami*

Leg. Ipse, Jun. 24, 1928.

Distr. Yezo, Honsyū, Sikoku, Kyfisyū, Korea, Manchuria.

Note. The species is found in cultivated low lands especially in wet ground near ditches or streamlets.

Persicaria Thunbergii, (SIEB. et ZUCC.) H. GROSS, in LOESN. Pfl.-welt. Kiautch. Geb. p. 114 (1918); MORI, Enum. Pl. Cor. p. 133 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 71 (1929); YAMAZUTA, List Manch. Pl. p. 95 (1930)

Syn. *Polygonum arifolium*, (non LINN.) THUNB., Fl. Jap. p. 168 (1784)

Polygonum Thunbergii, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 208 (1846); FORB. et HEMSL., Ind. Fl. Sin. II. p. 351 (1891); NAK., Fl. Kor. II. p. 171 (1911); HULTÉN, Fl. Kamtch. II. p. 55 (1928)

Polygonum stoloniferum, F. SCHNEID., in MEISN. Acad. Sci. St. Péts. XII. p. 168 (1868)

Polygonum Thunbergii, SIEB. et ZUCC. var. *typicum*, FR. et SAV., Enum. Pl. Jap. II. p. 475 (1876); MAK. et NEM., Fl. Jap. ed. 2. p. 264 (1931)

Tracaulon Thunbergii, GREENE, Leaf. I. p. 22 (1904)

Norn. Jap. *Mizosoba*

Leg. Ipse, Aug. 20, 1928.

Distr. Kamtchatka, Kuriles, Yezo, Honsyū, Sikoku, Kyūsyfi, Tanegasima, Amami-dsima, Taiwan, Korea, Manchuria.

Note. The species is found in low lands, near cultivated lands, especially in ditches among rice fields. It is common in the Far East.

Persicaria viscofera, (MAK.) GROSS, ex NAK. Fl. Quelp. Is. p. 42 (1914), et in LOESN., Pfl.-welt. Kiaut. Geb. p. 114 (1918); MORI, Enum. Pl. Cor. p. 134 (1922)

Syn. *Polygonum viscoferum*, MAK., in Tokyo Bot. Mag. XVII. p. 115 (1903); MATSUM., Ind. Pl. Jap. II. 2. p. 265 (1912)

Polygonum viscosum, (non HAM.) FORB. et HEMSL., Ind. Fl. Sin. II. p. 352 (1891); KOM., Fl. Mansh. II. p. 120 (1904); MATSUM. et HAY., Enum. Pl. Formos, p. 352 (1906) p.p.; STEW., Polyg. East. As. p. 48 (1930) p.p.; KUDO et MASAMUNE, Gen. Pl. Formos. I. p. 54 (1932) p.p.

Polygonum Yokusaianum, MAK., in Tokyo Bot. Mag. XXVIII. p. 116 (1914); MAK. et NEM., Fl. Jap. ed. 2. p. 266 (1931)

Persicaria Posumbu, var. *tenera*, OHKI, in Tokyo Bot. Mag. XL. p. 52 (1926)

Polygonum caespitosum, STEW., Polyg. East. As. p. 66 (1930) p.p.; KUDO et MASAMUNE, Gen. Pl. Formos. I. p. 51 (1932)

Nom. Jap. *Hana-tade*

Leg. Ipse, April. 3, 1927.

Distr. Yezo, Honsyū, Sikoku, Kyūsyfi, Taiwan, Korea, Manchuria, China.

Note. The plant is often found in low lands near dwellings, and in cultivated lands.

Names of Plants	Regions											
	Phil C Bon	Si H Tai	a 1 1	Is S 5	Tanegasima	Kyūsyū Prop.	Sikoku	Honsyū	Korea	Yezo	Am Kuriles	id.
<i>Rumex japonicus</i> , HOUTT.			+	+	+	+	+	+	+			
<i>Reynoutria japonica</i> , HOUTT. var. <i>typica</i> , OHKL			+			+	+	+				
<i>Polygonum plebeium</i> , R. BR.	+	+	+									+
<i>Tovara filiformis</i> , NAK.		+	+	+		+	+	+	+	+		+
<i>Persicaria auriculatum</i> , (MAK.)		+	+	+	+	+	+	+	+	+		
<i>Persicaria Blumei</i> , GROSS,		+	+	+	+	+	+	+	+			+
<i>Persicaria Blumei</i> , NAK. var. <i>albiflora</i> , HONDA								+				
<i>Persicaria conspicua</i> , NAK.		+				+	+	+	+	+		
<i>Persicaria perfoliata</i> , GROSS.	+	+		+	+	+	+	+	+	+		+
<i>Persicaria sagittatum</i> , LINN, var. <i>aestivum</i> (MEISN.) MASAMUNE		+		+	+	+	+		+	+		
<i>Persicaria senticosa</i> , GROSS		+	+	+	+	+	+	+				+
<i>Persicaria Sieboldii</i> , OHKL						+	+	+	+			+
<i>Persicaria Thunbergii</i> (SIEB. et ZUCC.) GROSS		+		+	+	+	+	+	+		+	+
<i>Persicaria viscofera</i> (MAK.) GROSS		+				+	+	+	+			+
Total	14	2	11	6	8	5	12	12	13	10	9	1
Percentage	14	79	43	57	36	86	86	90	71	64	7	7
	(Southern elements 12)						(Northern elements 13)					

From the above table, it will be clear that the island is closely related to the northern regions in respect of this family. But considering the nature of this family which has species widely distributed in the Far East, it is natural that it should not show any distinct affinity to either district as some other families do.

Lugd. Bat. II. p. 194 (1866); FR. et SAV., Enum. Pl. Jap. I. p. 386 (1875);
MAK. et NEM., Fl. Jap. ed. 2. p. 271 (1931)

Nom. Jap. Koakaza

Leg. Iperse, Ambô.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Taiwan, Korea, Manchuria, Ussurie.

Note. Grows near cultivated lands and dwellings; rather a common species in Japan.

Considering this family the island shows no special affinity either with the northern or with the southern regions.

Amarantaceae

Amarantaceae, JUSS., in Ann. Mus. Paris. II. p. 131 (1803); ENDL., Gen. Pl. p. 300 (1837); MOQ., in DC. Prodr. XIII. 2. p. 231 (1849)

Syn. Amaranthi, JUSS., Gen. Pl. p. 87 (1798) p.p.

Celosia, [LINN., Gen. Pl. ed. 1. p. 34 (1737)] et
Sp. Pl. ed. 1. p. 205 (1753); ENDL., Gen. Pl. n. 1975 (1836-40); MOQ., in DC.
Prodr. XIII. 2. p. 237 (1849); BENTH. et HOOK, f., Gen. Pl. III. 1. p. 24 (1880);
SCHING., in ENGL. u. PRANT. Nat. Pfl.-fam. III. i. a. p. 99 (1893); LEMGE, Diet.
Gen. Pl. Phan. II. p. 6 (1930)

Syn. Amaranthus, ADANS., Fam. II. p. 269 (1763)

Sukana, ADANS., Fam. II. p. 269 (1763) ;

Lophoxera, RAF., Fl. Tellur. III. p. 42 (1836)

Gonufas, RAF., Sylva. Tellur. p. 124 (1838)

Celosia argentea, LINN., Sp. Pl. ed. 1. p. 205 (1753); THUNB., Fl. Jap. p. 106 (1784);
WIGHT, Ic. Ind. Or. t. 1767 (1852); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 131
(1865); FR. et SAV., Enum. Pl. Jap. I. p. 289 (1875); FORB. et HEMSL., Ind. Fl. Sin.
II. p. 318 (1891); MATSUM. et HAY., Enum. Pl. Formos. p. 324 (1906); MATSUM.,
Ind. Pl. Jap. II. 2. p. 72 (1912); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 213
(1912); LOESEN, PhVwelt. Kiaut. Geb. p. 117 (1918); MORI, Enum. Pl. Cor. p. 140
(1922); MERR., Enum. Philipp. Pl. II. p. 127 (1923), et Enum. Hainan Pl. p. 72
(1927); MASAMUNE. Prel. Rep. Veg. Yak. p. 72 (1929); MAK. et NEM., Fl. Jap.
ed. 2. p. 276 (1931)

Norn. Jap. No-geitd

Leg. Iperse, Kurio, Jul. 4, 1928.

*Distr. Honsyû, Sikoku, Kyûsyû, Amami-dsima, Okinawa, Taiwan, Korea, China,
Philippines, India.*

Note. The species grows in cultivated lands and by the roadside. There is a grave doubt whether the plant has not been introduced from outside.

Amaranthus, (*Amarantus*) LINN., Sp. Pl. ed. 1.
989 (1753); ENDL., Gen. Pl. n. 1972 (1836-40); MOQ., in DC. Prodr. XIII. 2. p.
255 (1849); BENTH. et HOOK, f., Gen. Pl. III. 1. p. 28 (1880); SCHING., in ENGL.
u. PRANT. Nat. Pfl.-fam. III. i. a. p. 102 (1893); LEMGE, Diet Gen. Pl. Phan. I
p. 186 (1929)

Syn. Blitum, LINN., Gen. ed. 1. p. 20 (1737)

Amarantus, LINN., Syst. ed. 10. p. 1268 (1759)

Bajan, ADANS., Fam. II. p. 506 (1763)
Roemeria, MOENCH., Meth. p. 341. (1794)
Dimeiantra, RAF., Neogenyt. p. 2 (1025)
Albersia, KUNTH, Fl. Berol. ed. 2. p. 144 (1838)
Sarratia, MOQ., in DC. Prodr. XIII. 2. pp. 233 et 268 (1849)
Pentrias, BENTH. et HOOK, f., Gen. PI. III. 1, p. 28 (1880)

Amaranthus Blitum, LINN., Sp. PI. ed. 1. p. 990 (1753); MOQ., in DC. Prodr. XIII. 2 p. 263 (1849); MAXIM., Prim. Fl. Amur. pp. 227 et 476 (1859); REGEL, Tent. Fl. Uss. no. 451 (1861); HOOK, f., Fl. Brit. Ind. IV. p. 721 (1885); FORB. et HEMSL., Ind. Fl. Sin. II. p. 319 (1891); KOM., Fl. Mansh. II. p. 164 (1904); NAK., Fl. Kor. II. p. 159 (1911); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 214 (1912); LOESN., Pfl.-welt. Kiaut. Geb. p. 117 (1918); MASAMUNE, Prel. Rep. Veg. Yak. p. 72 (1929); YAMAZUTA, List Manch. PI. p. 100 (1930)

Syn. *Amarantus Blitum*, LINN. var. *oleraceus*, HOOK, f., Fl. Brit. Ind. IV. p. 721 (1885); MATSUM., Ind. PI. Jap. II. 2. p. 71 (1912); MAK. et NEM., Fl. Jap. ed. 2. p. 275 (1931)[^]

Nom. Jap. *Inu-biyu*

Leg. Ipse, Miyanoura

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Amami-dsima, Korea, Manchuria, China.

Note. The species is found at low altitudes near human dwellings.

Achyranthes, [LINN., Gen. PI. ed. 1. p. 34 (1737)]
 et Sp. PI. ed. 1. p. 204 (1753); ENDL., Gen. PI. n. 1966 (1836-40); MOQ., in DC. Prodr. XIII. 2. p. 309 (1849); BENTH. et HOOK, f., Gen. PI. III. 1. p. 35 (1880); SCHING., in ENGL. U. PRANT. Nat. Pfl.-fam. III. i. a. p. 112 (1893); LEMfE, Diet Gen. PI. Phan. I. p. 33 (1929)

Syn. *Achiranthos*, P. BR. Hist. Jamaica, p. 180 (1756)

Amaranthulus, HEIST., ex FABRICIUS, Enum. PI. Hort. Belmstad. ed. 2. p. 358 (1763)[']

Amorgine, RAF., New Fl. Amer. IV. p. 44 (1836)

Achyranthes japonica, NAK., in Tokyo Bot. Mag. XXXIV. p. 39 (1920); MORI, Enum. PI. Cor. p. 139 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 72 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 274 (1931)

Syn. *Achyranthes bidentata*, BL. var. *japonica*, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 132 (1865); FR. et SAV., Enum. PI. Jap. I. p. 391 (1875)

Achyranthes bidentata, (non BL.) MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 132 (1865); FR. et SAV., Enum. PI. Jap. I. p. 391 (1875); FORB. et HEMSL., Ind. Fl. Sin. II. p. 322 (1891); NAK., Fl. Kor. II. p. 160 (1911); MATSUM., Ind. PI. Jap. II. 2. p. 70 (1912); LOESEN., Pfl.-welt. Kiaut. Geb. p. 117 (1918)

Nom. Jap. *Inokozuti*

Leg. Ipse, Aug. 29, 1926.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Korea, China.

Note. The species is found on the edges of forests at low altitudes.

Achyranthes japonica, var. **hachijoensis**, HONDA, in Tokyo Bot. Mag. XLVI. p. 371 (1932)

Nom. Jap. *Teriba-inokozuti*; *Hatizyo-inokozuti*

Leg. Ipse, Sept. 1928.

Distr. Kyfisyfi, Okinawa, Honsyū (Isl. Hatizyo)

Note. Occurs on the edges of forests near the sea shore or in open places.

Philoxerus, R. BR., Prodr. p. 416 (1810); MOQ,

in DC. Prdor. XIII. 2. p. 339 (1849)

Syn. *Iresine*, ENDL., Gen. Pl. n. 1954 (1836-40) p.p.; BENTH. et HOOK, f., Gen. Pl. III. 1. p. 42 (1880) p.p.; SCHING, in ENGL. U. PRANT. Nat. Pfl.-Fam. III. 4. i. a. p. 117 (1893) partim.

Blutaparon, RAF., Nem. Fl. Amer. IV. p. 45 (1836)

Philoxerus Wrightii, HOOK, f., in BENTH. et HOOK. f. Gen. Pl. III. 1. p. 40 (1880); MAXIM, in Mém. Biolog. XII. p. 528 (1886); FORB. et HEMSL. Ind. Fl. Sin. II. p. 323 (1891); MATSUM. et HAY., Enum. Pl. Formos. p. 328 (1906); MATSUM, Ind. Pl. Jap. II. 2. p. 73 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 72 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 277 (1931)

Norn, Jap. Isohusagi

Leg. Ipse, Kurio, Jul. 4, 1928.

Distr. Amami-Osima, Okinawa, Taiwan.

Note. It grows on rocks, especially on coral-reefs, which are usually covered wth sea water when the tide is high, and it is not yet found in lands further north than this island.

Names of Plants	Regions										
	Ph	Bo	Ta	Ok	Amamp	Tanegasima	Kyūsyū Prop.	Y	O	S	H
<i>Celosia argentea</i> , LINN.	+	+	+	+			+	+	+		+
<i>Amaranthus Blitum</i> , LINN.					+		+	+	+	+	+
<i>Achyranthes japonica</i> , NAK.				+	+	+	+	+	+	+	+
<i>Achyranthes japonica</i> , var. <i>hachijoensis</i> , HONDA.				+			+		+		
<i>Philoxerus Wrightii</i> , HOOK, f.			+	+	+						
Total	5	1	2	4	4	1	4	3	4	3	2
Percentage	20	4	80	80	20	80	60	80	60	40	20

(Southern elements 5i) {Northern elements 4}

In this family only *Philoxerus* has its northern limit in this island, and from this point of view the island has some close relation with the southern regions.

Aizoaceae

Aizoaceae, A. BR. v in ASCHERSON, Fl. Prov. Brandenburg. I. p. 60 (1864)

Syn. Ficoideae, JUSS., Gen. Pl. p. 315 (1789) partim; HOOK, f., in BENTH. et HOOK. f. Gen. Pl. I. 3. p. 851 (1867)

Mollugo, [LINN., Gen. Pl. ed. 1. p. 336 (1737)]
et Sp. Pl. ed. 1. p. 89 (1753); DC, Prodr. I. p. 391 (1824); ENDL., Gen. Pl. n. 5186 (1836-40); BENTH. et HOOK. f., Gen. Pl. I. 3. p. 857 (1867); PAX, in ENGL. u. PRANT. Nat. Pfl.-fam. III. i. b. p. 39 (1889); LEMfE, Diet. Gen. Pl. Phan. IV. p. 517 (1932)

Syn. Alsine, [BURM., Thes. Zeyl. p. 13, t. 8 (1737)]

Trichlis, [HALL., Hort. Goetting. p. 26 (1743)]

Cervaria, [LINN., PL Mart. Burser. p. 2 (1745), et AMOEN. I. p. 142 (1749)]

Galiastrown, (HEIST.) ex FABRICIUS, Enum. Pl. Hort. Helmstad. ed. 1. p. 108 (1759)

Tryphera, B.L., Bijdr. p. 549 (1825)

Doosera, ROXB., ex WIGHT et ARNOTT, Prodr. p. 362 (1834)

Paulo-Wilhelmio, HOCHST., in Flora XXVII. p. 17 (1844)

Mollugo pentaphylla, LINN., Sp. Pl. ed. 1. p. 89 (1753); DC, Prodr. I. p. 391 (1824); ITO et MATSUM., Tent. Fl. Lutch. I. p. 527 (1899); MERR., Enum. Philipp. Pl. II. p. 135 (1923)

Syn. Mollugo stricta, LINN., Sp. Pl. ed. 2. p. 131 (1762); BENTH., Fl. Hongk. p. 23 (1861); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 79 (1865); FR. et SAV., Enum. Pl. Jap. I. p. 177 (1875); C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. II. p. 663 (1879); FR., PL David. I. p. 137 (1884); FORB. et HEMSL., Ind. Fl. Sin. I. p. 324 (1891); MATSUM. et HAY., Enum. Pl. Formos. p.

Name of Plant	Regions															
	Philippines	Bonins	Taiwan	Okinawa	Amami-Osima	Ryūkyūs	Tanegasima	Kyūsyū Prop.	Sikoku	Honsyū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Usuri	China
<i>Mollugo pentaphylla</i> , LINN.	+	+	+	+				+	+	+	+				+	+

168 (1906); MATSUM., Ind. PL Jap. II. 2. p. 76 (1912); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 114 (1924); MORI, Enum. PL. Cor. p. 141 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 73 (1929); HANDEL-MAGZ., Symb. Sin. VII. p. 165 (1929); YAMAZUTA, List Manch. PL. p. 102 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 282 (1931)

Nom. Jap. *Zakurosô*

Leg. Ipse, Sitogo, Aug. 18, 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China.

Note. The species is found on cultivated lands, waste lands and by the roadside, at low altitudes.

Of this family only one cosmopolitan species is found in Yakusima.

Portulacaceae

Portulacaceae, REICHB., Consp. p. 161 (1828); LINDL., Nat. Syst. ed. 2. p. 123 (1836)

Syn. Portulacaceae, JUSS., Gen. PL. p. 312 (1789); DC, Prodr. III. p. 351 (1828); BENTH., in BENTH. et HOOK. f. Gen. PL. I. 1. p. 155 (1862)

Portulaca, [LINN., Syst. ed. 1. (1735)] et Sp. PL.

ed. 1. p. 445 (1753); DC, Prodr. III. p. 353 (1828); ENDL., Gen. PL. n. 5174 (183&40); BENTH., in BENTH. et HOOK. f. Gen. PL. I. 1. p. 156 (1862); PAX., in ENGL. u. PRANT. Nat. Pfl.-fam. III. i. b. p. 59 (1889)

Syn. Meridiana, LINN, f., Supp. p. 248 (1781)

Lemia, VAND., Fl. Lusit. et Prasil. Sp. p. 36, t. 2. f. 15 (1788)

Merida, NECK., Elem. II. p. 382 (1790)

Portulacca, HAW., Synops. p. 121 (1812)

Lamia, ENDL., Gen. PL. p. 949 (1840)

Portulaca oleracea, LINN., Sp. PL. ed. 1. p. 445 (1753); THUNB., Fl. Jap. p. 192 (1784); LOUR., Fl. Cochinch. p. 293 (1790); DC, Prodr. III. p. 353 (1828); SIEB. et ZUCC., Fl. Jap. Fam. Nat. I. p. 167 (1845); MAXIM., Prim. Fl. Amur p. 113 (1859); BENTH., Fl. Hongk. p. 127 (1861); DYER, in HOOK. f. Fl. Brit. Ind. I. p. 246 (1874); FR. et SAV., Enum. PL. Jap. I. p. 53 (1875); FORB. et HEMSL., Ind. Fl. Sin. I. p. 71 (1886); PALIB., Consp. Fl. Kor. I. p. 44 (1898); ITO et MATSUM., Tent. Fl. Lutch. I. p. 317 (1899); KOM., Fl. Mansh. II. p. 166 (1904); MATSUM. et HAY., Enum. PL. Formos. p. 38 (1906); NAK., Fl. Kor. I. p. 92 (1909), et in Bull. Biogeogr. Soc. Jap. I. p. 257 (1930); GAGNEPAIN, in LECOMTE Fl. Ind. Chin. I. 6. p. 274 (1909); MATSUM., Ind. PL. Jap. II. 2. p. 77 (1912); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 41 (1912); MERR., Enum. Philipp. PL. II. p. 136 (1923). et Enum. Hainan PL. p. 74 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 73 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 283 (1931)

Nom. Jap. *Suberi-hiyu*

Leg. Ipse, Jul. 20, 1927.

Distr. Honsyû, Sikoku, Kyûsyû, Okinawa, Taiwan, Bonins. Korea, Manchuria, China, Philippines.

Note. The species is found in cultivated lands, and in waste lands, and by the roadside, near the sea level.

Name of Plant	Regions											
	Philippines	Formosa	Yamaguchi	Yamaguchi	Yamaguchi	Yamaguchi	Yamaguchi	Yamaguchi	Yamaguchi	Yamaguchi	Yamaguchi	Yamaguchi
<i>Portulaca oleracea</i> , LINN.	+	+	+	+	+	+	+	+	+	+	+	+

This family has only one representative in this island, which is rather cosmopolitan.

Caryophyllaceae

Caryophyllaceae, REICHB., *Consp.* p. 206 (1828[^])

Syn. Caryophylleae, B. JUSS., in *Hort. Trianon* (1759), et ex *Gen. Pl.* p. LXVIII. et 299 (1789); FENZL., in *ENDL. Gen. Pl.* p. 955 (1840); BENTH., in *BENTH. et HOOK. f. Gen. Pl. I. 1.* p. 141 (1862)

Stellaria, LINN., *Sp. PL* ed. 1. p. 421 (1753); SERINGE, in *DC. Prodr. I.* p. 396 (1824); ENDL., *Gen. Pl.* n. 5240 (1836-40); BENTH., in *BENTH. et HOOK. f. Gen. Pl. I. 1.* p. 149 (1862); PAX, in *ENGL. U. PRANT. Nat. Pfl.-fam. III. i. b.* p. 79 (1889)

Syn. Stellularia [LINN., *Syst. ed.* 6 (1749).]

Alsinnella, SWARTZ, *Summa Veg. Scand.* p. 17 (1814) partim

Larbrea, A. ST. HIL., in *Mém. Mus. Par. II.* p. 248 (1815)

Mdlachium, FRIES, *Fl. Hall.* p. 77 (1817)

Stellaria aquatica, SCOP., *Fl. Carniol.* ed. 2. i. p. 319 (1772); BENTH., *Fl. Hongk.* p. 21 (1861); FORB. et HEMSL., *Ind. FL Sin. I.* p. 67 (1886); KOM., *Fl. Mansh. II.* p. 167 (1904); MATSUM. et HAY., *Enum. PL Formos.* p. 36 (1906); NAK., *Fl. Kor. I.* p. 89 (1909); MATSUM., *Ind. PL Jap. II. 2.* p. 88 (1912[^]); DUNN et TUTCH., *Fl. Kwang. & Hongk.* p. 40 (1912); HANDEL-MAGZ., *Symb. Sin. VII.* p. 188 (1929); MASAMUNE, *Prel. Rep. Veg. Yak.* p. 73 (1929); MAK. et NEM., *Fl. Jap. ed. 2.* p. 299 (1931);

Syn. Cerastium aquaticum, LINN., *Sp. PL* ed. 1. p. 439 (1753[^])

Malachium aquaticum, FRIES, *Fl. Hall.* p. 77 (1817); MAXIM., in *Mém. Biolog. IX.* p. 54 (1873)

Nom. Jap. Usi-hakobe

Leg. Y. KUDO! Kurio, Aug. 1907.

Distr. Yezo, Honsyû, Sikoku, Kyûsû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China.

Note. The plant is found in cultivated lands, and in waste lands near the sea level.

Stellaria *diandra*, MAXIM, var. *yakumontana*, MASAMUNE, var. nov.

Herbae ramosae* Folia petiolata, petiolis 4-10 mm longis, laminis ovato-deltoideis apice acuminatis basi cuneato-truncatis. Flores pectiflori, pedicellis gracilibus ca. .2 mm longis.

Nom. Jap. Yakusima-sawahakobe

Leg. Ipse, ca. Kosugidani, Jun. 6, 1928.

Note. The species grows near clear running water in the laurisilvae or in the lauri-aciculisilvae.

Stellaria media, CYR., Char. Comm. p. 36 U7841; MIQ., in Ann. Mus. Bot. II. p. 79 (1865); MAXIM, in Mém. Biolog. IX. p. 42 (1873); EDGR et HOOK, f, in HOOK f. Fl. Brit. Ind. I. p. 230 (1874); MIY., Fl. Kuril, p. 220 (1890); ITO et MATSUM, Tent. Fl. Lutch. I. p. 313 (1899); KOM, Fl. Mansh. II. p. 169 (1904); NAK., Fl. Kor. I. p. 89 (1909); et in Bull. Biogeogr. Soc. Jap. I. p. 257 (1930); MATSUM, Ind. Pl. Jap. II: 2: p. 89 (1912); DUNN et TUTCH, Fl. Kwangt. and Hongk. p. 40 (1912); MERR., Enum. Philipp. Pl. I. p. 138 (1923); HANDEL-MAGZ, Symb. Sin. VII. p. 188 (1929); MASAMUNE, Prel. Rep. Veg. Yak. p. 73 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 301 (1931)

Syn. Alsine media, LINN., Sp. Pl. ed. 1. p. 272 U753; THUNB., Fl. Jap. p. 127 (1784)

Stellaria neglecta, WEIHE; FR. et SAV., Enum. Pl. Jap. I. p. 51 (1875)

Nom. Jap. Hdkobe

Leg. Y. KUDO! Aug. 1907.

Distr. Saghalien, Kuriles, Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Osima, Okinawa, Taiwan, Bourns, Korea, Manchuria, China, Philippines.

Note. The plant is found in the low lands such as cultivated lands or by the roadside.

Stellaria uliginosa, MURR., Prodr. Gott. p. 55 (1770); LEDEB., Fl. Ross. I. p. 393 (1842); A. GRAY, Bot. Jap. p. 382 U859; BENTH., Fl. Hongk. p. 22 (1861); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 79 (1865); MAXIM, in Mém. Biolog. IX. p. 49 (1873); EDGEWORTH et HOOK, f, in HOOK f. Fl. Brit. Ind. I. p. 233 (1874); FR. et SAV., Enum. Pl. Jap. I. p. 51 (1875); ITO et MATSUM, Tent. Fl. Lutch. I. p. 314 (1899); KOM, Fl. Mansh. II. p. 173 (1904); MATSUM et HAY., Enum. Pl. Formos. p. 36 (1906); NAK., Fl. Kor. I. p. 83 U909; DUNN et TUTCH, Fl. Kwangt. and Hongk. p. 40 (1912); MATSUM, Ind. Pl. Jap. II. 2. p. 90 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 74 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 302 (1931)

Syn. Stellaria undulata, THUNB., Fl. Jap. p. 185 (1784); ?IEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 166 (1846)

Larrea uliginosa, HOOK, f, in Journ. Linn. Soc. I. p. 116 (1857)

Nom. Jap. Nomino-husuma

Leg. Ipse. Mart. 21, 1923.

Distr. Kuriles, Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Osima, Okinawa, Taiwan, Korea, Manchuria, China.

Note. The species is found in cultivated fields.

• • • • • Krascheninikowia, TURCZ., ex. BESSER, in Fl. XVII. I. Beibl. p. 9 (1834); LfM^E, Diet. Gen. Pl. Phan. III. p. 890 (1931)-

- Krascheninikovia heterantha**, MAX., in M \acute{e} l. Biolog. IX. p. 33 (1872); MATSUM., Ind. PI. Jap. II. 2. p. 83 (1912); TAKEDA, in Tokyo Bot. Mag. XXVI. p. (342) (1912); KOIDZ., Symb. Fl. Jap. p. 24 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 291 (1931)
Syn. *Krascheninikovia rupestris*, (non TURCZ.) MAX., Fl. As. Or. Fragm. p. 6. (1879)
Stellaria rupestris, (non *K. rupestris*, TURCZ.) HEMSL., in Journ. Linn. Soc. XXIII. p. 69 (1886)
Krascehninikovia heteropylla, (non MIQ.) MASAMUNE, Prel. Rep. Veg. Yak. p. 73 (1929)
Norn. Jap. Watigalso
Leg. Ipse, Yaedake. Jun. 12, 1928.
Distr. Honsyfi, Sikoku, Kyfisyfi.
Note. The species is found in the Pseudosasa Owatarii Association, and is not reported further south than this island.

- Cerastium**, [DILL., ex LINN. Syst. ed. 1 (1735)]
 et Sp. PL ed. 1. p. 437 (1753); SEEING., in DC. Prodr. I. p. 414 (1824); ENDL., Gen. PL. n. 5241 (1836-40); BENTH. et HOOK. f., Gen. PL I. 1. p. 148 (1862); PAX, in ENGL. u. PRANT. Nat. Pfl-fam. III. i. b. p. 80 (1889); LEMf \acute{e} E, Diet. Gen. PL Phan. II. p. 35 (1930)
Syn. *Centunculus*, ADANS., Fam. II. p. 256 (1763)
Quaternella, EHRH., Beitr. IV. p. 149 (1789)
Doerriena, BORKH., in Phein. Magaz. I. p. 528 (1793)
Myosotis, (TOURN.) ex MOENCH., Meth. p. 224 (1794)
Esmarchia, REICHB., Fl. Germ. exc. p. 793 (1832)
Dufourea, GREN., in Act. Soc. Linn. Bordeaux IX. p. 25 (1837)
Doerriera, STEUD., Nomencl. ed. 2. I. p. 522 (1840)
Pentaple, REICHB., Ic. Fl. Germ. V. p. 37, t 227 (1841)

- Cerastium caespitosum**, GILIB. var. **giandulosiim**, KUDO, Contr. N. Saghal. p. 35 (1923), et Kita-Karahuto-Syokubutu-Tyoŝasyo p. 122 (1923); MASAMUNE, Prel. Rep. Veg. Yak. p. 73 (1929)
Syn. *Cerastium viscosum*, (non LINN.) THUNB., Fl. Jap. p. 188 (1784); FR. et SAV., Enum. PL Jap. I. p. 50 (1875), et II. p. 294 (1876)
Cerastium viscosum, LINN. var. *glandulosum*, BOENINGH., Fl. Monast. Westph. n. 565 (1824); MAXIM., in M \acute{e} l. Biolog. IX. p. 52 (1873); FR. et SAV., Enum. PL Jap. I. p. 50 (1875) et II. p. 294 (1876)
Cerastium triviale, LINK. var. *glandulosum*, KOCH, Syn. Fl. Germ. Helv. ed. 2. p. 134 (1843); WILLIAMS, in Bull. Herb. Boiss. VII. p. 132 (1899); MATSUM., Ind. PI. Jap. II. 2. p. 81 (1912)
Cerastium triviale, LINK.; NAK., in Bull. Biogeogr. Soc. Jap. I. p. 257 (1930)
Cerastium vulgatum, LINN. var. *glandulosum*, REGEL.; YAMAZUTA, List Manch. PL p. 104 (1930); MAK. et NEM., FL Jap. ed. 2. p. 288 (1931)
Nom. Jap. *Afimma-gusa*
Leg. Ipse, Jul. 20, 1928.
Distr. Saghalien, Yezo, Honsyfi, Sikoku, Kyŝusyfi, Tanegasima, Amami-6sima, Okinawa, Bonins, Manchuria.
Note. The species is found in cultivated lands or along the roadside.

- Sagina**, [LINN., Syst. ed. 1 (1735)] et Sp. PL ed. 1. p. 128 (1753); DC. **Prodr.** I. p. 389 (1824); ENDL., Gen. PL n. 5224 (183&-40);

Names of Plants	Regions														
	Ph	Bo	Ta	O	Osima	Tanegasima	Kyûsyû Prop.	Sikoku	Honsyû	Korea	Yezo & Southern Isles	Saghalien	Northern Kuriles & Kamtschatka	Manchûria, Amur & Ussuri	China
<i>Stellaria media</i> , CYR.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<i>Stellaria ulginosa</i> , MURR.			+	+	+	+	+	+	+	+	+			+	+
<i>Krascheninikowia heterantha</i> , MAXIM.							+	+	+						
<i>Cerastium caespitosum</i> , GILIB. var. <i>glandulosum</i> , KUDO.		+		+	+	+	+	+	+	+	+	+	+	+	
<i>Sagina maxima</i> , A. GRAY.		+	+	+	+	+	+	+	+	+	+	+	+	+	+
<i>Dianthus japonicus</i> , THUNB.							+	+	+						
Total	1	3	4	5	5	5	7	7	7	5	5	2		5	4
Percentage	13	38	50	63	63	63	88	88	88	63	63	25		63	50
(Southern elements 5)						(Northern elements 7)									

Enum. Gen. Dianth. p. 9 (1893); MATSUM., Ind. Pl. Jap. II. 2. p. 81 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 73 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 289 (1931)

Norn. Jap. Huzi-nadesiko

Leg. Ipse, Nagata, Aug. 21, 1928.

Distr. Honsyû, Sikoku, Kyûsyû.

Note. The species is found on sandy beaches and rather rarely, and it is not yet found in lands further south than the island.

From the distribution of *Calyophyllaceae* plants indigenous to the island, I formed the opinion that the island is more closely related to the northern lands (Honsyû, Sikoku, Kyûsyû), than to the southern lands (Ryûkyû and Formosa).

Trochodendraceae

Trochodendraceae, PRANT., in ENGL. U. PRANT. Nat. Pfl.-fam.* III. ii. p. 21 (1888) p.p.

Syn. Trochodendreae, BENTH. et HOOK. f., Gen. Pl. I. 3, p. 954 (1867) p.p.

Trochodendroideae, HARMS., in Ber. Deutsch. Bot. XV. p. 359 (1897)

Trochodendron, SIEB. et ZUCC., Fl. Jap. I. p. 83, tt. 39, 40 (1838); ENDL., Gen. Pl. n. 4744 (1836-40); BENTH. et HOOK, f., Gen. Pl. I. 3. p. 954 (1867); PRANT., in ENGL. u: PRANT. Nat. Pfl. Fam. III. ii. p. 23 (1888)
 Syn. *Gymnanthus*, JOUGH., in HOEVEN et DE VRIESE, Tijdschr. VII. p. 308 (1840)

Trochodendron aralioides, SIEB. et ZUCC, Fl. Jap. I. p. 84. tt. 39, 40 (1838) et Fl. Jap. Fam. Nat. I. p. 185 (1845); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 258 (1866); FR. et SAV., Enum. Pl. Jap. I. p. 19 (1875); ITO et MATSUM., Tent. Fl. Lutch. I. p. 285 (1899); MATSUM. et HAY., Enum. Pl. Formos. p. 11 [1906]; MATSUM., Ind. Pl. Jap. II. 2. p. 98 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 74 [1929]; MAK. et NEM., Fl. Jap. ed. 2. p. 307 (1931)

Syn. *Trochodendron aralioides*, SIEB. et ZUCC. var. *longifolium*, MAXIM., in Mém. Biolog. VIII. p. 371 (1871)

• *Norn. Jap. Yamaguruma*

Leg. Ipse, Aug. 1, 1924.

Distr. Honsyû, Sikoku, Kyûsyû, Okinawa, Taiwan.

Note. The plant is found in the lauri-aciculisilvae from about 500 m up to 1800 m above the sea level, and it attains its maximum flourishing point at about 700 m.

Name of Plant	Philippines	Bonins	Taiwan	Okinawa	Amami	Ryû	Kyûsyû	Izumi	Shikoku	Hondo	ezo & Southern Kuriles	aghalién	Northern Kuriles & Kamtchatka	Amur & Usuri
Trochodendron aralioides, SIEB. et ZUCC.	+	+	+	+	+	+	+	+	+	+	+	+	+	+

In Yakusima the *Trochodendraceae* are represented by *Trochodendron aralioides*, the only one species of this genus not only in the Japanese Empire but also in the world. It is an interesting fact that the species attains its maximum growth in the island, and that the individuals of the species are most abundant here. So the island may be called the center of the geographical distribution of this species.

Ranunculaceae

Ranunculaceae, JUSS., Gen. Pl. p. 231 (1789)

Syn. *Ranunculaceae*, NECK., in Act. Akad. Theod.-Pal. II. p. 482 (1770); BENTH., in BENTH. et HOOK. f. Gen. Pl. I. p. 1 (1862)

Coptis, SALISB., in Trans. Linn. Soc. VIII. p. 305 (1805); ENDL., Gen. Pl. n. 4792 (1836-40); BENTH. et HOOK, f., Gen. Pl. I. p. 8 (1862); PRANT., in ENGL. U. PRANT. Nat. Pfl.-fam. III. ii. p. 58 (1888); LEMFEE, Diet. Gen. Pl. Phan. II. p. 296 (1930)

Coptis quinquefolia, MIQ. var. *pedatoquinquefolia*, KOIDZ., in Tokyo Bot. Mag. XXXVII. p. 39 (1923[^])

Syn. *Coptis quinquefolia*, MIQ. f. *ramosa*, MAK., in Tokyo Bot. Mag. XXV. p. 227 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 74 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 328 (1931)

Norn. Jap. 6-gokayōren

Leg. Ipse, Kosugidani, Mart. 19, 1923.

Distr. Endemica.

Note. The plant grows as undergrowth in the lauri-aciculisilvae from about 600 m up to 1300 m above the sea level. The variety is reported in Formosa (in YAMAMOTO, Supp. Ic. Pl. Formos. III. p. 26, 1927), but I think it differs from the above mentioned variety and it should be called *Coptis quinquefolia*, var. *Morii*.

Clematis, [DILL, ex LINN., Gen. Pl. ed. 1. p. 163] et Sp. Pl. ed. 1. p. 543 (1753); ENDL., Gen. Pl. n. 4768 (1836-40); BENTH., in BENTH. et HOOK. f. Gen. Pl. I. 1. p. 3 (1862); PRANT., in ENGL. U. PRANT. Nat. Pfl.-fam. III. ii. p. 62 (1888); LEMFEE, Diet. Gen. Pl. Phan. II. p. 193 (1930)

Syn. *Clematitidis*, (TOURN.) LINN., Syst. ed. 1 (1735)

Muralta, ADANS., Fam. II. p. 460 (1763)

Trigula, NOR., in Verh. Bat. Gen. V. Art. IV. p. 4 (1790)

Clematopsis, BOJ., ex HOOK. Ic. Pl. t. 10 (1837)

Sieboldia, HOFFMGG., ex Linnaea XVI. p. 281 (1842)

Clematis crassifolia, BENTH., Fl. Hongk. p. 7 (1861); KUNTZE, Monogr. Clemat. p. 152 (1885); FORB. et HEMSL., Ind. Fl. Sin. I. p. 3 (1886); HAY., Mat. Fl. Formos. p. 15 (1911), et Ic. Pl. Formos. I. p. 17 (1911); DUNN et TUTCH., Fl. Kwang. and Hongk. p. 26 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 74 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 323 (1931); KUDO et MASAMUNE, Gen. Pl. Formos. I. p. 77 (1932)

Norn. Jap. *Yama-sennin*sd

Leg. Ipse, Onoaida, Sept. 6, 1926.

Distr. Kyūshū, Tanegasima, Taiwan, China.

Note. I collected the species in the laurisilvae at about 300 m above the sea level.

Clematis Meyeniana, WALP., in Nov. Act. Acad. Nat. Cur. XIX. Supp. I. p. 297 (1843); BENTH., Fl. Hongk. p. 6 (1861); O.KUNTZE, Monogr. Clemat. p. 152 (1885); FORB. et HEMSL., Ind. Fl. Sin. I. p. 5 (1886); ITO et MATSUM., Tent. Fl. Lutch. L. p. 271 (1899); DIELS, Fl. Cent. Chin. p. 332 (1900); HOOK, f., in Curtis. Bot. Mag. t. 7897 (1903); MATSUM. et HAY., Enum. Pl. Formos. p. 5 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 112 (1912); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 26 (1912); MERR., Enum. Philipp. Pl. II. p. 142 (1923), et Enum. Hainan Pl. p. 75 (1927); REHDER, Manual Cult. Tree, and Shrub, p. 225 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 74 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 325 (1931); HANDEL-MAGZ., Symb. Sin. VII. p. 320 (1931); KUDO et MASAMUNE, Gen. Pl. Formos. I. p. 77 (1932)

Norn. Jap. *Yanbaru-semi*sd

Leg. Ipse, Jun. 27, 1927.

Distr. Tanegasima, Amami-6sima, Okinawa, Taiwan, China, Philippines.

Note. I collected the plant in a forest near the sea level. The species is not reported further north than this island.

Clematis paniculata, THUNB., in-Trans. Linn. Soc. II. p. 337 (1793); DC, Prodr. I. p. 3 (1824); SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 176 (1845); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 1 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 1 (1875); MAK., in Tokyo Bot. Mag. XI. p. 331 (1897); HUTH, in Bull. Herb. Boiss. V. p. 1060 (1897); BOISS., in Bull. Herb. Boiss. VII. p. 581 (1899); NAK., Fl. Kor. I. p. 10 U909); YABE, Enum. Pl. Manch. p. 52 (1912); MATSUM., Ind. Pl. Jap. II. 2. p. 113 (1912[^]); MASAMUNE, Prel. Rep. Veg. Yak. p. 74 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 326 (1931)

Syn. *Clematis crispa*, (non LINN.) THUNB., Fl. Jap. p. 239 (1784)

Clematis virginica, (non LINN.) THUNB., Fl. Jap. p. 240 (1784)

Clematis Maximowicziana, FR. et SAV., Enum. Pl. Jap. II. p. 261 (1876)

Clematis recta, LINN. var. *paniculata*, THUNB., ex O. KUNTZE Monogr. Clemat. p. 115 U885)

Clematis parviloba, var. *Maximowicziana*, HATH., in Bull. Herb. Boiss. V. p. 1061 (1897)

Norn. Jap. Senninsd

Leg. Ipse, Sept. 1, 1931.

Distr. Yezo, HonsyG, Sikoku, Kyfisyfi, Tanegasima, Amami-Gsima, Okinawa, Taiwan, Korea, Manchuria, China.

Note. The plant is found in wet but sunny spots near the sea level, and is rather common in Japan.

Clematis Pierotii, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 1. (1867); FR. et SAV., Enum. PL Jap. I. p. 2 (1875); MAXIM., in M^él. Biolog. IX. p. 585 (1876); MAK., in Tokyo Bot. Mag. II. p. 220 U888), et XL p. 331 11897); MATSUM., Ind. Pl. Jap. II. 2. p. 114 U912); MASAMUNE, Prel. Rep. Veg. Yak. p. 74 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 236 (1931).

Syn. *Clematis parviloba*, var. *Pierotii*, HUTH, in Bull. Herb. Boiss. V. p. 1061 (1897)

Norn. Jap. Kobano-botanzuru

Leg. Ipse, Sept. 1, 1931.

Distr. Sikoku, Kyûsyû, Okinawa.

Note. The species is often found in wet spots near the sea level.

Ranunculus, [TOURN., ex LINN. Syst. ed. 1 (1735)] et Sp. Pl. ed. 1. p. 584 (1753); ENDL., Gen. Pl. n. 4783 (1836-40); BENTH., in BENTH. et HOOK. f. Gen. Pl. I. 1. p. 5 (1862); PRANT., in ENGL. U. PRANT. Nat. PflVfam. III. ii. p. 64 [1888)

Syn. *Scotanum*, ADANS., Fam. II. p. 459 (1763)

Hecatonia, LOUR., Fl. Cochinch. p. 302 (1790); DC, Syst. I. p. 227 (1818)

Cynomorbium, OPIZ., Fl. Caslar. Cent. III. pp. 255, 261 (1804)

Stylurus, RAF., Fl. Ludor. p. 27 U817)

Xrapfia, DC., Syst. I. p. 228 (1818)

Gampsoceras, STEV., in Bull. Soc. Nat. Mosc. XXV. p. 1. p. 541 a852)

Glossophyllum, FOURR., in Ann. Soc. Linn. Loyn. Nouv. S6r. XVI. p. 325 (1868)

Ranunculus japonicus, THUNB., in Trans. Linn. Soc. II. p. 337 (1794); SIEB. et-ZUCC, Fl. Jap. Fam. Nat. I. p. 179 (1845); MIQ., in Ann. Mus. Bot Lugd. Bat. III. p.

4. (1867); FR. et SAV., Enum. Pl. Jap. I. p. 7 (1875), et II. p. 266 (1876); KOIDZ., in Tokyo Bot. Mag. XXXIX. p. 314 (1925); YAMAMOTO, Supp. Ic. Pl. Formos. III. p. 30 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 74 (1929); HANDEL-MAGZ., Symb. Sin. VII. p. 301 (1931)

Syn. *Ranunculus asiaticus*, (non LINN.) THUNB., FJ. Jap. p. 241 (1784)

Ranunculus hirtellus, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 4 (1867)

Ranunculus Buergeri, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 5 (1867); MAK. et NEM., Fl. Jap. ed. 2. p. 334 (1931)

Ranunculus acris, (non LINN.) MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 5 (1867); MORI, Enum. Pl. Cor. p. 159 (1922)

Nom. Jap. *Umano-asigata*

Leg. Ipse, Aug. 6^v 1928.

Distr. HonsyG, Sikoku, Kyfisyfi, Tanegasima, Amami-6sima, Taiwan, Korea.

Note. The species grows near the sea level in somewhat wet places. It is a common species in Honsyfi, Sikoku and Kyfisyfi.

Ranunculus Sieboldi, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 5 (1867); HUTH, in Bull. Herb. Boiss. V. p. 1081 (1897); MATSUM., Ind. Pl. Jap. II. 2. p. 121 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 74 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 336 (1931); HANDEL-MAGZ., Symb. Sin. VII. p. 302 (1931)

Nom. Jap. *Sima-kitune-no-botan*

Leg. Ipse, Aug. 29, 1926.

Distr. Honsyfi, Kyfisyfi, Okinawa.

Note. The species is found in low damp places.

Ranunculus Vernyi, FR. et SAV., Enum. Pl. Jap. II. p. 266 (1876); KOIDZ., in Tokyo Bot. Mag. XXXIX. p. 314 (1925); YAMAMOTO, Supp. Ic. Pl. Formos. III. p. 32 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 75 (1929)

Syn. *Ranunculus japonicus*, (non THUNB.) LAGSD., ex FISCH. in DC. Prodr. I. p. 38 (1824); FORB. et HEMSL., Ind. Fl. Sin. I. p. 14 (1886); MAK., in Tokyo Bot. Mag. XIII. p. 322 (1899); MATSUM. et HAY., Enum. Pl. Formos. p. 8 (1906); HAY., Ic. Pl. Formos. I. p. 28 (1911); MAK. et NEM., Fl. Jap. ed. 1. p. 980 (1925)

Ranunculus ternatus, (non THUNB.) DC. Prodr. I. p. 31 (1824); SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 179 (1845); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 4 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 7 (1875)

Ranunculus ternatus, form. *Vernyi*, FR. et SAV., Enum. Pl. Jap. II. p. 266 (1876)

Ranunculus pensylvanicus, LINN. var. *japonicus*, MAXIM., in Act. Hort. Petrop. XI. p. 25 (1889); ITO et MATSUM., Tent. Fl. Lutch. I. p. 276 (1899); NAK., Fl. Kor. I. p. 22 (1909); YABE, Enum. Pl. Manch. p. 53 (1912)

Ranunculus Vernyii, FR. et SAV. var. *japonicus*, NAK., in Tokyo Bot. Mag. XLII. p. 20 (1928); MAK. et NEM., Fl. Jap. ed. 2. p. 337 (1931)

Nom. Jap. *Kitune-no-botan*

Leg. Ipse, Yudomari, April. 2, 1927.

Distr. Kuriles, Yezo, Honsyfi, Sikoku, Kyfisyfi, Tanegasima, Amami-Osima, Okinawa, Taiwan, Korea, Manchuria.

Note. The species grows near the sea level, in wet lands especially in rice fields.

Ranunculus yaegatakensis, MASAMUNE, in Tokyo Bot. Mag. XLIII. p. 251 (1929), et Prel. Rep. Veg. Yak. p. 75 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 337 (1931)

Nom. Jap. *Hime-kitune-nobotan*

Leg. Ipse, Yaedake, ca. 1100 m. Jul. 18, 1928.

Distr. Endemica.

Note. I found the species in the lauri-aculisilvae about 1200 m above the sea level.

Ranunculus yakushimensis, MASAMUNE, in Tokyo Bot. Mag. XLIII. p. 251 (1929), et Prel. Rep. Veg. Yak. p. 75 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 337 (1931) excl pi. ex Formosa.

Syn. Ranunculus acris, LINN. var. *japonicus*, MAX., subvar. *yakushimensis*, MAK., in Tokyo Bot. Mag. XXIV p. 32 (1910)

Norn. Jap. Hime-umano-asigata

Leg. Ipse, Jun. 12, 1928.

Distr. Endemica.

Note. The plant was collected in marshy land in the Pseudosasa Owatarii Association.

Thalictrum, [TOURN. ex LINN. Gen. Pl. ed. 1. p. 164 (1737)] LINN., Sp. Pl. ed. 1. p. 545 (1753); DC, Prodr. I. p. 11 (1824); ENDL., Gen. Pl. n. 4772 (1836-40); BENTH., in BENTH. et HOOK. f. Gen. Pl. I. 1. p. 4 (1862); PR ANT., in ENGL. u. PRANT. Nat. Pflfam. III. ii. p. 66 (1888)

Thalictrum yakushimense, KOIDZ., in Matsum. Ic. Pl. Koisik. III. 5,1.191 (1917); MASAMUNE, Prel. Rep. Veg. Yak. p. 75 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 342 (1931)

Nom. Jap. Yakusima-karamatu

Leg. Ipse, Yaegatake, Sept. 1, 1931.

Distr. Sikoku.

Note. The species is found in marshy ground from about 600 m up to 1900 m above the sea level, and is limited to Sikoku and to this island.

Names of Plants	Regions															
	Philippines	Honins	Taiwan	Okinawa	Amami-Osima	Ryūkyūs	Tanegasima	Kyūshū Prop.	Sikoku	Honshū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamchatka	Manchuria, Amur & Ussuri	China
<i>Coptis quinquefolia</i> , MIQ. van <i>pedatoquinquefolia</i> , KOIDZ.																
<i>Clematis crassifolia</i> , BENTH.			+				+	+								+
<i>Clematis Meyeniana</i> , WALP.	+		+	+	+		+									+
<i>Clematis paniculata</i> , THUNB.			+	+	+		+	+	+	+	+	+		+	+	
<i>Clematis Pierotii</i> , MIQ.				+				+	+							
<i>Ranunculus japonicus</i> , THUNB.. . . .			+		+		+	+	+	+	+					
<i>Ranunculus Sieboldi</i> , MIQ.				+			+	+	+	+						

Names of Plants	Regions														
	Philippines	Bonins	Taiwan	Okinawa	Amami-Osima	Yakushima	Kyūshū Prop.	Sikoku	Honshū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamchatka	Mao & Amur & Ussuri	China
Ranunculus Vernyi, FR. et SAV.			+	+	+	+	+	+	+	+	+			+	+
Ranunculus yaegatakensis, MASAMUNE.															
Ranunculus yakushimensis, MASAMUNE															
Thalictrum yakushimense, KOIDZ								+							
Total 11	1	5	5	4	5	6	5	4	3	2			2	4	
Percentage	9	45	45	36	45	54	45	36	27	18			18	36	

(Southern elements 7)

(Northern elements 8)

In Yakushima there are found eleven Ranunculaceae plants of which three are endemic. So phytogeographically the island is separated from the surrounding regions in respect of this family. But the remaining seven plants, except *Thalictrum yakushimensis* which is found in Sikoku, are all common in both northern and southern lands besides Yakushima. Therefore the island shows some relationship with the northern regions which include Sikoku.

Lardizabalaceae

Lardizabalaceae, LINDL., Veg. Kingd. p. 303 (1847)

Syn. *Lardizbaleae*, DC, Prodr. I. p. 95 (1824); BENTH., in BENTH. et HOOK. f. Gen. PL I. 1. p. 42 (1862)

Stauntonia, DC, Syst. I. p. 513 (1818); ENDL., Gen. PL n. 4701 (183&-40); BENTH., in BENTH. et HOOK. f. Gen. PL L 1. p. 42 (1862); PRANTL., in ENGL. u. PRANT. Nat. Pfl.-fam. III. ii. p. 69 (1898)

Stauntonia hexaphylla, DECNE., in Ann. Soc. Nat. sér. 2. XII. p. 105 (1839); SIEB. et ZUCC., Fl. Jap. I. p. 140, t. 76 (1841); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 9 (1867); FR. et SAV., Enuxn. PL Jap. I. p. 21 (1875); MAXIM., in Engl. Bot

Jahrb. VI. p. 58 (1885); FORB. et HEMSL., Ind. Fl. Sin. I. p. 30 (1886); ITO et MATSUM., Tent. Fl. Lutch. I. p. 289 (1899); MATSUM. et HAY., Enum. Pl. Formos. p. 17 (1906); NAK., Fl. Kor. I. p. 40 (1909); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 32 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 75 (1929); MAK. et NEM., Pl. Jap. ed. 2. p. 344 (1931)

Syn. *Raiania hexaphylla*, THUNB., Fl. Jap. p. 149 (1784)

Abut. Jap. *Mube*

Leg. Ipse, Jul. 1924.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China.

Note. This liane is found in the laurisilvae and in the lauri-aciculisilvae.

Akebia, DECNE., in Arch. Mus. Paris. I. p. 195, t. 13 (1837); ENDL., Gen. Pl. n. 4700 (183&40); BENTH., in BENTH. et HOOK. f. Gen. Pl. I. 1. p. 42 (1862); PRANTL, in ENGL. U. PRANT. Nat. Pfl.-fam. III. ii. p. 69 (1888); LEMÉE, Diet. Gen. Pl. Phan. I. p. 135 (1929)

Akebia quinata, DECNE., in Ann. Soc. Nat. Sér. II. XII. p. 107 (1839); SIEB. et ZUCC, Fl. Jap. I. p. 143, t. 77 (1841); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 9 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 21 (1875); HANCE, in Journ. Bot. XVI. p. 8 (1878); FORB. et HEMSL., Ind. Fl. Sin. I. p. 30 (1886); MATSUM., Ind. Pl. Jap. II. 2. p. 127 (1912); NAK., Fl. Kor. I. p. 40 (1909); MASAMUNE, Prel. Rep. Veg. Yak. p. 75 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 344 (1931)

Syn. *Raiania quinata*, THUNB., Fl. Jap. p. 148 (1784)

Nom. Jap. *Akebi*

Leg. Y. KUDO! Aug. 1907.

Distr. Honsyū, Sikoku, Kyūsyū, Korea, China.

Note. Dr. KUDO told me that he had once collected this plant in the island. It is not yet found in lands further south than this island.

Names of Plants	Regions														
	Philippines	Bonins	Taiwan	Okinawa	Amami-Ōsima	Tanegasima	Kyūsyū Prop.	Sikoku	Honshū	Korea	Yezo & Southern Kuriles	Shanghai	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China
<i>Stauntonia hexaphylla</i> , DECNE.			+	+	+	+	+	+	+	+					+
<i>Akebia quinata</i> , DECNE.							+	+	+	+					+

So far as *Lardizabalaceae* are concerned, *Akebia quinata* having its southern limit to this island the island has a closer relationship

with **Kyûsyû, Sikoku, and Honsyû**, than with the southern lands, in the phytogeography of this family.

Berberidaceae

Berberidaceae, TORR. et A. GRAY., Fl. North-Amer. I. p. 49 (1838)

Syn. Berberides, JUSS., Gen. PI. p. 286 (1789)

Berberideae, VENT., Tabl. IV. p. 83 (1799); DC, Syst. II. p. 1 (1821), et Prodr. I. p. 105 (1824); ENDL., Gen. PI. p. 851 (1839); BENTH., in BENTH. et HOOK, f. Gen. PI. I. p. 40 (1862) p.p.

Berberis, [TOURN., ex LINN. Gen. PI. ed. 1. p. 94 ;1737J et Sp. PI. ed. 1. p. 330 (1753); DC, Prodr. I. p. 105 (1824); ENDL., Gen. PI. n. 4814 (1836-40); BENTH., in BENTH. et HOOK. f. Gen. PI. I. p. 43 (1862) et p. 964 ;(1869); PRANTL, in ENGL. U. PRANT. Nat. PflVfam. III. ii. p. 77 (1888); LEMEE, Diet. Gen. PI. Phan. I. p. 553 (1929)

Berberis Thunbergii, DC var. **Maximowiczii**, REGEL, Descrip. PI. Nov. Turk. fasc. I. p. 21 (1873); FR. et SAV., Enum. PI. Jap. II. p. 272 ;1876>; MATSUM., Ind. PI. Jap. II. 2. p. 129 (1912); REHDER, Manual Cult. Tr. and Shrub, p. 246 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 75 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 346 (1931)

Syn. Berberis Maximowiczii, REGEL, in Gartenfl. p. 238 (1872)

Norn. Jap. Megi

Leg. Ipse, Jun. 11, 1928.

Dittr. Honsyû, Sikoku, Kyûsyû.

note. It is found among the association of *Juniper us tsukusiensis*, at about 1800 m above the sea level. It is not reported in Formosa and in the Ryûkyû archipelago except for this island.

Regions	Philippines	Bonins	Taiwan	Okinawa	Amami-Osima	Tanegasima	Kyûsyû Prop.	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China
Name of Plant															
Berberis Thunbergii, DC. var. Maximowiczii, REGEL							+	+	+						

In Yakusima, there is only one representative of this family, which is not found in lands further south. So taking this family

into consideration the flora of this island is closely related to the northern floral regions.

Menispermaceae

Menispermaceae, DC, Prodr. I. p. 95 (1824); BENTH., in BENTH. et HOOK. f. Gen. PL I. p. 30 11862^

Syn. *Menisperuma*, JUSS., Gen. PL p. 284 (1789)

Sinomenium, DIELS, in ENGL. Pfl.-reich. IV. 94

'Heft 46) p. 254 ;1910j

Sinomenium acutum, REHDER et WILLSON, in SARGENT, PL Wil. I. p. 387 ;1913); CHUN., Cat. Tree, and Shrub. Chin. p. 53 (1924^; MAK. et NEM., Fl. Jap. ed. 2. p. 352 (1931; HANDEL-MAGZ. Symb. Sin. VII. p. 261 (1931)

Syn. *Menispermum acutum*, THUNB., FL Jap. p. 193 (1784-; LAM., Encycl. Meth. Bot. IV. p. 96 U797)

Cocculus diversifolius, (non DC.) FR. et SAV., Enum. PL Jap. I. p. 20 ;1875); MAXIM., in Bull. Acad. Sci. St. Pétr. 3 XIX. p. 71 t. 2. ff. 21-35 ;1883) et in Mém. Biolog. XI. p. 652 (1883)

Cebatha Miqueliana, O. KUNTZE, Rev. Gen. PL I. p. 9 (1891)

Cocculus heterophyllus, HEMSL. et WILSON, in Kew Bull. Misc. Inf. p. 150 ;1906)

Menispermum diversifolium, (non PRANT.) GAGNEPAIN, in Bull. Soc. Bot. Fr. LV. p. 38 11908)

Cocculus acutus, MAK., in Tokyo Bot. Mag. XXII. p. 172 U908)

Sinomenium diversifolium, DIELS, in ENGL. Pfl.-reich. IV. 94. (Heft 46, p. 254 ·1910 ; HEMSL., in Gard. Chron. sér. 3, LII. p. 402 f. 178 (1912, ; MORI, Enum. PL Cor. p. 165 ;1922)

Norn. Jap. *dtuzura-huzi*

Leg. Ipse, ca. Kosugidani.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Korea, China.

Note. The species is found in the laurisilvae and the lauri-aciculisilvae.

Cocculus, DC, Syst. ed. 1. p. 515 (1818, et Prodr.

I. p. 96 ;1824<; ENDL., Gen. PL n. 4687 (1836-40) ; BENTH., in BENTH. et HOOK. f. Gen. PL I. p. 36 (1862>, et p. 961 .1867, ; PRANT., in ENGL. u. PRANT. Nat. Pfl.-fam. III. ii. p. 84 (1888` ; LEMEE, Diet. Gen. PL Phan. II. p. 221 (1930

Syn. *Cebatha*, FORSK., FL Aegypt-Arab. p. 172 ;1775;; O. KUNTZE, Rev. Gen. PL I. p. 9 (1891)

Nephroia, LOUR. Fl. Cochinch. p. 565 U790;

Baumgartia, MOENCH, Meth. p. 650 (1794)

Androphylax, WENDL., Bat. Beobacht. p. 38 (1798)

Wendlandia, WILLD., Sp. PL II. p. 275 (1799' ; PURSH, Fl. Amer. Sept. I. p. 252 (1814)

Braunea, WILLD., Sp. PI. IV. p. 797 (1805'

Cocculidium, SPACH, Hist. Nat. Végét. VIII. p. 16 ;1839]

Adenocheton, FENZL., in Flora XXV. p. 312 (1844)

Nephroica, MIERS., in Ann. Nat. Hist. 2 se>. VII. p. 42 '1851)

Holopciria, MIERS., in Ann. Nat. Hist 2 sér. VII. p. 42 (1851)

Bricchetia, PAX., in Ann. Ist. Bot. Roma VI. p. 181 (1897)

Cocculus laurifolius, DC, Syst. I. p. 530 (1818), et Prodr. I. p. 100 (1824); COLEB., in Trans. Linn. Soc. XIII. p. 65 (1822); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 10 (1867); HOOK. f. Fl. Brit. Ind. I. p. 101 (1872); FR. et SAV., Enum. Pl. Jap. I. p. 19 (1875); ITO et MATSUM., Tent. Fl. Lutch. I. p. 285 (1899); MATSUM. et HAY., Enum. Pl. Formos. p. 14 (1906); DIELS, in ENGL. Pfl.-reich. IV. p. 94 (Heft. 46 p. 239 '1910'); MATSUM., Ind! Pl. Jap. II. 2. p. 132 (1912); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 31 (1912); CHUN., Cat. Tree, and Shrub. Chin. p. 52 U924'; MASAMUNE, Prel. Rep. Veg. Yak. p. 75 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 351 (1931)

Syn. *Menispermum laurifolium*, ROXB., Fl. Ind. III. p. 815 (1832)

Cocculus angustifolius, HASSK., Cat. Pl. Hort. Bogor. p. 172 (1844)

Holopeira laurifolia, MIERS., in Ann. Nat. Hist. 3 sér. XIX. p. 29 (1867)

Holopeira australis, MIERS., in Ann. Nat. Hist. 3 sér. XIX. p. 29 U867, et in Contrib. Bot. III. p. 277 (187r)

Holopeira fusiformis. MIERS., in Ann. Nat. Hist. 3 sér. XIX. p. 29 U867', et in Contrib. Bot. III. p. 278 '1871,

Menispermum australe, ZUCC, ex MIERS. in Contrib. Bot. III p. 227 (1871);

Cebatha lauri/olia, O. KUNTZE, Rev. Gen. Pl. I. p. 9 (1891)

Cocculus laurifolius, var. *bariensis*, GAGNEPAIN, in LECOMT Fl. Gén. Cochinch. I. p. 141 1908,

Norn. Jap. *Kôsyû-yaku*

Leg. Ipse. Jun. 26, 1928.

Distr. Tanegasima, Amami-6sima, Okinawa, Taiwan, China, Himalaya, South India, Java, Philippines.

Note. The plant grows as undergrowth in the laurisilvae near the sea level.

Cocculus trilobus, DC, Syst. I. p. 522 '1818., et Prodr. I. p. 98 '1824'; DIELS, in ENGL. Pfl.-reich. IV. 94 (Heft. 46. p. 232 '1910-; MERR., Enum. Philipp. Pl. II. p. 149 '1923.; CHUN., Cat. Tree, and Shrub. Chin. p. 53 U924; MASAMUNE, Prel. Rep. Veg. Yak. p. 76 '1929.; YAMAZUTA, List Manch. Pl. p. 124 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 351 '1931; HANDEL-MAGZ., Symb. Sin. VII. p. 260 '1931:

Syn. *Menispermum orbiculatum*, (non LINIO THUNB., Fl. Jap. p. 194 (1784)^

Menispermum trilobum, THUNB., Fl. Jap. p. 194 (1784); WILLD., Sp. Pl. IV. p. 825 '1805

Cocculus Thunbergii, DC, Syst. I. p. 524 (1818), et Prodr. I. p. 98 (1824); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 10 (1867j; FR. et SAV.# Enum. Pl. Jap. I. p. 19 1875.; MAXIM., in Mém. Biolog. XI. p. 651 (1883'; FORB. et HEMSL., Ind. Fl. Sin. I. p. 28 (1889;; PALIBIN, Consp. Fl. Kor. I. p. 19 (1898); MATSUM. et HAY.. Enum..Pl. Formos. p. 14 (1906); NAK., Fl. Kor. I. p. 39 '1909. et II. p. 436 '1911j; MATSUM., Ind. Pl. Jap. II. 2. p. 132 (1912)

Nepbroica caudata, MIERS., in Ann. Nat. Hist. 3 sér. XIX. p. 26 (1867), et in Contrib. Bot. HI. p. 263 (1871.

Nepbroica Thunbergii, MIERS., in Ann. and Mag. Nat. Hist. Sér. II. 7 p. 26 '1851';

Nepbroica triloba, MIERS., in Ann. and Mag. Nat. Hist. Sér. II. 7. p. 42 (1851,

Holopeira fecunda, MIERS., in Contrib. Bot. III. p. 275 '1871'

Cebatha orbiculata, O. KUNTZE, Rev. Gen. Pl. I. p. 9 (1891; SCHNEID., III. Handb. Luabholzk. I. p. 327 [1906.

Nom. Jap. *Aotuzura-huzi*

Leg. A. KIMURA! Aug. 6, 1922.

Distr. Yezo, HonsyG, Sikoku, Kyŷsyfi, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China, Philippines.

Aote. The species is found in the waste lowlands, by the roadside on the edges of forests or on the river banks.

Stephanie, LOUR., Fl. Cochinch. p. 608 (1790), et

ed. WILLD. p. 746 (1793); ENDL., Gen. Pl. n. 4694 (1836-40); BENTH., in BENTH. et HOOK. f. Gen. Pl. I. 1. p. 37 (1862); BAILL., Hist. Pl. p. 42 (1872); PR ANT., in ENGL. U. PRANT. Nat. Pfl.-fam. III. ii. p. 84 (1891); DIELS, in ENGL. Pfl.-reich. IV. 94 (Heft. 46) p. 259 (1910)

Syn. *Clypea*, BL., Bijdr. p. 26 (1825); MIERS., in Ann. Nat. Hist. 3 sŷr. XVIII. p. 17 (1866), et Contrib. Bot. III. p. 205, Pl. 118 (1871)

Stenaphia, A. RICH., Tent. Fl. Abyss. I. p. 9 (1841)

Homocnemia, MIERS., in Ann. Nat. Hist. 2. sŷr. VII. p. 40 (1851), 3 sŷr. XIV. p. 373 (1864), et Contrib. Bot. III. p. 126 (1871)

Ileocarpus, MIERS., in Ann. Nat. Hist. 2 sŷr. VII. p. 40 (1851), 3 sŷr. XIV. p. 372 (1864), et in Contrib. Bot. III. p. 124, Pl. 113 (1871)

Perichasma, MIERS., in Ann. Nat. Hist. 3 sŷr. XVIII. p. 21 (1866), et in Contrib. Bot. III. p. 247, Pl. 123 (1871)

Stephania japonica, MIERS., in Ann. Nat. Hist. 3 sŷr. XVIII. p. 14 (1866), et in Contrib. Bot. III. p. 213 (1871); O. KUNTZE, Rev. Gen. Pl. I. p. 9 (1891) partim.; DIELS, in ENGL. Pfl.-reich. IV. 94 [Heft 46] p. 277 (1910); MERR., Enum. Philipp. Pl. II. p. 149 (1923), et Enum. Hainan Pl. p. 76 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 76 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 353 (1931); HANDEL-MAGZ., Symb. Sin. VII. p. 261 (1931)

Syn. *Menispermum japonicum*, THUNB., Fl. Jap. p. 195 (1784);

Cocculus japonicus, DC, Syst. I. p. 516 (1818), et Prodr. I. p. 96 (1824); SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 189 (1845)

Cissampelos psilophylla, PRESL, Reliq. Haenk. II. p. 80 (1835)

Stephania hypoglauca, MIERS., in Ann. Nat. Hist. 3. sŷr. XVIII. p. 15 (1866), et in Contrib. Bot. III. p. 227 (1871)

Clypea effusa, MIERS., in Ann. Nat. Hist. 3. sŷr. XVII. p. 270 (1866), et in Contrib. Bot. III. p. 207 (1871)

Stephania appendiculata, MIERS., in Ann. Nat. Hist. 3. sŷr. XVIII. p. 15 (1866), et in Contrib. Bot. III. p. 221 (1871)

Stephania hernandifolia, (non WALP.) MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 10 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 20 (1875); FORB. et HEMSL., Ind. Fl. Sin. I. p. 29 (1886); MATSUM. et HAY., Enum. Pl. Formos. p. 16 (1906)

Stephania discolor, SPRENGEL; MATSUM., Ind. Pl. Jap. II. 2. p. 133 (1912); MORI, Enum. Pl. Cor. p. 165 (1922)

Norn. Jap. *Hasunohakazura*

Leg. Ipse, Jun. 24, 1928.

Distr. Honsyfi, Sikoku, Kyfisyfi, Tanegasima, Amami-Gsima, Okinawa, Taiwan, Korea, China, Philippines.

Note. The species is found near forest edges, and in the waste lands at low altitudes.

Names of Plants	Regions														
	Philippines	Bonins	Taiwan	Okinawa	Amami-Osima	Tanegasima	Kyûsyû prop.	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamichatka	Manchuria, Amur & Usuri	China
<i>Sinomenium acutum</i> , REHDER & WILLSON . . .						+	+	+	+						+
<i>Cocculus laurifolius</i> , DC.	+	+	+	+	+	+	+								+
<i>Cocculus trilobus</i> , DC.	+	+	+	+	+	+	+	+	+	+	+			+	+
<i>Stephania japonica</i> , MIERS.	+	+	+	+	+	+	+	+	+	+					+

Sinomenium acutum has its southern limit in this island. Therefore the island is more or less closely related to the northern regions so far as this family is concerned.

Magnoliaceae

Magnoliaceae, J. ST.-HIL., Expos. Famil. II. p. 74 (1805); ENDL., Gen. Pl. p. 836 (1836-40; LINDL., Veg. Kingd. p. 417 1847.; BENTH. et HOOK, f., Gen. Pl. I. 1. p. 16 ;1862j

Syn. Magrioliae, JUSS., Gen. Pl. p. 280 1789.

Michelia, [LINN., Gen. ed. 1. p. 119 '1737J et Sp. Pl. ed. 1. p. 536 '1753; DC, Prodr. I. p. 79 '1824'; ENDL., Gen. Pl. n. 4739 1836-40»; BENTH. et HOOK, f., Gen. Pl. I. 1. p. 19 '1862; PRANT., in ENGL. U. PRANT. Nat. Pfl.-fam. III. ii. b. p. 17 '1883; LEMÉE, Diet. Gen. Pl. Phan. IV. p. 434 1932)

Michelia compressa, MAXIM., in Mém. Biol. VIII. p. 505 '1872; FR. et SAV., Enum. Pl. Jap. I. p. 15 '1875; ITO et MATSUM., Tent. FL Lutch. I. p. 283 U899¹; MATSUM. et HAY., Enum. Pl. Formos. p. 11 '1906; p.p.; MATSUM., Ind. Pl. Jap. II. 2. p. 96 (1912.; MASAMUNE, Prel. Rep. Veg. Yak. p. 76 U929; ; MAK. et NEM, FL Jap. ed. 2. p. 357 1931:

Norn. Jap. Ogotamanoki

Leg. Ipse, Onoaida, Sept. 5, 1926.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-Osima, Okinawa, Taiwan.

Note. The species is found in the lower part of the laurisilvae, and is common in the southern parts of Japan.

Kadsura, (KAEMPFJ ex JUSS., in Ann. Mus. Paris. XVI. p. 340 (1810 ; DC, Prodr. I. p. 83 (1824); ENDL., Gen. PI. n. 4731 (1836-40); BENTH. et HOOK. f. Gen. PL I. 1. p. 19 (1862); PRANT., in ENGL. u. PRANT. Nat. Pfl.-fam. III. ii. p. 18 (1888); LEMÉE, Diet. Gen. PI. Phan. III p. 832 (1931)

Syn. *Pulcheria*, NOR., in Verh. Batav. Gen. V. ed. 1. Art. IV. p. 3 (1790)

Cadsura, SPRENG., Syst. II. p. 642 (1825)

Sarcocarpon, BL., Bijdr. p. 21 (1825^v)

Cosbaea, LEM., III. Hort. II. Misc. p. '71 (1855 <

Panslowia, WIGHT, ex PFEIFFER Nom. 11. p. 581 (1874'

Kadsura japonica, JUSS., in Ann. Mus. Par. XVI. p. 340 (1810: ; SIEB. et ZUCC, Fl. Jap. I. p. 40 t. 17 (1836\ et Fl. Jap. Fam. Nat. I. p. 188 (1845); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 91 (1867); FR. et SAV., Enum. PI. Jap. I. p. 18 (1875); ITO et MATSUM., Tent. Fl. Lutch. I. p. 285 (1899); MATSUM. et HAY., Enum. PI. Formos. p. 12 (1906); MATSUM., Ind. PI. Jap. II. 2. p. 93 (1912); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 29 (1912); MORI, Enum. PI. Cor. p. 165 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 76 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 354 (1931); HANDEL-MAGZ., Symb. Sin. VII. p. 245 (1931)

Syn. *Uvaria japonica*, LINN., Sp. PI. ed. 1. p. 536 (1753); THUNB., Fl. Jap. p. 237 (1784)

Kadsura chinensis, HANCE, in BENTH. Fl. Hongk. p. 8 (1861); FORB. et HEMSL., Ind. Fl. Sin. I. p. 25 (1886)

Nom. Jap. *Sanekazura*

Leg. Ipse, Kosugidani, ca. 600 m. alt.

Distr. Honsyū, Sikoku, KyGsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China.

Note. The species is found in the lauri-aciculisilvae and in the laurisilvae, and is rather common in South Japan.

Illicium, LINN., Syst. ed. 10 (1759); DC, Prodr.

I. p. 77 (1824 ; ENDL., Gen. PI. n. 4743 (1836-40' ; BENTH. et HOOK, f, Gen. PI. I. 1. p. 18 (1862) ; PRANT., in ENGL. u. PRANT. Nat. Pfl.-fam. III. ii. p. 18 U888¹ ; LEMEE, Diet. Gen. PI. Phan. III. p. 744 (1931)

Syn. *Badianifera*, [LINN., Mat. Med. p. 180 (1749 '] O. KUNTZE, Rev. Gen. PI. I. p. 6 (189r

Cyrnhostemon, SPACH., Hist. Nat. Veg. Phan. VII. p. 444 (1839!

Illicium japonicum, SIEB., Syn. PI. Oec. Jap. p. 50 (1830:; KOIDZ., in Tokyo Bot. Mag. XLIV. p. 96 (1930)

Syn. *Illicium religiosum*, SIEB. et ZUCC, Fl. Jap. I. p. 5. t. 1 (1835); Bot. Mag. t. 3965 (1843); FORB. et HEMSL., Ind. Fl. Sin. I. p. 23 a886); MAK. et NEM., Fl. Jap. ed. 2. p. 354 (1931)

Illicium anisatum, inon LINN.) MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 257 (1866); FR. et SAV., Enum. PI. Jap. I. p. 15 'v1875); FORB. et HEMSL., Ind. Fl. Sin. I. p. 23 (1886); MATSUM. et HAY., Enum. PL Formos. p. 9 (1906i; MATSUM., Ind. PI. Jap. II. 2. p. 93 [1912); MORI, Enum. PL Cor. p. 165 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 76 il929)

Nom. Jap. *Sikimi*

Leg. Ipse, April. 5, 1927.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China.

Note. The species is found in the laurisilvae or in the lauri-aciculisilvae, from the sea level up to about 1500 m, and is rather common in South Japan.

var. *rosea*, (MAK.) MASAMUNE, comb. nov.

Syn. Illicium anisatum, LINN. var. *rosea*, MAK., in Journ. Jap. Bot. III. p. 15 ;1926, ; MASAMUNE, Prel. Rep. Veg. Yak. p. 76 (1929)

Illicium religiosum, var. *rosea*, MAK., in Journ. Jap. Bot. V. p. 17 1928'; MAK. et NEM., Fl. Jap. ed. 2. p. 354 (1931)

Nom. Jap. Usubeni-sikirni

Leg. Ipse, April. 5, 1927.

Distr. Sikoku.

Note. The variety is found in the laurisilvae or in the lauri-aciculisilvae, and is not yet found in lands further south than Yakusima.

Names of Plants	Regions													
	es	hi	13	Okinawa	Amami-Ōsima	Tanegasima	Kyūsyū Prop.	Sikoku	Honsyū	Korea	Yezo & Southern	Sai	Manchuria, Amur & Ussuri	China
<i>Michelia compressa</i> , MAXIM		+	+	+			+	+	+					
<i>Kadsura japonica</i> , JUSS.		+	+	+	+	+	+	+	+	+				+
<i>Illicium japonicum</i> , SIEB.		+	+	+	+	+	+	+	+	+				+
<i>I. j. var. rosea</i> , MASAMUNE								+						

Illicium japonicum, var. *rosea* having its southern limit in this island, it may be said Yakusima is closely related to the northern floral regions in respect of this family.

Lauraceae

Lauraceae, LINDL., Veg. Kingd. p. 535 (1847); MEISS., in DC. Prodr. XV. 1. p. 1 (1864)

Cinnamomum, [TOURN., ex LINN. Syst. ed. 1 (1735)] BL., Bijdr. p. 568 (1825); ENDL., Gen. Pl. n. 2023 11836-40]; BENTH. et

HOOK, f, Gen. Pl. III. 1. p. 155 (1880); PAX, in ENGL. U. PRANT. Nat. Pfl.-fam. III. ii. p. 113 (1889); LEMÉE, Diet. Gen. Pl. Phan. II. p. 166 (1930);
Syn. Camphoria, NOR., in Verh. Bat. Gen. V. ed. 1. Art. IV. p. 1 U790)
Septina, NOR., in Verh. Bat. Gen. V. ed. 1. Art. IV. p. 3 (1790);

Cinnamomum Camphora, SIEB., *Syn. Pl. Oec. Jap.* p. 23 (1830); KOIDZ., *Fl. Symb. Or. As.* p. 22 (1930); HANDEL-MAGZ., *Symb. Sin.* VII. p. 248 (1931)

Syn. Laurus Camphora, LINN., *Sp. Pl.* ed. 1. p. 369 (1753); HOUTTUYN, *Pflanzensyst.* I. p. 517 (1777); THUNB., *Fl. Jap.* p. 172 (1784); LOUR., *Fl. Cochinch.* ed. 1. p. 249 (1790); LAM., *Encycl.* III. p. 445 (1791); BL., *Bijdr.* p. 558 (1825)

Persea Camphora, SPRENG., *Syst. Veg.* II. p. 268 (1825)

Camphora officinarum, NEES. von ESENBECK, in WALL. *Pl. As. Rar.* II. p. 72 (1831), et *Syst. Lour.* p. 88 (1836)

Cinnamomum Camphora, NEES. et EBERM., *Handb. Med-Pharm. Bot.* II. p. 430 (1831); MEISSN., in DC. *Prodr.* XV. 1. p. 24 (1864); MIQ., in *Ann. Mus. Bot. Lugd. Bat.* II. p. 195 (1866); FR. et SAV., *Enum. Pl. Jap.* I. p. 411 (1785); FORB. et HEMSL., *Ind. Fl. Sin.* II. p. 371 (1891); MATSUM. et HAY., *Enum. Pl. Formos.* p. 349 (1906¹); HAY., *Fl. Mont. Formos.* p. 189 (1908); DUNN et TUTCH., *Fl. Kwangt. and Hongk.* p. 223 (1912); LECOMTE, in *Nouv. Arch. Mus. Paris.* 5. sér. V. p. 73 (1913) et *Fl. Ind. Chin.* V. 2. p. 110 (1914); GAMBLE, in *SARGENT Pl. Wilson.* II. p. 68 (1914); MORI, *Enum. Pl. Cor.* p. 166 (1922); CHUN., *Cat. Tr. and Shrub. Chin.* p. 58 (1924); WALDER, in *Lingn. Sc. Journ.* VI. p. 64 cum f. (1928); MASAMUNE, *Prel. Rep. Veg. Yak.* p. 77 (1929); MAK. et NEM., *Fl. Jap.* ed. 2. p. 364 (1931)

Camphora japonica, RAFIN., *Sylv. Tellur.* p. 136 (1838)

Camphora officinalis, STEUD., *Nomencl. Bot.* ed. 2. I. p. 271 (1840)

Norn. Jap. Kusunoki

Distr. Honsyfi, Sikoku, Kytsyfi, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China.

Note. The inhabitants of this island said that the plant *Camphora* flourished in the island, but in recent times it was cut down in order to take camphor from it and that natural forests of it can no longer be seen. Some specimens are still found near the village shrine and other places.

Cinnamomum daphnoides, SIEB. et ZUCC, *Fl. Jap. Fam. Nat.* II. p. 202 (1846); MEISSN., in DC, *Prodr.* XV. 1. p. 22 (1864); KOIDZ., in *Tokyo Bot. Mag.* XL. p. 343 (1926); MASAMUNE, *Prel. Rep. Veg. Yak.* p. 77 (1929); MAK. et NEM., *Fl. Jap.* ed. 2. p. 365 (1931)

Syn. Cinnamomum sericeum, SIEB., *Syn. Pl. Oecon. Jap.* p. 24 (1830) nomen; MIQ., in *Ann. Mus. Bot. Lugd. Bat.* I. p. 269 (1864); FR. et SAV., *Enum. Pl. Jap.* I. p. 411 (1875); MAXIM., in *M61. Biolog.* XII. p. 537 (1836); MATSUM., *Ind. Pl. Jap.* II. 2. p. 136 (1912)

Norn. Jap. Maruba-nikkei

Leg. Ipse, Jul. 26, 1928.

Distr. KyfisyG, Amami-dsima, Tanegasima, Okinawa.

Note. Near the sea beaches the species is often found in abundance, and in some places it makes nearly pure stand.

Cinnamomum japonicum, SIEB., in *Verh. Gen. Batav.* XII. p. 23 (1830); NAK., in *Tokyo*

Bot. Mag. XLI. p. 517 (1927;; 'MASAMUNE, Prel. Rep. Veg. Yak. p. 77 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 365 (1931)

Syn. Laurus Camphora, (non LINN.) THUNB., Fl. Jap. p. 172 (1784) p.p.

Cinnamomum pedunculatum, NEES, Syst. p. 79 (1836); MIQ., in Ann. Mus. Bot. Lugd. Bat. I. p. 16 (1864), et II. p. 195 (1866); MEISSN., in DC. Prodr. XV. 1. p. 16 (1864); FR. et SAV., Enum. PI. Jap. I. p. 410 (1875); FORB. et HEMSL., Ind. Fl. Sin. ;il. p. 372 (1891); MATSUM. et HAY., Enum. PI. Formos. p. 350 (1906); DUNN et TUTCH., Fl. Kwangt. and Hong. p. 223 (1912); MATSUM., Ind. PI. Jap. II. 2. p. 135 (1912); MORI, Enum. PI. Cor. p. 167 (1922); MERR., Enum. Hainan PI. p. 79 (1927); MAK. et NEM., Fl. Jap. ed. 1. p. 924 11925^

Nom. Jap. Yabu-nikkei

Leg. Ipse, Jul. 15, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China.

Note. The species is often found in the laurisilvae nearly from the sea level up to about 1000 m and is rather common in South Japan.

Machilus, NEES, in WALL. PI. As. Rar. II. p. 70 (1831; ; ENDL., Gen. PI. n. 2028 1836-40; ; BENTH. et HOOK, f., Gen. PI. III. 1. p. 156 1880); PAX, in ENGL. U. PRANT. Nat. Pfl.-fam. III. ii. p. 115 ;1889); LEMÉE, Diet. Gen. PL Phan. IV. p. 228 1932)

Machilus japonica, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 202 n. 705 (1846); MEISSN., in DC, Prodr. XV. 1. p. 42 (1864) ; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 195 1866 ; FR. et SAV., Enum. PI. Jap. I. p. 412 (1875!; MAXIM., in Mél. Biolog. XII. p. 536 '1886); SHIRASAWA, Ic. For. Tree. Jap. ed. 2. II. p. 63, t. 20, ff. 12-20 (1911; ; MASAMUNE, Prel. Rep. Veg. Yak. p. 77 (1929*; MAK. et NEM., Fl. Jap. ed. 2. p. 370 1931)

Syn. Machilus Thunbergii, SIEB. et ZUCC, *war. japonica*, YATABE, in Tokyo Bot. Mag. VI. p. 177 '1892 i, et Ic. Fl. Jap. I. 3. p. 195, PI. XLVIII. ,1893- ; MATSUM. Ind. PI. Jap. II. 2. p. 139 1912

Machilus longifolia, BL.; MORI, Enum. PI. Cor. p. 167 !1922»

Norn. Jap. Aogasi;

Leg. Ipse, Aug. 3, 1924.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Korea.

Note. The species is found in the lauri-aciculisilvae or in the laurisilvae.

Machilus Thunbergii, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 202, n. 704 (1846); MEISSN., in DC. Prodr. XV. 1. p. 42 '1864 ; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 195 1866 ; FR. et SAV., Enum. PI. Jap. I. p. 411 (1875; ; FORB. et HEMSL., Ind. Fl. Sin. II. p. 377 '1891; ; PALIBIN. Consp. Fl. Kor. II. p. 185 (39) ',1900); MATSUM. et HAY., Enum. PI. Formos. p. 351 ,1905; ; SHIRASAWA, Ic. For. Tree. Jap. ed. 2. I. p. 130 t. 43. ff. 1-14 '1911 ' ; NAK., Fl. Kor. II. p. 177 '1911); DUNN et TUTCH., Fl. Kwang. and Hongk. p. 221 il912; ; MATSUM., Ind. PI. Jap. II. 2. P. 139 ,1912; ; LECOMTE. Fl. Ind. Chin. V. 2. p. 123 U914); CHUN., Cat. Tree, and Shrub. Chin. p. 59 '1924^; MASAMUNE, Prel. Rep. Veg. Yak. p. 77 (1929;; MAK. et NEM., Fl. Jap. ed. 2. p. 371 '1931^

Syn. Laurus indica, < non LINN. THUNB., Fl. Jap. p. 173 :1784;

Machilus rimosa, BL., MUS. Bot. Lugd. Bat. I. p. 330 ,1851-; BENTH.. .Fl. Hongk. p. 291 1861

Norn. Jap. Tabunoki

Leg. Ipse. Onoaida, Sept. 5, 1926.

Distr. Honsyū, Sikoku, Kyūsyū, Amami-Gsima, Okinawa, Taiwan, Bonins, Korea, China.

Note. This is one of the members that constitute the laurisilvae and the lower part of the lauri-aciculisilvae.

Actinodaphne, NEES, in WALL. PI. As. Rar. II. p. 68 (1831); ENDL., Gen. PI. n. 2064 (1836-40); MEISN., in DC. Prodr. XV. 1. p. 210 (1864); BENTH. et HOOK, f, Gen. PI. III. p. 160 (1880); PAX, in ENGL. U. PRANT. Nat. Pfl.-fam. III. ii. p. 119 (1889); LEMEE, Diet. Gen. PI. Phan. I. p. 59 (1929);

Actinodaphne lancifolia, MEISSN., in DC. Prodr. XV. 1. p. 211 (1864); FR. et SAV., Enum. PI. Jap. I. p. 413 (1875); MATSUM., Ind. PI. Jap. II. 2. p. 134 (1912); MORI, Enum. PI. Cor. p. 166 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 76 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 362 (1931)

Syn. *Daphnoldium I and folium*, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 207, n. 717 (1846)

Litsea I and folia, VILLAR, in BLANCO, FJ. Filip. ed. 3. Nov. App. p. 181 (1880); FORB. et HEMSL., Ind. Fl. Sin. II. p. 382 (1891); MATSUM. et HAY., Enum. PI. Formos. p. 352 (1906); SHIRASAWA, IC. For. Tree. Jap. ed. 2. II. p. 641. 20 ff. 1-11 (1912); CHUN., Cat. Tree, and Shrub. Chin. p. 60 (1924)

Norn. Jap. Kagonoki

Leg. Ipse, Miyanoura, Sept. 1, 1931.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Gsima, Okinawa, Taiwan, Korea, China.

Note. The species is found in the laurisilvae.

Actinodaphne longifolia, NAK., in Tokyo Bot. Mag. XLI. p. 517 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 76 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 362 (1931)

Syn. *Machilus? longifolia*, BL., in Mus. Bot. Lugd. Bat. I. p. 331 (1851); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 195 [1866]; FR. et SAV., Enum. PL Jap. I. p. 412 (1875); MAXIM., in Mém. Biolog. XII. p. 537 (1886); et in Bull. Akad. St. Petersb. XXXI. p. 97 (1881);

Iososte acuminata, BL., in Mus. Bot. Lugd. Bat. I. p. 331 (1851)

Actinodaphne acuminata, MEISSN., in DC. Prodr. XV. 1. p. 211 (1864); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 196 (1866); FR. et SAV., Enum. PI. Jap. I. p. 413 (1875); MATSUM., Ind. PI. Jap. II. 2. p. 134 (1912); MAK. et NEM., Fl. Jap. ed. 1. p. 919 (1925)

Nom. Jip. Aokagonoki

Leg. Ipse, Kosugidani, Jul. 22, 1927.

Distr. Honsyū, Sikoku, Kyūsyū, Amami-Gsima, Okinawa.

Note. The plant is found in the laurisilvae or in the lower part of the lauri-aciculisilvae.

Neolitsea, (BENTH.) MERR., in Philip. Journ. Sc.

I. Supp. p. 56 (1906); LEMEE, Diet. Gen. PI. Phan. IV. p. 691 (1932)

Syn. *Litsea*, LAM., sect. 3 *Neolitsea*, BENTH., in BENTH. et HOOK. f. Gen. PL III. 1. p. 161 (1880)

Tetradenia, non BENTH., NEES, in WALL. PI. As Rar. p. 61 (1831), et Syst. Laur. p. 355 (1836); PAX, in ENGL. u. PRANT. Nat. Pfl.-fam. III. ii. p. 119 (1891); p.p.

- Neolitsea aciculata*, KOIDZ., in Tokyo Bot. Mag. XXXII. p. 258 (1918)
 Syn. *Litsaea aciculata*, BL., MUS. Bot. Lugd. Bat. I. p. 347 (1851); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 196 (1866); FR. et SAV., Enum. PL Jap. I. p. 414 (1875)
Tetradenia foliosa, (non NEES.) MATSUM., Ind. PI. Jap. II. 2. p. 140 (1912); MAK. et NEM., Fl. Jap. ed. 2. p. 374 (1931)
 Norn. Jap. *Inu-gasi*
 Leg. Ipse, Kosugidani, Mart. 28, 1923.
 Distr. Honsyû, Sikoku, Kyûsyû, Amami-6sima.
 Note. The species attains its maximum flourishing point in the laurisilvae and is also found in the lauri-aciculisilvae.
- Neolitsea sericea*, KOIDZ., in Tokyo Bot. Mag. XL. p. 343 (1926); MASAMUNE, Prel. Rep. Veg. Yak. p. 77 (1929)
 Syn. *Laurus sericea*, BL., Bijdr. II. p. 554 (1826)
Litsea glauca, SIEB., Synop. PI. Oecon. Jap. p. 24 (1830); nomen; BL., MUS. Bot. Lugd. Bat. I. p. 347 (1851); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 196 (1866); FR. et SAV., Enum. PL Jap. I. p. 413 (1875)
Tetradenia glauca, MATSUM., Ind. PI. Jap. II. 2. p. 140 (1912); MAK. et NEM., Fl. Jap. ed. 2. p. 374 (1931)
Malapoema Sieboldii, O. KUNTZE; MORI. Enum. PI. Cor. p. 167 (1922)
Neolitsea Sieboldii, NAK., in Tokyo Bot. Mag. XLI. p. 520 (1927)
 Norn. Jap. *Sirodamo*
 Leg. Ipse, Nakama, Jul. 6, 1928.
 Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Korea.
 Note. The plant is collected in low lands near the sea level on rare occasions.
- Litsea*, LAM., Encycl. III. p. 574 (1789); ENDL., Gen. PL n. 2056 (1836-40); MEISSN., in DC. Prodr. XV. I. p. 220 (1864); BENTH. et HOOK. f., Gen. PL III. 1. p. 161 (1830); PAX, in ENGL. u. PRANT. Nat. Pfl.-fam. III. ii. p. 119 (1889); LEMÉE, Diet. Gen. PL Phan. IV. p. 124 (1932)
 Syn. *Malapoema*, ADANS., Fam. II. p. 447 (1763)
Glabraria, LINN., Mant. II. p. 156 (1771)
Tomex, THUNB., NOV. Gen. PL III. p. 65 (1783);
Hexanthus, LOUR., FL Cochinch. p. 195 (1790)
Fiwa, J. F. GMEL., Syst. II. p. 745 (1791)
Berrya, KLEIN, ex WILLD. Sp. PL III. p. 840 (1800)
Darwinia, DENNST., Schluess. Hort. Malab. p. 31 (1818)
Fiva, STEUD., Nomencl. ed. 2. I. p. 642 (1841)
- Litsea japonica*, MIRB., Hist. Nat. PL ed. 2. XI. p. 150 (1800-6.); JUSS., in Ann. Mus. Par. VI. p. 212 (1805); POIR., in Lam. Encycl. Supp. III. p. 480 (1823); J. FORB. et HEMSL., Ind. Fl. Sin. II. p. 382 (1891); NAK., FL Kor. II. p. 177 (1911); MATSUM., Ind. PL Jap. II. 2. p. 138 (1912); SHIRAZAWA, IC. For. Tree. Jap. ed. 2. II. p. 69. t. 22. ff. 1-8 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 77 (1929)
 Syn. *Tetranthera japonica*, SPRENG, Syst. Veg. II. p. 266 (1825); SIEB. et ZUCC, FL Jap. I. p. 166, t. 87 (1841), et t. 100, f. 2 (1841); MEISSN., in DC. Prodr. XV. 1. p. 181 (1864); FR. et SAV., Enum. PL Jap. I. p. 412 (1875)
Tomex japonica, THUNB., FL Jap. p. 190 (1784) et IC. PL Jap. III. t. 7 (1801)
Tetradenia japonica, (MIRB.) MAK. et NEM., Fl. Jap. ed. 2. p. 375 (1931)

Norn. Jap. Hamabiwa**Leg.** Ipse, Onoaida, Jul. 19, 1928.**Distr.** Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Korea.**Note.** The species often makes its consociation in the coast lands.

Lindera, THUNB., NOV. Gen. PI. III. p. 44 (1783)
 et Fl. Jap. pp. 9, 145, t. 21 (1784[^]); ENDL., Gen. PI. n. 6848 (1836-40); MEISSN., in
 DC. Prodr. XV. 1. p. 243 (1864); BENTH. et HOOK, f., Gen. PL III. 1. p. 163
 (1880) p.p.; PAX, in ENGL. u. PRANT. Nat. PflVfam. III. ii. p. 123 (1889) p.p.;
 LEMÉE, Diet. Gen. PI. Phan. IV. p. 106 (1932[^])

Syn. *Calosmon*. BERCHT, et PRESL. Postlin. II. p. 71 (1825)

Lindera citrata, KOIDZ., in Tokyo Bot. Mag. XL. p. 343 '1926*'; MASAMUNE, Prel. Rep.
 Veg. Yak. p. 77 (1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 368 (1931)

Syn. *Litsea citrata*, BL_f. Bijdr. II. p. 565 '1826;*Benzoin citriodora*, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 206 n. 711 (1846¹)*Aperula citriodora*, BL., in Mus. Bot. Lugd. Bat. I. p. 366 (1851)*Lindera citriodora*, FORB. et HEMSL., Ind. Fl. Sin. II. p. 387 (1891); MATSUM.,
 Ind. PI. Jap. II. 2. p. 136 (1912; excl. PI. ex Formosa.*Benzoin citrata*, KOIDZ., in Tokyo Bot. Mag. XL. p. 343 (1926)**Norn. Jap. Aomozi****Leg.** Ipse, Sitogo, Sept. 1928.**Distr.** Kyûsyû, Tanegasima, Amami-6sima, Okinawa.**Note.** The species is found in the clearings of the laurisilvae or in the lower part of the lauri-aciculisilvae, often as an invader.

Lindera Thunbergii, MAK., in Tokyo Bot. Mag. XIV. p. 184 (1900); MATSUM., Ind.
 PI. Jap. II. 2. p. 137 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 77 (1929); MAK.
 et NEM., Fl. Jap. ed. 2. p. 369 (1931)

Syn. *Benzoin Thunbergii*, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 204 (1846)*Lindera umbellata*, THUNB. 1 BL., Mus. Bot. Lugd. Bat. I. p. 324 (1851);

MEISSN., in DC. Prodr. XV. 1. p. 245 (1864); MIQ., in Ann. Mus. Bot.

Lugd. Bat. II. p. 197 (1866) ; FR. et SAV., Enum. PI. Jap. I. p. 415 (1875);

HEMSL., in Journ. Linn. Soc. XXXI. p. 393 (1891); SARGENT, in Gard. and

For. VI. p. 292 U893:

Lindera erythrocarpa, MAK., in Tokyo Bot. Mag. XI. p. (219) (1897), et XIII. p.
 138 ;1899!; NAK., Fl. Kor. II. p. 178 (1911)*Benzoin erythrocarpum*, REHD., in Journ. Arn. Arb. I. p. 144 (1920):**Norn. Jap. Kanakuginoki****Leg.** Ipse, Jul. 31, 1924.**Distr.** Honsyû, Sikoku, Kyûsyû, Korea.**Note.** The species is found in the laurisilvae or in the lower part of the lauri-aciculisilvae.

The Lauraceous plants which are indigenous to the island suggest the theory that the island is closely related to the northern floral lands. But representatives of this family abound in southern lands like Formosa and South China, and make the chief representa-

Names of Plants	Regions														
	Philippines	Bonin	Taiwan	Okinawa	Amami-Osima	Tanegashima	Kyūshū Pro.	Sikoku	Honshū	Shikoku	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Siberia, Amur & Ussuri	China
<i>Cinnamomum Camphora</i> , SIEB.		+		+	+	+	+	+	+	+					+
<i>Cinnamomum daphnoides</i> , SIEB. et ZUCC.				+	+	+	+								
<i>Cinnamomum japonicum</i> , SIEB.		+		+	+	+	+	+	+	+					+
<i>Machilus japonica</i> , SIEB. et ZUCC.				+	+	+	+	+	+	+	+				
<i>Machilus Thunbergii</i> , SIEB. et ZUCC.	+	+		+	+		+	+	+	+	+				+
<i>Actinodaphne lancifolia</i> , MEISSN.		+		+	+	+	+	+	+	+	+				+
<i>Actinodaphne longifolia</i> , NAK.				+	+		+	+	+	+					
<i>Neolitsea aciculata</i> , KOIDZ.					+		+	+	+	+					
<i>Neolitsea sericea</i> , KOIDZ.				+	+	+	+	+	+	+					
<i>Litsea japonica</i> , MIRB.				+	+	+	+	+	+	+					
<i>Lindera citrata</i> , KOIDZ.				+	+	+	+								
<i>Lindera Thunbergii</i> , MAK.							+	+	+	+					
Total 12	1	4		10	11	8	12	10	10	8					4
Percentage	8	33		83	92	67	100	83	83	67					33

(Southern elements 11)

(Northern elements 12)

tive of the laurisilvae. The plants are comparatively numerous in the island, a fact which shows that the island has some relationship with the southern regions.

Cassythaceae

Cassythaceae, LINDL., *Introd. Nat. Syst. Bot.* ed. 2. p. 202 (1835). et *Veg. Kingd.* ed. 3. p. 538 (1853)

Syn. LaurinaeCassytheae, NEES ab ESENB., *Laurin. Expos.* p. 20 (1833); PAX., in ENGL. U. PRANT. *Nat. Pflv. fam.* III. ii. p. 124 (1889)

Cassytha, LINN., Sp. Pl. ed. 1. p. 35 (1753); ENDL., Gen. Pl. n. 2067 (183&-40); MEISSN., in DC. Prodr. XV. 1. p. 252 (1864); BENTH. et HOOK, f., Gen. Pl. III. 1. p. 164 (1880); PAX., in ENGL. u. PRANT. Nat. Pfl.-fam. III. ii. p. 124 (1889); LEMSE, Diet. Gen. Pl. Phan. I. p. 866 (1929)

Syn. *Rombut*, (RUMPH.) ex ADANS., Fam. II. p. 284 (1763)

Volutella, FOSK., Fl. Aegypt.-Arab. p. 84 (1775)

Calodium, LOUR., Fl. Cochinch. p. 247 (1790) *

Cassytha filiformis, LINN., Sp. Pl. ed. 1. p. 35 (1753), et ed. 2. p. 530 (1763); WIGHT, Ic. Pl. Ind. Or. t. 1847 (1852); BENTH., Fl. Hongk. p. 294 (1861); MEISSN., in DC. Prodr. XV. 1. p. 255 (1864); HOOK, f., Fl. Brit. Ind. V. p. 188 (1886); FORB. et HEMSL. [Ind. Fl. Sin. II. p. 393 (1891); MATSUM. et HAY., Enum. Pl. Formos. p. 353 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 134 (1912); DUNN et TUTCH., Fl. Kwang. and Hongk. p. 226 (1912); LECOMTE, Fl. Ind. Chin. V. 2. p. 158 (1914); MERR., Enum. Philipp. Pl. II. p. 204 (1923), et Enum. Hainan Pl. p. 82 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 77 (1929); NAK., in Bull. Biogeogr. Soc. Jap. I. p. 257 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 363 (1931)

Nom. Jap. *Sunazuru*

Leg. Ipse, Kurio, Jul. 4, 1928.

Distr. Amami-Ōsima, Okinawa, Taiwan, Bonins, China, Philippines, India.

Note. The species is found in sandy littoral places, as parasite on various kinds of plants, and has its northern limit of habitat in this island.

Name of Plant	Regions																
	Philippines	Bonins	Taiwan	Okinawa	Amami-Ōsima	Ryūkyūs	Kyūsū	Tanegasima	Kyūsū Prop.	Sikoku	Honsyū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamchatka	Manchuria, Amur & Ussuri	China
<i>Cassytha filiformis</i> , LINN.	+	+	+	+	+												+

Cassythaceae is monotypic, and it can not be found in lands further north than this island. *Cassytha filiformis*, the only representative of this family is a tropical and subtropical strand plant. So far as this family is concerned the island has no relationship with the regions further north.

Papaveraceae

Papaveraceae, B. JUSS., in Hort. Trianon, ex Juss., Gen. Pl. p. XVIII. et 235 (1789)

Syn. *Papavera*, ADANS., Fam. II. p. 425 (1763) p.p.

- Macleya*, [*Macleaya*] R. BR., Obs. DENH. et CLAPP.
 App. p. 218 (1826); ENDL., Gen. Pl. n. 4817 (1836-40); PRANT. U. KÜNDIG. in ENGL. U. PRANT. Nat. Pfl.-fam. III. ii. p. 140 (1889); FEDDE, in ENGL. Pfl.-reich. IV. 104. (Heft. 40) p. 215 (1909); LEMÉE, Diet. Gen. Pl. Phan. IV. p. 230 (1932)
 Syn. *Bocconia*, [LINN., Gen. Pl. ed. 1. p. 32 (1737)] et Sp. Pl. ed. 1. p. 505 (1753);
 DC, Prodr. I. p. 121 (1824); BENTH., in BENTH. et HOOK. f. Gen. Pl. I. p. 53 (1862) p.p.
Macleya, REICHB., Consp. p. 187 (1828)
Maclaya, BERNH., in Linn. VIII. p. 460 (1833)
Mackleya, WALP., Rep. I. p. 109 (1842)
- Macleya cordata*, R. BR. Obs. DENH. et CLAPP. APP. p. 218 (1826); FR. et SAV., Enum. Pl. Jap. I. p. 27 (1875); ITO et MATSUM., Tent. Fl. Lutch. p. 293 (1899); FEDDE, in ENGL. Pfl.-reich. IV. 104 (Heft 40) p. 216 f. 27 (1909); MATSUM., Ind. Pl. Jap. II. 2. p. 146 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 78 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 384 (1931)
 Syn. *Bocconia cordata*, WILLD., Sp. II. p. 841 (1799); DC, Prodr. I. p. 121 (1824); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 11 (1867); PRANT. u. KÜNDIG. in ENGL. u. PRANT. Nat. Pfl.-fam. III. ii. p. 140 f. 89 (1889),
 Norn. Jap. *Takenigusa*
 Leg. Ipse, Jul 12, 1928.
 Distr. Honsyfi, Sikoku. Kyūsyfi, Amami-6sima, Okinawa, Taiwan.
 Note. The species is found in waste lands near the sea level.
- Corydalis*, VENT., Choix. p. 19 (1803^N); LAM. et DC, Fl. Franc, ed. 3. IV. p. 636 (1805); DC, Prodr. I. p. 126 (1824); ENDL., Gen. Pl. n. 4839 (1836-40); BENTH., in BENTH. et HOOK. f. Gen. Pl. I. 1. p. 55 (1862); PRANT. u. KÜNDIG., in ENGL. u. PRANT. Nat. Pfl.-fam. III. ii. p. 144 (1889); LEMÉE, Diet. Gen. Pl. Phan. II. p. 320 (1930)[^]
 Syn. *Capnoides*, [MÜHRING, Hort. Priv. p. 22 (1736)] ADANS., Fam. II. p. 431 (1763)
Split, KRAMER, Tent. Bot. p. 55 (1744)
Cisticapnos, ADANS., Fam. II. p. 431 (1763)
Capnocystis, JUSS., in Ami. Mus. Paris. XVIII. p. 473 (1811)
Capnodes, O. KUNTZE, Rev. Gen. I. p. 13 (1891)
- Corydalis incisa*, PERS., Syn. II. p. 269 (1807); DC, Prodr. I. p. 127 (1824); SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 173 (1845); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 12 (1867); FR. et SAV., Enum. Pl. Jap. II. p. 274 (1876); FORB. et HEMSL., Ind. Fl. Sin. I. p. 37 (1886); MATSUM., Ind. Pl. Jap. II. 2. p. 143 (1912); MORI, Enum. Pl. Cor. p. 168 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 78 (1929); SUZUK., in Ann. Rep. Taihok. Bot. Gard. I. p. 145 (1931); MAK. et NEM., Fl. Jap. ed. 2. p. 379 (1931); HANDEL-MAGZ., Symb. Sin. VII. p. 343 (1931)
 Syn. *Fumaria incisa*, THUNB., in Nov. Act Petrop. XII. p. 104 t. D (1801)
 • Norn. Jap. *Murasaki'kikeman*
 Leg. Ipse, Issō, Mart. 22, 1923.
 Distr. Yezo, Honsyfi, Kyūsyfi, Amami-Osima, Okinawa, Korea.
 Note. The species is found under the Bamboo Association or in cultivated fields, near the sea level.
- Corydalis platycarpa*, (MAX.) MAK., in Tokyo Bot. Mag. XXIII. p. 16 (1909); MASAMUNE, Prel. Rep. Veg. Yak. p. 78 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 381 (1931);

Syn. Corydalis pallida, PERS. var. *platycarpa*, MAX., ex PALIBIN, Consp. Fl. Kor. I. p. 24 U898); NAK., Fl. Cor. I. p. 48 (1909); MATSUM., Ind. Pl. II. 2. p. 144 (1912)

Corydalis pallida, (non PERS.) MAXIM., in Bull. Soc. Nat. Mosc. p. 4 (1879) P.P.

Norn, Jap. Kikeman

Leg. Kusugawa, Mart. 2, 1927.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-6sima, Okinawa, Korea.

Note. The species is found on somewhat humus ground in waste lands or by the roadside near the sea level.

Corydalis Tashiroi, MAK., in Tokyo Bot. Mag. XXIII. p. 65 (1909); MASAMUNE, Prel. Rep. Veg. Yak. p. 78 (1929^N); MAK. et NEM., Fl. Jap. ed. 2. p. 382 (1931)

Nom. Jap. Sitna-kikeman

Leg. Ipse, Onoaida, Mart. 2, 1927.

Distr. Kyûsyû, Amami-6sima, Okinawa.

Note. The species is found near the seashore, and ranges from Kyûsyû to Yaeyama, the most southern island of the Ryûkyû archipelago.

Names of Plants	Regions														
	Philippines	Bonins	Taiwan	Okinawa	Amami-6sima	Tanegasima	Kyûsyû Prop.	Sikoku	Honsyû	Ko	Ye & Southern Kuriles	Saghalien	Northern Kuriles + Kamtchatka	Manchuça, Amur & Ussuri	China
<i>Macleya cordata</i> , R. BR.			+	+	+		+	+	+						+
<i>Corydalis incisa</i> , PERS.			+	+	+		+	+	+	+	+				+
<i>Corydalis platycarpa</i> , MAK.				+	+		+	+	+	+					
<i>Corydalis Tashiroi</i> , MAK.				+	+		+								

As shown in the above table, this island has a closer relationship with the northern regions than with the southern ones, and has less close one to the flora of Formosa, in respect of this family.

Capparidaceae

Capparidaceae, LINDL., Nat. Syst. ed. 2. p. 61 (1836); PAX., in ENGL. U. PRANT. Nat. Pfl.-fam. III. ii. p. 209, 189L

Syn. Capparides, *B. JUSS., in Hort. Trianon ;1759', ex JUSS., Gen. PI. pp. LXVII. et 242 (1789)

Crataeva, [LINN., Syst. ed. 1 ,1735:] et ed. 10. p. 1044 (1759); DC, Prodr. I. p. 242 ,1824); ENDL., Gen. PI. n. 5003 (1836-40); BENTH. et HOOK, f., Gen. PI. I. 1. p. 110 ;18621 ; PAX., in ENGL. u. PRANT. Nat. Pfl.-fam. III. ii. p. 223 ,1891); LEMÉE, Diet. Gen. PI. Phan. II. p. 359 (1930)

Syn. Belon, ADANS., Fam. II. p. 408 .1763)

Crataeva religiosa, FORST. f., Fl. Ins. Austral. Prodr. p. 35 a786; ; DC, Prodr. I. p. 243 (1824^ ; HOOK, f., Fl. Brit. Ind. I. p. 172 ,1872; ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 51 (1886); ITO et MATSUM., Tent Fl. Lutch. I. p. 305 (1899; ; MATSUM. et HAY., Enum. PI. Formos. p. 28 (1906); MATSUM., Ind. PI. Jap. II. 2. p. 162 .1912); MERR., Enum. Philipp. PI. II. p. 210 ',1923), et Enum. Hainan PI. p. 83 U927); CHUN., Cat. Tree, and Shrub. Chin. p. 63 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 78 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 336 (1931)

Syn. Crataeva falcata, DC, Prodr. I. p. 243 '1824; ; FR. et SAV., Enum. PI. Jap. I. p. 40 ;i875j; K. ITO et H. KAKU, Ic. et Descr. PI. Hort. Koishik. II. t. 10 (1884)

Nam. Jap. Uoki

Leg. Ipse, Ambō, Jun. 1928.

Distr. Kyûsyû, Okinawa, Taiwan, Philippines, China, Malay, India, Polynesia.

Note. The plant is found near the sea level, and is rather common in tropical and subtropical lands in the Far East; it is rarely found in the southern extremity of Kyûsyû but is more or less abundant in our island.

Name of Plant	Regions														
	Philippines	Bonins	Taiwan	Okinawa	Amami-Ōsima	Tanegasima	Kyûsyû Prop.	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China
<i>Crataeva religiosa</i> , FORST. f.	+	+	+	+			+								+

Crataeva religiosa is the only representative of this family in the island and it is distributed from Formosa northward to South Kyûsyû.

Brassicaceae

Brassicaceae, LINDL., Veg. Kingd. ed. 3. p. 351 (1853)

Syn. Cruciferae, B. JUSS., in Hort. Trianon ;1759., et ex JUSS. Gen. PI. pp. LXVII. et 237 (1789); HOOK, f., in BENTH. et HOOK. f. Gen. PI. I. 1. p. 57 (1862)

Nasturtium, [LINN., Syst. ed. 1 (1735) R. BR., in AITON, Hort. Kew ed. 2. IV. p. 109 (1812); DC, Prodr. I. p. 137 (1824); ENDL., Gen. Pl. n. 4932 d. (1836-40); BENTH. et HOOK, f., Gen. Pl. I. p. 68 (1862); PRANT., in ENGL. u. PRANT. Nat. Pfl.-fam. III. ii. p. 184 (1890); LEMÉE, Diet. Gen. Pl. Phan. IV. p. 652 U932)

Syn. *Brachiolobos*, ALL., Fl. Pedem. I. p. 278 (1785)

Radicula, (DILL.) ex MOENCH, Meth. p. 262 (1794)

Baeumerta, GAERTN.; MEY. et SCHERB., Fl. Wetteran. II. pp. 419, 467 f1800)

Clandesiinaria, SPACH, Hist. Nat. Veg. Phanér. VI. p. 427 (1838)

Nasturtium sublyratum, FR. et SAV., Enum. Pl. Jap. II. p. 281 (1876); MASAMUNE, Prel. Rep. Veg. Yak. p. 79 (1929[^]); YAMAZUTA, List Manch. Pl. p. 134 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 405 (1931)

Syn. *Nasturtium montanum*, (non WALL.) MIQ. in Ann. Mus. Bot. Lugd. Bat. II. p. 71 (1865); FR. et SAV., Enum. Pl. Jap. I. p. 32 (1875) partim; ITO et MATSUM., Tent. Fl. Lutch. p. 297 (1899); MATSUM. et HAY., Enum. Pl. Formos. p. 22 (1906); NAK., Fl. Kor. I. p. 50 (1909)

Nasturtium montanum, WALL. var. *nipponica*, FR. et SAV., Enum. Pl. Jap. I. p. 32 (1875)

Nasturtium indicum, (non DC) MATSUM., Ind. Pl. Jap. II. 2. p. 158 U912[†]

Norn. Jap. *Inugarasi*

Leg. Ipse, Aug. 12, 1922.

Distr. Honsyu[†], Sikoku, Kyūsyū[†], Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria.

Note. The species flourishes in wet places in cultivated or waste lands. It is a common species in the Far East.

Cardamine, [TOURN., ex LINN. Syst. ed. 1 (1735), et Gen. Pl. ed. 1. p. 176 (1735)] et Sp. Pl. ed. 1. p. 654 (1753); DC, Prodr. I. p. 149 (1824); ENDL., Gen. Pl. n. 4859 (1836-40); BENTH. et HOOK, f., Gen. Pl. I. p. 70 (1862); PRANT., in ENGL. U. PRANT. Nat. Pfl.-fam. III. ii. p. 184 (1890); LEMÉE, Diet. Gen. Pl. Phan. I. p. 828 (1929);

Syn. *Kardanoglyphos*, SCHLECHTD. in Linn. XXVIII. p. 472 (1856)

Sibara, GREENE, in Pittonia. III. p. 10 (1896)

Cardamine Regeliana, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 73 (1865); MAXIM., in Mém. Biolog. IX. p. 8 (1872) pro. syn.; KUDO, Fl. Isl. Param. p. 112 (1922); MERR., Enum. Philipp. Pl. II. p. 208 (1923); HULT., Fl. Kamtch. II. p. 155 (1928)

Syn. *Cardamine flexuosa*, WITH., Bot. Arr. Brit. Pl. ed. 3. III. p. 578 (1796); MATSUM., in Tokyo Bot. Mag. XIII. p. 73 (1899); KOM., Fl. Mansh. II. p. 369 (1904); MAK. et NEM., Fl. Jap. ed. 2. p. 396 (1931)

Cardamine hirsuta, (non LINN.) HOOK, et ARNOT., Bot. Capt. Beech. Voy. p. 112 (1832); BENTH., Fl. Hongk. p. 16 (1861); MAXIM., in Mém. Biolog. IX. p. 6 (1873); FR., Pl. David. I. p. 34 (1884); FORB. et HEMSL., Ind. Fl. Sin. I. p. 43 (1886); ITO et MATSUM., Tent. Fl. Lutch. I. p. 297 (1899); MATSUM. et HAY., Enum. Pl. Formos. p. 23 (1906); NAK., Fl. Kor. I. p. 56 (1909); MASAMUNE, Prel. Rep. Veg. Yak. p. 78 (1929j)

Cardamine hirsuta, LINN. Subsp. *flexuosa*, FORB. et HEMSL., Ind. Fl. Sin. I. p. 42 (1886); MAK., in Tokyo Bot. Mag. XIII. p. (112) (1899); MATSUM., Ind. Pl. Jap. II. 2. p. 152 (1912) p.p.

Cardamine flexuosa, WITH, subsp. *Regeliana*, SCHULZ, Monogr. Card. in Engl. Bot. Jahrb. XXXII. p. 476 (1903)

Capsella Bursa-pastoris, MOENCH. var. *auriculata*, MAK, in Journ. Jap. Bot. II. 5. p. 17 (1927); MAK. et NEM, Fl. Jap. ed. 2. p. 395 (1931)

Nom. Jap. *Nazuna*

Leg. Ipse, April. 1, 1927.

Distr. Saghalien, Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Ôsima, Okinawa, Taiwan, Bonins. Korea, Manchuria, China.

Note. This is one of the pandemic species that are found in both hemispheres and in the island it occurs in cultivated or open lands, or near the roadside.

All the representatives of this family in this island are rather pandemic species and do not contribute to the determination of the phytogeographical position of the island.

Droseraceae

Droseractae, DC, Théor. Elém. p. 214, et Prodr. I. p. 317 (1824); DIELS, in ENGL. Pfl.-reich. IV. 11. Heft. 26, p. 1 (1906);

Syn. *Droserae*, SALISB., Parad. Lond. sub. t. 95 (1808; partim).

Drosera, [LINN., Syst. ed. 1 (1735)] et Sp. Pl. ed.

I. p. 281 (1753); DC, Prodr. I. p. 317 (1824); ENDL., Gen. Pl. n. 5033 (1839); BENTH. et HOOK. f. Gen. Pl. I. 2. p. 662 (1865); DRUDE, in ENGL. u. PRANT. Nat. Pfl.-fam. III. ii. p. 270 (1891); DIELS, in ENGL. Pfl.-reich. IV. 11. Heft 26. p. 61 (1905); LEMÉE, Diet. Gen. Pl. Phan. II. p. 744 (1930)

Syn. *Rosolia*, ADANS., Fam. II. p. 245 (1763)

Drosera rotundifolia, LINN., Sp. Pl. ed. 1. p. 281 (1753); SMITH, Fl. Brit. IV. p. 346 (1804); DC, Fl. Franc. IV. p. 729 (1815), et Prodr. I. p. 318 (1824); ROEM. et SCHULT., in Syst. Veg. VI. p. 760 (1820); HOOK., Brit. Fl. p. 148 (1830); REICHB. Ic. Germ. f. 4522 (1839); LEDEB., Fl. Ross. I. p. 261 (1842); TRUTV. et MEY., Fl. Ochot. Phaen. p. 19 (1856); MAXIM., Prim. Fl. Amur. p. 51 (1859); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 204 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 162 (1875); BRITT. et BR., Ill. N. U. S. II. p. 161 (1897); MAK., in Tokyo Bot. Mag. XIV. p. 134 (1900); KOM., Fl. Mansh. II. p. 389 (1904); DIELS, in ENGL. Pfl.-reich., IV. Heft 26. p. 93, f. 32 (1906); KOIDZ., Pl. Sach. Nak. p. 73 (1910); MATSUM., Ind. Pl. Jap. II. 2. p. 164 (1912); TAKEDA, in Journ. Linn. Soc. London Bot. XLII. p. 465 (1914); MIY. et MIYAKE, Fl. Saghal. p. 169 (1915); MORI, Enum. Pl. Cor. p. 177 (1922); KUDO, Fl. Isl. Param. p. 115 (1922), Contrib. Fl. North Saghal. p. 39 (1923), et Kita Karahuto Syokubutu Tyôsshô, p. 150 (1924); MAK. et NEM., Fl. Jap. p. 880 (1925), et ed. 2. p. 413 (1931); MASAMUNE, Prel. Rep. Veg. Yak. p. 79 (1929), et in Journ. Soc. Trop. Agr. II. p. 30 (1930); HULT., Fl. Kamtch. III. p. 4 (1929),

Nom. Jap. *Mošengoke*

Leg. Ipse, Ambô, Jun. 20, 1928.

Diatr. Saghalien, Kuriles, Yezo, Honsyû, Sikoku, Kyûsyû, Korea, Manchuria, Kamtchatka.

Note. The species is found in wet places from about 100 m up to 1900 m above the sea level, and is not yet reported in lands further south than this island.

Drosera spathulata, LABILL., Nov. Holl. Pl. Sp. I. p. 79, t. 106, f. 1 (1804^; ROEM. et SCHULT., Syst. Veg. VI. p. 762 (182(V.; DC, Prodr. I. p. 318 (1824); Bot. Mag. t. 5240 (1861); BENTH., Fl. Austral. II. p. 459 (1864^; MAK., in Tokyo Bot. Mag. XIX. p. 19 U9051; DIELS, in ENGL. Pfl.-reich. IV. 112 (Heft. 26) p. 83 (1906); MERR., Enum. Philipp. Pl. II. p. 216 U923^; MASAMUNE, Prel. Rep. Veg. Yak. p. 79 1929;

Syn. *Drosera Loureiri*, HOOK, et ARN., Bot. Capt. Beech. Voy. p. 167, t. 31 (1833) ; BENTH., Fl. Hongk. p. 130 (1861^; FORB. et HEMSL., Ind. Fl. Sin. I. p. 289 (1887); MATSUM. et HAY., Enum. Pl. Formos. p. 136 [1906^; MATSUM., Ind. Pl. Jap. II. 2. p. 164 (1912;; MAK. et NEM., Fl. Jap. ed. 2. p. 413 (1931)

Drosera Burmanni. DC, Prodr. I. p. 318 (1824'; ITO et MATSUM., Tent. Fl. Lutch. I. p. 469 (1899)

Nom. Jap. *Komô-sengoke*

Leg. Ipse, Onoaida, Jul. 26, 1927.

Distr. Honsyû, Kyûsyû, Tanegasima, Amami-ôshima, Okinawa, Taiwan, China, Philippines.

Note. This species is found in sunny but somewhat wet spots near the sea level on laterait-like ground.

Regions	Philippines	Bonins	Taiwan	Okinawa	Amami-ôshima	Tsushima	Kyûsyû Proc.	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	North-eastern Korea & Manchuria	Japan & Ussuri	China
<i>Drosera rotundifolia</i> , LINN.							+	+	+	+	+	+	+	+	+
<i>Drosera spathulata</i> , LABILL.	+	+	+	+	*	+	+	+	+						+

Drosera rotundifolia has its southern limit of habitat in this island and from this point of view the flora of Yakusima has a closer relation with the northern regions than with the southern ones, in respect of this family.

Podostemonaceae

Podostemonaceae, RICH., in HUMBOLDT, BONPLAND et KUNTH, Nov. Gen. et Sp. I. p. 246 1815;

Syn. Podostemaceae, TUL., in Ann. Sc. Nat. 3 sér. XI. p. 88 (1849., et in Archiv. Mus. Paris. VI. p. 41 (1852

Hydrobryum, ENDL., Gen. PI. p. 1375 n. 1831 U841); BENTH. et HOOK, f, Gen. PI. III. 1. p. 112 (1880,; WARMING, in ENGL. U. PRANT. Nat. Pfl.-fam. III. ii. a. p. 20 (1890 ; ENGL., in id. 2-auf. B. 18a. p. 52 (1930); LEMÉE, Diet. Gen. PI. Phan. III. p. 686 (1931)

Hydrobryum, sp. MASAMUNE, Prel. Rep. Veg. Yak. p. 79 (1929

Aom. Jap. Yakusima-kawagoromo

Leg. Ipse, Issó, Sept. 1, 1932.

Distr. Endemica?

Note. The species is found on the surface of rocks which are submerged under running water of the River Isso, in the place where the river enters from the mountain region into the plain.

Regions	Philippines	Taiwan	Okinawa	Amami-Ōshima	Tanegasima	Kyūsyū Prop.	Chikoku	Kōnsyū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Usuri	China
Hydrobryum, sp.														

Hydrobryum in Japan is found in South Kyūisyū, and is not yet found in other parts of Japan, China, and in the Philippines. And from this point of view the island has many resemblances with the flora of Kyūisyū taking the distribution of *Podostemonaceae* into consideration, but the genus is found in Assam, Sikkim, and Burma. From this fact the island would appear to have some relation to these districts in respect of this family.

Crassulaceae

Crassulaceae, DC, in Bull. Soc. Philom. n. 49 (1801, et in LAM. et DC. Fl. Fr. ed. 3. IV. p. 382 (1805-

Sedum, [TOURN., ex LINN. Syst. ed. 1 (1735)] et Sp. Pl. ed. 1 p. 430 1753 ; DC, Prodr. III. p. 401 1828 ; ENDL., Gen. PI. n.

- 467 (1899); MATSUM., Ind. Pl. Jap. II. 2. p. 170 [1912]; MASAMUNE, Prel. Rep. Veg. Yak. p. 79 [1929]; MAK. et NEM., Fl. Jap. ed. 2. p. 422 [1931]
Nom. Jap. *Kogome-marmengusa*
Leg. Ipse, Aug. 4, 1928.
Distr. Kyûsyû, Tanegasima, Amami-6sima, Okinawa.
Note. This interesting species is found in abundance in the littoral region.

Taking into consideration the distribution of the species of *Classuraceae* the island is intimately related to Kyûsyû and Amami-6sima, and little to Formosa.

Parnassiaceae

- Parnassiaceae**, (ut *Parnassieae*) E. F. GRAY, Nat. Arr. Brit. Pl. p. 623 [1821]
Syn. *Saxi/ragaceae*, Subf. *Parnassioideae*, ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. 2-auf. B. 18a. p. 178 [1930]

Parnassia, [TOURN., ex LINN. Syst. ed. 1 [1735], et Gen. Pl. ed. 1. p. 87 [1737]; et Sp. Pl. ed. 1. p. 273 [1753]; DC, Prodr. I. p. 320 (1824); ENDL., Gen. Pl. n. 5039 (1836-40); BENTH. et HOOK. f. Gen. Pl. I. 2. p. 639 (1865); ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. III. ii. a. p. 66 [1890]; et in 2-auf. B. 18a. p. 178 (1930)]

- Parnassia palustris**, var. **multisetata**, LEDEB., Fl. Ross. I. p. 263 (1842); NAK., in Tokyo Bot. Mag. XL. p. 469 [1926]; MAK. et NEM., Fl. Jap. ed. 2. p. 442 (1931)
Syn. *Parnassia mucronata*, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 169 [1845]
Parnassia palustris, non LINN. J. MAXIM., Prim. Fl. Amur. p. 469 [1859] j; FR. et SAV., Enum. Pl. Jap. I. p. 149 [1875]; FORB. et HEMSL., Ind. Fl. Sin. I. p. 272 [1887] j; FR., in Bull. Soc. Bot. Fr. p. 257 (1897) i; BOISS., in Bull. Herb. Boiss. V. p. 689 [1897]; KOM., Fl. Mansh. II. p. 426 [1904]; HAY., in Tokyo Bot. Mag. XX. p. 19 [1906]; NAK., Fl. Kor. I. p. 220 [1909] j; MASAMUNE, Prel. Rep. Veg. Yak. p. 80 [1929]; HULT., Fl. Kamtch. III. p. 35 [1929]

form, **minima**, MASAMUNE. f. nov.

Herbae ca. 25 cm altae.

Nom. Jap. *Himc-umebati-sô*

Leg. Ipse, Aug. 31, 1926.

Dislr. (Sp.) Saghalien, Kamtchatka, Kuriles, Yezo, Honsyû, Sikoku, Kyûsyû, Taiwan, Korea, Manchuria, China.

Note. The plant grows at altitudes from 600 m up to 1700 m in wet places like "*Hananoego*." The form is restricted to this island, but the type species is widely distributed in Japan.

***Parnassia* is a widely distributed element in the northern part of the north hemisphere, and one representative of this family is found in this island. This fact shows that the island has some relation to the northern regions.**

Name of Plant	Philippines	Taiwan	Okinawa	Amami	Tanegashima	Kyushu	Sikoku	Honsyu	Korea	Yezo & Southern Kuriles	Northern Kuriles & Kamchatka	Hokkaido Area	China
Parnassia palustris, var. multisetata, LEDEB. f. minima, MASAMUNE	sp. +					+	+	+	+	+	+	+	+

Saxifragaceae

Saxifragaceae, DC, in LAMARK et DC. Fl. Fr. ed. 3. IV. p. 358 (1805), et Prodr. IV. p. 1 (1830); ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. III. ii. a. p. 41 U890) p. m. Syn. *Saxifragae*, JUSS., Gen. Pl. p. 308 (1789), *Saxifrageae*, VENT., Table, III. p. 277 (1799); HOOK., in BENTH. et HOOK. f. Gen. PL L 2. p. 629 (1865) p. m.

Astilbe, BUCH-HAM., in D. DON, Prodr. FL Nepal. p. 210 (1825); DC. et SERINGE, in DC. Prodr. IV. p. 51 (1830); ENDL., Gen. PL n. 4645 11836-40;; HOOK., in BENTH. et HOOK. f. Gen. PL I. 2. p. 634 (1865); ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. III. ii. a. p. 47 (1890), et 2 auf. B. 18a. p. 113 (1930); LEMEE, Diet. Gen. PL Phan. I. p. 430 U929) Syn. *Hoteia*, MORR. et DECNE., in Ann. Sc. Nat. 2. sér. II. p. 316, t 11 (1834)

Astilbe glaberrima, NAK., 1. *saxatilis*, NAK., in Tokyo Bot. Mag. XXXVI. p. 120 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 80 (1929); MAK. et NEM., FL Jap. ed. 2. p. 425 (1931)

Nom. Jap. *Ko-yakusima-syōma*

Leg. Ipse, Jul. 28, 1928.

Distr. Endemica.

Note. The plant grows in sunny but somewhat wet ground from 100 m up to 1900 m above the sea level.

1. *terrestris*, NAKAI, in Tokyo Bot. Mag. XXXVI. p. 121 (1922!); MASAMUNE, Prel. Rep. Veg. Yak. p. 80 (1929); MAK. et NEM., FL Jap. ed. 2. p. 425 (1931)

Nom. Jap. *Yakusima-syōma*

Leg. Ipse, Jul. 21, 1927.

Distr. Endemica.

Note. The plant is collected in wet but somewhat sunny ground from 300 m up to 1000 m above the sea level.

Saxifraga, [TOURN. et GEUM., in TOURN. Inst.

I. p. 251 [1719 ; LINN., Gen. PL ed. 1. p. 131. n. 378 U737,] et Sp. PI ed. 1. p.

398 (1753), et Fl. Suec. ed. 2. p. 141 (1755); DC. et SERING., in DC. Prodr. IV. p. 17 (1830); ENDL., Gen. PL n. 4634 U839); BENTH. et HOOK. f., Gen. PL I. 2. p. 635 (1865); ENGL., in Linnaea XXXV. p. 1. (1867), Monographic Gatt. Saxif. (1872), in ENGL. u. PRANT. Nat. Pflvfam. III. ii. a. p. 52 (1890), et 2-auf. B. 18a p. 122 (1930); ENGL. u. IRMSCHER, in ENGL. Pfl-reich. IV. 117, 1. p. 1 (1916)

Syn. *Hydaticea*, NECK., Elem. II. p. 387 (1790)

Sekika, MEDIK., in Staatsw. Vorles. Churpf. Phys. Ok. Gess. I. p. 209 (1791)

Tridactylites, HAW., Enum. Sax. p. 21 (1821)

Saxifraga mutabilis, KOIDZ., Sym. Or. p. 6 (1930)

Syn. *Saxifraga cortusaefolia*, (non SIEB. et ZUCC.) ENGL., Monogr. p. 155 (1872); FR. et SAV., Enum. PL Jap. I. p. 145 (1875); HANCE, in Journ. Bot. XX. p. 261 (1882); YABE, Iconogr. Fl. Jap. I. tt. 3-6 (1891) (var. et form.); BOISS., in Bull. Herb. Boiss. V. p. 685 (1897); KOM., Fl. Mansh. II. p. 412 (1904); NAK., Fl. Kor. I. p. 219 (1909); MATSUM., Ind. PL Jap. II. 2. p. 188 (1912); ENGL. u. IRMSCH., in ENGL. Pfl-reich. IV. 117. 2 (Heft 69) p. 648 (1919)

Saxifraga cortusaefolia, SIEB. et ZUCC. var. *typica*, MAK. in Tokyo Bot. Mag. XV. p. 12 (1901); ENGL. u. IRMSCH., in ENGL. Pfl-reich. IV. 117.2 (Heft 69) p. 648 (1919); MAK. et NEM., Fl. Jap. ed. 2. p. 447 (1931)

Norn. Jap. Daimonzisô

Leg. Ipse, Jul 25, 1927.

Distr. Kuriles, Yezo, Honsyû, Sikoku, Kyûsyû, Korea, Manchuria, China.

Note. I have found this species in wet ground about 800 m above the sea level.

var. *obtusocuneata*, (MAK.) comb. nov.

Syn. *Saxifraga cortusaefolia*, var. *obtusocuneata*, MAK., in Tokyo Bot. Mag. XV. p. 12 (1901); MATSUM., Ind. PL Jap. II. 2. p. 188 (1912); ENGL. u. IRMSCH., in ENGL. Pfl-reich. IV. 117 2, (Heft 69) p. 649 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 80 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 447 (1931)

Norn. Jap. Utiwa-daimonzisô

Leg. Ipse, Miyanoura, Aug. 23, 1928.

Diatr. Honsyû, Sikoku, Kyûsyû.

Note. The plant is found in wet grounds from 800 m up to about 1800 m above the sea level.

Mitella, [TOURN., ex LINN. Syst. ed. 1 (1753)]
et Sp. PL ed. 1. p. 406 (1753); DC. et SERING., in DC. Prodr. IV. p. 49 (1830); ENDL., Gen. PL n. 4641 (1836-40); BENTH. et HOOK. f., Gen. PL 1.2. p. 638 (1865); ENGL., in ENGL. u. PRANT. Nat. Pfl-fam. III. ii. a. p. 63 (1890), et 2-auf. B. 18a p. 160 (1930); LEMfE., Diet. Gen. PL Phan. IV. p. 499 (1932)

Syn. *Mitellopsis*, MEISSN., Gen. p. 136 (1838)

Mitella Doiana, OHWI, in Act. Phytotax. Geogr. I. p. 302 U932)

Syn. *Mitella kiusiuana*, (non MAK.) MASAMUNE, Prel. Rep. Veg. Yak. p. 80 (1929)

Nom. Jap. Himetyarumerusd

Leg. Ipse, Kosugidani, Jun. 15, 1928.

Diatr. Endemica.

Note. The species is an endemic one in this island, and is found as undergrowth in the lauri-aciculisilvae.

Hydrangea, [GRONOV., ex COROLL. Gen. p. 7 U737,]; LINN., Sp. PL ed. 1. p. 397 (1753); DC. et SERING., in DC. Prodr. IV. p.

13 .1830); ENDL., Gen. Pl. n. 4668 (1836-40, ; BENTH. et HOOK, f., Gen. Pl. I. 2. p. 640 (1865-; ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. III. ii. a. p. 74 (1890) et 2-auf. B. 18a. p. 202 (1930) ; LEMÉE, Diet. Gen. Pl. Phan. III. p. 633 (1931)
Syn. Hydrangia, LINN., Gen. Pl. ed. 6. p. 222 (1764)
Hortensia, COMM, ex JUSS., Gen. Pl. p. 214 (1789/

Hydrangea chinensis, MAX., Hydr. As. Or. p. 7 (1867); HANCE, in Journ. Bot. VII. p. 11 (1878) ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 273 (1837; ; ITO et MATSUM., Tent. Fl. Lutch. I. p. 461 (1899) ; MATSUM. et HAY., Enum. Pl. Formos. p.* 131 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 178 (1912) ; CHUN., Cat. Tree, and Shrub. Chin. p. 67 (1924) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 50 (1929) ; ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. 2-auf. B. 18a. p. 203 (1930) ; MAK. et NEM., Fl. Jap. ed. 2. p. 434 (1931)

Abut. Jap. Simakonterigi

Leg. Ipse, Jun. 6, 1928.

Distr. Okinawa, Taiwan, China.

Note. The species is found in the lauri-aciculisilvae and in the laurisilvae, and it is not yet found in lands further north than this island.

Hydrangea grosserata, ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. 2-auf. B. 18a. p. 204 (1930)

Norn. Jap. Yakusima-konterigi

Leg. Ipse, Kosugidani, Jun. 6, 1928.

Distr. Endemica.

Note. The species is found in the laurisilvae from the sea level up to about 600 m.

Hydrangea paniculata, SIEB., in Nov. Act. Nat. Cur. XIV. ii. p. 691 (1829) ; SIEB. et ZUCC, Fl. Jap. I. p. 115, t. 61 (1839) , et Fl. Jap. Fam. Nat. I. p. 192 (1845); MAXIM., Hydr. As. Or. p. 9 (1867, ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 98 (1867) ; FR. et SAV., Enum. Pl. Jap. I. p. 150 (1875); FORB. et HEMSL., Ind. Fl. Sin. I. p. 274 (1837) ; CHUN., Cat. Tree, and Shrub. Chin. p. 68 (1924) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 80 (1929-; ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. 2-auf. B. 18a. p. 204 (1930) ; SUZUKI, in Ann. Rep. Taihok. Bot. Gard. I. p. 146 (1931) ; MAK. et NEM., Fl. Jap. ed. 2. p. 433 (1931); HANDEL-MAGZ., Symb. Sin. VII. p. 443 (1931),

Norn. Jap. Noriutugi

Leg. Ipse, Aug. 1, 1924.

Distr. Saghalien, Yezo, HonsyG, Sikoku, Kyûsyû, Taiwan, China.

Note. The species is found as an epiphyte or as a terrestrial plant from 400 m up to 1000 m above the sea level.

Hydrangea pttiolaris, SIEB. et ZUCC. var. *cordifolia*, MAXIM., Hydr. As. Or. p. 16 (1867; ; FR. et SAV., Enum. Pl. Jap. I. p. 153 (1875); ; MATSUM., Ind. Pl. Jap. II. p. 2. p. 181 (1912) ; MORI, Enum. Pl. Cor. p. 183 (1922); CHUN., Cat. Tree, and Shrub. Chin. p. 68 (1924) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 80 (1929) ; ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. 2-auf. B. 18a. p. 205 (1930);

Syn. Hydrangea cordifolia, SIEB. et ZUCC, Fl. Jap. I. p. 113, t. 59 f. 2 (1839) ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 98 (1857)

Hydrangea scandens, non LINN.. MAX., Hydr. p. 16 (1857); MAK., et NEM., Fl. Jap. ed. 2. p. 439 (1931);

Norn. Jap. Gotōzuru**Leg.** Ipse, Kuriodake, Aug. 18, 1928.**Distr.** Saghalien, Yezo, Honsyū, Sikoku, Kyūsyū, Korea, China.**Note.** The species is found from 500 m up to 1900 m above the level of the sea.

Hydrangea scandens, SERINGE, in DC. Prodr. IV. p. 15 (1830, ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 98 (1867); KOIDZ., in Tokyo Bot. Mag. XXXIX. p. 3 (1925, ; MASAMUNE, Prel. Rep. Veg. Yak. p. 80 (1929) ; ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. 2-auf. B. 18a. p. 203 (1930j

Syn. *Viburnum scandens*, LINN, f, Supp. PI. p. 184 (1781); WILLD., Sp. PI. I. p. 1487 (1797)

Viburnum virens, TffJNB., Fl. Jap. p. 123 (1784)

Hydrangea virens, SIEB., Synop. Hydr. Gen. Sp. Jap. in Nov. Act. Nat. Cur. Leopold. Carol. XIV. 2. p. 689 (1829[^]); SIEB. et ZUCC, Fl. Jap. I. p. 114, t. 60 (1839ⁱ); MAXIM., Rev. Hydr. As. Or. p. 6 (1867) ; FR. et SAV., Enum. PI. Jap. I. p. 149 (1875); ITO et MATSUM., Tent. Fl. Lutch. I. p. 193 (1899. ; MATSUM., Ind. PI. Jap. II. 2. p. 182 (1912; ; MAK. et NEM., Fl. Jap. ed. 2. p. 439 (1931

Nom. Jap. Gaku-utugi**Leg.** Ipse, Aikodake, Jul. 28, 1927.**Distr.** Honsyū, Sikoku, Kyūsyū, Amami-Ōsima, Okinawa.**Note.** The species is found in the laurisilvae or in the lauri-aciculisilvae, from 200 m up to 1500 m.var. *yakusimensis*, MASAMUNE, var. nov.

Sufrutex glabriusculus ramosus. Folia opposita ovata vel obovata chartacea, apice acuminata vel caudato-acuminata basi cuneata, margine grosse serrulata utrimque glabra petiolata, 2. 5-5.5 cm longa 1-2 cm lata, petiolata, petiolis 2.5-5.5 cm longis.

Nom. Jap. Yakusima-gakuutugi**Leg.** Ipse, Jun. 9, 1928.**Distr.** Endemica. 9**Note.** The variety is different from the type in its caudate leaves. It is found as undergrowth in the laurisilvae or in the lauri-aciculisilvae from 100 m up to 800 m above the sea level.

Schizophragma, SIEB. et ZUCC, Fl. Jap. I. p. 58, t. 26 (1837i; ENDL., Gen. PI. n. 4670 (1836-40); BENTH. et HOOK, f, Gen. PI. I. 2. p. 641 (1865^N); ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. III. ii. a. p. 76 (1890), 2-auf. B. 18a. p. 207 (1930).

Schizophragma hydrangeoides, SIEB. et ZUCC, Fl. Jap. L p. 60. t. 26 (1837;. et Fl. Jap. Fam. Nat. I. p. 192 (1845); MAXIM., Rev. Hydr. As. Or. p. 18 (1867); FR. et SAV. Enum. PI. Jap. I. p. 154 (1875); BOISS., in Bull. Herb. Boiss. V. p. 692 (1897; ; NAK., Fl. Kor. II. p. 486 (1911); MATSUM., Ind. PI. Jap. II. 2. p. 191 (1912i; MASAMUNE, Prel. Rep. Veg. Yak. p. 80 (1929); ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. 2-auf. B. 18a. p. 207 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 450 (1931)

Nom. Jap. Iwagarami**Leg.** A. KIMURA! Aug. 7, 1922.**Distr.** Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Korea.**Note.** The species is found in the laurisilvae and in the lauri-aciculisilvae, and it is not yet found in lands further south than this island.

Names of Plants	Regions															
	Philippines	Bonins	Taiwan	Oonawa	Amami-Oshima	Tanegasima	Kyûsyû Proc.	Kyûsyû	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Uraghaliën	Northern K. & U.	Manchuria, & U.	China
<i>Astilbe glaberrima</i> , NAK.																
1. <i>saxatilis</i> , NAK.																
<i>A. g. l. terrestris</i> , NAK.																
<i>Saxifraga mutabilis</i> , KOIDZ.							+	+	+	+	+				+	+
<i>S. m. var. obtuso-cuneata</i> , MAK.							+	+	+							
<i>Mitella Doiana</i> , OHWI																
<i>Hydrangea chinensis</i> . MAXIM		+		+												+
<i>Hydrangea grosserata</i> , ENGL.																
<i>Hydrangea paniculata</i> , SIEB.		+	+													+
<i>Hydrangea petiolaris</i> , SIEB. et ZUCC. var. <i>cordifolia</i> , MAXIM							+	+	+	+	+	+	+			+
<i>Hydrangea scandens</i> , SERINGE				+	+		+	+	+							
<i>H. s. var. yakusimensis</i> , MASAMUNE																
<i>Schizophragma hydrangeoides</i> , SIEB. et ZUCC.							+	+	+	+	+	+				
Total 12	2	2	1			1	6	6	6	3	4	2			1	4
Percentage	17	17	8			8	50	50	50	25	33	17			8	33
	(Southern elements 3)					(Northern elements 6)										

The species of *Astilbe* and *Mitella* which are indigenous to this island are endemic elements. So from this point of view the island has some independence in the matter of Saxifragaceous plants. It has also close relations with the northern lands for there are several northern elements which are not found in lands further south than this island.

Pittosporaceae

Pittosporaceae, LINDL., Veg. Kingd. p. 441 (1847;

Syn. *Pittosporae*, ENDL., Gen. Pl. p. 1081, 1836-40-; BENTH. et HOOK. f. Gen. Pl. I. p. 130 (1862)

Pittosporum, BANKS, ex GAERTN., Fruct. I. p. 286, t. 59 U788); DC, Prodr. I. p. 346 (1824^; ENDL., Gen. PI. n. 5661 (1836-40); BENTH. et HOOK, f, Gen. PI. I. 1. p. 131 (1862); PAX, in ENGL. U. PRANT. Nat. Pfl.fam. II. ii a. p. 110 (1891); PRITZEL, in id. 2-auf. B. 18a. p. 273 (1930/
Syn. Pittosporoides, SOLAND., ex GAERTN. Fruct. I. p. 286 (1788)
Pittospermum, ROXB., Hort. Bengal, p. 18 (1814)
Senecia, COMM., ex DC. Prodr. I. p. 347 (1824)
Pseuditea, HASSK., in Flora XXV. p. 2. Beibl. p. 30 (1842)
Chelidospermum, ZIPP., ex BL. MUS. Bot. Lugd. Bat. I. p. 162 (1850]

Pittosporum Tobira, AIT., Hort. Kew. ed. 2. II. p. 27 (1811 ^; BOT. Mag. t. 1398 (1811); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 108 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 44 (1875); FORB. et HEMSL., Ind. Fl. Sin. I. p. 58 (1886); PALIB., Consp. Fl. Kor. I. p. 37 (1898); ITO et MATSUM., Tent. Fl. Lutch. I. p. 303 (1899); MATSUM. et HAY., Enum. Pl. Formos. p. 33 (1906); NAK., Fl. Kor. I. p. 74 (1909); MATSUM., Ind. Pl. Jap. II. 2. p. 192 (1912); DUNN et TUTCH., Fl. Kwangt. and Hongk. p. 37 (1912); CHUN., Cat. Tree, and Shrub. Chin. p. 71 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 81 (1929); PRITZEL, in ENGL. u. PRANT. Nat. Pfl.-fam. 2-auf. B. 18 a. p. 279 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 452 (1931)

Norn. Jap. Tobera

Leg. Ipse, Jun. 24, 1927.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-dsima, Okinawa, Taiwan, Korea, China.

Note. The plant is found near beaches as a member of the beach forest, and grows on rocky ground, and is distributed widely in the subtropical regions of Eastern Asia.

Name of Plant	Regions												
	Philippines	Okinawa	Amami-Osima	Tanegasima	Kyûsyû Prop.	Korea	Yezo	Saghalien	Northern Kurils & Kamtchatka	Manchuria	Amur &	Ch	
Pittosporum Tobira, AIT.	+	+	+	+	+	+	+	+	+	+	+	+	+

Only one species of this family is indigenous to our island, and it affords no evidence for determining the phytogeographical position of Yakusima.

Distyliurn, the only genus of this family indigenous to this island, is widely distributed in Indo-Malay and subtropical Eastern Asia. According to this the island would seem to be situated in the same geographical region as the above mentioned districts, but the further fact that the species is found in the island but not in Formosa and in South China, denotes that the island has a more or less close relation to northern lands.

Pomaceae

Pomaceae, JUSS., Gen. PL p. 334 (1789); LINDL., in Trans. Linn. Soc. XIII. p. 88 (1821) et Veg. Kingd. p. 559 (1853)

Syn. Rosaceae, subf. *Pornoideae*, FOCKE, in ENGL. U. PRANT. Nat. Pfl.-fam. III. iii. p. 18 (1888)

Sorbus, [TOURN., ex LINN. Syst. ed. 1 (1735)] et Sp. PI. ed. 1. p. 477 (1753); WILLD., Sp. PL II. p. 1008 (1799); ROEM., Syn. Monogr. Rosa, p. 102 (1847); DECNE., Mem. Fam. Poma. p. 157 (1874); WENZIG., in Linnaea XXXVIII. p. 50 (1874);
Syn. Pirus, ENDL., Gen. PL n. 6342 (1836-40) p.p.; BENTH. et HOOK, f., Gen. PI. I. 2. p. 626 (1865) partim.; FOCKE, in ENGL. u. PRANT. Nat. Pfl.-fam. III. iii. p. 22 (1888) partim.

Sorbus japonica, KOEHNE, in Gaertenfl. L. p. 408 (1901), et in Mitteilungen Deutschen Dendr. Gessell. p. 57 (1906); KOIDZ., Consp. Ros. Jap. p. 48 (1913); MASAMUNE, Prel. Rep. Veg. Yak. p. 83 (1929)

Syn. Pirus americana, var. *micrantha*, C. KOCH, in MIQ. Ann. Mus. Bot. Lugd. Bat. I. p. 249 (1865);

Pirus americana, var. *microcarpa*, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 41 (1867)

Sorbus aucuparia, LINN. var. *japonica*, MAXIM., in Mém. Biolog. IX. p. 170 (1873)

Pyrus aucuparia, var. *japonica*, MAXIM., ex FR. et SAV. Enum. PI. Jap. I. p. 140 (1875).

Pyrus Matsumurana, MAK., in Tokyo Bot. Mag. XI. p. 71 (1897)

Sorbus commixta, HEDLUND, in Kgl. Vetensk. Ak. Handl. 35. p. 38 (1901); C. K. SCHN., in Bull. Herb. Boiss. 2. sér. IV. p. 314 (1904), et Ill. Handb. Laubh. I. p. 677 (1906); NAK., Fl. Kor. II. p. 473 (1911); YAMAZUTA, List Manch. PL p. 155 (1930)

Sorbus aucuparia, (non LINN.) MATSUM., Ind. PL Jap. II. 2. p. 241 (1912); KOM., FL Mansh. II. p. 472 (1904); MAK et NEM., FL Jap. ed. 2. p. 531 (1931)

Norn. Jap. Nanakamado

Leg. Ipse, Kosugidani, Sept. 3, 1926.

Distr. Southern Kuriles, Saghatien, Yezo, Honsyû, Sikoku, Kyûsyfi, Korea, Manchuria, China.

Note. It is interesting to find this species as an epiphyte in this island, mostly in the lauri-aciculisilvae. It is **not** found in lands further south than this **island**.

Micromeles, DECNE., in Nouv. Archiv. Mus. Paris. X. p. 168 ;1874[^]; KOEHNE, Gatt. Pomaceen. p. 20 (1890); KOIDZ., Consp. Ros. Jap. p. 67 (1913)

Micromeles alnifolia, KOEHNE, in Gatt. Poma. (in Wissen. Beil. Progt. Falk-Realg. Berl. Ostern) p. 20 (1890); DIPPEL., Handl. Laubholz. III. p. 381 f. 192 (1893); KOM., Fl. Mansh. II. p. 479 (1904); C. K. SCHN., III. Handb. Laubh. I. p. 703 (1906); NAK., Fl. Kor. I. p. 183 (1909), et II. p. 474 (1911); KOIDZ., Consp. Ros. Jap. p. 68 (1913); MASAMUNE, Prel. Rep. Veg. Yak. p. 81 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 472 (1931)

Syn. Crataegus alnifolia, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 130 (1846)

Pirus Miyabei, SARGENT, For. Fl. Jap. p. 40 (1849); SHIRAZAWA, IC. For. Tree. Jap. ed 2. I. p. 144, t. 49 (1911)

Sorbus alnifolia, C. KOCH, in Ann. Mus. Bot. Lugd. Bat. I. p. 249 (1865); MAXIM., in Mém. Biolog. IX. p. 173 (1873[^]); WENZIG., in Linnaea: XXXVII. p. 58 (1874)

Aria alnifolia, DECNE., Mem. Fam. Pomac. p. 166 (1874)

Aria tiliaefolia, DECNE., Mem. Fam. Pomac. p. 166 (1874)

Pirus alnifolia, (non LINN.) FR. et SAV., Enum. Pl. Jap. II. p. 350 (1876)

Nom. Jap. Azukinasi

Leg. Iperse, Hitigodake, Jul. 7, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Korea, Manchuria.

Note. The species is found more or less rarely in the lauri-aciculisilvae, from 600 m up to 1500 m above the sea level, and is not yet reported further south than Yakusima.

Raphiolepīs, {Raphiolepis} LINDL., in Bot. Reg. t. 486 (1820), et in Trans. Linn. Soc. XIII. p. 105 (1821); DC, Prodr. II. p. 630 (1825); ENDL., Gen. PL n. 6352 1836-401; ROEM., Syn. Monogr. III. p. 100 (1847); BENTH. et HOOK, f., Gen. Pl. I. 2. p. 627 (1865); WENZIG., in Linnaea XXXVII. p. 100 (1874); DECNE., Mem. Fam. Poma. p. 132 (1874); BAILL., Nat. Hist. Pl. I. pp. 400, 464 (1876); FOCKE, in ENGL. U. PRANT. Nat. Pfl.-fam. III. iii. p. 25 (1888); KOIDZ., Consp. Ros. Jap. p. 70 (1913)

Raphiolepis umbellata, MAK., in Tokyo Bot. Mag. XVI. p. 13 (1902); NAK., in Tokyo Bot. Mag. XXVI. p. 95 (1912); KOIDZ., Consp. Ros. Jap. p. 71 (1913); MASAMUNE, Prel. Rep. Veg. Yak. p. 82 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 501 (1931)

Syn. Laurus umbellata, THUNB., Fl. Jap. p. 175 (1784)

Raphiolepis japonica, SIEB. et ZUCC, Fl. Jap. I. p. 162 t. 85 (1841), et Fl. Jap. Fam. Nat. I. p. 130 (1845); A. GRAY, in Perry Exp. Jap. p. 311 (1857); C. KOCH, in Ann. Mus. Bot. Lugd. Bat. I. p. 250 (1865); HOOK, f., in Bot. Mag. t. 5510 (1865); MAXIM., in Mém. Biolog. IX. p. 181 (1873); FR. et SAV., Enum. Pl. Jap. I. p. 142 (1875); FORB. et HEMSL., Ind. Fl. Sin. I. p. 264 U887); ITO, et MATSUM., Tent. Fl. Lutch. I. p. 191 (1899)

Mespilus Sieboldi, BL., in Walp. Rep. II. p. 54 (1843)

Opa japonica, SEEM., in Journ. Bot. p. 281 (1863)

Raphiolepis umbellata, C. K. SCHN., III. Handb. Laubh. I. p. 705 f. 390 h-i (1906), et in Fedd. Rep. Nov. Sp. Reg. Veg. III. p. 152 (1907)

Norn. Jap. Syarinbai

Leg. Iperse, Ambô.

Distr. Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Korea.

Note. The species is found in the forests of the coastal regions.

var. *Mertensii*, MAK., in Tokyo Bot. Mag. XVI. p. 14 (1902); KOIDZ., Consp. Ros. Jap. p. 72 (1913) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 82 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 501 (1931)

Sun. *Raphiolepis Mertensii*, SIEB. et ZUCC., Fl. Jap. I. p. 164 (1841), et Fl. Jap. Fam. Nat. I. p. 130 U846)

Raphiolepis integerrima, HOOK, et ARN., Bot. Capt. Beech. Voy. p. 263 U841)

Raphiolepis japonica, var. *integerrima*, HOOK. f. in Bot. Mag. t. 5510 (1865); MAXIM., in Mém. Biolog. IX. p. 181 (1873) ; ITO et MATSUM., Tent. Fl. Lutch. I. p. 192 (1899)

Raphiolepis umbellata, f. *ovata*, C. K. SCHN., Ill. Handb. Laubh. I. p. 706 (1906), et in Fed. Rep. Nov. Sp. Reg. Veg. III. p. 152 (1907)

Norn. Jap. *Maruba-syarinbai*

Leg. Ipse, Jun. 24, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Bonins, Taiwan.

Note. The species is found near the sea shore or on rocks along the sea coast.

Pourthiaea, DECN., in Nouv. Arch. Mus. Paris X. p. 146 U874) ; FOCKE, in ENGL. U. PRANT. Nat. Pfl.-fam. III. iii. p. 26 (1888)

Pourthiaea villosa, DECNE, in Nov. Arch. Mus. Paris Ser. I. X. p. 147 U874)

var. *yakusimensis*, MASAMUNE, var. nov.

Folia ovato-oblonga, vel ovato-acuminata.

Nom. Jap. *Yakusima-kamatuka*

Leg. Ipse, Aikodake, Jun. 17, 1928.

Distr. Endemica.

Note. The species is found in the lauri-aciculisilvae, from 1000 m up to 1400 m. The type species is distributed from Yezo southward to Kyūsyū, but is not reported further south than Yakusima.

Names of Plants	Regions													
	Philippines	W. O.	Taiwan	Okinawa	A	Tanegasima	W. Kyūsyū	Prop.	S.	Korea	Yezo & Saghalien	Northern Ku	Manchuria & Korea	China
<i>Sorbus japonica</i> , KOEHNE							+	+	+	+	+		+	+
<i>Micromeles alnifolia</i> , KOEHNE							+	+	+	+	+		+	+

Names of Plants	Regions														
	Philippines	Bonins	Taiwan	okinawa	Amur	Osaka	Taneguchi	Kyushu Prop.	Sikoku	Honshu	Korea	Yezo & Southern Kuriles	Southern Kuriles & Kamohatka	Manchuria, Amur & Ussuri	China
<i>Raphiolepis umbellata</i> , MAK.				4	4	4	4								
<i>R. u. var. Mertensii</i> , MAK.	4	+	+	4	4	+	+	+	+						+
<i>Pourthiaea villosa</i> , DECNE. var. <i>Yakusimensis</i> , MASAM.															
Total	5	1	1	2	2	2	4	3	3	3	2	1	3	1	
Percentage		20	20	40	40	40	80	60	60	60	40	20	60	20	
		(Southern elements 2)						(Northern elements 4)							

In respect of this family the island is closely related to the northern regions, because it has some species that have their southern limit in this island, as shown in the above table.

Rosaceae

Rosaceae, B. JUSS., in Hort. Trianon, et Juss., Gen. Pl. LXX. (1789 pp.; SCHN., III. Handb. Laubh. I. p. 499 (1906[^])

Syn. *Rosaceae*, Subf., *Rosoideae*, FOCKE, in ENGL. U. PRANT. Nat. Pfl.-fam. III. iii p. 27 (1888)

Rubus, [TOURN., ex LINN. Syst. ed. 1 U735;] et Sp. PL ed. 1. p. 492 (1753); DC, Prodr. II. p. 556 (1825); ENDL., Gen. Pl. n. 6360 U836-40, ; BENTH. et HOOK, f., Gen. Pl. I. 2. p. 616 (1865); BAILL., Nat. Hist. PL I. p. 454 (1876); FOCKE, in ENGL. u. PRANT. Nat. Pfl.-fam. III. iii. p. 28 (1888)

Syn. *Chamaemorus*, EHRH., Beitr. IV. p. 147 (1789;

Rubus asper, WALL.; DON, Prodr. Fl. Nepal, p. 234 (1825); FOCKE, in Bibl. Bot. Heft. 72.2. p. 157, (1911); KOIDZ., Consp. Ros. Jap. p. 139 (1913); MORI, Enum. PL Cor. p. 203 (1922); MERR., Enum. Hainan Pl. p. 86 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 82 (1929)

Syn. *Rubus sorbifolius*, MAXIM., in Mef. Biolog. VIII. p. 390 (1871); FR. et SAV., Enum. PL Jap. I. p. 127 (1875); FOCKE, in DIELS, FL Cent. Chin. p. 400 (1900, ; MAK. et NEM., Fl. Jap. ed. 2. p. 525 (1931)

Rubus rosaefolius. p *sorbifolius*, MAK., in Tokyo Bot. Mag. XV. p. 51 (1901); MATSUM., Ind. Pl. Jap. II. 2. p. 236 (1912)

Nom. Jap. *Koziki-itigo*

Leg. Ipse, April. 5, 1927.

Distr. Honsyū, Sikoku, Kyūsyū, Amami-6sima, Taiwan, Korea, China, Himalaya.

Note. The species is found in clearings as the first invader.

Rubus Buergeri, MIQ._f in Ann. Mus. Bot. Lugd. Bat. III. p. 36 (1867); MAXIM., in Mém. Biolog. VIII. p. 378 (1871); FR. et SAV., Enum. Pl. Jap. I. p. 123 (1875-); O. KUNTZE, Meth. p. 64 (1897); FOCKE, in Engl. Bot. Jahrb. XXIX. p. 394 (1900); MATSUM., Ind. Pl. Jap. II. 2. p. 228 (1912); KOIDZ., Consp. Ros. Jap. p. 156 (1913); MORI, Enum. Pl. Cor. p. 204 (1922); CHUN., Cat. Tree, and Shrub. Chin. p. 88 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 82 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 510 (1931)

Syn. *Rubus rholuccanus*, (non LINN.) THUNB., Fl. Jap. p. 219 (1784)

Rubus Maximowiczii, O. KUNTZE, Meth. p. 64 (1897); MATSUM., Ind. Pl. Jap. II. 2. p. 233 (1912)

Nom. Jap. *Huyu-itigo*

Leg. Ipse, Aug. 10, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Korea, China.

Note. The species is found as undergrowth in the laurisilvae and is rather common in the above cited regions, but it is not yet reported further south than this island.

Rubus Grayanus, MAXIM., in Mém. Biolog. VIII. p. 382 (1871); O. KUNTZE, Meth. p. 94 (1879); FORB. et HEMSL., Ind. Fl. Sin. I. p. 231 (1887); ITO et MATSUM., Tent. Fl. Lutch. I. p. 450 (1899); MATSUM., Ind. Pl. Jap. II. 2. p. 230 (1912); KOIDZ., Consp. Ros. Jap. p. 124 (1913); MASAMUNE, Prel. Rep. Veg. Yak. p. 82 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 513 (1931)

Nom. Jap. *Ryūkyū-itigo*

Leg. Ipse, Miyanoura, Mart. 17, 1923.

Distr. Tanegasima, Amami-6sima, Okinawa.

Note. The species is found in open clearings as a pioneer from the sea level up to 700 m, and is restricted to the Ryūkyū archipelago.

Rubus nesiotes, FOCKE, in Biol. Bot. 72, I. p. 43 (1910); KOIDZ., Consp. Ros. Jap. p. 162 (1913); MASAMUNE, Prel. Rep. Veg. Yak. p. 83 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 518 (1931)

Syn. *Rubus abortivus*, (non O. KUNTZE) ITO et MATSUM., Tent. Fl. Lutch. I. p. 451 (1899)

Nom. Jap. *Kuwanoha-itigo*

Leg. Ipse, Kosugidani, Jul. 23, 1928.

Distr. Okinawa.

Note. The species is often found in the lauri-aciculisilvae and in the laurisilvae as an invader in the clearings. It is not yet reported in lands further north than Yakusima.

Rubus okinawensis, KOIDZ., Consp. Ros. Jap. p. 140 (1913); MAK. et NEM., Fl. Jap. ed. 2. p. 519 (1931)

Syn. *Rubus rosaefolius*, (non SM.) ITO et MATSUM., Tent. Fl. Lutch. p. 450 (1899)

Nom. Jap. *Ryūkyū-yabu-itigo*

Leg. A. KIMURA! Aug. 7, 1922.

Distr. Okinawa, Amami-Ōsima.

Note. The species is found in waste lands or in clearings. It is not yet found in lands further north than this island.

Rubus palmatus, THUNB., Fl. Jap. p. 217 (1784) et Ic. Pl. Jap. Dec. IV. t. 6 (1802^N); SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 126 [1845]; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 35 (1867J); MAXIM., in Mém. Biolog. VIII. p. 384 (1871); FR. et SAV., Enum. Pl. Jap. I. p. 126 (1875); FORB. et HEMSL., Ind. Fl. Sin. I. p. 234 (1887); PALIB., Consp. Fl. Kor. I. p. 78 (1898); Bot. Mag. t. 7801 (1901); C. K. SCHN., Ill. Handb. Laubh. I. p. 506 (1906); FOCKE, Monogr. Rub. p. 132 f. 56 (1910); MATSUM., Ind. Pl. Jap. II. 2. p. 234 (1912); KOIDZ., Consp. Ros. Jap. p. 118 (1913); CHUN., Cat. Tree, and Shrub. Chin. p. 91 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 83 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 519 (1931);

Syn. *Rubus microphyllus*, LINN, f., Supp. Syst. Veg. p. 263 (1781);

Rubus similis O. KUNTZE, Meth. pp. 89, 94 (1879);

Nom. Jap. *Momizi-itigo*

Leg. Ipse, April. 5, 1927.

Distr. Honsyū, Sikoku, Kyūsyū, Korea, China.

Note. The species is found as a pioneer in clearings or in waste lands, and is not yet reported in lands further south than this island.

Rubus pectinellus, MAXIM., in Bull. Acad. Petersb. XVII. p. 147 (1871), et in Mém. Biolog. VIII. p. 374 (1871); FR. et SAV., Enum. Pl. Jap. I. p. 122 (1875); O. KUNTZE, Meth. p. 79 (1897); MATSUM., in Tokyo Bot. Mag. XV. p. 155 (1900), et Ind. Pl. Jap. II. 2. p. 234 (1912); FOCKE, Monogr. Rub. p. 22 (1910); KOIDZ., Consp. Ros. Jap. p. 107 (1913); MERR., Enum. Philipp. Pl. II. p. 229 (1923); MASAMUNE, Prel. Rep. Veg. Yak. p. 83 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 521 (1931)

Nom. Jap. *Maruba-huyuitigo*

Leg. Ipse, Jul. 31, 1924.

Distr. Honsyū, Sikoku, Kyūsyū, Taiwan, Philippines, China.

Note. The species grows in the open from 700 m up to 1800 m above the sea level.

Rubus rosaefolius, SMITH, Pl. Ic. Hact. Ined. III. t. 60 (1791); WILLD., Sp. Pl. II. p. 1080 (1799); DC, Prodr. II. p. 556 (1825); HOOK, f., Fl. Brit. Ind. II. p. 431 (1878); FORB. et HEMSL., Ind. Fl. Sin. I. p. 237 (1887); Bot. Mag. t. 6970 (1887); SCHNID., Ill. Handb. Laubh. I. p. 513 (1906); MATSUM. et HAY., Enum. Pl. Formos. p. 123 (1906); FOCK., Monogr. Rub. p. 153 (1911); DUNN et TUTCH., Fl. Kwang. and Hongk. p. 95 (1912); KOIDZ., Consp. Ros. Jap. p. 146 (1913); MERR., Enum. Philipp. Pl. II. p. 230 (1923); CHUN., Cat. Tree, and Shrub. Chin. p. 92 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 83 (1929)

Syn. *Rubus commersoni*, POIR., Encycl. Meth. Bot. VI. p. 240 (1804); MAK., in Tokyo Bot. Mag. XXIII. p. 150 (excl. syn.) (1909)

Rubus jamaicensis, (non LINN.) BL., Fl. Filip. p. 427 (1837).

Rubus rosaefolius, var. *tropicus*, MAXIM., 1. *genuinus*, MAK., in Tokyo Bot. Mag. XV. p. 49 (1901); MAK. et NEM., Fl. Jap. ed. 2. p. 524 (1931)

Nom. Jap. *Obaraitigo*

Leg. A. KIMURA! Aug. 6, 1922.

Distr. Honsyū, Kyūsyū, Okinawa, Taiwan, China, Philippines.

Note. The species grows as the first invader in clearings of the laurisilvae and lauri-aciculisilvae.

van **Maximowiczii**, FOCKE, Sp. Rub. Pars. I. p. 155 (1910'; KOIDZ., Consp. Ros. Jap. p. 147 f1913); MASAMUNE, Prel. Rep. Veg. Yak. p. 83 '1929]; MAK. et NEM., Fl. Jap. ed. 2. p. 523 (1931)

Syn. Rubus rosaefolium, p. *coronarius*, MAXIM., in Mél. Biolog. VIII. p. 388 (1871 p. m.

Norn. Jap. Ryūkyū-baraitigo

Leg. Ipse, ca. Kosugidani

Distr. Amami-6sima.

Note. I found it by the roadside at an elevation of 600 m in the laurisilvae. The species is not yet found in lands further north than this island.

Rubus Sieboldii, BL., Bijdr. p. 1110 (1825); WALP., Rept. II. p. 20 (1843, ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 35 (1867); MAXIM., in Mél. Biolog. VIII. p. 377 v 1871;-; FR. et SAV., Enum. Pl. Jap. I. p. 123 U875); FORB. et HEMSL., Ind. Fl. Sin. I. p. 237 (1887) ; ITO et MATSUM., Tent. Fl. Lutch. I. p. 447 (1899); FOCKE, in Bibliot. Bot. Heft. 72. p. 110. ff. 49. et 50 (1910) ; MATSUM., in Tokyo Bot. Mag. XV. p. 156 (1901), et Ind. Pl. Jap. II. 2. p. 236 (1912.' ; KOIDZ., Consp. Ros. Jap. p. 159 (1913); MASAMUNE, Prel. Rep. Veg. Yak. p. 83 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 524 (1931)

Syn. Rubus bracteosa, A. GRAY.; O. KUNTZE, Meth. p. "54 (1879'

Nom. Jap. Hoōoku-itigo

Leg. Ipse, Kurio, Mart. 22, 1923.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, China.

Note. The plant grows in lowlands near the forest edges, and in waste lands. The inhabitants of the island say that the soil is productive wherever this plant grows. This information denotes that the plant is an indicator of the fertility of the soil.

Rubus triphyllus, THUNB., Fl. Jap. p. 215 (1784 ; FOCKE, in ENGL. u. PRANT. Nat. Pfl.-fam. III. iii. p. 30 (1888 , in Engl. Bot. Jahrb. XXIX. p. 397 (1900), et in Bibl. Bot. Heft. 72. 2. p. 187 U9111 ; KOM., Fl. Mansh. II. p. 484 ;1904; ; C. K. SCHN., I. p. 513 ;19061; Laubh. III. Handb, NAK., Fl. Kor. II. p. 475 (1911); MASTUM., Ind. Pl. Jap. II. 2. p. 238 (1912); KOIDZ., Consp. Ros. Jap. p. 137 (1913;; CHUN., Cat. Tree, and Shrub. Chin. p. 93 (1924'; MASAMUNE, Prel. Rep. Veg. Yak. p. 83 U929.

Syn. Rubus purpureus, ^non HOOK.), BUNGE, Enum. Pl. Chin. Bor. p. 98 (1832)

Rubus parvifolius, (non LINN.) SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 126 ,1845. ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 34 (1867); MAXIM., in Mél. Biolog. VIII. p. 392 ;1871); FR. et SAV., Enum. Pl. Jap. I. p. 127 ,1875. ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 235 (1887); PALIB., Consp. Fl. Kor. I. p. 79 U898>; ITO et MATSUM., Tent. Fl. Lutch. I. p. 451 U899) ; NAK., Fl. Kor. I. p. 188 (1909]; MAK. et NEM., Fl. Jap. ed. 2. p. 520 .1931)

Nom. Jap. Nawasiro-itigo

Leg. Ipse, Ambō.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China, Australia.

Note. The species grows in waste lands and by the roadside at low altitudes and is common in the Far East.

Rubus yakumontanus, MASAMUNE, Sp. nov.

Fruticosus glaber haud aculeatus. Ramus discursus torti vibratique. Folia

chartacea triangulari-ovata vel ovata 3-5 cm longa 2.5-3.5 cm lata apice triangulari-acuminata leviter cordata vel truncata, margine subduplicato-serrata, 3-5 lobata, lobo terminali elongato-triangulari-ovato 2.5-3.5 cm longo 1.5-2 cm lato apice acuminato ad summum acuminatissimo basi leviter contracto, lobis lateralibus oblique triangulari-ovatis, utraque glabra, sed ad nervos pilosa, petiolis 1-2 cm longis pilosis. Flores ad apicem ramulorum lateralium terminales solitarii, pedicellis 1-1.5 cm longis gracilibus subpendulis glabris. Calyx viridis; cupula dorso subplana vel leviter convexa 6mm in diametro glabra; lobis calycis lanceolatis vel elongato-triangularibus apice acuminatis ca. 10 mm longis 3 mm latis utrimque glabris. Petala alba elliptica vel ovata ca. 10 mm longa 8 mm lata apice rotundata, basi rotundata ad extremitatem subito acuta, margine integra. Stamina numerosa, filamentis, glabris albis, antheris ovatis 1/2 mm longis. Carpella numerosa.

Notn. Jap. *Yakusima-kiitigo*

Leg. Ipse, Kosugidani, April. 5, 1927.

Distr. Endemica.

Note. I found this species in clearings or by the roadside. This is a light loving plant and one of the first invaders of the successive secondary area. The species is restricted to this island.

Rubus yakusimensis, MASAMUNE

Syn. *Rubus minusculus*, LEVL. var. *yakusimensis*, MASAMUNE, Prel. Rep. Veg. Yak. p. 83 U929)

Frutex glaber ca. 10 cm altus spinosus. Folia chartaceo-membranacea spinifera, obovata in ambitu, pinnatim 5-7 foliolata, foliolis ellipticis vel ovato-ellipticis ca. 1-4 cm longis 0.5-1.5 cm latis, supra plus minusve pubescentibus, subtus glabris, margine inciso-serratis, apice acuminatis, basi rotundato-obtusis, petiolis gracilibus 3-4 cm longis glabris laxe spiniferis; stipulis lineari-lanceolatis, ca. 7 mm longis 1 mm latis. Flores terminales vel axillares, pedunculis glabris aculeatis, aculeis ca. 2 mm longis, recurvis. Cupula calicis 7 mm in diametro dorso subtus pauca setulosa glabra; lobis 5 patentibus, elongato-triangularibus apice longe caudatis cum caudis ca. 13 mm longis basi 4 mm latis margine tomentosus, utrimque glabriusculis. Petala 5, obovato-rotundata vel obovato-elliptica, apice rotundata vel emarginata, basi leviter attenuata ca. 11 mm longa 6 mm lata. Stamina numerosa. Carpella numerosa, stylis glabris.

Nom. Jap. *Yakusimahimebaraitigo*

Leg. Ipse, Jul. 9, 1927.

Note. The species is found from 600 m up to 1600 m above the sea level, often in clearings and by the roadside. This fact denotes that it is a light loving plant. It is restricted to the island.

Fragaria, [TOURN., ex LINN. Syst. ed. 1 U735)]
et Sp. Pl. ed. 1. p. 494 ;1753); DC, Prodr. II. p. 569 ;1825); ENDL., Gen. Pl. n. 6361 (1836-40J; BENTH. et HOOK, f., Gen. Pl. I. 2. p. 620 (1865); BAILL., Nat. Hist. Pl. I. p. 453 (18761; FOCKE, in ENGL. u. PRANT. Nat. Pfl.-fam. III. iii. p. 33 ;1888j; KOIDZ., Consp. Ros. Jap. p. 163 11913); LEMEE, Diet. Gen. Pl. Phan. III. p. 151 (1931)

Fragaria yakusimensis, MASAMUNE, in Journ. Trop. Agr. III. p. 115 (1931)

Nom. Jap. *Yakusima-sirobana-hebi-itigo*

Leg. Ipse, Jun. 1928.

Distr. Endemica.

Note. The species is found in the Pseudosasa Owatarii Association, about 1700 m above the sea level.

Potentilla, [LINN., Syst. ed. 1. (1735), et Gen. PI. ed. 1. p. 147 (1737)] et Sp. PI. ed. 1. p. 495 (1753); DC, Prodr. II. p. 571 (1825); ENDL., Gen. PI. n. 6363 [1836-40]; LEHMANN, C. Revis Pontentillarum; 1856 -; BENTH. et HOOK, f., Gen. PI. I. 2. p. 620 (1865); FOCKE, in ENGL. U. PRANT. Nat. Pfl.-fam. III. iii. p. 34 (1888); WALF., Monogr. Potent., in Bibl. Bot. Heft. 71 (1908); KOIDZ., Cons. Ros. Jap. p. 170 (1913)

Syn. Comarum, [LINN., Gen. PI. ed. 1. p. 148 (1737)] et Sp. PI. ed. 1. p. 502 (1753)

Tortentilla, LINN., Sp. PI. ed. 1. p. 500 (1753)

Pancovia, (HEIST.) ex ADANS., Fam. II. p. 294 (1763)

Quinquefolium, (TOURN.) ex ADANS., Fam. II. p. 295 (1763)

Argentina, LAM., Fl. Fran. III. p. 118 (1778)

Potentilla chinensis, SER., in DC. Prodr. II. p. 581 (1825); MAXIM., Prim. Fl. Amur. p. 96 (1859); REGEL, Tent. Fl. Uss. p. 56 (1861); FR. et SAV., Enum. PI. Jap. II. p. 338 (1876); FR., PI. David, p. 112 (1884); FORB. et HEMSL., Ind. Fl. Sin. I. p. 241 (1887); KOM., Fl. Mansh. II. p. 501 (1904); MATSUM. et HAY., Enum. PI. Formos. p. 125 (1906); WALF., Monogr. Potent., p. 179 (1908); NAK., Fl. Kor. I. p. 193 (1909), et II. p. 479 (1911); MATSUM., Ind. PI. Jap. II. 2. p. 210 (1912); KOIDZ., Consp. Ros. Jap. p. 178 (1913); MAK. et NEM., Fl. Jap. ed. 2. p. 481 (1931)

Nom. Jap. Kawara-saigo

Leg. Y. KUDO! Aug. 1907.

Distr. Honsyū, Sikoku, Kyūsyū, Amami-6sima, Taiwan, Korea, Manchuria.

Note. The species is found by the roadside, on cultivated lands and lowlands, and is rather common throughout Japan.

Potentilla Dickinsii, FR. et SAV., Enum. PI. Jap. II. p. 337 (1876); HAY., in Tokyo Bot. Mag. XVII. p. 31 (1903); WOLF, Monogr. Potent., p. 82 (1908); MASAMUNE, Prel. Rep. Veg. Yak. p. 81 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 481 (1931)

Syn. Potentilla ancistrifolia, MAK., in Tokyo Bot. Mag. XVI. p. 29 (1902)

Potentilla ancistrifolia, BUNGE, var. *Dickinsii*, (FR. et SAV.) KOIDZ., Consp. Ros. Jap. p. 180 (1913)

Potentilla Dickinsii, FR. et SAV. var. *typica*, NAK., Rep. Veg. Diamond Mount. Cor. p. 175 (1918)

Nom. Jap. Iwakinbai

Leg. Ipse, Kuromidake, Jun. 11, 1928.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Korea, Manchuria.

Note. This species grows as a lithophyte on granite rocks in the Pseudosasa Owatarii Association, and is not yet reported further south than this island.

Potentilla fragarioides, LINN. var. **Sprengeliana**, MAXIM., in Mém. Biolog. IX. p. 160 (1873); KOM., Fl. Mansh. II. p. 495 (1904); WALF., Monogr. Potent., p. 638 (1908); NAK., Fl. Kor. I. p. 195 (1909); KOIDZ., Consp. Ros. Jap. p. 182 (1913); MASAMUNE, Prel. Rep. Veg. Yak. p. 81 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 482 (1931)

Syn. Potentilla Sprengeliana, LEHM., Monogr. p. 48, t. 1 (1835), et Revisio p. 45 (1856)

Nom. Jap* Kizi-musiro

Leg. Ipse, April. 5, 1927.

Distr. Kuriles, Yezo, Honsyû, Sikoku, Kyûsyû, Korea, Manchuria.

Note. The species is found in open grasslands at low altitudes and has its southern limit in this island.

Duchesnea, SMITH, in Trans. Linn. Soc. X. p.

372 1811 ; ENDL., Gen. Pl. n. 6361b ' 1836-40 ; BENTH. et HOOK, f, Gen. Pl. I. 2. p. 620 1865' ; FOCKE, in ENGL. u. PRANT. Nat. Pfl.-fam. III. iii. p. 33 U888' ; KOIDZ., Consp. Ros. Jap. p. 168 ,1913-

Syn. *Fragaria*, DC, Prodr. II. p. 569 √1825, partim.; BENTH. et HOOK, f, Gen. Pl. I. p. 620 ;1865 partim.

Duchesnea indica, FOCKE, in ENGL. u. PRANT. Nat. Pfl.-fam. III. iii. p. 33 i'1838>; PALIB., Consp. Fl. Kor. I. p. 80 '1898, ; DIELS, Fl. Cent. Chin. p. 401 (1900 ; KOM., Fl. Mansh. II. p. 489 {1904-; NAK, Fl. Kor. I. p. 191 (1909 , et II. p. 479 1911 ; KOIDZ., Consp. Ros. Jap. p. 168 1913 ; LOESN., PflVwelt. Kiautch. Geb. p. 133 1918 ; MERR., Enum. Hainan Pl. p. 87 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 81 11929;; MAK. et NEM., Fl. Jap. ed. 2. p. 463 {19311

Syn. *Duchesnea fragi/ormis*, SMITH, in Trans. Linn. Soc. X. p. 373 U811) ; A. GRAY, Bot. Jap. p. 387 ;1859'

Fragaria indica, ANDR., in Bot. Regt. t. 61 1815 ; AIT., Hort. Kew. ed. 2, III. p. 273 '1811 ; DC, Prodr. II. p. 571 1825' ; ROXB., Fl. Ind. II. p. 520 (1832) ; WIGHT, Ic. PL Ind. Or. t, 989 1845 ; FR. et SAV., Enum. Pl. Jap. I. p. 129 1875 ; HOOK, f, Fl. Brit. Ind. II. p. 343 ;1878>; FR., Pl. Daivd, I. p. 110 1884. ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 240 J887;; ITO et MATSUM., Tent. Fl. Lutch. I. p. 452 ;1899 ; MATSUM & HAY., Enum. Pl. Formos. p. 124 1906 ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 95 U912) ; MERR., Enum. Philip. Pl. II. p. 231 1923

Duchesnea chrysantha, MIQ., Fl. Ind. Bat. I. p. 372 ;1887-

Xom. Jap. Hebi-itigo

Leg. Ipse, April. 5, 1927.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China, Philippines.

Aote. Grows in waste lands and by the roadside at low altitudes; is rather common in the Far East.

Agrrimonia, [TOURN., ex LINN. Syst. ed. 1 (1735)

et Sp. Pl. ed. 1. p. 448 1753 ; DC, Prodr. II. p. 587 √1825;; ENDL., Gen. Pl. n. 6368 1836-40 ; BENTH. et HOOK, f, Gen. Pl. I. 2. p. 622 .1865i; FOCKE, in ENGL. u. PRANT. Nat. Pfl.-fam. III. iii. p. 43 '1833-; KOIDZ., Consp. Ros. Jap. p. 210 1913 ; LEMÉE. Diet. Gen. Pl. Phan. I. p. 124 ;1929,

Agrimonia eupatoria, LINN., Sp. Pl. ed. 1. p. 448 1753 ; THUNB., Fl. Jap. p. 195 1784 ; DC, Prodr. II. p. 587 1825. ; HOOK, f, Fl. Brit. Ind. II. p. 361 i1878 ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 246 1887 ; PALIB., Consp. Fl. Kor. I. p. 83 1899 ; ITO et MATSUM., Tent. Fl. Lutch. I. p. 453 1899- ; MATSUM. et HAY., Enum. Pl. Formos. p. 126 ,1906 ; DUNN et TUTCH., Fl. Kwang. and Hongk. p. 95 1912 ; KOIDZ., Consp. Ros. Jap. p. 210 1913/; LOESEN., Pfl.-welt, Kiautch. Geb. p. 134 1918' ; MASAMUNE, Prel. Rep. Veg. Yak. p. 81 U929,

Syn. *Agrimonia pilosa*, LEDEB., Ind. Sem. Hort. Peterop. Supp. I. p. 1 J823', et Fl. Ros. II. p. 32 1844-46 ; FR. SCHM., Sachal. p. 127 [1868 ; KOM., Fl. Mansh. II. p. 519 1904 ; NAK., Fl. Kor. I. p. 202 1909,

- Agrimonia visddula*, BUNGE, Enum. Pl. Chin. Bor. p. 100 U832); FR. et SAV., Enum. Pl. Jap. I. p. 133 (1875)
Agrimonia viscidula, var. *japonica*. MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 38 (1867)
Agrimonia Eupatoria, var. *pilosa*, MAK., in Tokyo Bot. Mag. X. p. 60 '1896 ; YAMAZUTA, List Manch. PL p. 142 (1930)
Agrimonia pilosa, LEDEB. var. *viscidula*, KOM., Fl. Mansh. II. p. 520 (1904); MATSUM., Ind. Pl. Jap. II. 2. p. 195 U912)
Agrimonia japonica, KOIDZ., in Tokyo Bot. Mag. XLIV. p. 104 (1930 '); MAK. et NEM., Fl. Jap. ed. 2. p. 458 (1931)

Nom. Jap. Kin-mizuhiki

Leg. Ipse, Nagatadake, Aug. 23, 1928.

Distr. Saghalien, Yezo, Honsyû, Sikoku, Kyûsû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China, Africa.

Note. The plant is found as undergrowth in open sunny places in the laurisilvae and the lauri-aciculilvae and in the Pseudosasa Owatarii Association. It ranges from the sea level up to the summit of Miyanouradake, and is widely scattered through eastern Asia.

Rosa, [TOURN., ex LINN. Syst. ed. 1 (1735 , et Gen. Pl. ed. 1. p. 146 (1737] et Sp. Pl. ed. 1. p. 491 (1753); DC, Prodr. II. p. 597 '1825'; ENDL., Gen. Pl. n. 6357 (1836-40) ; J3ENTH. et HOOK, f., Gen. Pl. I. 2. p. 625 ,1865) ; FOCKE, in ENGL. U. PRANT. Nat. Pfl.-fam. III. iii. p. 46 (1888); KOIDZ., Consp. Ros. Jap. p. 221 (1913)

Syn. Rhodophora, NECK., Elem. II. p. 91 ;1790.

Lowea, LINDL., Bot. Reg. t. 1261 (1829)

Hultencia, REICHB., Handb. p. 243 (1837)

Rhodopsis, REICHB., Norn. p. 168 .1841)

Rosa polyantha, SIEB. et ZUCC. var. *genuina*, NAK., in Tokyo Bot. Mag. XL. p. 568 1926 ; MASAMUNE, Prel. Rep. Veg. Yak. |p. 82 '1929' ; MAK. et NEM., Fl. Jap. ed. 2. p. 506 1931

Syn. Rosa multiflora, non THUNB. SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 128 1845 ; FR. et SAV., Enum. Pl. Jap. I. p. 134 (1876); FORB. et HEMSL., Ind. Fl. Sin. I. p. 253 .1887 ; KOM., Fl. Mansh. II. p. 536 (1904); MATSUM., et HAY., Enum. Pl. Formos. p. 128 '1906); SCHNEID., Handb. Laubh. I. p. 540 .1906 ; MATSUM., Ind. Pl. Jap. II. 2. p. 225 ,1912); KOIDZ., Consp. Ros. Jap. p. 230 '1913 ; REHD., in SARGENT Pl. Wils. II. pp. 304 et 334 '1915

Rosa multiflora, var. *genuina*, FR. et SAV., Enum. Pl. Jap. I. p. 134 <1875 , et II. p. 343 1876) ; NAK., in Tokyo Bot. Mag. XXX. [p. [236 (1916 , et Fl Sylv. Kor. VII. p. 30 t. 4 1918

Rosa multiflora, var. *adenophora*, FR. et SAV., Enum. PL Jap. I. p. 135 1875 et II. p. 344 1876 ; MATSUM., Ind. Pl. Jap. II. 2. p. 226 v'1912 - partim.

Rosa multiflora, THUNB. var. *typica*, MORI, Enum. Pl. Cor. p. 202 '1922

Nom. Jap. Noibara

Leg. Ipse, ca. Ambô.

Distr. Honsyû, Sikoku, Kyûsû, Taiwan, Korea, Manchuria.

Note. Grows in open lands, clearings and in waste lands.

var. *adenochaeta*, NAK., in Tokyo Bot. Mag. XL. p. 569 11926 ; MAK. et NEM., Fl. Jap. ed. 2. p. 506 1931 .

Syn. Rosa Nakaiana, LEVL., in Fedd. Rep. Nov. Sp. X. p. 432 (1912[^])
Rosa multiflora, var. *adenophora*, (non FR. et SAV.) MATSUM., Ind. Pl. Jap. II. 2. p. 226 ;1912) p.p.; NAK., Fl. Sylv. Kor. VII. p. 30. t. V. ;1918) p.p.
Rosa adenochaeta, KOIDZ., in Tokyo Bot. Mag. XXXIII. p. 60 '1918.
Norn. Jap. Tukusi-ibara
Leg. Ipse, Jul. 25, 1927.
Distr. Honsyû, Kyûsyû, Korea.
Note. The species is found in waste and open lands and in clearings. It has its southern limit in this island.

Rosa Wichuraiana, CREP.; FR. et SAV., Enum. Pl. Jap. I. p. 135 ,1875: ut. *Syn. et ex* DESEGL. in Bull. Soc. Bot. Belg. XV. p. 204 † 1876 i; NAK., in Tokyo Bot. Mag. XL. p. 571 U926); MASAMUNE, Prel. Rep. Veg. Yak. p. 82 .1929;; MAK. et NEM., Fl. Jap. ed. 2. p. 508 (1931)

Syn. Rosa moschata, (non MILL.) BENTH., Fl. Hongk. p. 106 v1861)
Rosa Luciae, FR. et ROCH.; FR. et SAV., Enum. Pl. Jap. I. p. 135 ,1875), et II. p. 344 (1876); ENGL. et MAXIM., in Engl. Bot Jahrb. VI. p. 63 †1885); FORB. et HEMSL., Ind. Fl. Sin. I. p. 251 (1887); PALIB., Consp. Fl. Kor. I. p. 84 (1899); ITO et MATSUM., Tent. Fl. Lutch. I. p. 454 (1899); MATSUM. et HAY., Enum. Pl. Formos. p. 128 (1906. ; C. K. SCHNEID., Ill Handb. Laubh. I. p. 541 il906,i ; KOIDZ., Consp. Ros. Jap. p. 232 '1913)

Nom. Jap. Terihanoibara •
Leg. Ipse, Jul. 26, 1924.
Distr. Honsyû, Sikoku, KyfisyG, Amami-dsima, Okinawa, Taiwan, Korea, China.
Note. Grows in open and dry lands; common in Japan.

var. *paniculata*, MAK. et NEM., Fl. Jap. ed. 2. p. 508 ,1931)

Syn. Rosa Luciae, var. *paniculata*, MAK., in Tokyo Bot. Mag. XXIII. p. 149 '1909J
Rosa Luciae, FR. et SAV. var. *euluciae*, KOIDZ. c. *paniculata*, KOIDZ., Consp. Ros. Jap. p. 233 il913i

Norn. Jap. Koba-no-terihanoibara.
Leg. A. KIMURA! Aug. 8, 1922.
Distr. Honsyû, Sikoku, Kyûsyû.
Note. Grows in the iaurisilvae as an invader in the clearings.

Regions	Names of Plants																
	Philipp ^o	Bonins	Taiwan	Okinawa	Ryûkyûs	Anami-Ôsima	Tanegasima	Kyûsyû Prop.	Kyûsyû	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamitchatka	Manchuria, Amur & Ussuri	China
Rubus asper, WALL.			+		+			+	+	+	+						+

<i>Rubus Buergeri</i> , MIQ.					+	+	+	+	+												+	
<i>Rubus Grayanus</i> , MAXIM.							+	+	+													
<i>Rubus nesiotes</i> , FOCKE.																						
<i>Rubus okinawensis</i> , KOIDZ.																						
<i>Rubus palmatus</i> , THUNB.																						
<i>Rubus pectinellus</i> , MAXIM.	+																					
<i>Rubus rosaefolius</i> , SMITH.	+																					
<i>R. r. var. Maximowiczii</i> , FOCKE.																						
<i>Rubus Sieboldii</i> , BL.																						
<i>Rubus triphyllus</i> , THUNB.																						
<i>Rubus yakumontanus</i> , MASAMUNE.																						
<i>Rubus yakusimensis</i> , MASAMUNE.																						
<i>Fragaria yakusimensis</i> , MASAMUNE.																						
<i>Potentilla chinensis</i> , SER.																						
<i>Potentilla Dickinsii</i> , FR. et SAV.																						
<i>Potentilla fragarioides</i> , LINN, var. <i>Sprengeliana</i> , MAXIM.																						
<i>Duchesnea indica</i> , FOCKE.	+																					
<i>Agrimonia eupatoria</i> , LINN.																						
<i>Rosa polyantha</i> , SIEB. et ZUCC. var. <i>genuina</i> , NAK.																						
<i>R. p. var. adenochaeta</i> , NAK.																						
<i>Rosa Wichuraiana</i> , CREP.																						
<i>R. W. var. paniculata</i> , MAK. et NEM.																						
Total 23	3	9	9	10	5	16	15	16	12	4	1										7	13
Percentage.	13	40	40	43	22	67	65	67	65	17	4										31	57
(Southern elements 14)											(Northern elements 17)											

A few species of the Ryûkyû elements have their northern limit in this island, but in general the northern elements are predominant in this island. These facts lead us to conclude that in respect of this family the island has some relation with the northern regions, even though Yakusima, one of the islands that compose the Ryûkyû archipelago, has a few Ryûkyû elements in it.

—gdala—

Amygdalaceae, G. DON, Gen. Hist. II, p. 481 (1832)

Syn. *Dryobataea*, DC., Fl. Fr. IV, p. 479 (1805); LINDL., Veg. Kingd. p. 557 (1853);

Rosaceae, Trib. *Prunaceae*, HOOK. f., in BENTH. et HOOK. f. Gen. Pl. I, p. 602 (1865)

Rosaceae, Subf. *Prunoidae*, FOCKE, in ENGL. u. PRANT. Nat. Pl.-fam. III, iii, p. 50 (1888)

Prunus, [TOURN., ex LINN. Syst. ed. 1, 1735.]

et Sp. Pl. ed. 1, p. 473 (1753); DC., Prodr. II, p. 532 (1825); ENDL., Gen. Pl. n. 6406 (1836-40); BENTH. et HOOK. f., Gen. Pl. I, 2, p. 609 (1865); FOCKE, in ENGL. u. PRANT. Nat. Pl.-fam. III, iii, p. 51 (1888)

Syn. *Amygdalus*, LINN., Sp. Pl. ed. 2, 676 (1763)

Cerasoides, SIEB. et ZUCC., in Abh. Akad. Münch. III, p. 743 t. 5 (1843)

Prunus chikusiensis, KOIDZ., in Tokyo Bot. Mag. XXXII, p. 57 (1918); MASAMUNE Prel. Rep. Veg. Yak. p. 82 (1929); MAK. et NEM., Fl. Jap. ed. 2, p. 487 (1931)

Syn. *Prunus kiusiana*, KOIDZ., in Tokyo Bot. Mag. XXXII, p. (54), Pl. ex. Tanegasima; *excl. syn.*

Nom. Jap. *Tsukusi-zakura*

Leg. Ipse, Sept. 2, 1926.

Diatr. Tanegasima, Amami-Osima, Kosikizima.

Note. The species is found in the lauristhvae and in the lauri-aciculisithvae, from 200 m up to 600 m.

Prunus macrophylla, SIEB. et ZUCC., Fl. Jap. Fam. Nat. I, p. 122, 1845; MID., in Ann. Mus. Bot. Lugd. Bat. II, p. 91 (1865); FR. et SAV., Enum. Pl. Jap. I, p. 118 (1875), et II, p. 329 (1876); MAXIM., in Mém. Biolog. XI, p. 710 (1883); FORB. et HEMSL., Ind. Fl. Sin. I, p. 219 (1887); ITO et MATSUM., Tent. Fl. Jutch., I, p. 447 (1899); KOIDZ., Consp. Ros. Jap. p. 291 (1913); MAK. et NEM., Fl. Jap. ed. 2, p. 489 (1931)

Nom. Jap. *Bakutsi-mo-ki*

Leg. NAOHARA! Kurio, Jul. 21, 1930.

Names of Plants	Regions	
	Ryūkyū	Cis
Philippines		
Bonins		
Taiwan		
Okinawa	+	
Amami-dsima	+	
Tanegasima		
Kyūsyū Prop.		
Sikoku		
Honshū		
Korea		
Japan? * Southern Kuriles		
Saghalien		
Northern Kuriles & Kamtchatka		
Manchuria, Amur & Ussuri		
China		

Prunus macrophylla, SIEB. et ZUCC.

Prunus chikusiensis, KOIDZ.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Osima, Okinawa.

Note. Grows in the laurisilvae from the sea level up to about 600 m.

In respect of this family, the island has no relationship with Formosa but close connection with Tanegasima and Amami-Ôsima. This fact shows that the islands which form the northern part of the Ryûkyû archipelago are closely related to one another in respect of this family.

Fabaceae

Fabaceae, LINDL., Veg. Kingd. ed. 3. p. 544 (1853[^])

Syn. *Leguminosae*, JUSS., Gen. p. 345 (1789); BENTH., in BENTH. et HOOK. f. Gen. Pl. I. 1. p. 434 (1862)

Entada, ADANS., Fam. II. p. 318 (1763); DC, Prodr. II. p. 424 (1825); ENDL., Gen. Pl. n. 6832 (1836-40); BENTH., in BENTH. et HOOK. f. Gen. Pl. I. p. 589 (1865); LEM&E, Diet. Gen. Pl. Phan. II. p. 872 (1930)

Syn. *Pusaetha*, [LINN., Fl. Zeyl. p. 236 (1747,)] O. KUNTZE, Rev. Gen. Pl. I. p. 204 (1891); TAUB., in ENGL. U. PRANT. Nat. Pfl.fam. III. iii. p. 122 (1891)

Gigalobium, P. BR., Hist. Jamaica, p. 362 (1756)

Adcnopodia, PRESL, Epim. Bot. p. 206 (1850)

Entada phaseoloides, MERR., in Philipp. Journ. Sc. IX. Bot. p. 86 (1914), Enum. Philipp. PL II. p. 252 (1923¹), et Enum. Hainan PL p. 89 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 85 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 568 (1931)

Syn. *Mimosa entada*, LINN., Sp. PL ed. 1. p. 518 (1753)

Lens phaseoloides, LINN., in STICKMAN. Herb. Amb. p. 18 (1754), et Am. Acad. IV. p. 128 (1759[^])

Mimosa scandens, LINN., Sp. PL ed. 2. p. 1501 (1763)

Entada scandens, BENTH., in HOOK. Lond. Journ. Bot. IV. p. 332 (1842), et in Trans. Linn. Soc. XXX. p. 363 (1875); BAK., in HOOK. f., Fl. Brit. Ind. II. p. 287 (1878); ITO et MATSUM., Tent. Fl. Lutch. I. p. 442 (1899); MATSUM., in Tokyo Bot. Mag. XVI. p. 102 (1902), et Ind. PL Jap. II. 2. p. 261 (1912); MATSUM. et HAY., Enum. PL Formos. p. 116 (1906)

Nom. Jap. *Modama-kazura*

Leg. Ipse, Ambô, April. 1, 1927.

Distr. Amami-Osima, Okinawa, Taiwan, Philippines, China.

Note. The species is found in the laurisilvae near the seashore. It has its northern limit in this island.

Bauhinia, [LINN., Gen. Pl. ed. 1. p. 126 (1737)] et Sp. PL ed. 1. p. 374 (1753, DC, Prodr. II. p. 512 (1825); ENDL., Gen. Pl. n. 6790 (1836-40); BENTH., in BENTH. et HOOK. f. Gen. Pl. I. p. 575 (1865); TAUB., in ENGL. u. PRANT. Nat. Pfl.-fam. III. iii. p. 147 (1891); LEMEE, Diet. Gen. Pl. Phan. I. p. 526 (1929)

Syn. *Perlebia*, MART., Reiss. I. p. 555 (1828);

Bauhinia japonica, MAXIM., in Mém. Biolog. IX. p. 75 (1873: ; FR. et SAV., Enum. Pl. Jap. I. p. 116 (1875[^] ; MATSUM., in ITO et MATSUM. Tent. Fl. Lutch. I. p. 440 (1899., in Tokyo Bot. Mag. XVI. p. 101 (1902) et Ind. Pl. Jap. II. 2. p. 250 (1912) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 84 (1929[^] ; MAK. et NEM., Fl. Jap. ed. 2. p. 552 (1931)

Nom. Jap. *Hakamakazura*

Leg. Ipse, Ambo, Jul. 1, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa.

Note. Grows in lowlands especially in littoral forests.

Cassia, [TOURN., ex LINN. Syst. ed. 1 U735]]
et Sp. Pl. ed. 1. p. 376 (1753) ; DC, Prodr. II. p. 489 (1825! ; ENDL., Gen. Pl. n. 6781 (183&40) ; BENTH., in BENTH. et HOOK. f. Gen. Pl. I. 2. p. 571 (1865) ; TAUB., in ENGL. u. PRANT. Nat. Pfl.-fam. III. iii. p. 157 (1891) ; LEMÉE, Diet. Gen. Pl. Phan. I. p. 863 (1929)

Syn. *Grimaldia*, SCHRANK, in Denkschr. Ak. München. p. 103 t. 8 (1808);

Cassiana, RAFIN., in Amer. Monthly Mag. p. 266 (1818)

Cassia mimosoides, LINN. var. **nomame**, MAK., in Journ. Jap. Bot. I. p. 17 (1917) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 84 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 555 (1931)

Syn. *Cassia mimosoides*, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 54 (1867) ; FR. et SAV., Enum. Pl. Jap. I. p. 115 (1875) ; MATSUM., in ITO et MATSUM. Tent. Fl. Lutch. I. p. 440 (1899), in Tokyo Bot. Mag. XVI. p. 100 (1902), et Ind. Pl. Jap. II. 2. p. 253 (1912); KOM., Fl. Mansh. II. p. 564 (1904); MATSUM. et HAY., Enum. Pl. Formos. p. 115 [1906] ; NAK., Fl. Kor. I. p. 141 (1909)

Nom. Jap. *Kawaraketumei*

Leg. Ipse, Jul. 21, 1924.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria.

Note. Grows in open waste lands, especially on rocky grounds; rather common in the Far East.

Caesalpinia, LINN., Sp. Pl. ed. 1. p. 380 (1753);
DC, Prodr. II. p. 481 (1825); ENDL., Gen. Pl. n. 6765 (1836-40); BENTH., in BENTH. et HOOK. f. Gen. Pl. I. 2. p. 565 (1865); P. TAUB., in ENGL. u. PRANT. Nat. Pfl.-fam. III. iii. p. 173 (1891); LEMÉE, Diet. Gen. Pl. Phan. I. p. 739 (1929)

Caesalpinia nuga, ALT., Hort. Kew ed. 2. III. p. 32 (1811); ENGL. in Bot. Jahrb. VI. p. 64 (1885); MAXIM., in Mém. Biolog. XII. p. 449 (1886); MATSUM., in Tokyo Bot. Mag. XVI. p. 99 (1902), et Ind. Pl. Jap. II. 2. p. 251 (1912); MATSUM. et HAY., Enum. Pl. Formos. p. 115 (1906); DUNN et TUTCH., Fl. Kwang. and Hongk. p. 88 (1912); MERR., Enum. Philipp. Pl. II. p. 267 (1923); CHUN., Cat. Tree, and Shrub. Chin. p. 108 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 84 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 553 (1931)

Syn. *Guilandina nuga*, LINN., Sp. Pl. ed. 2. p. 546 (1762)

Nom. Jap. *Nantenkazura*

Leg. ca. Yudomari (fid. Z. TASHIRO)

Distr. Amami-6sima, Okinawa, Taiwan, Philippines, China.

Note. I have not collected this species in the island, but was told by Mr. TASHIRO

that he had collected it once near Yudomari. The species is not yet reported further north than this island.

Caesalpinia sepiaria, ROXB., Hort. Beng. p. 32 (18U) nomen, et Fl. Ind. II. ed. 2. p. 360 1832 ; MiQ., Fl. Ind. Bat. I. 1. p. 109 ;1855\ et in Ann. Mus. Bot. Lugd. Bat. III. p. 54 '1867' ; BAK., in Hook. f. Fl. Brit. Ind. II. p. 256 a8781 ; MAXIM., in Mém. Biolog. XII. p. 449 '1886' ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 206 (1887) ; MATSUM., in Tokyo Bot. Mag. XVI. p. 99 '1902', et Ind. PL Jap. II. 2. p. 251 ,1912 • ; MERR., Enum. Philipp. Pl. II. p. 268 1923 ; CHUN., Cat. Tree, and Shrub. Chin. p. 108 U924

Syn. *Caesalpinia japonica*, SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 117 U845 ; FR. et SAV., Enum. PL Jap. I. p. 114 ,1875) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 84 11929) ; MAK. et NEM., FL Jap. ed. 2. p. 553 ;193D

Nom. Jap. *Zyaketsu-ibara*

Leg. Ipse, Ambo, Sept. 6, 1926.

Distr. Honsyū, Sikoku, Kyūsyū, Okinawa, China, Philippines.

Note. Grows in sunny places at low altitudes.¹

Maackia, RUPR., in Bull. Acad. St. Petersb. XV.

p. 143 ,1856'

Syn. *Cladrastis*, RAF., Neogenyt. 1, (1825) p.p.; BENTH. et: HOOK, f, Gen. PL I. 2. p. 554 (1865) p.p.; P. TAUB., in ENGL. U. PRANT. Nat. Pfl-fam. III. iii. p. 197 (1891) partim.

Buergeria, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 53 (1867)

Maackia Tashiroi, MAK., in Tokyo Bot. Mag. XVI. p, 34 (1902), et Obs. FL Jap. II. p. 15 ,1902) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 86 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 585 (1931)

Syn. *Cladrastis Tashiroi*, YATABE, in Tokyo Bot. Mag. VI. p. 345 (1892) ; MATSUM., in ITO et MATSUM. Tent. FL Lutch. I. p. 436 '1899', in Tokyo Bot. Mag. XVI. p. 97 (1902), et Ind. PL Jap. II. 2. p. 254 (1912)

Nom. Jap. *Sima-enzyu*

Leg. Ipse, Kurio, Jul. 4, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan.

Note. Grows in wet but sunny spots, near the seashore.

Crotalaria, [DILL, ex LINN., Gen. ed. 1. p. 18

(1737)] et Sp. PL ed. 1. p. 714 (1753) ; DC, Prodr. II. p. 124 (1825); ENDL., Gen. PL n. 6472 (183&-40) ; BENTH., in BENTH. et HOOK. f. Gen. PL I. 2. p. 479 (1865) ; TAUB., in ENGL. U. PRANT. Nat. Pfl-fam, III. iii. p. 226 (1891) ; LEMÉE, Diet. Gen. PL Phan. II. p. 381 (1930)

Syn. *Crotolaria*, SCOP., Introd. p. 305 (1777)

Crotularia, MEDIK., Phil. Bot. I. p. 206 (1789)

Crotalaria sessiliflora, LINN., Sp. PL ed. 2. p. 1004 (1763); BENTH., in Hook. Lond. Journ. Bot. II. p. 565 (1843); GRAY, Bot. Wildes. U. Sc. Explor. Exp. p. 390 (1854) ; FR. et SAV., Enum. PL Jap. I. p. 94 (1875) ; BAK., in HOOK. f. Fl. Brit. Ind. II. p. 73 (1876^; FORB. et HEMSL., Ind. Fl. Sin. I. p. 152 (1886); MATSUM., in ITO et MATSUM. Tent. Fl. Lutch. I. p. 396 (1899^, in Tokyo Bot. Mag. XVI. p. 38 (1902!, et Ind. PL Jap. II. 2. p. 255 (1912); KOM., FL Mansh. II. p. 639 U904; ; MATSUM. et HAY., Enum PL Formos. p. 103 (1906); NAK., Fl. Kor. I.

p. 144 ,1909; ; MERR, Enum. Philipp. PL II. p. 273 1923', et Enum. Hainan PL p. 92 '1927_y; MASAMUNE, Prel. Rep. Veg. Yak. p. 84 v1929;
 Syn. *Crotalaria sessiliflora*, LINN. f. *eriantha*, MAK., in Tokyo Bot. Mag. XXVII. p. 81 (1913; MAK. et NEM., Fl. Jap. ed. 2. p. 560 1931)

A' 0/7!. *Jap. Tanuki-mame*

Leg. Ipse, Ambô, Aug. 12, 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, Philippines.

Note. The plant grows as a weed in waste lands or near rice-fields, and is common in Eastern Asia.

Millettia, WIGHT et ARN., Prodr. Fl. Pen. Ind.

Or. I. p. 263 (1834); ENDL., Gen. PL n. 6715 a836-40; ; BENTH. et HOOK, f., Gen. PL I. 2. p. 498 ,1865; ; TAUB., in ENGL. U. PRANT. Nat. Pfl.-fam. III. iii. p. 270 '1891; ; LEMEE, Diet Gen. PL Phan. IV. p. 481 (1932)

Syn. *Millettia*, MEISSN., Gen. p. 95 (1837)

Millettia japonica, A. GRAY, Bot. Jap. p. 386 (1858); FR. et SAV., Enum. PL Jap. I. p. 98 (1875; ; MATSUM., in Tokyo Bot. Mag. XVI. p. 46 (1902) et Ind. PL Jap. II. 2. p. 271 1912; ; MASAMUNE, Prel. Rep. Veg. Yak. p. 86 1929; ; MAK. et NEM., Fl. Jap. ed. 2. p. 587 1931

Syn. *Wistaria japonica*, SIEB. et ZUCC, Fl. Jap. I. p. 83. t. 43 1826)

Aom. Jap. Doyô-huzi

Leg. Ipse, Kurio, Jul. 4, 1928.

Distr. Honsyû, Sikoku, Kyûsyû.

Note. The species grows in the lower part of the laurisilvae especially in somewhat sunny and dry spots. It has its southern limit in this island.

Aeschynomene, [LINN., Gen. PL ed. 1. p. 350

1737.] et Sp. PL ed. 1. p. 713 1753. ; DC, Prodr. II. p. 320 1825; ; ENDL., Gen. PL n. 6605 ,1836-40; ; BENTH. et HOOK, f., Gen. PL I. 2. p. 515 (1865); TAUB., in ENGL. u. PRANT. Nat. Pfl.-fam. III. iii. p. 319 1891; ; LEMEE, Diet. Gen. PL Phan. I. p. 99 1929;

Syn. *Gajati*, RUMPH. ex, ADANS., Fam. II. p. 503 x1763;

Oeschinomene, POIR., in LAM., Encycl. IV. p. 447 (1797)

Aeschynomene indica, LINN., Sp. PL ed. 1. p. 713 1753; ; DC, Prodr. II. p. 320 (1825); BENTH., FL Hongk. p. 79 .1861; ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 45 1867; ; FR. et SAV., Enum. PL Jap. I. p. 100 1875', et II. p. 324 .1876; ; FR., PL David. I. p. 97 1884; ; FORB. et HEMSL., Ind. FL Sin. I. p. 170 1887); MATSUM., in ITO et MATSUM. Tent. FL Lutch. I. p. 408 ,1899; , et in Tokyo Bot. Mag. XVI. p. 73 1902; ; MATSUM. et HAY., Enum. PL Formos. p. 106 .1906-; NAK., FL Kor. I. p. 151 1909; ; MATSUM., Ind. PL Jap. II. 2. p. [248 1912); YABE, Enum. PL Manch. p. 72 ,1912; ; DUNN et TUTCH., FL Kwangt. and Hongk. p. 77 U912); GAGNEPAIN, in LECOMTE, FL Ind. Chin. II. p. 560 (1920); MERR., Enum. Philipp. PL II. p. 283 (1923), et Enum. Hainan PL p. 93 1927 <; MASAMUNE, Prel. Rep. Veg. Yak. p. 83 (1929; ; MAK. et NEM., Fl. Jap. ed. 2. p. 548 ,1931)

Nom. Jap. Kusanemu

Leg. Ipse, Nagata, Aug. 21, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Amami-dsima, Okinawa, Taiwan, Korea, Manchuria, China. Philippines, India.

Note. The plant is found in waste lands among rice-fields, and is common throughout Japan.

Desmodium, DESV., Journ. de Bot. I. p. 122, t. 5 (1813); DC, Prodr. II. p. 325 (1825J; ENDL., Gen. Pl. n. 6615 (1836-40; BENTH., in BENTH. et HOOK. f. Gen. Pl. I. 2. p. 519 (1865); TAUR, in ENGL. U. PRANT. Nat. Pfl.-fam. III. iii. p. 327; 1891!; LEMÉE, Diet. Gen. Pl. Phan. II. p. 556 (1930)
Syn. *Meibomia*, [MOEHR., Hort. Priv. p. 65 (1736^N),] ADANS., Fam. II. p. 509 (1763)
Phyllodium, DESV., in Journ. de Bot. I. p. 123, t. 5 (1813);

Desmodium Buergerii, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 45 (1867); MERR., in Philipp. Journ. Sc. V. Bot. p. 85 (1910), et Enum. Philipp. Pl. II. p. 284 (1923)

Syn. *Desmodium polycarpum*, (DC/ MATSUM., in ITO et MATSUM. Tent. Fl. Lutch. 1. p. 416 (1899 p.p., et Ind. Pl. Jap. II. 2. p. 260 (1912); MATSUM. et HAY., Enum. Pl. Formos. p. 107 (1906 p.p.); CHUN., Cat. Tree, and Shrub. Chin. p. 115 (1924); MAK. et NEM., Fl. Jap. ed. 2. p. 565 (1931)

Desmodium heterocarpum, DC. var. *Buergeri*, HOSOKAWA, in Journ. Trop. Agr. IV. p. 201 (1932);

Norn. Jap. Sibahagi

Leg. Ipse, Jul. 21, 1924.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Okinawa, Taiwan, China, Philippines.

Note. Grows as secondary products on open sunny places in low lands.

Desmodium laburnifolium, DC, Prodr. II. p. 337 (1825!; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 46 (1876); MAXIM., in Mém. Biolog. XII. p. 439 (1886¹); MATSUM. in ITO et MATSUM. Tent. Fl. Lutch. I. p. 413 (1899), in Tokyo Bot. Mag. XVI. p. 75 (1902), et Ind. Pl. Jap. II. 2. p. 258 (1912); MATSUM. et HAY., Enum. Pl. Formos. p. 107 (1906); MORI, Enum. Pl. Cor. p. 214 (1922); CHUN., Cat. Tree, and Shrub. China p. 115 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 84 (1929)

Syn. *Desmodium caudal urni*, DC, Prodr. II. p. 337 (1825); MAK. et NEM., Fl. Jap. ed. 2. p. 562 (1931),

Norn. Jap. Misonaosi

Leg. Ipse, Miyanoura, Aug. 5, 1927.

Distr. Honsyū, Sikoku, Kyūsyū, Amami-6sima, Okinawa, Taiwan, Korea, China.

Note. Grows on low lands near forest edges; widely distributed in warmer countries in Asia.

Desmodium laxum, DC, in Ann. Sc. Nat. I. 4. p. 102 (1825) et Prodr. II. p. 336 (1825); MATSUM., in ITO et MATSUM. Tent. Fl. Lutch. I. p. 415 (1899), in Tokyo Bot. Mag. XVI. p. 76 (1902), et Ind. Pl. Jap. II. 2. p. 258 (1912); MATSUM. et HAY., Enum. Pl. Formos. p. 107 (1906); MERR., Enum. Philipp. Pl. II. p. 287 (1923j, et Enum. Hainan Pl. p. 94 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 84 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 564 (1931)

Syn. *Meibomia leptopus*, O. KUNTZE, Rev. Gen. Pl. I. p. 198 (1891)

Nom. Jap. Ryūkyū-nusubito-hagi]

Distr. Tanegasima, Amami-6sima, Okinawa, Taiwan, Philippines.

Note. The species is often found as undergrowth in the laurisilvae, and is not yet reported further north than this island.

var. *Kiusiuanum*, MATSUM., in Tokyo Bot. Mag. XVI. p. 76 '1902'; MASAMUNE, Prel. Rep. Veg. Yak. p. 84 1929; MAK. et NEM., Fl. Jap. ed. 2. p. 565 '1931,

Nom. Jap. *Tukusi-nusubito-hagi*

Leg. Ipse, Yudomari, 1928.

Distr. Kyûsyû.

Note. The plant is often found as undergrowth in the laurisilvae, and the variety is not yet reported in lands further south than this island.

Desmodium microphyllum, DC, Prodr. II. p. 337 1825; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 45 1867; FR. et SAV., Enum. Pl. Jap. I. p. 100 '1875¹; MAXIM., in Mél. Biolog. XII. p. 445 1886; MATSUM., in Tokyo Bot. Mag. XVI. p. 78 (1902'), et Ind. Pl. Jap. II. 2. p. 258 '1912.'; MERR., Enum. Philipp. Pl. II. p. 287 (1923); MAK. et NEM., Fl. Jap. ed. 2. p. 565 '1931'

Syn. *Hedysarum microphyllum*, THUNB., Fl. Jap. p. 284 1784

Desmodium parvifolium, DC, in Ann. Sc. Nat. I. 4. p. 100 1825, et Prodr. II. p. 334 1825; BENTH., Fl. Hongk. p. 84 1861'; BAK., in HOOK. f. Fl. Brit. Ind. II. p. 174 1876; FORB. et HEMSL., Ind. Fl. Sin. I. p. 174 1887; MATSUM., in ITO et MATSUM. Tent. Fl. Lutch. I. p. 418 1899; MATSUM. et HAY., Enum. Pl. Formos. p. 107 1906; HAY., Fl. Mont. Formos. p. 74 1908, et Ic. Pl. Formos. I. p. 186 1911

Nom. Jap. *Hime-nohagi*

Leg. Y. KUDO! Aug. 1907.

Distr. Honsyû, Sikoku, Kyûsyû, Taiwan, China, Philippines.

Note. I have not collected the species but Dr. KUDO once collected it in this island.

Desmodium racemosum, DC, Prodr. II. p. 337 1825; MASAMUNE, Prel. Rep. Veg. Yak. p. 85 1929; NAK., in Tokyo Bot. Mag. XLIV. p. 30 1930; MAK. et NEM., Fl. Jap. ed. 2. p. 565 1931

Syn. *Hedysarum racemosum*, non AUFLET, THUNB., Fl. Jap. p. 285 1784; GMELINS, Syst. Nat. VIII. p. 1123 1791

Desmodium oxyphyllum, DC, in An. Sc. Nat. IV. p. 102 1825', et Prodr. II. p. 336 1825; MATSUM., in Tokyo Bot. Mag. XVI. p. 77 1902', et Ind. Pl. Jap. II. 2. p. 259 '1912'

Desmodium japonicum, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 46 1867 partim; FR. et SAV., Enum. Pl. Jap. I. p. 100 1875

Norn. Jap. *Nusubito-hagi*

Leg. Ipse, Jul. 21, 1924.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan.

Note. A common species in Japan; in Yakusima the plant is found in lowlands in secondary areas.

Desmodium Tashiroi, MATSUM., in ITO et MATSUM. Tent. Fl. Lutch. I. p. 415 (1899., in Tokyo Bot. Mag. XVI. p. 77 '1902, et Ind. Pl. Jap. II. 2. p. 260 '1912'); MASAMUNE, Prel. Rep. Veg. Yak. p. 85 '1929'; MAK. et NEM., Fl. Jap. ed. 2. p. 566 (1931)

Abut. Jap. *Tokiwa-yabuhagi*

Leg. A. KIMURA! 1922.

Distr. Sikoku, Kyûsyû, Amami-6sima, Tanegasima, Okinawa.

Note. Grows as undergrowth in the laurisilvae.

Lespedeza, L. C. RICH., in MICHX., Fl. Bor.-Amer. II. p. 70, t. 29 1803 ; DC, Prodr. II. p. 348 1825¹ p.p.; ENDL., Gen. PL n. 6623 1836-40 ; BENTH., in BENTH. et HOOK. f. Gen. Pl. I. 2. p. 524 1855 p.m.; TAUB., in ENGL. U. PRANT. Nat. Pfl.-fam. III. iii. p. 332 • 1891. p.m.; NAK., Lesp. Jap. & Kor. p. 1 1927 ; LEMEE, Diet. Gen. Pl. Phan. IV. p. 52 1932.

Syn. *Hedysarum*, LINN., Sp. Pl. ed. 1. p. 745 1753, p.p.

Lespedeza, SPRENG., Syst. III. p. 202 1826,

Campylotropis, BUNGE, Pl. Monogr. Chin. p. 6 1835¹

Phlebosprium, HASSK., in Flora XXX. p. 508 1847

Lespedeza tricolor, var. **japonica**, NAK., in Tokyo Bot. Mag. XXXVII. p. 73 1923 , et Lesp. Jap. & Kor. p. 65 cum f. 1927; ; MAK. et NEM., Fl. Jap. ed. 2. p. 579 1931)

Syn. *Lespedeza bicolor*, non TJRCZANINOW MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 47 1857 ; MAXIM., in Act. Hort. Petrop. II. p. 355 1873 p.p.; FR. et SAV., Enum. Pl. Jap. I. p. 101 1875 ; MATSUM., in Tokyo Bot. Mag. XVI. p. 51 1902 p.p.; MAK. et NEM., Fl. Jap. ed. I. p. 734 1925 p.p.

Lespedeza bicolor, var. *intermedia*, non MAXIM.' MATSUM., in Tokyo Bot. Mag. XVI. p. 69 1902 p.p., et Ind. Pl. Jap. II. 2. p. 267 1912 p.p.

Xom. Jap. Yama-hagi

Leg. Jun. 6, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûisyû, Tanegasima, Korea.

Note. The variety is found in sunny places at low altitudes as a secondary community; the plant is not yet reported further south than this island.

Lespedeza cuneata, G. DON, Gen. Hist. II. p. 307 1832 ; BENTH., in Hook. Journ. Bot. IV. p. 47 1852 , Fl. Hongk. p. 85 1861 , et Fl. Austr. II. p. 240 1864 ; NAK., in Tokyo Bot. Mag. XXXVII. p. 74 1923 p.p., et Lesp. Jap. & Kor. p. 98 1927; ; MASAMUNE, Prtl. Rep. Veg. Yak. p. 85 1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 579 1931

Syn. *Hedysarum junccum*, LINN. f., Decas. Prima. Pl. t. 4. 1762 ; LINN., Sp. Pl. ed. 2. p. 1053 1763 ; ROXB., Fl. Ind. III. p. 362 1832

Hedysarum scriccum, non MILLER THUNB., Fl. Jap. p. 287 1781 ; WILLDN., Sp. Pl. III. p. 1182 1800

Asparathus cuneata, D. DON, Prodr. Fl. Nepal, p. 246 1825

Lespedeza juncca, non PERSOON DC, Prodr. II. p. 348 1825¹ p.p.; FR. et SAV., Enum. Pl. Jap. I. p. 103 1875

Indigo/era chinensis, VOGEL, in Nov. Act. Acad. Leopold.-Carol. XIX. Supp. p. 14 1842 ; WALP., Repert. I. p. 669 1842 ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 156 1887

Lespedeza argyrca, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 120 1845

Lespedeza sericca, non BENTH. MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 49 1867 ; MAXIM., in Act. Hort. Petrop. II. p. 368 1873 ; BAK., in HOOK. f. Fl. Brit. Ind. II. p. 142 1876. ; BOISSN., in Bull. Herb. Boiss. VI. p. 671 1898 ; SCHNEID., III. Handb. Laubh. II. p. 114. ff. 70 1, 71 k.m. 1906 , et in SARGENT Pl. Wils. II. p. 105 1914

Lespedeza juncca, var. *sericca*, MIQ., apud FORB. et HEMSL. Ind. Fl. Sin. I. p. 181 1887 ; MATSUM., in ITO et MATSUM. Tent. Fl. Lutch. I. p. 406 1899. ; DIELS, Fl. Cent. Chin. p. 415 1900 p.p.; MATSUM., in Tokyo Bot. Mag. XVI. p. 71 1902 ; MATSUM. et HAY., Enum. Pl. Formos. p. 105 1906; ; NAK., Fl. Kor. I. p. 158 1909,

Nom. Jap. Medohagi

Leg. Ipse, Jul. 21, 1924.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China.

Note. The species is found in lowlands, in waste lands and along the roadside and is common in the Far East.

Lespedeza cyrtobotrya, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 48 (1867) p.p.; MAXIM, in Act. Hort. Petrop. II. p. 357 (1873; ; FR. et SAV., Enum. Pl. Jap. I. p. 102 (1875); FORB. et HEMSL., Ind. Fl. Sin. I. p. 180 (1887; ; MATSUM, in Tokyo Bot. Mag. XVI. p. 70 (1902), et Ind. Pl. Jap. II. 2. p. 268 (1912; ; NAK., Fl. Kor. I. p. 155 (1909), et Lesp. Jap. & Kor. p. 42 (1927); SCHNEID., Ill. Handb. Laubh. II. p. 113 (1909) et in SARGENT Pl. Wil. II. p. 112 (1914) YABE, Enum. Pl. Manch. p. 77 (1912)

Syn. Lespedeza virgata, non DC SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 121 (1845) p.p.

Campylotropis virgata, MIQ., Fl. Ind. Bat. I. p. 230 (1855

Lespedeza bicolor, f. *microphylla*, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 47 (1867; p.p.

Lespedeza cyclobotrya, FORB. et HEMSL., Ind. Fl. Sin. I. p. 189 (1887)

Nom. Jap. Maruba-hagi

Leg. Onoaida, NAOHARA! Jul. 22, 1930.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima? Korea, Manchuria, China.

Note. The species is found in low-lying and open land, and is not yet reported further south than this island.

Lespedeza pilosa, SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 121 (1845; ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 49 (1857; ; MAXIM, in Act. Hort. Petrop. II. p. 381 (1873; ; FR. et SAV., Enum. Pl. Jap. I. p. 102 (1875; ; MATSUM, in Tokyo Bot. Mag. XVI. p. 72 (1902; , et Ind. Pl. Jap. II. 2. p. 268 (1912; ; NAK., Fl. Kor. I. p. 154 (1909) et Lesp. Jap. & Kor. p. 80 (1927; ; MASAMUNE, Prel. Rep. Veg. Yak. p. 86 (1929; ; MAK. et NEM., Fl. Jap. ed. 2. p. 581 (1930

Syn. Hedysarum pilosum, THUNB., Fl. Jap. p. 290 (1784; ; WILLD., Sp. Pl. III. p. 119 (1800)

Desmodium pilosum, DC, Prodr. II. p. 337 (1825

Nom. Jap. Nekohagi

Leg. Jul. 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Korea, China.

Note. Grows by the roadside and in fallow fields.

Lespedeza serpens, NAK., Lesp. Jap. & Kor. p. 75 (1927; ; MASAMUNE, Prel. Rep. Veg. Yak. p. 86 (1929; ; MAK. et NEM., Fl. Jap. ed. 2. p. 582 (1931)

Syn. Lespedeza sericea, var. *latifolia*, MAXIM, in Act. Hort. Petrop. II. p. 369 (1873) partim.

Lespedeza prostrata, non PURSH NAK., in Tokyo Bot. Mag. XXXVI. p. 66 (1922)

Nom. Jap. Hai-medohagi

Leg. April. 3. 1927.

Distr. Honsyū, Kyūsyū, Tanegasima, Amami-6sima.

Note. Grows on open waste lands or along the roadside near the sea level.

Microlespedeza, MAK., in Tokyo Bot. Mag.

XXVIII. p. 183 '1914'

Syn. *Lespedeza*, subg. *microlespedeza*, MAXIM., Syn. Lesp. pp. 346. 382 (1873)

Kurntnerowia, SCHINDLER, in Fed. Rep. X. p. 403 (1912)

Microlespedeza Makinoi, TANAKA, Gakugei, I. p. 201 (1925'; MASAMUNE, Prel. Rep. Veg. Yak. p. 86 (1929')

Syn. *Lespedeza striata*, HOOK, et ARNOT., Bot. Capt. Beech. Voy. p. 262 (1836-40); BENTH., Fl. Hongk. p. 85 i 1861;; MIQ., in Ann. Mus. Bat. III. p. 49 (1867); MAXIM., in Act. Hort. Petrop. II. p. 382 '1873'; FR. et SAV., Enum. PI. Jap. I. p. 102 (1875 ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 182 (1887); MATSUM., in ITO et MATSUM. Tent. Fl. Lutch. I. p. 406 (1899!, et in Tokyo Bot. Mag. XVI. p. 72 (1902¹, et Ind. PI. Jap. II. 2. p. 268 (1912'; MATSUM. et HAY., Enum. PI. Formos. p. 105 (1906,

Kummerowia striata, SCHINDER, in Fed. Rep. Sp. Nov. X. p. 403 (1912)

Microlespedeza striata, MAK., in Tokyo Bot. Mag. XXVIII. p. 182 (1914'; MORI, Enum. PI. Cor. p. 219 (1922'; YAMAZUTA, List Manch. PI. p. 167 (1930: ; MAK. et NEM., Fl. Jap. ed. 2. p. 587 (1931)

Nom. Jap. *Yahazu-sō*

Leg. Ipse, Jul. 27, 1927.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China.

Note. Grows by the roadside, or in open dry lands.

Pongamia, VENT., Jard. Malmaison, p. 28. t. 28

(1803^ ; DC, Prodr. II. p. 416 (1825'; ENDL., Gen. PI. n. 6713 (1836-40;; BENTH., in BENTH. et HOOK. f. Gen. PI. I. 2. p. 549 (1865 ; TAUB., in ENGL. U. PR ANT. Nat. Pfl.-fam. III. **ill.** p. 344 (1891)

Syn. *Pongam*, ADANS., Fam. II. p. 322 '1763

Galedupa, LAM., Encycl. II. p. 594 '1786

Cajurn, O. KUNTZE, Rev. Gen. PI. I. p. 167 ;189L

Pungamia, LAM., Illustr. II. t. 603 ,1894.

Pongamia pinnata, MERR., Interpret. Herb. Amb. p. 271 (1917 , Enum. Philipp. PI. II. p. 298 (1923;, et Enum. Hainan PI. p. 96 ;1927,; MASAMUNE, Prel. Rep. Veg. Yak. p. 86 (1929)

Syn. *Cytisus pinnatus*, LINN., Sp. PI. ed. 1. p. 741 (1753

Robinia mitis, LINN., Sp. PI. ed. 2. p. 1044 (1763

Galedupa indica, LAM., Encycl. II. p. 594 (1786' excl. syn. RUMPH.

Delbergia arborea, WILLD., Sp. PI. HI. p. 901 (1803

Pongamia glabra, VENT., Jard. Malmaison, I. p. 28, t. 28 (1803!; DC, Prodr. II. p. 416 (1825;; BENTH., Fl. Hongk. p. 94 (1861); BAK., in HOOK. f. Fl. Brit. Ind. II. p. 240 (1876) ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 200 (1887); MATSUM., in ITO et MATSUM. Tent. Fl. Lutch. I. p. 434 (1899), in Tokyo Bot. Mag. XVI. p. 96 (1902^, et Ind. PI. Jap. II. 2. p. 274 (1912) ; MATSUM. et HAY., Bnum. PI. Formos. p. 114 (1906'; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 86 (1924'; MAK. et NEM., Fl. Jap. ed. 2. p. 594 (1931)

Caju pinnatum, O. KUNTZE, Rev. Gen. PI. I. p. 167 (1891)

Nom. Jap. *Kuro-yona*

Leg. Y. KUDO! Aug. 1907.

Distr. Amami-Osima, Okinawa, Taiwan, China, Philippines.

Note. I have not collected this species in the island, but was informed by Dr. KUDO that he had collected it in the island. The species is not yet reported further north than this island.

Vicia, [TOURN., ex LINN. Syst. ed. 1 (1735) et Sp. Pl. ed. 1. p. 734 (1754); DC, Prodr. II. p. 354 (1825¹); ENDL., Gen. Pl. n. 6581 (1836-40); BENTH., in BENTH. et HOOK. f. Gen. Pl. I. 2. p. 524 (1865); TAUB., in ENGL. U. PRANT. Nat. Pfl.-fam. III. iii. p. 350 (1891).

Syn. *Faba*, [TOURN., ex LINN. Syst. ed. 1 (1735);] ADANS., Fam. II. p. 331 (1763)
Ervum, [TOURN., ex LINN. Gen. Pl. ed. 1. p. 217 (1737)] et Sp. Pl. ed. 1. p. 738 (1753)

Endiusa, ALEF., in Oesterr. Bot. Ziet. IX. p. 359 (1859);

Vicia hirsuta, KOCH, Synops. Fl. Germ. ed. 1. p. 191 (1837); FR. et SAV., Enum. Pl. Jap. I. p. 104 (1875); FORB. et HEMSL., Ind. Fl. Sin. I. p. 184 (1887); MATSUM., in ITO et MATSUM. Tent. Fl. Lutch. I. p. 419 (1899) in Tokyo Bot. Mag. XVI. p. 80 (1902), et Ind. Pl. Jap. II. 2. p. 279 (1912); MATSUM. et HAY., Enum. Pl. Formos. p. 109 (1906); NAK., Fl. Kor. I. p. 161 (1909); DUNN et TUTCH., Fl. Kwangt. & Hongk. p. 81 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 86 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 601 (1931)

Syn. *Ervum hirsutum*, LINN., Sp. Pl. ed. 1. p. 738 (1753); DC, Prodr. II. p. 366 (1825)

Mom. Jap. *Suzwne-no-endô*

Leg. ca. Issô, 1923.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Ôsima, Okinawa, Taiwan, Korea, China.

JNoie. The plant grows in cultivated fields or on waste lands, and is rather common throughout Japan.

Vicia sativa, LINN., Sp. Pl. ed. 1. p. 736 (1753), et Fl. S. n. 634 (1755); DC, Prodr. II. p. 360 (1825); FORB. et HEMSL., Ind. Fl. Sin. II. p. 185 (1887); MATSUM., in ITO et MATSUM. Tent. Fl. Lutch. I. p. 419 (1899), in Tokyo Bot. Mag. XVI. p. 79 (1902), et Ind. Pl. Jap. II. 2. p. 280 (1912); MATSUM. et HAY., Enum. Pl. Formos. p. 109 (1906); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 81 (1912); MORI, Enum. Pl. Cor. p. 224 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 86 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 604 (1931);

Xom. Jap. *Yahazu-endô*

Leg. Ipse, Mart. 21, 1923.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Ôsima, Okinawa, Taiwan, Korea, China.

Note. The species is found in cultivated or waste lands, and is common throughout Japan.

Vicia tetrasperma, MOENCH, Meth. p. 148 (1794); BENTH., Handb. Brit. Fl. p. 128 (1866); MIQ., Prolisio Jap. p. 239 (1855-67); FR. et SAV., Enum. Pl. Jap. I. p. 105 (1875); BAK., Fl. Brit. Ind. II. p. 177 (1876); FORB. et HEMSL., Ind. Fl. Sin. I. p. 185 (1887); MATSUM., in ITO et MATSUM. Tent. Fl. Lutch. I. p. 419 (1899), in Tokyo Bot. Mag. XVI. p. 8 (1902), et Ind. Pl. Jap. II. 2. p. 280 (1912); DIELS, Fl. Cent. Chin. p. 416 (1900); MATSUM. et HAY., Enum. Pl. Formos. p. 109 (1906); NAK., Fl. Kor. I. p. 161 (1909), et II. p. 467 (1911); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 81 (1912); MAK. et NEM., Fl. Jap. ed. 2. p. 605 (1931)

Syn. *Ervum tetraspermum*, LINN., Sp. Pl. ed. 1. p. 738 (1753); DC, Prodr. II. p. 367 (1825); LEDEB., Fl. Ros. I. p. 663 (1842); HALLIER, Flora von Deutschland XXIV. p. 179. t. XVII. 3. (1886)

Norn. Jap. Kasuma-gnsa

Leg. Ipse, April. 1, 1927.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Ôsima, Okinawa, Taiwan, Korea, China.

Note. The species grows in cultivated fields or on semicultivated land and is common from Honsyû to Formosa.

Lathyrus, [TOURN., ex LINN. Syst. ed. 1. 1735]

et Sp. Pl. ed. 1. p. 729 (1753) ; DC, Prodr. II. p. 369 (1825) ; ENDL., Gen. Pl. n. 6582 (1836-40) ; BENTH., in BENTH. et HOOK. f. Gen. Pl. I. 2. p. 526 (1865) ; TAUB., in ENGL. U. PRANT. Nat. Pfl.-fam. III. iii. p. 353 (1891)

Syn. *Piswn*, [TOURN., ex LINN. Gen. Pl. ed. 1. p. 222 (1737) p.p.]

Ochrus, TOURN., ex ADANS. Fam. II. p. 330 (1763)

Lathyrus maritimus, BIGEL., Fl. Bost. ed. 2. p. 268 (1824) ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 45 (1867) ; MAXIM., in Mém. Biolog. IX. p. 60 (1873) ; FR. et SAV., Enum. Pl. Jap. I. p. 105 (1875) ; MATSUM., in Tokyo Bot. Mag. XVI. p. 82 (1902) et Ind. Pl. Jap. II. 2. p. 266 (1912) ; KOM., Fl. Mansh. II. p. 626 (1904) ; NAK., Fl. Kor. I. p. 163 (1909) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 85 (1929) ; HULT., Fl. Kamtch. III. p. 114 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 577 (1931) ; TATEWAKI, Phytog. Middl. Kuril, pp. 202, 230, 289 (1932)

Nom. Jap. Hamacndô

Leg. Ipse, Miyanouura, Sept. 1, 1931.

Distr. Kamtchatka, Saghalien, Northern Kuriles, Southern Kuriles, Yezo, Honsyû, Sikoku, Kyûsyû, Amami-Ôsima, Okinawa, Korea, Manchuria, China.

Note. This is a psammophyte which grows along the seashore under the influence of salt water, and is distributed throughout Eastern Asia.

Falcata, GMEL., Syst. II. p. 1131 (1891)

Syn. *Amphicarpaca*, *Amphicarpa* ELL., in Journ. Acad. Phil. I. p. 372 (1818) ; ENDL., Gen. Pl. n. 6630 (1836-40) ; BENTH. et HOOK., Gen. Pl. I. 2. p. 529 (1865) ; TAUB., in ENGL. U. PRANT. Nat. Pfl.-fam. III. iii. p. 359 (1891)

Falcata *coir.osn*, KUNTZ, var. **japonica**, MAK., in Tokyo Bot. Mag. XX. p. 82 (1906) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 85 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 569 (1931)

Syn. *Glycinc monoica*, non LINN.; THUNB., Fl. Jap. p. 283 (1784)

Glycinc javanica, non LINN. THUNB., in Trans. Linn. Soc. II. p. 340 (1794)

Amphicarpaca Edgavorthii, var. *japonica*, OLIV., in Journ. Linn. Soc. IX. p. 164 (1867) ; MAXIM., in Mém. Biolog. IX. p. 69 (1873) ; FR. et SAV., Enum. Pl. Jap. I. p. 107 (1875) ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 188 (1887)

Shutcria trisperma, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 51 (1867)

Falcata japonica, KOM., Fl. Mansh. II. p. 630 (1904) ; MATSUM., Ind. Pl. Jap. II. 2. p. 262 (1912) ; MORI, Enum. Pl. Cor. p. 215 (1922)

Norn. Jap. Ginmame

Leg. Y. KUDO! Aug. 1907.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Amami-Ôsima, Korea, Manchuria, China.

Note. I have not found this species but Dr. KUDO told me that he had collected it in the island; the species is rather common throughout Japan proper, but is not yet reported further south than Amami-Ôsima.

Dumasia, DC, in Ann. Sc. Nat'. IV. p. 96 (1825);
 et Prodr. II. p. 241 (1825'; ENDL., Gen. PI. n. 6631 (183&-40); BENTH., in BENTH.
 et HOOK. f. Gen. PI. I. 2. p. 529 (1865, ; TAUB., in ENGL. U. PRANT. Nat. Pfl-
 fam. III. iii. p. 359 (1891); LEMÉE, Diet. Gen. PI. Phan. II. p. 758 (1930)

Syn. *Notonia*, WIGHT et ARN., Prodr. Fl. Pen. Ind. Or. I. p. 207 U834)

Dumasia truncata, SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 119 (1845); MIQ., in Ann.
 Mus. Bot. Lugd. Bat. III. p. 52. (1867;; MAXIM., in Mém. Biolog. IX. p. 69 (1873;;
 MATSUM., in Tokyo Bot. Mag. XVI. p. 84 (1902¹, et Ind. PI. Jap. II. 2. p. 261
 (1912' ; MASAMUNE, Prel. Rep. Veg. Yak. p. 85 (1929^; MAK. et NEM., Fl. Jap.
 ed. 2. p. 568 '1931'

Nom. Jap. *Nosasage*

Leg. Y. KUDO! Aug. 1907.

Di8tr. HonsyG, Sikoku, Kyûsyû.

Note. The species is occasionally found on the edges of forests at low altitudes.
 It has its southern limit in this island.

Pueraria, DC, in Ann. Soc. Nat. IX. p. 97 (1825!,
 et Prodr. II. p. 240 '1825 ; ENDL., Gen. PI. n. 6632 '1836-40); BENTH., in BENTH.
 et HOOK. f. Gen. PI. I. 2. p. 537 '1865 ; TAUB., in ENGL. u. PRANT. Nat. Pfl.-fam.
 III. iii. p. 370 1891:

Syn. *Neustanthus*, BENTH., in MIQ. PI. Jungh. I. p. 234 (1855

Pueraria Thunbergiana, 'SIEB. et ZUCC/ BENTH. in Journ. Linn. IX. p. 122 (1865;;
 MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 52 '1867;; FR. et SAV., Enum. PI. Jap.
 I. p. 189 '1875 ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 191 (1887); MATSUM., in
 ITO et MATSUM. Tent. Fl. Lutch. I. p. 426 (1899 ; MATSUM. et HAY., Enum. PI.
 Formos. p. III '1906 ; NAK., Fl. Kor. I. p. 165 '1909'; DUNN et TUTCH., Fl.
 Kwang. & Hongk. p. 83 '1912 ; LOESN., Pfl.-welt Kiaut. Geb. p. 144 (1918);
 MERR., Enum. Philipp. PI. II. p. 312 '1923'; MASAMUNE, Prel. Rep. Veg. Yak. p.
 86 '1929

Syn. *Dolichos hirsutus*, THUNB., in Trans. Linn. Soc. II. p. 339 (1794! (non *Pueraria*
hirsuta, KURZ.:

Pachyrhizus Thunbergiana, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 237 (1846)

Neustanthus chin en sis, BENTH., Fl. Hongk. p. 86 (1861);

Pueraria hirsuta, MATSUM., in Tokyo Bot. Mag. XVI. p. 91 1902 , et Ind. PI.
 Jap. II. 2. p. 275 '1912 ; MAK. et NEM., Fl. Jap. ed. 2. p. 595 (1931)

Nom. Jap. *KUZM*

Leg. Ipse, Mugio, Sept. 6 1926.

Distr. Yezo, Honsyû, Sikoku, KyGsyû, Tanegasima, Amami-6sima, Okinawa,
 Taiwan, Korea, China, Philippines.

Note. The species grows in low-lying open lands, on the edges of forests, and in
 clearings, from the sea level up to about 603 m and is common throughout Japan.

Canavalia, DC, Mém. Légum. p. 375 '1825', et
 Prodr. II. p. 403 ;1825 ; ENDL., Gen. PI. n. 6663 1836-40 ; BENTH., in BENTH.
 et HOOK. f. Gen. PI. I. 2. p. 537 '1865'; TAUB., in ENGL. u. PRANT. Nat. PflVfam
 III. iii. p. 371 a891); LEMfée, Diet. Gen. PI. Phan. I. p. 812 ;1929,

Syn. *Canavali*, ADANS., Fam. II. p. 325 '1763'

Wenderothia, SCHLECHTD., in Linn. XII. p. 330 '1838

Cryptophaseotus, O. KUNTZE, Rev. Gen. PI. I. p. 176 ,1891.

Canavallia lineata, DC, Prodr. II. p. 404 (1825; ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 51 (1867; ; FR. et SAV., Enum. PI. Jap. I. p. 110 (1875); MATSUM. in ITO et MATSUM. Tent. Fl. Lutch. p. 425 (1899\ in Tokyo Bot. XVI. p. 91 (1902\ et Ind. PI. Jap. II. 2. p. 252 (1912) ; MATSUM. et HAY., Enum. PI. Formos. p. 110 11906' ; NAK., in Bull. Biogeogr. Soc. Jap. I. p. 258 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 554 (1931)

Syn. *Dolichos lineatus*, (non AUBLJ THUNB., Fl. Jap. p. 280 (1784[^]

Canavalia maritima, (non THOUARS.) MASAMUNE, Prel. Rep. Veg. Yak. p. 84 1929[^]

Norn. Jap. *Hama-natamane*

Leg. Ipse, Jul. 20, 1927.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-6sima, Okinawa, Taiwan, Bonins.

Note. This is a psammophyte which grows near sandy or rocky beaches and covers the ground.

Dunbaria, WIGHT et ARN., Prodr. Fl. Pen. Ind.

Or. I. p. 258 (1834); ENDL., Gen. PI. n. 6682 (1836-40' ; BENTH., in BENTH. et HOOK. f. Gen. PI. I. 2. p. 541 U865); TAUB., in ENGL. U. PRANT. Nat. Pfl.-fam. III. iii p. 372 (189H ; LEMÉE, Diet. Gen. PI. Phan. II. p. 760 U930:

Dunbaria villosa, MATSUM., in Tokyo Bot. Mag. XVI. p. 95 (1902). et Ind. PI. Jap. II. 2. p. 261 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 85 (1929; ; MAK. et NEM., Fl. Jap. ed. 2. p. 568 (1931)

Syn. *Glycine villosa*, THUNB., Fl. Jap. p. 283 (1784)

Atylosia subrhambea, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 51 (1867); FR. et SAV., Enum. PI. Jap. I. p. 112 (18751, et II. p. 327 (1876j ; **MAK.**, in Tokyo Bot. Mag. V. p. 166 il89r

Atylosia villosa, MAXIM., in Mél. Biolog. IX. p. 69 (1873'

Norn. Jap. *Noazuki*

Leg. Ipse, Aug. 6, 1924

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Taiwan.

Note. Found in sunny spots of waste lands; rather common throughout Japan.

Rhynchosia, LOUR., Fl. Cochinch. p. 460 (1790);

DC, Prodr. II. p. 384 (1825 ; ENDL., Gen. PI. n. 6692 (1836-40); BENTH., in BENTH. et HOOK. f. Gen. PI. I. 2. p. 542 J865' ; TAUB., in ENGL. u. PRANT. Nat. Pfl.-fam. III. iii. p. 373 (1891

Syn. *Dolicholus*, MEDIK., in Vorles Churpf. Phys. G«s. II. p. 354 (1787;

Rhynchosia, ZOLL. et MOR., in Nat. Geneesk. Arch. Ned. Ind. III. p. 78 ,1846'

Rhynchosia volubilis, LOUR., Fl. Cochinch. p. 460 (1790); DC, Prodr. II. p. 385 (1825\ ; BENTH., Fl. Hongk. p. 90 (1861^N ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 53 1867' ; MAXIM., in Mél. Biolog. IX. p. 70 11873) ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 196 : 1887) ; MATSUM., in Tokyo Bot. Mag. XVI. p. 95 ;1902\ et Ind. PI. Jap. II. 2. p. 275 '1912¹; MATSUM. et HAY., Enum. PI. Formos. p. 113 [1905]; NAK., Fl. Kor. I. p. 166 (1909.; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 85 (1912); MERR., Enum. Philipp. PI. II. p. 316 ;1923) ; MASAMUNE, Prel. Rep. Yeg. Yak. p. 86 1929' ; MAK. et NEM., Fl. Jap. ed. 2. p. 596 ,1931

Nom. Jap. *Tankiri-mame*

Leg. Y. KUDO! Aug. 1907.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Ōsima, Okinawa, Taiwan, Korea, China, Philippines.

Note. Found in sunny open ground at low altitudes; common in Eastern Asia.

Vigna, SAVI, Osserv. Phas. III. p. 7 a824' ; DC, Prodr. II. p. 401 ,1825 ; ENDL., Gen. Pl. n. 6675 a836-40) ; BENTH., in BENTH. et HOOK. f. Gen. Pl. I. 2. p. 539 (1865) ; TAUB. f. in ENGL. u. PRANT. Nat. Pfl.-fam. III. iii. p. 381 1891,

Syn. *Callicystus*, ENDL., Prodr. Fl. Norfolk, p. 90 [1833'

Vigna marina, MERR., Interp. Herb. Amb. p. 285 :i917\ et Enum. Philipp. Pl. II. p. 320 ·1923·

Syn. *Phaseolus marinus*, BURM., Index Univ. Herb. Amb. VII. p. 17 '1755

Dolichos repens, LINN., Sp. Pugillus, p. 19 (1759' , et Amoen. Acad. V. p. 402 ,1760'

Dolichos luteus, SW., Prodr. p. 105 ,1783¹

Vigna lutea, A. GRAY, Bot. Wildes, U. S. Expl. p. 452 .1854, ; BAK., in HOOK. f. Fl. Brit. Ind. II. p. 205 ,1876·

Vigna lutea, A. GRAY, var. *minor*, MATSUM., in Tokyo Bot. Mag. XVI. p. 93 1902 , et Ind. Pl. Jap. II. 2. p. 281 1912 ; MAK. et NEM., Fl. Jap. ed. 2. p. 606 ,1931!

Vigna Marina, MERR. var. *minor*, MASAMUNE, Prel. Rep. Veg. Yak. p. 85 1929

Norn. Jap. *Hama-azuki*

Leg. Ipse, ca. Kurio, Jun. 27, 1928.

Distr. Amami-Ōsima, Okinawa.

Note. It grows as a psammophyte on sandy gravel ground. It is a widely distributed species on sandy beaches in the warmer regions and is not yet found in lands further north than this island.

Names of Plants	Regions													
	Philippine	Borneo	Taiwan	Okinawa	Amami-Ōsima	Hokkaido	Kyūsyū Prop.	Sikoku	Honsyū	Korea	Yoshino & Southern Saghalien	North Japan	Manchuria	China
Entada phaseoloides , MERR.	+	+	+	+										+
Bauhinia japonica , MAXIM.				+	+		+	+	+					
Cassia mimosoides, LINN. var. nomame , MAK.				+	+		+	+	+				+	
Caesalpinia nuga , AIT.				+	+									+
Caesalpinia s. Diaria , ROXB.	+			+	+		+	+	+					+

<i>Maackia Tashiroi</i> , MAK.		+	+	+	+	+	+	+										
<i>Crotalaria sessiliflora</i> , LINN.	+	+	+	+		+	+	+	+									f +
<i>Milletia japonica</i> , A. GRAY.						+	+	+	+									
<i>Aeschynomene indica</i> , LINN.	+	+	+	+		+	+	+	+	4								+
<i>Desmodium Buergerii</i> , MIQ.	+	+	+	+	+	+	+	+	+									+
<i>Desmodium laburnifolium</i> , DC.		+	+	+		+	+	+	+									+
<i>Desmodium laxum</i> , DC.	+	+	+	+	+													+
<i>D. l. var. Kiusuanum</i> , MATSUM.									+									
<i>Desmodium microphyllum</i> , DC.	+	+						+										+
<i>Desmodium racemosum</i> , DC.		+	+	+	+	+	+	+	+									
<i>Desmodium Tashiroi</i> , MATSUM.			+	+	+	+	+	+	+									
<i>Lespedeza bicolor</i> , var. <i>japonica</i> , NAK.						+	+	+	+	+	+							
<i>Lespedeza cuneata</i> , G. DON.		+	+	+	+	+	+	+	+	+								+
<i>Lespedeza cyrtobotrya</i> , MIQ.						+	+	+	+	+								+
<i>Lespedeza pilosa</i> , SIEB. et ZUCC.						+	+	+	+	+								+
<i>Lespedeza serpens</i> , NAK.						+	+	+	+									
<i>Microlespedeza Makinoi</i> , TANAKA.		+	+	+	+	+	+	+	+	+								+
<i>Pongamia pinnata</i> , MERR.	+	+	+	+														+
<i>Vicia hirsuta</i> , KOCH.		+	+	+	+	+	+	+	+	+								+
<i>Vicia sativa</i> , LINN.		+	+	+	+	+	+	+	+	+								+
<i>Vicia tetrasperma</i> , MOENCH.		+	+	+	+	+	+	+	+	+								+
<i>Lathyrus maritimus</i> , BIGEL.						+	+	+	+	+	+	+	+	+	+	+	+	+
<i>Falcata comosa</i> , KUNTZ. var. <i>japonica</i> , MAK.						+		+	+	+	+							+
<i>Dumasia truncata</i> , SIEB. et ZUCC.								+	+	+								
<i>Pueraria Thunbergiana</i> , BENTH.	+	+	+	+	+	+	+	+	+	+	+							+
<i>Canavallia lineata</i> , DC.		+	+	+	+			+	+	+								
<i>Dunbaria villosa</i> , MATSUM.		+		+	+	+	+	+	+	+								
<i>Rhynchosia volubilis</i> , LOUR.	+	+	+	+	+	+	+	+	+	+								+
<i>Vigna marina</i> , MERR.				+	+													
Total	34	11	121	24	28	21	29	27	27	16	7	1	1	7	21			
Percentage	32	36	71	82	62	85	79	79	47	21	3	3	21	62				

(Southern element 291)

(Northern elements 30)

Entada phaseoloides, *Pongamia pinnata* and *Vigna marina* have their northern limit in this island and some others have their southern limit here. In view of the fact that seeds of *Entada*, *Pongamia*, and *Vigna* have been carried to this island by sea currents, I can not consider these species important for deciding the phytogeographical position of the island. And as for *Pongamia*, there is a grave doubt that it is really an indigenous plant of this island. These facts have led me to the conclusion that the island has a closer relation to the northern floral regions than to the southern ones.

Geraniaceae

Geraniaceae, J. ST.-HILL., Expos. Famil. II. p. 51 (1805)

Syn. *Gerania*, Juss., Gen. PL p. 268 (1786)

Geranium, [TOURN., ex LINN. Syst. ed. 1 (1735),] et Sp. PL ed. 1. p. 676 (1753); ENDL., Gen. PL n. 6046 (1836-40); BENTH., in BENTH. et HOOK. f. Gen. PL I. p. 272 (1862); K. REICHE., in ENGL. U. PRANT. Nat. Pfl.-fam. III. iv. p. 8 (1889); KUNTH, in ENGL. u. PRANT. Nat. Pfl.-fam. 2 auf. B. 19a. p. 53 (1931); LEMÉE, Diet. Gen. PL Phan. III. p. 235 (1931-)

Geranium nepalense, SWEET, var. *Thunbergii*, (SIEB. et ZUCC.) KUDO, in KUDO et TAKENOUTI, List Sp. Vascular. PL Fukuoka Pr. p. 22 (1925),

Syn. *Geranium palustre*, (non LINN.) THUNB., Fl. Jap. p. 268 (1784)

Geranium Thunbergii, SIEB. et ZUCC., Fl. Jap. Fam. Nat. II. p. 136 (1846)

Geranium nepalense, (non SWEET; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 13 (1867); FR. et SAV., Enum. PL Jap. I. p. 69 (1875), et II. p. 306 (1876); MAXIM., in Mém. Biolog. X. p. 615 (1880); NAK., in Tokyo Bot. Mag. XXIII. p. 101 (1909), et FL Kor. II. p. 456 (1911); MAK. et NEM., Fl. Jap. ed. 2. p. 610 (1931);

Geranium sibiricum, (non LINN.) MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 13 (1867),

Geranium Kramerii, FR. et SAV., Enum. PL Jap. II. p. 303 (1876).

Norn. Jap. Hirosó

Leg. Ipse, Nagata, Aug. 21, 1928.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Ōshima, Korea.

Note. The variety is found in low-lying open lands near the sea level.

Geranium Yoshiiuim, KOIDZ., in MATSUM. Ind. PL Koishik. III. p. 93. PL 192 (1917) • MASAMUNE, Prel. Rep. Veg. Yak. p. 87 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 611 (1931)

Atom. Jap. Yakusima-hirosó

Leg. Miyamura, Jul. 28, 1928.

Note. This endemic species is found in the Pseudosasa Owatarii Association.

Names of Plants	Regions														
	Philippines	Bonins	Taiwan	Okinawa	Amami-Osima	Ryūkyū	Tanegasima	Honsyū Prop.	Honsyū	Oryōso	Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Usuri	China
Geranium nepalense, SWEET, var. Thunbergii, KUDO					+		+	+	+	+	+				
Geranium Yoshiianum, KOIDZ.															

In respect of this family the island seems to have some relation with the northern regions, for there are two representatives of this family in Yakusima, and one of them is an endemic species which is related to *Geranium shikokianum*, and the other one is widely distributed in lands further north than the island. From these two facts I can not avoid considering the island as forming an integral floral region with those regions (Honsyii, Sikoku & Kyûsyii).

Oxalidaceae

Oxalidaceae, LINDL., Nat. Syst. ed. 2. p. 140 1836

'Oxalis, [LINN., Gen. Pl. ed. 1. p. 134 1737,] et Sp. Pl. ed. 1. p. 433 1753; THUNB., Diss. Oxalid. ;178i;; DC, Prodr. I. p. 690 U824); ENDL., Gen. Pl. n. 6058 '1836-40', et Ench. Bot. p. 624 184r ; BENTH. et HOOK, f, Gen. Pl I. 1. p. 276 1862;; KUNTH, in ENGL. Pfl.-reich. IV. 130 (Heft. 95) p. 43 (1930., et in ENGL. u. PRANT. Nat. Pfl.-fam. 2 auf. B. 19a. p. 25 1931); LEMfE, Diet. Gen. Pl. Phan. IV. p. 954 ,1932)

Syn. *Acetosella*, [MOEHR., Hort. Pric. p. 4 1736] O. KUNTZE, Rev. Gen. Pl. I. p. 90 1891)

Oxys, TOURN., ex ADANS. Fam. Pl. II. p. 388 11763)

Oxallis, NORONHA. in Veth. Bat Gen. V. ed. 1. Art. IV. p. 21 1790:

Xanthoxalis, SMALL, Fl. Southeast. U. S. p. 666 1903'

Oxalis corniculata, subsp. **repens**, (THUNB.) MASAMUNE

Syn. *Oxalis repens*, THUNB., Diss. Oxal. p. 16 (1781); MERR, Enum. Philipp. Pl. II, p. 323 (1923); MASAMUNE, Prel. Rep. Veg. Yak. p. 87 .1929)

Oxalis corniculata, 'non LINN.) THUNB., Fl. Jap. p. 187 1784); FR. et SAV.

Enum. Pl. Jap. I. p. 69 (1875); KOM, Fl. Mansh. II. p. 662 1904; NAK., Fl. Kor. I. p. 108 (1909); MATSUM, Ind. Pl. Jap. II. 2. p. 286 (1912); MAK. et NEM., Fl. Jap. ed. 2. p. 614 (1931)

Oxalis pusilla, SALISB., in Trans. Linn. Soc. II. p. 243, t. 23. f. 5 (1794)

Oxalis microphylla, POIR., Encycl. Supp. IV. p. 248 H816)

Oxalis microphylla, A. CUM., ex HOOK. f. Handb. New-Zeal. Fl. p. 38 (1867)

Oxalis corniculata, var. *microphylla*, HOOK. f. Hand. New-Zeal. Fl. p. 38 (1867)

Xanthoxalis Langloisii. SMALL, Fl. Southeast. Unit. St. p. 667 (1903) et in North. Americ. Fl. XXV. 1. p. 52 (1907)

Oxalis corniculata, LINN. var. *repens*, KUNTH, in ENGL. Pfl.-reich. IV. 130 (Heft. 95) p. 150 (1930)

Norn. Jap. *Katabami*

Leg. Ipse, Hirauti, April. 3, 1927.

Distr. Yezo, Honsyū, Sikoku, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, Bonins.

Note. Grows by the roadside or on sunny waste lands, or near inhabited lands.

var. *atropurpurea*, (PLANCH? MASAMUNE, comb. nov.

Syn. *Oxalis tropaeoloides*, SCHL., ex PLANCH, in HOUTT. Fl. de Serres, XII. p. 47 (1857)

Oxalis corniculata, var. *atropurpurea*, PLANCH, in HOUTT. Fl. de Serres XII. p. 47. t. 1205 (1857)

Oxalis corniculata, LINN, var. *tropaeoloides*, MAKINO, in Tokyo Bot. Mag. XXVII. p. 112 (1913):

Oxalis repens, THUNB. var. *tropaeoloides*, (MAK.) MASAMUNE, in Prel. Rep. Veg. Yak. p. 87 (1929):

Nom. Jap. *Usuaka-katabami*

Leg. Mart. 1. 1927.

Distr. Honsyū, Kyūsyū.

Note. The variety is often found in lowlands near dwellings.

Oxalis Griffithii, EDGEW. et HOOK, f., in HOOK. f. Fl. Brit. Ind. I. p. 436 (1872); FORB. et HEMSL., Ind. Fl. Sin. I. p. 99 (1886); DIELS, Fl. Centr. Chin. p. 420 (1900);

Names of Plants	Regions														
	Philippines	Bonins	Taiwan	Okinawa	Amami-Osima	Tanegasima	Kyūsyū Prop.	Sikoku	Honsyū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China
<i>Oxalis corniculata</i> , subsp. <i>repens</i> , MASAMUNE	+	+	+	+	+	+	+	+	+	+	+			+	+
<i>O. c. r.</i> var. <i>atropurpurea</i> , MASAMUNE . . .							+	+	+	+					
<i>Oxalis Griffithii</i> , EDGEW. et HOOK, f.			+				+	+	+						+

HAY., Fl. Mont. Formos. p. 66 (1908'), et Ic. PL Formos. I. p. 114 (1911); KUNTH, in ENGL. Pfl.-reich. IV. 130 (Heft. 95) p. 234 (1930)

Syn. *Oxalis japonica*, FR. et SAV., Enum. PL Jap. II. p. 308 (1876)

Acetosella Griffithii, (HOOK, f.) O. KUNTZE, Rev. Gen. PL I. p. 91 (1891)

Acetosella japonica, (FR. et SAV.) O. KUNTZE, Rev. Gen. PL I. p. 91 (1891);

Oxalis Acetosella, LINN. var. *japonica*, MAK., in Tokyo Bot. Mag. XXII. p. 171 (1908) ; & IATSUM., Ind. PL Jap. II. 2. p. 285 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 87 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 613 (1931)

Norn. Jap. Miyama-katabami

Leg. Ipse, Jul. 21, 1927.

Distr. Honsyū, Sikoku, Kyūsyū, Taiwan, China. Himalaya.

Note. The species is found as undergrowth in the lauri-acicuKsilvae, from 600 m up to 1700 m above the sea level.

Considering the distribution of the species of the family, the island shows no special relation either to the northern or to the southern floral regions.

Rutaceae

Rutaceae, JUSS., Gen. PL p. 296 (1789)

Zanthoxylum, (*Xanthoxylum*) [LINN., Hort. Cliff. p. 487 (1737)] et Sp. PL ed. 1. p. 270 (1753); ENDL., Gen. PL n. 5972 (1836-40); HOOK, f., in BENTH. et HOOK. f. Gen. PL I. 1. p. 297 (1862); ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. III. iv. p. 115 (1896.), et 2 auf. B. 19a. p. 214 (1931)

Syn. *Zanthoxylon*, WALTER, Fl. Carol, pp. 52 et 243 (1788)

Xanthoxylum, J. F. GMEL., Syst. II. p. 509 (1791)

Xanthoxylom, SPRENG., Anleit. ed. 2. II. p. 655 (1848)

Zanthoxylon, FR. et SAV., Enum. PL Jap. I. p. 72 (1875).

Zanthoxylum planispinum, SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 138 (1845[^]); GRAY, in Perry Exped. p. 309 (1856); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 22 (1867); FR. et SAV., Enum. PL Jap. I. p. 73 (1875); MAXIM., in Mél. Biolog. XII. p. 428 (1886); MATSUM. et HAY., Enum. PL Formos. p. 72 (1906); NAK., Fl. Kor. I. p. 116 (1909); MATSUM., Ind. PL Jap. II. 2. p. 295 (1912); MIURA, List PL Manch. & Mong. p. 234 (1925) ; MAK. et NEM., FL Jap. ed. 2. p. 632 (1931); ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. 2 auf. B. 19a p. 217 (1931)

Syn. *Zanthoxylum alatum*, (non ROXB.) FORB. et HEMSL., Ind. Fl. Sin. I. p. 105 (1886); SHIRASAWA, IC. For. Tr. Jap. ed. 2. II. p. 104, PL 34 ff. 26-30 (1912); DUNN et TUTCH., FL Kwang. & Hongk. p. 55 (1912); CHUN., Cat. Tree. & Shrub. Chin. p. 122 (1924[^] ; MASAMUNE, Prel. Rep. Veg. Yak. p. 88 (1929[^]

Zanthoxylum alatum, ROXB. var. *planispinum*, REHDER et WILSON, in SARGENT PL Wils. II. p. 125 (1916)

Nom. Jap. Huyu-zansyō

Leg. (fid. Z. TASHIRO).

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Okinawa, Taiwan, Korea, Manchuria, China.

Note. In the island the species occurs rarely in the laurisilvae.

Zanthoxylum pi periturn, DC, Prodr. I. p. 725 (1824); FORB. et HEMSL., Ind. Fl. Sin. I. p. 107 (1886); MAXIM., in Mél. Biolog. VIII. p. 3 (1871); FR. et SAV., Enum. Pl. Jap. I. p. 72 (1875); KOM., Fl. Mansh. II. p. 667 (1904); NAK., Fl. Kor. I. p. 117 (1909); SHIRASAWA, IC. Tr. Jap. ed. 2. I. p. 155, pi. 52, ff. 11-25 (1911); MATSUM., Ind. Pl. Jap. II. 2. p. 295 (1912); ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. 2 auf. B. 19 a. p. 217 (1931); LOESN., Pfl.-Welt. Kiauts<\$. Geb. p. 146 (1918); CHUN., Cat. Tree. & Shrub. Chin. p. 123 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 87 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 632 (1931)

Norn. Jap. Sansyô

Leg. Kosugidani, Jul. 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Korea, Manchuria, China.

Note. The species is found in the lauri-aciculisilvae about 700 m above the sea level, and it has its southern limit in Amami-dsima.

Fagara, LINN., Syst. ed. 10. p. 897 f1759; ENDL., Gen. Pl. n. 5972c (1836-40); HOOK. f., in BENTH. et HOOK. f. Gen. Pl. I. 1. p. 298 (1862); ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. 2 auf. B. 19 a. p. 217 (1931)
Syn. Fagaras, [BURM., Thes. Zeyl. (1735)] O. KUNTZE, Rev. Gen. Pl. III. 2. p. 34 (1898)

Fagara ailanthoides, ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. III. iv. p. 118 (1895), et in 2 auf. B. 19a. p. 221 (1931); MATSUM., Ind. Pl. Jap. II. 2. p. 291 (1912); MORI, Enum. Pl. Cor. p. 229 (1922J); MASAMUNE, Prel. Rep. Veg. Yak. p. 88 (1929^); MAK. et NEM., Fl. Jap. ed. 2. p. 625 (1931); LEMÉE, Diet. Gen. Pl. Phan. III. p. 85 (1931)

Syn. Zanthoxylon ailanthoides, SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 138 (1845); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 22 (1867j); FR. et SAV., Enum. Pl. Jap. I. p. 72 (1875); FORB. et HEMSL., Ind. Fl. Sin. I. p. 105 (1886); MATSUM. et HAY., Enum. Pl. Formos. p. 71 (1906); SHIRAZAWA, IC. Tree. Jap. ed. 2. I. p. 154, pi. 52, ff. 1-9 (1911),

Zanthoxylon emarginelum. MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 22 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 73 (1875)

Nom. Jap. Karasu-zansyô

Leg. Ipse, Jun. 10, 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-dsima, Okinawa, Taiwan, Bonins, Korea, China

Note. The species is found in the lauri-aciculisilvae and in the laurisilvae from the sea level up to about 900 m above, and grows very often in clearings.

Fagara piperita, (non LINN.) THUNB., Fl. Jap. p. 64 (1784)

Syn. Zanthoxylum schinifolium, SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 137 (1845); MAXIM., in Mél. Biolog. VIII. p. 3 (1871); HANCE, in Journ. Bot. p. 296 (1883); FORB. et HEMSL., Ind. Fl. Sin. I. p. 107 (1886); KOM., Fl. Mansh. II. p. 666 (1904)

Zanthoxylum manschuricum, BENN., in Ann. Nat. Hist. III. 10. p. 200 (1852)

Fagara schinifolia, ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. III. iv. p. 118 (1895), et 2 auf. B. 19a. p. 221 (1931); ITO et MATSUM., Tent. Fl. Lutch. I. p. 356 (1899); MATSUM., Ind. Pl. Jap. II. 2. p. 292 (1912); LOESEN., Pflanzwelt. Kiaut. Geb. p. 147 (1918); MAK. et NEM., Fl. Jap. ed. 2. p. 626 (1931);

Zanthoxylum schiifolium, NAK., Fl. Kor. I. p. 116 (1909)

Zanthoxylum shinnifolium, SHIRAZAWA, IC. Tree. Jap. ed. 2. II. p. 103, pi. 33, ff. 1-15 (1912)

Norn. Jap. Inu-zansyô

Leg. Ipse, Jul. 31, 1927.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Korea, Manchuria, China.

Note. This is a common species in the Far East, and in the island it grows on waste lands or by the roadside.

Evodia, (*Euodia*) FORST., Char. Gen. p. 13, t. 7 (17761 ; DC, Prodr. I. p. 724 (1824); ENDL., Gen. PL n. 5996 (1836-40); HOOK, f, in BENTH. et HOOK. f. Gen. PL I. p. 296 (1862[^] ; ENGL., in ENGL. u. PR ANT. Nat. Pfl.-fam. III. iv. p. 119 (1896; et 2 auf. B. 19a. p. 225 (1931); LEMfE, Diet. Gen. PL Phan. III. p. 69 (1931)

Syn. *Atitara*, MARGR., ex JUSS. in Diet. Sc. Nat. III. p. 277 (1816)

Boymia, JUSS., in Mem. Paris. XII. p. 507 (1825)

Megabotrya, HANCE, in Walp. Ann. II. p. 259 (1851)

Evodia meliaefolia, BENTH., Fl. Hongk. p. 58 (1861) ; HOOK, f, Fl. Brit. Ind. I. p. 490 (1875) ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 104 (1886); ITO et MATSUM., Tent. FL Lutcl* I. p. 354 (1899); MATSUM. et HAY., Enum. PL Formos. p. 69 [1906]; HAY., FL Mont. Formos. p. 68 (1908; ; GUILLAUMINA, in LECOMTE, FL Ind. Chin. I. 6. p. 637 (1911) ; SHIRASAWA, IC. Tree. Jap. ed.2. II. p. 108 pi. 34, ff. 1-9 (1912); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 55 (1912) ; MATSUM., Ind. PL Jap. II. 2. p. 290 ;1912;; MASAMUNE, Prel. Rep. Veg. Yak. p. 88 (1929)

Syn. *Megabotrya meliaefolia*, HANCE, in Walp. Ann. II. p. 259 (1851)

Boymia glabrifolia, CHAMP., in Hook. Kew. Journ. Bot. III. p. 330 (1851); SEEM., Bot. Voy. Herald, p. 370 (1857);

Evodia glauca, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 23 :1867; ; MAK. et NEM., Fl. Jap. ed. 2. p. 624 .1931)

Evodia me Hi folia, DIELS, FL Cent. Chin. p. 423 1900, ; ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. 2 auf. B. 19a. p. 228, ff. 96 O-Q. '1931)

Nom. Jap. Hama-sendan

Leg. Ipse, Koseda.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, China, India.

Note. The species is found near the coast or in the laurisilvae at low altitudes and is common in the Far East.

Skimmia, THUNB., NOV. Gen. PL III. p. 57 ;1783) ; DC, Prodr. II. p. 18 (1825); ENDL., Gen. PL n. 5712 (183&-40); HOOK, f, in BENTH. et HOOK. f. Gen. PL I. 1. p. 302 (1862); ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. III. iv. p. 181 (1896\ et 2 auf. B. 19a. p. 312 U931)

Syn. *Skimmi*, ADANS., Fam. II. p. 364 (1763)

Skimmia japonica, THUNB., NOV. Gen. p. 58 ,1783:. et Fl. Jap. p. 62 (1784; ; DC, Prodr. II. p. 18 (1825); A. GRAY, Bot. Jap. p. 398 (1858 ; FR. et SAV., Enum. PI Jap. I. p. 74 (1875), et II. p. 311 (1876); ITO et MATSUM., Tent. FL Lutch. I. p. 357 (1899) ; DIELS, Fl. Cent. Chin. p. 424 (1900); HAY., FL Mont. Formos. p. 68 (1908); SHIRASAWA, Ic. For. Tr. Jap. ed. 2. II. p. 107 pi. 34 ff. 10-17 (1912) p.p.; MATSUM., Ind. PI. Jap. II. 2. p. 294 ;1912; ; MERR., Enum. Philipp. PL II. p.

334 (1923 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 88 (1929 ; MAK. et NEM., Fl. Jap. ed.2. p. 630 (1931) ; ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. 2 auf. B. 19a. p. 312 (1931)

Syn. *Ilex skimrnia*, SPRENG., Syst. I. p. 495 (1825[^])

Nom. Jap. *Miyama-sikimi*

Leg. Ipse, Kosugidani, Mart. 18, 1923.

Distr. Yezo, Honsyū, Sikoku*, Kyūsyū, Amami-ōsima, Okinawa, Taiwan, China, Philippines.

Note. The species grows in the laurisilvae and in the lauri-aciculisilvae from 300 m up to 1500 m above the sea level, and it is common in southern Japan.

Citrus, [LINN., Syst. ed. 1 (1735) et Sp. PL ed. 1. p. 782 (1753' ; DC, Prodr. I. p. 539 (1824) ; ENDL., Gen. PI. n. 5514 (183G-40^N ; HOOK, f., in BENTH. et HOOK. f. Gen. PI. I. 1. p. 305 (18621 ; ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. III. iv. p. 195 (1896\ et 2 auf. B. 19a. p. 333 (1931); LEMEE, Diet. Gen. PI. Phan. II. p. 176 (1930);

Syn. *Citreum*, [TOURN., ex RUPP. Fl. Jen. ed. 3. p. 141 (1745] MILL., Gard. Diet. ed. 6 (1752[^])

Limon, TOURN.) ex MILL., Gard. Diet. ed. 6 (1752

Citrophorum, NECK., Elem. II. p. 401 (1790:

Citrus Tachibana, 'MAK.' TANAKA, in Gakugei II. 1. p. 52 (1926 ; ^ASAMUNE, Prel. Rep. Veg. Yak. p. 87 (1929)

Syn. *Citrus nobilis*, var. *stfontanea*, ITO et MATSUM., Tent. Fl. Lutch. I. p. 360 (1899) p. *Citrus Aurantiurn*, LINN, subsp. *nobilis*, var. *Tachibana*, • MAK., in Tokyo Bot. Mag. XV. p. 167 (1901) ; MATSUM., Ind. PI. Jap. II. 2. p. 289 (1912' ; MAK. et NEM., Fl. Jap. ed. 2. p. 620 (1931

Norn. Jap. *Tatibana*

Leg. Ipse, Ambo, Aug. 30, 1931.

Distr. Sikoku, Kyūsyū, Tanegasima, Amami-ōsima, Taiwan.

Note. The species is found on rare occasion in the laurisilvte at low altitudes, and is distributed from Sikoku southward as far as Formosa.

Names of Plants	Regions														
	Philippines	Hainan	Taiwan	Okinawa	Amami-ōsima	Tanegasima	Kyūsyū Prop.	*.koku	% nsyū	Korea	Yezo & Southern Kuriles	Baghaliien	Northern Kuriles & Tchhatka	Manchuria, Amur & Ussuri	China
Zanthoxylum planispinum, SIEB. et ZUCC.			+	+		+	+	+	+	+				+	+
Zanthoxylum piperitum, DC					+	+	+	••	+	+	+			+	+
Fagara ailanthoides, ENGL	+	+	+	+	+	+	+	+	+	+					+

Fagara piperita, THUNB.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Evodia meliaefolia, BENTH			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				+	+
Skimmia japonica, THUNB.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Citrus Tachibana, TANAKA			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Total	7	1	1	5	5	6	6	7	7	6	4	2														3 6
Percentage		14	14	71	71	86	86	100	100	86	57	29														4386

:Southern elements 7) | Northern elements 7)

In respect of this family the island shows no special relationship either with the northern or with the southern districts.

Polygalaceae

Polygalaceae, LINDL., Nat. Syst. ed. 2. p. 84 (1836)

Syn. Polygaleae, JUSS., in Ann. Mus. Paris. XIV. p. 386 (1806) ; DC, Prodr. I. p. 321 (1824) ; BENTH., in BENTH. et HOOK. f. Gen. PI. I. 1. p. 134 (1862)

Polygala, [TOURN., ex LINN. Syst. ed. 1 (1735)]

et Sp. PI. ed. 1. p. 701 (1753) ; DC, Prodr. I. p. 321 (1824) ; ENDL., Gen. PI. n. 5647 (1836-40) ; BENTH., in BENTH. et HOOK. f. Gen. PI. I. p. 136 (1862) ; CHOD., in ENGL. U. PRANT. Nat. Pfl.-fam. III. iv. p. 330 (1896)

Syn. Polygaloides, [TOURN. ex HALL., Enum. Stirp. Helvet. II. p. 607 (1742)]

Polygala, NECK, Del. Gall.-belg. II. p. 300 (1768)

Polygala japonica, HOUTT., Handleid. X. p. 89, t. 62, f. 1 (1779) ; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 260 (1866) ; FR. et SAV., Enum. PI. Jap. I. p. 18 (1875) ; MATSUM. et HAY., Enum. PI. Formos. p. 34 (1906) ; HAY., Fl. Mont. Formos. p. 55 (1908) ; GAGNEPAIN, in LECOMTE, Fl. Ind. Chin. p. 255 (1909) ; MORI, Enum. PI. Cor. p. 232 (1922) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 89 (1929) ; YAMAZUTA, List Manch. PI. p. 176 (1930) ; MAK. et NEM., Fl. Jap. ed. 2. p. 639 (1931)

Syn. Polygala sibirica, (non LINN.) MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 260 (1866) ; FR. et SAV., Enum. PI. Jap. I. p. 44 (1875) ; NAK., Fl. Kor. I. p. 74 (1909)

Nom. Jap. Himc-hagi

Leg. Ipse, Nagata, Aug. 21, 1928.

Distr. Yezo, Honsyu, Sikoku, KytsyG, Tanegasima, Amami-6sima. Okinawa, Taiwan, Korea, Manchuria, China.

Note. This is a common species in the Far East, and is often found in open grasslands at low altitudes.

Salomonina, LOUR., Fl. Cochinch. p. 14 (1790) ;

DC, Prodr. I. p. 333 (1824) ; ENDL., Gen. PI. n. 5646 (1836-40) ; BENTH., in BENTH. et HOOK. f. Gen. PI. I. 1. p. 136 (1862) ; CHOD., in ENGL. u. PRANT. Nat. Pfl.-fam. III. iv. p. 342 (1896)

Syn. Salomonea, VAHL., Enum. I. p. 8 (1804)

Salomonnia ciliata, DC, Prodr. I. p. 334 (1824); MERR., Enum. Philipp. Pl. II. p. 386 (1923) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 89 (1929)

Syn. Polygala ciliata, LINN., Sp. Pl. ed. 1. p. 705 (1753j)

Polygala vulgaris, (non LINN.) THUNB., Fl. Jap. p. 277 (1784)

Salomonnia oblongifolia, DC, Prodr. I. p. 334 (1824) ; BENTH., Fl. Hongk. p. 44 (1861) ; HOOK, f, Fl. Brit. Ind. I. p. 207 (1872) ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 59 (1886) ; DUNN & TUTCH., Fl. Kwang. & Hongk. p. 38 (1912) ; KOIDZ., in Tokyo Bot. Mag. XLIV. p. 107 (1930) ; MAK. et NEM., Fl. Jap. ed. 2. p. 640 (1931)

Salomonnia stricta, SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 152 (1845) ; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 260 (1866) ; FR. et SAV., Enum. Pl. Jap. I. p. 45 (1875) ; MATSUM., Ind. Pl. Jap. II. 2. p. 299 (1912) ; HAY., Ic. Pl. Formos. III. p. 32 (1913);

Nom. Jap. Hinano-kanzasi

Leg. Ambō, Aug. 12, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Okinawa, Taiwan, Korea, China, Philippines.

Mote. The species is found in waste lands or in open grasslands at low altitudes.

Names of Plants	Regions																	
	Philippines	Bonins	Taiwan	Okinawa	Amami-Osima	Tanegasima	Kyūsyū Prop.	Kyū 3	Shō	Shō	onsyū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China	
<i>Polygala japonica</i> , HOUTT.			+	+	+	+	+	+	+	+	+	+	+				+	+
<i>Salomonnia ciliata</i> , DC.	+		+	+	+		+		+	+	+	+						+

So far as the distribution of the plants of *Polygalaceae* are concerned the island does not show any special relationship either with the northern or with the southern regions.

Euphorbiaceae

Euphorbiaceae, J. ST. HILL., Expos. Fam. II. p. 276 '1805 ; BENTH., in BENTH. et HOOK. f. Gen. Pl. III. 1. p. 239 (1880):

Syn. Euphorbiae, B. JUSS., in Hort. Trianon (1759 , ex JUSS., Gen. p. 384 (1789)

Phyllanthus, [LINN., Gen. ed. 1. p. 282 (1737)]
 et Sp. Pl. ed. 1. p. 981 (1753 ; ENDL., Gen. PL n. 5847 (183&-40) ; MILLER, in

- DC. Prodr. XV. 2. p. 274 (1862; ; BENTH. et HOOK. f., Gen. Pl. III. 1. p. 272 (188T ; PAX, in ENGL. U. PRANT. Nat. Pfl.-fam. III. v. p. 18 (189W ; PAX u. HOFF., in Id. 2 auf. B. 19c. p. 60 (1931)
- Syn.* *Diasperus*, [LINN., Syst. ed. 1 (1735)] O. KUNTZE, Rev. Gen. Pl. II. p. 596 (1891)
Niruri, ADANS., Fam. II. p. 356 (1763)
Lobocarpus, WIGHT et ARN., Prodr. Fl. Rev. Ind. Or. I. p. 7 (1834)
- Phyllanthus flexuosus*, MÜLL.-ARG., in DC. Prodr. XV. 2. p. 324 (1862; ; FORB. et HEMSL., Ind. Fl. Sin. II. p. 421 (1894^v ; DIELS, Fl. Centr. Chin. p. 427 (1900); HAY., Rev. Euphor. & Bux. Jap. p. 12, t. I, G. (1904 ; MATSUM., Ind. Pl. Jap. II. 2. p. 308 (1912); MAK. et NEM., Cat. Jap. Pl. p. 183 (1914^N, et Fl. Jap. ed. 2. p. 660 (1931); CHUN., Cat. Tree. & Shrub. Chin. p. 130 (1924) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 90 (1929)
- Syn.* *Cicca flexuosa*, SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 143 (1845)
Glochidion flexuosum, MÜLL.-AGR., ex MIQ. in Ann. Mus. Bot. Lugd. Bat. III. p. 128 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 426 (1875);
Nom. Jap. *Kobannoki*
Leg. Y. KUDO! Aug. 1907.
Distr. Honsyfi, Sikoku, Kyfisyfi, Amami-6sima, Okinawa, China.
Note. I have not found this species in the island, but Dr. KUDO told me that he had collected it in the island. The species is rather common in South Kyfisyfi.
- Phyllanthus Matsumurae*, HAY., Euphor. & Bux. Jap. p. 11. t. I. E (1904) ; MATSUM., Ind. Pl. Jap. II. 2. p. 308 (1912) ; MAK. et NEM., Cat. Jap. Pl. p. 183 (1914), et Fl. Jap. ed. 2. p. 660 (1931) ; YAMAZUTA, List Manch. Pl. p. 180 (1930)
- Syn.* *Phyllanthus simplex*, (non RETZ.) MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 127 (1867; ; FR. et SAV., Enum. Pl. Jap. II. p. 423 (1875) ; KOM., Fl. Mansh. II. p. 683 (1904);
Nom. Jap. *Hirne-mikansô*
Leg. Ipse, Miyanoura, Sept. 1, 1931.
Distr. Honsyfi, Sikoku, Kyfisyfi, Okinawa, Manchuria.
Note. The plant is found in waste lands or along the roadside.
- Phyllanthus urinaria*, LINN., Sp. Pl. ed. 1. p. 982 (1753) ; LOUR., Fl. Cochinch. p. 554 (1790) ; WILLD., Sp. Pl. IV. p. 583 (1805; ; BENTH., Fl. Hongk. p. 310 (1861); MÜLL.-ARG., in DC. Prodr. XV. 2. p. 364 (1862); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 127 (1867, ; FR. et SAV., Enum. Pl. Jap. I. p. 426 (1875); MAXIM., in Engl. Bot. Jahrb. VI. p. 59 (1885); HOOK. f., Fl. Brit. Ind. V. p. 293 (1887); FORB. et HEMSL., Ind. Fl. Sin. II. p. 423 (1894); HAY., Euphor. & Bux. Jap. p. 8.1.1. C. (1904); MATSUM. et HAY., Enum. Pl. Formos. p. 359 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 309 (1912) ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 234 (1912; ; MAK. et NEM., Cat. Jap. Pl. p. 183 (1914), et Fl. Jap. ed. 2. p. 661 (1931); MORI, Enum. Pl. Cor. p. 234 (1922; ; MASAMUNE, Prel. Rep. Veg. Yak. p. 90 (1929)
- Syn.* *Phyllanthus lepidocarpus*, SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 143 (1845; ; WIGHT, Ic. Ind. Or. L 1895 (1852); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 127 (1867)
Nom. Jap. *Komikansô*
Leg. Y. KUDO! Kurio Aug. 1907.
Distr. Honsyfi, Sikoku, Kyfisyfi, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China, Philippines.

Note. The species is found in waste or cultivated lands near the sea level, and is widely distributed in Asia and tropical regions.

Glochidion, FORST., Char. Gen. p. 113, t. 57
.1876; ; ENDL., Gen. Pl. n. 5855 !1836-40;; BENTH. et HOOK, f., Gen. Pl. III. p. 272 ;1880;; PAX, in ENGL. U. PRANT. Nat. Pfl.-fam. III. v. p. 23 ;1890¹ ; PAX u. HOFF., in id. 2 auf. B. 19c. p. 56 1931); LEMÉE, Diet. Gen. PL Phan. III. p. 270 1931)

Syn. *Bradleja*, BANKS, ex GAERTNER, Fruct. II. p. 127, t. 109 (1791)
Glochisandra, WIGHT, Ic. Ind. Or. V. p. 2. p. 28, t. 1905 ;1852)

Glochidion hongkongense, MÜLL.-ARG., in Linnaea XXXII. p. 60 ;1863 ; FORB. et HEMSL., Ind. Fl. Sin. II. p. 424 ;1894¹ ; HAY., Mat. Fl. Formos. p. 264 1911 ; DUNN et TUTCH., Fl. Kwangt. & Hongk. p. 235 ;1912 .; CHUN., Cat. Tree. & Shrub. Chin. p. 131 ;1924¹ ; MERR., Enum. Hainan Pl. p. 107 (1927 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 89 1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 655 ;1931.

Syn. *Glochidion lit tor ale*, non BLi BENTH., Fl. Hongk. p. 314 ;18611

Phyllanthus hongkongensis, MÜLL.-ARG., in Fl. XLVIII. p. 371 1865 ; DC. Prodr. XV. 2. p. 282 1866 ; HANCE, in Journ. Linn. Soc. XIII. p. 120 1872.

Glochidion zeylanicum, non A. JUSS. HAY., Euphorb. & Bux. Jap. p. 17 1904 ; MATSUM. et HAY., Enum. PL Formos. p. 360 1906 ; MATSUM., Ind. Pl. Jap. II. 2. p. 306 ;1912i

Nom. Jap. *Kakiba-kankonoki*

Leg. Ipse, Nakama, Mart. 22, 1923.

Distr. Amami-Ōsima, Okinawa, Taiwan, China.

Note. The species is found in the lowlands and along small water courses. It has its northern limit in this island.

Glochidion obovatum, SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 143 1845 ; MULL.-ARG., in Linn. XXXII. p. 67 1863, ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 128 1867 ; FR. et SAV., Enum. PL Jap. I. p. 426 1875 ; FORB. et HEMSL., Ind. Fl. Sin. II. p. 425 1894 ; HAY., Euphorb. & Bux. Jap. p. 19. t. II. F. 1904¹ ; SHIRASAWA, Ic. For. Tr. Jap. ed. 2. II. p. 114 pi. 36 ;1912* ; MATSUM., Ind. PL Jap. II. 2. p. 306 1912[^] ; MASAMUNE, Prel. Rep. Veg. Yak. p. 90 1929¹ ; MAK. et NEM., Fl. Jap. ed. 2. p. 656 1931¹

Syn. *Phyllanthus obovatus*, MULL.-ARG., in DC. Prodr. XV. 2. p. 307 1866 ; CHUN., Cat. Tree. & Shrub. Chin. p. 130 1924)

Nom. Jap. *Kankonoki*

Leg. Ipse, Jun. 27, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Osima, Okinawa, Taiwan, China.

Note. The species is found in somewhat sunny and dry land from the sea level up to about 300 m above, and is common in South Japan.

Antidesma, [BURM., ex LINN. Diss. de Anand. p. 6 1748:; Amoen. Acad. I. p. 249 1749] et Sp. PL ed. 1. p. 1027 1753. ;
1880 ; PAX, in ENGL. u. PRANT. Nat. Pfl.-fam. III. v. p. 30 ;1890 ; PAX u. HOFF., in Id. 2 auf. B. 19c. p. 54 1931¹ ; LEMfEE, Diet. Gen. PL Phan. I. p. 313 1929.

Syn. *Bestram*, ADANS., Fam. II. p. 354 (1763)
Stilago, LINN., Mant. I. p. 16 (1767)
Rhytis, LOUR., Fl. Cochinch. p. 660 (1790)

Antidesma japonicum, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 212 (1846^N); BENTH., Fl. Hongk. p. 318 (1861); MÜLL.-ARG., in DC. Prodr. XV. 2. p. 258 (1866); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 128 (1868); FR. et SAV., Enum. PL Jap. I. p. 427 (1875); MAXIM., in Engl. Bot. Jahrb. VI. p. 59 (1885); FORB. et HEMSL., Ind. Fl. Sin. III. p. 432 (1894); HAY., Euphorb. & Bux. Jap. p. 27, t. II. (1904); MATSUM. et HAY., Enum. PI. Formos. p. 362 (1905); MATSUM., Ind. PI. Jap. II. 2. p. 300 (1912); DUNN et TUTCH., Fl. Kwangt. & Hongk. p. 237 (1912); CHUN., Cat. Tree. & Shrub. Chin. p. 133 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 89 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 644 (1931)

Abut. Jap. Yamahihatu

Leg. Ipse, Ambō, Jun. 7, 1928.

Distr. Amami-6sima, Okinawa, Taiwan, China.

Note. The species is found in the laurisilvae or on the edges of forest in the lowlands. It is not yet found in lands further north than Yakusima.

Croton, [LINN., Gen. PI. ed. 1. p. 288 (1753)] et

Sp. PI. ed. 1. p. 1004 (1753); ENDL., Gen. PI. n. 5872 (1836-40); BENTH. et HOOK, f., Gen. PI. III. 1. p. 293 (1880); PAX, in ENGL. u. PRANT. Nat. Pfl.-fam. III. v. p. 37 (1890); PAX u. HOFF., in Id. 2 auf. B. 19c. p. 83 (1931); LEMfE, Diet. Gen. PI. Phan. II. p. 381 (1930)

Syn. *Oxydectes*, [LINN., Syst. ed. 1 (1735)] O. KUNTZE, Rev. Gen. PI. II. p. 609 (1891)
Cascarilla, ADANS., Fam. II. p. 355 (1763),
Tridesmis, LOUR., Fl. Cochinch. p. 576 (1790);

Croton Tigliuir., LINN., Sp. PI. ed. 1. p. 1004 (1753); LOUR., Fl. Cochinch. p. 582 (1790); WILLD., Sp. PI. IV. p. 453 (1805); AITON, Hort. Kew. ed. 2. V. p. 327 (1813); MIQ., Fl. Ind. Bat. I. p. 379 (1858-59); MULL.-ARG., in DC. Prodr. XV. 2. p. 600 (1866); HOOK, f., Fl. Brit. Ind. V. p. 393 (1887); FORB. et HEMSL., Ind. Fl. Sin. II. p. 435 (1894); DIELS, Fl. Cent. Chin. p. 428 (1900); HAY., Euphorb. & Bux. Jap. p. 36 t. III. C. (1904); MATSUM. et HAY., Enum. PI. Formos. p. 363 (1905); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 238 (1912); MATSUM., Ind. PI. Jap. II. 2. p. 301 (1912); MERR., Enum. Philipp. PI. II. p. 427 (1923); RIDLEY, Fl. Malay, III. p. 262 t. III. c. (1924); CHUN., Cat. Tree. & Shrub. Chin. p. 133 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 89 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 647 (1931); HANDEL-MAZZ., Symb. Sin. VII. p. 218 (1931)

Nom. Jap. Hazunoki

Leg. Ipse, Ambō, Aug. 7, 1928.

Distr. Okinawa, Taiwan, Philippines, Malay, China.

Note. The species is found in the lowlands along forest edges or in bushy places. Even though the species is widely distributed in the island, there is a doubt that it might not have been introduced from other districts.

Mallotus, LOUR., Fl. Cochinch. p. 635 (1790);

ENDL., Gen. PI. n. 5819 (1836-40); BENTH. et HOOK, f., Gen. PI. III. 1. p. 319 (1880); PAX, in ENGL. U. PRANT. Nat. Pfl.-fam. III. v. p. 53 (1890); PAX u. HOFF., in Id. 2 auf. B. 19c. p. 113 (1931); LEMfE, Diet. Gen. PI. Phan. IV. p. 277 (1932);

Syn. *Rottlera*, ROXB., PL Coromandel. II. 36, t. 168 (1798)
Stylanthus, REICHB. f. et ZOLL., in Linnaea XXVIII. p. 312 (1856),

Mallotus japonicus, MÜLL.-ARG., in Linnaea XXXIV. p. 189 (1866) et in DC. Prodr. XV. 2. p. 966 (1866); MAXIM., in Engl. Bot. Jahrb. VI. p. 59 (1885); FORB. et HEMSL., Ind. Fl. Sin. II. p. 440 (1894); HAY., Euphorb. Bux. Jap. p. 44. t. III. I. (1904); SHIRASAWA, IC. Tree. Jap. ed. 2. I. p. 160 t. 55. ff. 1-15 (1911); NAK., Fl. Kor. II. p. 187 (1911); DUNN et TUTCH., Fl. Kwangt. & Hongk. p. 240 (1912); MATSUM., Ind. Pl. Jap. II. 2. p. 307 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 90 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 658 (1931); HANDEL-MAZZ., Symb. Sin. VII. p. 213 (1931)

Syn. *Croton japonicum*, THUNB., Fl. Jap. p. 270 (1784),
Rottlera japonica, SPRENG., HOOK, et ARNOT. Bot. Capt. Beech. Voy. p. 270 (1836-40); SIEB. et ZUCC, Fl. Jap. p. 147, t. 79 (1841), et Fl. Jap. Fam. Nat. I. p. 144 (1845); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 127 (1867)

Abut. Jap. *Akamegasiwa*

Leg. Ipse, Aug. 5, 1928.

Disir. Honsyu, Sikoku, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China.

Note. The species is found in clearings or in waste lands which are comparatively sunny, and is widely distributed in Japan.

Acalypha, [LINN., Coroll. Gen. p. 19 (1737);] et Sp. PL ed. 1. p. 1003 (1753); ENDL., Gen. PL n. 5787 (1836-40*); BENTH. et HOOK, f., Gen. PL III. 1. p. 311 (1880); PAX, in ENGL. U. PRANT. Nat. Pfl.-fam. III. v. p. 60 (1890); PAX u. HOFF., in Id. 2. auf. B. 19c. p. 134 (1931); LEMÉE, Diet. Gen. PL Phan. I. p. 10 (1929)

Syn. *Ricinocarpus*, [BURM., Thes. Zeyl. p. 203 (1737);] O. KUNTZE, Rev. Gen. PL II. p. 615 (1891)

Cupameni, ADANS., Fam. II. p. 356 (1763);

Controversy, O. KUNTZE, Rev. Gen. PL III. 2. p. 291 (1898);

Acalypha australis, LINN., Sp. PL ed. 1. p. 1004 (1753); FORB. et HEMSL., Ind. Fl. Sin. II. p. 437 (1894); DIELS, Fl. Centr. Chin. p. 429 (1900); HAY., Euphorb. & Bux. Jap. p. 50 t. IV. D. (1904); KOM., Fl. Mansh. II. p. 684 (1904); NAK., Fl. Kor. II. p. 187 (1911); MERR., Enum. Philipp. PL II. p. 445 (1923); MASAMUNE, Prel. Rep. Veg. Yak. p. 89 (1929)

Syn. *Acalypha virgata*, THUNB., Fl. Jap. p. 268 (1784);

Urtica gemina, LOUR., Fl. Cochinch. p. 558 (1790)

Acalypha gemina, SPRENG., Syst. Veg. III. p. 880 (1826); MÜLL.-ARG., in DC. Prodr. XV. 2. p. 866 (1866)

Acalypha chinensis, ROXB., Fl. Ind. III. p. 677 (1832); HOOK, et ARN., Bot. Capt. Beech. Voy. p. 213 (1836);

Acalypha pauciflora, HORNEM; MAXIM., Prim. Fl. Amur. p. 240 (1859); REGEL., Tent. Fl. Uss. no. 429 (1861); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 127 (1868); FR. et SAV., Enum. Pl. Jap. I. p. 424 (1875); FR., Pl. David. I. p. 264 (1884);

Acalypha australis, LINN. var. *genuina*, NAK., in Tokyo Bot. Mag. XLIII. p. 442 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 642 (1931)

Mom. Jap. *Enokigusa*

Leg. Ipse, Ambd, Jul. 20, 1927.

Diatr. Honsyfi, Sikoku, Kyûsyfi, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China, Philippines.

Note. This is a common species in the Far East and in the island it is found in waste lands and in cultivated lands near the sea level.

Akurites, FORST., Char. Gen. p. III. t 56 (1776;; ENDL., Gen. Pl. n. 5802 (1836-40); BENTH. et HOOK, f., Gen. Pl. III. 1. p. 292 (1880); PAX, in ENGL. U. PRANT. Nat. Pfl.-fam. III. v. p. 72 (1890;; PAX u. HOFFM., in Id. 2. auf. B. 19 c. p. 99 (1931); LEMÉE, Diet. Gen. Pl. Phan. I. p. 146 (1929);

Akurites cordata, R. BR. v ex STEUD., Norn. cd. 2. I. p. 49 (1840;; MÜLL.-ARC, in DC. Prodr. XV. 2. p. 724 (1866); FORB. et HEMSL., Ind. Fl. Sin. II. p. 433 (1894;; DIEH6, Fl. Centr. Chin. p. 430 (1900); SHIRASAWA, IC. For. Tree. Jap. ed. 2. I. p. 162, t. 56, ff. 1-19 (1911^); HAY., Rev. Euphorb. & Bux. Jap. p. 55 (1904.); MATSUM. et HAY., Enum. Pl. Formos. p. 366 (1906!); MATSUM., Ind. Pl. Jap. II. 2. p. 300 (1912); CHUN., Cat. Tree. & Shrub. Chin. p. 134 (1924¹); MASAMUNE, Prel. Rep. Veg. Yak. p. 89 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 644 (1931)

Syn. *Dryandra cordata*, TfilJNB., Fl. Jap. p. 267, t. 27 (1784^)

Dryandra oleifera, LAM., Encycl. II. p. 329 U786;

Vernicia montana, LOUR., Fl. Cochinch. ed. 2. p. 587 11793 i

Elaeococca verrucosa, JUSS., Euphorb. Tent. p. 38, t. 11 ^1824;; SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 145 (1845)

Elaeococca cordata, BL., Bijdr. p. 618 (1825-26); FR. et SAV., Enum. Pl. Jap. I. p. 425 U875}

Akurites japonica, BL., ex MIQ. in Ann. Mus. Bot. Lugd. Bat. IV. p. 120 (1868)

Akurites verniciflua, BAILL. Hist. Pl. V. p. 116 (1874:

Nom. Jap. *Aburagiri*

Leg. Ipse, Kosugidani, Jun. 6, 1928.

Diatr. Honsyuf, Kyûsyuf, Taiwan, China.

Note. The plant is found in clearings in the lauri-aciculisilvae or in the lauri-silvae.

Sapium, P. BR., Hist. Jam. p. 338 (1756;; JACQ., Select. Stirp. Amer. Hist. p. 249 (1763); ADANS., Fam. II. p. 357 (1763); ENDL., Gen. Pl. n. 5780 U836-40); BENTH. et HOOK, f., Gen. Pl. III. 1. p. 334 (1880); PAX, in ENGL. U. PRANT. Nat. Pfl.-fam. III. v. p. 97 (1890); PAX u. HOFFM. in Id. 2. auf. B. 19c. n. 198 (1931)

Syn. *Gymnobotrys*, WALL., ex BAILL. Etud. Gén. Euphorb. p. 526 (1858;

Excaecaria, MiLL.-ARG., in DC. Prodr. XV. 2. p. 1201 (1866)

Sapium japonicum, SIEB. et ZUCC; PAX et K., in ENGL. Pfl.-reich. IV. 147 (Hert 52) p. 25? (1912); CHUN., Cat. Tree. & Shrub. Chin. p. 135 (1924!); MASAMUNE, Prel. Rep. Veg. Yak. p. 90 (1929;; MAK. et NEM., Fl. Jap. ed. 2. p. 662 (1931); HADEL-MAZZ., Symb. Sin. VII. p. 123 (1931)

Syn. *Croton Siraki*, SIEB. et ZUCC., Fl. Jap. Fam. Nat. I. p. 144 (1845) nomen.

Stillingia japonica, SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 145 (1846)

Triadica japonica, BAILL, Etud. Gen. Euphorb. p. 512 (1858)

Excoecaria japonica, MULL.-ARG., in Linn. XXXII. p. 123 (1863', et in DC. Prodr. XV. 2. p. 1218 (1866;; FORB. et HEMSL., Ind. Fl. Sin. II. p. 446 (1894'; HAY., Euphorb. & Bux. Jap. p. 59. t. IV. (1904'; NAK. :Fl. Kor.

II. p. 187 (1911); MATSUM., Ind. Pl. Jap. II. 2. p. 305 (1912); SHIRASAWA, Ic. Tr. Jap. ed. 2. II. p. 113, t. 36, ff. 1-13 (1912)

Norn. Jap. Siraki

Leg. Ipse, Kosugidani, Jul. 7, 1928.

Distr. Honsyu, Sikoku, Kyūsyū, Amami-6sima, Okinawa, Korea, China.

Note. The plant is found from the sea level up to 803 m above, but on rather rare occasions in this island.

Euphorbia, [LINN., Gen. Pl. ed. 1. p. 152 (1737) et Sp. Pl. ed. 1. p. 450 (1753); ; ENDL., Gen. Pl. n. 5766 (1836-40)]; BENTH. et HOOK, f., Gen. Pl. III. 1. p. 258 (1880); ; PAX, in ENGL. U. PRANT. Nat. Pfl. Fam. III. v. p. 103 (1890); PAX u. HOFF., in Id. 2. auf. B. 19c. p. 208 (1931); LEMÉE, Diet. Gen. Pl. Phan. III. p. 44 (1931)

Syn. Characias, S. F. GRAY, Nat. Arr. Brit. Pl. II. p. 269 (1821)

Keraselma, NECK., Elem. II. p. 353 (1790); ; RAF., Fl. Tellur. IV. p. 116 (1836)

Euphorbia Atoto, FORST f., Prodr. p. 35 (1786); BOISS., in DC. Prodr. XV. 2. p. 12 (1866); MAXIM., in Mém. Biolog. XL p. 831 (1883); ; HOOK, f., Fl. Brit. Ind. V. p. 248 (1887); FORB. et HEMSL., Ind. Fl. Sin. II. p. 411 (1894); ; HENRY, List Pl. Formos. p. 81 (1896); MATSUM. et HAY., Enum. Pl. Formos. p. 366 (1906); HAY., Mat. Fl. Formos. p. 261 (1911); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 233 (1912); MERR., Enum. Philipp. Pl. II. p. 461 (1923), et Enum. Hainan Pl. p. 113 (1927); RIDLEY, Fl. Malay, III. p. 181 (1924); ; MASAMUNE, Prel. Rep. Veg. Yak. p. 89 (1929); ; MAK. et NEM., Fl. Jap. ed. 2. p. 649 (1931);

Nom. Jap. Hamadaigeki

Leg. Ipse, Issō, Aug. 19, 1928.

Distr. Amami-6sima, Okinawa, Taiwan, China, Philippines.

Note. This psammophyte is found near the seashore, and has its northern limit in the island.

Euphorbia humifusa, WILLD., Enum. Hort. Berol. Supp. p. 27 (1813); LEDEB., Fl. Ross. III. p. 557 (1846-51); BOISS., in DC. Prodr. XV. 2. p. 30 (1862); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 125 (1867); ; FR. et SAV., Enum. Pl. Jap. I. p. 420 (1875); ; FR., Pl. David. I. p. 262 (1884); ; MAXIM., in Mém. Biolog. XI. p. 832 (1883); ; FORB. et HEMSL., Ind. Fl. Sin. II. p. 414 (1894); ; HAY., Euphorb. & Bux. Jap. p. 78 t. G. (1904); ; KOM., Fl. Mansh. II. p. 685 (1904); ; MATSUM. et HAY., Enum. Pl. Formos. p. 368 (1906); ; NAK., Fl. Kbr. II. p. 184 (1911); ; MAK. et NEM., Fl. Jap. ed. 2. p. 650 (1931)

Syn. Euphorbia thy mi folia, THUNB., Fl. Jap. p. 196 (1784)

Euphorbia chant aesyce, C. A. MEY., in LEDEB., Fl. Alt. IV. p. 195 (1893)

Nom. Jap. Nisiki-sō

Leg. Y. KUDO! inter Miyanoura et Yaegadake, Aug. 1907.

Distr. Honsyu, Sikoku, Amami-Osima, Okinawa, Taiwan, Korea, Manchuria, China.

Note. Grows in open sunny ground near the sea level.

Euphorbiaceae plants are plentiful in tropical and subtropical regions; it is natural therefore that representatives of this family should be plentiful in Formosa and gradually diminish going from

Names or Plants	Regions														
	Philippines	Bonins	Taiwan	Okinawa	Amami-Oshima	Tanegasima	Kyūsyū Prop.	Sikoku	Honsyū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China
<i>Phyllanthus flexuosus</i> , MÜLL-ARG.				+	+		+	+	+						+
<i>Phyllanthus Matumurae</i> , HAY.				+			+	+	+				+		
<i>Phyllanthus urinaria</i> , LINN.	+		+	+	+	+	+	+	+	+					+
<i>Glochidion hongkongense</i> , MÜLL-ARC			+	+	+										+
<i>Glochidion obovatum</i> , SIEB. et ZUCC. . . .			+	+	+	+	+	+	+						+
<i>Antidesma japonicum</i> , SIEB. et ZUCC. . . .			+	+	+										+
<i>Croton Tiglium</i> , LINN.	+		+	+											+
<i>Mallotus japonicus</i> , MÜLL-ARG.			+	+	+	+		+	+	+					+
<i>Acalypha australis</i> , LINN.	+		+	+	+	+	+	+	+	+			+	+	
<i>Aleurites cordata</i> , R. BR.			+				+		+						+
<i>Sapium japonicum</i> , SIEB. et ZUCC.				+	+		+	+	+	+					+
<i>Euphorbia Atoto</i> , FORST, f.	+		+	+	+										+
<i>Euphorbia humifusa</i> , WILLD.			+	+	+		+	+	+	+			+	+	
Total	13	4	10	12	10	4	8	8	9	5					312
Percentage	31	77	192	77	31	62	62	69	38						2392

(Southern elements 13)

(Northern elements 9)

south to north. Yakusima is situated in the place where the diminution begins and has a few representatives which have their northern limit in this island.

Daphniphyllaceae

Daphniphyllaceae, MÜLL-ARG., in DC. Prodr. XVI. 1. p. 1 11869 ; PAX u. HOFF., in ENGL. u. PRANT. Nat. PflVfam. 2. auf. 19 c. p. 233 U931,

Daphniphyllum, BL., Bijdr. p. 1152 (1825); ENDL., Gen. Pl. n. 5755 (1836-40); MIQ., Fl. Ind. Bat. I. 2. p. 431 (1859); BENTH., Fl. Hongk. p. 316 (1861); MÜLL.-ARG., in DC. Prodr. XVI. 1. p. 1 (1869); BENTH. et HOOK, f., Gen. Pl. III. 1. p. 282 (1880); HOOK, f., Fl. Brit. Ind. V. p. 353 (1885); HAY., Euphorb. et Bux. p. 31 (1904); LEMÉE, Diet. Gen. Pl. Phan. II. p. 502 (1930); ROSENTHAL., in ENGL. u. PRANT. Nat. Pfl.-fam. 2. auf. B. 19c. p. 234 (1931)

Syn. *Goughia*, WIGHT, Ic. V. p. 22, tt. 1878, 1879 (1852)

Daphniphyllum glaucescens, BL., in Mus. Bot. 1.1.11. f. 72 (1849-51); MUELL.-ARG., in DC. Prodr. XVI. 1. p. 3 (1869); FR. et SAV., Enum. Pl. Jap. I. p. 427 (1875), et II. p. 488 (1876); MAXIM., in ENGL. Bot. Jahrb. VI. p. 59 (1885); HOOK, f., Fl. Brit. Ind. I. p. 353 (1887); FORB. et HEMSL., Ind. Fl. Sin. II. p. 429 (1894); DIELS, Fl. Cent. Chin. p. 428 (1900); PALIB., Consp. Fl. Kor. II. p. 43 (1900); HAY., Rev. Euphorb. & Bux. Jap. p. 33, t. II. K. (1904); NAK., Fl. Kor. II. p. 182 (1911); SHIR ASA W A, Ic. For. Tree. Jap. ed. 2. II. p. 116, t. 37, ff. 14-22 (1912); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 236 (1912); MATSUM., Ind. Pl. Jap. II. 2. p. 301 (1912); CHUN., Cat. Tree. & Shrub. Chin. p. 132 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 89 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 647 (1931)

Syn. *Goughia neilgherrensis*, WIGHT, Ic. Pl. Ind. Or. tt. 1878-79 (1852)

Daphniphyllum Roxburghii, BAILL., Etud. Gén. Euphorb. p. 565 (1858); BENTH., Fl. Hongk. p. 316 (1861); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 128 (1868)

Nom. Jap. *Hime-yuzuriha*

Leg. Ipse, Jul. 12. 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Csima, Okinawa, Taiwan, Korea, China.

Note. The species is found in the laurisilvae, especially near the sea level.

Daphniphyllum macropodium, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 129 (1867); MULL.-ARG., in DC. Prodr. XVI. 1. p. 5 (1869); FR. et SAV., Enum. Pl. Jap. I. p. 427 (1875); FORB. et HEMSL., Ind. Fl. Sin. II. p. 429 (1894); HAY., Rev. Euphorb. & Bux. Jap. p. 32, t. II. J. (1904); SHIRASAWA, Ic. For. Tr. Jap. ed. 2. I. p. 158 t. 54, ff. 1-14 (1911); MATSUM., Ind. Pl. Jap. II. 2. p. 302 (1912); MORI, Enum. Pl. Cor. p. 233 (1922); CHUN., Cat. Tree. & Shrub. Chin. p. 132 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 89 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 648 (1931); HANDEL-MAGZ., Symb. Sin. VII. p. 234 (1931)

Nom. Jap. *Yuzuriha*

Leg. Ipse, Kosugidani, Sept. 19, 1928.

Distr. Honsyū, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China.

Note. I found this species from the sea level up to about 1500 m.

var. **viridipes**, NAK., in Tokyo Bot. Mag. XXXVI. pp. 63, 105 (1922); MAK. et NEM., Fl. Jap. ed. 2. p. 648 (1931)

Mom. Jap. *Aoziku-yuzuriha*

Leg. Ipse, ca. Ambō, 1928.

Distr. Hatizyōzima.

Note. Grows in the laurisilvae about 400 m above the sea level, but is not very common in Yakusima.

		R ㄸ	
D. phylloides C. S. f. I e. m. B. H. f. L. S.	Na		
	Philippines		
	Bonins		
	Taiwan		
	Okinawa	+	+
	Amami-Osima	+	+
	Tanegasima	+	+
	Kyfisyfi Prop.	+	+
	Sikoku	+	+
	Honsyfi	+	+
	Korea	+	+
	Yezo & Southern Ku riles	+	+
	Saghalien	+	+
Northern Kuriles & Kamtchatka	+	+	
Manchuria, Amur & Usari	+	+	
China	+	+	

Buxaceae

Buxaceae, DUMORT, Comment Bot. p. 54 (1822)

Buxus, [LINN., Syst. ed. 1 (1735)] et Sp. Pl. ed. 1. p. 983 (1753); ENGL., Gen. Pl. n. 5869 (1836-40); MÜLL.-ARG., in DC. Prodr. XVI. 1. p. 13 (1869); BENTH. et HOOK. f., Gen. Pl. III. 1. p. 266 (1880); PAX, in ENGL. u. PRANT, Nat. Pfl.-fam. III. v. p. 133 (1890); LEMÉE, Dict. Gen. Pl. Phan. 1. p. 728 (1929)

Buxus microphylla, SIEB. et ZUCC. var. *riparia*, MAK., in Tokyo Bot. Mag. XXVII. p. 113 (1913); MAK. et NEM., Fl. Jap. ed. 1. p. 630 (1925), et ed. 2. p. 663 (1931); MASAMUNE, Prel. Rep. Veg. Yak. p. 90 (1929)

		Regions	
Caktus microphylla, var. riparia, MAK.	Name of Pl. =		
	Philippines		
	Bonins		
	Taiwan		
	Okinawa	+	+
	Amami-Osima	+	+
	Tanegasima	+	+
	Kyúsyû Prop.	+	+
	Sikoku	+	+
	Honsyfi	+	+
	Korea	+	+
	Yezo & Southern Ku riles	+	+
	Saghalien	+	+
Northern Ku riles & Kamtchatka	+	+	
Manchuria, Amur & Usuri	+	+	
China	+	+	

Nom. Jap. Kotuge

Leg. Iperse, Yaegadake, Jun. 12, 1928.

Distr. Sikoku.

Note. The shrub is rather frequently found from 1500 m up to 1800 m above the sea level, and is not yet reported further south than this island.

As *Buxus microphylla*, var. *riparia* which is indigenous to the island is found also in Sikoku, it appears that Yakusima has some relation to the northern floral regions if one takes only this family into consideration.

Anacardiaceae

Anacardiaceae, LINDL., Nat. Syst. ed. 2. p. 166 (1836); BENTH., in BENTH. et HOOK, f. Gen. PL I. 1. p. 415 (1860)

Rhus, [TOURN., ex. LINN. Gen. PL ed. 1. p. 84 (1737J et Sp. PL ed. 1. p. 265 (1753); DC, Prodr. II. p. 66 (1825[^]); ENDL., Gen. PL n. 5905 (1836-40); BENTH. et HOOK, f. Gen. PL I. 1. p. 415 (1862[^]); ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. III. v. p. 167 (1892)

Syn. Toxicodendron, (TOURN.) LINN., Syst. ed. 1 (1735)

Vernix, ADANS., Fam. II. p. 342 (1763)

Rhus semialata, MURR. var. *Osbeckii*, DC, Prodr. II. p. 67 (1825); ENGL., in DC. Monogr. Phan. IV. p. 380 (1883⁻); NAK., Fl. Kor. I. p. 139 (1909); SHIRASAWA, Ic. For. Tr. Jap. ed. 2, I. p. 167 PL 58, ff. 18-34 (1911); MATSUM., Ind. PL Jap. II. 2. p. 313 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 90 (1929)

Syn. Rhus javanica, LINN., Sp. PL ed. 1. p. 265 (1753[^]); MORI, Enum. PL Cor. p. 235 (1922); YAMAZUTA, List Manch. PL p. 181 (1930); MAK. et NEM., FL. Jap. ed. 2. p. 667 (1931) p. p.

Rhus Osbeckii, KOCH, Dendr. I. p. 578 (1869); DIPPEL, Handb. Laubholz. II. p. 372, f. 172 a, et b. (1892);

Rhus data, var. *Osbeckii*, FR. et SAV., Enum. PL Jap. I. p. 92 (1875)

Rhus semialata, FORB. et HEMSL., Ind. Fl. Sin. I. p. 146 (1886); p. p.

Nom. Jap. Husinoki

Leg. Iperse, Jul. 20, 1928.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Amami-6sima, Korea, Manchuria.

Note. The species is widely distributed in Eastern Asia. It is found in the lauri-silvae or in the lower part of the lauri-aciculisilvae, especially in somewhat sunny places.

Rhus succedanea, LINN. var. *japonica*, ENGL., in DC. Monogr. IV. p. 399 (1883); ITO et MATSUM., Tent. FL Lutch. I. p. 392 (1899); MORI, Enum. PL Cor. p. 236 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 91 (1929);

Syn. Rhus succedanea, (non LINN. THUNB., FL Jap. p. 122 (1784); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 84 (1865⁻); FR. et SAV., Enum. PL Jap. I. p. 92 (1875); FORB. et HEMSL., Ind. FL Sin. I. p. 147 (1886) p. p.; MATSUM. et HAY., Enum. PL Formos. p. 101 (1906); SHIRASAWA, Ic. Tree. Jap. ed.

2. I. p. 166. Pl. 57, ff. 1-16 (1911; MATSUM., Ind. Pl. Jap. II. 2. p. 313 (1912); CHUN., Cat. Tree. & Shrub. Chin. p. 139 U924^N; MAK. et NEM., Fl. Jap. ed. 2. p. 667 (1931)

Rhus ambigua, LAVALLEE, Arbor. Sergaez. p. 54 (1877); DIPPEL, Handb. Laubholz. II. p. 378 (1892)

Norn. Jap. Hazenoki

Leg. Ipse, Jul. 21, 1927.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China.

Note. The species is found in the laurisilvae or in the lower part of the lauri-aciculisilvae, and it is widely distributed in Eastern Asia.

Rhus Toxicodendron, LINN. var. **vulgaris**, PURSH, form, **radicans**, ENGL., in DC. Monogr. IV. p. 394 (1883!

Syn. *Rhus radicans*, LINN., Sp. Pl. ed. 1. p. 381. (17531 ; Bot. Mag. t. 1806 (1816)

Rhus radicans, var. *vulgaris*, DC, Prodr. II. p. 69 (1825); MATSUM., Ind. Pl. Jap. II. 2. p. 313 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 91 (1929)

Rhus Toxicodendron, LINN. var. *radicans*, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 85 (1865 ; FR. et SAV., Enum. Pl. Jap. I. p. 93 '1875); SCHMIDT., Fl. Sagh. p. 123 '4869' ; MIYABE, Fl. Kuril, p. 224 (1890); MAK. et NEM., Fl. Jap. ed. 2. p. 667 (1931); DIPPEL. Handb. Laubh. II. p. 376 (1892); MIY. et MI YAK., Fl. Sagh. p. 98 (1915)

Rhus Toxicodendron, LINN. var. *vulgaris*, PURSH.; MATSUM., Ind. Pl. Jap. II. 2. p. 313 (1912¹

Nom. Jap. Tuta-urusi

Leg. Ipse, Kosugidani, Sept. 2, 1926.

Distr. Saghalien, Kuriles, Yezo, Honsyû, Sikoku, Kyûsyû.

Note. I found this scandent plant rather frequently in the lauri-aciculisilvae from 400 m up to 1000 m above the sea level. It has its southern limit in this island.

Names of Plants	Regions														
	Philippines	Bonins	Taiwan	Okinawa	Amami-Ôsima	Tanegasima	Kyûsyû Prop.	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China
<i>Rhus semialata</i> , MURR. var. <i>Osbeckii</i> , DC.					+		+	+	+	+					+
<i>Rhus succedanea</i> , LINN. var. <i>japonica</i> , ENGL.			+	+	+	+	+	+	+	+	+				+
<i>Rhus Toxicodendron</i> , LINN. var. <i>vulgaris</i> PURSH, f. <i>radicans</i> , ENGL.							+	+	+		+	+			

From the above table we can see that the island is closely

related to the northern districts (Kyûsyû, Sikoku, Honsyû, Yezo, and Korea). Considering this fact we must admit that the sea which lies between Yakusima and Amami-Ôsima seems to be the line of demarkation between the floral regions so far as this family alone is concerned.

Aquifoliaceae

Aquifoliaceae, DC, Théor. Etem. p. 217 (1813), et Prodr. II. p. 11 U825'; LOESN., Monogr. Aquif. p. 5 (1901)

Ilex, [TOURN., ex LINN. Syst. ed. 1 (1735,) et Sp. Pl. ed. 1. p. 125 (1753); LAM., Encycl. III. p. 145 (1789) p. p.; DC, Prodr. II. p. 13 (1825) ; ENDL., Gen. PL n. 5705 (1836-40); BENTH. et HOOK, f., Gen. Pl. I. 1. p. 356 (1862) ; BAILL., Hist. Pl. XI. p. 213 (1895) ; LOES., in ENGL. u. PRANT. Nat. Pfl.-fam. Nachtr. p. 198 (1900) et Monogr. Aquif. I. p. 8 (1901) ; LEMfçE, Diet. Gen. Pl. Phan. III. p. 743 (1931)

Syn. *Ageria*, ADANS., Fam. II. p. 166 (1763)

Macoucona, AUBL., Hist. Pl. Gui. Franc. I. p. 88, t. 34 (1775)

Othera, THUNB., NOV. Gen. Pl. p. 56 (1783)

Hexadica, LOUR., Fl. Cochinch. p. 562 (1790)

Leucodermis, PL., ex BENTH. et HOOK. f. Gen. Pl. I. 1. p. 357 (1862)

Ilex Hanceana, MAX., in Mêm. Acad. Imp. St. Petr. 7. ser. XXIX. p. 33 (1881); FORB. et HEMSLE., Ind. Fl. Sin. I. p. 116 (1886); ITO et MATSUM., Tent. Fl. Lutch. I. p. 367 (1899); ; LOESN., Monogr. Aquifol. I. p. 203 (1901); MATSUM., Ind. Pl. Jap. II. 2. p. 315 (1912); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 59 (1912); CHUN., Cat. Tree. & Shrub. Chin. p. 140 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 91 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 671 (1931)

Syn. *Ilex buxifolia*, HANCE, in Journ. Bot. p. 364 (1876) ?

Abut. Jap. Tugemoti

Leg. Ipse, Jul. 2, 1928.

Distr. Sikoku, Kyûsyû, Tanegasima, Amami-dsima, Okinawa, Taiwan, China.

Note. The tree is found in the laurisilvae from the sea level up to almost 800 m and is distributed in South Japan.

Ilex Integra, THUNB., Fl. Jap. p. 77 (1784); ; WILLD., Sp. Pl. I. 2. p. 711 (1797) ; ROEM. et SCHULT., Syst. Veg. III. p. 492 (1818) ; BL., Bijdr. p. 1149 (1825); ; DC, Prodr. II. p. 16 (1825); ; SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 148 (1845); ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 105 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 77 (1875); MAXIM., in Mêm. Acad. Sc. Peter. 7 ser. XXXIX. p. 41 (1881) ; FORB. et HEMSLE., Ind. Fl. Sin. I. p. 116 (1886) ; ITO et MATSUM., Tent. Fl. Lutch. I. p. 368 (1899) ; LOESN., Monogr. Aquif. I. pp. 51, 270 (1901); MATSUM. et HAY., Enum. Pl. Formos. p. 82 (1906); SHIRASAWA, IC. Tree. Jap. I. p. 172 (1911); MORI, Enum. Pl. Cor. p. 236 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 91 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 671 (1931)

Syn. *Othera japonica*, THUNB., Fl. Jap. p. 61 (1784), et Ic. Pl. Jap. Decas. 2. t. 3 (1800); WILLD., Sp. Pl. I. p. 671 (1797); LAM., Encycl. Meth. IV. p. 663

U797); PERS., Syn. PL I. p. 145 (1805); ROEM. et SCHULT., Syst. Veg. III. p. 300 (1818)

Ilex othera, SPRENG., Syst. Veg. I. p. 496 (1825); MAK_f in Tokyo Bot. Mag. XXI. p. 63 (1907); MATSUM., Ind. PI. Jap. II. 2. p. 316 (1912)

Norn. Jap. Motinoki

Leg. Ipse, Hara, Aug. 1927.

Distr. Kyūsyū, Tanegasima, Amami-Osima, Okinawa, Taiwan, Bonins, Korea, China.

A/ofe. The plant is frequently found in the laurisilvae near the sea level. It is common in the southern part of Japan.

Ilex Mutchagara, MAK., in Tokyo Bot. Mag. XXVII. p. 75, f. 2a. (1913); MASAMUNE, Prel. Rep. Veg. Yak. p. 91 (1929); MAK. et NEM., FL Jap. ed. 2. p. 674 (1931)

Abut. Jap. Mutayagara

Leg. Ipse, Ambō, Jul. 2, 1928.

Distr. Amami-6sima, Okinawa.

Note. The species is found in somewhat wet, open places. Even though it is reported to be indigenous to Formosa, I rather doubt it and I think the occurrence of the species is restricted only to the Ryūkyū archipelago.

Ilex pedunculosa, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 106 (1867), et in Versl. Med. Akad. Wetensch. Ser. 2. II. p. 83 (1868); FR. et SAV_f Enum. PL Jap. I. p. 77 (1875); MAXIM., in Mem. Acad. Sc. Petersb. 7e ser. XXIX. p. 37 (1881); LOESN., Monog. I. pp. 30, et 108 (1901); SHIRASAWA, IC. Tree. Jap. ed. 2. I. p. 174, Pl. 61. ff. 1-10 U911); MATSUM., Ind. PI. Jap. II. 2. p. 317 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 91 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 674 (1931)

Syn. Ilex Morii, YAMAMOTO, Supp. Ic. PI. Formos. I. p. 38 • 1925)

Nom. Jap. Soyogo

Leg. Ipse, ca. 1200 m. Aug. 30, 1926.

Distr. Honsyū, Sikoku, Kyūsyū, Taiwan.

Note. The species is frequently found in the lauri-aciculisilvae.

Ilex rotunda, THUNB., Fl. Jap. p. 77 (1784); WILLD., Sp. PL I. 2. p. 711 (1797); ROEM. et SCHULT., Syst. Veg. III. p. 492 (1818); BL., Bijdr. p. 150 (1825); DC, Prodr. II. p. 16 (1825); SPRENG., Syst. I. p. 496 (1825); SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 149 (1845); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 106 (1867); FR. et SAV., Enum. PI. Jap. I. p. 77 (1875); MAXIM., in Mem. Acad. Sc. Petersb. 7e ser. XXIX. p. 36 (1881); FORB. et HEMSL., Ind. Fl. Sin. I. p. 118 (1886); ITO et MATSUM., Tent. Fl. Lutch. I. p. 368 (1899); LOESN., Monogr. I. p. 106 (1901); MATSUM. et HAY., Enum. PI. Formos. p. 82 (1906); SHIRASAWA, IC. Tree. Jap. I. p. 173. Pl. 60. ff. 1-17 (1911); MATSUM., Ind. PI. Jap. II. 2. p. 317 (1912); MORI, Enum. PI. Cor. p. 237 (1922); CHUN., Cat. Tree. & Shrub. Chin. p. 141 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 91 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 675 (1931)

Syn. Ilex microcarpa, LINDL., in Paxt. Flow. Garden I. p. 43, f. 28 U851; KOCH, Dendr. II. 1. p. 220 (1869) *excl. syn.*

Ilex laevigata, BL., in MIQ. Cat. Mus. Bot. Lugd. Bat. p. 167 (1870),

Ilex rotunda, THUNB. var. *genuina*, LOESN., Monogr. Aquif. I. p. 107 (1901)

Nom. Jap. Kuroganemoti

Leg. Ipse, Sept. 4, 1926.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan
Korea, China.

Note. The species is rather widely distributed in the southern part of Japan, and in the island it is rarely found in the laurisilvae and in the lower part of the lauriculisilvae.

Names of Plants	Regions														
	Philippines	Bonins	Tan.	Oki.	Amami-Osima	Ryūkyūs	Kyūsyū	Sikoku	Honsyū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China
<i>Ilex Hanceana</i> , MAXIM.		+	+	+	+	+	+	+							+
<i>Ilex integra</i> , THUNB.		+	+	+	+	+	+	+	+	+					+
<i>Ilex Mutchagara</i> , MAK.				+	+										
<i>Ilex pedunculosa</i> , MIQ.		+					+	+	+						
<i>Ilex rotunda</i> , THUNB.		+	+	+	+	+	+	+	+	+					+
Total	5	1	4	4	4	3	4	4	3	2					3
Percentage		20	80	80	80	60	80	80	60	40					80
		I Southern elements 5'					[Northern elements 4								

From a study of the above table it will appear that the island has a close relationship with the southern floral regions as regards *Aquifoliaceae*, since *Ilex Mutchagara* has its northern limit in this island.

Celastraceae

Celastraceae, LINDL., Nat. Syst. ed. 2. p. 119 '1836.; LOES., in ENGL. U. Prant. Nat. Pfl.-fam. III. v. p. 189 '1892.

Euonymus, (*Evonywnus*) [TOURN., ex LINN. Gen. PL ed. 1. p. 29 (1737,) et Sp. PL ed. 1. p. 197 (1753.; DC, Prodr. II. p. 3. (1825.; ENDL., Gen. PL n. 5676 (1836-40); HOOK, f., in BENTH. et HOOK. f. Gen. PL I. p. 360 (1862); LOESN., in ENGL. u. PRANT. Nat. Pfl.-fam. III. v. p. 199 '1892"; LEMÉE, Diet. Gen. PL Phan. III. p. 71 (193r

Syn. *Evonitnus*, NECK., in Act. Acad. Theod.-Palat. II. p. 490 (1770)

Euonymus japonicus, THUNB., Fl. Jap. p. 100 (1784); DC, Prodr. II. p. 4 (1825 ; HOOK. et ARNOT., Bot. Capt. Beech. Voy. p. 261, t. 54 (1836-40) ; SIEB. et ZUCC., Fl. Jap. Fam. Nat. I. p. 151 '1845' ; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 85 '1865' ; FR. et SAV., Enum. Pl. Jap. I. p. 79 (1875); MAXIM., in Mém. Biolog. XI. p. 178 1881: ; ITO et MATSUM., Tent. Fl. Lutch. I. p. 370 (1899) ; NAK., Fl. Kor. I. p. 123 (1909: ; MATSUM., Ind. Pl. Jap. II. 2. p. 321 ;1912'; SHIRASAWA, Ic. Tree. Jap. II. p. 123, Pl. XXXIX. ff. 13-22 ;1912. ; DUNN et TUTCH., Fl. Kwangt. & Hongk. p. 61 ;1912, ; CHUN., Cat. Tree. & Shrub. Chin. p. 143 '1924 ; MASA-MUNE, Prel. Rep. Veg. Yak. p. 92 ;1929, ; MAK. et NEM., Fl. Jap. ed. 2. p. 681 1931)

Nom. Jap. Masaki

Leg. Ipse, Jul. 12, 1928.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Bonins, Korea, China.

Note. The species is widely distributed in the floral regions of eastern Asia. It is found in the littoral forests of the island.

Euonymus Sieboldianus, BL., Bijdr. p. 1147 ;1826, ; SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 151 '1845 ; FR. et SAV., Enum. Pl. Jap. I. p. 79 (1875\ et II. p. 312 '1876) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 92 '1929/' ; MAK. et NEM., Fl. Jap. ed. 2. p. 683 1931)

Syn. *Euonymus europaeus*, 'non LINN THUNB., Fl. Jap. p. 101 1784 ; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 86 (1865;

Euonymus Majumi, SIEB., Synop. Pl. Oecon. Jap. p. 49 ;1827;

Euonymus Hamiltoniana, WALL.; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 199 1867, ; FR. et SAV., Enum. Pl. Jap. I. p. 78 1875^v ; KOM., Fl. Mansh. II. p. 708 1904 ; MIY. et MIYAKE, Fl. Saghal. p. 92 '1915)

Euonymus Vidalii, FR. et SAV., Enum. Pl. Jap. II. p. 312 ;1876;

Euonymus europaea, LINN. var. *Hamiltoniana*, MAXIM., in Mém. Biolog. XL p. 191 ,1881. ; NAK., Fl. Kor. I. p. 122 1909' ; SHIRASAWA, Ic. Tree. Jap. ed. 2. II. p. 122. Pl. XXXIX. ff. 1-10 1912.

Nom. Jap. Mayumi

Leg. Ipse, Jul. 8, 1928.

Distr. Saghalien, Yezo, Honsyū, Sikoku, Kyūsyū, Korea, Manchuria.

Note. The species grows in the laurisilvae and in the lower part of the lauriculiculisilvae and has its southern limit in the island.

Euommus yakushimensis, MAK., in Tokyo Bot. Mag. XXIII. p. 248 '1909 ; MASA-MUNE, Prel. Rep. Veg. Yak. p. 92 1929' ; MAK. et NEM., Fl. Jap. ed. 2. p. 684 1931]

Nom. Jap. Ao-turibana

Leg. Ipse, Kosugidani, Jun. 19, 1928.

Distr. Endemica.

Note. The species grows as an epiphyte or as a terrestrial shrub in the laurisilvae from 600 m up to 1600 m above the sea level.

Microtropis, WALL., Cat. pp. 152 et 250 .1829 , ex MEISSN., Gen. p. 68 1837 ; ENDL., Gen. PL n. 5681 ,1836-40, ; HOOK., in BENTH.

- et HOOK. f. Gen. PL. I. 1. p. 361 (1862); LOESN., in ENGL. u. PRANT. Nat. Pfl.-fam. III. v. p. 202 (1892); LEMÉE, Diet. Gen. PL Phan. IV. p. 474 (1932)[^]
Syn. Otherodendran, MAK., in Tokyo BoL Mag. XXIII. p. 60 (1909)
- Microtropis japonica*, (FR. et SAV.), HALLIER, Meded. Herb. Leid. 1910 p. 33 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 92 (1929)
Syn. Elaeodendron japonic urn, FR. et SAV., Enum. PL Jap. II. p. 315 (1876); MAXIM., in Mél. Biolog. XL p. 205 (1881) ; ITO et MATSUM., Tent. Fl. Lutch. I. p. 374 (1899); MATSUM. et HAY., Enum. PL Formos. p. 84 (1906)
Cassine japonica, KUNTZE, Rev. Gen. PL I. p. 114 (1891); LOESN., in ENGL. u. PRANT. Nat. Pfl.-fam. III. v. p. 215 (1892) ; MATSUM., in Tokyo Bot. Mag. XII. p. 62 (1898)
Otherodendron japonicum, MAK., in Tokyo Bot. Mag. XXIII. p. 62, f. 1 (1909) et Ic. Fl. Jap. I. 4. p. 25. PL XII, XIII, XIV (1911); MATSUM., Ind. PL Jap. II. 2. p. 323 (1912) ; MAK. et NEM., Fl. Jap. ed. 2. p. 686 (1931)
Nom. Jap. Mokureisi
Leg. Ipse, Jul. 2, 1928.
Distr. Honsyu, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan.
Note. The species occurs on rare occasions in the laurisilvae. It is not very common but is found rather widely in southern Japan.

Celastrus, [LINN., Gen. PL ed. 1. p. 59 (1737¹) et
 Sp. PL ed. 1. p. 196 (1753); DC, Prodr. II. p. 5 U825); ENDL., Gen. PL n. 5679 (1836-40) ; HOOK, f., in BENTH. et HOOK. f. Gen. PL I. p. 364 (1862); LOESN., in ENGL. u. PRANT. Nat. Pfl.-fam. III. v. p. 205 (1892j ; LEMÉE, Diet. Gen. PL Phan. II. p. 5 (1930)
Syn. Orixia, THUNB., NOV. Gen. PL p. 56 (1783), et Fl. Jap. p. 3 (1784)

- Celastrus articulatus*, THUNB. var. *punctatus*, MAK., in Tokyo Bot. Mag. XXI. p. 138 (1907) ; MATSUM., Ind. PL Jap. II. 2. p. 319 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 92 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 678 (1931)
Syn. Celastrus punctatus, THUNB., Fl. Jap. p. 97 (1784), in Trans. Linn. Soc. II. p. 332 (1800); ROEM. et SCHULT., Syst. Veg. V. p. 419 (1819) p.p.; BL., Bijdr. p. 1145 (1825) ; SPRENG., Syst. Veg. I. p. 775 (1825)
Celastrus kiusianus, FR. et SAV., Enum. PL Jap. II. p. 314 (1876)
Nom. Jap. Teriha-turumemodoki
Leg. Ipse, Onoaida, Mart. 23, 1927.
Distr. Honsyu, Sikoku, Tanegasima, Amami-Osima, Okinawa.
Note. The species grows on waste lands near the sea level, and is a common species in the south eastern part of Japan. I think that *C. articulatus* reported in China may be one and the same of this variety.

Tripterygium, HOOK, f., in BENTH. et HOOK. f.
 Gen. PL I. p. 368 (1862) ; LOESN., in ENGL. u. PRANT. Nat. Pfl.-fam. III. v. p. 213 (1892)

- Tripterygium Regelii*, var. *Doianum*. ζ OHWlj nom. nov.
Syn. Tripterygium Regelii, non SPRANGUE et TAKEDA) MASAMUNE, Prel. Rep. Veg. Yak. p. 92 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 686 (1931)
Tripterygium Doianum, OHWI, in Act. Pht. Geogr. Bot. I. p. 140 (1932)
Nom. Jap. Kobano-kurozuru

Leg. Ipse, Aug. 1, 1924.

Distr. Kyûsyû.

Note. The species grows on somewhat sunny ground.

Names of Plants	Regions														
	Philippines	Bonins	Taiwan	Okinawa	Amami-Osima	Tanegasima	Kyûsyû Prop.	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Usuri	China
<i>Euonymus japonicus</i> , THUNB.	+			+	+	+	+	+	+	+	+				+
<i>Euonymus Sieboldianus</i> , BL.							+	+	+	+	+				+
<i>Euonymus yakushimensis</i> , MAK.															
<i>Microtropis japonica</i> , HALLIER.			+	+	+	+	+		+						
<i>Celastrus articulatus</i> , THUNB. var. <i>punctatus</i> , MAK.				+	+	+		+	+						
<i>Tripterygium Regelii</i> , var. <i>Doianum</i> . (OHWD)							+								
Total 6	1	1	3	3	3	4	3	4	2	2	1			1	1
Percentage	17	17	50	50	50	67	50	67	34	34	17			17	17

(Southern elements 3;

(Northern elements 5)

From the above table it appears clearly that the island is more or less related to the northern floral districts and should be included in the floral region of Kyûsyû and other northern regions.

Staphyleaceae

Staphyleaceae, DC, Prodr. II. p. 2 (1825)

Turpinia, VENT., Choix, p. 31, t. 31 U803); ENDL., Gen. Pl. n. 5671 U836-40); BENTH. et HOOK, f., Gen. Pl. I. 1. p. 413 (1862); PAX, in ENGL. u. PRANT. Nat. Pfl.-fam. III. v. p. 261 (1893, *Syri. Dalrympelea*, ROXB., Hort. Beng. p. 17 (1814)

Turpinia ternata, NAK., in Journ. Arnold. Arb. V. p. 78 (1924) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 92 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 688 (1931)

In this family the island shows no special affinity either with the northern or with the southern floral regions.

Aceraceae

Aceraceae, J. ST. HIL., Expos. Fam. II. p. 15 ;1805. p.p.; LINDL., Nat. Syst. ed. 2. p. 81 1836;

Acer, [TOURN., ex LINN. Syst. ed. 1 1735] et Sp. Pl. ed. 1. p. 1054 (1753) et Gen. Pl. p. 1155 ,1754.; LAUTH, De Acere '1781! ; DC, Prodr. I. p. 593 ,1824.; ENDL., Gen. Pl. n. 5558 ,1836-40- ; BENTH. et HOOK, f, Gen. Pl. I. 1. p. 409 (1862) ; BAILL., Nat. Hist. Pl. V. p. 427 1874 ; DIPPEL. Hand. Laubholz. II. p. 407 ;1892); PAX, in ENGL. U. PRANT. Nat. Pfl.-fam. III. v. p. 269 J893 , et ENGL. Pfl.-reich. IV. 163 ,Heft 8., p. 6 1902 ; KOIDZ., Rev. Acer. Jap. p. 2 '1911) ; LEMÉE, Diet. Gen. Pl. Phan. I. p. 24 1929

Syn. *Ruacer*, ADANS., Fam. II. p. 383 '1763;

Euacer, OPIZ., Seznam. p. 42 ;1852)

Acer insulare, MAK., in Tokyo Bot. Mag. XXIV. p. 293 1910 ; KOIDZ., Rev. Acer. Jap. p. 14 (191H ; MASAMUNE, Prel. Rep. Veg. Yak. p. 93 1929, ; MAK. et NEM., Fl. Jap. ed. 2. p. 692 U931)

Nom. Jap. *Sima-uri-kaede*

Leg. Jul. 21. 1927.

Distr. Amami'Osima

Mote. The species is found from the sea level up to 1700 m above, especially in clearings, and it is restricted to this island and Amami-Ōsima.

Acer morifolium, KOIDZ., in Tokyo Bot. Mag. XXVIII. p. 151 1914 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 93 1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 694 1931;

Nom. Jap. *Yakusima-onagakacde*

Leg. Jul. 22, 1924.

Distr. Endemica.

Note. I doubt if the species can be the same one as *A. isulare*.

Acer pictum, THUNB., Fl. Jap. p. 162 1784) ; SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 156 ;1845) ; KOCH, in MIQ. Ann. Mus. Bot. Lugd. Bat. I. p. 251 1864 , et Dendr. I. p. 531 (1869) ; FR. et SAV., Enum. Pl. Jap. I. p. 87 ,1875., et II. p. 318 1876 ; MAXIM., in Mém. Biolog. X. p. 599 1880 ; FR., Pl. Daivd. p. 77 ;1884) ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 141 (1886 ; PAX, in ENGL. Bot. Jahrb. VII. p. 235 '1886), et in ENGL. Pfl.-reich. IV. Heft 8 p. 47 1902, ; SARGENT, For. Fl. Jap. p. 28 ,1893); KOIDZ., Pl. Sachal. Nakah. p. 89 1910 , et Rev. Acer. Pl. Jap. p. 58;1911i; SHIRASAWA, Ic. Tree. Jap. ed. 2. I. p. 182. Pl. 65. ff. 1-12 ,1911 ; SCHNEID., III. Handb. Laubholz. II. p. 225 f. 150a. ef '1912); MORI, Enum. Pl. Cor. p. 240 '1922) ; REHDER, Manual. Cult. Tree. & Shrub, p. 562 1927, ; MASAMUNE, Prel. Rep. Veg. Yak. p. 93 '1929 ; MIY. et KUDO, Ic. Ess. For. Tr. Hokk. III. Pl. LXXI. ,1930) ; MAK. et NEM., Fl. Jap. ed. 2. p. 697 >1931i

Syn. *Acer pictum*, THUNB. var. *Mono*, PAX, in Engl. Bot. Jahrb. VII. p. 236 1886) p.p.; TAKEDA, Fl. Shikotan. p. 457 ,1914, ; KUDO, Contr. Fl. N. Saghal. p. 46 ;1923)

Acer pictum, THUNB. var. *typicutn*, subvar. *Mono*, PAX, in ENGL. Pfl.-reich. IV. (Heft8) p. 47 U902) p.; KOIDZ., Rev. Acer. Jap. p. 62 (1911); NAK., Fl. Kor. II. p. 462 11911^; MATSUM., Ind. Pl. Jap. II. 2. p. 331 (1912); MIY. et MIYAKE, Fl. Sagh. p. 97 (1915) ; YAMAZUTA, List Manch. Pl. p. 184 (1930)

Norn. Jap. Itaya-kaede

Leg. Y. KUDO! Inter Miyanoura et Yadake, Aug. 1907.

Distr. Saghalien, Southern Kuriles, Yezo, Honsyû, Korea, Manchuria.

Note. I have not collected this species in the island, but Dr. KUDO told me that he had done so on one occasion.

Acer rufinerve, SIEB. et ZUCC., Fl. Jap. Fam. Nat. I. p. 155 (1845); KOCH, in MIQ. Ann. Mus. Bot. Lugd. Bat. I. p. 251 (1864); FR. et SAV., Enum. Pl. Jap. I. p. 89 ,1875); MAXIM., in Mél. Biolog. X. p. 596 (1880); PAX, in Engl. Bot. Jahrb. VII. p. 247 ;1886),etin ENGL. Pfl.-reich. 163, IV. (Heft 8) p. 69 (1902); DIPPEL, Handb. Laubholz. II. p. 415, f. 192 (1892); SCHN., 11l. Handb. Laubh. II. p. 237 U907) ; KODIZ., Rev. Acer. Jap. p. 19 (1911) ; REHDER, Man. Cult. Tree. & Shrub, p. 573 ;1927; ; MAK. et NEM., Fl. Jap. ed. 2. p. 698 (1931)

Syn. *Acer pennsylvanicum*, var. *rufinerve*, WESML., in Bull. Soc. Bot. Belgique XXIX. p. 62 '1890)

Acer rufinerve, SIEB. et ZUCC, f. *normale*, GR. SCHW., in Gart. f. p. 454 (1893)

Nom. Jap. Urihada-kaede

Leg. Ipse, Jul. 28, 1928.

Distr. Honsyû, Sikoku, Kyûsyû.

Note. The species is rarely found at nearly 1700 m above the sea level near the timber line and it has its southern limit in this island.

Acer Sieboldianum, MIQ. var. *typicum*, MAXIM., in Mél. Biolog. XII. p. 433 (1886); PAX, in ENGL. Pfl.-reich, IV. 163. :Heft 8) p. 25 (1902); KOIDZ., Rev. Acer. Jap. p. 36 1911 ; MAK. et NEM., Fl. Jap. ed. 2. p. 699 (1931)

Syn. *Acer Sieboldianum*, MIQ. var. *microphyllum*, non MAXIM.-' MASAM., Prel. Rep. Veg. Yak. p. 93 '1929,

Nom. Jap. Itayameigetu

Leg. Ipse, Aug. 31, 1926.

Diatr. Yezo, Honsyû, Sikoku, Kyûsyû, Amami-Osima.

Note. The species grows in the laurisilvae from 1000 m above the sea level, and is not reported further south than Amami-dsima.

It is an interesting fact that the representatives of the *Aceraceous* plants in this island do not reach either to Okinawa or to Formosa, and only extend southward as far as Amami-6sima. *Acer insulare* is endemic only to this island and Amami-Ôsima. These facts indicate that the island and Amami-Ôsima are in similar phytogeographic conditions where the plants of *Aceraceae* are concerned. Another interesting fact is that *Acer oblongutn*, an evergreen tree which appears in Okinawa and in Formosa belongs to a different group of *Acer*. Basing myself upon these facts I would draw a line of demarkation

Names of Plants	Regions														
	Philippines	Bonins	Taiwan	ONnawa	Amami-Ôsima	Tanegasima	Kyûsyû Prop.	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamichatka	Manchuria, Amur & U	China
Acer insulare, MAK					+										
Acer morifolium, KOIDZ.															
Acer pictum, THUNB.									+	+	+	+		+	+
Acer rufinerve, SIEB. et ZUCC.							+	+	+						
Acer Sieboldianum, MIQ. var. typicum MAXIM					+		+	+		+					
Total					2		2	2	3	1	2	1		1.1	
Percentage					40		40	40	60	20	40	20		20	20
	fSouthern elements 2)							(Northern elements 3 ^b)							

between Amami-Ôsima and Okinawa thus dividing the *Aceraceous* floral region of South Japan (Formosa and Okinawa) from that of North Japan (Kyûsyû, Sikoku, & Honsyû). *Acer rufinerve*, however, is not found in Amami-Ôsima.

Sabiaceae

Sabiaceae, BL_M MUS. Bot. Lugd. Bat. I. p. 369 (1851) ; HOOK, f, in BENTH. et HOOK. f. Gen. PI. I. p. 413 (1862)

Meliosma, BL., Cat. Gew. Buiten. p. 10 (1823; HOOK, f, in BENTH. et HOOK. f. Gen. PI. 1.1. p. 414 (1862) ; ENGL., in ENGL. U. PR ANT. Nat. Pfl.-fam. III. v. p. 371 '1895; ; LEMfEE, Diet. Gen. PI. Phan. IV. p. 385 1932

Meliosma rigida, SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 153 no. 169 [1845]; FR. et SAV.. Enum. PI. Jap. I. p. 91 (1875); MAXIM., in Engl. Bot. Jahrb. VI. p. 60 1885, ; FORB. et HEMSL. Ind. Fl. Sin. I. p. 145 (1886; ; MATSUM, et HAY., Enum. PI. Formos. p. 99 (1906, ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 69 (1912 ; CHUN., Cat. Tree. & Shrub. Chin. p. 154 <1924^N ; MASAMUNE, Prel. Rep. Veg.

Yak. p. 93 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 704 (1931)

Syn. Meliosma pungens, WALP.; HOOK, f., Fl. Brit. Ind. II. p. 4 (1876) ; ITO et MATSUM., Tent. Fl. Lutch. I. p. 124; 391 (1899); MATSUM., Ind. Pl. Jap. II. 2. p. 335 (1912)

Norn. Jap. Yamabiwa

Leg. Ipse, Sept. 7, 1926.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Ōsima, Okinawa, Taiwan, China.

Note. The species is frequently found in the laurisilvae near the sea level. It is often found in southern Japan, and reaches as far north as the Province of Ise, situated in the middle part of Honsyū.

Name of Plant	Regions									
	Philippines	Formosa	Formosa	Formosa	Formosa	Formosa	Formosa	Formosa	Formosa	Formosa
<i>Meliosma rigida</i> , SIEB. et ZUCC.	+	+	+	+	+	+	+	+	+	+

Sabiaceae has only one representative which is common in South Japan. In regard of this family the island is related both to the northern and to southern lands.

Rhamnaceae

Rhamnaceae, LINDL., Nat. Syst. ed. 2. p. 107 (1836)

Berchemia, NECK., Elem. II. p. 122 (1790) ; DC, Prodr. II. p. 22. (1825) ; HOOK. f. in BENTH. et HOOK. f. Gen. Pl. I. 1. p. 377 (1862) ; WEBERBAUER, in ENGL. U. PRANT. Nat. Pfl.-fam. III. v. p. 405 (1895) ; LEMÉE, Diet. Gen. Pl. Phan. I. p. 553 (1929)

Syn. Oenoplea, HEDWIG. f., Gen. I. p. 151 (1806)

Oenoplia, SCHULT., ex ROEMER et SCHULTES, Syst. V. p. 332 (1819)

Berchemia magna, KOIDZ., in Tokyo Bot. Mag. XXX. p. 325 (1916) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 93 (1929),

Syn. Berchemia racemosa, var. *magna*, MAK., in Tokyo Bot. Mag. VI. p. 170 (1892) ; MAK et NEM., Fl. Jap. ed. 2. p. 707 (1931)

Nom. Jap. O-kumayanagi

Leg. Ipse, Nagata, Aug. 20. 1928.

Distr. Sikoku, Kyûsyû, Okinawa.

Note. The species is found in the lauri-aciculilivae near the sea level. It occurs rather rarely in southern Sikoku and Kyûsyû, but I doubt this species is the same species as *B. fonnosana*, SCHNEID. found in Formosa.

Berchemia racemosa, SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 147 (1845); BENTH., Fl. Hongk. p. 67 (186r; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 31 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 81 (1875); FORB. et HEMSL., Ind. Fl. Sin. I. p. 127 (1886); MATSUM. et HAY., Enum. Pl. Formos. p. 87 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 337 (1912); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 63 (1912); CHUN., Cat. Tree. & Shrub. Chin. p. 155 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 93 (1929^N); MAK. et NEM., Fl. Jap. ed. 2. p. 707 (193r)

Nom. Jap. Kumayanagi

Leg. Ipse, Jul. 18, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Okinawa, Taiwan, China.

Note. The species grows in somewhat open lands, such as clearings or by the roadside found in the lauri-aciculilivae near the sea level. It is widely distributed in eastern Asia.

Rhamnus, [TOURN., ex LINN. Syst. ed. 1 (1735; et Gen. Pl. ed. 1. p. 58 (1737) et Sp. Pl. ed. 1. p. 195 (1753); DC., Prodr. II. p. 23 (1825); ENDL., Gen. Pl. n. 5722 (1836-40); HOOK, f., in BENTH. et HOOK. f. Gen. Pl. I. p. 377 (1862); WEBERBAUER, in ENGL. U. PRANT. Nat. Pfl.-fam. III. v. p. 409 (1895)

Syn. Paliurus, (TOURN.) ex MILL., Gard. Diet. ed. 6 (1752)

Frangula, (TOURN.) MILL., Gard. Diet. ed. 6 (1752)

Rhamnus crenatus, SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 146 (1845[^]); MAXIM., Rham. Or. As. p. 18 (1866); FR. et SAV., Enum. Pl. Jap. I. p. 82 (1875); MATSUM., Ind. Pl. Jap. II. 2. p. 339 (1912); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 64 (1912); CHUN., Cat. Tree. & Shrub. Chin. p. 157 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 93 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 709 (1931[^])

Syn. Frangula crenata, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 32 (1867); MORI, Enum. Pl. Cor. p. 243 (1921)

Nom. Jap. Isonoki

Leg. Ipse, Kosugidani

Distr. Honsyû, Sikoku, Kyûsyû, Amami-Osima, Korea, China.

Note. The species occurs in the lauri-aciculilivae. It is distributed in lands north of Yakusima and is not found in more southern lands than Amami-Osima. It is reported in DUNN and TUTCHER's and CHUNG's works to have been found in China, but I think it is questionable whether the species is the same or not.

var. *yakushimensis*, MAK., in Amami-Osima ni okeru Hakubutu-tyôsa. p. 92 (1928); MASAMUNE, Prel. Rep. Veg. Yak. p. 94 (1929);

Folia longe-lanceolata cetrils ut typo.

Nom. Jap. Hosoba isonoki

Leg. Ipse, Tatyûdake, Jul. 22, 1927.

Distr. Endemica.

Note. The variety is found in the lauri-aciculilivae and especially on granite rocks.

Names of Plants	Regions															
	Philippines	Bonins	Taiwan	Okinawa	Amami-Osima	Ryûkyûs	Tanegasima	Kyûsyû Prop.	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China
<i>Berchemia magna</i> , KOIDZ				+				+								
<i>Berchemia racemosa</i> , SIEB. et ZUCC.			+	+	+			+	+	+		+				+
<i>Rhamnus crenatus</i> , SIEB. et ZUCC.					+			+	+	+	+					+
<i>R. c. var. yakushimensis</i> , MAK																

From the above table it appears that Yakusima is related to Kyûsyû, Sikoku and Honsyû, so far as the distribution of three species of *Rhamnaceae* is concerned. This fact clearly denotes that the Sinitô Nada has an important meaning as a line of demarkation for the phytogeography of the *Rhamnaceae*.

Sarmentaceae

Sarmentaceae, VENT., Tab. III. p. 167 (1799); LAMARK. et DC, Fl. Fr. IV. p. 856 (1815);

Syn. *Vitaceae*, LINDL., Nat. Syst. ed. 2. p. 30 (1836)

Vitis, TOURN., ex LINN. Syst. ed. 1 (1735), Gen. Pl. ed. 1. p. 56 (1737) et Sp. Pl. ed. 1. p. 202 (1753); DC, Prodr. I. p. 633 (1824)^N; ENDL., Gen. Pl. n. 4567 (1836-40); BENTH. et HOOK, f., Gen. Pl. I. p. 387 (1852); GILG., in ENGL. U. PRANT. Nat. Pfl.-fam. III. v. p. 442 (1896) p.p.

Vitis flexuosa, THUNB., in Trans. Linn. Soc. II. p. 332 (1793); WILL., Sp. Pl. I. p. 1181 (1798); POIRET, in Lam. Encycl. VIII. p. 607 (1808); DC, Prodr. I. p. 634 (1824); MIQ., in Ann. Mus. Bot. Lugd. Bat. I. p. 92 (1863); FR. et SAV., Enum. Pl. Jap. I. p. 83 (1875); FORB. et HEMSL., Ind. Fl. Sin. I. p. 132 (1886); PLANCH., in DC Monogr. V. 2. pp. 347 et 611 (1887); PALIB., Consp. Fl. Kor. I. p. 56 (1898); DIELS, Fl. Centr. Chin. p. 463 (1900); MATSUM. et HAY., Enum. Pl. Formos. p. 89 (1906); MAK., in Tokyo Bot. Mag. XX. p. 11 (1906); NAK., Fl. Kor. I. p. 129 (1909), et Fl. Sylv. Kor. XII. p. 18. Pl. IV. U922; MATSUM., Ind. Pl. Jap. II. 2. p. 343 (1912); GAGNEPAIN, in SARG. Pl. Wils. I. p. 102 (1914);

MERR., Enum. Philipp. Pl. III. p. 1 (1923); CHUN., Cat. Tree. & Shrub. Chin. p. 159 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 94 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 715 (1931)

Sun. *Vitis indica*, (non LINN.) THUNB., Fl. Jap. p. 103 (1784)

Vitis parvifolia, ROXB., Fl. Ind. I. p. 662 (1832); BENTH., Fl. Hongk. p. 53 (1861); LAW., in HOOK. f. Fl. Brit. Ind. I. p. 652 (1875)

Norn. Jap. *Gyozya-no-mizu*

Leg. Ipse, Jun. 6, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Taiwan, Korea, China, Philippines.

Nate. The species is found in the laurisilvae and in the lauri-aciculisilvae, and is common in eastern Asia.

Vitis Thunbergii, SIEB. et ZUCC. var. **typica**, MAK., in Journ. Jap. Bot. I. p. 32 (1918); MAK. et NEM., Fl. Jap. ed. 2. p. 717 (1931)

Sun. *Vitis Labrusea*, (non LINN.) THUNB., Fl. Jap. p. 134 (1784); ENGL., in Engl. Bot. Jahrb. VI. p. 60 (1885)

Vitis Thunbergii, SIEB. et ZUCC., Fl. Jap. Fam. Nat. I. p. 198 U845.; PLANCH., in DC. Monogr. Phan. V. 2. pp. 333, et 611 (1887); FORB. et HEMSL., Ind. Fl. Sin. I. p. 134 (1886) p.p.; LOESEN., Pfl.-welt. Kiaut. Geb. p. 154 (1918); CHUN., Cat. Tree. & Shrub. Chin. p. 160 (1924)

Vitis Labrusea, var. *Thunbergii*, FR. et SAV., Enum. Pl. Jap. I. p. 134 (1875) in not a; ITO et MATSUM., Tent. Fl. Lutch. I. p. 379 (1899)

Vitis ficifolia, BUNGE, var. *Thunbergii*, (non NAK.) MASAMUNE, Prel. Rep. Veg. Yak. p. 94 (1929)

Norn. Jap. *Ebizuru*

Leg. Ipse, Onoaida, Sept. 6, 1926.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, China.

Note. The species is common in eastern Asia, and in the island it is found in somewhat sunny spots near the sea level.

Psedera, NECH., Elem. Bot. I. p. 158 U790);

SCHNEIDER, 111. Handb. Laubholzk. II. p. 313 (1909)

Sun. *Ampelopsis*, MICHAUX, Fl. Bor.-Americ. I. p. 160 (1803) p.p.; DC, Prodr. I. p. 632 (1824) p.p.

Cissus, PERS., Syn. Pl. I. p. 142 (1805) p.p.

Quinaria, (non LOUR.) RAFIN., Amer. Manual. Grap. Vine, p. 6 (1830); GILG., in ENGL. u. PRANT. Nat. Pfl.-fam. III. v. p. 448 (1896)

• *Vitis*, BENTH. et HOOK, f., Gen. Pl. I. p. 387 (1862) p.p.

Parthenocissus, PLANCON, in DC, Monogr. Phan. V. 2. p. 447 (1887)

Psedera Thunbergii, (SIEB. et ZUCC.) NAK., Fl. Sylv. Kor. XII. p. 11, Pl. 1 (1922); MIURA, List Pl. Manch. & Mong. p. 249 (1925); MASAMUNE, Prel. Rep. Veg. Yak. p. 94 (1929)

Sun. *Cissus Thunbergii*, SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 195 (1845)

Ampelopsis tricuspidata, SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 196 (1845)

Vitis inconstans, MIQ., in Ann. Mus. Bot. Lugd. Bat. I. p. 91 (1863); REGEL, Consp. Gen. Vitis. p. 5 (1873); FR. et SAV., Enum. Pl. Jap. I. p. 84 (1875), et II. p. 316 (1879); FORB. et HEMSL., Ind. Fl. Sin. I. p. 133 (1886); DIPPEL, Handb. Laubholzk. II. p. 570 (1892); MATSUM. et HAY., Enum. Pl. Formos.

p. 91 (1906 ; HAY., Ic. Pl. Formos. I. p. 148 (1911); BEAN, Tr. & Shrub. II. p. 671 (1914)

Vitis capreolata, 'non DON^ KOCH, Dendr. I. p. 556 (1869)

Parthenocissus tricuspidata, PLANCH., in DC. Monogr. Phan. V. 2. p. 452 (1887); MATSUM., Ind. Pl. Jap. II. 2. p. 342 (1912); GAGNEPAIN, in SARGENT, Pl. Wils. I. p. 102 (1914)

Quinaria tricuspidata, KOEHNE, Deutsch. Dendr. p. 383 (1893); GILG, in ENGL. u. PRANT. Nat. Pfl.-fam. III. v. p. 449 (1886); NAK., Fl. Kor. I. p. 131 (1909)

Psedera tricuspidata, REHD., in Rhodora X. p. 29 (1908); SCHNEID., Ill. Handb. Laubholz. II. p. 315, f. 211, f-i (1909)

Aom. Jap. Tut a

Leg. A. KIMURA! Aug. 7, 1922.

Distr. Yezo, Honsyu, Sikoku, Kyûsyû, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria.

Note. Grows on lowlands, on cultivated ground or in the laurisilvae; common in the Far East.

Ampelopsis, (L. C. RICHJ in MICHX., in Fl. Bor.-Amer. I. p. 159 (1803 partim; DC, Prodr. I. p. 632 (1824) p.p.; BENTH. et HOOK, f., Gen. Pl. I. 1. p. 387 (1862); PLANCH., in DC. Monogr. Phan. V. 2. p. 453 (1887); DIPPEL, Handb. Laubholz. II. p. 574 (1892); GILG., in ENGL. u. PRANT. Nat. Pfl.-fam. III. v. p. 449 (1896); LEMÉE, Diet. Gen. Pl. Phan. I. p. 211 (1929)

Syn. *Cissus*, PERSEON, Syn. Pl. I. p. 143 (1805); ENDL., Gen. Pl. n. 4566 (1836-40) p.p. *Vitis*, LINK, Enum. Pl. Hort. Berol. p. 235 (1821) p.p.; BENTH. et HOOK, f., Gen. Pl. I. p. 387 U862i p.p.

Ampelopsis heterophylla, SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 197 (1845); PLANCH., in DC. Monogr. Phan. V. 2. p. 455 (1887) excl. var. *Wallichii*; GILG., in ENGL. u. PRANT. Nat. Pfl.-fam. III. v. p. 449 (1896); KOM., Fl. Mansh. III. p. 20 (1907); MATSUM., Ind. Pl. Jap. II. 2. p. 341 (1912); BRITT. & BROWN. Ill. Fl. North Unit. St. II. p. 412 (1913); NAK., Fl. Syl. Kor. XII. p. 15. t. III. (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 94 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 712 (1931)

Syn. *Vitis heterophylla*, THUNB., Fl. Jap. p. 103 (1784); DC, Prodr. I. p. 634 (1824); MIQ., in Ann. Mus. Bot. Lugd. Bat. I. p. 92 (1863), et II. p. 157 (1866); FR. et SAV., Enum. Pl. Jap. I. p. 84 (1875); FORB. et HEMSL., Ind. Fl. Sin. I. p. 133 (1886); DIPPEL, Handb. Laubholz. II. p. 565, f. 268 (1892); ITO et MATSUM., Tent. Fl. Lutch. I. p. 114 U8991; MATSUM. et HAY., Enum. Pl. Formos. p. 90 (1906);

Ampelopsis humilifolia, BUNGE, Enum. Pl. Chin. Bor. n. 69 (1832); MAXIM., Prim. Fl. Amur. p. 480 (1859); CHUN., Cat. Tree. & Shrub. Chin. p. 162 (1924),

Cissus brevipedunculata, MAXIM., Prim. Fl. Amur. p. 68 (1859);

Cissus bryoniaefolia, (non BUNGE) REGEL, Tent. Fl. Uss. t. 41 f. 3 (1861).

Vitis heterophylla, var. *humilifolia*, HOOK, f., in Bot. Mag. t. 5682 (1867)

Ampelopsis heterophylla, SIEB. et ZUCC. var. *Bungei*, NAK., Fl. Kor. I. p. 130 (1909)

AOJTI. Jap. *Nobudo*

Leg. Ipse, Aug. 9, 1922.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China.

Note. Frequently occurs in waste lands at low altitudes.

Ampelopsis leeoides, PLANCH, in DC. Monog. Phan. V. 2. p. 462 (1887); MATSUM, Ind. Pl. Jap. II. 2. p. 342 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 94 (1929^A); MAK. et NEM., Fl. Jap. ed. 2. p. 713 (1931)

Syn. Vitis leeoides, MAXIM., in Mel. Biolog. IX. p. 148 (1873); FR. et SAV., Enum. Pl. Jap. II. p. 316 (1876)

Norn. Jap. Udokazura

Leg. Ipse, Aug. 7, 1924.

Distr. Honsyū, Kyūsyū, Tanegasima.

Note. It occurs on somewhat open lands or on forest edges at low altitudes, and has its southern limit in this island.

Columella, LOURE., Fl. Cochinch. p. 85 (1790)

Syn. Cissus, DC, Prodr. I. p. 627 (1824); BENTH. et HOOK. f. Gen. Pl. I. 1. p. 387 (1862); GILG., in ENGL. u. PRANT. Nat. Pfl.-fam. III. v. p. 450 (1896) P-P.

Cissus, Subg. *Cayvatia*, PLANCH, in DC. Monogr. Phan. V. 2. p. 471 (1887)

Columella japonica, MERR, in Philipp. Journ. Sc. XIII. p. 145 (1918); CHUN, Cat. Tree. & Shrub. Chin. p. 163 (1924)

Syn. Vitis japonica, THUNB., Fl. Jap. p. 104 (1784); SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 197 (1845); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 157 (1866) *Cissus japonica*, WILLD., Sp. Pl. I. p. 669 (1797); NAK., Fl. Kor. I. p. 130 (1909) HAY., Ic. Pl. Formos. I. p. 148 (1911); MATSUM., Ind. Pl. Jap. II. 2. p. 342 (1912); MAK. et NEM., Fl. Jap. ed. 2. p. 713 (1931^N),

Norn. Jap. Yabugarasi.

Leg. Ipse, Aug. 5, 1927.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Okinawa, Taiwan, Korea, China.

Note. The species is frequently found in waste lands at low altitudes.

Names of Plants	Regions																
	Philippines	Bonins	Taiwan	Okinawa	Amami-Ōsima	Ryūkyūs	Tanegasima	Kyūsyū Prop.	Kyūsyū	Sikoku	Honsyū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China
<i>Vitis flexuosa</i> , THUNB.	+	+	+	+	+	+	+	+	+	+	+	+					+
<i>Vitis Thunbergii</i> , SIEB. et ZUCC. van <i>typica</i> , MAK.		+	+	+	+	+	+	+	+	+	+	+	+				+

Names of Plants	Regions												
	is	is	is	Ryū ⁸	Kyūsyū	Honsyū	Korea	Yezo & Saghal ⁹	Northern Korea	Manchuria & Sibiria	China		
<i>Pseodera thunbergii</i> , NAK		+	+	+	+	+	+	+	+		+	+	
<i>Ampelopsis heterophylla</i> , SIEB. et ZUCC.		+	+	+	+	+	+	+			+	+	
<i>Ampelopsis leoides</i> , PLANCH.					+	+	+						
<i>Columella japonica</i> , MERR.		+	+	+	+	+	+	+	+			+	
Total	6	1	5	5	5	3	6	5	6	4	3	2	5
Percentage		15	83	83	50	100	83	100	67	50		33	83

(Southern elements 5) | (Northern elements 6)

The species of this family indigenous to our island are distributed generally in eastern Asia, excepting *Ampelopsis leoides* which is not yet reported further south than this island. In this respect the island is related to the northern floral regions.

Elaeocarpaceae

Elaeocarpaceae, LINDL., Nat. Syst. ed. 2. p. 97 (1836)

Elaeocarpus, [BURM., ex LINN. Nov. Pl. Gen. p. 11 (1747), Amone. Acad. I. p. 402 (1749,] et Sp. Pl. ed. 1. p. 515 (1753); DC, Prodr. I. p. 519 (1824); ENDL., Gen. Pl. n. 5384 (1836-40); BENTH. et HOOK. f. Gen. Pl. I. 1. p. 239 (1862); SCHM., in ENGL. u. PRANT. Nat. Pfl.-fam. III. vi. p. 5 (1890); LEMÉE, Diet. Gen. Pl. Phan. II. p. 812 (1930)

Syn. *Lochneria*, SCOP., Introd. p. 271 (1777)

Adenodus, LOUR., Fl. Cochinch. p. 294 (1790)

Elaeocarpus elliptica, (ut *ellipticus*) MAK., in Tokyo Bot. Mag. XVIII. p. 67 (1904); NAK., Fl. Syl. Kor. XII. p. 63, t. XVIII. (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 94 (1929)

Syn. *Prunus elliptica*, THUNB., Fl. Jap. p. 199 (1784); WILLD., Sp. Pl. II. p. 986 (1799); PERS., Syn. Pl. II. p. 34 (1807); SPRENG., Syst. Veg. II. p. 478 (1825)

Census elliptica, LOISEL.; SERINGE, in DC. Prodr. II. p. 540 (1825)

Elaeocarpus photinaefolia, (non HOOK, et ARN.) SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 164 (1845); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 17 ;1857, ; FR. et SAV., Enum. Pl. Jap. I. p. 67 (1875)

Elaeocarpus decipiens, (non HEMSL.) ITO et MATSUM, Tent. Fl. Lutch. I. p. 82 (1899-; MATSUM. et HAY., Enum. Pl. Formos. p.65 (1906\ etFl. Mont. Formos. p. 64 (1908); MATSUM., Ind. Pl. Jap. II. 2. p. 344 fl912); MAK. et NEM., Fl. Jap. ed. 2. p. 717 (1931)

Norn. Jap. Horutonoki

Leg. Ipse, Tabugawa, Jul. 12, 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Okinawa, Taiwan.

Note. The species is rarely found in the laurisilvae, but it is rather common in southern Japan.

Elaeocarpus Kobanmochi, KOIDZ., in Tokyo Bot. Mag. XLIV. p. 96 (1930);

Syn. *Elaeocarpus japonicus*, SIEB., Syn. Pl. Oecon. Jap. p. 65 (1830) nom. nud.

Elaeocarpus japonica, (*japonicus*) 'non SIEB.) SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 165 (1845) ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 17 (1867) ; FR. et SAV., Enum. Pl. Jap. I. p. 67 (1875); MAXIM., in Engl. Bot. Jahrb. VI. p. 61 (1885); FORB. et HEMSL., Ind. Fl. Sin. I. p. 95 (1886) ; ITO et MATSUM., Tent. Fl. Lutch. I. p. 82 (1899); MATSUM. et HAY., Enum. Pl. Formos. p. 66 '1906); MATSUM., Ind. Pl. Jap. II. 2. p. 345',1912); SHIRASAWA, Jap. Ic. For. Tr. Jap. ed. 2. II. p. 150. Pl. 49. ff. 1-13 (1912); REHD. et WILL., in SARG. Pl. Wils. II. p. 360 '1915) ; CHUNG, Cat. Tr. and Shrub. China p. 163 (1924) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 94 (1929); MAK et NEM., Fl. Jap. ed. 2. p. 717 (1931)

Nom. Jap. Kobanmoti

Leg. Ipse, Kurio, Mart. 22, 1923.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, China.

Note. The species is found in the laurisilvae and in the lauri-aciculisilvae from the sea level up to about 800 m, and it is common in southern Japan.

Names of Plants	Regions																	
	Hokkaido	Tohoku	Kanto	Chubu	Kansai	Shikoku	Amami-Osima	Tanegasima	Kyûsyû Prop.	Kyûsyû	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	Chios
<i>Elaeocarpus elliptic a</i> , MAK.							+	+	+	+	+	+						
<i>Elaeocarpus kobanmochi</i> , KOIDZ.							+	+	+	+	+	+						+

In this family the island shows no special affinity either to the northern or to the southern lands beyond Yakusima.

Tiliaceae

Tiliaceae, JUSS., Gen. Pl. p. 289 (1789)

Triumfetta, [PLUM, ex LINN. Gen. Pl. ed. 1. p. 344 (1737) et Sp. Pl. ed. 1. p. 444 (1753); DC, Prodr. I. p. 506 (1824); ENDL., Gen. Pl. n. 5372 (183&-40); BENTH., in BENTH. et HOOK. f. Gen. Pl. I. p. 234 (1862); K. SCHUM., in ENGL. U. PRANT. Nat. Pfl.-fam. III. vi. p. 28 (1890)

Triumfetta japonica, MAK., in Tokyo Bot Mag. XXVII. p. 245 (1913); MORI, Enum. PL Cor. p. 249 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 95 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 720 (1931)

Syn. *Triumfetta trichochlada*, (non LINK) FR. et SAV., Enum. Pl. Jap. I. p. 66 (1875)
Triumfetta annua, (non LINN.) ITO et MATSUM., Tent. Fl. Lutch. I. p. 80 (1899[^]; MAK., in INUMA, Somoku-zusetu ed. 3, II. p. 636 t. 28 (1910); MATSUM., Ind. Pl. Jap. II. 2. p. 347 (1912)

Norn. Jap. *Rasensô*

Leg. Ipse, Miyanoura.

Distr. Honsyû, Sikoku, Amami-6sima, Okinawa, Korea.

Note. The species grows along the roadside or on waste lands near the sea level, and is common in the center and south of Japan.

Name of Plant	Regions																	
	Ph ilip pines	Bo r ne o	Tai wan	Okinawa	Amami- Oshima	Ry u kyu	A g as a	Ky u shy u	Pro ce l l	Siko c u	Hon sh u	Korea	Yezo & Southern Kuriles	Sag halien	No rn Kuril	Man chu	Am ur	Chi na
<i>Triumfetta japonica</i> , MAK.				+	+			+	+	+	+	+						

Triumfetta japonica is the only representative of this family in this island, and it is rather common in South Japan. So I can not deduce any special affinity between this island and neighbouring regions.

Malvaceae

Malvaceae, JUSS., Gen. Pl. p. 271 (1789);

Sida, [LINN., Syst. ed. 1 (1735)] et Sp. Pl. ed. 1. p. 683 (1753); DC, Prodr. I. p. 459 (1824); ENDL., Gen. Pl. n. 5289 (1836-40); BENTH., in BENTH. et HOOK. f. Gen. Pl. I. 1. p. 203 (1862); SCHUM., in ENGL. U. PRANT. Nat. Pfl.-fam. III. vi. p. 42 (1890)

Syn. *Lamarckia*, MEDIK., Phil. Bot. I. p. 28 (1789)

Sida rhombifolia, LINN., Sp. Pl. ed. 1. p. 684 (1753); DC, Prodr. I. p. 462 (1824); BENTH., Fl. Hongk. p. 32 (1861); MAST., in HOOK. f. Fl. Brit. Ind. I. p. 323 (1872); FORB. et HEMSL., Ind. Fl. Sin. I. p. 85 (1886); ITO et MATSUM., Tent Fl. Lutch. I. p. 67 (1899); MATSUM. et HAY., Enum. Pl. Formos. p. 52 (1906); GAGNEPAIN, in LECOMTE, Fl. Ind. Chin. I. 4. p. 405 (1910); MATSUM., Ind. Pl. Jap. II. 2. p. 352 (1912); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 47 (1912); MERR., Enum. Philipp. PL III. p. 35 (1923), et in Lingn. Sc. Journ. IX. p. 40 (1930); CHUN., Cat. Tree. & Shrub. Chin. p. 166 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 95 (1929); NAK., in Bull. Biogeogr. Soc. Jap. I. p. 260 (1930-); MAK. et NEM., Fl. Jap. ed. 2 p. 728 (1931)

Syn. *Sida Chinensis*, RETZ., Obs. f. IV. p. 29 (1779-91)

Sida Philippica, DC, Prodr. I. p. 462 (1824)

Norn. Jap. Ktngōzyukwa

Leg. Ipse, Jul. 15, 1922.

Diatr. Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Bonins, China, Philippines.

Note. Grows on waste low lands.

Urena, [DILL., ex LINN. Syst. ed. 1 (1735)] et Sp. Pl. ed. 1. p. 692 (1753); DC, Prodr. I. p. 441 (1824); ENDL., Gen. Pl. n. 5274 (1836-40); BENTH., in BENTH. et HOOK. f. Gen. Pl. I. p. 205 (1862); SCHUM., in ENGL. u. PRANT. Nat. Pfl.-fam. III. vi. p. 45 (1890)

Urena lobata, LINN. var. *tomentosa*, MIQ., Pl. Jungh. III. p. 283 (1854), et Fl. Ind. Bat. I. ii. p. 148 (1859); GURKE, in Engl. Bot. Jahrb. XVI. p. 372 (1893); ITO et MATSUM., Tent. Fl. Lutch. I. p. 336 (1899); MATSUM., Ind. Pl. Jap. II. 2. p. 353 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 95 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 728 (1931)

Syn. *Urena tomentosa*, BL., Bijdr. p. 66 (1825)

Urena heterophylla, (non PRESL.), BL., Bijdr. p. 66 (1825); MIQ., Fl. Ind. Bat. II. 2. p. 149 (1859)

Nom. Jap. Obontenkwa

Leg. Ipse, Jul. 26, 1928.

Diatr. Tanegasima, Amami-6sima, Okinawa, Taiwan, China.

Note. Grows by the roadside or in waste lands.

Urena sinuata, LINN., Sp. Pl. ed. 1. p. 692 (1753); DC, Prodr. I. p. 442 (1824); ROXB., Fl. Ind. III. p. 182 (1832); BENTH., Fl. Hongk. p. 34 (1861); MIQ., in Ann. Mus. Bot. Lugd. Bat III. p. 20 (1867); MAST., in HOOK. f. Fl. Brit. Ind. I. p. 329 (1874); FR. et SAV., Enum. Pl. Jap. I. p. 63 (1875); FORB. et HEMSL., Ind. Fl. Sin. I. p. 87 (1885); ITO et MATSUM., Tent Fl. Lutch. I. p. 337 (1899); MATSUM.

et HAY., Enum. Pl. Formos. p. 54 (1906; MATSUM., Ind. Pl. Jap. II. 2. p. 353 '1912 ; DUNN et TUNCH., Fl. Kwang. & Hongk. p. 48 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 95 '1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 728 (1931)

Syn. Urena muricata, DC, Prodr. I. p. 442 (1824;

Urena lobata, var. *sinuata*, GAGNEPAIN, in LECOMTE, Fl. Ind. Chin. I. 4. p. 414 '1910

Nom. Jap. Bontenkwa

Leg. Ipse, Onoaida, 1928.

Distr. Kyūsyū, Okinawa, Taiwan, China.

Note. Grows in waste lands and by the roadside.

Hibiscus, [LINN., Gen. Pl. ed. 1. p. 207 (1737)] et

Sp. Pl. ed. 1. p. 693 1753 ; DC, Prodr. I. p. 445 1824 ; ENDL., Gen. Pl. n. 5277 1836-40 ; BENTH., in BENTH. et HOOK. f. Gen. Pl. I. p. 207 (1852 ; K. SCHUM., in ENGL. U. PRANT. Nat. Pfl.-fam. III. vi. p. 48 '1890 ; LEMÉE, Diet. Gen. Pl. Phan. HI. p. 586 '1931.

Syn. Pariti, ADANS., Fam. II. p. 40 1763

Hibiscus hamabo, SIEB. et ZUCC, Fl. Jap. I. p. 176 t. 93 1841 ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 19 1867 ; FR. et SAV., Enum. Pl. Jap. I. p. 63 1875 ; MORI, Enum. Pl. Cor. p. 249 1922 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 95 1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 725 ; 1931

Syn. Hibiscus t Hi ace us, LINN. var. *Hamabo*, MAXIM., in Mél. Biolog. XII. p. 427 1886 ; ITO et MATSUM., Tent. Fl. Lutch. I. p. 72 1899 ; MATSUM., Ind. Pl. Jap. II. 2. p. 350 1912

AŌŌi. Jap. Hamabō

Leg. Ipse, Jul. 4, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Amami-Ōsima, Okinawa, Korea.

Note. It is found in wet and muddy place where *Kandelia* grows as a member of the mangrove forest.

Hibiscus mutabilis, LINN., Sp. Pl. ed. 1. p. 694 1753 ; THUNB., Fl. Jap. p. 272 ,1784 ; LOUR., Fl. Cochinch. p. 419 1790 ; Bot. Reg. t. 589 1818 ; DC, Prodr. I. p. 452 1824 ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 19 >1867 ; MAST., in HOOK. f. Fl. Brit. Ind. I. p. 344 1874 ; FR. et SAV., Enum. Pl. Jap. I. p. 64 1875 ; FR., PL David. I. p. 58 1884 ; MAXIM., in Mél. Biolog. XII. p. 427 1886 ; FORB. et HEMSLE., Ind. Fl. Sin. I. p. 87 1885 ; ITO et MATSUM., Tent. Fl. Lutch. I. p. 73 1899 ; MATSUM. et HAY., Enum. Pl. Formos. p. 55 1906 ; GAGNEPAIN, in LECOMTE, Fl. Ind. Chin. I. 4. p. 428 1910 ; DUNN et TUTCH, Fl. Kwang. & Hongk. p. 48 1912 ; MATSUM., Ind. Pl. Jap. II. 2. p. 319 1912 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 95 1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 725 (1931)

A'out. Jap. Huyō

Leg. Ipse, Kurio, Aug. 1, 1928.

Distr. Kyūsyū, Tanegasima, Amami-Ōsima, Okinawa, Taiwan, China.

Note. Occurs in sunny places by the roadside or in waste lands at low altitudes.

Nearly all the elements of this family are found in both southern and northern regions beyond Yakusima, and we can not decide to which region the island is most closely related. All the species,

Names of Plants	Regions					Regions									
	Yakushima	Kyûshû	Sikoku	Honsyû	Yakushima	Kyûshû	Sikoku	Honsyû	Yakushima	Kyûshû	Sikoku	Honsyû	Yakushima	Kamichatka	Usuri
<i>Sida rhombifolia</i> , LINN.	+	+	+	+	+	+	+								+
<i>Urena lobata</i> , LINN. var. <i>tomentosa</i> , MIQ.	+		+	+	+	+	+								+
<i>Urena sinuata</i> , LINN.			+	+	+			+							+
<i>Hibiscus Hamabo</i> , SIEB. et ZUCC.				+	+			+	+	+					
<i>Hibiscus mutabilis</i> , LINN.			+	+	+	+	+								+
Total	5	2	1	4	5	5	3	5	1	1	1				4
Percentage		40	20	80	100	60	100	20	20	20					80
Southern elements 5'						Northern elements 5)									

however, are rather widely distributed in the southern regions and range northward passing this island as far as the southern parts of Kyûsyû, Sikoku, and Honsyû.

Actinidiaceae

Actinidiaceae, GILG. u. WERDERMANN, in ENGL. U. PRANT. Nat. Pfl.-fam. 2 auf. Band 21. p. 1, 1925

Actinidia, LINDL., Nat. Syst. ed. 2. p. 439 1836 ;
 ENDL., Gen. Pl. p. 811 183&-40.; BENTH., in BENTH. et HOOK. f. Gen. Pl. I. p. 184
 1862 ; GILG., in ENGL. u. PRANT. Nat. Pfl.-fam. III. vi. p. 125 ;189a ; SCHNEID.,
 111. Handb. Laubholzk. II. p. 323 ;1909 ; GILG. u. WERDERM., in ENGL. u. PRANT.
 Nat. Pfl.-fam. 2 auf. B. 21. p. 41 .1925 ; LEMf&E, Diet. Gen. Pl. Phan. I. p. 58
 1929

Syn. *Trockostigma*, SIEB. et ZUCC., in Abh. Akad. Wiss. Münch. III. p. 726, t. 2. f.
 2. 1843

Kalomikta, REGEL, in Acad. St-Petersb. XV. p. 219 .1857

Actinidia callosa, LINDL. var. *rufa*, MAK., in Tokyo Bot. Mag. XV. p. 147 (1901);
 MATSUM., Ind. Pl. Jap. IL 2. p. 356 1912 ; MASAMUNE, Prel. Rep. Veg. Yak. p.
 95 1929 ; MAK. et NEM, Fl. Jap. ed. 2. p. 733 .1931.

- Syn. Trochostigma rufa*, SIEB. et ZUCC, Pl. Jap. Gen. Nov. p. 727 (1843) et Fl. Jap. Fam. Nat. I. p. 164 (1845); A. GRAY, Bot. Japan, p. 383 (1858)
Actinidia rufa, PLANCH, in Hook. Lond. Journ. Bot. VI. p. 303 (1847); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 15 (1857); FR. et SAV., Enum. PL Jap. I. p. 58 (1875); FIN. et GAGN., in Bull. Soc. Bot. Fr. p. 21 (1905)
Actinidia arguta, var. *rufa*, MAXIM., in Mém. Biolog. XII. p. 424 (1836); NAK., Fl. Kor. I. p. 99 (1909)
Actinidia collosa, (non LIND.) FORB. et HEMSL., Ind. Fl. Sin. I. p. 78 (1886) *excl. syn.*

Norn. Jap. Nasikazura

Leg. Iperse, Koseda, Jun. 20, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Korea, China.

Note. This is one of the components that constitute the laurisilvae or the lauri-aciculisilvae, and is found from the sea level up to about 700 m.

var. *arguta*, MAK., in Tokyo Bot. Mag. XV. p. 148 (1901); MATSUM., Ind. PL Jap. II. 2. p. 356 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 96 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 733 (1931)

Syn. Trochostigma arguta, SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 164 (1845)

Actinidia arguta, PLANCH, in Hook. Lond. Journ. Bot. VI. p. 303 (1847); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 15 (1857); FR. et SAV., Enum. PL Jap. I. p. 58 (1875); NAK., Fl. Kor. I. p. 99 (1909); YABE, Enum. PL Manch. p. 93 (1912); MIY. et MIYAKE, Fl. Saghal. p. 80 (1915)

Actinidia cordifolia, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 15 (1867); FR. et SAV., Enum. PL Jap. I. p. 58 (1875)

Actinidia volubilis, (non PLANCH) K. ITO et H. KAKU, Ic. et Descr. PL Hort. Koisik. II. 2. t. 23 (1834)

Nom. Jap. Sarunasi

Leg. Iperse, Aug. 20, 1928.

Distr. Saghalien, Yezo, Honsyū, Sikoku, Kyūsyū, Korea, Manchuria.

Note. The plant is found in the lauri-aciculisilvae, but it is not yet found in lands further south than this island.

Actinidia Kiusiana, KOIDZ., Pl. Nov. Amami-Oh. p. 9 (1928); MASAMUNE, Prel. Rep. Veg. Yak. p. 96 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 734 (1931)

Nom. Jap. Nagaba-sirakuti-zuru

Leg. A. KIMURA, Aug. 6, 1912.

Distr. Tanegasima.

Note. The species is restricted to Tanegasima and Yakusima, and is found near the sea level.

Actinidia polygama, PLANCH, in Hook. Lond. Journ. Bot. VI. p. 303 (1847); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 15 (1867); FR. et SAV., Enum. PL Jap. I. p. 59 (1875); MAXIM., in Mém. Biolog. XII. p. 425 (1886); FINET et GAGN., in Bull. Soc. Bot. Fr. p. 20 (1905); NAK., Fl. Kor. I. p. 98 (1909); MATSUM., Ind. PL Jap. II. 2. p. 357 (1912); MIY. et MIYAKE, Fl. Saghal. p. 81. (1915); MIURA, List PL Manch. & Mong. p. 254 (1925); MASAMUNE, Prel. Rep. Veg. Yak. p. 96 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 734 (1931)

Syn. Trochostigma polygama, SIEB. et ZUCC, in Abh. Acad. III. p. 728 (1843)

Trochostigma volubilis, SIEB. et ZUCC, in Abh. Acad. III. p. 728 (1843);

Trochostigma repanda, SIEB. et ZUCC., in Abh. Acad. III. p. 728 (1843)

Actinidia volubilis, PLANCH., in Hook. Lond. Journ. Bot. VI. p. 303 (1847);

FR. et SAV., Enum. Pl. Jap. I. p. 59 (1875)

Norn. Jap. Matatabi

Leg. Ipse, Yaegadake, Jun. 11, 1928.

Distr. Saghalien, Yezo, Honsyfi, Sikoku, Kyfisyfi, Korea, Manchuria.

Note. It is found in the laurisilvae and has its southern limit in this island.

Names of Plants	Regions															
	PL	Q	H	I	Okina ^v a	Amami-Ōsima	Tanegasima	Kyūsyū Prop.	Sikoku	Hon ^h	Korea	Yezo & Southern Kur ^f	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Suri	China
<i>Actinidia callosa</i> , LINDL. var. <i>rufa</i> , MAK.					+	+	+	+	+	+	+					+
<i>A. c.</i> var. <i>arguta</i> , MAK.							+	+	+	+	+	+				+
<i>Actinidia Kiusiana</i> , KOIDZ.							+									
<i>Actinidia polygama</i> , PLANCH.								+	+	+	+	+				+

Considering the geographical distribution of the *Actinidiaceae* plants indigenous to this island, the island is related in many respects to the northern lands.

Theaceae

Theaceae, (*Theories*) MIRB., in Bull. Soc. Philom. III. p. 381 (1813)

Syn. Ternstroemiaceae, R. BR., in Abel. Narr. Journ. Chin. App. B. p. 378 (1818);

A. DC, in Mém. Soc. Hist. Nat. Genève 2 sér. V. p. 13 (1823)

Camelliaceae, DUMORT, Anal. Fam. pp. 43, 47 (1829)

Camellia, [LINN., Syst. ed. 1 (1735J et Sp. PL ed. 1. p. 698 (1753); DC, Prodr. I. p. 529 (1824); ENDL., Gen. Pl. n. 5425 (1840); BENTH. et HOOK, f., Gen. Pl. I. p. 187 (1862); MELCHIOR, in ENGL. U. PRANT. Nat. Pfl-fam. 2 auf. B. 21. p. 128 (1925) p.p.; LEMfE, Diet. Gen. Pl. Phan. I. p. 795 (1929) p.p.

Sin. Tsubaki, ADANS., Fam. II. p. 399 (1763)

Sasanqua, NEES., in Flora IV. p. 144 (1834)

Then, SZYSZ., in ENGL. u. PRANT. Nat. Pfl.-fam. III. vi. p. 182 (1893) p.p.

Camellia japonica, LINN. var. **macrocarpa**, MASAMUNE.

Syn. Camellia japonica, LINN. var. *spontanea*, (non MAK.) MASAMUNE, Prel. Rep. Veg. Yak. p. 96 (1929)

Fructus ca. 5 cm in diametro. Pericarpium ca. 1.5 cm crassum.

Norn. Jap. Yakusimatibaki

Leg. Ipse, Aug. 10. 1928.

Distr. Sikoku, Kyûsyû, Amami-Osima.

Note. Grows in the laurisilvae or the lauri-aciculisilvae.

Camellia Sasanqua, THUNB., Fl. Jap. p. 273 t. 30 ;1784^; SIEB. et ZUCC, Fl. Jap. p. 158 t. 83 '1841! ; SEEM., in Trans. Linn. Soc. XXII. p. 343 (1859); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 16 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 60 '1875;; HANCE, in Journ. Bot. p. 9 '1879 ; FR., Pl. David. I. p. 58 '1884^; ITO et MATSUM., Tent. Fl. Lutch. I. p. 63 (1899 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 96 '1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 740 (1931)

Syn. Thea Sasanqua, NOIS., ex CELS. Cat. Arb. p. 35 '1817); J. KOCH, in Engl. Bot. Jahrb. XXVII. p. 592 '1900^; MATSUM., Ind. Pl. Jap. II. 2. p. 362 '1912.

Sasanqua malliflora, RAFIN., Syst. Tellur. p. 140 (1838).

Sasanqua vulgaris, NEES, in SIEB. Nipp. II. p. 13 '1897

Thea Sasanqua, var. *serrata*, SIEB., ex KOCH, in Engl. Bot. Jahrb. XXVII. p. 593 1900

Nom. Jap. Sazankwa

Leg. Ipse, Aug. 31, 1926.

Distr. Honsyû, Tanegasima, Amami-Osima, Okinawa, China.

Acte. The species is found in the lauri-aciculisilvae as a component of the forest.

Stewartia, [LINN., in Act. Soc. Upsal. p. 79 1741] et Sp. Pl. ed. 1. p. 698 '1753 ; ENDL., Gen. Pl. n. 5423 '1836-40^; BENTH., in BENTH. et HOOK, f. Gen. Pl. I. 1. p. 185 '1862^; SZYSZ., in ENGL. u. PRANT. Nat. Pfl.-fam. III. vi. p. 186 1893 ; MELCHOIR, in ENGL. u. PRANT. Nat. Pfl.-fam. 2 auf. B. 21. p. 133 1925)

Syn. Stewartia, CATESB., ex MILLER Gard. Diet. ed. 6. App. p. 175 ;1752

Stewartia Stuartia, monadelphia, SIEB. et ZUCC, Fl. Jap. I. p. 181. t. 96 '1841-; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 16 1867 ; FR. et SAV., Enum. Pl. Jap. I. p. 59 1875 ; MATSUM., Ind. Pl. Jap. II. 2. p. 360 '1912^; MASAMUNE, Prel. Rep. Veg. Yak. p. 97 ,1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 744 '1931'

Aom. Jap. Hime-syara

Leg. Ipse, Kosugidani, Sept. 1928.

Distr. Honsyû, Sikoku, Kyûsyû.

Note. It grows in the lauri-aciculisilvae from 600 m up to 1700 m above the sea level and is not found in lands further south than this island.

Ternstroemia, MUTIS, ex LINN. f. Supp. p. 39 1781 ; DC, Prodr. I. p. 523 1824 ; ENDL., Gen. Pl. n. 5403 '1836-40^; BENTH., in BENTH. et HOOK. f. Gen. Pl. 1.1. p. 182 1832 ; MELCHIOR, in ENGL. u. PRANT. Nat. Pfl.-fam. 2. auf. B. 21. p. 140 1925

Syn. Mckof, ADANS., Fam. II. p. 50 1763

Taonabo, AUBL., Hist. Pl. Gui. Fr. p. 569, tt. 227, et 228 1775 ; SZYSZ., in ENGL. U. PRANT. Nat. Pfl.-fam. III. vi. p. 187 '1893' p.p.

Cleyera, THUNB., Nov. Gen. p. 68 1783 , et Fl. Jap. p. 12 1781, p.p.

Mokofua, O. KUNTZE, Rev. Gen. Pl. I. p. 64 ,1891

Ternstroemia Mokof, NAK., Fl. Syl. Kor. XVII. p. 86 (1928); MASAMUNE, Prel. Rep. Veg. Yak. p. 97 (1929)

Syn. Cleyera japonica, THUNB., Fl. Jap. p. 224 (1784); MURRAY, Syst. Veg. ed. 14 p. 493 (1784^N, p.p.; DC, Prodr. I. p. 524 (1824); POIRET, Supp. II. p. 299 (1911) p.p.

Ternstroemia japonica, THUNB., in Trans. Linn. Soc. II. p. 335 (1794¹; SIEB. et ZUCC, Fl. Jap. p. 148, t. 80 (1841[^]; BENTH., Fl. Hongk. p. 27 (1861); MIQ., in Ann. Mus. Bot. Lugd. Bat. HI. p. 14 (1867); DYER., in HOOK. f. Fl. Brit. Ind. I. p. 280 (1874¹; FR. et SAV., Enum. Pl. Jap. I. p. 57 (1875¹; HEMSL., in FORB. et HEMSL. Ind. Fl. Sin. I. p. 75 (1886¹; ITO et MATSUM., Tent. Fl. Lutch. I. p. 324 (1899); PETARD, in LECOMTE Fl. Ind. Chin. I. 4. p. 332 (1910¹; HAY., Ic. Pl. Formos. I. p. 84 (1911); REHDER et WILS., in SARGENT. Pl. Wils. II. p. 397 (1916); MELCHIOR, in ENGL. U. PRANT. Nat. Pfl.-fam. 2 auf. B. 21. p. 141 (1925¹; MAK. et ITEM., Fl. Jap. ed. 2. p. 744 (193r

Ternstroemia japonica, var. *parvifolia*, DYER, in HOOK. f. Fl. Brit. Ind. I. p. 281 (1874)

Mokof ua japonica, O. KUNTZE, Rev. Gen. Pl. I. p. 64 (1891:

Taonabo japonica, SZYSZL., in ENGL. u. PRANT. Nat. Pfl.-fam. III. vi. p. 188 (1893¹; MATSUM., Ind. Pl. Jap. II. 2. p. 360 (1912¹; MORI, Enum. Pl. Cor. p. 251 (1922)

Ternstroemia gynmanthera, (W. et A.) SPRANGE, in Journ. Bot. XLI. p. 17 (1923¹; MERR., Enum. Hainan Pl. p. 129 (1927¹

Norn. Jap. Mokokoku

Leg. Ipse, Jul. 7, 1927.

Distr. Honsyu[†], KyGsyu[†], Tanegasima, Amami-Osima, Okinawa, Taiwan, Korea, China, India.

Note. It grows in the laurisilvae, as a component of the forest.

Eurya, THUNB., Nov. Gen. Pl. HI. p. 67 (1783¹; DC. Prodr. I. p. 525 (1824); ENDL., Gen. Pl. n. 5410 (1836-40- p.p.; BENTH., in BENTH. et HOOK. f. Gen. Pl. I. 1. p. 183 (1862¹ p.p.; SZYSZL., in ENGL. u. PRANT. Nat. Pfl.-fam. III. vi. p. 189 (1893¹ p.p.; MELCHIOR, in ENGL. u. PRANT. Nat. Pfl.-fam. 2 auf. B. 21. p. 146 (1925¹ p.p.; LEMÉE, Diet. Gen. Pl. Phan. III. p. 50 1931 p.p.

Syn. Euria, LAM., Encyl. II. p. 440 (1790¹ p.p.

Cleyera, DC, in Mém. Soc. Phys. Gen. I. p. 412 (1822¹, et. Prodr. I. p. 524 (1824¹ p.p.

Eurya emerginata, MAK., in Tokyo Bot. Mag. XVIII. p. 19 (1904¹; MATSUM., Ind. Pl. Jap. II. 2. p. 358 (1912¹; MELCHIOR, in ENGL. u. PRANT. Nat. Pfl.-fam. 2 auf. B. 21. p. 148 (1925¹; NAK., Fl. Sylv. Kor. XVII. p. 81. t. XX. (1928¹; MASAMUNE, Prel. Rep. Veg. Yak. p. 96 (1929¹; MAK. et NEM., Fl. Jap. ed. 2. p. 741 (1931

Syn. Hex emarginata, THUNB., Fl. Jap. p. 78 (1784¹; WILLD., Sp. Pl. I. p. 710 (1797¹; POIR., Supp. Encycl. III. p. 66 (1813¹; ROEMER et SCHULTES, Syst. Veg. HI. p. 491 (1818¹; DC, Prodr. II. p. 16 (1825¹; MIQ., Cat. Mus. Bot. Lugd. Bat. p. 19 (1870¹

Eurya chin en sis, non R. BR. BL., MUS. Bot. Lugd. Bat. II. p. 108 (1852¹ p.p.; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 15 (1867¹; FR. et SAV., Enum. Pl. Jap. I. p. 58 (1875¹; FORB. et HEMSL., Ind. Fl. Sin. I. p. 76 (1885¹; ITO

et MATSUM, Tent. Fl. Lutch. I. p. 326 (1899); NAK., Fl. Kor. I. p. 100 (1909)

Norn. Jap. Hama-hisakaki

Leg. Ipse, Sept. 5, 1926.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Ôsima, Okinawa, Korea.

Note. This is one of the shrubs which compose littoral forests.

Eurya japonica, THUNB., Fl. Jap. p. 191, t. 25 (1784); HOOK., et ARNOT., Bot. Capt. Beech. Voy. p. 260 (1836-40); BL., MUS. Bot. Lugd. Bat. II. p. 105 (1856); BENTO., Fl. Hongk. p. 28 (1861); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 14 (1867); DYER, in HOOK. f. Fl. Brit. Ind. I. p. 284 (1874); FR. et SAV., Enum. Pl. Jap. I. p. 57 (1875); FORB. et HEMSL., Ind. Fl. Sin. I. p. 77 (1886); ITO et MATSUM, Tent. Fl. Lutch. I. p. 58 (1899); DIELS, Fl. Centr. Chin. p. 474 (1900); MATSUM. et HAY., Enum. Pt Formos. p. 47 (1906); NAK., Fl. Kor. I. p. 100 (1909); MATSUM, Ind. Pl. Jap. II. 2. p. 358 (1912); MERR., Enum. Hainan Pl. p. 130 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 96 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 742 (1931)

Syn. Eurya uniflora, SIEB., ex SIEB. et ZUCC. Fl. Jap. Fam. Nat. I. p. 163 (1815)

Eurya japonica a Thubergii, non THWAITES, ITO et MATSUM, Tent. Fl. Lutch. I. p. 326 (1899)

Norn. Jap. Hisakaki

Leg. Ipse, Aug. 1, 1924.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Osima, Okinawa, Taiwan, Korea, China.

Note. The species is found from the sea level up to 1300 m above, and is common in South Japan.

var. *angustifolia*, KOIDZ., in MAYEB. Fl. Austro-hig. p. 37 (1931), et in Phytotax. et Geob. I. p. 20 (1932)

Syn. Eurya acuminata, non DC.) MASAMUNE, Prel. Rep. Veg. Yak. p. 96 (1929)

Norn. Jap. Hosoba-hisakaki

Leg. Ipse, Jun. 24, 1928.

Distr. Honsyû, Kyûsyû.

Note. The variety is not yet found in lands further south than this island.

Eurya yakushimensis, MAK., in Tokyo Bot. Mag. XXVII. p. 72 (1913); MASAMUNE, Prel. Rep. Veg. Yak. p. 96 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 743 (1931)

Syn. Eurya japonica, var. *yakushimensis*, MAK., in Tokyo Bot. Mag. XXIV. p. 20 (1910)

Norn. Jap. Hime-hisakaki

Leg. Ipse, Jul. 10, 1928.

Distr. Endemica.

Note. It is found from 700 m up to 1800 m above the sea level and is restricted to this island. Even though it is reported in Amami-Osima, I have not seen any specimen from that island.

Sakakia, NAK., Fl. Sylv. Kor, XVII. p. 76 (1928)

Syn. Cleyera, THUNB., Nov. Gen. Pl. III. p. 69 (1783), et Fl. Jap. p. 12 (1784) p.p.;

DC, Prodr. I. p. 524 (1824) p.p.; ENDL., Gen. Pl. n. 5411 (1840) p.p.;

BENTH. et HOOK. Gen. Pl. I. 1. p. 183 (1862) p.p.

Sakakia ochnacca, NAK., Fl. Sylv. Kor. XVII. p. 77 t. XIX. (1928); MASAMUNE, Prel. Rep. Veg. Yak. p. 96 (1929)

Syn. *Cleyera ochracea*, DC, Prodr. I. p. 524 (1824); FORB. et HEMSL., Ind. Fl. Sin. I. p. 76 (1886); MATSUM. et HAY., Enum. Pl. Formos. p. 46 (1906) p.p. *Cleyera japonica*, SIEB. et ZUCC., Fl. Jap. p. 153 t. 81 (1841) *Eurya ochracea*, SZYSZ; MATSUM., Ind. Pl. Jap. II. 2. p. 359 (1912); MAK. et NEM. Fl. Jap. ed. 1. p. 553 (1925), et ed. 2. p. 742 (1931) *Freziera ochracea*, NAK., apud MORI, Enum. Pl. Cor. p. 251 (1922)

Norn, Jap. Sakaki

Leg. Ipse, Kosugidani, Sept. 1, 1926.

Distr. Honsyu, Sikoku, Tanegasima, Amami-Osima, Okinawa, Taiwan, Korea, China.

Note. It grows in the laurisilvae and in the lauri'aculisilvae.

Names of Plants	Regions														
	Philippines	Bonins	Taiwan	Okinawa	Amami-Osima	Tanaga	Kyûsyû	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & amchatka	Manchuri	China
<i>Camellia japonica</i> , LINN, var. <i>macrocarpa</i> , MASAMUNE					+		+	+							
<i>Camellia Sasanqua</i> , THUNB.				+	+	+	+	+	+						+
<i>Stewartia monadelpha</i> , SIEB. et ZUCC.							+	+	+						
<i>Ternstroemia Mokof</i> , NAK.			+	+	+	+	+	+	+	+					+
<i>Eurya emerginata</i> , MAK.			+	+	+	+	+	+	+	+					
<i>Eurya japonica</i> , THUNB.	+		+	+	+	+	+	+	+	+					+
<i>E. j.</i> var. <i>angustifolia</i> , KOIDZ.							+	+	+						
<i>Eurya yakushimensis</i> , MAK.															
<i>Sakakia ochracea</i> , NAK.			+	+	+	+	+	+	+	+					+
Total	9	1	4	5	6	5	8	7	7	4					4
Percentage	11	44	56	67	56	89	78	78	84						44
(Southern elements 6)						(Northern elements 8)									

Stewartia has its southern limit in this island. From this point of view the island shows a close relationship with the northern lands in respect of this family.

Hypericaceae

Hypericaceae, LINDL., Veg. Kingd. Ord. LVII (1846)

Syn. Hypericineae, DC, Théor. félém. p. 214 (1813) et Prodr. I. p. 541 (1824-;

CHOIS., Prodr. Hyp. p. 32 (1821)

Guttiferae, Subf., *Hypericoideae*, ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. III. vi. pp. 205 et 208 (1893),

Hypericum, [TOURN., ex LINN. Gen. PI. ed. 1. p. 231 (1737) et Sp. PI. ed. 1. p. 783 (1753); CHOISY, in DC. Prodr. I. p. 543 (1824); ENDL., Gen. PI. n. 5464 (1836-40); BENTH. et HOOK. f. Gen. Pi. I. p. 165 (1862); ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. III. vi. p. 208 (1893); KELLER, in ENGL. u. PRANT. Nat. Pfl.-fam. 2 auf. B. 21. p. 175 (1925); LEMÉE, Diet. Gen. PI. III. p. 717 (1931)]

Syn. Sarothria, LINN., Nov. PI. Gen. p. 14 (1751)

Knifa, ADANS., Fam. II. p. 444 (1763)

Hypericon, J. F. GMEL., Syst. II. p. 1156 (1791)

Ascyrela, CHOISY, Prodr. Monogr. Hp. p. 44 (1821)

Hypericum erectum, THUNB., Fl. Jap. p. 295 (1784); SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 162 (1845); BL., Mus. Bot. Lugd. Bat. II. p. 25 (1856); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 259 (1866); FR. et SAV., Enum. PJ. Jap. I. p. 56 (1875); MAXIM., in Mém. Biolog. XI. p. 168 (1888); NAK., Fl. Kor. I. p. 94 (1909); MATSUM., Ind. PI. Jap. II. 2. p. 365 (1912); MIURA, "List PI. Manch. & Mong. p. 255 (1925); MASAMUNE, Prel. Rep. Yeg. Yak. p. 97 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 747 (1931.)

Syn. Hypericum erectum, THUNB. f. *Fauriei*, MIY. et MIYAKE, Fl. Saghal. p. 78 (1915)

Nom. Jap. Otogirisô

Leg. Ipse, Aug. 11, 1928.

Distr. Saghalien, South Kuriles, Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Okinawa, Korea, Manchuria.

Note. Grows on open and sunny grasslands or by the roadside from the sea level up to about 500 m.

Hypericum japonicum, THUNB., Fl. Jap. p. 295, t. 31 (1784); CHOISY, DC. Prodr. I. p. 548 (1824); SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 163 (1845); BENTH., Fl. Hongk. p. 23 (1851); MIQ., Ann. Mus. Bot. Lugd. Bat. II. p. 259 (1836); DYER, in HOOK. f. Fl. Brit. Ind. I. p. 256 (1874); FR. et SAV., Enum. PI. Jap. I. p. 56 (1875); FORB. et HEMSL., Ind. Fl. Sin. I. p. 73 (1886); R. KELLER, in Bull. Herb. Boiss. V. p. 637 (Hypericineae Japonicae) (1897); ITO et MATSUM., Tent. Fl. Lutch. I. p. 320 (1899); DIELS, Fl. Cent. Chin. p. 476 (1903); MATSUM. et HAY., Enum. PI. Formos. p. 41 (1905); NAK., Fl. Kor. I. p. 96 (1903); GAGNEPAIN, in LECOMTE Fl. Ind. Chin. I. 3. p. 281 (1909); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 42 (1912); KOIDZ., in Tokyo Bot. Mag. XL. p. 344 (1926); MASAMUNE, Prel. Rep. Veg. Yak. p. 97 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 749 (1931);

Syn. Hypericum Thunbergii, FR. et SAV., Enum. PI. Jap. II. p. 303 (1876);

Hypericum mutilum, MAXIM., in Mém. Biolog. XI. p. 171 (1881) p.p.

Norn. Jap. Hime-otogiri

Leg. Ipse, Sept. 3, 1926.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-Osima, Okinawa, Taiwan, Korea, China.

Note. It grows in somewhat wet ground especially in the rice fields.

Hypericum laxum, KOIDZ., in Tokyo Bot. Mag. XL. p. 344 (1926!); MASAMUNE, Prel. Rep. Veg. Yak. p. 97 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 750 '1931'

Syn. Brathys lava, BL., MUS. Bot. Lugd. Bat. II. p. 19 (1852)

Hypericum japonicum, THUNB. p. *tenuior*, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 259 ;1866)

Hypericum Yabei, LÉVL. et VNT., in Bull. Soc. Bot. Fr. p. 501 ;1909;; NAK., Fl. Kor. 1. p. 97 (1909); YAMAZUTA, Lis1 Manch. Pl. p. 191 '1930J

Hypericum Thunbergii, MATSUM., Ind. Pl. Jap. II. 2. p. 369 '1912)

Norn. Jap. Kokeotogiri

Leg. Ipse, April. 2, 1927.

Distr. Yezo, Honsyu, Sikoku, Kyûsyû, Tanegasima, Korea, Manchuria.

Note. The species is found in the same locality as the previous one. It has its southern limit in this island.

var. *hananoegotnse*, MASAMUNE, var. nov.

Herbae electae rubidae ca. 2 cm altae, non ramosae.

Norn. Jap. Hime-koke-otogiri

Leg. Ipse, Hananoego, Aug. 30, 1926.

Note. The variety is restricted to this island, and is found in a swamp which develops in higher altitudes of the island.

Hypericum yakusimense, KOIDZ, Pl. Nov. Amami-flsima. p. 8 (1928); MASAMUNE,

Names of Plants	Regions											
	Y	H	S	K	T	Id	R	I	S	N	Ch	
	Y	H	S	K	T	Id	R	I	S	N	Ch	
<i>Hypericum erectum</i> , THUNB.	+	+	+	+	+	+	+	+	+	+	+	
<i>Hypericum japonicum</i> , THUNB.	+	+	+	+	+	+	+	+	+	+	+	
<i>Hypericum laxum</i> , KOIDZ.					+	+	+	+	+		+	
H. 1. var. <i>hananoegoense</i> , MASAMUNE												
<i>Hypericum yakusimense</i> , KOIDZ.												
Total	5	1	2	2	2	3	3	3	3	2	1	
Percentage	20	40	40	40	60	60	60	60	60	40	20	
							Southern elements 2)					Northern elements 3,

Prel. Rep. Veg. Yak. p. 97 (1929¹); MAK. et NEM., Fl. Jap. ed. 2. p. 753 (1931)
Nom. Jap. Yakusima-ko-otogiri
Leg. Ipse, Jul. 7, 1928.
Note. An endemic plant: Grows from 600 m up to the highest point of the island.

Hypericum laxum has its southern limit in this island, and *Hypericum yakusimensis* has several related species like *H. hakonense* in northern lands. Thus the island has a much closer relationship with the northern regions than with the southern ones.

Violaceae

Violaceae, DC, in Lam. et DC. Fl. Fr. ed. 3. IV. p. 801 (1805)

Viola, [TOURN., ex LINN. Syst. ed. 1 (1735 | Gen. ed. 1. p. 267 '1737¹'] et Sp. Pl. ed. 1. p. 933 (1753); GRING, in DC. Prodr. I. p. 291 (1824¹); ENDL., Gen. Pl. n. 5040 (1836-40^N); BENTH., in BENTH. et HOOK. f. Gen. Pl. I. 1. p. 117 (1862^X); REICH, u. TAUB., in ENGL. u. PRANT. Nat. Pfl.-fam. III. vi. p. 334 (1895); BECKER, in ENGL. u. PRANT. Nat. Pfl.-fam. 2. auf. B. 21. p. 363 (1925)

Viola biflora, LINN., Sp. Pl. ed. 1. p. 936 (1753.); GING, in Linn. I. p. 407 (1826); LEDEB., Fl. Alt. I. p. 261 (1829), et Fl. Ross. I. p. 254 (1842); TURCZAN., Fl. Baical-Dahur. p. 306 (1842); FR. et SAV., Enum. Pl. Jap. II. p. 290 (1876); MAXIM., in Mém. Biolog. IX. p. 749 (1876¹), et in Bull. Ac. Imp. Sc. St. Petr. XXIII. p. 334 (1877¹); KOM., Fl. Mansh. III. p. 70 (1907); NAK., Fl. Kor. I. p. 66 (1909); MATSUM., Ind. Pl. Jap. II. 2. p. 372 (1912); BECKER, Viol. Asiat. et Austr. III. p. 39 (1918); PRITZ., Veg. Siber.-Mong. Front, p. 329 (1921); KUDO, Fl. Paramush. p. 132 (1922); HULT., Fl. Kamtch. III. p. 128 (1929); MASAMUNE, Prel. Rep. Veg. Yak. p. 97 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 755 (1931); TATEWAKI, Phytogeogr. Middl. Kuril, pp. 204, 253, et 282 (1932)

Syn. Viola biflora, LINN. «. *typica*, REGEL, Pl. Rad. p. 498 (1861¹)

Nom. Jap. Kibanano-komanotume

Leg. Ipse, Jun. 12, 1928.

Distr. Kuriles, Kamtchatka, Saghalien, Yezo, Honsyfi, Korea, Manchuria.

Note. This violet is found in the Pseudosasa Owatarii Association in the alpine region of the island. It is not yet found in lands further south than this island. Judging by the distribution of this species the flora of the island is related to the northern floral regions which include the above mentioned localities.

Viola Boisaiëuana, MAK., in Tokyo Bot. Mag. XVI. p. 127 (1902); MATSUM., Ind. Pl. Jap. II. 2. p. 372 (1912); BECKER, Viol. Asia. & Austr. II. p. 410 (1917); MORI, Enum. Pl. Cor. p. 254 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 97 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 756 (1931)

Syn. Viola Selirkii, MAK., in Tokyo Bot. Mag. II. p. 252 (1888)

Nom. Jap. Hime-rinyamasumire

Leg. Ipse, Aug. 1928.

Distr. Sikoku, Kyûsyû, Korea.

Note. In the lauri-aciculisilvae the species is found as a sun loving plant, and is not reported further south than this island.

Viola grypoceras, A. GRAY, in Narr. Perry. Exped. II. p. 308 (1856); FR. et SAV., Enum. Pl. Jap. I. p. 43 (1875), et II. p. 289 (1876); MORI, Enum. Pl. Cor. p. 255 (1922); BECK., Viol. Asiat. et Austr. IV. p. 40 (1923); MASAMUNE, Prel. Rep. Veg. Yak. p. 97 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 759 (1931)

Syn. *Viola canina*, var. *japonica*, GING., in DC. Prodr. I. p. 298 (1824); A. GRAY, in Narr. Perry Exped. p. 308 (1856)

Viola canina, (non LINN.) SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 143 (1846)

Viola sylvatica, var. *irnberbis*, A. GRAY, Bot. Jap. p. 382 (1858)

Viola Reichenbachiana, (non JORDAN) FR. et SAV., Enum. Pl. Jap. I. p. 42 (1875)

Viola Grayi, FR. et SAV., Enum. Pl. Jap. I. p. 43 (1875)

Viola Riviniana, (non REICHB.) FR. et SAV., Enum. Pl. Jap. I. p. 43 (1875)

Viola sylvestris a *grypoceras*, MAXIM., in Mél. Biolog. IX. p. 743 (1876); ITO et MATSUM., Tent. Fl. Lutch. p. 41 (1899)

Viola longepedunculata, FR. et SAV., Enum. Pl. Jap. II. p. 286 (1876)

Viola sylvatica, (non FRIES) KANITZ, Anthoph. Jap. p. 25 (1878)

Viola sylvestris, KIT. var. *japonica*, MAK., in Tokyo Bot. Mag. XVI. p. 146 (1902)

Nom. Jap. *Tatitubo-swnire*

Leg. Ipse, Jul. 13, 1928.

Distr. Saghaliën, Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Okinawa, Korea.

Note. The species is found in the lowlands and in the laurisilvae, especially plentiful near the forest edges.

var. *exilis*, NAK., in Tokyo Bot. Mag. XXXVI. p. 55 (1922[^]); MAK. et NEM., Fl. Jap. ed. 2. p. 759 (1931)

Nom. Jap. *Ko-tati-sumire*

Leg. Ipse, Jul. 12, 1924.

Distr. Honsyû.

Note. The species is found along forest edges.

var. *yakusimensis*, MASAMUNE, var. nov. Folia ovata, apice acuto-acuminata ad summo obtusa, ca. 2 cm longa, 2 cm lata basi cordata.

Nom. Jap. *Yakusima-tatitubo-sumire*

Leg. Ipse, Jul. 6, 1928.

Distr. Endemica.

Note. Grows in open sunny places or on forest edges from the sea level up to about 600 m.

Viola Iwagawai, MAK., in Tokyo Bot. Mag. XXVI. p. 158 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 98 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 760 (1931)

Nom. Jap. *Yakusima-sumire*

Leg. Ipse, Jun. 6, 1926.

Distr. Endemica.

Note. This violet is found in somewhat damp spots in the lauri-aciculisilvae.

Viola japonica, LANGSD., ex. GING. in DC. Prodr. I. p. 295 (1824); MIQ., in Ann. Mus. Bot. Lugd. Bat. IV. p. 218 (1869); MAXIM., in Mél. Biolog. IX. p. 724 (1876); FR. et SAV., Enum. Pl. Jap. II. p. 287 (1876); FORB. et HEMSL., Ind. Fl. Sin. I.

p. 53 (1885; PALIB., Consp. Fl. Kor. I. p. 32 (1898); ITO et MATSUM., Tent. Fl. Lutch. I. p. 40 (1899); MATSUM. et HAY., Enum. Pl. Formos. p. 29 (1906); HAY., Fl. Mont. Formos. p. 52 (1908); NAK., Fl. Kor. I. p. 73 (1909); MATSUM., Ind. Pl. Jap. II. 2. p. 375 (1912); BECK., Viol. Asia. & Aust. V. p. 155 (1923); MASAMUNE, Prel. Rep. Veg. Yak. p. 98 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 760 (1931)

Syn. *Viola kamtschatica*, var. *pekinensis*, REGEL, Pl. Rad. I. p. 230 (1861)

Viola japonica, var. *pekinensis*, MAXIM., in Bull. Soc. Nat. Mosc. p. 4 (1879)

Nom. Jap. *Kosumire*

Leg. Ipse, April. 1, 1927.

Distr. Honsyū, Sikoku, Kyūsyū, Okinawa, Taiwan, Korea, China.

Aote. Grows on forest edges of the laurisilvae and the lauri-aciculisilvae.

Viola mandshurica, W. BECK. var. *ciliata*, NAK., in Tokyo Bot. Mag. XXXVI. p.p. 60, et 92 (1922); MAK. et NEM., Fl. Jap. ed. 2. p. 762 (1931)

Syn. *Viola Patrini*, var. *Gmeliana*, (non ROEM. et SCHULT.) MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 152 (1866); FR. et SAV., Enum. Pl. Jap. I. p. 41 (1875)

Viola Patrini, var. *chinensis*, (non GING) MAXIM., Mém. Biolog. IX. p. 722 (1876); MATSUM., Ind. Pl. Jap. II. 2. p. 377 (1912), p.p.

Aom. Jap. *Kesumire*

Leg. Ipse, Aug. 20, 1928.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Amami-Ōshima, Korea.

Note. The species is found in low lying waste lands.

Viola Maximowicziana, MAK., f. *rubescens*, MAK., in Tokyo Bot. Mag. XXVI. p. 151 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 98 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 763 (1931)

Aom. Jap. *Aka-komiyamasumire*

Leg. Ipse, Nagata, Mart. 21, 1923.

Distr. Honsyū.

Aote. The form is found as undergrows in the laurisilvae and in the lauri-aciculisilvae. It has its southern limit in this island.

f. *typica*, MAK., in Tokyo Bot. Mag. XXVI. p. 151 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 98 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 763 (1931)

Nom. Jap. *Komiyama-sumire*

Leg. Ipse, Jul. 10, 1928.

Distr. Honsyū, Sikoku, Kyūsyū.

Note. This violet is found as undergrowth in the laurisilvae or in the lauri-aciculisilvae.

Viola oblongo-sagittata, NAK., in Tokyo Bot. Mag. XXXVI. p. 37 (1922); MAK. et NEM., Fl. Jap. ed. 2. p. 764 (1931)

Syn. *Viola Patrini*, (non DC.) ITO et MATSUM., Tent. Fl. Lutch. p. 39 (1839); MATSUM., Ind. Pl. Jap. II. 2. p. 377 (1912) pi. ex Formosa.

Nom. Jap. *Ryūkyū-siro-sumire*

Leg. Ipse, Yosida, Mart. 21, 1923.

Distr. Amami-Ōshima, Okinawa, Taiwan.

Note. The species is found in low, open and waste lands and it has its northern limit in this island.

Viola Okuboi, MAK. var. *typica*, MAK., in Tokyo Bot. Mag. XVII. p. 85 1903 ; MAK. et NEM., Fl. Jap. ed. 2. p. 765 (1931)

Syn. Viola Keiskei, var. *Okuboi*, MAK., in Tokyo Bot. Mag. XXVI. p. 133 1902 .

Viola Okuboi, MATSUM., Ind. Pl. Jap. II. 2. p. 376 (1912)

Viola pekinensis, BECK. var. *typica*, BECK., Viol. Asiat. & Aust. I. p. 252 1916;

Nom. Jap. Kemaruba-sumire

Leg. Ipse, Kurio, Mart. 27, 1927.

Distr. Honsyū, Sikoku, Kyūsyū.

Note. The species is found in waste plains near the sea level.

Viola phalacrocarpoides, MAK., in Tokyo Bot. Mag. XXIII. p. 136 :1909 ; MAK. et NEM., Fl. Jap. ed. 2. p. 766 (1932)

Syn. Viola nipponica, (non MAXIM.) MAK., in Tokyo Bot. Mag. XXI. p. 56 1907) ; MATSUM., Ind. Pl. Jap. II. 2. p. 376 (1912)

Nom. Jap. Oka-sumire

Leg. Ipse, Yaegadake, Mart. 19, 1923.

Distr. Honsyū, Kyūsyū.

Note. The violet is found on rare occasion in the lauri-aciculisilvae, and has its southern limit in this island.

Viola primulifolia, LINN. var. *glabra*, NAK., in Bull. Soc. Bot. Franc. LXXII. p. 190 ,1925' ; MAK. et NEM., Fl. Jap. ed. 2. p. 766 (1931)

Nom. Jap. Siro-sumire

Leg. Ipse, April. 1, 1927.

Distr. Yezo, Honsyū, Kyūsyū, Taiwan.

Note. Grows on grass lands near the sea level; rather common in Japan.

Viola pseud-Selkirki, NAK., in Bull. Soc. Bot. France, LXXII. p. 195 '1925' ; MASAMUNE, Prel. Rep. Veg. Yak. p. 98 ;1929)

Nom. Jap. Yakusima-miyarnaswnire

Leg. Ipse, Jul. 10, 1928.

Distr. Endemica.

Note. Rarely found in the lauri-aciculisilvae at about a medium altitude.

Viola Sieboldii, MAXIM., in Mém. Biolog. IX. p. 729 1876', et in Bull. Acad. Sc. Petersb. p. 320 ,1877 ; FR. et SAV., Enum. Pl. Jap. II. p. 646 ;1879 ; MAK., in Tokyo Bot. Mag. XVI. p. 127 (1902 ; BECK., Viol. Asiat. & Austr. VI. p. 149 1923'

Syn. Viola pumila, non BECK.) MASAMUNE, Prel. Rep. Veg. Yak. p. 98 1929

Nom. Jap. Himc-siwai-swnire

Leg. Ipse, Aug. 31, 1926.

Distr. Kyūsyū, Tanegasima.

Note. The species is found in the laurisilvae, and has its southern limit in this island.

Viola Tashiroi, MAK., in Tokyo Bot. Mag. XXI. p. 57 1907, ; MATSUM., Ind. Pl. Jap. II. 2. p. 380 (1912^; BECK., Viol. Asiat. & Austr. VI. p. 148 '1923,.; MASAMUNE, Prel. Rep. Veg. Yak. p. 98 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 769 (1931)

Nom. Jap. Yaeyama-sumire

Leg. (fid. Makino et NEMOTO)

Distr. Yaeyama.

Note. The species is restricted to this island and Iriomote island which is situated in the southern part of the Ryûkyû archipelago.

Viola verecunda, A. GRAY, var. *typica*, MAK., in Tokyo Bot. Mag. XXVII. p. 153 1913 ; YAMAZUTA, List Manch. Pl. p. 196- (1930 i; MAK. et NEM., Fl. Jap. ed. 2. p. 770 U93i:

Syn. *Viola verecunda*, A. GRAY. Bot. Jap. p. 382 (1858; ; MIQ., in Ann. Mus. Bot. Lugd. Bat. IV. p. 218 (1869); MAXIM., in Mém. Biolog. IX. p. 750 (1876) excl. a et P; MATSUM. et HAY., Enum. Pl. Formos. p. 31 (1906); KOM., Fl. Mansh. III. p. 71 (1907) ; NAK., Fl. Kor. I. p. 65 (1909); MATSUM., Ind. Pl. Jap. II. 2. p. 381 (1912) *excl. var.*

Viola japonica, a. *typica*, FR. et SAV., Enum. Pl. Jap. II. p. 287 '1876^

Viola alata, Subsp. *verecunda*, W. BECK., Viol. Asia. & Austr. I. p. 227 :1916^

Nom. Jap. Tubo-sumire

Leg. Ipse, Jun. 8, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Taiwan, Korea, Manchuria.

Note. The species grows on forest edges at low and medium altitudes, and is not yet found further south than this island.

f. *radicans*. MAK., in Tokyo Bot. Mag. XXVII. p. 154 1913 ; MAK. et NEM., Fl. Jap. ed. 2. p. 770 1931^

Nom. Jap. Hai-tubo-sumire

Leg. Ipse, Jul. 18, 1928.

Distr. Honsyû, Taiwan.

Note. Grows at low and medium altitudes.

Viola yakusimana, NAK., in Tokyo Bot. Mag. XXXVI. p. 35 (1922 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 98 (1929'; MAK. et NEM., Fl. Jap. ed. 2. p. 771 (1931')

Nom. Jap. Koke-sumire

Leg. Ipse, Aug. 1, 1924.

Distr. Endemica.

Note. The species is restricted to this island, and is found in marshy and wet places from 700 m up to 1900 m above the sea level.

Names of Plants	Regions															
	Philippines	Bonins	Taiwan	Okinawa	Ryûkyûs	Kyûsyû	Tanegasima	Kyûsyû Prop.	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China
<i>Viola biflora</i> , LINN.										+	+	+	+	+	+	
<i>Viola Boissieuana</i> , MAK.								+		+						

<i>Viola grypceras</i> , A. GRAY.		+		+	+	+	+	+	+	+	+			
<i>V. g.</i> var. <i>exilis</i> , NAK.											+			
<i>V. g.</i> var. <i>yakusimensis</i> , MASAMUNE														
<i>Viola</i> Iwagawai, MAK. I														
<i>Viola japonica</i> , LANGSD. i		+	+			+	+	+	+				+	
<i>Viola mandshurica</i> , W. BECK. var. <i>ciliata</i> , NAK.				+		+	+	+	+					
<i>Viola Maximowicziana</i> , MAK. f. <i>rubescens</i> , MAK. I											+			
<i>V. M.</i> f. <i>typica</i> , MAK. I							+	+	+					
<i>Viola oblongo-sagittata</i> , NAK.		+	+	+										
<i>Viola Okuboi</i> , MAK. var. <i>typica</i> , MAK.							+	+	+					
<i>Viola phalacrocarpoides</i> , MAK.							+	+						
<i>Viola primulifolia</i> , LINN. var. <i>glabra</i> , NAK.		+					+	+			+			
<i>Viola pseud-Selkirki</i> , NAK.														
<i>Viola Sieboldii</i> , MAXIM.							+	+						
<i>Viola Tashiroi</i> , MAK.			+											
<i>Viola verecunda</i> , A. GRAY, var. <i>typica</i> , MAK.		+				+	+	+	+	+	+		+	
<i>V. v.</i> var. t. f. <i>radicans</i> , MAK.		+							+					
<i>Viola yakusimana</i> , NAK.														
Total 20		5	4	2	3	10	7	12	6	5	2	1	2	1
Percentage		25	20	10	15	50	35	60	30	25	10	5	10	5
		(Southern elements 8)						(Northern elements 14)						

From a study of the geographical distribution of the *Violaceae* plants indigenous to the island I reached the conclusion that the island is closely related to the northern lands, because several species have their southern limit of habitat in this island.

Flacourtiaceae

Flacourtiaceae, DUMORT, Ansl. Famil. p. 44. (1829)

Xylosma, FORSTER f, Fl. Ins. Austral. Prodr. p. 72 U786) nomen; WILLD., Sp. PI. IV. p. 834 (1804 ; ENDL., Gen. PI. Supp. I. p. 1421 no. 5081/¹ (1840;; BENTH. et HOOK, f, Gen. PI. I. p. 128 (1862)

Syn. Apactis, THUNB., Nov. Gen. PI. III. p. 66 il783, et Fl. Jap. p. 191 1784}; POIR., Supp. Encyd. I. p. 404 J810J

Myroxylon, (non LINN.) FORSTER, Charct. p. 125. t. 63 (1776) ; JUSS., Gen. Pl. p. 444 (1789) ; O. KUNTZE, Rev. Gen. Pl. I. p. 44 (1891) ; WARB., in ENGL. u. PRANT. Nat. Pfl.-fam. III. vi. a. p. 39 (1894)

Xylosma A pact is, KOIDZ., in Tokyo Bot. Mag. XXXIX. I. p. 316 (1925); NAK., Fl. Sylv. Kor. XVII. p. 51. t. XIV. (1928); MAK. et NEM., Fl. Jap. ed. 2. p. 773 (1931)

Syn. *Apactis japonica*, THUNB., NOV. Gen. Pl. II. p. 66 (1783), et Fl. Jap. p. 191 (1784); WILLD., Sp. Pl. II. p. 845 (1799); PERSOON, Syn. Pl. II. p. 2 (1805); POIR., Supp. Encycl. I. p. 404 (1810); SPRENG., Syst. II. p. 460 (1825); MASAMUNE. Prel. Rep. Veg. Yak. p. 98 '1929^A

Croton congestion, LOUR., Fl. Cochinch. p. 582 (1790);

Hisingera racemosa, (non PRESL.) SIEB. et ZUCC, Fl. Jap. I. p. 169, tt. 88 et 100 (1841)

Flacourtia japonica, WALPERS, Rep. I. p. 205 (1842)

Hisingera japonica, SIEB. et ZUCC., Fl. Jap. Fam. Nat. I. p. 168 (1845)

Xylosma japonica, A. GRAY, Bot. Jap. p. 381 (1858) ; HANCE, in SEEM. Journ. Bot. VIII. p. 275 (1870); et New Ser. VII. p. 8 (1878) ; YAMAMOTO, Suppl. Ic. Pl. Formos. III. p. 43 (1927)

Xylosma racemosa, MIQ., in Ann. Mus. Bot. Lugd. Bot. II. p. 155 (1856); FR. et SAV., Enum. Pl. Jap. I. p. 43 (1875); ITO et KAKU, Fig. et Descri. Pl. Koishik. II. t. 11 (1884); MAXIM., in ENGL. Bot. Jahrb. VI. p. 58 (1885); FORB. et HEMSL., Ind. Fl. Sin. I. p. 57 (1886) ; MATSUM., Ind. Pl. Jap. II. 2. p. 382 (1912);

Myroxylon racemosum, O. KUNTZE, Rev. Gen. Pl. I. p. 44 (1891)

Myroxylon japonicum, MAK., in Tokyo Bot. Mag. XVIII. p. 53 (1904) ; MAK. et NEM., Fl. Jap. ed. 1. p. 520 (1925);

Xylosma congestum, MERR., in Philipp. Journ. Sc. XV. p. 247 (1919)

Nom. Jap. *Kusudoige*

Leg. fid. Z. Tashiro.,

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Ōsima, Okinawa, Taiwan, Korea, China.

Note. It is reported to be found in lowlands.

Idesia, MAXIM., in Bull. Acad. St.-Petersb. X. p. 485 (1866) , et in Mém. Biolog. VI. p. 19 (1866); BENTH., in BENTH. et HOOK. f. Gen. Pl. I. 3. p. 972 (1837); WARB., in ENGL. u. PRANT. Nat. Pfl.-fam. III. vi. a. p. 45 (1893); GILG., in ENGL. u. PRANT. Nat. Pfl.-fam. 2. auf. B. 21. p. 444 (1925); LEMÉE, Diet. Gen. Pl. Phan. III. p. 740 (1931);

Syn. *Polycarpa*, LINDEN, ex CARRIÈRE, in Rev. Hort. p. 330 (1858),

Idesia polycarpa, MAX., in Bull. Acad. Petersb. X. p. 485 (1856) , et in Mém. Biolog. VI. p. 19 (1866); FR. et SAV., Enum. Pl. Jap. I. p. 45 (1875) ; HOOK., in Bot. Mag. t. 6794 (1885); ITO et MATSUM., Tent. Fl. Lutch. I. p. 42 (1899); DIELS, Fl. Centr. Chin. p. 478 (1900); MATSUM. et HAY., Enum. Pl. Formos. p. 32 (1906) ; HAY., Fl. Mont. Formos. p. 54 (1908); SCHNEID., Ill. Handb. Laubh. II. p. 360 f. 241 g. et 242 (1909); SHIRASAWA, Ic. For. Tree. Jap. ed. 2. I. p. 210, t. 76 f. 1-16 (1911); HAY., Ic. Pl. Formos. I. p. 62 (1911); MATSUM., Ind. Pl. Jap. II. 2. p. 382 (1912); GILG., in ENGL. u. PRANT. Nat. Pfl.-fam. 2. auf. B. 21. p. 444 (1925) ; NAK., Fl. Sylv. Kor. XVII. p. 54 t. XV. (1928); MASAMUNE, Prel. Rep. Veg. Yak. p. 98 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 773 (1931); HANDEL-MAZZ., Symb. Sin. VII. p. 383 (1931)

Syn. Polycarpa Maximowiczii, LINDEN, ex CARRIERE, in Rev. Hort. XL. p. 330, f. 26 (1868)

Norn. Jap. Iigiri

Leg. Ipse, Kosugidani, Sept. 4, 1926.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Okinawa, Taiwan, Korea, China.

Note. The species occurs from the sea level up to about 703 m and especially in the laurisilvae and in the lauri-aciculisilvae.

Names of Plants	Regions																
	Philippines	Bonins	Taiwan	Okinawa	Amami-Osima	Ryūkyūs	Tanegasima	Kyūsyū Prop.	Kyūsyū	Sikoku	Honsyū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China
<i>Xylosma Apactis</i> , KOIDZ.		+	+	+	+	+	+	+	+	+	+	+					+
<i>Idesia polycarpa</i> , MAXIM.		+	+	+	+	+	+	+	+	+	+	+					+

In respect of this family the island shows no special affinity with either northern or southern floral regions.

Stachyuraceae

Stachyuraceae, GILG., in ENGL. U. PRANT. Nat. Pfl.-fam. III. vi. a. p. 192 (1893)

Stachyurus, SIEB. et ZUCC, Fl. Jap. I. p. 42, t. 18 '1836¹; BENTH. et HOOK, f, Gen. Pl. I. 1. p. 184 (1862!; GILG., in ENGL. U. PRANT. Nat. Pfl.-fam. III. vi. a p. 193 (1893)

Stachyurus lancifolius, KOIDZ., in Tokyo Bot. Mag. XXXII. p. 135 (1918); MASAMUNE, Prel. Rep. Veg. Yak. p. 99 {1929²; MAK. et NEM., FL Jap. ed. 2. p. 773 (1931)

Syn. Stachyurus praecox, (non SIEB. et ZUCC.) ITO et MATSUM., Tent. Fl. Lutch. I. p. 60 {1899}

Norn. Jap. Nanban-kibusi

Leg. Ipse, Kurio, Jul. 18, 1928.

Distr. Amami-Osima.

Note. The species is found along the forest edges of the laurisilvae, and in open grassland near the sea level, and is restricted to this island and Amami-Osima.

Regions															
Name of Plant	Philippines	Bonins	Taiwan	Okinawa	Amami-Ōsima	Tanegasima	KyDsyū Prop.	Sikoku	Honsyū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China
Stachyurus lancifolius, KOIDZ					+			I							

In respect of this family, the island has an intimate relationship with Amami-Ōsima so far as its phytogeographical position is concerned.

Daphnaceae

Daphnaceae, J. ST. HILAIRE, Expos. I. p. 180 (1895)

Syn. Thymelaceae, REICHB., Nom. p. 64 (1841)

Daphne, [TOURN., ex LINN. Syst. ed. 1. (1735)]

et Sp. PL ed. 1. p. 356 (1753); JUSS., Gen. PL p. 77 (1789); ENDL., Gen. PL p. 330, n. 2092 (1836-40); MEISSN., in DC. Prodr. XIV. p. 530 (1847); BENTH. et HOOK, f., Gen. PL III. 1. p. 190 (1880); GILG., in ENGL. U. PRANT. Nat. Pfl-fam. III. vi. a p. 237 (1894); LEM6E, Diet. Gen. PL Phan. II. p. 501 (1930)

Syn. Thymelaea, ADANS., Fam. II. p. 285 (1763)

Scopolia, LINN, f., Supp. p. 60 (1781)

Daphne kiusiana, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 134 (1867); FR. et SAV., Enum. PL Jap. I. p. 405 (1875); MAXIM., in Mél. Biolog. XII. p. 542 (1886); NAK., Fl. Sylv. Kor. XVII. p. 43 t. XL (1928); MASAMUNE, Prel. Rep. Veg. Yak. p. 99 (1929); MAK. et NEM., FL Jap. ed. 2. p. 782 (1931)

Syn. Daphne odor a, THUNB., Fl. Jap. p. 159 (1784)

Daphne sinensis, (non LAM.) MAXIM., in Bull. Acad. St. Petersburg. XXXI. p. 101 (1886), et in M& Biolog. p. 542 (1886)

Daphne cannabina, (non WALL.) MAK., in Tokyo Bot. Mag. XL p. 5 (1897); MATSUM., Ind. PL Jap. II. 2. p. 387 (1912)

Daphne odora, var. *kiusiana*, KEISSLER, in Engl. Bot. Jahrb. XXV. p. 89 (1898)

Nom. Jap. Kosyōnoki

Leg. Ipse, Kosugidani, Mart. 18, 1923.

Dirtr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Korea.

Note. The shrub abounds at about 600 m above the sea level, and is found as undergrowth in the laurisilvae.

Wikstroemia, ENDL., Prodr. FL. Norfolk, p. 47 (1833), et Gen. PL. n. 2105 (1836-40); MEISSN., in DC. Prodr. XIV. p. 543 (1847); BENTH. et HOOK, f., Gen. PL. III. p. 193 (1880); GILG, in ENGL. u. PRANT. Nat. Pfl.-fam. III. vi. a p. 235 (1894)

Syn. *Capura*, LINN., Mant. II. p. 149 (1771)

Wikstroernia, REICHB., Consp. p. 209 (1828)

Wikstroemia Gampi, MAXIM., in Mém. Biolog. XII. p. 540 (1886); SHIRAI, in Tokyo Bot. Mag. V. p. 370 (1891); MATSUM., Ind. PL. Jap. II. 2. p. 389 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 99 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 783 (1931)

Syn. *Stellara Gampi*, SIEB., Synop. PL. Oec. p. 22 U830

Parserina Gampi, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 201 U846

Wikstroemia canescens, van Gampi, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 134 (1867); FR. et SAV., Enum. PL. Jap. I. p. 405 U875

Norn. Jap. *Inu-gampi*

Leg. Ipse, Jun. 14, 1926.

Digtr. Honsyû, Sikoku, KyGsyfi.

Note. The species is found in sunny spots in waste lands near the sea level, and has its southern limit in this island.

Wikstroemia Kudoi, MAK., in Tokyo Bot. Mag. XXIV. p. 50 (1910); MASAMUNE, Prel. Rep. Veg. Yak. p. 99 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 783 (1931)

Norn. Jap. *Syakunan-gampi*

Leg. Ipse, Aug. 1, 1924.

Distr. Endemica.

Note. This interesting species is found along the small water courses in the Pseudosasa Owatarii Association from 1500 m up to 1900 m above the sea level.

Names of Plants	Regions									
	Phi	Tai	Ok	Amami-Osima	Tanegasima	Prop.	Kyûsyû	Soj	Ku	Kuriles O Kamtchi ka a. Amur + Usuri
<i>Daphne kiusiana</i> , MIQ.				+	+	+	+	+	+	+
<i>Wikstroemia Gampi</i> , MAXIM.						1	+	+		
<i>Wikstroemia Kudoi</i> , MAK.										
<i>Wikstroemia yakusbimensis</i> , NAK.						+				

Wikstroemia yakushimensis, (MAK.) NAK., ex MASAMUNE. Prel. Rep. Veg. Yak. p. 99 (1929)

Syn. *Wikstroemia pauciflora*, FR. et SAV. var. *yakushimensis*, MAK., in Tokyo Bot. Mag. XXIV. p. 52 (1910) ; MAK. et NEM., Fl. Jap. ed. 2. p. 784 (1931)

Nom. Jap. *Sima-sakura-gampi*

Leg. Ipse, Nakama, Aug. 10, 1928.

Distr. Kyûsyû.

Note. The species is found in somewhat wet but sunny spots from about 500 m up to 1100 m and it is restricted to this island and Kyûsyû.

Wikstroemia Kudoi is an endemic and characteristic species which stands between *Wikstroemia* and *Daphne*. From this point of view the island is separated from the neighbouring districts. And since *Wikstroemia yakushimensis* is restricted to this island and Kyûsyû, the island has some relationship with Kyûsyû. The remaining one species of *Wikstroemia* has its southern limit in this island. From these facts the island appears to be less related to the southern lands in respect of this family than to the northern ones.

Elaeagnaceae

Elaeagnaceae, LINDL., Nat. Syst. ed. 2. p. 194 (1836)

Elaeagnus, [TOURN., ex LINN. Syst. ed. 1. (1735) et Sp. Pl. ed. 1. p. 121 (1753) ; ADANS., Fam. II. p. 80 (1763) ; ENDL., Gen. Pl. p. 334 n. 2115 (1836-40) ; SCHLECHT., in DC. Prodr. XIV. p. 608 (1857) ; BENTH. et HOOK. f., Gen. Pl. III. p. 204 (1880) ; GILG., in ENGL. U. PRANTL Nat. Pfl.-fam. III. vi. a. p. 249 (1894) ; LEMÉE, Diet. Gen. Pl. Phan. II. p. 811 (1930)

Syn. *Octarillum*, LOUR., Fl. Cochinch. p. 90 (1790)

Elaeagnus crispera, THUNB. var. *typica*, NAK., Fl. Sylv. Kor. XVII. p. 10 t. 1. (1928) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 100 (1929) ; YAMAZUTA, List Manch. Pl. p. 199 (1930).

Syn. *Elaeagnus umbellata*, THUNB., Fl. Jap. p. 66 (1784) ; SPRENG., Syst. Veg. I. p. 489 (1825) ; SIEB., Synop. Oec. p. 22 (1830*) ; A. GRAY, in Narr. Perry Exp. II. app. p. 318 (1856) ; SCHLECHT., in DC. Prodr. XIV. p. 614 (1857), et in Linnaea XXX. p. 377 (1859) ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 138 (1867) ; MAXIM., in Mém. Biolog. VII. p. 560 (1870) ; FR. et SAV., Enum. Pl. Jap. I. p. 408 (1875) ; KOM., Fl. Mansh. III. p. 82 (1907) ; NAK., Fl. Kor. II. p. 179 (1911) ; MATSUM., Ind. Pl. Jap. II. 2. p. 392 (1912) p.p.

Elaeagnus crispera, THUNB., ex MURRAY, Syst. Veg. p. 163 (1784) ; THUNB., Fl. Jap. p. 66 (1784) ; POIRET, Supp. Encyd. II. p. 185 (1809) ; BL., Bijdr. p. 639 (1825) ; SCHLECHT., in DC. Prodr. XIV. p. 614 (1857), et in Linnaea XXX. p. 378 (1859) ; MAK. et NEM., Fl. Jap. ed. 2. p. 785 (1931)

Elaeagnus umbellata, var. *typica*, SCHNEID., Ill. Handb. Laub. II. p. 411. f. 279 x-z f. 280 f-i (1909).

Nom. Jap. *Aki-gumi*

Leg. Ipse, Aug. 6, 1924.

Distr. Yezo, HonsyG, Sikoku, Kyûsyû, Tanegasima, Amami-Osima, Korea, Manchuria.

Note. The species is found in open waste lands, especially in sunny spots, at low altitudes.

var. *rotundifolia*, (MAK.) MASAMUNE, Prel. Rep. Veg. Yak. p. 100 U929)

Syn. *Elaeagnus umbellata*, THUNB. var. *rotundifolia*, MAK., in Tokyo Bot. Mag. VIII. p. 302 (1894); MATSUM., Ind. Pl. Jap. II. p. 392 (1912); MAK. et NEM., Fl. Jap. ed. 2. p. 790 (1931)

Norn. Jap. *Maruba-akigumi*

Leg. Ipse, Aug. 18, 1928.

Distr. HonsyG, Kyûsyû.

Note. The species is found near the sea shore, and is not found in lands further south than this island.

var. *subcoriacea*, NAK. et MASAMUNE, in Tokyo Bot. Mag. XLIII. p. 443 ;1929ⁱ; MASAMUNE, Prel. Rep. Veg. Yak. p. 100 (1929 ; MAK. et NEM., Fl. Jap. ed 2. p. 785 1931)

Nom. Jap. *Atuba-akigutni*

Leg. Ipse, Kurio, Jul. 4, 1927.

Distr. Endemica.

Note. The variety grows on rocky littoral ground.

Elaeagnus glabra, THUNB., Fl. Jap. p. 67 (1784); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 138 (1867) ; MAXIM., in Mél. Biolog. VII. p. 561 (1870); FR. et SAV. Enum. Pl. Jap. I. p. 409 (1875); FORB. et HEMSL., Ind. Fl. Sin. II. p. 402 (1894); MATSUM. et HAY., Enum. Pl. Formos. p. 356 '1906) ; MATSUM., Ind. Pl. Jap. II. 2. p. 390 ;1912[^] ; MORI, Enum. Pl. Cor. p. 259 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 99 J929; ; MAK. et NEM., Fl. Jap. ed. 2. p. 786 (1931)

Nom. Jap. *Turu-gumi*

Leg. Ipse, Jul. 29, 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea.

Note. The species is found in littoral forests from the sea level up to 1000 m and is common in South Japan.

Elaeagnus macrophylla, THUNB., Fl. Jap. p. 67 U784, ; WILLD., Sp. Pl. I. p. 690 ^ 1797 i; POIR., Supp. Encycl. I. p. 187 .1809.; GRAY, Pl. Jap. p. 318 (1856); SHLECHT., in DC. Prodr. XIV. p. 614 '1857), et in Linnaea, XXX. p. 380 (1859); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 137 U867) ; MAXIM., in Mél. Biolog. VII. p. 560 1870 ; FR. et SAV., Enum. Pl. Jap. I. p. 408 U875); DIPPEL, Handb. Laubh. III. p. 210, f. 112 (1893) ; GILG., in ENGL. U. PRANT. Nat. Pfl.-fam. III. vi. p. 251 (1894); SCHNEIDER, 111. Handb. Laubh. II. p. 415, f. 281, a-c f. 282 g-h (1909.' ; NAK., Fl. Kor. II. p. 179 '1911); MATSUM., Ind. Pl. Jap. II. p. 391 (1912: ; NAK., Fl. Sylv. Kor. XVII. p. 16. t. 4 ;i928'; MASAMUNE, Prel. Rep. Veg. Yak. p. 93 (1929,; MAK. et NEM., Fl. Jap. ed. 2. p. 787 [1931^f.

Nom. Jap. *Ôbagumi*

Leg. Ipse, Kurio, Mart. 23, 1923.

Distr. HonsyG, Sikoku, Kyûsyû, Okinawa, Korea.

Note. The species is predominant in littoral forests, and is rather common in South Japan.

Elaeagnus maritima, KOIDZ., in Tokyo Bot. Mag. XXXI. p. 133, 1917'; NAK., in Tokyo Bot. Mag. XXXVI. p. 69 (1922) et Fl. Sylv. Kor. XVII. p. 18, t. 7 (1928); MAK. et NEM., Fl. Jap. ed. 2. p. 787 (1931)

Syn. Elaeagnus Hukiensis, REHD., in Journ. Arnold. Arboret. I. p. 181 (1920) exd. *Syn.*

Norn. Jap. Akaba-gumi

Leg. A. KIMURA! Aug. 6, 1922.

Distr. Honsyû, Kyûsyû, Okinawa, Korea.

Note. Grows on sunny grassland near the sea level.

Elaeagnus pungens, THUNB., Fl. Jap. p. 68 (1784); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 138 (1867); MAXIM., in Mém. Biolog. VII. p. 561 (1870); FR. et SAV., Enum. Pl. Jap. I. p. 409 (1875); FORB. et HEMSL., Ind. Fl. Sin. II. p. 404 (1894); MATSUM., Ind. Pl. Jap. II. 2. p. 391 (1912); MORI, Enum. Pl. Cor. p. 260 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 100 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 789 (1931)

Nom. Jap. Nawasiro-gumi

Leg. Ipse, Ambô.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Korea.

Note. The species is found in sunny spots in open uncultivated land.

Elaeagnus yakusimensis, MASAMUNE, in Tokyo Bot. Mag. XLIII. p. 252 (1922), et Prel. Rep. Veg. Yak. p. 100 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 790 (1931)

Nom. Jap. Yakusima-gumi

Leg. Ipse, Kuromidake, Jul. 26, 1927.

Distr. Endemica.

Note. The species is a member of the lauri-aciculisilvae from about 1700 m above the sea level, and is found on rather rare occasion.

Names of Plants	Regions												
	Philippines	Bonin	Taiwan	Okinawa	Amami-Oshima	Tanegasima	Kyûsyû	Sikoku	Honsyû	Korea	Yezo	Ku	iles & Kamtchatka mur & Usuri
<i>Elaeagnus crispa</i> , THUNB. var. <i>typica</i> , NAK.					+	+	+	+	+	+	+		+
<i>E. c.</i> var. <i>rotundifolia</i> , MASAMUNE							+		+				
<i>E. c.</i> var. <i>subcoriacea</i> , NAK. et MASAMUNE													
<i>Elaeagnus glabra</i> , THUNB.	+	+	+	+	+	+	+	+	+	+	+		+
<i>Elaeagnus macrophylla</i> , THUNB.		+		+		+	+	+	+	+			+

<i>Elaeagnus maritima</i> , KOIDZ.						+														
<i>Elaeagnus pungens</i> , THUNB.																				+
<i>Elaeagnus yakusimensis</i> , MASAMUNE																				
Total	8																			1 3
Percentage																				13 38 25 38 75 50 75 63 13 1338
(Southern elements 4)											(Northern elements 6)									

In this family the island shows some independence as to its phytogeographical position, for there are one species and one variety which are restricted to this island, but generally speaking it is closely related to the northern lands.

Lythraceae

Lythraceae, LINDL., Nat. Syst. ed. 2. p. 100 (1836)

Rotala, LINN., Mant. II. p. 143 (1771); DC, Prodr. III. p. 75 [1828¹ ; ENDL., Gen. p. 1199. n. 6143 (1836-40); BENTH. et HOOK, f., Gen. Pl. I. 3. p. 776 (1867); KOEHNE, in ENGL. U. PRANT. Nat. Pfl.-fam. III. vii. p. 6, 1891,

Rotala indica, KOEHNE, var. uliginosa, KOEHNE, in Engl. Bot. Jahrb. I. p. 173 (1880); ITO et MATSUM., Tent. Fl. Lutch. I. p. 493 (1899); MATSUM. et HAY., Enum. Pl. Formos. p. 150 (1906); NAK., Fl. Kor. I. p. 236 (1909); MATSUM., Ind. Pl. Jap. II. 2. p. 395 (1912); MAK. et NEM, Fl. Jap. ed. 2. p. 794 (1931)

Syn. *Ameletia uliginosa*, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 261 (1856)

Horn. Jap. *Kikasi-gusa*

Leg. Ipse, Aug. 13, 1928.

Distr. Honsyuf, Kyufsyfi, Amami-6sima, Okinawa, Taiwan, Korea.

Note. The species is found in rice-fields or in wet grounds.

Lagerstroemia, LINN., Syst. ed. 10, p. 1076 (1759);

DC, Prodr. III. p. 93 (1828); ENDL., Gen. Pl. n. 6164 (1836-40); BENTH. et HOOK. V, Gen. Pl. I. p. 783 (1867); KOEHNE, in ENGL. u. PRANT. Nat. Pfl.-fam. III. vii. p. 13 (1891); LEMfCE, Diet. Gen. Pl. Phan. III. p. 922 (1931)

Syn. *Murtughas*, O. KUNTZE, Rev. Gen. Pl. I. p. 219 (1891)

Lagerstroemia Fauriei, KOEHN, in Engl. Bot. Jahrb. XLI. p. 102 (1908); MASAMUNE, Prel. Rep. Veg. Yak. p. 100 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 792 (1931)

Aom. Jap. *Yakusima-sarusuberi*

Leg. Ipse, Aug. 6, 1924.

Distr. Endemica.

Note. The species grows in lowlands or in the laurisilvae.

Lagerstroemia subcostata, KOEHNE, var. *hirtella*, KOEHN., in ENGL. Pfl.-reich. IV. (Heft 17, p. 260 (1903) ; MAXIM., in Mém. Biolog. XII. p. 20 (1870) ; ITO et MATSUM., Tent. Fl. Lutch. I. p. 228 (1899); MATSUM., Ind. Pl. Jap. II. 2. p. 393 (1912) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 100 U929); MAK. et NEM., Fl. Jap. ed. 2. p. 792 (1931)

Nom. Jap. Sima-sarusuberi

Leg. Ipse, Jul. 27, 1922.

Distr. Tanegasima, Amami-6sima, Okinawa, Taiwan.

Note. The species is found in the laurisilvae and is not yet found in the main land of Kyûsyû.

Names of Plants	Regions					
	Philippines	Formosa	Japan	Okinawa	Amami-6sima	Kyûkyûs
<i>Rotala indica</i> , KOEHN. var. <i>uliginosa</i> , KOEHN.	+	+	+	+	+	+
<i>Lagerstroemia Fauriei</i> , KOEHN.						
<i>Lagerstroemia subcostata</i> , KOEHN, var. <i>hirtella</i> , KOEHN.						

Considering the distribution of the species of this family, the island is more or less closely related to the southern floral regions.

Rhizophoraceae

Rhizophoraceae, LINDL., Nat. Syst. ed. 2. p. 40 .1836

Kandelia, WIGHT et ARN., Prodr. Fl. Pen. Ind. Or. p. 310 1834 ; ENDL., Gen. Pl. n. 6100 v.1836-40j ; BENTH. et HOOK, f., Gen. Pl. I. p. 679 '1865 ; SHIMPER, in ENGL. u. PRANT. Nat. Pfl.-fam. III. vii. p. 52 (1892) ; LEMÉE, Diet. Gen. Pl. Phan. III. p. 840 (1931)

Kandelia Candel, MERR., Bib. Enum. Born. Pl. p. 421 (1921); KANEHIRA, in Trans. Nat. Hist. Soc. Formos. XXI. p. 146 ,1931;; KUDO, in Bot. Mag. Jap. XLVI. p. 152 (1932);

Syn. RhUophora Candel, LINN., Sp. Pl. ed. 1. p. 443 f.1753j; DC. Prodr. III. p. 32 ;i828;

Kandelia Rheedii, WIGHT, et ARN., Prodr. Fl. Pent. Ind. Or. I. p. 310 ;i834); BL., in Mus. Bot. Lugd. Bat. I. p. 135 '1849;; WIGHT, III Ind. Bot 1.1. 89

(1840); HOOK. f. Ic. Pl. t. 362 (1841); MIQ., Fl. Ind. Bat. 1.1. p. 585 (1855); BENTH., Fl. Hongk. p. 110 (1861); HENSLOW, in HOOK. f. Fl. Brit. Ind. II. p. 437 (1879); FORB. et HEMSL., Ind. Fl. Sin. I. p. 293 (1887); SAIDA, in Tokyo Bot. Mag. III. tt. 14 et 15 (1889); MATSUM, in Tokyo Bot. Mag. XI. p. 77 (1897), et Ind. Pl. Jap. II. 2. p. 398 (1912); KING, in Journ. As. Soc. Ben?. LXVI. 2. p. 317 (1897); ITO et MATSUM., Tent. Fl. Lutch. I. p. 473 (1899); MATSUM. et HAY., Enum. Pl. Formos. p. 140 (1906); RIDL., Fl. Malay. Penin. II. p. 694 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 100 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 796 (1931)

Rhizophora mucronata,¹ non LAM.) ENGL., in ENGL. Bot. Jahrb. VI. p. 63 (1885)

Nom. Jap. Mehirugi

Leg. Ipse, Kurio, Jul. 4, 1928.

Distr. Kyûsyû, Tanegasima, Amami-Ôsima, Okinawa, Taiwan, China, Borneo, Malay, Ceylon, India.

Note. Only one representative of the mangrove indigenous to the island is found in the estuary of the River Kurio.

Name of Plant	Regions														
	Philippines	Bo	Ta	Okinawa	Amami-Ôsima	Tanegasima	Kyûsyû Prop.	Sikoku	Honsyû	Korea	Yezo & Southern I.	Saghalien	Northern K.	Macuria	Chic
Kandelia Candel, MERR.				+	+	+	+								+

Even though *Kandelia Candel* is found in Kyûsyû proper (Kiire in Satuma Province) I question whether it was not introduced there. The plant which grows in this island and Tanegasima is an indigenous one and marks the northern limit of habitat. This fact clearly explains that the Ôsumi-strait which divides Kyûsyû from Tanegasima, divides the floral districts of Japan into two, namely the northern regions (extending from Kyûsyû to Yezo) and the southern (from Tanegasima to Formosa), so far as this family is concerned.

Alangiaceae

Alangium, LAM., Encycl. I. p. 174 (1783); DC, Prodr. III. p. 203 (1828); ENDL., Gen. PL n. 6096 (1836-40^N); BENTH. et HOOK, f., Gen. PI. I. 3. p. 949 (1857); HARMS, in ENGL. u. PRANT. Nat. Pfl.-fam. III. viii. p. 260 (1897-); LEMÉE, Diet. Gen. PI. Phan. I. p. 136 (1929),

- Syn.* *Angolam*, ADANS., Fam. II. p. 85 (1763)
Stylidium, LOUR., Fl. Cochinch. p. 220 (1790)[^]
Stylis, POIR., Encycl. Supp. V. p. 260 (1817);

Alangium chinense, REHDER, in SARGENT, Pl. Wil. II. p. 552 (1916'; MERR., Enum. Hainan Pl. p. 141 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 101 U929'

- Syn.* *Stylidium chinense*, LOUR., Fl. Cochinch. p. 221 (1790'
Marlea begoniifolia, ROXB., Hort. Beng. p. 28 (1814) nomen, et Fl. Ind. ed. 2 II. p. 261 f 1832::; DC, Prodr. IV. p. 267 (1830' ; LINDL., in Bot. Reg. XXIV. t. 61 11838 ^ ; BENTH., Fl. Hongk. p. 138 (1861); BRANDIS, Forest Fl. Brit. Ind. p. 251 (1874), et Ind. Trees p. 355 (1906); C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. II. p. 743 '1879;; FORB. et HMESL., Ind. Fl. Sin. I. p. 344 1887]
Stylis chinensis, POIR., Encycl. Supp. V. p. 260 {1817
Styrax javaniam, BL., Bijdr. p. 67 (1825"; DC, Prodr. VIII. p. 268 (1844'
Alangium begoniifolium, BAILL., Hist. PI. VI. p. 270 '1877) ; HARMS, in ENGL. u. PRANT. Nat. Pfl.-fam. III. viii. p. 261 (1898) ; MATSUM., Ind. PI. Jap. II. 2. p. 398 '1912' ; MAK. et NEM., Fl. Jap. ed. 2. p. 797 (1931);

Norn. Jap. *Sima-urinoki*

Leg. Ipse, Yudomari, Aug. 1927.

Distr. Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, China.

Note. The species is found on rare occasions at low altitudes. It occurs extremely rarely in the southern part of Kyūsyū (Penn. Sata, and Tanegasima, but rather frequently in Okinawa and Formosa. Thus the island shows a greater relationship to the southern lands than to the northern ones.

Name of Plant	Regions															
	es	3	5?	a	E	Ryū 3	Kyū 3	Sikoku	Hon'yū	Kōshū	Yezo	Sag 3	North	Kōshū & Ka	Mancl	China
<i>Alangium chinense</i> , REHDER		+	+	+				+	+							+

Alangium is the only indigenous representative genus of *Alangiaceae* in this island, and it is found both in the northern and southern lands beyond Yakusima. Thus the island reveals no special affinity

either with the southern or with the northern regions in respect of this single genus. But so far as *Alangium chinensis* is concerned, we find that the island has some affinity with the southern lands.

Myrtaceae

Myrtaceae, PERS., Synops. II. p. 24 (1807[^])

Eugenia, [MICH., ex LINN. Syst. ed. 1. (1735)]
et Sp. Pl. ed. 1. p. 470 (1753) p.p.; ENDL., Gen. Pl. n. 6323 (1833-40, p.p.); BENTH.,
in BENTH. et HOOK. f. Gen. Pl. I. p. 718 (1865) p.p.; NIEDENZU, in ENGL. U.
PRANT. Nat. Pfl.-fam. III. vii. p. 78 (1893; p.p.); LEMÉE, Diet. Gen. Pl. Phan. III.
p. 36 (1931) p.p.

Syn. *Jambosa*, [RUMPH., Herb. Amb. I. p. 121 (1741/)] DC, Prodr. III. p. 286(1828) ;
ENDL., Gen. Pl. n. 6324 (1836-40); BENTH. et HOOK, f., Gen. Pl. I. p. 718
(1865); NIEDENZU, in ENGL. u. PRANT. Nat. Pfl.-fam. III. vii. p. 83 (1893)
Jambolifera, HOUTT., Handleid. II. p. 272 (1774)
Rugenia, NECK., Elem. II. p. 78 (1790)

Eugenia Jambos, LINN., Sp. Pl. ed. 1. p. 470 (1753); ROXB., Fl. Ind. II. p. 494 (1832);
DUTHIE, in HOOK. f. Fl. Brit. Ind. II. p. 474 (1878); FORB. et HEMSL., Ind. Fl.
Sin. I. p. 297 (1887); ITO et MATSUM., Tent. Fl. Lutch. I. p. 480 (1899); MATSUM.
et HAY., Enum. Pl. Formos. p. 143 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 401
(1912); MERR., Enum. Hainan Pl. p. 136 (1927); CHUN., Cat. Tree. & **Shrub**.
Chin. p. 184 (1924^x); MASAMUNE, Prel. Rep. Veg. Yak. p. 101 (1929); MAK. et
NEM., Fl. Jap. ed. 2. p. 801 (1931)

Syn. *Jambosa vulgaris*, DC., Prodr. III. p. 286 (1828); HOOK, et ARNOT., Bot. Capt.
Beech. Voy. p. 188 (1833); Bot. Mag. t. 3356 (1834); BENTH., Fl. Hongk. p.
120 (1861); WIGHT, Ic. Pl. Ind. Or. t. 435 (1813); BL., MUS. Bot. Lugd. Bat.
I. p. 93 (1851);

Nom. Jap. *Hutomomo*

leg. Ipe, Mugio, Mart. 23, 1923.

Distr. Okinawa, Taiwan, China.

Note. The species is frequently found on the southern side near the sea level. It is uncertain whether this species is an introduced one or not, but since it seems to be indigenous to the island, I have treated it as an indigenous species. It has its northern limit in this island.

Syzygium, GAERTN., Fruct. I. p. 166. t. 33 (1788);
BENTH., in BENTH. et HOOK. f. Gen. Pl. I. p. 719 (1865); NIEDENZU, in ENGL. U.
PRANT. Nat. Pfl.-fam. III. vii. p. 85 (1893)

Syn. *Opa*, LOUR., Fl. Cochinch. p. 308 (1790)

Microjambosa, BL., MUS. Bot. Lugd. Bat. I. p. 117 (1849)

Syzygium microphyllum, GAMBEL, Fl. Madras p. 479 (1919)

Syn. *Eugenia microphylla*, ABEL, Narr. Journ. Chin. p. 364 (1818); CHUN., Cat. Tree.
& Shrub. Chin. p. 181 (1924); NAK., in Bull. Biogeogr. Soc. Jap. I. p. 260
(1930)

Syzygium buxifolium, HOOK, et ARN., Bot. Capt. Beech. Voy. p. 187 (1833);

MASAMUNE, Prel. Rep. Veg. Yak. p. 101 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 803 (1931)

Eugenia sinensis, HEMSL., in FORB. et HEMSL. Ind. Fl. Sin. I. p. 298 (1887); ITO et MATSUM., Tent. Fl. Lutch. I. p. 481 (1899); MATSUM. et HAY., Enum. Pl. Formos. p. 143 (1905) ; MATSUM., Ind. Pl. Jap. II. 2. p. 401 (1912)

Nom. Jap. Adeku.

Leg. Ipse, Kosugidani, Aug. 10, 1928.

Distr. Kyûsyû, Tanegasima, Amami-Ôsima, Okinawa, Taiwan, Bonins, China.

Note. The species is found in the laurisilvae or in the lower part of the lauriaciculisilvae.

Names of Plants	Regions												
	Shikoku	Hokkaido	Honshu	Okinawa	Amami-Ôsima	Tanegasima	Kyûsyû Prop.	Sikoku	Honshu	Korea	Yezo & Southern Kuriles	Philippine Islands, Amur & Ussuri	China
<i>Eugenia Jambos</i> , LINN.			+	+									+
<i>Syzygium microphyllum</i> , GAMBEL	+	+	+	+	+	+	+						+

Eugenia is not found in more northern lands than Yakusima and *Syzygium* is found in both northern and southern lands. As the representatives of the latter genus are plentiful in the southern lands, the flora of the island has some close relationship with the southern lands in respect of this family.

Melastomataceae

Melastomataceae, R. BR., in Tuckey, Congo, App. V. p. 434 (1818)

Melastoma, [BOURM., ex LINN. Gen. PL. ed. 1. p. 127 (1737) et Sp. PL. ed. 1. p. 389 (1753); ENDL., Gen. PL. n. 6219 (1836-40.); HOOK. f. in BENTH. et HOOK. f. Gen. PL. I. p. 746 (1867-); KRASSER, in ENGL. u. PRANT. Nat. PhVfam. III. vii. p. 153 (1893); LEMÉE, Diet. Gen. PL. Phan. IV. p. 377 (1932)

Sny. Benkara, ADANS., Fam. II. p. 85 (1763);

Melastoma candidum, DON, in Mem. Wern. Soc. IV. p. 288 (1823); DC, Prodr. III. p. 145 (1828); FORB. et HEMSL., Ind. Fl. Sin. I. p. 299 (1887); COGNÉ, in DC.

Monogr. Phan. VII. p. 347 (1891) ; ITO et MATSUM., Tent. Fl. Lutch. I. p. 485 (1899) ; MATSUM. et HAY., Enum. Pl. Formos. p. 146 (1906) ; MATSUM., Ind. Pl. Jap. II. 2. p. 403 (1912); MERR., Enum. Philipp. III. p. 185 (1923)

Syn. *Melastoma macrocarpum*, D. DON, in Mem. Wern. Soc. VI. p. 289 (1823); FR. et SAV., Enum. Pl. Jap. I. p. 116 (1875) in adnot.; BENTH., Fl. Hongk. p. 113 (1861)

Melastoma calycinum, BENTH., in Hook. Lond. Journ. Bot. I. p. 485 (1842)

Melastoma Nobotan, BL., in Mus. Bot. Lugd. Bat. I. p. 54 (1849)

Melastoma candid urn, D. DON, var. *Nobotan*, MAK., in Journ. Jap. Bot. III. p. 40 (1926); MASAMUNE, Prel. Rep. Veg. Yak. p. 101 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 805 (1931)

Nom. Jap. *Nobotan*

Leg. Y. KUDO! Aug. 1907.

Distr. Amami-6sima, Okinawa, Taiwan, Bonins, China, Philippines.

Note. Dr. KUDO told me that he had once collected this species in the island, and so far as the present state of my knowledge is concerned, this plant has its northern limit in this island.

Osbeckia, LINN., Sp. Pl. ed. 1. p. 345 (1753);

ENDL., Gen. Pl. n. 6221 (1836-40); HOOK, f., in BENTH. et HOOK. f. Gen. Pl. I. p.

744 (1867); KRASSER, in ENGL. u. PRANT. Nat. Pfl.-fam. III. vii. p. 155 (1893);

LEMKE, Diet. Gen. Pl. Phan. IV. p. 923 (1932)

Syn. *Kadali*, ADANS., Fam. II. p. 234 (1763)

Osbeckia chinensis, LINN., Sp. Pl. ed. 1. p. 345 (1753); LOUR., Fl. Cochinch. p. 228 (1790); DC, Prodr. III. p. 141 (1824); Bot. Mag. t. 4026 (1843); BENTH., Fl. Hongk. p. 114 (1861J; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 200 (1867); TRIANA, in Trans. Linn. Soc. XXVIII. p. 53 (1871); FR. et SAV., Enum. Pl. Jap. I. p. 165 (1875); CLARKE, in HOOK. f. Fl. Brit. Ind. II. p. 515 (1876); FORB. et HEMSL., Ind. Fl. Sin. I. p. 299 (1887) ; COGN., in DC. Monogr. Phan. VII. p. 325 (1891); ITO et MATSUM., Tent. Fl. Lutch. I. p. 217 (1899); MATSUM. et HAY., Enum. Pl. Formos. p. 145 U9061 ; MATSUM., Ind. Pl. Jap. II. 2. p. 403 (1912); MERR., Enum. Hainan Pl. p. 128 ;1927>; MASAMUNE, Prel. Rep. Veg. Yak. p. 101 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 805 (1931)

Syn. *Osbeckia angustifolia*, DON, Prodr. Fl. Nep. p. 221 (1825); DC, Prodr. III. p. 142 (1828) ; BL., MUS. Bot. Lugd. Bat. I. p. 50 (1849)

Tristemma angusti folium, BL.; DC, Prodr. III. p. 144 (1828)

Osbeckia linearis, BL., in Flora. XIV. p. 473 (1831), et Mus. Bot. Lugd. Bat. I. p. 51, f. 19 (1849) ; MIQ., Fl. Ind. Bat. I. p. 519 (1855)

Osbeckia myrtifolia, BL., MUS. Bot. Lugd. Bat. I. p. 51 (1849)

Osbeckia japonica, NAUD., in Ann. Soc. Nat. Sér. III. XIV. p. 70 (1850)

Nom. Jap. *Hime-nobotan*

Leg. Ipse, Ambo. Aug. 12, 1928.

Distr. Honsyu, Sikoku, Kyushu, Tanegasima, Okinawa, Taiwan, China, Philippines.

Note. The species is found in waste lands at low altitudes, and is common in South Japan.

Bredia, BL., MUS. Bot. Lugd. Bat. I. p. 24, f. 4

(1849); HOOK, f., in BENTH. et HOOK. f. Gen. Pl. I. p. 753 (1867); KRASSER, in

ENGL. U. PRANT. Nat. Pfl.-fam. III. vii. p. 170 (1893); LEMKE, Diet. Gen. Pl. Phan.

I. p. 670 (1929)

Leg. Ipse, Ambô. Jul. 21, 1927.

Distr. Amami-6sima, Okinawa, Taiwan, China, Eastern India.

Note. The species is found in the laurisiivae or in the lower part of the lauriaciculisilvae, and has its northern limit in this island.

Blastus, *Bredia*, and *Melastoma* have their northern limit in this island and all three genera are found in the southern lands beyond Yakusima. Thus the island is included in the floral regions of Ryûkyû and Formosa, so far as the plants of *Melastomataceae* are concerned.

Circaeaceae

Circaeaceae, LIND., Synop. p. 109 (1829)

Syn. *Ongaraceae*, LINDL., Nat. Syst. ed. 2. p. 35 (1836) p.p.; RAIMANN, in ENGL. U. PRANT. Nat. Pfl.-fam. III. vii. p. 199 (1893) p.p.

Ludwigia, [LINN., Coroll. Gen. p. 3 (1737)] et Sp.

PL. ed. 1. p. 118 (1753); DC, Prodr. III. p. 60 (1828); ENDL., Gen. PL p. 1189 n. 6110 (1836-40); BENTH. et HOOK. f, Gen. PL. I. p. 788 (1867); RAIMANN, in ENGL. u. PRANT. Nat. Pfl.-fam. III. vii. p. 208 (1893)

Syn. *Ludwigia*, BURM., Fl. Ind. p. 36 (1768); LEMfE, Diet. Gen. PL. Phan. IV. p. 185 (1932)

Nematopyxis, MIQ., Fl. Ind. Bat. I. p. 600 (1855)

Ludwigia prostrata, ROXB., Hort. Beng. p. 11 (1814) nom., et Fl. Ind. I. p. 420 (1832); DC, Prodr. III. p. 59 (1828); WIGHT, Ic. PL. Ind. Or. t. 762 (1843-45); FR. et SAV., Enum. PL Jap. I. p. 169 (1875); C B. CLARKE, in HOOK. f. Fl. Brit. Ind. II. p. 588 (1879); FORB. et HEMSL., Ind. Fl. Sin. I. p. 309 (1887); ITO et MATSUM., Tent. Fl. Lutch. I. p. 500 (1899); MATSUM. et HAY., Enum. PL. Formos. p. 155 (1906); KOM., Fl. Mansh. III. p. 87 (1907); NAK., Fl. Kor. I. p. 239 (1909); MATSUM., Ind. PL. Jap. II. 2. p. 413 (1912); MERR., Enum. Philipp. PL. III. p. 139 (1922); MAK. et NEM., Fl. Jap. ed. 2. p. 813 (1931)

Syn. *Ludwigia diffuse*, HAM., in Trans. Linn. Soc. XIV. p. 301 (1824)

Nematopyxis prostrata, MIQ., Fl. Ind. Bat. I. i. p. 630 (1855)

Ludwigia epilobioides, MAXIM., Prim. Fl. Amur. p. 104 (1859)

Nematopyxis japonica, MIQ., in Ann. Mus. Bot. Lugd. Bat III. p. 95 (1867)

Nom. Jap. *Tydzitade*

Leg. Ipse, Aug. 11, 1928.

Distr. Honsyfl, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China, Philippines, Indo-China.

Note. The species is found on wet ground near the sea level, and is common in Japan.

Circaea, [TOURN., ex LINN. Syst. ed. 1 (1735), et Gen. PL. ed. 1. p. 3 (1737) et Sp. PL. ed. 1. p. 9 (1753); ENDL., Gen. PL. n. 6130

(1836-40, ; BENTH. et HOOK. f. Gen. Pl. I. p. 793 :1867 ; RAIMANN, in ENGL. U. PR ANT. Nat. Pfl.-fam. III. vii. p. 208 1893* ; LEMEE, Diet. Gen. Pl. Phan. II. p. 169 1930,

Circaea alpina, LINN., Sp. Pl. ed. 1. p. 9 1753. ; DC, Prodr. III. p. 63 (1828); GRAY, Bot. Jap. p. 389 1853 ; FR. SCHM., Fl. Sachal. p. 129 ;186S ; ; FR. et SAV., Enum. Pl. Jap. I. p. 170 ,1875 ; C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. II. p. 589 U879. ; FR., Pl. David. I. p. 134 ,1881 ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 310 1887, ; MIY., Fl. Kuril, p. 235 ,1890, ; KOM., Fl. Mansh. III. p. 93 (1907 ; ; NAK., Fl. Kor. I. p. 246 '1909' ; KOIDZ., Pl. Sachal. Nakah. p. 93 (1910;; MATSUM., Ind. Pl. Jap. II. 2. p. 404 (1912 ; TAKEDA, Fl. Shikotan. p. 467 (1914); MIY. et MIYAKE, Fl. Saghal. p. 181 11915-; KUDO, Fl. Paramush. p. 136 (1922) et Contr. North. Sagh. p. 47 '1923 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 102 (1929` ; HULT., Fl. Kamtchat. III. p. 151 ;1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 806 .193r

Nom. Jap. Miyama-tanidade

Leg. Ipse, Sept. 1, 1926.

Distr. Kamtchatka, Saghalien, Kuriles, Yezo, Honsyû, Sikoku, Korea, Manchuria, China, Himalaya, Europe, Asia Minor, North America.

Note. In the island it is found in the lauri-aculisilvae or in the Pseudosasa Owatarii Association from 1000 m up to 1803 m above the sea level. It is thought to be a circumpolar element and is distributed almost all over the northern hemisphere along high mountains.

Names of Plants	Regions															
	Philippines	Formosa	Himalayas	Okinawa	Yakusima	Ryukyus	Thais	Korea	Japan	Hokkaido	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria & Ussuri	China
<i>Ludwigia prostrata</i> , ROXB.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<i>Circaea alpina</i> , LINN.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

In respect of this family the flora of the island shows no special relation either with the southern or with the northern lands beyond Yakusima.

Halorrhagaceae

Halorrhagaceae, *Halorhagaccac*, LINUL., Veg. Kingd. p. 722 .1847,

Halorrhagis, FORST., Char. Gen. p. 61, t. 31 '1776); ENDL., Gen. Pl. n. 6138 [1836-10; BENTH. et HOOK, f., Gen. Pl. I. p. 674 .1865 ; PETERSEN, in ENGL. U. PRANT. Nat. Pfl.-fam. HI. vii. p. 232 ;1893; LEMEE, Diet. Gen. PL Phan. III. p. 430 '1931)

Syn. *Cercodia*, MURR., in Comm. Goelt. III. p. 1. t. 1 (1780)

Gonocarpus, THUNB., NOV. Gen. Pl. III. p. 55 (1783)

Halorrhagis micrantha, K. BR., in Flinders Voy. III. p. 550 (1814; ; SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 133 (1845.; HOOK, f., Fl. Tasman. I. p. 121 (1860-; BENTH., in Fl. Austr. II. p. 482 11864) ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 100 (1867) ; FR. et SAV., Enum. PL Jap. I. p. 164 (1874; ; C. B. CLARKE, in HOOK. f. FL Brit. Ind. II. p. 430 (1878, ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 292 (1887; ; ITO et MATSUM., Tent. Fl. Lutch. I. p. 471 ;1899 ; DIELS, FL Centr. Chin. p. 486 (19001; SCHINDLER, in ENGL. Pfl.-reich. IV. 225 (Heft. 23) p. 42, f. 12 (1905;; MATSUM. et HAY., Enum. PL Formos. p. 138 ;1906' ; NAK., FL Kor. I. p. 234 (1909; ; MATSUM., Ind. PL Jap. II. 2. p. 415 a912^v ; MERR., Enum. Philipp. PL III. p. 221 (1923]; MASAMUNE, Prel. Rep. Veg. Yak. p. 102 (1929; ; MAK. et NEM., FL Jap. ed. 2. p. 815 (1931)

Syn. *Gonocarpus micranthus*, THUNB., Nov. Gen. p. 55 ;1783; , et FL Jap. p. 69, t. 15 (1784)

Norn. Jap. Arinotôgusa

Leg. Ipse, Aug. 1924.

Distr. Yezo, Honsyû, Sikoku, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China, Philippines, India, Australia, New Zealand.

Note. The plant is found in damp but sunny places.

Name of Plant	Regions									
	I	1	1	1	Ryûkyûs	Kyûe				
<i>Halorrhagis micrantha</i> , R. BR.	+	+	+	+	+	+	+	+	+	+

From the above table it will appear that in respect of this family the flora of the island does not show any speciality in its phytogeographical position as regards either the southern or the northern lands beyond Yakusima.

Araliaceae

Fatsia, DECNE. et PLANCH., in Rev. Hort. 4 sér. III. p. 105 (1851) ; MIQ., in Ann. Mus. Bot. Lugd. Bat. I. p. 11 (1863); BENTH., in BENTH. et HOOK. f. Gen. Pl. I. p. 939 '1867 ; HARMS, in ENGL. U. PRANT. Nat. Pfl.-fam. III. viii. p. 33 '1891 ; LEMKE, Diet. Gen. Pl. Phan. III. p. 96 (1931)

Fatsia japonica, DECNE. et PLANCH., Rev. Hort. p. 105 1854, ; SEEM., in Journ. Bot. HI. p. 176 1865 ; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 158 1866 ; K. KOCH, Dendr. I. p. 677 '1869 ; FR. et SAV., Enum. Pl. Jap. I. p. 194 (1875); DIPPEL, Handb. Laubholzk. III. p. 239 1893 ; ITO et MATSUM., Tent. Fl. Lutch. I. p. 535 (1899) ; MATSUM., Ind. Pl. Jap. II. 2. p. 419 U912, ; ROLFE, in Bot. Mag. t. 8638 '1915, ; NAK., in Journ. Arnold. Arb. V. p. 16 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 102 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 820 (1931)

Syn. *Aralia japonica*, THUNB., Fl. Jap. p. 128 [1784]; WILLD., Sp. Pl. I. p. 1519 (1797); SPRENG., Syst. Veg. I. p. 951 '1825); DC, Prodr. IV. p. 258 (1830); SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 200 (1845)

Norn. Jap. Yatude

Leg. Ipse, Issô, Aug. 12, 1928.

Distr. Honsyû, Kyûsyû, Tanegasima, Amami-Ôsima, Okinawa.

Note. The species is found in the laurisilvae at low altitudes.

Agalma, MIQ., Fl. Ind. Bat. I. p. 751,1.11 (1855);

NAK., in Journ. Arnold. Arb. V. p. 19 1924,

Syn. *Sciodaphyllum*, P. BR., Hist. Jam. p. 190, t. 19 1756

Schefflera, FORST, Char. Gen. p. 45. t. 33 '1776 ; BENTH., in BENTH. et HOOK, f. Gen. Pl. I. p. 940 (1857); HARMS, in ENGL. u. PRANT. Nat. Pfl.-fam. III. viii. p. 35 (1894)

Heptapleurum, GAERTN., Fruct. II. p. 472, t. 178 '1791)

Sciadophyllum, BL., Bijdr. p. 875 ,1826;

Agalma lutchuense, NAK., in Journ. Arnold. Arb. V. p. 20 {1924)

Syn. *Heptapleurum octophyllum*, FORB. et HEMSL., Ind. Fl. Sin. I. p. 342 (1887) pi. ex Formos.; MATSUM. et HAY., Enum. Pl. Formos. p. 178 (1906) ; HAY., Fl. Mont. Formos. p. 107 1908- p.p., et Ic. Pl. Formos. II. p. 60 (1912); MAK. et NEM., Fl. Jap. ed. 2. p. 822 :193r

Schefflera octophylla, ' non HARMS, ITO et MATSUM., Tent. Fl. Lutch. I. p. 537 '1899 ; MATSUM., Ind. Pl. Jap. II. 2. p. 422 '1912 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 102 '1929

Norn* Jap. Hukanoki

Leg. Ipse, Nagatadake. Aug. 22, 1928.

Distr. Kyûsyû, Tanegasima, Amami-dsima, Okinawa, Taiwan.

Note. The species grows in the laurisilvae near the sea level.

Gilibertia, Ruiz, et PAV., Fl. Peru, et Chil.

Prodr. p. 50, t. 8 '1794 ; DC, Prodr. IV. p. 255 [1830 ; ENDL., Gen. Pl. n. 4554 '1836-40 ; BENTH., in BENTH. et HOOK. f. Gen. Pl. I. p. 944 '1867, ; HARMS, in ENGL. u. PRANT. Nat. Pfl.-fam. III. viii. p. 40 '1894 ; NAK., in Journ. Arnold. Arb. V. p. 22 '1924

Syn. *Ginannia*, F. G. DIETR., Vollst. Lex. Gaertn. IV. p. 357 '1801-

Dendropanax, DECNE. et PLANCH., in Rev. Hort. 4 sér. III. p. 107 (1854 ; MIQ., in Ann. Mus. Bot. Lugd. Bat. I. p. 26 1853 ; BENTH. et HOOK, f. Gen. Pl. I. p. 943 '1876;

Textoria, MIQ., in Ann. Mus. Bot. Lugd. Bat. I. p. 12 '1863;

Gilibertia trifida, MAK., in Tokyo Bot. Map. XV. p. 91 '1901; MATSUM., Ind. Pl. Jap. II. 2. p. 419 '1912; MORI, Enum. PL Cor. p. 266 '1922; NAK., in Journ. Arnold. Arb. V. p. 23 '1924; MASAMUNE. Prel. Rep. Veg. Yak. p. 102 (1929); MAK. et NEM., FL Jap. ed. 2. p. 821 '1931 i

Syn. *Acer trifidum*, THUNB., FL Jap. p. 163 1781; WILLDN., Sp. PL IV. p. 991 (18061; DC, Prodr. I. p. 595 (1824'; SPRENG., Syst. Veg. II. p. 224 (1825)
Hedera japonica, JUNGH., in Hoev. & De Vriese, Tijdschr. VII. p. 307 (1840)
Fatsia mitsude, DE VRIESE, C. KOCH et FINET, Wochenschr. II. p. 371 (1859)
Textoria japonica, MIQ., in Ann. Mus. Bot. Lugd. Bat. I. p. 12 (1863)
Dendropanax japonicus. SEEM., in Journ. Bot. II. p. 301 (1864J; FR. et SAV., Enum. PL Jap. I. p. 194 (1875)
Gilibertia japonica, HARMS, in ENGL. U. PRANT. Nat. Pfl.-fam. III. viii. p. 41 (1894^v; ITO et MATSUM., Tent. FL Lutch. I. p. 271 (1899)
Dendropanax trifidum, MAK., in Tokyo Bot. Mag. XV. p. 91 (1901)

Norn. Jap. *Kakuremino*

Leg. Ipse, Kosugidani, Aug. 18, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Korea.

Note. The species grows in the laurisilvae or in the lauri-aciculisilvae as one of the elements that compose these forests.

Hedera, [TOURN., Instit. Rei. Herb. pp. 384, 612 (1700)] LINN., Sp. PL ed. 1. p. 202 (1753'; DC, Prodr. IV. p. 261 (1830); ENDL., Gen. PL n. 4560 (1836-40; BENTH., in BENTH. et HOOK. f. Gen. PL I. p. 946 (1867) p.p.; HARMS, in ENGL. u. PRANT. Nat. Pfl.-fam. III. viii. p. 41 (1894); LEMEE, Diet. Gen. PL Phan. HI. p. 483 (1931)

Syn. *Helix*, MITCH., in Acta Acad. Nat. Cur. VIII. App. p. 224 (1784)

Hedera Tobleri, NAK., FL Sylv. Kor. XVI. p. 42 tt. 14-15 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 102 (1929,

Syn. *Hedera helix*, non LINN. 'THUNB., FL Jap. p. 102 '1784; FR. et SAV., Enum. PL Jap. I. p. 194 v 1875,

Hedera rhombea, SIEB. et ZUCC, FL Jap. Fam. Nat. I. p. 202 (1845) *rumen*; BEAN, Trees & Shrub. Brit. Ind. I. p. 609 ;1914-

Hedera Helix, var. *rhombea*, MIQ., in Ann. Mus. Bot. Lugd. Bat. I. p. 12 (1863); FR. et SAV., Enum. PL Jap. I. p. 194 '1875;

Hedera colchica, 'non KOCH SEEM., in Journ. Bot. II. p. 307 (1864) p.p.; HARMS, in ENGL. U. PRANT. Nat. Pfl.-fam. III. viii. p. 42 (1894) p.p.; NAK., FL Kor. I. p. 274 ,1909,

Hedera japonica, mon JUNGHUHN PAUL, in Gard. Chron. p. 1215 (1867;

Hedera Helix, var. *japonica*, LAV ALL., Arb. Segrez. p. 126 (1877j

Hedera Helix, var. *colchia*, MAK., in Tokyo Bot. Mag. VIII. p. 300 (1894:

Hedera japonica, TOBLER, Gatt. Hedera, p. 81, ff. 43-49 '1912'; Fedd.. Rep. Sp. Nov. XIII. p. 160 '1914; NAK., in Journ. Arnold. Arb. V. p. 25 (1924y; MAK. et NEM., FL Jap. ed. 2. p. 822 ;i931j

Norn. Jap. *Kizuta*

Leg. Ipse, Jul. 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Korea.

Note. This climbing plant is found in the laurisilvae or in the lauri-aciculisilvae.

Kalopanax, MIQ., in Ann. Mus. Bot. Lugd. Bat L p. 10 ;1863; p.p.; BENTH. et HOOK, f. Gen. PL 1. p. 939 '1867) p.p.; HARMS,

in ENGL. U. PRANT. Nat. Pfl.-fam. III. viii. p. 50 (1894) p.p.; NAK., in Journ. Arnold. Arb. V. p. 11 (1924', et Fl. Sylv. Kor. XVI. p. 33 (1927^N); LEMÉE, Diet. Gen. Phan. III. p. 838 (1931) p.p.

Kalopanax autumnalis, KOIDZ., in Tokyo Bot. Mag. XXXVII. p. 58 (1923); MASAMUNE, Prel. Rep. Veg. Yak. p. 102 (1929'; MAK. et NEM., Fl. Jap. ed. 2. p. 823 (1931)

Norn. Jap. Miyakodara

Leg. Ipse, Aug. 3, 1924.

Distr. Honsyû.

Note. It is one of the members which compose the lauri-aciculisilvae, and has its southern limit in this island.

Aralia, (TOURN.) LINN., Sp. Pl. ed. 1. p. 273 (1753); ENDL., Gen. Pl. n. 4558 (1836-401); BENTH. et HOOK, f., Gen. Pl. I. p. 936 (1867); HARMS, in ENGL. u. PRANT. Nat. Pfl.-fam. III. viii. p. 56 (1894); LEMÉE, Diet. Gen. Pl. Phan. I. p. 357 (1929)

Syn. *Aureliana*, LAFITTER, ex CATESBY, Nat. Hist. Carolina, App. p. 16 (1754)

Halagu, ADANS., Fam. II. p. 445 (1763)

Dimorphanthus, MIQ., Comm. Phytogr. p. 95 (1840)

Aralia elata, SEEM., in Journ. Bot. VI. p. 134 (1868'; HARMS, in ENGL. u. PRANT. Nat. Pfl.-fam. III. viii. p. 57 (1894); NAK., in Journ. Arnold. Arb. V. p. 30 (1924); MAK. et NEM., Fl. Jap. ed. 2. p. 819 (1931)

Syn. ***Dimorphanthus elatus*, MIQ., Comm. Phytogr. p. 95, t. 12 (1840)**

Aralia canescens, SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 202 (1845)

Dimorphanthus rmandshuricus, RUPRECHT et MAXIM., Prim. Fl. Amur. p. 133 (1859); SCHMIDT, Fl. Sachal. p. 141 (1868)

Aralia Manshurica, MAXIM., in Mém. Biolog. II. p. 427 (1857); KOM., Fl. Mansh. III. p. 123 (1907)

Aralia spinosa, Inon LINN.) MIQ., in Ann. Mus. Bot. Lugd. Bat. I. p. 7 (1863) P-P.

Aralia Mandchurica, SEEM., in Journ. Bot. VI. p. 134 (1868)

Aralia spinosa, var. *glabrascens*, FR. et SAV., Enum. Pl. Jap. I. p. 191 (1875)

Aralia chinensis, var. *canescens*, KOEHNE, in Deutsch, Dendr. p. 432 (1893); DIPPEL, Handb. III. p. 233 (1893) p.p.

Aralia chinensis, LINN.; NAK., Fl. Kor. I. p. 278 (1909)

Aralia chinensis, var. *glabrescens*, SCHNEIDER, III. Handb. Laubh. II. p. 431 (1911) p.p.; MATSUM., Ind. PL Jap. II. 2. p. 418 (1912); MIURA, List PL Manch. & Mong. p. 268 (1925'; MASAMUNE, Prel. Rep. Veg. Yak. p. 102 (1929)

Nom. Jap. Taranoki

Leg. Ipse, Aug. 11, 1928.

Distr. Saghalien, Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Korea, Manchuria, Usuri.

Note. The species is found in the laurisilvae or in the lauri-aciculisilvae, and especially frequently in clearings as a pioneer.

***Kalopanax autumnalis* has its southern limit in this island, while some other elements are not found in Formosa. From this point one may deduce that the island has some relation with the northern**

Names of Plants	Regions														
	Itz	Sh	O	Amami	Tanegasima	Kyûsû Prop.	Sikoku	Honsyû	Korea	Yezû	Southern Kuriles	Saghalin	Norther	Manchu	China
Fatsia japonica, DECNE. et PLANCH.			+	+	+	+	+	+							
Agalma lutchuense, NAK.	+		+	+	+	+									
Gilibertia trifida, MAK.			+	+	+	+	+	+	+						+
Hedera Tobleri, NAK.			+	+	+	+	+	+	+						
Kalopanax autumnalis, KOIDZ.								+							
Aralia elata, SEEM.			+	+	+	+	+	+	+	+	+	+			+
Total	6		1	5	5	5	5	4	5	3	1	1			1
Percentage.			17	83	83	83	83	67	83	50	17	17			17
(Southern elements 5)								(Northern elements 6)							

lands in respect of this family.

Apiaceae

Apiaceae, LINDL., Nat. Syst. ed. 2. p. 21 (1836), et Veg. Kingd. ed. 3. p. 773 (1853)
Syn. *Umbelliferae*, Juss., Gen. p. 218 (1789); BENTH., in BENTH. et HOOK f. Gen. PI. I. p. 850 U867 J

Hydrocotyle, [TOURN., ex LINN. Syst. ed. 1 (1735J] et Sp. PI. ed. 1. p. 234 (1753); DC, Prodr. IV. p. 59 (1830); ENDL., Gen. PL n. 4355 (1836-40); BENTH., in BENTH. et HOOK. f. Gen. PI. I. p. 872 (1867); DRUDE, in ENGL. U. PRANT. Nat. Pfl.-fam. III. viii. p. 116 (1897); LEMfE, Diet. Gen. PL Phan. III. p. 688 (1931)

Hydrocotyle dichondroides, MAK., in Tokyo Bot. Mag. XXIV. p. 242 (1910); MAK. et NEM., Fl. Jap. ed. 2. p. 841 (1931)

Norn. Jap. *Ketidome*

Leg. Ipse, Ambô, Aug. 1931.

Distr. KyGsyû.

Note. The species is found in waste land near the sea level and is not found in lands further south than this island.

Hydrocotyle javanica, THUNB., Diss. Hydrocot. n. 17 t. 2 (1798)

var. **laxa**, MASAMUNE, in Journ. Trop. Agr. IV. p. 300 (1932)

Syn. *Hydrocotyle javanica*, THUNB.; MATSUM., Ind. PI. Jap. II. 2. p. 435 (1912) p.p.; MASAMUNE, Prei. Rep. Veg. Yak. p. 103 (1929; ; MAK. et NEM., Fl. Jap. ed. 2. p. 842 (1931) p.p.

Nom. Jap. *Obatidomegusa*

Leg. Ipse, Jul. 25, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Amami-6sima, Okinawa, Taiwan, Korea, China, Philippines, India.

Note. The species is found as undergrowth in the laurisilvae or in the lauri-aciculisilvae.

Hydrocotyle nitidula, A. RICH., in Ann. Soc. Phys. IV. p. 200 (1820; MASAMUNE, Prel. Rep. Veg. Yak. p. 103 (1929; ; MAK. et NEM., Fl. Jap. ed. 2. p. 842 (1931)

Syn. *Hydrocotyle rotundifolia*, var. *pauciflora*, YABE, Rev. Umb. Jap. p. 14 (1902)

Hydrocotyle Yabei, MAK., in Tokyo Bot. Mag. XXIV. p. 243 (1910)

Norn. Jap. *Hime-tidome-gusa*

Leg. Ipse, Jul. 23, 1928.

Distr. Honsyū, Kyūsyū, Tanegasima.

Note. The species is found in wet ground near small streams in the laurisilvae or in the lauri-aciculisilvae. It has its southern limit in this island.

Hydrocotyle sibthorpioides, LAM., Encycl. III. p. 153 U789 ; MORI, Enum. PI. Cor. p. 271 (1922); MERR., Enum. Philipp. PI. III. p. 237 '1923*'; MASAMUNE, Prel. Rep. Veg. Yak. p. 103 (1929; ; NAK., in Bull. Biogeogr. Soc. Jap. I. p. 261 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 842 (1931)

Syn. *Hydrocotyle rotundifolia*, ROXB., Hort. Beng. p. 21 (1814), et Fl. Ind. ed. 2. II. p. 88 (1832); DC, Prodr. IV. p. 64 (1830); WIGHT, Ic. PI. Ind. Or. t. 564 (1847); BENTH., Fl. Hongk. p. 134 (1861); C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. II. p. 668 (1879; ; MAXIM., in Mém. Biolog. XII. p. 461 (1886); FORB. et HEMSL., Ind. Fl. Sin. I. p. 325 '1887; ; ITO et MATSUM., Tent. Fl. Lutch. I. p. 259 (1899; ; YABE, Rev. Umb. Jap. p. 12 (1902); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 116 (1912)

Nom. Jap. *Tidomegusa*

Leg. Ipse, Aug. 21, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Bonins, Korea, China, Philippines, India.

Note. The species is found in cultivated or waste lands near the sea level.

Hydrocotyle Wilfordi, MAXIM., in Mém. Biolog. XII. p. 463 (1886; ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 326 '1887 ; PALIB., Consp. Fl. Kor. I. p. 96 (1898); YABE, Rev. Umb. Jap. p. 14 (1902; ; NAK., Fl. Kor. I. p. 253 (1909; ; MATSUM., Ind. PI. Jap. II. 2. p. 436 (1912 ; DUNN et TUTCH., Fl. Kwangt. & Hongk. p. 116 (1912); MORI, Enum. PI. Cor. p. 271 (1922-; MASAMUNE, Prel. Rep. Veg. Yak. p. 103 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 842 (1931)

Nom. Jap. *No-tidome*

Leg. Ipse, Jul. 7, 1928.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Korea, China.

Note. The species is found in cultivated lands or in waste lands at low altitudes.

Centella, LINN., Pl. Rar. Afr. p. 28 (1760); DC, Prodr. IV. p. 68 (1830; ; ENDL., Gen. Pl. n. 4355b. (1836-40; ; BENTH., in BENTH.

et HOOK. f. Gen. PL I. p. 873 (1867); DRUDE, in ENGL. U. PRANT. Nat. Pfl.-fam. III. viii. p. 119 (1897); LEMÉE, Diet. Gen. Pl. Phan. II. p. 12 (1930)

Syn. Glyceria, NUTT., Gen. Amer. I. p. 177 (1818)

Centella asiatica, URB., Mart. Fl. Brass. XI. 1. p. 287 (1879; DRUDE, in ENGL. u. PRANT. Nat. Pfl.-fam. III. viii. p. 119 (1897); YABE, Rev. Umb. Jap. p. 16 (1902); NAK., Fl. Kor. I. p. 252 (1909, et in Bull. Biogeogr. Soc. Jap. I. p. 261 (1930); MATSUM., Ind. Pl. Jap. II. 2. p. 430 (1912; MORI, Enum. PL Cor. p. 270 (1922); MERR., Enum. Philipp. PL III. p. 238 (1923; MASAMUNE, Prel. Rep. Veg. Yak. p. 103 (1929); YAMAZUTA, List Manch. PL p. 208 (1930); MAK. et NEM., FL Jap. ed. 2. p. 836 (1931)

Syn. Hydrocotyle asiatica, LINN., Sp. Pl. ed. 1. p. 234 (1753); WILLD., Sp. PL I. p. 1352 (1797); AITON, Hort. Kew. II. p. 118 (1811); A. RICH., Monogr. p. 40. n. 15, f. 11 (1820); SPR., Syst. Veg. I. p. 875 (1825); DC, Prodr. IV. p. 62 (1830); WIGHT, Ic. PL Ind. Or. p. 565 (1843); BENTH., FL Hongk. p. 134 (1861); MIQ., in Ann. Mus. Bot. Lugd. Bat. HI. p. 55 (1867); FR. et SAV., Enum. PL Jap. I. p. 178 (1875); C. B. CLARKE, in HOOK. f. FL Brit. Ind. II. p. 669 (1879); HEMSL., in Rep. Voy. Challeng. Bot. Atl. Isl. p. 35 (1885); FORB. et HEMSL., Ind. Fl. Sin. I. p. 324 (1887); ITO et MATSUM., Tent. Fl. Lutch. I. p. 257 (1899); MATSUM. et HAY., Enum. PL Formos. p. 169 (1906); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 116 (1912)

Hydrocotyle ficarioides, LAM., Encycl. III. p. 152 (1789)

Trisanthus cochinchinensis, LOUR., FL Cochinch. ed. WILLDN. p. 219 (1793)

Hydrocotyle nummularioides, A. RICH., Monogr. p. 36 n. 11. f. 9 (1820); SPR., Syst. Veg. I. p. 875 (1825; DC, Prodr. IV. p. 63 (1830)

Norn. Jap. Tubokusa

Leg. Ipse, April. 1927.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Csima, Okinawa, Bonins, Taiwan, Korea, Manchuria, China, Phillipines.

Note. This is a widely distributed species in the warmer regions, and in Yakusima it is found in waste or cultivated lands near the sea level.

Sanicula, [TOURN., ex LINN. Syst. ed. 1 (1735)]

et Sp. PL ed. 1. p. 235 (1753; DC, Prodr. IV. p. 84 (1830); ENDL., Gen. PL n. 4382 (1836-40; BENTH., in BENTH. et HOOK. f. Gen. PL I. p. 880 (1867); DRUDE, in ENGL. u. PRANT. Nat. Pfl.-fam. III. viii. p. 137 (1897); WOLFF., in ENGL. Pfl.-reich. IV. 228. (Heft 61) p. 48 (1913)

Sanicula data, HAMILT. var. **japonica**, KOIDZ., in Tokyo Bot. Mag. XLIV. p. 95 (1930); MAK. et NEM., FL Jap. ed. 2. p. 850 (1931)

Syn. Sanicula canadensis, (non LINN.) THUNB., FL Jap. p. 116 (1784)

Sanicula japonica, SIEB., Syn. PL Oec. p. 46 (1830)

Sanicula chinensis, BUNGE, Enim. PL Chin. Bor. n. 189 (1831); PALIB., Consp. FL Kor. I. p. 96 (1898;

Sanicula elata, (non HAMILT.) FR. et SAV., Enum. PL Jap. I. p. 178 (1875); KOM., FL Mansh. III. p. 130 (1907; NAK., FL Kor. I. p. 253 (1909)

Sanicula europaea, (non LINN.) KURZ, in Journ. As. Soc. II. p. 114 (1877); FORB. et HEMSL., Ind. Fl. Sin. I. p. 326 (1887; YABE, Rev. Umb. Jap. p. 19 (1902)

Sanicula europaea, LINN. var. *elata*, MAK., in Inuma Somoku-Dzusetsu ed. 3. I. p. 37 (1907, et in Tokyo Bot. Mag. XXII. p. 176 (1908; MATSUM., Ind.

Pl. Jap. II. 2. p. 442 (1912); MIY. et MIYAKE, Fl. Sagh. p. 185 (1915);
MASAMUNE, Prel. Rep. Veg. Yak. p. 104 (1929)

Norn. Jap. Uma-no-mituba

Leg. Ipse, Jul. 9, 1928.

*Distr. Saghalien, Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Korea, Manchuria,
China.*

Note. It grows as undergrowth in the laurisilvae and has its southern limit in this island.

Sanicula satsumana, MAXIM., in Mém. Biolog. XII. p. 465 (1886); ITO et MATSUM., Tent. Fl. Lutch. I. p. 528 (1899); YABE, Rev. Umb. Jap. p. 21 (1902); MATSUM. et HAY., Enum. Pl. Formos. p. 175 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 443 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 104 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 850 (1931)

Norn. Jap. Hime-umano-mitubu

Leg. Ipse, Kusugawa, Mart. 1923.

Distr. Kyûsyû, Tanegasima, Amami-Ôsima, Okinawa, Taiwan.

Note. The species grows as undergrowth in the lauri-aciculisilvae.

Osmorrhiza, RAF., in Amer. Monthly Magaz. II. p. 176 (1818) et in Journ. Phys. LXXIX. p. 257 (1819); DC, Prodr. IV. p. 232 (1830); ENDL., Gen. Pl. n. 4515 (1836-40); BENTH., in BENTH. et HOOK. f. Gen. Pl. III. p. 897 (1867); DRUDE, in ENGL. U. PRANT. Nat. Pfl.-fam. III. viii. p. 153 (1897); LEMÉE, Diet. Gen. Pl. Phan. IV. p. 928 (1932)

Syn. Uraspermum, NUTT., Gen. Amer. I. p. 192 (1818)

Osmorrhiza aristata, MAK. et YABE, in Tokyo Bot. Mag. XVII. p. 14 (1903); NAK., Fl. Kor. II. p. 490 (1911); MATSUM., Ind. Pl. Jap. II. 2. p. 439 (1912); MASAMUNE, Prep. Rep. Veg. Yak. p. 104 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 845 (1931)

Syn. Cherophyllwn aristatum, THUNB., Fl. Jap. p. 119 (1784); WILLDN., Sp. Pl. I. p. 1454 (1797); DC, Prodr. IV. p. 228 (1830)

Myrrhis aristata, SPRENG., Umb. Sp. p. 133 (1818), et Syst. Veg. I. p. 902 (1825); SCHULT., Syst. Veg. VI. p. 512 (1820)

Osmorhiza japonica, SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 203 (1845); FR. et SAV., Enum. Pl. Jap. I. p. 183 (1875); MAXIM., in Mém. Biolog. XII. p. 469 (1886); DRUDE, in ENGL. u. PRANT. Nat. Pfl.-fam. III. viii. p. 153 (1897); YABE, Rev. Umb. Jap. p. 23 (1902)

Osmorhiza longistylis, A. GRAY, in Narr. Perry's Exped. II. p. 312 (1856), et Bot. Jap. p. 391 (1858); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 64 (1867)

Uraspermum arista turn, O. KUNTZE, Rev. Gen. Pl. I. p. 270 (1891)

Norn. Jap. Yabuninjin

Leg. Y. KUDO! Aug. 1907.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Korea.

Note. This species is found as undergrowth in forests or bushes at low altitudes, and has its southern limit in this island.

Torilis, ADANS., Fam. II. p. 99 (1763); DC, Prodr. IV. p. 218 (1830); ENDL., Gen. Pl. n. 4503 (1836-40); BENTH., in BENTH. et HOOK. f. Gen. Pl. I. 3. p. 923 (1867); DRUDE, in ENGL. u. PRANT. Nat. Pfl.-fam. III. viii. p. 155 (1897)

Torilis anthriscus, GMEL., Fl. Bad. I. p. 613 (1805); SFR., Syst. Veg. I. p. 898 (1825); DC, Prodr. IV. p. 218 (1830); WIGHT et ARN., Prodr. Fl. Pen. Ind. Or. I. p. 374 (1834); FORB. et HEMSL., Ind. Fl. Sin. I. p. 337 (1887); DIELS, Fl. Centr. Chin, p. 492 (1900); YABE, Rev. Umb. Jap. p. 25 (1902), et Enum. Pl. Manch. p. 102 (1912); MATSUM. et HAY., Enum. Pl. Formos. p. 174 (1906); MATSUM., Ind. Jap. II. 2. p. 444 (1912); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 118 (1912); MAK. et NEM., Fl. Jap. ed. 2. p. 852 (1931)

Syn. *Caucalis anthriscus*, SCOP, "Fl. Cam. (1760) "

Caucalis japonica, HOUTT., Pfl.-Syst. VIII. p. 42, t. 45 f. 1 (1777); SPRENG., Syst. Veg. I. p. 896 (1825); FR. et SAV., Enum. Pl. Jap. I. p. 190 (1875)

Chaerophyllum scabrunum, THUNB., Fl. Jap. p. 119 (1784)

Torilis japonica, DC, Prodr. IV. p. 219 (1830); HOOK, et ARNOT., Bot. Capt. Beech. Voy. pp. 189, 264 (1836-40); GRAY, in Narr. Perr. Exped. p. 312 (1856); FR., Pl. David, p. 145 (1884); NAK., Fl. Kor. I. p. 255 (1909); MASAMUNE, Prel. Rep. Veg. Yak. p. 104 (1929)

Caucalis anthriscus, ITO et MATSUM., Tent. Fl. Lutch. I. p. 532 (1899)

Nom. Jap. *Yabuzirami*

Leg. Ipse, Jun. 14, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China.

Note. The species is found in waste lands at low altitudes.

Cryptotaenia, DC, Mém. Fam. Umbelif. p. 42 (1829), et Prodr. IV. p. 118 (1830); ENDL., Gen. Pl. n. 4409 (1836-40); BENTH., in BENTH. et HOOK. f. Gen. Pl. I. p. 896 (1867); DRUDE, in ENGL. U. PRANT. Nat. Pfl.-fam. III. viii. p. 189 (1897); LEMKE, Diet. Gen. Pl. Phan. II. p. 401 (1930)

Syn. *Deringia*, ADANS., Fam. II. p. 498 (1763)

Deeringia, O. KUNTZE, Rev. Gen. Pl. I. p. 266 (1891)

Cryptotaenia japonica, HASSK., in Retzia, I. p. 113 (1855); MAXIM., in Mém. Biolog. XII. p. 467 (1886); ITO et MATSUM., Tent. Fl. Lutch. I. p. 528 (1899); YABE, Rev. Umb. Jap. p. 39 (1902); NAK., Fl. Kor. I. p. 258 (1909); MAK. et NEM., Fl. Jap. ed. 2. p. 840 (1931)

Syn. *Sison canadense*, (non LINN.) THUNB., Fl. Jap. p. 118 (1784)

Cryptotaenia canadensis, (non DON!) SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 203 (1845); FR. et SAV., Enum. Pl. Jap. I. p. 182 (1875)

Cryptotaenia canadensis, (non DC); HANCE, in Journ. Bot. p. 340 (1865) et p. 276 (1870); FORB. et HEMSL., Ind. Fl. Sin. I. p. 329 (1887); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 117 (1912)

Cryptotaenia canadensis, DC. var. *japonica*, MAK., in Tokyo Bot. Mag. XXII. p. 175 (1908); MASAMUNE, Prel. Rep. Veg. Yak. p. 103 (1929)

Mom. Jap. *Mituba*

Leg. Ipse, Jul. 20, 1927.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Okinawa, Korea, China.

Note. The species is found in the laurisilvae in the submountain region.

Oenanthe, [TOURN. ex LINN. Syst. ed. 1. U735] et Sp. Pl. ed. 1. p. 254 (1753); DC, Prodr. IV. p. 136 (1830); ENDL., Gen. Pl. n. 4418a (1836-40); BENTH., in BENTH. et HOOK. f. Gen. Pl. I. p. 95 (1867); DRUDE, in ENGL. U. PRANT. Nat. Pfl.-fam. III. viii. p. 204 (1897); LEMKE, Diet. Gen. Pl. Phan. IV. p. 816 (1932)

Syn. *Actinanthus*, EHRENB., in Linn. IV. p. 398 (1829)

Oenanthe stoionifera, WALL., Cat. n. 585 1828 ; DC, Prodr. IV. p. 138 1830 ; WIGHT, Ic. Ind. Or. t. 571 1843 ; FR. et SAV., Enum. PL Jap. I. p. 183 (1875) ; C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. II. p. 696 1879 ; FR., PL David. I. p. 140 (1884) ; MAXIM., in Engl. Bot. Jahrb. VI. p. 61 1885 ; FORB. et HEMSL., Ind. FL Sin. I. p. 331 1887 ; HEMSL. et COLL., in Journ. Linn. Soc. XXVIII. p. 61 1890 ; ITO et MATSUM., Tent. Fl. Lutch. I. p. 262 1899 ; DIELS, FL Centr. Chin. p. 498 1900 ; YABE, Rev. Umb. Jap. p. 54 1902 ; MATSUM. et HAY., Enum. PL Formos. p. 173 1906 ; KOM., FL Mansh. III. p. 198 1907 ; NAK., FL Kor. I. p. 262 1909 ; MATSUM., Ind. PL Jap. II. 2. p. 438 1912 ; DUNN et TUTCH., FL Kwang. & Hongk. p. 117 1912 ; MERR., Enum. Hainan PL p. 141 1927 ; MASAMUNE, Prel. Rep. Ve.c. Y-ik. p. 104 1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 844 1931,

Syn. *Oenanthe javanica*, DC, Prodr. IV. p. 138 1830 ; ZOLLING., Syst. Verz. Ind. Arch. Sam. Jap. Emph. Pfl. II. p. 189 1855 ; MIQ., Cat. Fl. Jap. p. 41 1870,

Phellandrum stolonifcrum, ROXB., FL Ind. II. p. 93 1832.

Dasyloma subbipinnatutn, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 59 (1867)

Norn. Jap. Seri

Leg. Ipse, Jun. 6, 1928.

Dieti. Yezo, Honsyu, Sikoku, Kyûsyû, Tanegasima, Amami-Osima, Okinawa, Taiwan, Korea, Manchuria, China.

Note. Grows in somewhat wet places; common in Japan.

Chairaele, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 59 1867 ; DRUDE, in ENGL. u. PRANT. Nat. Pfl.-fam. III. viii. p. 207 1891 ; LEMÉE, Diet. Gen. PL Phan. II. p. 74 1930-

Chamaela decumbens, MAK. var. *micrantha*, MASAMUNE, in Journ. Trop. Arg. IV. p. 76 1932;

Norn. Jap. Yakusima-sentôso

Leg. Ipse, Jun. 11, 1928.

Distr. Endemica. *Species* Honsyû, Sikoku, Kyûsyû

Note. The variety is found as undergrowth in the laurisilvae at low altitudes.

Cnidium, CUSSON, ex DC. Prodr. IV. p. 152 1830 ; ENDL., Gen. PL n. 4436 1836-40 ; BENTH., in BENTH. et HOOK. f. Gen. PL I. p. 914 1867. ; DRUDE, in ENGL. u. PRANT. Nat. Pfl.-fam. III. viii. p. 210 (1897)
Syn. *Gnidum*, G. DON, in London Hort. Brit. p. 107 1830)

Cnidium longeradiatum, YABE, Rev. Umb. Jap. p. 61 1902 ; MATSUM., Ind. PL Jap. II. 2. p. 433 1912. ; MASAMUNE, Prel. Rep. Veg. Yak. p. 103 1929 ; MAK. et NEM., FL Jap. ed. 2. p. 838 1931

Syn. *Selinum longeradiatum*, MAXIM., in Meï. Biolog. XII. p. 469 1886 ; MAK., in Tokyo Bot. Mag. XIV. p. 33 1900

Norn. Jap. Tukusi-zeri

Leg. Ipse, Miyanouradake, Aug. 31, 1926.

Distr. Honsyû, Kyûsyû.

Note. This species is found on sandy open places in the *Pseudosasa Owatarii Associati*, and is not reported further south than this island.

Angelica, [KEV., ex LINN. Syst. ed. 1 (1735) et Sp. PL ed. 1. p. 250 1753 ; DC, Prodr. IV. p. 167 1830 ; ENDL., Gen. PL n.

4456 ;1836-40) ; BENTH., in BENTH. et HOOK. f. Gen. PL I. p. 916 (1867) ; DRUDE, in ENGL. u. PRANT. Nat. Pfl.-fam. III. viii. p. 219 (1897) ; LEMÉE, Diet. Gen. PI. Phan. II. p. 264 (1929)

Syn. Gingidium, FORST, Char. Gen. p. 41. t. 21 (1776)

Angelica kiusiana, MAXIM., in Mel. Biolog. IX. p. 14 (1873) ; FR. et SAV., Fnum. PI. Jap. I. p. 187 118751; FORB. et HEMSL., Ind. Fl. Sin. I. p. 334 11887; BRETSCHNEIDER, Hist. Europ. Bot. Disc. Chin. p. 596 (1898); ITO et MATSUM., Tent. Fl. Lutch. I. p. 531 11899) ; YABE, Rev. Umb. Jap. p. 78 (1902) ; NAK., Fl. Kor. I. p. 269 (1909) ; MATSUM., Ind. PI. Jap. II. 2. p. 424 (1912) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 103 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 830 (1931)

Syn. Angelica Sieboldi, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 61 (1867)

Norn. Jap. Oniudo

Leg. Ipse, Nakama, Mart. 23, 1923.

Distr. Honsyû, Sikoku, Kyûsyû, Okinawa, Korea.

Note. This is a psammophyte which is found on sea beaches, and is common in Japan proper, but is not yet reported further south than Yakusima.

Glehnia, F. SCHMIDT, ex MIQ., in Ann. Mus.

Bot. Lugd. Bat. III. p. 61 (1867) ; LEMSE, Diet. Gen. PI. Phan. III. p. 265 (1931)^

Syn. Phclloptcrus, BENTH., in BENTH. et HOOK. f. Gen. PI. I. p. 905 (1867)

Glehnia littoralis, F. SCHMIDT, ex MIQ. in Ann. Mus. Bot. Lugd. Bat. III. p. 61 (1867)

Syn. Cynioptcrus littoralis, A. GRAY, Bot. Jap. p. 391 (1858)

Pelloptcrus littoralis, BENTH., in BENTH. et HOOK. f. Gen. PI. I. p. 905 (1867) ; FR. SCHM., Fl. Saghal. p. 138 (1868); FR. et SAV., Enum. PI. I. p. 185 (1875) ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 331 (1887) ; ITO et MATSUM., Tent. Fl. Lutch. I. p. 262 (1899) ; YABE, Rev. Umb. Jap. p. 93 (1902) ; KOM., Fl. Mansh. III. p. 174 (1907) ; NAK., Fl. Kor. I. p. 272 (1909); MATSUM., Ind. PI. Jap. II. 2. p. 441 U912) ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 117 (1912) ; MIY. et MIYAKE, Fl. Sagh. p. 192 (1915); MASAMUNE, Prel. Rep. Veg. Yak. p. 104 (1929) ; HULT., Fl. Kamtch. III. p. 171 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 848 (1931) ; TATEWAKI, Phytog. Midd. Kuril, pp. 206, et 232 (1932)

Nom. Jap. Hama-bôhu

Leg. Ipse, Ambô, Jul. 19, 1928.

Distr. Kamtchatka, Northern & Southern Kuriles, Saghalien, Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China.

Note. This psammophyte is found on sandy sea beaches, and is common throughout Japan.

Peucedanum, [TOURN., ex LINN. Syst. ed. 1

(1735, et Gen. PI. ed. 1. p. 74 (1737)] et Sp. PI. ed. 1. p. 244 (1753) ; DC., Prodr. IV. p. 176 (1830); ENDL., Gen. PI. n. 4462 (1836-40) ; BENTH., in BENTH. et HOOK. f. Gen. PI. I. pp. 918, 921 (1867); DRUDE, in ENGL. u. PRANT. Nat. Pfl.-fam. III. viii. p. 235 (1897)

Syn. Oreosclinum, TOURN., ex ADANS., Fam. II. p. 100 (1763)

Peucedanum japonicum, THUNB., Fl. Jap. p. 117 (1784) ; SPRENG., Syst. I. p. \$11 a825) ; DC, Prodr. IV. p. 182 (1830) ; FR* et SAV., Enum. PI. Jap. I. p. 189 (1875); ITO et MATSUM., Tent. Fl. Lutch. I. p. 264 (1899) ; YABE, Rev. Umb. Jap. p. 95 U902) ;

MATSUM. et HAY., Enum. Pl. Formos. p. 174 (1906) ; NAK., Fl. Kor. I. p. 266 (1909); MASAMUNE, Prel. Rep. Veg. Yak. p. 104 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 847 U931^

Syn. *Ligusticum acutilobum*, (non SIEB. et ZUCC.) MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 60 (1867)

Names of Plants	Regions																
	X	£	M	H	O	Amami-Ōshima	Tanegasima	Kyūshū	Sikoku	Honshū	Korea	Yezo & Soho	Kuril	Saghalien	Northern Kuriles & Kamchatka	Manchuria, Aru & Usuri	China
<i>Hydrocotyle dichondroides</i> , MAK.								+									
<i>Hydrocotyle javanica</i> , THUNB. var. <i>laxa</i> , MASAMUNE	+		+	+	+	+	+	+	+	+	+	+					+
<i>Hydrocotyle nitidula</i> , A. RICH.							+	+		+							
<i>Hydrocotyle sibthorpioides</i> , LAM	+	+	+	+	+	+	+	+	+	+	+	+					+
<i>Hydrocotyle Wilfordi</i> , MAXIM						+	+	+	+	+	+	+					+
<i>Centella asiatica</i> , URB	+	+	+	+	+	+	+	+	+	+	+	+				+	+
<i>Sanicula elaterea</i> , HAMILT. var. <i>japonica</i> , KOIDZ.							+	+	+	+	+	+	+	+		+	+
<i>Sanicula satsumana</i> , MAXIM.				+	+	+	+	+									
<i>Osmorrhiza aristata</i> , MAK. et YAB.								+	+	+	+	+					
<i>Torilis anthriscus</i> , GMEL.			+	+	+	+	+	+	+	+	+	+				+	+
<i>Cryptotaenia japonica</i> , HASSK.					+			+	+	+	+	+					+
<i>Oenanthe stolonifera</i> , DC.			+	+	+	+	+	+	+	+	+	+				+	+
<i>Chamaele decumbens</i> , MAK. var. <i>micrantha</i> , MASAMUNE																	
<i>Cnidium longeradiatum</i> , YABE								+		+							
<i>Angelica kiusiana</i> , MAXIM.								+	+	+	+						
<i>Glehnia littoralis</i> , F. SCHMIDT			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<i>Peucedanum japonicum</i> , THUNB.			+	+	+			+	+	+	+	+					
Total	17	13	2	8	10	9	10	16	12	14	12	7	2	1	5	9	
Percentage	>18	12	14	59	53	59	94	71	82	71	41	12	6	29	53		

(Southern elements 11)

(Northern elements 16)

Norn. Jap. Botan-bôhu .

Leg. Ipse, Jul. 14, 1922.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-6sima, Okinawa, Taiwan, Korea.

Note. The species grows on rocky ground near the seashore, and is common in South Japan.

When we take the distribution of the plants of *Apiaceae* indigenous to this island into consideration, we naturally come to the conclusion that the island has many connection with the northern floral lands beyond Yakusima.

Cornaceae

Cornaceae, LINK, Handb. II. p. 2 (1831); BENTH., in BENTH. et HOOK. f. Gen. PI. I. p. 947 (1867)

Cynoxylon, RAF., Alsogr. Amer. p. 59 (1838);

Nak., Fl. Sylv. Kor. XVI. p. 67 (1927)

Syn. Cornus, [TOUR., Inst. Herb. p. 641, t. 410 (1700;] LINN., Sp. PI. ed. 1. p. 117 (1753) partim.

Benthamia, LINDL., Bot. Regist. XIX. t. 1576 (1833) p.p.

Cynoxylon **japonica**, var. *typica*, NAK., FL Sylv. Kor. XVI. p. 70 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 104 (1929)

Syn. Benthamia japonica, SIEB. et ZUCC, Fl. Jap. I. p. 38, t. 16 (1836); BENTH., Fl. Hongk. p. 138 (1861); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 159 (1865)

Cornus Kousa, BUERGER, ex MIQ. in Ann. Mus. Bot. Lugd. Bat. II. p. 159 (1866); HANCE, in Journ. Linn. Soc. XIII. p. 105 (1873); FR. et SAV., Enum. PI. Jap. I. p. 196 (1875); HARMS., apud DIELS Fl. Cent. Chin. p. 506 (1901); SCHNEID., Ill. Handb. Laubholz. II. p. 454, ff. 301 n-q, 302 g (1909); NAK., Fl. Kor. I. p. 280 (1909); W. WANGERIN, in ENGL. Pfl.-reich. IV. 229 (Heft 88) p. 88 (1910); MATSUM., Ind. PI. Jap. II. 2. p. 446 (1912); REHDER, in SARGENT, Pl. Wils. II. p. 577 (1916); CHUN., Cat. Tree. & Shrub. Chin. p. 190 (1924); MAK. et NEM., Fl. Jap. ed. 2. p. 854 (1931)

Cynoxylon kousa, (BUERGER) NAK., apud MORI, Enum. PI. Cor. p. 275 (1922)

Nom. Jap. Yama-bôsi

Leg. Ipse, Mont. Isizuka, Jul. 10, 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-Osima, Okinawa, Korea, China.

Note. It grows from 1000 m up to 1800 m above the sea level and is not yet found in Formosa. It has its southern limit in Iriomote Island.

HelwinKia, WILLD., Sp. PI. IV. 2. p. 716 (1806);

ENDL., Gen. PL n. 2090 (1836-40); BENTH. et HOOK. f., Gen. PI. I. p. 939 (1867);

DC, Prodr. XVI. 2. p. 680 (1868); HARMS, in ENGL. u. PRANT. Nat. Pfl.-fam. III. viii. p. 263 (1897); LEMfE, Diet. Gen. PI. Phan. III. p. 514 (1931)

Helwinffia japonica, WILLD., ex DIETR. Nacht. Gart. Lex. III. p. 660 (1815-21); STEUD., Nom. ed. 2. p. 748 (1840); DC, Prodr. XVI. 2. p. 680 (1868); FR. et SAV., Enum.

PL Jap. I. p. 195 (1875); MATSUM., Ind. Pl. Jap. II. 2. p. 447 (1912); CHUN., Cat. Tree. & Shrub. Chin. p. 190 (1924); MAK. et NEM., Fl. Jap. ed. 2. p. 855 (1931)

Syn. *Osyris japonica*, THUNB., Fl. Jap. p. 31 (1784), et Ic. PL Jap. Dea. 3,1.1 (1784)
Helwingia rusciflora, WILLD., Sp. PL IV. p. 716 (1805); SIEB. et ZUCC, Fl. Jap. p. 164, t. 86 (1841); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 21 (1867); HAY., Fl. Mont. Formos. p. 106 (1908)

Norn. Jap. *Hanaikada*

Leg. Y. KUDO!

Distr. Honsyū, Sikoku, Kyūsyū, Okinawa, Taiwan, China.

Note. I have never seen this plant in Yakusima, but was informed by DR. KUDO that he had collected this species in the [island. It is rather widely distributed in South Japan.

Cornus, [TOURN., Inst. Rei. Herb. p. 641, t. 410 (1700); LINN., Syst. ed. 1. (1735)] et Sp. PL ed. 1. p. 117 (1753) p.p.; JUSS., Gen. PL p. 214 (1789); DC, Prodr. IV. p. 271 (1830) p.p.; ENDL., Gen. PL n. 4574 (1836-40, p.p.); HOOK, f., in BENTH. et HOOK. f. Gen. PL I. p. 950 (1867) p.p.; HARMS, in ENGL. U. PRANT. Nat. Pfl.-fam. III. viii. p. 265 (1898) p.p.; WANGERIN, in ENGL. Pfl.-reich. IV. 229 (Heft 41) p. 43 (1909) p.p.; LEMÉE, Diet. Gen. PL Phan. II. p. 312 (1930)

Cornus brachypoda, C. A. MEY., in Mém. Acad. Pétersb. 6. sér. VII. 2. Nat. V. p. 223 (1844); WAPL., in Ann. II. p. 725 (1851-52); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 160 (1866); K. KOCH, Dendr. I. p. 685 (1869); FR. et SAV., Enum. [PL Jap. I. p. 195 (1875); HARMS., apud DIELS, FL Centr. Chin. p. 506 (1901); KOEHNE, in Mitt Deutsch. Dendr. Gesell. XII. p. 40 (1903); REHDER, in SARGENT, Trees & Shrub. II. p. 81, t. XLI. (1903); WANGERIN, in ENGL. Pfl.-reich. IV. 299 (Heft. 41) p. 64 (1909); NAK., FL Kor. I. p. 281 (1909), et FL Sylv. Kor. XVI. p. 85, t. 29 (1927); MAK. et NEM., FL Jap. ed. 2. p. 853 (1931)

Syn. *Cornus alba*, (non LINN.) THUNB., Fl. Jap. p. 63 (1784); SIEB. et ZUCC, FL Jap. Fam. Nat. I. p. 194 (1845)

Cornus sanguinea, (non LINN.) THUNB., FL Jap. p. 62 (1784); SIEB. et ZUCC, Fl. Jap. Fam. Nat. I. p. 194 (1845)

Cornus macrophylla, (non WALL.) FORB. et HEMSL., Ind. FL Sin. I. p. 345 (1887); SCHNEID., Ill. Handb. Laubhl. II. p. 444 f. 298e (1909) p.p.; SHIRASAWA, Ic. Ess. For. Jap. ed. 2,1. p. 214, t. 77 ff. 1-2 (1911); MATSUM., Ind. PL Jap. II. 2. p. 446 (1912); BEAN., Tree. & Shrub. I. p. 390 (1914); REHDER, in SARGENT. PL Wil. II. p. 575 (1916); CHUN., Cat. Tree. & Shrub. Chin. p. 191 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 104 (1929)

Nom. Jap. *Kumano-mizuki*

Leg. Ipse, ca. Mugio, Sept. 6, 1926.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Korea, China.

Note. The plant is found in the laurisilvae near plains or in cultivated land. It has its southern limit in this island.

Aucuba, THUNB., Diss. Nov. Gen. PL III. p. 61 (1783, et FL Jap. p. 4, tt. 12 et 13 (1784); DC, Prodr. IV. p. 274 (1830); ENDL., Gen. PL n. 4575 (1836-40); HOOK, f., in BENTH. et HOOK. f. Gen. PL I. 3. p. 950

(1867); HARMS, in ENGL. U. PRANT. Nat. Pfl.-fam. III. viii. p. 268 (1898.); WANGERIN, in ENGL. Pfl.-reich. IV. 229 (Heft. 41) p. 38 (1909); LEMÉE, Diet. Gen. Pl. Phan. I. p. 457 (1929)

Aucuba japonica, THUNB., Fl. Jap. pp. 4, 64 tt. 12, 13 (1784) ; DC, Prodr. IV. p. 274 (1830) ; HOOK, *i.*, in Bot. Mag. XCI. t. 5512 (1865); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 160 (1865) ; FR. et SAV., Enum. Pl. Jap. I. p. 197 (1875); FORB. et HEMSL., Ind. Fl. Sin. I. p. 346 (1887) ; WANGERIN, in ENGL. Pfl.-reich. IV. 299 (Heft. 41) p. 38, f. 10 (1909) ; NAK., Fl. Kor. I. p. 282 (1909); MATSUM., Ind. Pl. Jap. II. 2. p. 445 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 104 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 852 (1931)

Syn. *Aucuba himalaica*, HOOK. f. et THOMS., Ill. Him. Pl. 1.12 (1855); C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. II. p. 747 (1879) ; WANGERIN, in ENGL. Pfl.-reich. IV. 299 (Heft. 41) p. 41 (1909)

Aucuba chinensis, BENTH., Fl. Hongk. p. 138 (1861); FORB. et HEMSL., Ind. Fl. Sin. I. p. 346 (188,6); WANGERIN, in ENGL. Pfl.-reich. IV. 229 (Heft. 41) p. 40 (1909)

Nom. Jap. *Aoki*

Leg. Ipse, Kosugidani, April. 5, 1927.

Distr. Yezo, Honsyû, Sikoku, Kyfisyfi, Amami-dsima, Taiwan, Korea, China.

Note. The species is found in the laurisilvae or in the lauri-aciculisilvae, and is common in the warmer parts of Asia.

Names of Plants	Regions											
	Philippines	Bonins	Tsushima	Okinawa	Amami-O.	Tsogasima	Kyûsyû	Sikoku	Honsyû	Korea	Yezo & Soyo	China
<i>Cynoxylon japonica</i> , var. <i>typica</i> , NAK.				+	+		+	+	+			+
<i>Helwingia japonica</i> , WILLD.		+		+			+	+	+			
<i>Cornus brachypoda</i> . C. A. MEY.						+	+	4	+	+	+	+
<i>Aucuba japonica</i> , THUNB.		+		+			+	+	+	+	+	+

In respect of this family the island is more closely related to the northern floral regions than to Formosa and Okinawa.

METACHLAMYDEAE

Diapensiaceae

Diapensiaceae, LINDL., Nat. Syst. ed. 2. p. 233 (1836)

Shortia, TORR. et GRAY, in Amer. Journ. 2. ser. XLII. p. 48 (1842) et XLV. p. 402 (1868); BENTH. et HOOK, f., Gen. Pl. II. p. 620 (1876); DRUDE, in ENGL. u. PRANT. Nat. Pfl.-fam. IV. i. p. 83 (1889)

Shortia soldanelloides, MAK. var. *minima*, (MAK.) MASAMUNE, in Tokyo Bot. Mag. XLIV. p. 221 (1930), et Prel. Rep. Veg. Yak. p. 107 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 856 (1931)

Syn. *Shortia soldanelloides*, MAK. var. *genuina*, MAK. form, *minima*, MAK., in Tokyo Bot. Mag. XXVI. p. 28 (1912); MAK. et NEM., Fl. Jap. ed. 2. p. 856 (1931)
Shortia yakusimensis, MASAMUNE, in Journ. Trop. Agr. IV. p. 193 (1932)

Nom. Jap. *Hime-koiwakagarni*

Leg. Ipse, Jun. 12, 1928.

Distr. Endemica.

Note. This variety is found in open and somewhat wet ground in the Pseudo-sasa Owatarii Association.

Name of Plant	Philippine Islands	Bonins	Hokkaido	Okinawa	Amami-Oshima	Kyûsû	Kyûsû Prop.	Hokkaido	Kyûsû	Yezo & Saghalien	Kuriles & Kamohatka	Amur & Ussuri
<i>Shortia soldanelloides</i> , MAK. var. <i>minima</i> MASAMUNE												

Though the variety is endemic to this island, the type species is found in Kyûsû, Sikoku, Honsyû, and Yezo, so the island should be included in the same floristic region as these regions. *Shortia* is one of the tertiary genera and has a disjunct distribution area, and is chiefly distributed in eastern Asia and in North America. (The North American species is *S. galadfolia*.) In Japan the genus is found in Yezo, Honsyû, Sikoku, Kyûsû, Okinawa and Taiwan. In respect of this

genus therefore the sea between Yakusima and Amami-Ôsima does not divide the floral regions of Japan, but when we consider the species itself we find that the island is more or less related to Japan Proper.

Clethraceae

Clethraceae, KLOTZSCH, in Linn. XXIV. p. 12 (1851)

Clethra, [GRONOV., ex LINN. Syst. ed. 1 (1735)]
 et Sp. PL ed. 1. p. 396 (1753); ENDL., Gen. Pl. n. 4320 (183&-40); DC, Prodr. VII. p. 588 (1839); BENTH. et HOOK, f. Gen. Pl. II. p. 603 (1876) ; DRUDE, in ENGL. U. PRANT. Nat. Pfl.-fam. IV. i. p. 2 (1889); LEMSE, Diet. Gen. Pl. Phan. II. p. 200 (1930)

Syn. *Volkameria*, P. BR., Hist. Jam. p. 214, t. 21. f. 1 (1756)

Clethra barbinervis, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 128 (1846); MIQ._f in Ann. Mus. Bot. Lugd. Bat. I. p. 32 (1863) ; MAXIM., in Mém. Biolog. VIII. p. 609 (1872; ; FR. et SAV., Enum. Pl. Jap. I. p. 282 (1875); BOISS., in Bull. Herb. Boiss. V. p. 922 (1897) ; MATSUM., Ind. PL Jap. II. 2. p. 447 (1912) ; NAK., in NAK. et KOIDZ. Trees & Shrub. Jap. ed. 2. I. p. 2 (1927); REHDER, Man. Cult. Tree. & Shrub, p. 674 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 105 (1929); MAK. et NEM._f Fl. Jap. ed. 2. p. 857 (1931)

Syn. *Clethra canescens*, SARGENT, in Gard. & Forest. VI. p. 254 (1893);

Norn. Jap. Ryôbu

Leg. Ipse, Jul. 16, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Korea (Quelp.)

Note. This representative is one of the members of the lauri-aciculisilvae in the island, and is not yet reported further south than this island.

Name of Plant	Philippine	Bonins	Taiwan	Okinawa	Amami-Ôsima	Tanegasima	Prop.	Kôg. Ies	L. & M. m. a. k.	Manchu P. a., Amur & S. suri	China
<i>Clethra barbinervis</i> , SIEB. et SUCC.						+	++	+	1	1	1

The appearance of this species in the island is an interesting fact, for as we see from the above table the species has its southern

limit in this island. More interesting than this is the fact that not only the species but also the genus *Clethra* (or rather *Clethraceae* itself) is not yet found in Ryûkyû and Formosa, both southern portions of the Empire. In respect of the flora of this family the flora of Japan is divided into two parts; the southern region which has no representative of this family, (including Ryûkyû and Formosa) and the northern region which has one representative of this family (including the lands from Yakusima to Yezo). These facts show clearly that a line of demarkation for the flora of Japan may be drawn between Amami-Ôsima and Yakusima.

Pirolaceae

Pirolaceae, *Pyrolaceae*, DUMORT, Anal. Fam. pp. 43, et 47 1829

Pirola, (*Pyrola*) [TOURN., ex LINN. Syst. ed. 1 ,1735\ Gen. PL ed. 1. p. 123 (1737\] et Sp. PL ed. 1. p. 396 ;1753\ ; ENDL., Gen. PL n. 4349 (183&-40\ ; DC, Prodr. VII. p. 772 ,1839\ ; BENTH. et HOOK. f. Gen. PL II. p. 602 {1876\ ; DRUDE, in ENGL. U. PRANT. Nat. Pfl.-fam. IV. i. p. 8 ;1889j

Pirola japonica, SIEB., in Bonplandia X. p. 93 (1862\ , et ex MIQ. in Ann. Mus. Bot. Lugd. Bat. II. p. 166 {ut syn.} ,1866\ ; MORI, Enum. PL Cor. p. 276 1922\ ; MASAMUNE, Prel. Rep. Veg. Yak. p. 105 -1929\); MAK. et NEM., Fl. Jap. ed. 2. p. 858 J931

Syn. *Pirola asarifolia*, var. *japonica*. MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 166 {1866}

Pirola rotundifolia, LINN. var. *albiflora*, MAXIM.; MAK., in Tokyo Bot. Mag. XI. p. ;450\ (1897\); MATSUM., Ind. PL Jap. II. 2. p. 450 (1912,

Pyrola rotundifolia, ;non LINN.) KOM., Fl. Mansh. III. p. 194 (1907\ ; Nak., FL Kor. II. p. 70 {1911\

Aoiit. Jap. *Itiyakusô*

Leg. Ipse, Miyanoura, Sept. 1, 1931.

Distr. Southern Kuriles, Yezo, Honsyû, Kyûsyû, Korea, Manchuria.

Note. The plant grows as undergrowth in the laurisilvae or in the lower part of the lauri-aciculisilvae.

Monotropa, [LINN., Syst. ed. 1 ;1735\ , et Gen. PL ed. 1. p. III J737\] et Sp. PL ed. 1. p. 387 ;1753\); ENDL., Gen. PL n. 4351 (1836-40-; DC, Prodr. VII. p. 781 .1839^N\ ; BENTH. et HOOK, f., Gen. PL II. p. 607 ;1876\); DRUDE, in ENGL. u. PRANT. Nat. Pfl.-fam. IV. i. p. 10 1889\.; LEMKE, Diet. Gen. PL Phan. IV. p. 551 ,1932\.

Monotropa uniflora, LINN., Sp. PL ed. 1. p. 387 fl1753\;; HOOK., Exot. FL II. t.85 <1825\); DC, Prodr. VII. p. 781 '1839\ ; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 166 ,1866\ ; FR. et SAV., Enum. PL Jap. I. p. 296 ,1875\;; MAXIM., in Mèl. Biolog.

VIII. p. 626 (1872); C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. III. p. 476 (1882); FORB. et HEMSL., Ind. FL Sin. II. p. 34 (1889); BOISS., in Bull. Herb. Boiss. V. p. 924 (1897); MATSUM., Ind. PL Jap. II. 2. p. 449 (1912); HAY., Ic. PL Formos. III. p. 146 (1913); MIY. et MIYAKE, Fl. Saghal. p. 312 (1915); MORI, Enum. PL Cor. p. 276 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 105 (1929); MAK. et NEM., FL Jap. ed. 2. p. 859 (1931)

Norn. Jap. Ginryōsō

Leg. Ipse, Kosugidani, Jun. 8, 1928.

Distr. Saghalien, Southern Kuriles, Yezo, Honsyū, Sikoku, Kyūsyū, Amami-Osima, Okinawa, Taiwan, Korea, China, India, North America.

Note. This mycorhyza plant is found as undergrowth on humus ground in the laurisilvae or in the lauri-aciculisilvae.

Names of Plants	Regions																
	ppines	ns	oc	Jd	Ryūkyūs	Amami-Osima	Tanegasima	Kyūsyū Prop.	Sikoku	Honsyū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China	
Pirola japonica, SIEB.																	
Monotropa uniflora, LINN.		+			+	+		+	+	+	+	+	+				+

In the distribution of the plants of this family the island shows special affinity with the northern floral region.

Ericaceae

Ericaceae, DC, in Lam. et DC. Fl. Franc. III. p. 675 (1815); DRUDE, in ENGL. U. PRANT. Nat. Pfl.-fam. IV. i. p. 15 (1889),

Syn. *Rhodoraceae*, VENT., Tabl. Reg. Veg. II. p. 449 (1779)

Tripetaleia, SIEB. et ZUCC, in Abh. Akad. München HI. p. 2. p. 731, t. 3, f. 2 (1843*); HOOK, f., in BENTH. et HOOK. f. Gen. Pl. II. p. 598 (1846); DRUDE, in ENGL. U. PRANT. Nat. Pfl.-fam. IV. i. p. 33 (1889)

Tripetaleia yakusimensis, NAK., in Tokyo Bot. Mag. XL. p. 485 (1926), et in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 13, f. 3 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 106 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 893 (1931)

Norn. Jap. Yakusima-hotutuzi

Leg. Ipse, Tatyfidake, Jul. 22, 1927.

Distr. Kyûsyû.

Note. The species is found in the lauri-aciculilivae from 1400 m up to 1900 m above the sea level and is limited to Yakusima and the main land of Kyûsyû.

Rhododendron, LINN., Sp. Pl. ed. 1. p. 392 (1753),
et Gen. Pl. ed. 5. p. 185 11754'; ENDL., Gen. Pl. n. 4341 (1836-401 ; DC, Prodr.
VII. p. 719 (1839) ; HOOK, f., in BENTH. et HOOK. f. Gen. Pl. II. p. 599 [1876]
emend; DRUDE, in ENGL. u. PRANT. Nat. Pfl.-fam. IV. i. p. 35 (1889)

Syn. Azalea, [LINN., Gen. Pl. ed. 1. p. 53, n. 151 (1737)] et ed. 5. p. 75 (1754) ; ROEM.
et SCHULT., Syst. Veg. IV. p. 728 (1819) ; ENDL., Gen. Pl. n. 4338 (1836-401 ;
BRITT. & BROWN, 111. Fl. I. p. 558 (1913)

Rhododendron Keiskei, MIQ. var. cordifolia, MASAMUNE, in Journ. Trop. Agr. IV. p.
195 (1932)

Syn. Rhododendron Keiskei, (non MIQ.) MASAMUNE, Prel. Rep. Veg. Yak. p.
105 (1929)

Nom. Jap. Yakusima-hikage-tutuzi

Leg. Ipse, Kosugidani, Mart. 17, 1923.

Distr. Endemica

Note. The variety is found as epiphytes or terrestrials or lithophytes from 600 m up to 1900 m above the sea level. The variety is restricted to this island, but the type species is widely distributed in southern Honsyû, Sikoku, and Kyûsyû.

Rhododendron lateritium, PLANCH, Fl. des Serres IX. p. 80 (1853) ; NAK., in NAK. et
KOIDZ. Trees & Shrub. Jap. ed. 2. I. p. 124 f. 59 (1927) ; MASAMUNE, Prel. Rep.
Veg. Yak. p. 105 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 881 (1931)

Syn. Azalea indica, LINN., Sp. Pl. ed. 1. p. 150 (1753) ; THUNB., Fl. Jap. p. 84 (1784)
P.P.

Azalea indica, var. *lateritia*, LINDL., in Bot. Regist. XX. t. 1700 (1835)

Rhododendron Sieboldii, MIQ., in Ann. Mus. Bot. Lugd. Bat. I. p. 33 (1863) p.p.

Rhododendron Sieboldii, var. *serrulatum*, MIQ., in Ann. Mus. Bot. Lugd. Bat. I.
p. 33 (1863)

Rhododendron indicum, (non SWEET) SCHNEID., 111. Handb. Laubholzk. II. p.
506 (1901) p.p.; STEVENS, Sp. Rhododendr. p. 84 (1930) p.p.

Rhododendron indicum, var. *macranthum*, MATSUM., Ind. Pl. Jap. II. 2. p. 461
(1912-

Nom. Jap. Satu/a

Leg. Ipse, Kosugidani, Mart. 18, 1923.

Distr. Honsyû, Sikoku, Kyûsyû.

Note. The shrub is found along streams from about 400 m up to 1500 m above the sea level. It has its southern limit in this island.

Rhododendron nagasakianum, NAK., in Tokyo Bot. Mag. XL. p. 484 (1926) ; MAK. et
NEM., Fl. Jap. ed. 2. p. 884 (1931)

Syn. Rhododendron yakumontanum, MASAM., Prel. Rep. Veg. Yak. p. 106 (1929)

Nom. Jap. Tukupi-mitubatutuzi

Leg. Ipse, Nagatadake, Jul. 25, 1927.

Note. This azalea is found from about 1700 m up to 1900 m on rocky ground and is not yet reported in other regions except the main land of Kyûsyû and this island.

- Rhododendron Tamurai**, (MAK.) MASAMUNE, Prel. Rep. Veg. Yak. p. 106 (1929)
Syn. *Rhododendron indicurn*, var. *Tamurai*, MAK., in Tokyo Bot. Mag. XVII. p. 102 (1904)[^]
Rhododendron eriocarpum, (non NAK.) MAK. et NEM., Fl. Jap. ed. 2. p. 875 a93U p.p.
Norn. Jap. Maruba-satuki
Leg. Ipse, Nagata, Aug. 20, 1928.
Distr. Kyūsyū, Kutinoerabu, Amami-6sima, Okinawa.
Note. The plant is found on sunny grounds near the sea level. It is common in the Linschoten (*Hiiito*) islands which lie between Yakusima and Amami-6sima.
- Rhododendron Tashiroi**, MAXIM., in Bull. Acad. Imp. Sc. St. Petersb. XXXI. p. 64 118871, et in Mél. Biolog. XII. p. 489 (1887)[^]; MATSUM., in Tokyo Bot. Mag. XII. p. 3 U898), et Ind. Pl. Jap. II. 2. p. 465 (1912) ; NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 69 f. 30 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 106 (1929)[^]; MAK. et NEM., Fl. Jap. ed. 2. p. 890 (1931) ; STEV., Sp. Rhodod. p. p. 123 (19301)
Nom. Jap. Sakura-tutuzi
Leg. Ipse, Kusugawa, Mart. 17, 1923.
Distr. Kyūsyū, Tanegasima, Amami-Osima, Okinawa.
Note. The species grows along streams in the laurisilvae or in the lauri-aciculi-silvae. It is found from South Kyūsyū to Okinawa.
- var. **leucanthum**, MASAMUNE, Prel. Rep. Veg. Yak. p. 106 (1929), et in Tokyo Bot. Mag. XLIV. p. 219 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 890 (193U)
Nom. Jap. Sirobana-sakura-tutuzi
Leg. Ipse, Kosugidani, April. 5. 1927.
Note. The variety is endemic and occurs on rare occasion in the laurisilvae.
- Rhododendron yakuinsulare**, MASAMUNE, in Journ. Trop. Agr. II. p. 38 (1930)
Nom. Jap. Yakusima-yama-tutuzi
Leg. Ipse, Jun. 6, 1928.
Distr. Endemica.
Note. The species is found in the laurisilvae at about 400 m above the sea level.
- Rhododendron yakuahimanum**, NAK., in Tokyo Bot. Mag. XXXV. p. 135 (1921), et in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 66, f. 28 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 106 (1929) ; STEVENS., Sp. Rhododendron p. 581 (1930. ; MAK. et NEM., Fl. Jap. ed. 2. p. 892 (193D)
Abut. Jap. Yakusima-syakunagi
Leg. Yaegadake, Jun. 12, 1928.
Distr. Endemica.
Note. This species is found from a height of nearly 500 m up to the highest point of the island.
- Menziesia**, SMITH, Ic. Ined. III. t. 56 (1791) ; ; ENDL., Gen. Pl. n. 4317 (183&-40); DC, Prodr. VII. p. 713 (18391 ; HOOK, f., in BENTH. et HOOK. f. Gen. Pl. II. p. 602 (18761 ; DRUDE, in ENGL. U. PRANT. Nat. Pfl.-fam. IV. i. p. 37 (1889; ; NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 42 (1927i ; LEMfE, Diet. Gen. Pl. Phan. IV. p. 405 ;1932)
Syn. *Candollea*, BAUMG., Catal. Hort. Bollow. U810

Menziesia purpurea, MAXIM., in Mém. Biolog. VI. p. 204 (1867; et in Bull. Acad. Imp. Sc. St. Petersb. XI. p. 431 (1867) ; FR. et SAV., Enum. Pl. Jap. I. p. 287 (1875) ; MAK., in Tokyo Bot. Mag. IX. p. 389 (1895) ; MATSUM., Ind. Pl. Jap. II. 2. p. 456 (1912) ; NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 44 f. 18 (1927) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 105 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 871 (1931)

Hom. *Jap.* *Yōraku-tutuzi*

Leg. Ipse, Nagatadake, Jun. 12, 1928.

Distr. Honsyū, Kyūsyū.

Note. The plant is found as lithophytes on rocky ground or on rocks in the Pseudosasa Owatarii Association.

Pieris, D. DON, in Edinburgh New Phil. Journ.

XVII. p. 159 (1834 p.p.; DC, Prodr. VII. p. 598 (1839)

Syn. *Portuna*, NUTTALL. in Trans. Amer. Philosoph. Soc. VIII. p. 268 (1848)

Pieris, Sect. *Portum*, BENTH. et HOOK, f., Gen. Pl. II. p. 588 (1876)

Lyonia NUTT. subg. *Pieris*, DRUDE, in ENGL. U. PRANT. Nat. Pfl.-fam. IV. i. p. 44 (1889)

Pieris japonica, (THUNB.) D. DON, ex G. Don, A. Gen. Syst. Dichl. Pl. III. p. 832 (1834) ; YATABE, Iconogr. Fl. Jap. I. 2. p. 105. Pl. XXIX, (1892) ; MAK., in Tokyo Bot. Mag. VIII. p. 213 (1894) ; MATSUM., Ind. Pl. Jap. II. 2. p. 457 (1912) ; NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 201, f. 100 (1927) ; REHD., Man. Cult. Tree. & Shrub, p. 710 (1927) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 105 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 872 (1931)

Syn. *Andromeda japonica*, THUNB., Fl. Jap. p. 181, t. 22 (1784)

JNom. Jap. *Asebi*

Leg. Ipse, Kosugidani, Mart. 18, 1923.

Distr. Honsyū, Sikoku, Kyūsyū,

Note. The plant is found from 700 m up to 1900 m on somewhat sunny spots, and especially abounds in the Pseudosasa Owatarii Association. It has its southern limit in this island.

Vaccinium, [LINN., Syst. ed. 1 (1735) et Sp. Pl.

ed. 1. p. 349 (1753) ; ENDL., Gen. Pl. n. 4332 (1836-40) ; DC, Prodr. VII. p. 565 (1839) ; BENTH. et HOOK, f., Gen. Pl. II. p. 573 (1876) ; DRUDE, in ENGL. U. PRANT. Nat. Pfl.-fam. IV. i. p. 51 (1889) p.p.; NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 234 (1927)

Syn. *Arbutus*, HILL., Brit. Herbal, p. 518 (1756)

Vaccinium bracteatum, THUNB., Fl. Jap. p. 156 (1784) ; DC, Prodr. VII. p. 573 (1839) ; SIEB. et ZUCC, Fl. Jap. Fam. Nat. II* p. 129 (1846) ; MIQ., in Ann. Mus. Bot. Lugd. Bat. I. p. 29 (1863) p. et II. p. 160 (1866) ; MAXIM., in Mém. Biolog. VIII. p. 608 (1872) ; FR. et SAV., Enum. Pl. Jap. I. p. 282 (1875) ; FORB. et HEMSL., Ind. Fl. Sin. II. p. 14 (1889) p.p.; NAK., Fl. Kor. II. p. 71 (1911), et in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 241 f. 114 (1927) ; MATSUM., Ind. Pl. Jap. II. 2. p. 466 (1912) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 106 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 894 (1931)

Syn. *Vaccinium Buergeri*, MIQ., in Ann. Mus. Bot. Lugd. Bat. I. p. 29 (1863)

Vaccinium Donianum, var. *elliptica*, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 161 (1866)

Names of Plants	Regions										
	Southern Kyūshū	Shikoku	Honshū	Kyūshū	Tanegashima	Amami-Oshima	Nanaiwa	Shikoku	Honshū	Kyūshū *	China
Rhododendron yakushmanum, NAK.											
Menziesia purpurea, MAXIM.											
Pieris japonica, D. DON.				+							+
Vaccinium bracteatum, THUNB.				+	4						+
V. b. var. lanceolatum, NAK.				+							
Vaccinium yakushimense, MAK.											
Total					2	2	2	9	1	3	4
Percentage					14	14	14	64	21	29	7

.Southern elements 2) (Northern elements 9)

From the above table it will be perceived that the island has more numerous representatives of the northern lands than of the southern ones, and *Tripetaleria*, a distinct genus of this family, has its southern limit in this island. These facts make it possible to assert that the so called WATASE'S line of zoogeographers possesses also a profound significance in phytogeography. And since endemic species and varieties are plentiful in this island, the island is somewhat independent with regard to the phytogeography of *Ericaceae*.

Ardisiaceae

Ardisiaceae, A. RICHARD, in Diet. Class. Hist Nat I. p. 530 1822.

Syn. Myrsinaceae, LINDL., Nat Syst ed. 2. p. 224 ;1836i

Maesa, FORSK, Fl. Aegypt-Arab. p. 66 U775);
 ENDL., Gen. PL n. 4227 ;1836-40, ; DC, Prodr. VIII. p. 77 ,1844.; C. B. CLARKE,

in HOOK. f. Fl. Brit Ind. III. p. 507 [1882]; PAX, in ENGL. u. PRANT. Nat Pfl.-fam. IV. i. p. 95 [1889]; MEZ, in ENGL. Pfl.-reich. IV. 236 (Heft 9) p. 15 (1902); LEMFÉ, Diet. Gen. Pl. Phan. IV. p. 255 U932)

Syn. *Baeobotrys*, FORST, Char. Gen. p. 21, t. 11 (1776)

Doraena, THUNB., Nov. Gen. Pl. III. p. 59 (1783), et Pl. Jap. p. 6 (1784); ROEM. et SCHULT., Syst. Veg. IV. p. XVIII. et 188 (1819); SPRENG., Syst. Veg. I. p. 671 (1825)

Baeobotris, BL., Bijdr. p. 864 (1825-26)

Maesa japonica, MORITZI, ex ZOLLINGER, Syst. Verz. Ind. Arch. Pfl. p. 61 (1854); MEZ, in Engl. Pfl.-reich. IV. 236 (Heft. 9) p. 50 (1902); MATSUM., Ind. Pl. Jap. II. 2. p. 473 (1912^N); CHUN., Cat. Tree. & Shrub. Chin. p. 204 U924); NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. **Igp.** 291, f. 138 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 108 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 902 (1931)

Syn. *Doraena japonica*, THUNB., Nov. Gen. Pl. III. p. 54 (1783), Fl. Jap. p. 84 (1784), et Ic. Pl. Jap. Dec. 3, t. 5 (1775)

Maesa Doraena, BL., ex SIEB. et ZUCC. Fl. Jap. Fam. Nat. II. p. 138 (1846); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 263 (1866); FR. et SAV., Enum. Pl. Jap. I. p. 304 (1875); FORB. et HEMSL., Ind. Fl. Sin. I. p. 59 (1889); MATSUM. et HAY., Enum. Pl. Formos. p. 224 U90f>

Maesa coriacea, CHAMP.; BENTH., Fl. Hongk. p. 204 (1861)

Baeobotrys japonica, ZIPP. et SCHEFF., Comm. Myrs. Archip. Ind. p. 18 (1867)

Abut. Jap. *Izusenryō*

Leg. Ipse, Jun. 7, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, China.

Note. The species is found in the laurisilvae or in the lauri-aciculisilvae near the sea level.

var. **elongata**, MEZ, in ENGL. Pfl.-reich. IV. 236 (Heft. 9) p. 51 (1902); CHUN., Cat. Tree. & Shrub. Chin. p. 204 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 108 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 902 (1931)

Syn. *Maesa randaiensis*, HAY., Mat. Fl. Formos. p. 177 (1911); MAK. et NEM., Fl. Jap. ed. 2. p. 902 (1931)

Norn. Jap. *Nagaba-izusenryō*

Leg. Ipse, Kosugidani.

Distr. Kyūsyū, Taiwan, China.

Note. Grows under the same condition as the previous species, but more plentifully in the laurisilvae.

Maesa sinensis, A. DC, in Ann. Sc. Nat. 2. ser. XVI. p. 80 (1841) et in DC. Prodr. VIII. p. 82 (1844); BENTH., Fl. Hongk. p. 203 (1861); MEZ, in ENGL. Pfl.-reich. IV. 236 (Heft 9) p. 34 (1902); MATSUM. et HAY., Enum. Pl. Formos. p. 225 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 473 (1912); DUNN et TUTCH., Fl. Kwangt. & Hongk. p. 158 (1912); CHUN., Cat. Tree. & Shrub. Chin. p. 204 (1924); MERR* Enum. Hainan Pl. p. 142 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 108 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 902 (1931)

Nom. Jap. *Sima-izusenryō*

Leg. A. KIMURA ! Aug. 9, 1922.

Distr. Kyūsyū, Amami-Osima, Okinawa, Taiwan, China.

Note. The plant grows near river sides in the laurisilvae from the sea level up to about 500 m.

- Bladhia, THUNB., NOV. Gen. PL I. p. 78, 1.1 (1781),
et Hist. PL. Gui. Fr. JII. Supp. 1. L. 368 (1775), et FL Jap. p. 7 (1784); ROEM. et
SCHULT., Syst. Veg. IV. pp. XLVII. et 512 (1819)
Syn. *Tinus*, [BURM., Thes. Zeyl. p. 222, t. 103 (1737i)] O. KUNTZE, Rev. Gen. PL II.
p. 404 (1891)
Badulam, LINN., FL Zeyl. p. 23 (1747)
Ardisia, SWARTZ, Prodr. Veg. Occ. p. 48 (1788), et FL Ind. Occ. I. p. 467, t.
10 (1797); ROEM. et SCHULT., Syst. Veg. IV. pp. XLVII. et 513 (1819);
ENDL., Gen. PL n. 4222 (1836-40); DC, Prodr. VIII. p. 120 (1844); BENTH.
et HOOK, f., Gen. II. qp. 645 et 646 (1876[^]); PAX, in ENGL. u. PRANT. Nat.
Pfl.-fam. IV. i. p. 93 (1889[^]); MEZ, in ENGL. Pfl.-reich. IV. 236 (Heft 9) p.
57 (1902)
Pyrgus, LOUR., FL Cochinch. I. p. 120 (1790[^])
An gui Ilaria, LAM., Illustr. II. p. 109 (1793!); POIR., Encycl. VII. p. 684 (1806)
Pimelandra, A. DC, in Ann. Sc. Nat. 2. sér. XVI. p. 79 (1841), et in DC,
Prodr. VIII. p. 106 (1844:

Bladhia crispa, THUNB., in Nov. Act. Reg. Soc. Sc. Upsal. IV. pp. 31, 37; 1783\ et FL
Jap. p. 97 (1784); NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 285
(1927,; MASAMUNE, Prel. Rep. Veg. Yak. p. 107 (1929i

- Syn.* *Ardisia punctata*, LINDL., in Bot. Reg. t. 827 (1824)
Ardisia hortorum, MAXIM, et REGEL., in Gartenfl. XIV. p. 363, t. 491 (1865);
MAK., in Tokyo Bot. Mag. VIII. p. 381 (1894^x); MATSUM. et HAY., Enum.
PL Formos. p. 227 (1906[^]); MATSUM., Ind. PL Jap. II. 2. p. 472 (1912);
MAK. et NEM., FL Jap. ed. 2. p. 900 (1931)
Ardisia tackibana, MAK., in Tokyo Bot. Mag. VI. p. 53 (1892[^])
Ardisia simplicicaulis, HAY., Mat. FL Formos. p. 183 (1911L
Bladhia punctata, NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. I. p. 209
(1922)

Norn. Jap. Karatatibana

Leg. Ipse, Nagata, Mart. 22, 1923.

Distr. Honsyu, Sikoku, Kyûsyû, Okinawa, Taiwan, China.

Note. The species grows as undergrowth in the laurisilvae or in the lauri-
aciculisilvae.

Bladhia japonica, THUNB., Nov. Gen. I. p. 7, t. 1 (1781), et FL Jap. p. 95, t. 18 (1784);
LAM., Ill. t. 133 f. 1 (1823); NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed.
2. I. p. 277, f. 130 (1927[^]); MASAMUNE, JVel. Rep. Veg. Yak. p. 107 (1929)

- Syn.* *Ardisia japonica*, BL., in Bijdr. XI. p. 690 (1825); DC, Prodr. VIII. p. 135
(1844); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 190 (1867[^]); FR. et SAV.,
Enum. PL Jap. I. p. 305 (1875[^]); MEZ, in ENGL. Pfl.-reich. IV. 236 (Heft 9) p.
151 (1902); NAK., FL Kor. II. p. 84 (1911!); MATSUM., Ind. PI. Jap. II. 2. p.
472 (1912); CHUN., Cat. Tree. & Shrub. Chin. p. 204[^](1924[^]); MAK. et NEM.,
FL Jap. ed. 2. p. 900 (1931)

Ardisia m ant ana p SIEB., et ex MIQ. in Ann. Mus. Bot. Lugd. Bat. II. p. 263 (1866)

Norn. Jap. Yabukôzi

Leg. Ipse, Jul. 15, 1928.

Distr. Yezo, Honsyfi, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Taiwan, Korea, China.

Note. The species is found in the lauri-aciculisilvae.

var. *angusta*, NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 1. p. 203 (1922), et ed. 2. p. 279 (1927) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 107 (1929)

Syn. *Ardisia japonica*, var. *angusta* (NAK.) MAK. et NEM., Fl. Jap. ed. 2. p. 900 (1931)

Nom. Jap. *Hosoba-yabukôzi*

Leg. Ipse, April. 14 1928.

Distr. Honsyfi, Kyfisyfi.

Note. This variety is found as undergrowth in the lauri-aciculisilvae at about 700 m above the sea level.

Bladhia lentiginosa, NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 283 (1927) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 107 (1929)

Syn. *Ardisia crenata*, (non ROXB.) SIM., in Bot. Mag. t. 1950 (1817); MATSUM. et HAY., Enum. Pl. Formos. p. 225 (1906)

Ardisia lentiginosa, KRE, in Bot. Regist. VII. t. 533. (1821)

Ardisia glandulosa, (non ROXB.) BL., Bijdr. p. 684 (1825)

Ardisia crispa, A. DC, in Trans. Linn. Soc. XVII. p. 124 (1837), et DC, Prodr. VIII. p. 134 (1844) excl. P; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 190 (1867) ; FR. et SAV., Enum. Pl. Jap. I. p. 304 (1875); MEZ, in ENGL. Pfl.-reich. IV. 236 (Heft 9) p. 144 (1902); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 160 (1912) ; MATSUM., Ind. Pl. Jap. II. 2. p. 471 (1912) ; MORI, Enum. Pl. Cor. p. 281 (1922) ; MERR., Enum. Hainan Pl. p. 143 (1927); CHUN., Cat. Tree. & Shrub. Chin. p. 204 (1924); MERR., Enum. Hainan Pl. p. 143 (1927) ; MAK. et NEM., Fl. Jap. ed. 2. p. 899 (1931)

Bladhia elegans, KOIDZ., in Tokyo Bot. Mag. XXXIX. p. 308 (1925) excl. syn.

Nom. Jap. *Manryô*

Leg. Ipse, Mart. 19, 1923.

Distr. Honsyfi, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China.

Note. The species is found as undergrowth in the laurisilvae or in the lauri-aciculisilvae.

Bladhia quinqueffona, NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. 1. p. 212 (1922), et ed. 2. p. 288 (1927) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 107 (1929)

Syn. *Ardisia quinquegona*, BL., Bijdr. p. 699 (1826) ; MEZ, in ENGL. Pfl.-reich. IV. 236 (Heft 9) p. 108 (1902) ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 160 (1912); CHUN., Cat. Tree. & Shrub. Chin. p. 205 (1924); MERR., Enum. Hainan Pl. p. 143 (1927); MAK. et NEM., Fl. Jap. ed. 2. p. 900 (1931)

Ardisia pentagona, A. DC, in Trans. Linn. Soc. XVII. p. 124 (1834), et in DC. Prodr. VIII. p. 135 (1844); FORB. et HEMSL., Ind. Fl. Sin. II. p. 66 (1889); MATSUM. et HAY., Enum. Pl. Formos. p. 226 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 472 (1912)

Ardisia pauciflora, DC, Prodr. VIII. p. 127 (1844); BENTH., Fl. Hongk. p. 206 (1861)

Nom. Jap. *Sisiakuti*

Leg. Ipse, Jul. 21, 1924.

Distr. Tanegasima, Amami-6sima, Okinawa, Taiwan, China.

Note. It grows in the laurisilvae near the sea level.

Bladhia Sieboldii, NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 1. p. 210 (1922), ed. 2. p. 287 (1927), et in Bull. Biogeogr. Soc. Jap. I. p. 261 (1930); MASAMUNE, Prel. Rep. Veg. Yak. p. 107 (1929)

Syn. *Ardisia Sieboldii*, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 190 (1867); FORB. et HEMSL., Ind. Fl. Sin. II. p. 67 (1889); MEZ, in ENGL. Pfl.-reich. IV. 236 (Heft 9) p. 105 (1902); MATSUM. et HAY., Enum. Pl. Formos. p. 226 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 472 (1912); MAK. et NEM., Fl. Jap. ed. 2, p. 901 (1931)

Tinus Sieboldii, O. KUNTZE, Rev. Gen. Pl. II. p. 975 (1891)

Nom. Jap. *Mokutatibana*

Leg. Ipse. Nakama, Mart. 23, 1923.

Distr. Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Bonins, China.

Note. The species is found in the littoral forests.

Bladhia villosa, THUNB., Fl. Jap. p. 96. t. 19 (1784); NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 281 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 108 (1929);

Syn. *Ardisia pusilla*, A. DC, in Trans. Linn. Soc. XVII. p. 125 (1834), et in DC. Prodr. VIII. p. 137 (1844); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 190 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 305 (1875); MORI, Enum. Pl. Cor. p. 281 (1922),

Ardisia villosa, MEZ, in ENGL. Pfl.-reich. IV. 236 (Heft 9) p. 152 (1902); MATSUM., Ind. Pl. Jap. II. 2. p. 473 (1912); RIDLEY, Fl. Malay. II. p. 251 (1923); CHUN., Cat. Tree. & Shrub. Chin. p. 205 (1924); MERR., Enum. Hainan Pl. p. 144 (1927-); MAK. et NEM., Fl. Jap. ed. 2. p. 901 (1931);

Nom. Jap. *Turu-hōzi*

Leg. Ipse, Kurio, Mart. 23, 1923.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Korea, China.

Note. This species is collected in the laurisilvae and in the lauriaculisilvae from the sea level up to about 1000 m.

var. *liukiuemūs*, NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 1. I. p. 206 (1922); MAK. et NEM., Fl. Jap. ed. 2. p. 901 (1931);

Nom. Jap. *Ryūkyū-turukōzi*

Leg. Ipse, Jul. 14, 1922.

Distr. Okinawa, Taiwan.

Note. The plant is found in the laurisilvae as undergrowth, and has its northern limit of habitat in this island.

Anantia, KOIDZ., in Tokyo Bot. Mag. XXXVII. p. 39 (1923)

Anantia stolonifera, KOIDZ., in Tokyo Bot. Mag. XXXVII. p. 40 (1923); MASAMUNE, in Journ. Trop. Agr. III. p. 22 (1931); MAK. et NEM., Fl. Jap. ed. 2. p. 898 (1931)

Syn. *Anantia marginata*, non MEZ MASAMUNE, Prel. Rep. Veg. Yak. p. 107 (1929); et in Journ. Trop. Agr. II. p. 50 (1930),

Nom. Jap. *Turu-manryō*

Leg. Ipse, ca. Ebosidake, Jul. 25, 1928.

Distr. Honsyū, Taiwan.

Note. It is found in the lauri-aculisilvae from about 600 m up to 1200 m above the sea level.

Rapanea, AUBL., Hist. Pl. Gui. Fr. i. p. 121, t. 46

(1775[^]; JUSS., Gen. Pl. p. 288 (1789); MEZ, in ENGL. Pfl.-reich. IV. 236 (Heft 9) p. 342 (1902)

Syn. *Ageria*, ADANS., Fam. II. p. 166 (1763)

Myrsine, R. BR., Prodr. I. p. 533 (1810) p.m.; DC, Prodr. VIII. p. 92 (1844) p.m.; LINDL., Veg. Kingd. p. 648 (1847) p.m.; HOOK, f., in BENTH. et HOOK, f. Gen. Pl. II. p. 642 (1876) p.m.; PAX, in ENGL. u. PRANT. Nat. Pfl.-fam. IV. i. p. 92 (1889) p.m.

Rapanea neriifolia, MEZ, in ENGL. Pfl.-reich. IV. 236 (Heft 9) p. 361 (1902); MATSUM., Ind. Pl. Jap. II. 2. p. 473 (1912); CHUN., Tree. & Shrub. Chin. p. 206 (1924[^]); NAK.,

Names of Plants	Regions																
	Philippines	Bonins	Taiwan	Okinawa	Amami-Osima	Tanegasima	Ryūkyūs	Kyūshū Prop.	Kyūshū	Sikoku	Honsyū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Amur & Usuri	ca
<i>Maesa japonica</i> , MORITZ et ZOLLING.			+	+	+	+	+	+	+	+							+
<i>M. j.</i> var. <i>elongata</i> , MEZ			+														+
<i>Maesa sinensis</i> , A. DC			+	+	+												+
<i>Bladhia crispa</i> , THUNB.			+	+													+
<i>Bladhia japonica</i> , THUNB.			+		+	+	+	+	+	+	+	+	+				+
<i>B. j.</i> var. <i>angusta</i> , NAK											+						
<i>Bladhia lentiginosa</i> , NAK			+	+	+	+	+	+	+	+	+	+					+
<i>Bladhia quinquegona</i> , NAK			+	+	+	+											
<i>Bladhia Sieboldii</i> , NAK			+	+	+	+	+	+									+
<i>Bladhia villosa</i> , THUNB.					+	+	+	+	+	+	+						+
<i>B. v.</i> var. <i>liukuensis</i> , NAK			+	+													
<i>Anantia stolonifera</i> , KOIDZ			+								+						
<i>Rapanea neriifolia</i> , MEZ			+	+	+	+	+	+	+	+	+	+					+
Total				8	8	7	10	6	8	3	1						10
Percentage			88.5	62	62	54	77	46	62	23	8						77

Southern elements 12 <

(Northern elements 12)

- in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 294 U927^X; MASAMUNE, Prel. Rep. Veg. Yak. p. 108 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 903 (1931)
- Syn.* *Myrsine neriifolia*, SIEB. et ZUCC, FL Jap. Fam. Nat. II. p. 137 (1846); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 190 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 304 (1875)
- Myrsine cajritellata*, (non WALL.) MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 262 (1866²; FORB. et HEMSL., Ind. Fl. Sin. II. p. 61 U889); MATSUM. et HAY., Enum. Pl. Formos. p. 225 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 474 (1912)
- Nom. Jap.* *Taimin-tatibana*
- Leg.* Ipse, ca. Nagata, Mart. 21, 1923.
- Distr.* Honsyu, Sikoku, Tanegasima, Amami-dsima, Okinawa, Taiwan, China. "
- Note.* It is found as a component of the laurisilvae from the sea level up to about 300 m.

In this family the island shows more or less of a close relationship with the islands of Kyûsyû and Taiwan.

Primulaceae

Primulaceae, VENT., Tabl. II. p. 285 (1799)

- Lysimachia*, [TOURN., Inst. p. 59 ;1700.; LINN., Syst. ed. 1 [1735,] et Sp. Pl. ed. 1. p. 146 (1753); ENDL., Gen. Pl. n. 4207 (1836-40 ^; DUBY, in DC. Prodr. VIII. p. 60 (1844); BENTH. et HOOK, f., Gen. Pl. II. p. 635 (1876); PAX, in ENGL. U. PRANT. Nat. Pfl.-fam. IV. i. p. 112 (1889); PAX u. KUNTH., in ENGL. Pfl.-reich. IV. 237 (Heft 22) p. 256 (1905); LEMfCE, Diet. Gen. Pl. Phan. IV. p. 215 (1932)
- Syn.* *Lisma*, MEDIC, Phil. Bot. II. pp. 59, et 107 (1791)
- Lysimachia decurrens*, FORST, f., Fl. Ins. Kust. Prodr. p. 12 (1786); LAM., Ill. des Genres, p. 441 (1791); FORB. et HEMSL., Ind. Fl. Sin. II. p. 51 (1889); DIELS, Fl. Cent. Chin. p. 523 (1901); PAX u. KUNTH, in ENGL. Pfl.-reich. IV. 237 (Heft 22) p. 256 (1905); MERR., Enum. Philipp. Pl. III. p. 274 (1923)
- Syn.* *Lysimachia javainica*, BL., Fl. Ned. Ind. p. 736 (1825); DUBY, in DC. Prodr. VIII. p. 62 (1844); MIQ., Fl. Ind. Bat. II. p. 1002 (1856); HOOK, f., Fl. Brit. Ind. III. p. 502 (1882)
- Lysimachia sinka*, MIQ., in Journ. Bot. Neerl. I. p. 110 (1851)
- Lysimachia consobrina*, HANCE, in Ann. Sc. Nat. 5. sér. V. p. 224 (1866)
- Lysimachia decurrens*, var. *recurvata*, MATSUM., in Tokyo Bot. Mag. XIV. p. 71 (1900)
- Lysimachia acroadenia*, MAXIM, var. *recurvata*, MAK. et NEM., Fl. Jap. p. 384 (1925., et ed. 2. p. 905 (1931); MASAMUNE, Prel. Rep. Veg. Yak. p. 108 (1929)
- Lysimachia recurvata*, MASAMUNE, in Journ. Trop. Agr. IV. p. 302 (1932)
- Nom. Jap.* *Sima-ginreisd*
- Leg.* Ipse, Hirauti, Jun. 29, 1928.
- Distr.* Amami-dsima, Okinawa, Taiwan, China, Philippines, India, Java.

Note. The plant is rarely found on the forest edges of the laurisilvae near the sea level, and is not reported further north than this island.

Lysimachia Fortunei, MAXIM., in Mém. Biolog. VI. p. 270 U867), et in Bull. Acad. Petersb. XII. p. 68 (1868); FR. et SAV., Enum. Pl. Jap. I. p. 301 (1875); ENGL. u. MAXIM., in ENGL. Bot. Jahrb. VI. p. 64 (1885); FORB. et HESML., Ind. Fl. Sin. II. p. 52 (1889); PAX u. KUNTH, in ENGL. Pfl.-reich. IV. p. 237 (Heft 22 p. 260 U905[^]); MATSUM. et HAY., Enum. Pl. Formos. p. 222 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 476 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 108 ;1929; MAK. et NEM., Fl. Jap. ed. 2. p. 906 (1931)

Norn. Jap. Numa-toranó

Leg. Ipse, Miyanoura, Aug. 1928.

Distr. Honsyu, Sikoku, Kyfisyu, Okinawa, Taiwan, Korea, China.

Note. The species is found in rice fields or in cultivated lands.

Lysimachia japonica, THUNBERG, Fl. Jap. p. 83 [Y1%]; LAM., III. Genres, p. 440 (1791[^]); DUBY, in DC. Prodr. VIII. p. 67 (1844); PAX u. KUNTH, in ENGL. Pfl.-reich. IV. 237 (Heft 22) p. 262 (1905); MATSUM., Ind. Pl. Jap. II. 2. p. 476 (1912); MORI, Enum. Pl. Cor. p. 282 (1922J); MERR., Enum. Philip. Pl. III. p. 275 U923; MASAMUNE, Prel. Rep. Veg. Yak. p. 108 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 906 1931:

Syn. Lysimachia maculate, R. BR., Prodr. p. 428 (1810)

Lysimachia debilis, WALL., in ROXB. Fl. Ind. ed. CAREY II. p. 25 (1824); D. DON, Prodr. p. 83 (1825)

Norn. Jap. Konasubi

Lea. Ipse, Ambó, Aug. 30, 1931.

Distr. Kyfisyu, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Philippines.

Note. The species is found in open waste lands. It is a pure eastern asiatic species and common in Japan.

var. *minutissima*, MASAMUNE, Prel. Rep. Veg. Yak. p. 108 (1929). et in Journ. Trop. Agr. IV. p. 195 ;1932:

Nom. Jap. Hime-konasubi

Leg. Ipse, Aug. 1, 1924.

Distr. Endemica.

Note. The species is found in the higher zones in the Pseudosasa Owatarii Association.

Lysimachia irauritiana, LAM., Encycl. III. p. 592 (1789); PAX u. KUNTH, in ENGL. Pfl.-reich. IV. 237 (Heft 22) p. 273, f. 58 (1905); NAK., Fl. Kor. II. p. 82 (1911), et in Biogeogr. Soc. Jap. I. p. 261 (1930); DUNN et TUTCH., Fl. Kwant. & Hongk. p. 157 (1912); LOESN., Pfl.-welt Kiautch. Geb. p. 165 U918); MERR., Enum. Philipp. Pl. III. p. 275 U923; MASAMUNE, Prel. Rep. Veg. Yak. p. 109 U929; MAK. et NEM., Fl. Jap. ed. 2. p. 906 U931)

Syn. Lysimachia linearis HOBBS, HOOK, et ARN., Bot. Cap. Beech. Voy. p. 268 (1836-40); DUBY, in DC. Prodr. VIII. p. 61 (1844); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 121 (1867); BENTH. et HOOK, f. Gen. Pl. II. p. 635 (1873); FORB. et HESML., Ind. Fl. Sin. II. p. 53 (1889); KOM., Fl. Mansh. III. p. 237 (1907); MATSUM., Ind. Pl. Jap. II. 2. p. 477 (1912)

Lysimachia lubimoides, SIEB. et ZUCC., Fl. Jap. Fam. Nat. II. p. 140 (1846); FR. et SAV., Enum. Pl. Jap. I. p. 302 U875)

Lysimachia spathulata, SCHOUW, in Linn. XXIV. p. 160 v185r ; HILLEBRAND, Fl. Hawaii, Isl. p. 285 a888^

Lubinia lubinioides, PAX, in ENGL. U. PRANT. Nat. Pfl.-fam. IV. i. p. 112 U890

Norn. Jap. Hama-bossu

Leg. Ipse, Miyanoura, Jul. 8, 1922.

Distr. Yezo, Honsyu, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Taiwan, Bonins, Korea, Manchuria, China, Philippines, Hawaii.

Note. Occurs on rocks or on sandy beaches.

Lysimachia sikokiana, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 121 1867 ; FR. et SAV., Enum. Pl. Jap. I. p. 302 (1875) ; ENGL., Bot. Jahrb. VI. p. 64 1885 ; FORB. et HEMSL., Ind. Fl. Sin. II. p. 57 (1889) ; PAX u. KUNTH, in Engl. Pfl.-reich. IV. 237 (Heft 22 p. 270 1905^ ; MATSUM., Ind. Pl. Jap. II. 2. p. 477 (1912 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 109 1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 906 193r.

Nom. Jap. Morokosisô

Leg. Ipse, Jul. 15, 1922.

Distr. Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa.

Note. The species often grows as undergrowth in the laurisilvae or in the lauriculiculisilvae and has a kind of sweet smell which remains after it has been dried.

Anagallis, [TOURN., ex LINN. Syst. ed. 1 1735 , et Gen. Pl. ed. 1. p. 43 1737] et Sp. Pl. ed. 1. p. 148 1753 ; ENDL., Gen. Pl. n. 4213 1836-40 ; DUBY, in DC. Prodr. VIII. p. 69 1844 ; BENTH. et HOOK, f., Gen. Pl. II. p. 637 1876, ; PAX, in ENGL. u. PRANT. Nat. Pfl.-fam. IV. i. p. 114 1890^N ; PAX u. KUNTH, in ENGL. Pfl.-reich. IV. 237 Heft 22 p. 321 1905 ; LEMÉE, Diet. Gen. Pl. Phan. I. p. 231 1929

Anagallis arvensis, LINN., Sp. Pl. ed. 1. p. 148 1753 ; THUNB., Fl. Jap. p. 83 1784 ; DC, Prodr. VIII. p. 69 1844 ; BENTH., Fl. Austral. IV. p. 270 1869 ; FR. et SAV., Enum. Pl. Jap. I. p. 303 1875 ; HOOK, f., Fl. Brit. Ind. III. p. 506 1882 ; FORB. et HEMSL., Ind. Fl. Sin. II. p. 59 1889 ; PAX u. KUNTH, in ENGL. Pfl.-reich.

Names of Plants	Regions													
	Philippines	Bonins	Taiwan	Okinawa	Amami-Osima	Tanegasima	Kyûsyû Prop.	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Northern Kuriles & Kamchatka	Manchuria, Amur & Usuri	China
<i>Lysimachia decurrens</i> , FORST. f.	+	+	+	+	+									+
<i>Lysimachia Fortunei</i> , MAXIM.		+	+	+	+		+	+	+					
<i>Lysimachia japonica</i> , THUNB.		+	+	+	+	+	+	+	+	+				+

L. j. var. minutissima, MASAMUNE....																								
Lysimachia mauritiana, LAM.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Lysimachia sikokiana, MIQ.				+	+	+	+	+	+	+	+													
Anagalis arvensis, LINN.			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Total	7	3	1	5	6	5	4	5	5	4	4	1										1	5	
Percentage		43	14	71	86	71	57	71	71	57	57	14											14	71
(Southern elements 6)												(Northern elements 5)												

IV. 237 Heft 22) p. 322 (1905) ; MATSUM. et HAY., Enum. Pl. Formos. p. 223 1906 ; MATSUM., Ind. Pl. Jap. II. 2. p. 474 (1912> ; MORr, Enum. Pl. Cor. p. 281 (1922 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 108 (1929; ; MAK. et NEM., Fl. Jap. ed. 2. p. 904 U931^

Norn. Jap. Ruri-hakobe

Leg. Ipse, Miyanoura, Mart. 21, 1922.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China.

Nvte. It is found in cultivated or in waste lands near the sea level, and is common in South Japan.

As the above table shows the island is related more closely to the southern lands than to the northern ones in respect of this family.

Plum baginaceae

Plumbaginaceae, LINDL., Nat. Syst. ed. 2. p. 269 '1836,

Static*, [TOURN., ex LINN. Syst. ed. 1 (1735 , et Gen. Pl. ed. 1. p. 88 (1737) partim] et Sp. Pl. ed. 1. p. 274 (1753; ; ENDL., Gen. Pl. n. 2172 ; 1836-40 ; BOISSIER, in DC. Prodr. XII. p. 634 (1848); BENTH. et HOOK, f, Gen. Pl. II. p. 625 (1876 ; PAX, in ENGL. u. PRANT. Nat. Pfl.-fam. IV. i. p. 124 1889

Syn. Limonium, [MOEHR., Hort. Priv. p. 59 (1736] ADANS., Fam. II. p. 283 (1763

Statice arbuscula, MAXIM., in TRAUT, REGEL, MAXIM, et WINKL. Pl. Nov. 8 (1882 ; HATTORI, Pfl.Geogr. Bon. Isl. p. 32 (1908' ; MATSUM., Ind. Pl. Jap. II. 2. p. 483 1912 ; SASAKI, List Pl. Formos. p. 328 (1928) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 109 1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 913 (193r

Nom. Jap. Isomatu

Leg. Ipse, Kurio, Mart. 23, 1923.

Distr. Honsyū, Amami-Osima, Okinawa, Taiwan, Bonins.

Note. The species is found on rocks which are covered with sea water at high tide.

Name of Plant	Regions											
	Philippines	Bonins	Taiwan	Iwa	Ryū	Osima	Sima	Prop.	thern	Kuŷ	n Kuriles & Kamitchatka	ria, Amur & Usuri
<i>Statice arbuscula</i> , MAXIM.	+	+	+	+								

When the distribution of *Statice*, the only representative genus of *Plumbaginaceae* in the island is considered, the island shows no special affinity with its neighbouring districts. But *Statice arbuscula* shows some affinity with the southern lands, for the species occurs on extremely rare occasions in Japan proper.

Ebenaceae

Ebenaceae, VENT., Tabl. II. p. 443 (1799, p.p.); JUSS., in Ann. Mus. Paris. V. p. 417 (1804)

Diospyros, [LINN., Gen. Pl. ed. 1. p. 143 (1753)]
 et Sp. Pl. ed. 1. p. 1057 (1753); ; ENDL., Gen. Pl. n. 4249 (1836-40); ; DC, Prodr. VIII. p. 222 (1844); BENTH. et HOOK. f., Gen. Pl. II. p. 665 (1876); GILKE., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. i. p. 161 (1890); ; LEMÉE, Diet. Gen. Pl. Phan. II. p. 642 (1930)

Syn. *Lotus*, [CAMERARIUS, Epistola p. 157 (1694)]

Diospyros Kuroiwai, NAK., in Tokyo Bot. Mag. XXXV. p. 135 (1921); MAK. et NEM., Fl. Jap. ed. 2. p. 916 (1931);

Norn. Jap. Ryūkyūmamegaki

Leg. Ipse, Kosugidani, Sept 1, 1926.

Distr. Amami-ŷsima, Okinawa.

Note. I have found this species in the laurisilvae near the sea level, and it has its northern limit in this island.

Diospyros nipponica, NAK., in Tokyo Bot. Mag. XXXV. p. 137 (1921), et in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 300 f. 141 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 109 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 917 (1931)

Syn. *Diospyros Morrisiana*, non HANCE, FR. et SAV., Enum. Pl. Jap. I. p. 307 (1875); MATSUM., Ind. Pl. Jap. II. 2. p. 485 (1912);

Nom. Jap. Tokiwa-gaki

Leg. Ipse, Ambo, ca. 100 m. Aug. 31, 1926.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa.

Note. The species is found in the laurisilvae and in the lower part of the lauriculisilvae, and is indigenous to the southern part of Japan.

Names of Plants	Philippino	Bonins	Taiwan	Okinawa	Amami-Ōsima	Ryūkyū	Tsushima	Kyūsyū	Sikoku	Honsyū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Mushuria, Amur & Ussuri	China
Diospyros Kuroiwai, NAK.				+	+											
Diospyros nipponica, NAK.				+	+	+	+	+	+	+						

One of the two indigenous species of *Ebenaceae*, has its northern limit in this island, and the other is distributed in both southern and northern lands beyond Yakusima. So in respect of this family the island is more or less closely related to Ryūkyū.

Symplocaceae

Symplocaceae, MIERS, in LINDL. Veg. Kingd. ed. 3. p. 593 (1853)

Palura, HAM., ex DON, Prodr. Fl. Nepal, p. 145 (1828); NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 306 (1927)

Syn. *Symplocos*, Sect. *Palura*, G. DON., Gen. Hist. Dichlamyd. PL IV. p. 3 (1838)

Lodhra, MIERS., in Journ. Linn. Soc. XVII. p. 297 (1879) p.p.

Symplocos, Sect. *Hopea*, Subsect. *Palura*, G. JÜRKE, in ENGL. U. PRANT. Nat. Pfl.-fam. IV. i. p. 169 (1890) p.p.

Palura argutidens, NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 1.1. p. 231 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 110 (1929)

Syn. *Symplocos paniculata*, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 102 (1867) p.p.

Symplocos crataegioides, (non HAMILT.) FR. et SAV., Enum. Pl. Jap. I. p. 308 (1875) p.p.

Symplocos argutidens, (v. NAK.) MAK. et NEM., Fl. Jap. ed. 2. p. 918 (1931)

Nom. Jap. Tanna-sawahutagi

Leg. Ipse, Jul. 31. 1924.

Distr. Honsyū, Sikoku, Kyūsyū, Korea.

Note. The species is found in the lauri-aciculisilvae from almost 1500 m up to 1800 m above the sea level, and has its southern limit in this island.

Eobua, DC., Prodr. III. p. 23 (1828); MIERS, in Journ. Linn. Soc. XVII. p. 303 (1879); NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. 1. p. 314 (1927)

Syn. *Bobu*, [HERMANN, Mus. Zeylan. p. 9 (1717J ADANS., Fam. II. p. 88 (1763), *Symplocos*, Sect. *Lodhra*, G. DON, Gen. Hist. Dichlam. Pl. IV. p. 2 (1838) *Symplocos*, BENTH. et HOOK. f., Gen. Pl. II. 2. p. 668 (1876) p.p. *Symplocos*, Subg. *Hopea*, Sect. *Palaeosymplocos*, BRAND., Sympl. p. 30 (1900) p.p.

Pobua glauca, NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 322 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 109 (1929)

Syn. *Laurus glauca*, THUNB., in Nov. Act. Reg. Soc. Ups. IV. p. 37 (1783), et Fl. Jap. p. 173 (1784)

Symplocos neriifolia, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 134 (1846); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 102 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 308 (1875); FORB. et HEMSL., Ind. Fl. Sin. II. p. 73 (1889); BRAND., in Engl. Pfl.-reich. IV. 242 (Heft 6); p. 69 (1901); MATSUM. et HAY., Enum. Pl. Formos. p. 231 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 488 (1912)

Bobua neriifolia, SIEB. et ZUCC., apud MIERS., in Journ. Linn. Soc. XVII. p. 306 (1879)

Myrsine Thunbergii, TANAKA, in Mém. Papers of 150 Annive. Thunb. Journ. Jap. p. 34 (1925)

Symplocos glauca, KOIDZ., in Tokyo Bot. Mag. XXXIX. p. 313 (1925); MAK. et NEM., Fl. Jap. ed. 2. p. 919 (1930)

Norn. Jap. *Mimizubai*

Leg. Ipse, April. 7, 1924.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, China.

Note. The species is found in the laurisilvae.

Pobua japonica, MIERS., in Journ. Linn. Soc. Bot. XVII. p. 306 (1879); NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 315 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 110 (1929)

Syn. *Laurus lucida*, THUNB., Fl. Jap. p. 174 (1784)

Hopea lucida, THUNB., Ic. Pl. Jap. Decas. II. t. 4 (1800)

Symplocos lucida, (non WALL, nee BROUGNIART) SIEB. et ZUCC, Fl. Jap. p. 55, t. 24 (1835); MATSUM., Ind. Pl. Jap. II. 2. p. 487 (1912)

Symplocos japonica, DC., Prodr. VIII. p. 255 (1844); SIEB., et ZUCC, Fl. Jap. Fam. Nat. II. p. 133 (1846); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 101 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 307 (1875); BRAND., in Engl. Pfl.-reich. IV. 242 (Heft 6); p. 31 (1900); MORI, Enum. Pl. Cor. p. 234 (1922)

Nom. Jap. *Kurcki*

Leg. Ipse, Onoaida, Mart. 23, 1923.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Korea.

Note. This tree is found from the sea level up to about 500 m.

Pobua ketoensis, YAMAMOTO, Supp. Ic. Pl. Formos. IV. p. 19 (1928); MASAMUNE, Prel. Rep. Veg. Yak. p. 110 (1929)

- Syn.** *Symplocos kotoensis*, HAY., Ic. PL Formos. V. p. 106, f. 31 (1915); MAK. et NEM., Fl. Jap. ed. 2. p. 920 (1931)
Symplocos spicata, (non ROXB.) HAY., Ic. PL Formos. V. p. 115 (1915);
Bobua lithocarpoides, NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 1. I. p. 243 (1922), et ed. 2. p. 326, f. 153 (1927)
- Norn. Jap.** *Aoba-no-ki*
Leg. Ipse, Jul. 21, 1924.
Distr. Tanegasima, Amami-6sima, Okinawa, Taiwan.
Note. The species grows in the laurisilvae at low altitudes.
- Bobua myrtacea**, SIEB. et ZUCC, apud MIERS. in Journ. Linn. Soc. XVII. p. 306 (1879); NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 319 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 110 (1929)
- Syn.** *Symplocos myrtacea*, SIEB. et ZUCC., Fl. Jap. Fam. Nat. II. p. 133 (1846); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 103 (1867); FORB. et HEMSL., Ind. Fl. Sin. II. p. 73 (1889); MATSUM. et HAY., Enum. PL Formos. p. 58 (1906); MAK. et NEM., FL Jap. ed. 2. p. 922 (193r)
- Nom. Jap.** *Hainoki*
Leg. Ipse, Hananoego, Jun. 12, 1928.
Distr. Honsyû, Sikoku, Kyûsyû, Taiwan.
Note. The species grows as a representative of the lauri-aciculilvae from 700 m up to 1800 m above the sea level.
- Bobua prunifolia**, SIEB. et ZUCC, apud MIERS. in Journ. Linn. Soc. XVII. p. 306 (1879); NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 317 (1927)
- Syn.** *Symplocos prunifolia*, SIEB. et ZUCC, FL Jap. Fam. Nat. II. p. 133 (1846); FR. et SAV., Enum. PL Jap. I. p. 308 (1875); MAK. et NEM., Fl. Jap. ed. 2. p. 922 (1931)
- Symplocos caudata*, WALL.; MATSUM., Ind. PL Jap. II. 2. p. 485 (1912):
- Abut. Jap.** *Kurobai*
Leg. Sitogo, Aug. 19, 1928.
Distr. Honsyû, Sikoku, Kyûsyû, Amami-Ôsima, Okinawa, Korea (Quelp.)
Note. It grows in the laurisilvae from the sea level up to about 500 m.
- Bobua Tanakae**, MASAMUNE, Prel. Rep. Veg. Yak. p. 110 (1929)
- Syn.** *Symplocos Tanakae*, MATSUM., in Tokyo Bot. Mag. XV. p. 79 (190r); MAK. et NEM., FL Jap. ed. 2. p. 922 (193r)
- Norn. Jap.** *Nagaba-no-kuroki*
Leg. Ipse, Aikodake, Aug. 1, 1924.
Distr. Sikoku, Tanegasima.
Note. The species is found in the laurisilvae and in the lauri-aciculilvae from 400 m up to 1300 m above the sea level, and is not yet found in lands further south than Yakusima.

Of the seven representatives of *Symplocaceous* plants indigenous to this island, two have their southern limit in this island. From this point of view the island is said to be closely related to the northern floral regions beyond Yakusima.

Names of Plants	Regions														
	Philippines	Bonins	Taiwan	Okinawa	Amami-6sima	Tanegasima	Kyûsyû Prop.	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria. Amur & Usuri	China
<i>Palura argutidens</i> , NAK.															
<i>Bobua glauca</i> , NAK.		+		+	+	+	+	+	+						+
<i>Bobua japonica</i> , MIERS.					+	+	+	+	+	+					+
<i>Bobua kotoensis</i> , YAMAMOTO				+	+	+									
<i>Bobua myrtacea</i> , SIEB. et ZUCC.								+	+	+					
<i>Bobua prunifolia</i> , SIEB. et ZUCC.				+				+	+	+					+
<i>Bobua Tanakae</i> , MASAMUNE						+				+					
Total	29	43	57	57	57	71	86	71	43						48
Percentage															
	(Southern elements 4)							(Northern element 7)							

*—S <

—, вД., in P. —r. V СРр. 244 (1844)

Styrax, [TOURN., ex LINN. Syst. ed. 1 (1735), et Gen. Pl. ed. 1. p. 143 (1737.) et Sp. Pl. ed. 1. p. 444 (1753); DC., Prod* VIII. p. 259 (1844); ENDL., Gen. Pl. n. 4252 (1836-40); BENTH., in BENTH. % HOOK. f. Gen. Pl. II. p. 669 (1876) p.p.; GÜRKE, in ENGL. u. PRANT. Nat. Pl.-fam. IV. i. p. 177 (1890); PERKINS, in ENGL. Pl.-reich. IV. 241 (Heft. 30) p. 17 (1907)]

Syn. *Trichogonida*, P. BR., Hist. Jam. p. 218 (1756)

Cyria, LOUR., Fl. Cochinch. p. 278 (1790)

Tremanthus, PERS., Synops. I. p. 467 (1805)

Styrax japonicum, SIEB. et ZUCC., Fl. Jap. I. p. 53, t. 23 (1837); DC., Prodr. VIII. f. 266 (1844); MID., in Ann. Mus. Bot. Lugd. Bat. III. p. 101 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 309 (1875); DIPPEL, Handb. Laubholzsk. I. p. 318, f. 207 (1889); FORB. et HERMSL., Ind. Fl. Sin. II. p. 76 (1889); PERKINS, in ENGL. Pl.-reich. IV.

241 iHeft. 30) p. 73 (1907); NAK., Fl. Kor. II. p. 86 (1911); MATSUM, Ind. PI. Jap. II. 2. p. 490 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 110 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 927 (1931)

Syn. *Styrax serrulatus*, ^non ROXB.) HOOK. f. in Bot. Mag. t. 5950 (1850)

Cyrta japonica, MIERS., Contr. Bot. I. p. 182 U851)

Norn. Jap. *Egonoki*

Leg. Ipse, Kurio, Mart. 23, 1923.

Dist. Honsyû, Sikoku, Kyfisyfi, Tanegasima, Amami-Oshna, Okinawa, Korea, China.

Note. This tree is found as an invader in waste lands near the sea level.

Regions																
Name of Plant	Philippines	Bonins	Taiwan	Okinawa	Amami-Ôsima	Ryûkyûs	Kyûsû		Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Usuri	China
<i>Styrax japonica</i> , SIEB. et ZUCC.				+	+	+	+	+	+	+						+

In this family the island is less closely related to Formosa than to the other regions (Okinawa, Amami-Ôsima and Japan proper).

Oleaceae

Oleaceae, LINDL., Nat. Syst. ed. 2. p. 307 (1836)

Fraxinus, [TOURN., ex LINN. Syst. ed. 1 (17351) et Sp. PI. ed. 1. p. 1057 (17531); ENDL., Gen. PI. n. 3353 a83&-40); DC, Prodr. VIII. p. 274 U8441; BENTH. et HOOK, f., Gen. PL II. p. 676 U876); KNOBLAUCH, in ENGL. u. PRANT. Nat. Pfl.-fam. IV. ii. p. 5 (18921; LINGELSHEIM, in ENGL. Pfl.-reich. IV. 243 iHeft. 72) p. 9 (1920)

Syn. *Fraxinoides*, MEDIK., in STAATSW. Vorles, Churph. Physoekon. Ges. I. p. 198 (1791)

Calycomelia, KOSTEL., All. Med.-Pharm. Fl. HI. p. 1003 U834)

Fraxinus Sieboldiana, BL. var. *serrata*, NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 391 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 110 (1929); YAMA-ZUTA, List Manch. PI. p. 221 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 932 (1931)

Syn. *Fraxinus longicuspis*, ^non SIEB. et ZUCC.) FR. et SAV., Enum. PI. Jap. I. p. 310 (1875); NAK., Fl. Kor. II. p. 87 (1911)

Fraxinus longicuspsis, var. *Sieboldiana*, LINGELS, in ENGL. Pfl.-reich. IV. 243 iHeft. 721 p. 23 (1920)

Nom. Jap. Kobanotoneriko

Leg. Ipse, Miyanoura, Aug. 1927.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Korea, Manchuria.

Note. The plant occurs on rare occasions in the island along river banks at low altitudes. It has its southern limit in this island.

Osmanthus, LOUR, Fl. Cochinch. p. 28 (1790 ;
ENDL., Gen. Pl. Supp. 1. p. 63 (1842) ; DC, Prodr. VIII. p. 291 (1844) ; BENTH.
et HOOK, f., Gen. Pl. II. p. 677 (1876) ; KNOBLAUCH, in ENGL. U. PRANT. Nat.
Pfl.-fam. IV. ii. p. 9 (1892)

Osmanthus ilicifolius, STANDISH, Proc. Hort. Soc. Lond. II. p. 370 (1862) ; NAK., in
NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 356, f. 166 (1927) ; MASAMUNE,
Prel. Rep. Veg. Yak. p. III (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 939 (1931-
Syn. Ilex aquifolium, LINN., Sp. Pl. ed. 1. p. 125 (1753) p.p. ; THUNB., Fl. Jap. p. 79
1784.

Olea ilicifolia, HASSK., Cat. Pl. in Hort. Bogor. Cult. Alt. p. 118 (1844)

Osmanthus aquifolium, SIEB., ex SIEB. et ZUCC. Fl. Jap. Fam. Nat. II. p. 166
1846 ; MATSUM., Ind. Pl. Jap. II. 2. p. 495 (1912)

Olea aquifolium, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 166 (1846) ; MIQ., in
Ann. Mus. Bot. Lugd. Bat. II. p. 264 (1866) ; FR. et SAV., Enum. Pl. Jap.
I. p. 312 (1875).

Mom. Jap. Hiiragi

Leg. Ipse, ca. Kosugidani, April. 5, 1927.

Distr. Honsyû, Sikoku, Kyûsyû.

Note. The plant is found on rare occasions in the laurisilvae or in the lauri-
aciculisilvae about 300 m up to 600 m above the sea level. It has its southern limit in
this island.

Osmanthus Zentaroanus, MAK., in Journ. Jap. Bot. III. p. 8 (1926) ; NAK., in NAK. et
KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 348, f. 161 (1927) ; MASAMUNE, Prel. Rep.
Veg. Yak. p. III (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 940 (1931),

Mom. Jap. Nataorenoki

Leg. Ipse, Kurio, Aug. 1, 1927.

Distr. Kyûsyû, Tanegasima, Nakanosima.

Note. The species is found in the laurisilvae from the sea level up to about 300 m
and is rarely found in the lauri-aciculisilvae.

Ligustrait, [TOURN., ex LINN. Syst. ed. 1 (1735)]
et Sp. Pl. ed. 1. p. 7 (1753) ; ENDL., Gen. Pl. n. 3352 (1836-40) ; DC, Prodr. VIII.
p. 293 (1844) ; BENTH. et HOOK, f., Gen. Pl. II. p. 679 (1876) ; KNOBLAUCH, in
ENGL. u. PRANT. Nat. Pfl.-fam. IV. ii. p. 13 (1892) ; LEMKE, Diet. Gen. Pl. Phan.
IV. p. 90 (1932)

Syn. Faulia, RAF., Fl. Tellur. II. p. 84 (1836)

Ligustridium, SPACH, Hist. Nat. Veg. Phaner. VIII. p. 371 (1839).

Ligustrum japonicum, THUNB., Nov. Act. Soc. Sc. Upsal. III. p. 207 (1780) , et Fl. Jap.
p. 17, t. 1 (1784) ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 264 (1866) ; FR. et
SAV., Enum. Pl. Jap. I. p. 313 (1875) , et II. p. 437 (1876) ; MATSUM., Ind. Pl. Jap.
II. 2. p. 494 (1912) ; MORI, Enum. Pl. Cor. p. 287 (1922) ; NAK., in NAK. et KOIDZ.
Tree. & Shrub. Jap. ed. 2. I. p. 385 (1927) ; MASAMUNE, Prel. Rep. Veg. Yak. p.
110 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 935 (1931).

Names of Plants	Regions														
	Philippines	Formosa	Java	Sumatra	Malaya	Indo-China	Tanegasi	Kyûsyû	Sikoku	Honsyû	Korea	Japan & Southern Kurî	Kuriles & Kamtchatka	Amur & Ussuri	Yakusima
<i>Ligustrum ovalifolium</i> , HASSK.							+	+	+	+	+				
<i>Ligustrum salicinum</i> , NAK.							+		+	+					
Total			1	2	2	2	6	4	5	4	3			1	1
Percentage			17	33	33	100	67	83	67	50				17	17
(Southern elements 2)							(Northern elements 6)								

Norn. Jap. Yanagi-ibota

Leg. Ipse, Jul. 21^f 1924.

Distr. Honsyû, Kyûsyû, Korea.

Note. It is found in the lowlands as a representative of the laurisilvae. It has its southern limit in this island.

With regard to this family, Yakusima has several species which have their southern limit in this island, and which occur rather commonly in the northern lands. The island therefore is closely related to lands further north than Yakusima if we take only this family into consideration.

Loganiaceae

Loganiaceae, LINDL., Nat. Syst. ed. 2. p. 306 11836

Mitrascme, LABILL., Nov. Holl. Pl. Sp. I. p. 35, t. 49 11804); ENDL., Gen. Pl. n. 3566 (1836-401 ; DC, Prodr. IX. p. 9 (18451 ; BENTH. et HOOK. f. Gen. Pl. II. p. 790 (1876) ; SOLEREDER, in ENGL. U. PRANT. Nat. Pfl. Fam. IV. ii. p. 35 U892.; LEMÉE, Diet. Gen. Pl. Phan. IV. p. 503 (1932^A Syn. *Mitrascme*, SCHULT., Mant. III. p. 67 (1827)

***Mitrascme poiymorpha*. R. BR.**, Prodr. Fl. Austral, p. 452 (1810, ; DC, Prodr. IX. p. 10 (1845); C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. IV. p. 80 (18831 ; FORB. et HEMSL.,

Ind. Fl. Sin. II. p. 118 (1889) ; MATSUM., Ind. Pl. Jap. II. 2. p. 498 '1912' ; DUNN et TUTCH., Fl. Kwangt. & Hongk. p. 173 '1912' ; MERR., Enum. Philipp. Pl. III. p. 311 1923 ; MASAMUNE, Prel. Rep. Veg. Yak. p. III U929> ; MAK. et NEM., Fl. Jap. ed. 2. p. 913 (1931)

Syn. Mitrasme malacensis, WIGHT, Ic. Pl. Ind. Or. t. 1601 (1850)

Mitrasme capillaris, WALL.; BENTH., Fl. Hongk. p. 230 (1861) ; MATSUM. et HAY., Enum. Pl. Formos. p. 241 (1906) ; NAK., Fl. Kor. II. p. 96 (1911-

Norn. Jap. Ainac

Leg. Ipse, Aug. 31, 1931.

Distr. Honsyû, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Philippines.

Acts. The species is frequently found in fallow fields at low altitudes.

Gardneria, WALL., ex ROXBURGH Fl. Ind. ed.

CAREY I. p. 400 (1820) ; ENDL., Gen. Pl. n. 3361 U836-40' ; DC, Prodr. IX. p. 19 (1845) ; BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 793 (1867) ; SOLEREDER, in ENGL. U. PRANT. Nat. Pfl.-fam. IV. ii. p. 41 U892

Gardneria nutans, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 165 U846. ; FR. et SAV., Enum. Pl. Jap. I. p. 321 (1875. ; NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 1. I. p. 315, f. 175 (1922i), et ed. 2. I. p. 431, f. 207 U927) ; MASAMUNE, Prel. Rep. Veg. Yak. p. III U929^N ; MAK. et NEM., Fl. Jap. ed. 2. p. 913 U931)

Syn. Pseudogardneria nutans, RACIB., in Anzeiger Akad. Wissensch. Krakaw (1896)

Norn. Jap. Hôrai-kazura

Lea. Ipse, Jul. 16, 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Okinawa.

Note. The species is found in forests or on forest edges in the laurisilvae or the lower part of the lauri-aciculisilvae.

rudèkia, [HOUST., ex LINN. Gen. Pl. ed. 1. p. 26

(1737)] et Sp. Pl. ed. 1. p. 112 (1753) ; ENDL., Gen. Pl. n. 3971 (1836-10) ; BENTH., in DC. Prodr. X. p. 433 (1816), et in BENTH. et HOOK. f. Gen. Pl. II. p. 793 (1876) ; SOLKREDER, in ENGL. u. PRANT. Nat. Pfl.-fam. IV. ii. p. 46 (1832) ; LEMFÈ, Diet. Gen. Pl. Phan. I. p. 707 (1929-

Syn. Toxina, NOR., in Verh. Bot. Gen. V. Art. IV. p. 4 (1790)

Huddleia curviflora, HOOK, et ARNOT. var. *vernifera*, MAK., in Tokyo Bot. Mag. XXV. p. 156 (1911) ; MASAMUNE, Prel. Rep. Veg. Yak. p. III >1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 912 (1931)

Nom. Jap. Urazirohuziutugi

Lea. Ipse, Jul. 14, 1922.

Kistr. Tanegasinvi, Nakanosima, Kutinoerabu, Amami-Ôsima.

Netc. The species is found in somewhat sunny spots near the sea level, and is endemic to this island and to the above cited regions which compose the northern part of the Ryûkyû archipelago.

Considering the distribution of the representatives of the *Loganiaceae* plants indigenous to this island, the island is more closely related to Amami-Ôsima and Kyûsyû than to the other floral regions, and is less so to Formosa.

Names of Plants	Regions											
	33	Taiwan	Okinawa	Amami-Oshima	Tan-gasid ^B	K ^B Ryū Kyū	Sikoku	Honsyū	Korea	Yezo & So	Kuriles	Northern Kuriles & Kamchatka Churia, Amur & Usuri ^B
Mitrascme polymorpha, R. BR.	+	1	++	+	+	+		+	+			+
Gardneria nutans, SIEB. et ZUCC.			+			+	+	+				
Buddleia curviflora, HOOK, et ARN. var. vernifera, MAK.	I			+	+							

Gentianaceae

Gentianaceae, DUMORT, Anal. Famil. p. 20, t. 25 (1829)

Erythraea, (RENEALM) ex BORKH. in ROEMER

Arch. I. p. 1 (1796); L. C. RICH., in PERSOON Synop. I. p. 283 U805; ENDL., Gen. PI. n. 3543 (1835); GRISEB., in DC. Prodr. IX. p. 57 (1845); BENTH., in BENTH. et HOOK. f. Gen. PI. II. p. 809 (1876); GILG, in ENGL. U. PRANT. Nat. Pfl.-fam. IV. ii. p. 73 (1895); LEMÉE, Diet. Gen. PI. Phan. III. p. 9 (1931)

Syn. *Centaur odes*, [MOEHR., Hort. Priv. p. 109 (1763);] O. KUNTZE, Rev. Gen. PI. II. p. 426 [1891]

Erythraea spicata, (LINN.) PERS., Synop. I. p. 283 (1805); DC, Prodr. IX. p. 60 (1845); MERR., Enum. Philipp. PI. III. p. 317 (1923); MAK. et NEM., Fl. Jap. ed. 2. p. 945 (1931)

Syn. *Gentiana spicata*, LINN., Sp. PI. ed. 1. p. 230 (1753)

Erythraea australis, R. BR.; HAY., Mat. Fl. Formos. p. 200 (1911); MATSUM. Ind. PL Jap. II. 2. p. 499 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. III (1929)

Nom. Jap. Ho'aisenburi

Leg. Ipse, Kurio, Jul. 4, 1928.

Distr. Amami-Oshima, Okinawa, Taiwan, Philippines.

Aote. This littoral plant grows on rocks especially on coral. It has its northern limit in this island.

Crawfordia, WALL., Tent. Fl. Nepal. II. p. 63, tt.

47, 48 (1826); ENDL., Gen. PI. n. 3556 (1835-40); DC, Prodr. IX. p. 120 (1845); BENTH., in BENTH. et HOOK. f. Gen. PI. II. p. 815 (1876); GILG, in ENGL. U. PRANT. Nat. Pfl.-fam. IV. ii. p. 78 (1895); LEMÉE, Diet. Gen. PI. Phan. II. p. 363 (1930);

Syn. *Golowninia*, MAXIM., in Bull. Acad. St. Pet. IV. p. 252 (1862)

Crawfordia japonica, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 160 (1846); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 124 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 324 (1875); MAXIM., in Mém. Biolog. IX. p. 399 (1874); MIY., Fl. Kurile. p. 251 (1890); MASAMUNE, Prel. Rep. Veg. Yak. p. III (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 944 (1931)

Syn. *Golowinia japonica*, MAXIM., in Mém. Biol. IV. p. 37, cum. Ic. (1861)

Crawfordia trinervis, MAK., in Tokyo Bot. Mag. XVI. p. 171 (1902); MATSUM., Ind. Pl. Jap. II. 2. p. 498 (1912); MORI, Enum. Pl. Cor. p. 289 (1922)

Crawfordia fasciculata, WALL.; MATSUM. et HAY., Enum. Pl. Formos. p. 243 (1906)

Norn. Jap. Turu-rindô

Leg. Ipse, Aug. 1931.

Distr. Kuriles, Yezo, Honsyû, Sjkoku, Kyûsyû, Taiwan, Korea.

Note. The species is found in the lauri-aciculisilvae.

var. *tenuis*, MASAMUNE, in Journ. Trop. Agr. IV. p. 76 (1932)

Nom. Jap. *Yakusima-turu-rindô*

Leg. Ipse, Aug. 31, 1931.

Distr. Endemica.

Note. The variety is found in the Pseudosasa Owatarii Association from about 1700 m up to 1900 m.

Kudoa, MASAMUNE, in Journ. Trop. Agr. II. p.

29 (1930)

Kudoa yakushimensis, (MAK.) MASAMUNE, in Journ. Trop. Agr. II. p. 29 (1930)

Syn. *Gentiana yakushimensis*, MAK., in Tokyo Bot. Mag. XXIII. p. 252 (1909); MAK. et NEM., Fl. Jap. ed. 2. p. 949 (1931)

Nom. Jap. *Yakusima-rindô*

Leg. Ipse, Aug. 31, 1926.

Distr. Endemica.

Note. This species is a lithophyte and is found in crevices of granite found in the Pseudosasa Owatarii Association, from 1800 m up to 1900 m.

Gentiana, [TOURN., ex LINN. Syst. ed. 1 (1735)]

et Sp. Pl. ed. 1. p. 227 (1753); ENDL., Gen. Pl. n. 3528 (1836-40); GRISEB., in DC. Prodr. IX. p. 86 (1845); BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 815 (1876) p.p.; KUSNEZOW, in ENGL. u. PRANT. Nat. Pfl.-fam. IV. ii. p. 80 (1895) p.p.; LEMÉE, Diet. Gen. Pl. Phan. III. p. 227 (1931) p.p.

Syn. *Crossopetalon*, ADANS., Fam. II. p. 224 (1763)

Gentiana sino-ornata, BALFOUR. f. form. *saxatilis*, NAK., in Tokyo Bot. Mag. XLVI. p. 608 (1932)

Syn. *Gentiana scabra*, var. *Buergeri*, subv. *saxatilis*, HONDA, in Tokyo Bot. Mag. XLII. p. 508. U928^.

Gentiana saxatilis, HONDA, in Tokyo Bot. Mag. XLIII. p. 191 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 948 (1931)

Nom. Jap. *Kumarindô*

Leg. OKUMURA! Inter Miyanoura et Miyanouradake, April. 11, 1906.

Distr. Kyûsyû.

Note. I have not collected any specimen of this plant from this island but Dr. KUDO told me that Mr. OKUMURA had once collected this plant in the island. It is not yet found in lands further south than this island belonging to Japan.

Gentiana squarrosa, LEDEB., in Mém. Acad. St. Petersb. V. p. 527 (1812); FR. et SAV., Enum. Pl. Jap. I. p. 323 (1875), et II. p. 450 (1876); FORB. et HEMSL., Ind. Fl. Sin. II. p. 135 (1890[^]); KOM., Fl. Mansh. III. p. 258 (1907); NAK., Fl. Kor. II. p. 98 (1911); MATSUM., Ind. Pl. Jap. II. 2. p. 502 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 112 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 949 (1931)

Nom. Jap. *Koke-rindô*

Leg. Ipse, Mart. 22. 1923.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Korea, Manchuria.

Note. The species is found as undergrowth in the laurisilvae at low altitudes.

Gentiana yakumontana, MASAMUNE, Prel. Rep. Veg. Yak. p. 112 (1929); *Herbae annuae glabriusculae*, ca. 8 mm altae. Folia radicalia 3-5 rosulata sessilia ovata, ovato-elliptica vel ovato-rotundata glabra ca. 1.5 cm longa, 1 cm lata, apice rotundata ad summo vix mucronata, basi attenuata, caulina opposita sessilia, minora quam radicalia, elliptica, vel elliptico-ovata. Flores plerumque terminates erecti pedunculati, pedunculis 1-3 mm longis, bracteis oppositis lanceolatis 3 mm longis. Calyx late campanulatus membranaceus 4-5 mm longus 5 partitus, segmentis lineari-deltaoideis ca. 1 mm longis. Corolla pupurea tuboso-campanulata ca. 1 cm longa, tubo superne dilatato, limbo 5-lobato, lobis longe deltoideis 2 mm longis 1 mm latis acutis contortis. Stamina 5, ad basin tubi affixa filamentis filiformibus 4-6 mm longis, antheris oblongis ca. 1.5 mm longis. Ovarium sessile, oblongum, stigmate sessili, 2-fido, capituliformi.

Nom. Jap. *Yakusima-koke-rindô*

Leg. Ipse, Yaegadake, ca. 1800 m alt.

Distr. Endemica.

Note. The new species is found only in this island, and grows on bare ground scattered in the Pseudosasa Owatarii Association.

Gentiana Zollingeri, FAWCETT, in Journ. Bot. XXI. p. 183 (1883); FORB. et HEMSL., Ind. Fl. Sin. II. p. 138 (1890); KOM., Fl. Mansh. III. p. 260 (1907); NAK., Fl. Kor. II. p. 97 (1911); MATSUM., Ind. Pl. Jap. II. 2. p. 502 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 112 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 950 (1931)

Syn. Gentiana Thunbergii, (non GRISEB.) MAXIM., in Mém. Biolog. IX. p. 397 (1874)

Nom. Jap. *Hude-rindô*

Leg. Y. KUDO! Aug. 1907.

Distr. Saghalien, Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Korea, Manchuria.

Note. The species is found as undergrowth in the lauri-aciculisilvae about 700 m above the sea level.

Swertia, [*Swerta*] LINN., Sp. Pl. ed. 1. p. 226 (1753); ENDL., Gen. Pl. n. 3530 (1836-40); GRISEB., in [DC. Prodr. IX. p. 131 (1845)]; BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 816 (1876); GILG., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. ii. p. 87 (1895)

Syn. Frasera, WALTER, Fl. Coarol. p. 87 (1788)

Agathotes, D. DON, in Philos. Mag. VIII. p. 77 (1836)

Anagallidium, GRISEB., Gen. et Sp. Gent. p. 311 (1839)

Swertia chinensis, FRANCH., in Bull. Soc. Fr. XXXII. p. 26 (1885); FORB. et HEMSL., Ind. Fl. Sin. II. p. 139 (1890); NAK., Fl. Kor. II. p. 100 (1911); MATSUM., Ind. Pl. Jap. II. 2. p. 503 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 112 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 951 (1931)

Syn. *Swertia rotata*, (non LINN.) THUNB., Fl. Jap. p. 115 (1784)
Ophelia chinensis. BUNGE, in DC. Prodr. IX. p. 126 (1845) ; FR., Pl. David. I. p. 212 (1884)
Pleurogyne rotata, (non GRISEB.) SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 159 (1846) ; FR. et SAV., Enum. Pl. Jap. I. p. 324 (1875)
Swertia diluta, BENTH. et HOOK, f., Gen. Pl. II. p. 817 (1876) ; HANCE, in Journ. Bot. XX. p. 37 (1882)
Norn. Jap. Murasaki-senburi
Leg. Ipse, Aikodake, Jul. 10. 1928.
Distr. Honsyû, Kyûsyû, Korea.
Note. Grows in somewhat open sunny spots; has its southern limit in this island

Swertia Tashiroi, MAK., in Tokyo Bot. Mag. XVII. p. 53 (1903); et in id. XVIII. p. 142 (1904); MATSUM., Ind. Pl. Jap. II. 2. p. 504 (1912); MASAMUNE, PreL Rep. Veg. Yak. p. 112 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 952 (1938)
Nom. Jap. Hekka-rindô
Leg. Ipse, Kosugidani, Sept. 1928.
Distr. Kyûsyû, Nakanosima, Amami-Gsima, Okinawa.
 • *Note.* The species is found as undergrowth in the lauri-aciculisilvae, or in open lands.

Names of Plants	Regions											
	Pines	S	T	O	I	B	sima	Ryûkyûs	Kyûsyû	H	W	China
<i>Erythraea spicata</i> , PERS.	+	+	+	+								
<i>Crawfordia japonica</i> , SIEB. et ZUCC.		+							+	+	+	+
<i>C. j. var. tenuis</i> , MASAMUNE												
<i>Kudoa yakushimensis</i> , MASAMUNE												
<i>Gentiana sino-ornata</i> , BALFOUR. f. f. saxatilis, NAK.									+			
<i>Gentiana squarrosa</i> , LEDEB.									+1	+	+	+
<i>Gentiana yakumontana</i> , MASAMUNE												
<i>Gentiana Zollingeri</i> , FAWCETT.									+	+	+	+
<i>Swertia chinensis</i> , FR.									+	+	+	+

Names of Plants	Regions														
	Philippines	Bonins	Taiwan	Okinawa ⁸	Amami-Osima	Tanegasima	Kyûsyû Prop.	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Yaghalien	Northern Kuriles & Kamtchatka	Sa ³ & i	S ³ ina
Swertia Tashiroi, MAK.				+	+		+								
Total	10	1	2	2	2	2	6	4	4	4	2	1	2	2	2
Percentage	10	10	20	20	20	20	60	40	40	40	20	10	20	20	20
; Southern elements 3 ¹											Northern elements 6.				

Considering the distribution of the *Gentianaceous* plants indigenous to this island the island is closely related to the northern regions.

Apocynaceae

Apocynaceae, LINDL., Nat. Syst. ed. 2 '1836 ; BENTH., in BENTH. et HOOK. f. Gen. PL. II. p. 681 '1876!

Anodendron, A. DC, Prodr. VIII. p. 443 '1844 ; BENTH., in BENTH. et HOOK. f. Gen. PL. II. p. 719 '1876, ; SCHUM., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. ii. p. 172 '1895^N, ; LEMÉE, Diet. Gen. PL. Phan. I. p. 284 '1929

Syn. *Anadendron*, WIGHT, Ill. Ind. Bot. II. p. 164 (1850[^])

Anodendron affine, NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. p. 416 '1927 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 112 '1929[^]

Syn. *Halarrhena affinis*, HOOK., et ARNOT., Bot. Capt. Beech. Voy. p. 198 '1836

Anodendron laeve, MAXIM., ex FR. et SAV. Enum. PL. Jap. I. p. 315 '1875 ; FORB. et HEMSL., Ind. Fl. Sin. II. p. 99 '1889¹ ; MATSUM. et HAY., Enum. PL. Formos. p. 252 '1906 ; MATSUM., Ind. PL. Jap. II. 2, p. 505 '1912¹ ; DUNN et TUTCH., Fl. Kwangt. & Hongk. p. 169 '1912 ; CHUN., Cat. Tree. & Shrub. Chin. p. 220 '1924 ; MAK. et NEM., Fl. Jap. ed. 2. p. 955 '1931

Anodendron suishaense, HAY., Ic. PL. Formos. VI. p. 29, PL. VII. '1916.

A'om. Jap. *Sakaki-kazura*

Leg. Ipse, Mart. 23. 1923.

Dirtr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-dsima, Okinawa, Taiwan, China.

Note. The species is found in the laurisilvae or in the littoral forests.

Trachelospermum, LEM._f Jardin Fleur, I. t. 61

.1851; ; BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 720 (1876, ; SCHUM., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. ii. p. 173 a895!

Syn. *Rhychospermum*, LINDL., in Journ. Hort. Soc. I. p. 74 U846)

Triadenia, MIQ., Fl. Ind. Bat. II. p. 458 U856!

Parechites, MIQ., in Versl. in Med. Akad. Amsterdam VI. p. 193 '1857 •

Trachelospermum asiaticum, NAK. var. *intermedium*, NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. p. 419 '1927! ; MASAMUNE, Prel. Rep. Yeg. Yak. p. 112 1929' ; MAK. et NEM., Fl. Jap. ed. 2. p. 959 j193r

Syn. *Nerium divaricatum*, inon LINN.' THUNB., Fl. Jap. p. 110 11784)

Malouetia asiatica, SIEB. et ZUCC., Fl. Jap. Fam. Nat. II. p. 163 ;1846 partim.

Parechites Thunbergii, A. GRAY, in Mem. Am. Acad. Art. Sicen. ser. 2. VI. p. 403 ;1859 p.p.

Trachelospermum jasminoides, (non LINNj FR. et SAV., Enum. Pl. Jap. II. p. 438 '1879. ; NAK., Fl. Kor. II. p. 91 (1911)

Trachelospermum divaricatum, K. SCHUM., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. ii. p. 173 '1895) *exi syn. et fig. in* p. 167 (18951 ; MATSUM., Ind. Pl. Jap. II. 2. p. 507 ;1912,

Nom. Jap. *Teika-kazura*

Leg. A. KIMURA! Aug. 10, 1922.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea.

Note. The species is often found in waste lands or on the edges of forest of laurisilvae.

var. *puoescens*, NAK., Fl. Sylv. Kor. XIV. p. 13 <1923.; et in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 420 ;1927: ; MASAMUNE, Prel. Rep. Veg. Yak. p. 112 1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 959 U93r.

Syn. *Trachelospermum jasminoides*, var. *pubescens*, MAK., in Tokyo Bot. Mag. XXVI. p. 122 '1912-

Aom. Jap. *Keteikakazura*

Leg. Ipse, Jul. 4, 1924.

Distr. Honsyû, Kyûsyû, Korea.

Note. The variety is found under the same conditions of the enviroment as the previous one. It has its southern limit in this island.

var. ***obianceolata***, NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2.1. p. 423 '1927 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 113 1929! ; MAK. et NEM., Fl. Jap. ed. 2. p. 959 ;1931.

Abut. Jap. *Nagaba-teikakazura*

Leg. Ipse, Jul. 21, 1927.

Distr. Kyûsyû.

Note. This climbing tree is found in the laurisilvae or in the lauri-aciculisilvae. The variety has its southern limit in this island.

Trachelospermum majus, NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 1. I. p. 308 .1922 , et ed. 2. p. 424 f. 203 *;1927: ; MAK. et NEM., Fl. Jap. ed. 2. p. 960 1931

Abut. Jap. *Tydzi-kazura*

Leg. Ipse, Sitogo, Aug. 19, 1928.

Distr. Honsyû, Kyûsyii.

Note. The species is not yet found in lands further south than this island.

Names of Plants	Regions												
	20 OuPQH	3 O	6 <	Tanegasima	Kyûsû Prop.	Siko	Honsyû	Koro	Yezo & Sakhalin	Kuriles	Northern Japan & Kamtchatka	Mar churi & Usuri	China
Anodendron affine, XAK.		+	+	+	+	+	+						+
Trachelosperum asiaticum, NAK. var. intermedium, NAK.		+	+	+	+	+	+	+					
T. a. var. pubescens, NAK.							14	+					
T. a. var. oblanceolata, NAK.													
Trachelosperum majus, NAK.							+						
Total	5	2	2	2	2	5	2	4	2				1
Percentage		40	40	40	40	100	40	80	40				20
[Southern elements 2]				[Northern elements 5]									

It will appear from the above table that the island is closely related to the northern floral region in respect of this family.

Asclepiadaceae

Asclepiadaceae, LINDL., Veg. Kingd. p. 623 (1847)

Cynanchum, [LINN., Gen. Pl. ed. 1. p. 63 (1737) et Sp. Pl. ed. 1. p. 212 (1753); ENDL., Gen. Pl. n. 3461 (1836-40); DECNE., in DC. Prodr. VIII. p. 547 (1844); BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 762 (1876); SCHUM., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. ii. p. 250 (1895); LEMfE, Diet. Gen. Pl. Phan. II. p. 457 (1930)

Syn. Vince toxic urn, [RUPP., Fl. Jen. ed. 3. p. 25 (1745.) MOENCH, Meth. p. 717 (1794); *Psanchum*, NECK., Elem. I. p. 254 (1790) *Lyonica*, ELL., Sketch. Bot. South-Carol. I. p. 316 (1817)

Cynanchum japonicum, HEMSL., in Journ. Linn. Soc. XXVI. p. 107 (1889); PALIB., Consp. Fl. Kor. II. p. 12 (1900); NAK., Fl. Kor. II. p. 95 (1911); MATSUM., Ind.

- PL Jap. II. 2. p. 509 (1912[^] ; MASAMUNE, Prel. Rep. Veg. Yak. p. 113 (1929) ;
 MAK. et NEM., Fl. Jap. ed. 2. p. 963 (1931)
Syn. Vincetoxicurn japonicum, MORR. et DEC, in Bull. Acad. Brux. III. p. 172 (1836^x ;
 DECNE., in DC. Prodr. VIII. p. 524 (1844) ; FR. et SAV., Enum. Pl. Jap. II.
 p. 319 U876); MAXIM., in Mél. Biolog. IX. p. 783 (1876)
Tylophora floribunda, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 128 [1866]
Norn. Jap. Iyokazura
Leg. Y. KUDO! Aug. 1907.
Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Korea, China.
Note. The species is found [in waste places or by the roadside near the sea
 level.

Tylophora, R. BR.; in Mem. Werner, Soc. I. p. 28 118091 ; ENDL., Gen. Pl. n. 3500 (1836-40) ; DECNE., in DC. Prodr. VIII. p. 606 (1844) ; BENTHP in BENTH. et HOOK, f., Gen. Pl. II. p. 770 (1876) ; SCHUM., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. ii. p. 286 (1895)
Syn. Hybanthera, ENDL., Prodr. Norf. p. 59 (18331

Tylophora Tanakae, MAXIM., ex FR. et SAV. Enum. Pl. Jap. I. p. 321 (1875), et in Mél. Biolog. IX. p. 815 (1876) ; MATSUM., Ind. Pl. Jap. II. 2. p. 515 (1912) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 113 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 970 (19311

Syn. Vincetoxicurn Tanakae, FR. et SAV., Enum. Pl. Jap. II. p. 444 (1876)

Norn. Jap. Turumôrinka

Leg. Ipe, Kurio, Jun. 26, 1928.

Distr. Kyûsyû, Tanegasima, Amami-6sima, Okinawa.

Note. This climbing plant is found in waste places at low altitudes. It is restricted to Kyûsyû and the Ryûkyû region.

Stephanotis, THOU., Gen. Nov. Madagascar p. 11 U806,; ENDL., Gen. Pl. n. 3510 (183&401 ; DECNE., in DC. Prodr. VIII. p. 620 (1844); BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 773 (1876); SCHUM., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. ii. p. 287 (1895>

Syn. Isaura, CO MM, ex POIR. Encycl. Supp. III. p. 185 (1813)

Stephanotis japonka, MAK., in Tokyo Bot. Mag. VI. p. (531 (1892;; NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 438 t. 210 (1927J; MASAMUNE, Prel. Rep. Veg. Yak. p. 113 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 968 (1931)

Syn. Stephanotis chinensis, non CHAMP.) MAK., in Tokyo Bot. Mag. XVIII. p. 71 (1904); MATSUM., Ind. Pl. Jap. II. 2. p. 514 (1912j

Nom. Jap. Sitakisô

Leg. Ipe, Kosugidani, Jul. 24. 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima.

Note. The plant is found from the sea level up to 600 m above in the laurisilvae and very often in clearings. The species has its southern limit in this island.

Hoya, R. BR., in Mem. Werner, Soc. I. p. 26 (1809;; ENDL., Gen. Pl. n. 3501 (1836-40); DECNE., in DC. Prodr. VIII. p. 634 (1844); BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 776 (1876); SCHUM., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. ii. p. 289 (1895); LEMfCE, Diet. Gen. Pl. Phan. III. p. 658 (1931)

Syn. Speringia, VAHL., in Skrivt. Nat. Selsk. Kjobenth. VI. p. 113 (1810)

Stephanotis japonica, MAK.					+	+	+		
Hoya carnososa, R. BR.		+	+	+		+			+
Marsdenia tomentosa, MORR. et DE CAISN.		!	!	!	+	+	+	+	
Total 5		1	1	3	4	5	5	3	3
Percentage		20	20	60	80	100	100	60	60
									2
									40
(Southern elements 4)					(Northern elements 5)				

Nom. Jap. Kxzyóran

Leg. Ipse, Onoaida, Sept. 5, 1926.

Distr. Honsyü, Kyüsyü, Tanegasima, Amami-6sima, Okinawa.

Note. The species flourishes as a liane in the laurisilvae from the sea level up to 500 m. It has its southern limit in Okinawa.

From the above table, it will be seen that most of the species of this family indigenous to the island have their southern limit in Okinawa, and are not found in Formosa. From this point of view the sea that divides Okinawa and Formosa has some significance as dividing the floral regions of *Asclepiadaceae*.

Convolvulaceae

Convolvulaceae, VENT., *Tabl. II. p. 394*, 17991 ; CHOISY, in DC. *Prodr. IX. p. 325* (1845)

Dichondra, FORST, *Char. Gen. p. 39, t. 20*, 1776) ;
ENDL., *Gen. Pl. n. 3788* ; 183&-40^N ; CHOISY, in DC. *Prodr. IX. p. 451* (1845 ; BENTH. et HOOK, f., *Gen. Pl. II. p. 879* (1876[^] ; PETER, in ENGL. U. PR ANT. *Nat. Pfl.-fam. IV. iii. a. p. 13* '1891[^] ; LEMÉE, *Diet. Gen. Pl. Phan. II. p. 586* (1930)

Syn. Demidofia, J. F. GMEL., *Syst. II. p. 458* (1791)

Dichondra rtpens, FORST., *Char. Gen. p. 39, t. 20*; 1776); CHOISY, in DC. *Prodr. IX. p. 451* (1845); BENTH., *Fl. Hongk. p. 240* (1861); MIQ., in *Ann. Mus. Bot. Lugd. Bat. III. p. 189* (1867); FR. et SAV., *Enum. Pl. Jap. I. p. 332* (1875); FORB. et HEMSL., *Ind. Fl. Sin. II. p. 167* (1890 ; DIELS, *Fl. Centr. Chin. p. 544* (1900); MATSUM. et HAY., *Enum. Pl. Formos. p. 268* (1906); MATSUM., *Ind. Pl. Jap. II. 2. p. 517* (1912) ; DUNN et TUTCH., *Fl. Kwang. & Hongk. p. 181* (1912) ; GAGNEPAIN, in LECOMIE *Fl. Ind. Chin. IV. 3. p. 310* (1915.); MORI, *Enum. Pl. Cor. p. 295* (1922) ; MERR., *Enum. Philipp. Pl. III. p. 357* (1923-); MASAMUNE, *Prel. Rep. Veg. Yak. p. 114* (1929[^]

Syn. Siphorthopia evolvulacea, LINN, f., *Supp. Syst. Veg. p. 288* (1781)

Dichondra evolvulacea, BRITT., in *Mem. Torr. Bot. Club. V. p. 268* (1894) ; MAK. et NEM., *Fl. Jap. ed. 2. p. 974* (1931,

Nom. Jap. Auigoke

Leg. Ipse, Yudomari, April. 2, 1927.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China, Philippines.

Note. The species is found along the roadside, in cultivated or waste lands near dwellings. It is widely distributed in tropical and subtropical regions.

Erycibe, ROXB., Pl. Coromandel. II. p. 31, t. 159

(1798; ENDL., Gen. Pl. n. 3815 (183&4W; CHOISY, in DC. Prodr. IX. p. 464 (1845); BENTH. et HOOK, f., Gen. Pl. II. p. 868 (1876); PETER, in ENGL. u. PRANT.

Nat. Pfl.-fam. IV. iii. a. p. 36 (1891); LEMEE, Diet. Gen. Pl. Phan. III. p. 5 (1931

Syn. Catonia, VAHL., in Skrivt. Nat. Selsk. Kjöben. VI. p. 98 '1810'

Erimatalia, ROEM. et SCHULT. f., Syst. V. p. 27 '1819^

Erycibe acutifolia, HAY., Ic. Pl. Formos. IX. p. 76 (1920; MASAMUNE, Prel. Rep. Veg. Yak. p. 114 U929; MAK. et NEM., Fl. Jap. ed. 2. p. 974 -1931^

Nom. Jap. Horuto-kazura

Leg. Ipse, April. 5, 1927.

Distr. Kyūsyū, Amami-6sima, Okinawa, Taiwan.

*Note. This climbing tree is found in the laurisilvae from the sea level up to about 500 m. It occurs very rarely in the southern part of Kyūsyū, (Penn. Sata. in Prov. 6sumi> the most northern limit of habitat of this species. I have grave doubt that it may be the same as *E. Henryi*.*

Calystegia, R. BR., Prodr. p. 482 (1810); ENDL.,

Gen. Pl. n. 3301 U836-40; CHOISY, in DC. Prodr. IX. p. 433 J845); BENTH. et HOOK, f., Gen. Pl. II. p. 874 (1876); PETER, in ENGL. u. PRANT. Nat. Pfl.-fam.

IV. iii. a. p. 36 [1891; LEMEE, Diet. Gen. Pl. Phan. I. p. 791 '1929'

Syn. Convolvulus, LINN., Sp. Pl. ed. 1. p. 153 (1753; partim.

Calystegia soldanella, R. BR., Prodr. Pl. Nov. Holl. p. 483 '1810; CHOISY, in DC.

Prodr. IX. p. 433 '1845; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 94 (1865);

FR. et SAV., Enum. Pl. Jap. I. p. 331 (1875); FORB. et HEMSL., Ind. Fl. Sin. II. p. 165 '1890; PALIB., Consp. Fl. Kor. II. p. 18 U900-; MATSUM. et HAY., Enum.

Pl. Formos. p. 267 (1906); KOM., Fl. Man. III. p. 304 '1907); NAK., Fl. Kor. II. p. 109 '1911); MATSUM., Ind. Pl. Jap. II. p. 516 '1912; LOESEN., Pflanz.-welt.

Kiautsch. Geb. p. 171 (1918); MASAMUNE, Prel. Rep. Veg. Yak. p. 114 (1929; MAK. et NEM., Fl. Jap. ed. 2. p. 972 (1931)*

Syn. Convolvulus Soldanella, LINN., Sp. Pl. ed. 1. p. 159 '1753; BENTH., Fl. Austr. IV. p. 431 '1869

Nom. Jap. Hama-hirugao

Leg. Ipse, Miyanoura.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Taiwan, Korea, Manchuria, China.

Note. This littoral plant is found on sandy beaches, and it is widely distributed in the temperate zones of both hemispheres.

Ipomoea, [LINN., Syst. ed. 1 -1735;] et Sp. Pl. ed.

1. p. 159 (1753; ENDL., Gen. Pl. n. 3303 c (1836-40); CHOISY, in DC. Prodr. IX. p. 348 (1845); BENTH. et HOOK, f., Gen. Pl. II. p. 870 '1876; PETER, in ENGL. u. PRANT.

Nat. Pfl.-fam. IV. iii. a. p. 28 (1891); LEMÉE, Diet. Gen. Pl. Phan. III. p. 762 (1931)

Syn. *Convolvuloides*, MOENCH., Meth. p. 451 (1794)

Ipomoea indica, (BURM.) MERR, Interest. Herb. Amb. p. 445 (1917) et Enum. Philipp. Pl. III. p. 366 (1923) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 114 (1929)

Syn. *Convolvulus indicus*, BURM., Ind. Univ. Herb. Amb. p. 7 (1755)

Ipomoea congesta, R. BR., Prodr. p. 485 (1810); CHOISY, in DC. Prodr. IX. p. 369 (1845); BENTH., Fl. Austr. IV. p. 417 (1869); FORB. et HEMSL., Ind. Fl. Sin. II. p. 158 (1890); MATSUM. et HAY., Enum. Pl. Formos. p. 261 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 519 (1922); MAK. et NEM, Fl. Jap. ed. 2. p. 976 U931^N.

Pharbitis insularis, CHOISY, in DC. Prodr. IX. p. 341 (1845)

Ipomoea insularis, STEUD., ex CHOISY in DC. Prodr. IX. p. 342 f 1845); MAXIM. in Mém. Biol. XII. p. 497 (1886)

Nom. Jap. *No-asagao*

Leg. Ipse, Jul. 18, 1928.

Distr. Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Philippines, China.

Note. The plant grows in thickets in waste lands or in cultivated lands at low altitudes; in South Japan the plant is rather common.

Ipomoea pes-caprae, ROTH., Nov. Pl. Sp. p. 109 (1821) ; CHOISY, in DC. Prodr. IX. p.

Names of Plants	Regions																
	Philippines	Bonins	Ia	Ō	Ōshima	Ryū	Kyūsyū	Tanegaen	Kyūsyū	Sikoku	Honsyū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtcha	Manchuria, Amur & Usu	China
<i>Dichondra repens</i> , FORST.	+	+	+	+	+	+	+	+	+	+	+	+					+
<i>Erycibe acutifolia</i> , HAY.			+	+	+												
<i>Calystegia soldanella</i> , R. BR.			+	+	+												+
<i>Ipomoea indica</i> , MERR.	+	+	+	+	+												+
<i>Ipomoea pes-caprae</i> , ROTH.	+	+	+	+	+												+
Total	5	3	5	5	5	4	5	3	3	2	1					14	
Percentage	60	20	100	100	100	80	100	60	60	40	20					20	

(Southern elements 5)

(Northern elements 5)

370 '1845 ; MIQ., Fl. Ind. Bat. II. p. 611 U856¹ ; C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. IV. p. 207 '1883 ; HATTORI, Pfl.-Geogr. Bonn. p. 31 (1908) ; RIDLEY, Fl. Malay II. p. 460 '1923¹ ; MERR., Enum. Hainan Pl. p. 154 (1927) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 114 (1929¹) ; NAK., in Bull. Biogeogr. I. p. 262 '1930¹

Syn. *Convolvulus pes-caprae*, LINN., Sp. Pl. p. 159 11753 J

Ipomoea biloba, FORSK., Fl. Aeg. Arab. p. 44 '1775 ^ ; C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. IV. p. 212 [1883: ; FORB. et HEMSL., Ind. Fl. Sin. II. p. 157 '1890^ ; MATSUM. et HAY., Enum. Pl. Formos. p. 260 '1906. ; MATSUM., Ind. Pl. Jap. II. 2. p. 518 '1912) ; GAGNEPAIN, in LECOMTE, Fl. Ind. Chin. IV. 3. p. 259 :1915 ; MAK. et NEM., Fl. Jap. ed. 2. p. 975 (1931 ^

Ipomoea maritima, R. BR., Prodr. Fl. Nov. Holl. p. 486 '1810, ; LINDL., Bot. Reg. t. 319 '1824,

Worn. Jap. Gunbai-hirugao

Leg. Ipse, Aug. 11, 1928.

Distr. Honsyū, Kyūsyū, Tanegasima, Amami-Ōsima, Okinawa, Taiwan, Bonins, Philippines.

Note. The psammophyte covers the sandy beach with its prostrated plant body. It is distributed all over the tropics and subtropics.

The species of *Convolvulaceae* indigenous to Yakusima are all found in its neighbouring regions. So I cannot decide to which region the island is most closely related so far as the distribution of the plants of this family is concerned.

Borraginaceae

Borraginaceae, LINDL., Nat. Syst. ed. 2. p. 274 1836 ; GLJRKE, in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iii. a. p. 71 1893

Ehretia, LINN., Syst. ed. 10. p. 936 • 1759. ; ENDL., Gen. Pl. n. 3743 1836-40 ; DC, Prodr. IX. p. 502 '1845, ; BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 840 1876 ; GURKE, in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iii. a. p. 87 1893 ; LEMEE, Diet. Gen. Pl. Phan. II. p. 805 '1930

Syn. *Ehretia*, HILL., Hort. Kew. ed. 2. p. 440 1769

Eretia, STOKES, Bot. Mat. Med. I. p. 421 1812

Ehretia thyrsoflora, NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 1.1. p. 327 1922 , et ed. 2. I. p. 412 f. 211 1927 ; MASAMUNE, Prel. Rep. Veg. Yak. a 114 1929. ; MAK. et NEM., Fl. Jap. ed. 2. p. 987 1931

Syn. *Ehretia serrata*. ROXB. ? *obovata*, LINDL., in Bot. Reg. XIII. t. 1097 1827

Cordia thyrsoflora. SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 150 '1846

Ehretia serrata, non ROXB.) FR. et SAV., Enum. Pl. Jap. I. p. 333 1875

Ehretia acuminata, non R. BR. , MATSUM., in Tokyo Bot. Mag. XII. p. 83 .1898¹ ; FORB. et HEMSL., Ind. Fl. Sin. II. p. 143 '1890; p.p.; MATSUM., Ind. Pl. Jap. II. 2. p. 524 (1912¹) ; DIELS, Fl. Cent. Chin. p. 545 1900¹ ; CHUN., Cat. Tree. & Shrub. Chin. p. 225 < 1924 p.p.

Norn. Jap. Tisyanoki

Leg. Ipse, Jun. 28, 1928.

- Eritrichium japonicum*, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 96 (1865)
Norn. Jap. Tabirako
Leg. Ipse, Amboŏ, April. 1, 1927.
Distr. HonsyG, Sikoku, Kyŏsyfi, Tanegasima, Amami-6sima, Okinawa, Korea, Manchuria.
Note. The species is found by the roadside, and in waste lands at low altitudes.

As the above table shows, the flora of the island has no special relation either to the southern or to the northern floral regions in respect¹ of this family.

Verbenaceae

Verbenaceae, JUSS., in Ann. Mus. Paris. V. p. 254 (1804), et VII. p. 63 [1806]; BRIQ., in ENGL. U. PRANT. Nat. Pfl. fam. IV. a. iii. p. 132 (1894)

- Lippia*, [HOUST., ex LINN. Gen. PL ed. 1. p. 347 (1737)] et Sp. PL ed. 1. p. 633 (1753); ENDL., Gen. PL n. 3684 (1836-40); SCHAUER, in DC. Prodr. XI. p. 572 (1867); BENTH., in BENTH. et HOOK. f. Gen. PL II. p. 1142 (1876); BRIQ., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iii. a. p. 151 (1894); LEM&E, Diet. Gen. PL Phan. IV. p. 118 (1932)
Syn. *Phyla*, LOUR., Fl. Cochinch. p. 66 (1790)
Cryptocalyx, BENTH., in Ann. Nat. Hist. II. p. 446 (1839)

Lippia nodiflora, RICH., in MICHX. FL Bor. Am. II. p. 15 (1803); WIGHT, Ic. PL Ind. Or. t. 1464 (1850); MIQ., FL Ind. Bat. II. p. 905 (1858); SCHAUER, in DC. Prodr. XI. p. 585 (1867); C. B. CLARKE, in HOOK. f. FL Brit. Ind. IV. p. 563 (1885); MAXIM., in Mŏl. Biolog. XII. p. 502 (1886); FORB. et HEMSL., Ind. Fl. Sin. II. p. 251 (1890); MATSUM., in Tokyo Bot. Mag. XIII. p. 113 (1899), et Ind. PL Jap. II. 2. p. 533 (1912); DIELS, FL Centr. Chin. p. 547 (1900); MATSUM. et HAY., Enum. PL Formos. p. 297 (1906); MERR., Enum. Philipp. PL III. p. 381 (1923), et Enum. Hainan PL p. 157 (1927); MASAMUNE, Prel. Rep. Veg. Yak.-p. 115 (1929)

- Syn.* *Verbena nodiflora*, LINN., Sp. PL p. 20 (1753)
Phyla chmensis, LOUR., Fl. Cochinch. p. 66 (1790); DC, Prodr. XVII. p. 296 [1873]
Lippia nodiflora. var. *sarmentosa*, SCHAU., in DC. Prodr. XL p. 585 (1847); MAK. et NEM., FL Jap. ed. 2. p. 1000 (1931)

Nom. Jap. *Iwadaresŏ*

Leg. Ipse, Amboŏ. Aug. 12, 1928.

Distr. Honsyfi, Sikoku, Kyŏsyŏ, Tanegasima, Amami-Osima, Okinawa, Taiwan, China, Philippines.

Note. The species is found as a psammophyte on sandy beaches. It is found in tropical and subtropical regions.

Callicarpa, [LINN., in Act. Soc. Upsal. p. 80 (1741)] et Sp. PL ed. 1. p. III (1753); ENDL., Gen. PL n. 3712 (1836-40); SCHAUER, in DC. Prodr. XI. p. 640 (1847); BENTH., in BENTH. et HOOK. f. Gen. PL II. p. 1150 (1876); BRIQ., in ENGL. u. PRANT. Nat. Pfl. fam. IV. iii. a. p. 165 (1894); LEM&E, Diet. Gen. PL Phan. I. p. 757 (1929)

Syn. Tamex, [LINN., Nov. Pl. Gen. p. 5 (1747), et Amoen. Acad. I. p. 339 (1749)] et
Sp. Pl. ed. 1. p. 118 (1753)
Ilia, ADANS., Fam. II. p. 446 (1763)
Porphyra, LOUR, Fl. Cochin, p. 69 (1790)

Callicarpa japonica, THUNB. var. *luxurians*, REHDER, in SARGENT, Pl. Wils. III. 2.
 p. 369 (1916); NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 454 f.
 215 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 114 (1929); MAK. et NEM., Fl.
 Jap. ed. 2. p. 994 (1931)

Syn. Callicarpa japonica, (non THUNB.) MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p.
 98 (1865) p.p.

Callicarpa japonica, MATSUM., in Tokyo Bot. Mag. XIII. p. 115 (1899), et Ind.
 Pl. Jap. II. 2. p. 529 (1912) p.p.

Callicarpa australis, KOIDZ., in Tokyo Bot. Mag. XXX. p. 326 (1916)

Nom. Jap. dmurasaki-sikibu

Leg. Ipse, Jul. 21, 1927.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Korea.

Note. The species is distributed in the littoral regions of southern Japan, and in
 the island it occurs in waste lands and on the edges of forests.

Callicarpa mollis, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 155 (1846); GRAY, Narr.
 Perr. Exped. p. 316 (1856); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 99 (1865);
 FR. et SAV., Enum. Pl. Jap. I. p. 359 (1875); NAK., Fl. Kor. II. p. 134 (1911),
 et in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 456, f. 217 (1927);
 MATSUM., Ind. Pl. Jap. II. 2. p. 529 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p.
 114 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 994 (1931)

Syn. Callicarpa Zollingeriana, SCHAUER, in DC. Prodr. XI. p. 640 (1847)

Norn. Jap. Yabumurasaki

Lea. Ipse, Kosugidani, Aug. 31, 1926.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Okinawa, Taiwan, Korea.

Note. The species grows in the lauri-aciculilivae and sometimes in clearings or
 along forest edges.

var. *microphylla*, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 156 (1846); NAK., in NAK.
 et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 458 (1927); MASAMUNE, Prel. Rep.
 Veg. Yak. p. 115 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 995 (1931)

Nom. Jap. Nagaba-yabumurasaki

Leg. Ipse, Kosugidani, Jun. 7, 1928.

Distr. Honsyû, Kyûsyû.

Note. The variety is found under the same condition as the type species and it
 is restricted to southern Honsyû, and Kyûsyû.

var. *ramosissima*, NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2.1. p. 458 (1927);
 MASAMUNE, Prel. Rep. Veg. Yak. p. 115 (1929); MAK. et NEM., Fl. Jap. ed. 2. p.
 995 (1931)

Nom. Jap. Kobano-yabu-murasaki

Leg. Ipse, Kosugidani

Distr. Honsyû, Kyûsyû.

Note. The variety is found under the same condition as the previous variety.

Callicarpa yakusimensis, KOIDZ., in Tokyo Bot. Mag. XXVIII. p. 151 (1914); NAK., in

NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 463, f. 220 (1927; ; MASAMUNE, Prel. Rep. Veg. Yak. p. 115 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 996 (1931)
Nom. Jap. Yakusima-komurasaki
Leg. Ipse, Ambô, Aug. 30, 1931.
Distr. Endemica.
Note. The species is found in sunny spots like clearings or forest edges from the sea level up to almost 800 m.

Fremna, LINN., Mant. II. p. 154 (1771); ENDL., Gen. Pl. n. 3701 (1836-40); SCHAUER, in DC. Prodr. XI. p. 630 (1847); BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 1152 (1876); BRIQ., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. iii. a. p. 170 (1894)
Syn. *Cornutioides*, LINN., F. Zeyl. p. 195 (1747)
Scrophularioides, FORST. f., Prodr. p. 91 (1786)

Premna japonica, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 97 (1865); FR. et SAV., Enum. Pl. Jap. I. p. 358 (1875); SHIRASAWA, IC. Tr. Jap. II. p. 216, Pl. 70 ff. 1-10 11912; NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 471 f. 223, 1927; SASAKI, List Pl. Formos. p. 352 (1928); MASAMUNE, Prel. Rep. Veg. Yak. p. 115 [1929[^]; MAK. et NEM., Fl. Jap. ed. 2. p. 1000 (1931)

Syn. *Premna microphylla*, (non TURCJ MAXIM., in Bull. Acad. St. Petersburg. XXXI. p. 79 (1886) p.p.; FORB. et HEMSL., Ind. Fl. Sin. II. p. 256 U890,¹; MATSUM., Ind. Pl. Jap. II. 2. p. 533 (1912)

Nom. Jap. Hamakusagi

Leg. A. KIMURA! Aug. 6, 1922.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Osima, Taiwan, China.

Note. The species is common in southern Japan, and in the island it is found in the laurisilvae or in the littoral forests.

Vitex, [TOURN., ex LINN. Syst. ed. 1 (1735)] et Sp. Pl. ed. 1. p. 638 (1753; ; ENDL., Gen. Pl. n. 3700 (1836-40); SCHAUER, in DC. Prodr. XI. p. 682 (1847); BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 1154 (1876); BRIQ., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iii. a. p. 170 (1894)
Syn. *Mailelou*, ADANS., Fam. II. p. 200 (1763)
Tripinna, LOUR., Fl. Cochinch. p. 391 (1790)

Vitex trifolia, LINN. var. *simplicifolia*, CHAM., in Linnaea VIII. p. 107 (1832)

Syn. *Vitex rotundifolia*, LINN. f., Supp. Pl. Syst. Veg. p. 294 (178r; MIURA. List Pl. Manch. & Mong. p. 330 (1925); NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. p. 474, f. 224 (1927); MAK. et NEM., Fl. Jap. ed. 2. p. 1002 (1931)
Vitex ovaia, THUNB., Fl. Jap. p. 257 (1784); WILL., Sp. Pl. III. p. 390 (1800); SPRENG., Syst. Veg. II. p. 766 (1825; ; HOOK. et ARNOT., Bot. Capt. Beech. Voy. pp. 206, 268, t. 17 (1830[^]; SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 152 (1846)

Vitex trifolia, LINN. var. *unifoliolata*, SCHAUER, in DC. Prodr. XI. p. 683 (1847);

Vitex trifolia, LINN. var. *obovata*, BENTH., Fl. Austr. V. p. 67 (1876)

Vitex trifolia, (non LINN. HEMSL., in Journ. Linn. Soc. XXVI. p. 258 (1888) P-P.

Vitex Agnus-castus, var. *ovata*, O. KUNTZE, Rev. Gen. Pl. II. p. 511 (1891)

Vitex trifolia, LINN. var. *ovata*, MAK., in Tokyo Bot. Mag. XVII. p. 92 (1903); NAK., Fl. Kor. II. p. 135 (1911); MATSUM., Ind. Pl. Jap. II. 2, p. 534 (1912);

MERR., Enum. Philipp. Pl. III. p. 397 (1923); MASAMUNE, Prel. Rep. Veg. Yak. p. 115 (1929)

Norn. Jap. Hamagó

Leg. Ipse, Jun. 26, 1928.

Disir. HonsyG, Sikoku, KyûsyG, Okinawa, Taiwan, Bonins, Korea, Manchuria, China, Philippines, Polynesia.

Note. As a psammophyte the species grows in the littoral regions of the island, and it is common on the coasts of Malaya and Polynesia, and northward as far as southern Japan.

Clerodendron, (*Clerodendrum*) [LINN., Gen. Pl.

ed. 1. p. 186 (1737)] et Sp. Pl. ed. 1. p. 637 (1753); (ENDL., Gen. Pl. n. 4708 (1836-40); SCHAUER, in DC. Prodr. XI. p. 658 (1847); BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 1155 (1876); BRIQ., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. iii. a. p. 174 (1894); LEMÉE, Diet. Gen. Pl. Phan. II. p. 199 (1930)

Syn. *Ovieda*, [LINN., Gen. Pl. ed. 1. p. 59 (1737)] et Sp. Pi. ed. 1. p. 637 (1753)

Douglassia, ADANS., Fam. II. p. 200 (1763)

Clerodendron yakusimensis, (NAK.) MAK. et NEM., Fl. Jap. p. 296 (1925), et ed. 2. p. 993 (1931); MASAMUNE, Prel. Rep. Veg. Yak. p. 115 (1929)

Syn. *Siphonanthus yakusimensis*, NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 1. I. p. 346 (1922)

Clerodendron yakusintense, NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 469 f. 222 (1927)

Norn. Jap. Amakusagi

Leg. Ipse, Sept. 3, 1926.

Distr. Amami-Osima.

Note. The species is found in the laurisilvae or in the lauri-aciculisilvae from the sea level up to about 900 m and it occurs very often as an invader in waste lands, and in the clearings of lowlands. It is restricted to Yakusima and Amami-6sima.

Names of Plants	Regions														
	Philippines	Bonins	Taiwan	Okinawa	Amami-Osima	Tanegasima	Kyûsyû Prop.	Sicilia	Bonins	Korea	Yezo & Sakhalien	Kuriles	Northern Kuril & Kamtchatka	Manchuria, Amur & Ussuri	China
<i>Lippia nodiflora</i> , RICH.	+			+	+	+	+	+	+						+
<i>Callicarpa japonica</i> , THUNB. var. <i>luxurians</i> , REHDER		+		+	+	+	+	+	+	+					
<i>Callicarpa mollis</i> , SIEB. et ZUCC.		+		+		+	+	+	+	+					

Names of Plants	Regions													
	Yakushima 島嶼	Utsunomiya ウツノミヤ	Amami-Oshima アミノシマ	Ryūkyūs 琉球	Tanegasima タネガシマ	Kyūshū 九州	Sikoku 四国	Honshū 本州	Korea 朝鮮	Yezo & Southern Kuriles 支庁 & 南千島	Saghalien 樺太	Northern Kuriles & Kamchatka 北千島 & 堪察加	Manchuria, Amur & Ussuri 滿洲、阿穆爾 & 烏蘇里	China 支那
<i>C. m. var. microphylla</i> , SIEB. et ZUCC.						+		+						
<i>C. m. var. ramosissima</i> , NAK						+		+						
<i>Callicarpa yakusimensis</i> , KOIDZ														
<i>Premna japonica</i> , MIQ			+		+	+	+	+						+
<i>Vitex trifolia</i> , LINN. var. <i>simplicifolia</i> , CHAM.			+			+	+	+	+					+
<i>Clerodendron yakusimensis</i> , NAK			+											
Total	9	2	4	4	4	4	7	5	7	3				13
Percentage	22	11	44	44	44	78	56	78	83	3				1133
Southern elements 6												(Northern elements 7)		

Concerning the distribution of the plants of *Verbenaceae*, the flora of Yakushima shows some affinity with the northern districts beyond the island.

Laminaceae*

Laminaceae, LINDL., Nat. Syst. ed. 2. p. 275 (1838;

Syn. Labiatae, B. JUSS., in Hort. Trianon 1759 ; BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 1160 (1876) ; KUDO, Lab. Sino-Jap. Prodr. p. 44 (1929)

Perillula, MAXIM., in Mém. Biolog. IX. p. 440

11874., et in Bull. Acad. Imp. Petersb. XX. p. 463 (1875) ; BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 1182 (1876) ; BRIQ., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. iii. a. p. 325 (1894) ; KUDO, Lab. Sino-Jap. Prodr. p. 70 (1929)

* In the arrangement of the genera of the family, I chiefly followed the system of Dr. KUDO, which was given in his work, "Labiatarum Sino-Japonicarum Prodromus." (1929)

Perilluia reptans, MAXIM., in M^{él.} Biolog. IX. p. 440 ,1874 ; FR. et SAV._f Enum. PI. Jap. I. p. 358 (1874) ; BRIQ._f in ENGL. U. PRANT. Nat. Pfl.-fam. IV. iii. a. p. 325 f. 98 G. H. 1895; ; MATSUM, Ind. PI. Jap. II. 2. p. 546 1912 ; KUDO, Lab. Sino-Jap. Prodr. p. 70 (1929); MASAMUNE, Prel. Rep. Veg. Yak. p. 116 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1027 (1931) -

Norn. Jap. Suzu-kózyu

Leg. Ipse, Sept. 7, 1928.

Distr. Honsyû, Sikoku, Kyûsyû.

Note. The species is found as undergrowth in somewhat wet places in the lauri-silvae.

Orthodon, BENTH. et OLIVER, in Journ. Linn.

Soc. Bot. IX. p. 167 1867- ; KUDO, Lab. Sino-Jap. Prodr. p. 75 1929.

Syn. *Mosla*, HAMILT ' ex BENTH., in WALL. PI. As. Rar. I. p. 66 (1830-) ; MAXIM., in M^{él.} Biolog. IX. p. 430 (1874) ; BENTH. et HOOK, f, Gen. PI. II. p. 1182 1876 ; BRIQ., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iii. a. p. 326 (1894)

Hedcoma, PERS. Sect. *Mosla*, BENTH., Lab. Gen. et Spac. p. 366 (1832-36), et in DC, Prodr. XII. p. 244 (1848)

Orthodon angustifolium, (MAXIM/ MASAMUNE, comb. nov.

Syn. *Mosla japonica*, MAXIM, var. *angustifolia*, MAK., in Tokyo Bot. Mag. XXI. p. 157 (1907) ; MATSUM., Ind. PI. Jap. II. 2. p. 544 (1912,

Mosla angustifolia, MAK., in Journ. Jap. Bot. II. p. 24 1922. ; NAK._f in Tokyo Bot. Mag. XXXV. p. 178 (1921) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1022 (1931);

Norn. Jap. Hosoba-yarnaziso

Leg. Ipse, Jul. 27, 1924.

Distr. Honsyû.

Note. Occurs in waste lands at low altitudes.

Orthodon grosseserratum, MAXIM. KUDO, in Lab. Sino-Jap. Prodr. p. 79 (1929)

Syn. *Mosla grossescerrata*, MAXIM., in Bull. Acad. Petersb. XX. p. 458 (1865), et in M^{él.} Biolog. IX. p. 432 (1874) ; FR. et SAV., Enum. PI. Jap. I. p. 370 (1875) ; FORB. et HEMSL., Ind. Fl. Sin. II. p. 280 (1890) ; KOM., Fl. Mansh. III. p. 391 (1907) ; NAK., Fl. Kor. II. p. 145 (1911) ; MATSUM., Ind. PI. Jap. II. 2. p. 544 (1912) ; KUDO, in Journ. Coll. Sc. Imp. Uuiv. Tokyo XLIII. 8. p. 48 (1921) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1022 (1931)

Nom. Jap. Hime-hakka

Leg. Ipse, Jul. 21, 1927.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Korea, Manchuria, Amur, Usuri.

Note. The species grows by the roadside or in open waste lands, and has its southern limit in this island.

Orthodon punctatum, KUDO, Lab. Sino-Jap. Prodr. p. 80 (1929)

Syn. *Ocymum punctatum*, non LINN. f. THUNB., Fl. Jap. p. 249 (1784);

Ocymurn punctulatum, J. F. GMELIN, Syst. Veg. p. 917 (1791)

Ocymum scabrum, THUNB., in Trans. Linn. Soc. II. p. 338 (1744); ; BENTH., Lab. Gen. Sp. p. 17 (1832), et in DC. Prodr. XII. p. 43 (1848);

Mosla punctata, MAXIM., in Bull. Acad. St. Petersb. XX. p. 460 (1865) et in M^{él.} Biolog. IX. p. 432 (1874) ; FR. et SAV., Enum. PI. Jap. I. p. 370 (1875); ;

FR., Pl. David. I. p. 234 (1884) ; FORB. et HEMSL., Ind. Fl. Sin. II. p. 281 (1890); PALIB., Consp. Fl. Kor. II. p. 27 (1900); NAK., Fl. Kor. II. p. 145 (1911) et in Tokyo Bot. Mag. XXXV. p. 181 (1921); MATSUM., Ind. Pl. Jap. II. 2. p. 544 (1912); MATSUM. et KUDO, in Tokyo Bot. Mag. XXVI. p. 301 (1912)

Mosla punctulata, NAK., in Tokyo Bot. Mag. XLII. pp. 475,497 (1928) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 115 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1023 (1931)

A'OJR. Jap. *Inu-kôzyu*

Leg. Ipse, ca. Ambô.

Distr. Honsyû, Sikoku, Kyûsyûfi, Amami-Osima, Okinawa, Korea, Manchuria, China.

Note. The species is found in open waste lands or by the roadside.

Satureia, [LINN., Gen. n. 707 (1737.) et Sp. Pl. ed. 1. p. 567 ;1753: ; BENTH., Lab. Gen. Sp. p. 351 (1832-36), in DC. Prodr. XII. p. 208 ;1848', et in BENTH. et HOOK. f. Gen. Pl. II. p. 1187 U876) ; BRIQ., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iii. a. p. 296 '1894' ; KUDO, Lab. Sino-Jap. Prodr. p. 97 1929.

Syn. *Calamintha*, (TURN.) LAM., Fl. Fr. II. p. 393 t1778`

Clinopodium, [BURM., ex LINN. Gen. Pl. ed. 1. p. 170 ;1737] et Sp. Pl. ed. 1. p. 587 v1753;

Satureia confinis, (HANCE) KUDO, Lab. Sino-Jap. Prodr. p. 100 (1929) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 116 (1929)

Syn. *Melissa cretica*, (non LINN.) THUNB., Fl. Jap. p. 247 (1784`

Calamintha confinis, HANCE, in Journ. Bot. p. 331 (1868)

Calamintha gracilis, (non BENTH.) FR. et SAV., Enum. Pl. Jap. I. p. 369 (1875) ; FORB. et HEMSL., Ind. Fl. Sin. II. p. 283 (1890); MATSUM. et HAY., Enum. Pl. Formos. p. 311 (1906) ; DUNN, in Notes. R. B. G. Edingb. No. XXV. II. p. 155 U913;

Clinopodium gracilis, MATSUM., Ind. Pl. Jap. II. 2. p. 533 (1912)

Satureia gracilis, DIELS, Fl. Cent. Chin. p. 559 (1900) ; NAK., Fl. Kor. II. p. 149 (1911) ; MATSUM. et KUDO, in Tokyo Bot. Mag. XXVI. p. 299 (1912)

Norn. Jap. *Tôbana*

Leg. Ipse, Aug. 1, 1928.

Distr. Honsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China.

Note. The species occurs in wet places as undergrowth in the laurisilvae.

Satureia chinensis, BRIQ., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iii. a. p. 302 (1895] ; DIELS, Fl. Cent. Chin. p. 559 U900); NAK., Fl. Kor. II. p. 148 (1911); MERR., Enum. Hainan Pl. p. 162 (1927); KUDO, Lab. Sino-Jap. Prodr. p. 102 U929; MASAMUNE, Prel. Rep. Veg. Yak. p. 116 (1929)

Syn. *Clinopodium vulgare*, (non LINN.) THUNB., Fl. Jap. p. 247 (1784)

Calamintha chinensis, BENTH., in DC. Prodr. XII. p. 233 (1848); MAXIM., Prim. Fl. Amur. p. 217 (1859); FR. et SAV., Enum. Pl. Jap. I. p. 369 (1875) ; FORB. et HEMSL., Ind. Fl. Sin. II. p. 283 (1890) ; MATSUM. et HAY., Enum. Pl. Formos. p. 310 (1906) ; KOM., Fl. Mansh. III. p. 374 (1907) ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 210 (1912)

Calamintha clinopodium, BENTH. var. *chinensis*, MIQ., in Ann. Mus. Bot. Lugd.

Bat. II. p. 107 (1865); DUNN, in Notes R. B. G. Edinb. No. XXVIII. r. 159 (1916)

Calammtha clinopodium, BENTH. var. *urticifolia*, HANCE, in Ann. & Nat. 5 me sér. V. p. 326 (1883)

Clinopodium chinsense, O. KUNTZE, Rev. Gen. Pl. II. p. 515 U891[^]; MAK., in Tokyo Bot. Mag. XX. p. 3 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 533 (1912); MAK. et NEM., Fl. Jap. ed. 2. p. 1011 (193D)

Nom. Jap. Kurumabana

Leg. Ipse, April. 1927.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, Amur, China.

Note. Grows in open places in the laurisilvae or in the lauri-aciculisilvae; rather common in Japan.

Satureia ussuriensis, KUDO, var. *yakusimensis*, MASAMUNE, nom. nov.

Syn. Satureia yakusimensis, MASAMUNE, in Journ. Trop. Agr. II. p. 35 (1930)

Nom. Jap. Yakusima-tōbana

Lerj. Ipse, Jul. 21, 1927.

Diatr. Endemica.

Note. Occurs in the laurisilvae or in the lauri-aciculisilvae from about 400 m up to 700 m.

Isodon, SCHRAD., apud BENTH. Lab. Gen. et Sp. p. 40 (1832); KUDO, Lab. Sin.-Jap. Prodr. p. 118 (1929)

Syn. Plectranthus, L'HERIT, Sect. *Isoion*, BENTH., Lab. Gen. et Sp. p. 40 (1832), et in DC. Prodr. XII. p. 55 (1848);

Plectranthus, L'HERIT. 1. *Isodon*, BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 1175 (1876[^])

Plectranthus, L'HERIT. Untergatt, *Isodon*, BRIQ., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. iii. a. p. 352 (1894¹)

Isodon glaucocalyx, MAXIM. KUDO, var. *japonicus*, MAXIM.) KUDO, Lab. Sino-Jap. Prodr. p. 127 (1929); MASAMUNE, Prel. Rep. Veg. Yak. p. 116 (1929)

Syn. Scutellaria japonica, BURM., Fl. Ind. p. 130 (1769[^]) p.p.

Plectranthus glaucocalyx, MAXIM., in Prim. pp. 212, 475 (1859j)

Plectranthus Maximowiczii, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 101 (1865)

Plectranthus Buergeri, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 101 (1865j)

Plectranthus glaucocalyx, MAXIM, p *japonicus*, MAXIM., in Mém. Biolog. IX. p. 426 (1874); FR. et SAV., Enum. Pl. Jap. I. p. 352 (1875)

Plectranthus japonicus, KOIDZ., in Tokyo Bot. Mag. XLIII. p. 336 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1023 (1931)

Nom. Jap. Hikiokosi

Leg. KUDO! ca. Kurio.

Dish. Honsyū, Sikoku, Kyūsyū, Tanegasima, Korea.

Note. I have not myself collected this species, but Dr. KUDO found it in the island.

Isodon inflexus, THUNB. KUDO, in Lab. Sino-Jap. Prodr. p. 127 (1929)

Syn. Ocimum inflexum, THUNB., Fl. Jap. p. 249 (1784)

Plectranthus inflexus, VAHL., ex BENTH. Lab. Gen. et Sp. p. 711, (1832-35¹), et in DC. Prodr. XII. p. 61 (1843); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p.

100 1865 ; MAXIM., in Mél. Biolog. IX. p. 425 (1874 ; FORB. et HEMSL., Ind. Fl. Sin. II. p. 272 (1890 ; MATSUM., Ind. Pl. Jap. II. 2. p. 546 (1912); MAK. et NEM., Fl. Jap. ed. 2. p. 1028 (1931);

Plectranthus dubius, VAHL., in BENTH. Lab. Gen. et Sp. p. 711 (1832-36', et in DC. Prodr. XII. p. 61 1848; ; MAXIM., in Mél. Biolog. IX. p. 429 (1874 ; FR. et SAV., Enum. Pl. Jap. I. p. 361 ;1875.

Norn. Jap. Yama-hakka

Leg. Ipse, Jul. 14, 1927.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Korea, China.

Note. The species occurs in the laurisilvae or in the lauri-aciculisilvae, and is not yet reported further south than Yakusima.

Salvia, [TOURN., ex LINN. Gen. Pl. ed. 1. n. 39 '1737] et Sp. Pl. ed. 1. p. 23 '1753' ; BENTH., Lab. Gen. et Sp. p. 190 (1832-36 . in DC. Prodr. XII. p. 262 '1848', et in BENTH. et HOOK. f. Gen. Pl. II. p. 1194 (1876' ; ENDL., Gen. Pl. n. 3597 ,1836-40 ; BRIQ., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. iii. a. p. 270 1894' ; KUDO, Lab. Sino-Jap. Prodr. p. 156 (1929'

Salvia japonica, THUNB. f. *chinensis*, BENTH. KUDO, Lab. Sino-Jap. Prodr. p. 172 1929

Syn. Salvia chinensis, BENTH., Lab. Gen. et Sp. p. 725 '1832-36 , et in DC. Prodr. XII. p. 355 ·1848 ; MAK., in Tokyo Bot. Mag. XXVI. p. 80 '1912' ; MATSUM. et KUDO, in Tokyo Bot. Mag. XXVI. p. 299 11912 ; NAK.. in Tokyo Bot. Mag. XXXV. p. 192 ,1921 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1030 (1931

Salvia japonica, THUNB. a *integrifolia*, FR. et SAV., Enum. Pl. Jap. I. p. 371 1875 , et II. p. 463 1876 ; FORB. et HEMSL., Ind. Fl. Sin. II. p. 284 '1890 ; DIELS, Fl. Cent. Chin. p. 558 ,1900

Salvia japonica, THUNB. a *typica*, MAK. c. *integrifolia*, MAK., in Tokyo Bot. Mag. XI. p. 281 1897 . et XV. p. 108 ,1901: ; MATSUM., Ind. Pl. Jap. II. 2. p. 548 ·1912

Sahia chinensis, THUNB. a *typica*, MAK. d. *integrifolia*, MAK., in Tokyo Bot. Mag. XXVI. p. 80 '1912

Aom. Jap. Marubano-akinO'tamnraso

Leg. Y. KUDO!

Distr. Honsyū, Kyūsyū, China.

Note. I have not found this species but I was informed by Dr. KUDO that he had collected it in the island; the species is not reported further south than this island.

Prunella, *Brunella* [LINN., Gen. Pl. ed. 1. p. 177 1737] BENTH., Lab. Gen. et Sp. p. 419 1832 , in DC. Prodr. XII. p. 409 ,1848 , et BENTH. et HOOK. f. Gen. Pl. II. p. 1203 '1876/ ; ENDL., Gen. Pl. p. 620, n. 3624 183&40 ; BRIQ., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iii. a. p. 241 '1894 ; KUDO, Lab. Sino-Jap. Prodr. p. 248 '1929 ; LEMKE, Diet. Gen. Pl. Phan. I. p. 693 .1929

Prunella vulgaris, LINN., Sp. Pl. ed. 1. p. 600 1753 ; THUNB., Fl. Jap. p. 250 '1784 ; BENTH., Lab. Gen. et Sp. p. 417 1832 , et in DC. Prodr. XII. p. 410 '1848 ; WIGHT, Ic. Pl. Ind. Or. t. 1448 1850 ; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 110 1865 ; FR. et SAV., Enum. Pl. Jap. I. p. 376 1875 ; FR., Pl. David. I. p. 241 1884 ; HOOK. f. Fl. Brit. Ind. IV. p. 670 1835 ; FORB. et HEMSL., Ind. Fl. Sin.

II. p. 299 (1890); MATSUM. et HAY., Enum. Pl. Formos. p. 314 (1906); NAK., Fl. Kor. II. p. 147 (1911); KUDO, Lab. Sino-Jap. Prodr. p. 248 (1929); MASAMUNE, Prel. Rep. Veg. Yak. p. 116 (1929)

Syn. *Brunella vulgaris*, LINN. var. *vulgaris*, BENTH., Lab. Gen. et Sp. p. 417 (1832-36^N); MAK., in Tokyo Bot. Mag. X. p. 66 (1896); MATSUM., Ind. Pl. Jap. II. 2. p. 537 (1912); MATSUM. et KUDO, in Tokyo Bot. Mag. XXVI. p. 297 (1912)

Prunella vulgaris, LINN. var. *elongata*, BENTH., Lab. Gen. et Sp. p. 417 (1832-36); MAK., in Tokyo Bot. Mag. X. p. 66 (1896); MATSUM., Ind. Pl. Jap. II. 2. p. 537 (1912); MATSUM. et KUDO, in Tokyo Bot. Mag. XXVI. p. 297 (1912); NAK., in Tokyo Bot. Mag. XXXV. p. 191 (1921)

Prunella japonica, MAK., in Tokyo Bot. Mag. XXVIII. p. 158 (1914) p.p.

Prunella vulgaris, LINN. var. *japonica*, KUDO, in Journ. Coll. Sc. Imp. Tokyo XLIII. 8. p. 23 (1921) p.p.

Aom. Jap. *Utubogusa*

Leg. Ipse, Jul. 26, 1928.

Distr. Yezo, Honsyū, Sikoku, Kyfisyū, Tanegasima, Okinawa, Taiwan, Korea, Manchuria, China.

Note. The species is collected in waste lands and by the roadside, and is common throughout Japan.

Scuteilaria, [LINN., Gen. ed. 1. n. 493 (1737)] et Sp.

Pl. ed. 1. p. 598 (1753); BENTH., Lab. Gen. et Sp. p. 419 (1832-36), in DC. Prodr. XII. p. 412 (1848) et in BENTH. et HOOK. f. Gen. Pl. II. p. 1201 (1876); ENDL., Gen. Pl. p. 620 n. 3626 (1836-40); BRIQ., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. iii. a. p. 225 (1894); BAKER, in THISELTON-DYER Fl. Trop. Afr. V. p. 461 (1897); KUDO, Lab. Sino-Jap. Prodr. p. 250 (1929)

Scutellaria indica, LINN., Sp. Pl. ed. 1. p. 600 (1753); BENTH., Lab. Gen. et Sp. p. 428, 1832-36i, in DC. Prodr. XII. p. 417 (1848), et Fl. Hongk. p. 278 (1861); MAXIM., in Bull. Soc. Nat. Mosc. p. 42 (1879); FR., Pl. David. I. p. 240 (1884); FORB. et HEMSL., Ind. Fl. Sin. II. p. 295 (1890); DIELS, Fl. Cent. Chin. p. 552 (1900); MATSUM. et HAY., Ennm. Pl. Formos. p. 313 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 550 (1912); NAK., in Tokyo Bot. Mag. XXXV. p. 196 (1921); KUDO, Lab. Sino-Jap. Prodr. p. 255 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1035 (1931)

Syn. *Scutellaria pekinensis*, MAXIM., Prim. Fl. Amur. p. 476 (1859)

Scutellaria japonica, MORR. et DECNE. var. *typica*, NAK., Fl. Kor. II. p. 144 (1911)

Norn. Jap. *Kobano-tatunamisō*

Ltg. Ipse, Kurio, Mart. 22, 1923.

Distr. Honsyū, Tanegasima, Taiwan, Korea, Manchuria, China.

Note. The species grows in somewhat open lands near the sea level.

var. *yakuBimtnsis*, MASAMUNE, Prel. Rep. Veg. Yak. p. 116 (1929), et in Journ. Trop. Agr. II. p. 31 (1930)

Atom. Jap. *Yakusimanamiki*

Leg. Ipse, Kosugidani, Jun. 8, 1928.

Distr. Endemica.

Note. The species grows as undergrowth near small streams in the lauri-aciculi-silvae, and also found on somewhat sunny ground in the Pseudosasa Owatarii Association.

Scutellaria ussuriensis, KUDO, var. *typica*, form, *humilis*, (MAK.) KUDO, Lab. Sino-Jap. Prodr. p. 257 (1929); MASAMUNE, Prel. Rep. Veg. Yak. p. 116 (1929)

Syn. *Scutellaria indica*, LINN. var. *japonica*, FR. et SAV. form, *humilis*, MAK., in Tokyo Bot. Mag. X. p. 314 (1896); et XVIII. p. 46 (1904)

Nom. Jap. *Sisoba-tatunamisd*

Leg. Ipse, Isso. Mart. 21, 1923.

Distr. Honsyū, Sikoku, Kyūsyū.

Note. The species occurs by the roadside in low lands, and in waste places.

Ajuga, [LINN., Gen. Pl. ed. 1. p. 167, 1737 J et Sp. Pl. ed. 1. p. 561, 11753.; BENTH., Lab. Gen. et Sp. p. 690, 1835 \ in DC. Prodr. XII. p. 595 (1848), et in BENTH. et HOOK. f. Gen. Pl. II. p. 1222, 1876'; Endl. Gen. Pl. n. 3680 (1836-40); BRIQ., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iii. a. p. 209 (1894); KUDO, Lab. Sino-Jap. Prodr. p. 276 (1929); LEMÉE, Diet. Gen. Pl. Phan. I. p. 133 (1929)

Ajuga decumbens, THUNB., Fl. Jap. p. 243, 1784^x; WILLD., Sp. Pl. III. p. 8, 1800; BENTH., Lab. Gen. et Sp. p. 697, 1835, et DC. Prodr. XII. p. 598, 1848; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 114, 1865; FR. et SAV., Enum. Pl. Jap. I. p. 382, 1875; MAXIM., in Mém. Biolog. XI. p. 820, 1883; FORB. et HEMSL., Ind. Fl. Sin. II. p. 315, 1891; NAK., Fl. Kor. II. p. 156, 1911; MATSUM., Ind. Pl. Jap. II. 2. p. 535 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 115, 1929; YAMAZUTA, List Manch. Pl. p. 233 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 1007, 1931

Syn. *Ajuga remote*, A. GRAY, in Narr. Perr. Exped. II. p. 316, 1856

Ajuga decumbens, THUNB. var. *sinuate*, FR. et SAV., Enum. Pl. Jap. I. p. 332, 1875[^]

Nom. Jap. *Kiransd*

Leg. Ipse, Hirauti, Jul. 1924.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Korea, Manchuria, China.

Note. The species is found by the roadside or in waste lands near the dwellings.

Teucrium, [LINN., Syst. ed. 1. U735] et Sp. Pl. ed. 1. p. 562, 1753; BENTH., Lab. Gen. et Sp. p. 660, 1835, in DC. Prodr. XII. p. 574, 1848, et in BENTH. et HOOK. f. Gen. Pl. II. p. 1221, 1876[^]; ENDL., Gen. Pl. p. 631 n. 3679, 1836-40; BRIQ., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iii. a. p. 210, 1894; KUDO, Lab. Sino-Jap. Prodr. p. 290, 1929[^]

Teucrium japonicum, HOUTT., Nat. Hist. IX. p. 282, 1778; WILLD., Sp. Pl. III. p. 23, 1800; BENTH., in DC. Prodr. XII. p. 581, 1848; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 113, 1865; FR. et SAV., Enum. Pl. Jap. I. p. 331, 1875; MAXIM., in Mém. Biolog. XI. p. 824, 1883; FORB. et HEMSL., Ind. Fl. Sin. II. p. 312, 1890; NAK., Fl. Kor. II. p. 157, 1911; MATSUM., Ind. Pl. Jap. II. p. 552, 1912; KUDO, Lab. Sino-Jap. Prodr. p. 293, 1929; MASAMUNE, Prel. Rep. Veg. Yak. p. 116, 1929; MAK. et NEM., Fl. Jap. ed. 2. p. 1039, 1931

Syn. *Teucrium virgmicum*, non LINN., THUNB., Fl. Jap. p. 244, 1784,

Teucrium brevispicum, NAK., in Tokyo Bot. Mag. XXXIV. p. 48, 1920,

Nom. Jap. *Nigakusa*

Leg. Ipse, Jul. 20, 1927.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Korea, China.

Note. The species grows as undergrowth in the laurisilvae or in the lauri-aciculisilvae.

Teucrium Miquelianum, KUDO, in Journ. Coll. Sc. Imp. Univ. Tokyo. XLIII. p. 8 (1929), et Lab. Sino-Jap. Prodr. p. 294 (1929).

Syn. **Teucrium stoloniferum**, ROXB. var. **Miquelianum**, MAXIM, in Mél. Biolog. IX. p. 826 (1876) ; FR. et SAV., Enum. Pl. Jap. II. p. 465 (1876); MATSUM., Ind. Pl. Jap. II. 2. p. 552 (1912) ; MATSUM. et KUDO, in Tokyo Bot. Mag. XXVI. p. 296 (1912)

Teucrium stoloniferum, (non HAMILT.) MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 113 (1865) ; FR. et SAV., Enum. Pl. Jap. I. p. 381 (1875)

Norn. Jap. Turu-nigakusa

Leg. Ipse, Jul. 22, 1924.

Distr. Yezo, HonsyG, Sikoku, KyūsyG, Amami-6sima, Taiwan.

Note. Occurs as undergrowth in the laurisilvae.

Teucrium viscidum, BL., Bijdr. p. 827 (1826) ; MERR., Enum. Philipp. Pl. III. p. 409 (1923) ; KUDO, Lab. Sino-Jap. Prodr. p. 295 (1929)

Syn. **Teucrium stoloniferum**, ROXB., Hort. Beng. p. 44 (1814), et Fl. Ind. III. p. 3 U832[^]; BENTH., in DC. Prodr. XII. p. 583 (1848), et Fl. Hongk. p. 279 (1861); MAXIM, in Mél. Biolog. IX. p. 825 (1876); HOOK., Fl. Brit. Ind. IV. p. 700 (1885) ; FORB. et HEMSL., Ind. Fl. Sin. II. p. 314 (1890) ; DIELS, Fl. Cent. Chin. p. 551 (1900) ; MATSUM. et HAY., Enum. Pl. Formos. p. 318 (1906) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1039 (1931)

Teucrium stoloniferum, ROXB. var. *typicum*, MAXIM, in Mél. Biolog. IX. p. 825 (1876) ; NAK., in Tokyo Bot. Mag. XXXIV. p. 48 (1920), et XXXV. p. 202 (1924)

Teucrium philippinense, MERR., in Philipp. Journ. Soc. VII. Bot. p. 100 (1912)

Nom. Jap. Ko-nigakusa

Leg. Ipse, Aug. 6, 1924.

Distr. Amami-6sima, Okinawa, Taiwan, Korea, China, Philippines.

Note. Grows in the laurisilvae, and is not yet reported further north than this island except Quelpart (Korea).

Names of Plants	Philippines	Bonins	Taiwan	Okinawa	Amami-6sima	Honsyū	Kyūsyū Prop.	Sikoku	Honsyū	Hokkaidō	Southern Kuriles	Northen Kuriles & Mtchatke	Manchuria, Amur	Ussuri	China
<i>Perillura reptans</i> , MAXIM.							+	+	+						
<i>Orthodon angustifolium</i> , MASAMUNE							+	+	+						

Names of Plants	Regions														
	Philippines	BO s	T n	Oonawa	Amami-Oshima	Tanega: B o a	Kyûsûyû	S	H	K	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamchatka	Manchu r & U.S.S.R.	China
<i>Orthodon grosseserratum</i> , KUDO							+	+	+	+	+			+	+
<i>Orthodon punctatum</i> , KUDO				+	+		+	+	+	+				+	+
<i>Satureia confinis</i> , KUDO			+	+	+	+	+	+	+	+					+
<i>Satureia chinensis</i> , BRIQ.			+	+	+	+	+	+	+	+				+	+
<i>Satureia ussuriensis</i> , KUDO, van <i>yakusimensis</i> , MASAMUNE			+				+	+	+	+					
<i>Isodon glaucocalyx</i> , KUDO, var. <i>japonicus</i> , KUDO.						+	+	+	+	+					
<i>Isodon inflexus</i> , KUDO.						+	+	+	+	+	+				+
<i>Salvia japonica</i> , THUNB. f. <i>chinensis</i> , KUDO							+		+						+
<i>Prunella vulgaris</i> , LINN.			+				+	+	+	+	+			+	+
<i>Scutellaria indica</i> , LINN.			+				+	+	+	+				+	+
<i>S. i.</i> var. <i>yakusimensis</i> , MASAMUNE															
<i>Scutellaria ussuriensis</i> , KUDO, var. <i>typica</i> , f. <i>humilis</i> , KUDO.							+	+	+						
<i>Ajuga decumbens</i> , THUNB.					+	+	+	+	+	+				+	+
<i>Teucrium japonicum</i> , HOUTT.							+	+	+	+	+				+
<i>Teucrium Miquelianum</i> , KUDO.			+		+		+	+	+		+				
<i>Teucrium viscidum</i> , BL.			+	+	+						+				+
Total	18	1	6	5	6	7	15	14	15	11	5				
Percentage	6	33	28	33	28	83	78	83	61	28				33	61

Southern elements 8'

Northern elements 16

Taking the distribution of the plants of this family indigenous to this island into consideration it will be perceived that the flora of the island is related more to the northern floral regions than to the southern ones.

Solanaceae

Solanaceae, HALL., Enum. Stirp. Helvet. I. p. 34 '1742

Lycium, [LINN., Syst. ed. 1 '1735J et Sp. PL ed.

1. p. 191 '1753 ; ENDL., Gen. PI. n. 3863 (1836-40 ; BENTH., in BENTH. et HOOK, f. Gen. PI. II. p. 900 (1876 ; WETTST., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. iii. b. p. 13 '1891' ; LEMÉE, Diet. Gen. PI. Phan. IV. p. 202 '1932.

Syn. *Jasrninoides*, MEDIK., Phil. Bot. I. p. 134 '11789

Panzeria, J. F. GMEL., Syst. II. p. 247 '11791.

Lycium chinense, MILLER, Gard. Die. ed. 8. n. 5 '1768 ; HOOK, et ARN., Bot. Capt. Beech. Voy. p. 267 '1836-40) ; DC, Prodr. XIII. 1. p. 510 '1852 ; MAXIM., Prim. Fl. Amur. p. 475 '1859 ; BENTH., Fl. Hongk. p. 245 '1861 ; FR. et SAV., Enum. PI. Jap. I. p. 341 '1875' ; FORB. et HEMSL., Ind. Fl. Sin. II. p. 175 (1890 ; MATSUM. et HAY., Enum. PI. Formos. p. 274 '1906 ; KOM, Fl. Mansh. III. p. 403 '1907' ; NAK., Fl. Kor. II. p. 112 (1911 ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 183 '1912-; LOESN., Pfl.-welt. Kiautsch. Geb. p. 177 '1918; ; MERR., Enum. Hainan PI. p. 163 (1927) ; MASAIUNE, Prel. Rep. Veg. Yak. p. 117 '1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1045 (1931,

Nom. Jap. *Kuko*

Leg. Y. KUDO! Aug. 1907.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Osima, Okinawa, Taiwan, Korea, Manchuria, China.

Note. The species was once collected by Dr. KUDO in the island, and is common in the Far East.

Physalis, [LINN., Syst. ed. 1 '1735] et Sp. PI. ed.

1. p. 182 '1753 ; DUNAL, in DC. Prodr. XIII. 1. p. 434 '1852¹ ; ENDL., Gen. PI. n. 3851 '1836-40 ; BENTH., in BENTH. et HOOK. f. Gen. PI. II. p. 890 '1876 ; WETTST., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iii. b. p. 19 '1891,

Syn. *Alkekengi*, [TOURN.] ex ADANS. Fam. II. p. 218 '1763

Herschelia, BOWDICH, Maderia. p. 159 '1825

Physalis angulata, LINN., Sp. PI. ed. 1. p. 183 '1753 ; THUNB., Fl. Jap. p. 91 '1784 ; DUNAL, in DC. Prodr. XIII. 1. p. 448 '1852 ; MIQ., Fl. Ind. Bat. II. p. 664 '1856 , et in Ann. Mus. Bot. Lugd. Bat. III. p. 118 '1867' ; FR. et SAV., Enum. PI. Jap. I. p. 340 '1875' , et II. p. 453 '1876 ' ; FORB. et HEMSL., Ind. Fl. Sin. II. p. 173 '1890 ; MATSUM. et HAY., Enum. PI. Formos. p. 274 '1906 ; MATSUM., Ind. PL Jap. II. 2. p. 556 '1912 ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 183 '1912 ; BONATI, in LECOMTE, Fl. Ind. Chin. IV. 3. p. 335 '1915-; MORI, Enum. PI. Cor. p. 309 '1922' ; MERR., Enum. Philipp. PI. III. p. 423 '1923-; MASAMUNE, Prel. Rep. Veg. Yak. p. 117 '1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1048 '1931.

Nom. Jap. *Sennari-hōzuki*

Leg. Ipse, Ambō.

Distr. Honsyū, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China, Philippines.

Note. The species is found in waste or cultivated lands. It is common throughout the world and is reported to be a native of tropical America.

Tubocapsicum, MAK., in Tokyo Bot. Mag. XXII.

Syn. Capsicum, (non, LINN.) FR. et SAV., Enum. Pl. Jap. II. p. 452 (1879^N).
Capsicum, Sect. *Tubocapsicum*, WETTST., in ENGL. u. PRANT. Nat. Pfl.-fam. IV.
 iii. b. p. 21 (1891)

Tubocapsicum anomalum, MAK., in Tokyo Bot. Mag. XXII. p. 19 (1908); MORI, Enum.
 Pl. Cor. p. 310 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 117 (1929^A); MAK. et
 NEM., Fl. Jap. ed. 2. p. 1052 (1931)

Syn. Capsicum anomalum, FR. et SAV., Enum. Pl. Jap. II. p. 452 (1876[']); MATSUM.
 et HAY., Enum. Pl. Formos. p. 269 (1905); MATSUM., Ind. Pl. Jap. II. 2. p.
 553 (1912)

Norn. Jap. Hadaka-hōzuki

Leg. Ipse, Kosugidani, Jul. 28, 1930.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan,
 Korea.

Note. The species is common in southern Japan, and in the island it is found
 in low waste lands or by the roadside.

Solanum, [TOURN., ex LINN. Syst. ed. 1 '1735]
 et Sp. Pl. ed. 1. p. 184 ;1753^A; ENDL., Gen. Pl. n. 3855 ;1836-40); DUNAL, in DC.
 Prodr. XIII. i. p. 27 ,1852, ; BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 888
 1876 ; WETTST., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iii. b. p. 21 1891

Syn. Melongens, (TOURN.) MILL., Gard. Diet. ed. 6 √1752:

Battata, HILL., Hort. Kew. p. 146 (1768^A)

Solanum biflorum, LOUR., Fl. Cochinch. p. 129 ;1790 ; HOOK, et ARNOT., Bot. Capt.
 Beech. Voy. p. 267 (1836-40) ; DUNAL, in DC. Prodr. XIII. 1. p. 232 ;1852 ; MIQ.,
 in Ann. Mus. Bot. Lugd. Bat. III. p. 118 (1867) ; C. B. CLARKE, in HOOK. f. Fl.
 Brit. Ind. IV. p. 232 ;1883) ; FORB. et HEMSL., Ind. Fl. Sin. II. p. 169 (1890);
 DIELS, Fl. Cent. Chin. p. 564 ,1900;; MATSUM. et HAY., Enum. Pl. Formos. p.
 271 11905; ; HATTORI, Pfl.-Geog. Bonn. p. 34 (1908[']); MATSUM., Ind. Pl. Jap. II. 2.
 p. 556 [1912] ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 183 U912;; BONATI, in
 LECOMTE, Fl. Ind. Chin. IV. 3. p. 320 (1915); RIDLEY, Fl. Malay, II. p. 467
 1923) ; MERR., Enum. Philipp. Pl. III. p. 425 (1923; et Enum. Hainan Pl. p. 117
 1927; ; MASAMUNE, Prel. Rep. Veg. Yak. p. 118 √1929['] ; MAK. et NEM., Fl. Jap.
 ed. 2. p. 1049 (1931)

Syn. Solanum decent dent at urn, ROXB., Fl. Ind. II. p. 247 :1824\ et ed. 2. I. p. 565
 √1832* ; BENTH., Fl. Hongk. p. 242 (1861)

Norn. Jap. Meziro-hōzuH

Leg. Ipse, Yosida, Mart. 3, 1923.

Distr. Honsyū, Sikoku, Kyūsyū, Amami-6sima, Okinawa, Taiwan, Bonins, China,
 Philippines.

Note. The plant is rather common in the Far East and in the island it grows by
 the roadside or on forest edges from the sea level up to about 700 m above.

Solanum lyratum, THUNB., Fl. Jap. p. 92 U784); WILLD., Sp. Pl. II. 2. p. 1027 1799, ;
 DUNAL, in DC. Prodr. XIII. 1. p. 79 (1852;; MIQ., in Ann. Mus. Bot. Lugd. Bat.
 III. D. 118 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 339 (1875) ; NAK., Fl. Kor. II.
 p. 113 (1911); LOESN., Pfl.-Welt. Kiautsch. Geb. p. 178 [1918]; MASAMUNE. Prel.
 Rep. Veg. Yak. p. 117 ;1929)

Syn. Solanum Dulcamara, LINN. var. *lyratum*, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II.
 p. 147 (1846); MAK., in Tokyo Bot. Mag. IX. p. a 12; 1895, ; MATSUM.,

Ind. PL Jap. II. 2. p. 557 (1912); BONATI, in LECOMTE, Fl. Ind. Chin. IV. 3. p. 316 (1915)

Nom. Jap. *Hiyoiorizyôgo*

Leg. Ipse, ca. Sitogo, Aug. 18, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Amami-6sima, Okinawa, Taiwan, Korea, China.

Note. This species is common in southern Japan, and is found on forest edges or by the roadside at low altitudes.

Solanum nigrum, LINN., Sp. Pl. ed. 1. p. 186 (1753); DUNAL, in DC. Prodr. XIII. 1. p. 50 (1852); MIQ., Fl. Ind. Bat. II. p. 636 (1856); MAXIM., Prim. Fl. Amur. p. 475 (1859); C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. IV. p. 229 (1883); FR., Pl. David. I. p. 220 (1884); FORB. et HEMSL., Ind. Fl. Sin. II. p. 171 (1889); DIELS, Fl. Cent. Chin. p. 564 (1900); MATSUM. et HAY., Enum. Pl. Formos. p. 273 (1906); KOM, Fl. Mansh. III. p. 405 (1907); NAK., Fl. Kor. II. p. 112 (1911); DUNN et TUTCH., Fl. Kwang. & Hong. p. 183 (1912); BONATI, in LECOMTE Fl. Ind. Chin. IV.-3. p. 317 (1915); LOESN., Pfl.-Welt. Kiautsch. Geb. p. 177 (1918); RIDLEY, Fl. Malay, II. p. 465 (1923); MERR., Enum. Philipp. Pl. III. p. 427 (1923), et Enum. Hainan Pl. p. 164 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 117 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1050 (1931)

Syn. *Solanum nodiflorum*, JACQ. var. *macrophyllum*, DUNAL, in DC. Prodr. XIII. 1. p. 46 (1852)

Nom. Jap. *Inuhoozuki*

Leg. Ipse, April. 4, 1927.

Distr. Saghalien, Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Bonins, Korea, Manchuria, China, Philippines.

Note. This weed is found in lowlands near dwellings, and near refuse-heaps.

Solanum xanthocarpum, SCHRAD. et WENDL., Sert. Han. I. p. 8, t. 2 (1795); DUNAL, in DC. Prodr. XIII. 1. p. 302 (1852); HOOK, f, Fl. Brit. Ind. IV. p. 236 (1883); FORB. et HEMSL., Ind. Fl. Sin. II. p. 173 (1890); DIELS, Fl. Centr. Chin. p. 564; 1900); MATSUM. et HAY., Enum. Pl. Formos. p. 274 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 558 (1912); BONATI, in LECOMTE Fl. Ind. Chin. IV. 3. p. 324 (1915);

Names of Plants	Regions														
	Philippines	Bonins	Taiwan	Okinawa	Amami-Osima	Tanegasima	Kyûsyû	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China
<i>Lycium chinense</i> , MILLER			+	+	+	+	+	+	+	+				+	+
<i>Physalis angulata</i> , LINN.	+	+	+	+	+	+	+	+	+	+	+				+

Names of Plants	Regions				Ryūkyūs							
	Cutt	H	O	J	T	K	Sikoku	Fion	Korea	Yezo & Kuril	S	N
Tubocapsicum anomalum, MAK.			+	+	+	+	+	+	+			
Solanum biflorum, LOUR.		+	+	+		+	+	+				+
Solanum lyratum, THUNB.		+	-	+		+	+	+	+			+
Solanum nigrum, LINN.	+	H	+	+	+	+	+	+	+	+		+
Solanum xanthocarpum, SCHRAD. & WENDL.		+	+	+	+	+	+					
Total	7	132.7	7	7	5	7	7	6.5	2	1		2
Percentage	43.29	100	100	100	71	100	100	86.7	12.9	14		29.86
Southern elements 7)					Northern elements 7-							

MASAMUNE, Prel. Rep. Veg. Yak. p. 117 1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1051 (1931)

Aom. Jap. *Nisikiharinasubi*

Leg. Ipse, Ambō, Aug. 1927.

Distr. Kyūsyū, Sikoku, Tanegasima, Amami-Osima, Okinawa, Taiwan, China, Polynesia.

Note. The species occurs very often near the sea shore or by the roadside in villages, and is common in South Japan.

The distribution of the plants of *Solanaceae* indigenous to this island affords no means of deciding whether the island is closely related to the northern lands beyond Yakusima or not.

Rhinanthaceae

Rhinanthaceae, HILAIRE, Exposit. Fam. Nat. I. p. 227, t. 40 1805

Syn. Scrophulariaceae, LINDL., Nat. Syst. ed. 2. p. 288 1836

Mazus, LOUR., Fl. Cochinch. p. 385 1790 ; ENDL., Gen. Pl. n. 3931 1836-40 ; BENTH., in DC. Prodr. X. p. 342 1846 , et in BENTH.

et HOOK. f. Gen. Pl. II. p. 947 (1876); WETTST., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. iii. b. p. 72 (189r); LEMfE, Diet. Gen. Pl. Phan. IV. p. 345 (1932)

Mazus japonicus, O. KUNTZE, Rev. Gen. Pl. II. p. 462 (1891); MAK., in Tokyo Bot. Mag. XVI. p. 170 (1902); NAK., Fl. Kor. II. p. 119 (1911); MATSUM., Ind. Pl. Jap. II. 2. p. 563 (1912); MIURA, List Pl. Manch. & Mong. p. 321 (1925); MASAMUNE, Prel. Rep. Veg. Yak. p. 118 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1063 (1931); Syn. *Lindernia japonica*, THUNB., Fl. Jap. p. 253 (1784); WILLD., Sp. Pl. III. p. 326 (1800); PERS., Syn. Pl. II. p. 166 (1807)

Mazus rugosus, LOUR., Fl. Cochinch. p. 385 (1790); AIT., Hort. Kew ed. 2. IV. p. 53 (1812); SPRENG., Syst. Veg. II. p. 803 (1825); BENTH., in DC. Prodr. X. p. 375 (1846), et Fl. Hongk. p. 247 (1861); GRAY, in Narr. Perry Exped. II. p. 316 (1856); MAXIM., Prim. Fl. Amur. p. 205 (1859) et in Mém. Biolog. IX. p. 402 (1874); REGEL, Tent. Fl. Ussur. p. 119 (1861); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 116 (1865); FR. et SAV., Enum. Pl. Jap. I. p. 344 (1875); FR., PL David. I. p. 222 (1884); HOOK. f., Fl. Brit. Ind. IV. p. 259 (1884); HILDEB., Fl. Hawai. Isl. p. 324 (1888); FORB. et HEMSL., Ind. Fl. Sin. II. p. 183 (1890); PALIB., Consp. Fl. Kor. II. p. 20 (1900); DIELS, Fl. Cent. Chin. p. 566 (1900)

Nom. Jap. Tokiwaliaze

Leg. lose, April. 2, 1927.

Distr. Yezo, Honsyû, Sikoku, Amami-6sima, Okinawa, Korea, Manchuria, China.

Note. The species grows in cultivated lands or by the roadside near the sea level.

Mazus stolonifer, MAK., in Cat. Sem. Hort. Bot. Univ. Tokyo p. 17 (1896); MAK. et NEM., Fl. Jap. ed. 2. p. 1063 (1931)

Syn. *Vandellia japonica*, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 118 (1865)

Mazus rugosus, var. *stolonifer*, MAXIM., in Mém. Biolog. IX. p. 403 (1874)

Mazus rugosus, var. *rotundifolius*, FR. et SAV., Enum. Pl. Jap. I. p. 344 (1875)

Mazus rugosus, var. *macranthus*, FR. et SAV., Enum. Pl. Jap. I. p. 344 (1875)

Mazus japonicus, non O. KUNTZE, MAK., in Tokyo Bot. Mag. XI. p. (391) (1897), et XV. p. 96 (1901).

Mazus Miquelii, MAK., in Tokyo Bot. Mag. XVI. p. 162 (1902); MATSUM., Ind. Pl. Jap. II. 2. p. 563 (1912)

Nom. Jap. Sagigoke

Leg. Ipse, Onoaida, Mart. 23, 1923.

Distr. Honsyû, Sikoku, Kyûsyû.

Note. The species has its southern limit in this island and is found at low altitudes.

Gratiola, (RUPP.) LINN., Sp. Pl. ed. 1. p. 17 (1753); ENDL., Gen. Pl. n. 3946 (1838-40); BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 953 (1876); WETTST., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. iii. b. p. 75 (189r); LEMfE, Diet. Gen. Pl. Phan. III. p. 339 (1931)

Syn. *Gonatia*, NUTT., ex DC. Prodr. X. p. 595 (1846)

Gratiola violacta, MAXIM., in Mém. Biolog. IX. p. 407 (1875); KOM., Fl. Mansh. III. p. 422 t. V. (1907); FR. et SAV., Enum. Pl. Jap. II. p. 456 (1876); NAK., Fl. Kor. II. p. 120 (1911); MAK. et NEM., Fl. Jap. ed. 2. p. 1058 (1931)

Syn. *Gratiola saginoides*, MATSUM. var. *violacea*, MATSUM., Ind. Pl. Jap. II. 2. p. 560 (1912);

Fratiola violacea, var. *genuinina*, FR. et SAV., Enum. Pl. Jap. II. p. 456 (1876);
Norn. Jap. Sdwa-tógarasi
Leg. Ipse, Nagata, Aug. 20, 1928.
Distr. Sikoku, Kyúsyú, Amami-dsima, Korea, Manchuria.
Note. Grows in cultivated lands or by the roadside.

Lindernia, (TOURN.) MILL., Gard. Diet. ed. 6
 1752); ALL., Misc. Taurin. III. p. 178, t. 5 (1755); ENDL., Gen. PL n. 3758 (1836-
 40>; WETTST., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iii. b. p. 59 (1891); LEMSE,
 Diet. Gen. PL Phan. IV. p. 107 (1932)

Lindernia Crustacea, MUELL., Census, p. 97 (1882); MERR., Enum. Philipp. PL III. p.
 437 (1923)

Syn. *Capraria Crustacea*, LINN., Mant. I. p. 87 (1767J)

Torenia Crustacea, CHAM, et SCHL., in Linnaea, II. p. 570 (1827); MAK., in
 Tokyo Bot. Mag. XL p. (390) (1897); MATSUM., Ind. PL Jap. II. 2. p. 570
 (1912^; MASAMUNE, Prel. Rep. Veg. Yak. p. 118 (1929!; MAK. et NEM., Fl.
 Jap. ed. 2. p. 1073 J931)

Torenia varians, ROXB., FL Ind. III. p. 96 (1832:

Vandellia Crustacea, BENTH., Scroph. Ind. p. 35 (1835` , in DC. Prodr. X. p. 413
 (1846:, et in Fl. Hongk. p. 251 (1861); HOOK, et ARN., Bot. Capt. Beech.
 Voy. p. 202 11836) ; MAXIM., in Mél. Biolog. IX. p. 412 (1874) ; HOOK, f.,
 Fl. Brit. Ind. IV. p. 279 (1884); FORB. et HEMSL., Ind. Fl. Sin. II. p. 189
 (1890) ; MATSUM. et HAY., Enum. PI. Formos. p. 279 (1906)

Lindernia pyxidaria, ALL.; BENTH., in DC. Prodr. X. p. 418 (1846); MAXIM.,
 Prim. Fl. Amur. p. 205 (1859); WETTST.. in ENGL. u. PRANT. Nat. Pfl.-fam.
 IV. iii. b. p. 80 (1891); KOM., Fl. Mansh. III. p. 423 (1907J; NAK., Fl. Kor.
 II. p. 120 11911), et in Bull. Biogeogr. Soc. Jap. I. p. 262 (1930); MATSUM.,
 Ind. PL Jap. II. 2. p. 562 (1912)

Nom. Jap. Urikusa

Leg. Ipse, Aug. 13, 1928.

Distr. Honsyu; Sikoku, Kyúsyú, Tanegasima, Amami-Osima, Okinawa, Taiwan
 Bonins, Korea, Manchuria, China.

Aote. Grows in low and waste lands or in cultivated lands.

Ilysanthes, RAF., Ann. Nat. p. 13 (1820); BENTH.,
 in DC. Prodr. X. p. 343 (1846), et in BENTH. et HOOK. f. Gen. PI. II. pp. 955,
 956 U8761; WETTEST., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iii. b. p. 80 (1891);
 LEM&E. Diet. Gen. PI. Phan. III. p. 746 (1931)

Syn. *Bonnaya*, LINK et OTTO, Ic. Pl. Select, p. 25, t. 11 (1820); ENDL., Gen. PL n.
 3948 (1836-40;

Ilysanthos, ST.-LAG., in Ann. Soc. Lyon. VII. p. 56 (1880j

Ilysanthes antipoda, (LINN.) MERR., Interp. Herb. Amb. p. 467 (1917), Sp. Blanc, p. 349
 (1918), et Enum. Philipp. PL III. p. 439 (1923)

Syn. *Ruellia antipoda*, LINN., Sp. Pl. ed. 1. p. 635 (1753)

Gratida veronicae/olia, RETZ., Obs. IV. p. 8 (1786)

Bonnaya veranicaefolia, SPRENG., Syst. Veg. I. p. 41 (1825); BENTH., in DC.
 Prodr. X. p. 421 (1846), et Fl. Hongk. p. 252 (1861); MAXIM., in Mél. Biolog.
 IX. p. 421 (1875); HOOK, f., Fl. Brit. Ind. IV. p. 285 (1884); FORB. et

HEMSL., Ind. Fl. Sin. II. p. 192 (1890); MATSUM. et HAY., Enum. PL Formos. p. 281 (1906)

Ilysanthes veronicifolia, URB. var. *verbenaefolia*, MAK. et NEM., Fl. Jap. ed. 1. p. 214 (1925), et ed. 2. p. 1059 (1931)

Ilysanthes antipoda, MERR. var. *verbenaefolia*, (MAK.) MASAMUNE, Prel. Rep. Veg. Yak. p. 117 H929

Abut. **Jap.** *Suzumeno-tôgarasi*

Leg. Ipse, Sept. 5, 1926.

Distr. Honsyû, Sikoku, KyGsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Bonins, China, Philippines.

Note. Grows near cultivated lands or by the roadside; common in the southern part of Japan.

Centranthera, R. BR., Prodr. p. 438 (1810); ENDL., Gen. PI. n. 4002 11836-40; BENTH., in DC. Prodr. X. p. 508 (1846), et BENTH. et HOOK. f. Gen. PI. II. p. 969 (1876); WETTST., in ENGL. U. PRANT. Nat. Pfl.fam. IV. iii. b. p. 94 (1891); LEMEE, Diet. Gen. PI. Phan. IL p. 15 (1930)

Centranthera Brunoniana, WALL., Cat. n. 3882 (1828); BENTH., in DC. Prodr. X. p. 525 (1846); HOOK. f., Fl. Brit. Ind. IV. p. 301 (1884); FORB. et HEMSL., Ind. Fl. Sin. II. p. 201 (1890); MATSUM. et HAY., Enum. PI. Formos. p. 283 (1906); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 190 (1912); MORI, Enum. PI. Cor. p. 311 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 117 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1055 U931)

Syn. *Centranthera hispida*, BENTH., Fl. Hongk. p. 254 (1861)

Norn. Jap.i *Gomakusa*

Leg. Ipse, Ambo, Aug. 12, 1928.

Distr. Honsyû, Sikoku, KyGsyG, Tanegasima, Okinawa, Taiwan, Korea, China.

Note. Grows in waste places or in cultivated lands.

Melampyrum, [TOURN., ex LINN. Syst. ed. 1 1735] et Sp. PI. ed. 1. p. 605 (1753); BENTH., in DC. Prodr. X. p. 528 (1846), et in BENTH. et HOOK. f. Gen. PI. II. p. 979 (1876); WETTST., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iii. b. p. 99 (1891)

Melampyrum laxum, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 123 (1865); NAK., in Tokyo Bot. Mag. XXI. p. (332) (1907), et XXIII. p. 10 (1909); MATSUM., Ind. PI. Jap. II. 2. p. 564 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 118 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1064 (1931)

Abut. **Jap.** *Miyamamamakona*

Leg. Ipse, Aug. 31, 1926.

Distr. Yezo, HonsyG, Sikoku, KyGsyû.

Note. The species is found in open places in the laurisilvae or in the Pseudosasa Owatarii Association, and has its southern limit in this island.

Pedicularis, [TOURN., ex LINN. Syst. ed. 1 (1735)] et Sp. PI. ed. 1. p. 607 (1753); ENDL., Gen. PI. n. 4015 (1836-40); BENTH., in DC. Prodr. X. p. 528 (1846), et in BENTH. et HOOK. f. Gen. PL II. p. 978 (1876); WETTST., in ENGL. u. PRANT. Nat. Pfl.fam. IV. iii. b. p. 103 (1891)

Syn. *Sceptnm Carolium*, LINN., Fl. Lapp. p. 197 (1737)

Nclensia, POIR., Illustr. Gen. III. p. 568 (1823)

Pedicularis gloriosa, BOISS. et MR. var. **Ochiaiana**, MAKJ MASAMUNE, comb. nov.
Syn. *Pedicularis Ochiaiana*, MAK., in Tokyo Bot. Mag. XXIV. p. 144 11910 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 118 (1929, ; MAK. et NEM., Fl. Jap. ed. 2. p. 1068 (1931)

Nom. Jap. *Yakusima-siogama*

Leg. Ipse, ca. 1000 m. Aug. 31, 1926.

Distr. Endemica.

Note. The variety is found in the Pseudosasa Owatarii Association. *Pedicularis gloriosa* is known only in Honsyû, and the variety is restricted to this island.

Names of Plants	Regions														
	Philippines	Bonins	Taiwan	Okinawa	Amami-Osima	Tan-shi	Kyûsû	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China
<i>Mazus japonicus</i> , O. KUNTZE				+	+		+	+	+	+	+			+	+
<i>Mazus stolonifer</i> , MAK.							+	+	+	+					
<i>Gratiola violacea</i> , MAXIM.					+		+	+	+	+				+	
<i>Lindernia Crustacea</i> , MUELL.	+	+	+	+	+	+	+	+	+	+				+	+
<i>Dysanthes antipoda</i> , MERR.	+	+	+	+	+	+	+	+	+	+					+
<i>Centranthera Brunoniana</i> , WALL.			+	+		+	+	+	+	+					+
<i>Melampyrum laxum</i> , MIQ							+	+	+		+				
<i>Pedicularis gloriosa</i> , BOISS. et MR. var. <i>Ochiaiana</i> , MASAMUNE															
Total	8	2	2	3	4	4	3	7	7	7	4	2		3	4
Percentage		25	25	38	50	50	38	88	88	88	50	25		38	50

(Southern elements 5)

(Northern elements 7)

Considering the distribution of the elements of this family which are indigenous to this island, the above table shows that the island is closely related to the northern floral regions.

Orobanchaceae

Orobanchaceae, LINDL., Nat. Syst. ed. 2. p. 287 ^1836. ; BECK., in ENGL. U. PRANT., Nat. Pfl.-fam. IV. iii. b. p. 123 (1891)

Aeginetia, [LINN., Syst. 1. (1735] et. Sp. Pl. ed.

1. p. 632 (1753); ENDL., Gen. Pl. n. 4190 (1836-40); REUTER, in DC. Prodr. XL p. 43 (1847); BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 982 (1876); BECK., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. iii. b. p. 129 (1891); LEMÉE, Diet. Gen. Pl. Phan. I. p. 92 (1929)

Syn. *Centonia*, BL., Bijdr. p. 776 (1826)
Centeonota, DC, ex MEISSN. Gen. p. 303 (1840)

Aeginetia japonica, SIEB. et ZUCC., Fl. Jap. Fam. Nat. II. p. 141 (1846¹); REUTER, in DC. Prodr. XL p. 720 (1847); MAK., in Tokyo Bot. Mag. XXIV. p. 13 (1910); BECK, in ENGL. Pfl.-reich. IV. 261, p. 19 (1930); NAK., in Tokyo Bot. Mag. XLV. p. 135 (1931); MAK. et NEM., Fl. Jap. ed. 2. p. 1084 (1931) p.p.

Syn. *Aeginetia indica*, (non LINN.) MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 123 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 354 (1875); MATSUM., Ind. Pl. Jap. II. 2. p. 575 (1912) p.p.; MASAMUNE, Prel. Rep. Veg. Yak. p. 118 (1929); *Aeginetia sinensis*, BECK., in ENGL. Pfl.-reich. IV. 261, p. 19 (1930);

Norn. Jap. *Nanbangiseru*

Leg. Ipse, April. 1927.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Ôsima, China.

Note. The plant is often found as a parasite on the roots of *Mi scant hus*, in low lying lands where the *Miscanthus* makes a kind of consociation.

Name of Plant	Regions												
	Ph loes	Taiwan	Okinawa	Amami-Ôsima	Ry 8	egasima	% op.	Sikoku	Honsyû	Korea	Yezo & So H Isles	Saghalien Northern Kuriles & Manchuria, Amdr & atka Si	China
<i>Aeginetia japonica</i> , SIEB. et ZUCC.				+	+	+	+	+	+				+

So far as this family is concerned the island is related with the northern regions, since the only representative of this family in the island is not yet reported further south than Amami-Ôsima.

Gesneriaceae

Gesneriaceae, NEES, in Ann. Sc. Nat. VI. p. 295 (1825); FRITSCH, in ENGL. U. PRANT. Nat. Pfl. IV. iii. b. p. 133 (1893)

Lysionotus, D. DON, in Edinb. Philos. Journ. p.

85 (1822¹); ENDL., Gen. Pl. n. 4135 (1836-40); DC, Prodr. IX. p. 263 (1865);

Leg. Ipse, Yosida, Mart. 21, 1923.

Distr. Tanegasima, Amami-Ōsima, Okinawa, Taiwan, China, Philippines.

A/ote. The species is found in low, wet and somewhat shady places and it is not yet reported in lands further north than Tanegasima.

Looking at the above table which shows the distribution of the species of this family, it will be perceived that the island is situated in the changing region of the elements. Of the two elements of this family in the island, one is a northern element that has the southern limit of habitat in this island, while the other is a southern element which is not yet found further north than Tanegasima.

Lentibulariaceae

Lentibulariaceae, LINDL., Nat. Syst. ed. 2. p. 286 (1836)

Utricularia, [LINN., Syst. ed. 1 1735J et Sp. PL ed. 1. p. 18 1753 ; DC, Prodr. VIII. p. 3 (1844); ENDL., Gen. PL n. 4193 1836-40 ; BENTH. in BENTH. et HOOK. f. Gen. PL II. p. 987 (1876); KAMIENSKI, in ENGL. U. PRANT. Nat. Pfl.-fam. IV. iii. b. p. 119 (1891)

Utricularia yakusimensis, MASAMUNE, sp. nov.

Herbae caenoseo-terrestres, radicibus filiformibus. Scapus erectus gracilis ca. 3 cm altus. Folia obovato-lanceolata ca. 1cm longa 1.5 mm lata. Flores 2-3 racemosi, bracteis minimis ovato-rotundatis ca. 0.5 mm longis, pedicellis gracilibus ca. 2 mm longis. Calyx 2-partitus, segmentis ovatis posticum maiora quam antiqua apice saepe emarginatis. Corollae calcar incurvum, labium posticum erectum ca. 2 mm longum 0.5 mm latum vix emarginatum, anticum patens, ca. 2 mm longum, 1 mm latum, basi supra convexum, margine reflexo-integrum. Stamina cum ovarium ca. 0.8 mm longa.

Nom. Jap. Yakusima-mimikaki

Name of Plant	Regions
<i>Utricularia yakusimensis</i> , MASAMUNE . . .	Philippines « H S in O I wa Amami-Ōsima Tanegasima Kyūsyū Prop. Sikoku 1 Southern Kuriles & Kamtchatka r & Usuri !! * iP (endemica)

Leg. Ipse, Aug. 31, 1926.

Note. The characteristic of this species places it between *U. affinis*, and *U. racemosa*. It is found in wet but somewhat sandy places from 600 m up to 1700 m above the sea level and is restricted to this island.

The island has only one endemic species of this family, and its related species is found both in the southern and northern regions beyond Yakusima. I cannot decide therefore in which region the island should be included.

Acanthaceae

Acanthaceae, JUSS., *Diet. Sc. Nat.* I. p. 96 (1804*); BENTH., in BENTH. et HOOK. f. *Gen. Pl.* II. p. 1060 (1876)

Strobilanthes, BL., *Bijdr.* pp. 781, 792 (1826);
ENDL., *Gen. Pl.* n. 4053 (1836-40); ESENBECK, in DC. *Prodr.* XI. p. 177 (1847);
BENTH., in BENTH. et HOOK. f. *Gen. Pl.* II. p. 1086 (1876); LINDAU, in ENGL. U.
PRANT. *Nat. Pfl.-fam.* IV. iii. b. p. 304 (1895):

Syn. *Adenacanthus*, NEES, in WALL. *Pl. As. Ran.* III. p. 75 (1832)

Strobilanthes japonicus, MIQ., in *Ann. Mus. Bot. Lugd. Bat.* II. p. 124 (1865); FR. et SAV., *Enum. Pl. Jap.* I. p. 356 (1875); MATSUM., *Ind. Pl. Jap.* II. 2. p. 582 (1912); MASAMUNE, *Prel. Rep. Veg. Yak.* p. 119 (1929); MAK. et NEM., *Fl. Jap.* ed. 2. p. 1098 (1931)

Syn. *Ruellia japonica*, THUNB., *Fl. Jap.* p. 254 (1784), et *Ic. Fl. Jap.* 5. t. 9 (1775):

Norn. Jap. Isehanabi

Leg. OKUMURA! Inter Miyanoura et Yaedake, April. 11, 1906.

Distr. Kyūtsyū, Sikoku.

Note. Dr. KUDO told me that Mr. OKUMURA had collected this species in the island. It has its southern limit in this island.

Justicia, [HOUST., ex LINN. *Gen. Pl.* ed. I. p. 4 (1737)] et Sp. *Pl.* ed. 1. p. 15 (1753); ENDL., *Gen. Pl.* n. 4089 (1836-40); ESENBECK, in DC. *Prodr.* XI. p. 426 (1847); BENTH., in BENTH. et HOOK. f. *Gen. Pl.* II. p. 1108 (1876); LINDAU, in ENGL. u. PRANT. *Nat. Pfl.-fam.* IV. iii. b. p. 346 (1895); LEMEE, *Diet. Gen. Pl. Phan.* p. 830 (1931)

Syn. *Ecbolium*, [Riv., ex LINN. *Syst.* ed. 1 (1735)] O. KUNTZE, *Rev. Gen. Pl.* II. p. 486 (1891).

Vada-Kodi, ADANS., *Fam.* II. p. 201 (1763);

Aldinia, SCOP., *Introd.* p. 173 (1777)

Rostellularia, REICHB., *Handb.* p. 190 (1833); NEES, in DC. *Prodr.* XI. p. 368 (1847)

Justicia procumbens, LINN., *Sp. Pl.* ed. 1. p. 15 (1753); ANDERS., in *Journ. Linn. Soc. Bot.* IX. p. 511 (1865); C. B. CLARKE, in HOOK. f. *Fl. Brit. Ind.* IV. p. 539 (1885); FORB. et HEMSL., *Ind. Fl. Sin.* II. p. 246 (1890); MATSUM. et HAY., *Enum. Pl. Formos.* p. 295 (1906); NAK., *Fl. Kor.* II. p. 133 (1911); DUNN et TUTCH., *Fl. Kwang. & Hongk.* p. 200 (1912); MATSUM., *Ind. Pl. Jap.* II. 2. p. 581

1912;; MERR., Enum. Philipp. Pl. III. p. 490 [1923], et Enum. Hainan Pl. p. 171 1927; ; MASAMUNE, Prel. Rep. Veg. Yak. p. 119 (1929J ; MAK. et NEM., Fl. Jap. ed. 2. p. 1097 (1931)

Syn. *Justicia japonica*, THUNB., Fl. Jap. p. 20 (1784[^])

Rostellularia procumbens, NEES, in WALL. Pl. As. Rar. III. p. 101 (1832); DC, Prodr. XL p. 371 (1847) ; FR. et SAV., Enum. Pl Jap. I. p. 356 (1875;

JSom. Jap. Kitune-no-mago

Leg. Ipse, Am bô.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Taiwan, Korea, China, Philippines.

Note. Occurs in the plain.

Names of Plants	Regions														
	Philippines	Bonins	Taiwan	Okin-	Amami-Ôsima	Ryûkyû	Tanegasima	Kyûsyû Prop.	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri
<i>Strobilanthes japonicus</i> , MIQ.								+	+						
<i>Justicia procumbens</i> , LINN.	+		+	+	+		+	+	+	+	+				+

The fact that *Strobilanthes japonicus* has its southern limit in this island denotes that the island has a close relationship with Kyûsyû, Sikoku, in respect of this family.

Plantaginaceae

Plantaginaceae, LINDL., Nat. Syst. ed. 2. p. 267 (1836:

Plantago, [TOURN., ex LINN. Syst. ed. 1 fl735 J et Sp. PL ed. 1. p. 112 '1753; ; ENDL., Gen. PL n. 2170 (1836-40) ; DECNE., in DC. Prodr. XIII. 1. p. 694 U852); BENTH. in BENTH. et HOOK. f. Gen. PL II. p. 1224 1876; ; HARMS et REICH., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. iii. b. p. 369 '1895)

Plantago major, LINN. var. asiatica, DECNE. in DC. Prodr. XIII. 1. p. 694 (1852,; MIYABE, Fl. Kuril, p. 256 U890); MAK., in Tokyo Bot. Mag. XXI. p. 161 .1907¹; NAK., Fl. Kor. II. p. 153 (1911), et in Bull. Biogeogr. Soc. Jap. I. p. 263 (1930>; MIY. et MIYAKE, Fl. Saghal. p. 372 (19151 ; MATSUM., Ind. PL Jap. II. 2. p. 583

(1912!; MIURA, List Pl. Manch. & Mong. p. 331 U925, ; MASAMUNE, Prel. Rep. Veg. Yak. p. 119 (1929,; MAK. et NEM., Fl. Jap. ed. 2. p. 1102 (1931: Syn. *Plantago asiatica*, LINN.; FR. et SAV., Enum. Pl. Jap. I. pp. 33, 384 1875' Nom. Jap. *Ūbako*
 Leg. Ipse, Aug. 1928.
 Distr. Saghalien, Kuriles, Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-ōsima, Okinawa, Taiwan, Bonins, Korea, Manchuria, China.
 Note. Grows in the plains or by the roadside.

Plantago japonica, FR. et SAV., Enum. Pl. Jap. I. p. 334 1875, et II. p. 469 1876^ ; MAK., in Tokyo Bot. Mag. XXI. p. 158 (1907); NAK., Fl. Kor. II. p. 158 1911 ; MATSUM., Ind. Pl. Jap. II. 2. p. 583 11912); MIY. et MIYAKE, Fl. Saghal. p. 372 a915) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1101 U931)
 Syn. *Plantago major*, var. *japonica*, MIY., Fl. Kuril, p. 256 ;1890;; MAK., in Tokyo Bot. Mag. VIII. p. 379 ,1894'
 Nom. Jap. *To-ōbako*
 Leg. Ipse, Aug. 10, 1928.
 Distr. Saghalien, Yezo, Honsyū, Sikoku, Kyūsyū, Okinawa, Taiwan.
 Note. Occurs in the plains or in the littoral regions.

Plantago yakusimensis, MASAMUNE, Prel. Rep. Veg. Yak. p. 119 (1929), et in Tokyo Bot. Mag. XLIV. p. 220 ;1930; ; MAK. et NEM., Fl. Jap. ed. 2. p. 1103 1931
 Nom. Jap. *Yakusima-ōbako*
 Leg. Ipse, Aug. 10, 1928.
 Distr. Endemica.
 Note. This endemic species is found in the Pseudosasa Owatarii Association about 1700 m up to the summit of Miyanouragadake.

Names of Plants	Regions														
	Philippines	Bonins	Taiwan	Okinawa	Amami-ōsima	Tanegasima	Kyūsyū Prop.	Sikoku	Honsyū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Usuri	China
<i>Plantago major</i> , LINN. var. <i>asiatica</i> , DECNE.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<i>Plantago japonica</i> , FR. et SAV.			+	+			+	+			+	+			
<i>Plantago yakusimensis</i> , MASAMUNE															

As regards this family the island shows no special relationship either with the northern or with the southern regions, but the

island is to some degree independent in its flora since it has one endemic species.

Rubiaceae

Rubiaceae, B. JUSS., in Hort. Trianon (1759), et ex JUSS. Gen. Pl. p. 196 (1789): HOOK, f., in BENTH. et HOOK. f. Gen. Pl. II. p. 7 (1873)

Gldenlandia, [LINN., Gen. Pl. ed. 1. p. 362 (1737)]
et Sp. Pl. ed. 1. p. 119 (1753); DC, Prodr. IV. p. 424 (1830) p.p.; ENDL., Gen. Pl. n. 3240 g. (183&-40, p.p.); HOOK, f., in BENTH. et HOOK. f. Gen. Pl. II. p. 58 (1873) p.p.; SCHUM. in ENGL. U. PRANT. Nat. Pfl.-fam. IV. iv. p. 24 (1891) p.p.; LEMEE, Diet. Gen. Pl. Phan. IV. p. 825 (1932)

Oldenlandia biflora, LINN., Sp. Pl. ed. 1. p. 119 (1753); DC, Prodr. IV. p. 426 (1830); MERR., Enum. Philipp. PL III. p. 492 (1923); MAK. et NEM., Fl. Jap. ed. 2. p. 1121 (1931)

Syn. *Oldenlandia paniculata*, LINN., Sp. Pl. ed. 2. p. 1667 (1763) partim.; DC, Prodr. IV. p. 427 (1830); BENTH., Fl. Hongk. p. 152 (1861); HOOK, f., Fl. Brit. Ind. III. p. 69 (1880); MAXIM., in Mél. Biolog. XI. p. 785 (1883); FORB. et HEMSL., Ind. Fl. Sin. I. p. 377 (1888); MATSUM. et HAY., Enum. Pl. Formos. p. 186 (1906); NAK., Fl. Kor. II. p. 292 (1909); MATSUM., Ind. Pl. Jap. II. 2. p. 592 (1912); HAY., Ic. Pl. Formos. II. p. 84 (1912); NAK., Fl. Sylv. Kor. XIV. p. 86 (1923)

Oldenlandia crassifolia, DC, Prodr. IV. p. 427 (1830); MASAMUNE, Prel. Rep. Veg. Yak. p. 121 (1929)

Nom. Jap. *Sonaremugura*

Leg. Ipse, Jul. 26, 1924.

JDistr. Honsyfi, Sikoku, Kyûsyfi, Amami-6sima, Okinawa, Taiwan, Korea, China, Philippines.

Note. The species is found on rocky beaches.

Oldenlandia diffusa, ROXB., Hort. Beng. p. 11 (1814), et Fl. Ind. I. p. 444 (1820); HOOK, f., Fl. Brit. Ind. III. p. 65 (1880); FORB. et HEMSL., Ind. Fl. Sin. I. p. 377 (1888); MATSUM., Ind. Pl. Jap. II. 2. p. 592 (1912); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 128 (1912); HAY., Ic. Pl. Formos. IX. p. 54 (1920); MORI, Enum. Pl. Cor. p. 325 (1922); MERR., Enum. Philipp. PL III. p. 493 (1923); MASAMUNE, Prel. Rep. Veg. Yak. p. 121 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 112 (1931)

Syn. *Hedyotis diffusa*, WILLD., Sp. Pl. I. p. 566 (1797);

Oldenlandia brachypoda, DC, Prodr. IV. p. 424 (1830)

Oldenlandia herbacea, var. *uniflora*, BENTH., Fl. Hongk. p. 151 (1861)

Oldenlandia angustifolia, var. *pedicellata*, MIQ., in Ann. Mus. But. Lugd. Bat. III. p. 108 (1867)

Nom. Jap. *Hutaba-mugura*

Leg. Ipse, Jul. 31, 1924.

Distr. Honsyuf, Sikoku, KyûsyQ, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China, Philippines.

Note. Occurs in the low lands.

- Oldenlandia yakusimensis*, MASAMUNE, in Journ. Trop. Agr. III. p. 393 (1931)
Syn. *Oldenlandia hirsuta*, (non LINN. *i.*) MASAMUNE, Prel. Rep. Veg. Yak. p. 121 (1929)
Nom. Jap. *Yakusima-hasikagusa*
Leff. Kosugidani, Jul. 23, 1928.
Note. An endemic plant to this island. It grows and lives in wet spots in the lauri-aciculisilvae, e. g. near streams or small springs.
- Hedyotis, [LINN., Nov. Pl. Gen. p. 7 (1747)J et
 Amoen. Acad. ed. 1. p. 101 (1753)
Syn. *Oldenlandia*, LINN., Sp. Pl. ed. 1. p. 119 (1753) p.p.; BENTH. et HOOK, f., Gen. Pl. II. p. 58 (1873) p.p.
Metabolos, BL., Bijdr. p. 990 (1826)
Oldenlandia, Sect. *Hedyotis*, SCHUM., in ENGL. U. PRANT. Nat. Pflfam. IV. iv. p. 25 (1891)
- Hedyotis tenelliflora*, BL., Bijdr. p. 971 (1825); HOOK, f., Fl. Brit. Ind. III. p. 60 (1882); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 128 (1912); MERR., Enum. Philipp. PL III. p. 500 (1923); RIDLEY, Fl. Malay, II. p. 51 (1923); MASAMUNE, in Journ. Trop. Agr. II. p. 37 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 1116 (1931)
Syn. *Hedyotis angustifolia*, CHAM, et SCHLECT., in Linnæa IV. p. 153 (1829); DC, Prodr. IV. p. 419 (1830)
Oldenlandia angustifolia, BENTH., Fl. Hongk. p. 151 (1861)
Hedyotis hispida, (non RETZ.) MATSUM. et HAY., Enum. Pl. Formos. p. 185 (1906); HAY., Ic. Pl. Formos. II. p. 83 (1912)
Nom. Jap. *Ke-nihoigusa*
Lcfl. Ipse, Jun. 20, 1927.
Distr. Amami-6sima, Okinawa, Taiwan, China, Philippines, Malay.
Note. Grows on waste land or by the roadside; has its northern limit in this island.
- Ophiorrhiza, LINN., Sp. Pl. ed. 1. p. 150 (1753);
 DC, Prodr. IV. p. 415 (1830); ENDL., Gen. Pl. n. 3245 (1836-40); HOOK, f., in BENTH. et HOOK. f. Gen. Pl. II. p. 63 (1873); SCHUM., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. iv. p. 29 (1891); LEMÉE, Diet. Gen. Pl. Phan. IV. p. 864 (1932)
- Ophiorrhiza inflata*, MAXIM., in Mel. Biolog. XII. p. 729 (1838); HAY., Ic. Pl. Formos. IX. p. 56, f. 23-2 (1920); MAK. et NEM., Fl. Jap. ed. 2. p. 1123 (1931)
Nom. Jap. *Yaeyama-inamorisô*
Leg. Ipse, Onoaida, Jul. 1, 1928.
Distr. Okinawa, Taiwan.
Note. This small herbaceous plant is found as undergrowth in the laurisilvae at about 200 m above the sea level.
- Ophiorrhiza japonica*, BL., Bijdr. p. 978 (1826); DC, Prodr. IV. p. 416 (1830); SIEB. et ZUCC., Fl. Jap. Fam. Nat. II. p. 177 (1867); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 108 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 208 (1875); FORB. et HEMSL., Ind. Fl. Sin. I. p. 378 (1888); MATSUM., in Tokyo Bot. Mag. XIV. p. 146 (1900); DIELS, Fl. Centr. Chin. p. 580 (1901); MATSUM. et HAY., Enum. Pl. Formos. p. 18 (1906); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 129 (1912); PITARD., in LECOMTE Fl. Ind. Chin. III. p. 167 (1923); MASAMUNE, Prel. Rep. Veg. Yak. p. 121 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1123 (1931)

Syn. *Ophiorrhiza japonica*, BL. var. *brevistigma*, HAY., Ic. Pl. Formos. II. p. 88 (1912);
Ophiorrhiza ditnorphantha, HAY., Ic. Pl. Formos. II. p. 86 (1912), et IX. p. 56, f. 23-1 (1920)
Ophiorrhiza japonica, BL. f. *brevistigma*, HAY., Ic. Pl. Formos. II. p. 83 (1912)
Ophiorrhiza japonica, BL. f. *longistigma*, HAY., Ic. Pl. Formos. II. p. 88 (1912)
Nom. Jap. *Satuma-inamorisô*
Leg. Iperse, Jun. 8, 1928.
Distr. Kyûsyû, Tanegasima, Amami-Ôsima, Okinawa, Taiwan, China.
Note. The species grows on wet ground in the laurisilvae or in the 'lauri-aciculi-silvae.

Ophiorrhiza Tashiroi, MAXIM., in Mém. Biolog. XII. p. 730 (1883); MATSUM., Ind. Pl. Jap. II. 2. p. 593 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 121 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1124 (1931)
Nom. Jap. *Nagaba-inamorisô*
Leg. Iperse, Kosugidani, Mart. 19, 1923.
Distr. Amami-6sima, Okinawa.
Note. The species ranges throughout the Ryûkyû archipelago, and in the island it is found in the laurisilvae near the sea level.

Ourouparia, AUBL., Hist. Pl. Gui. Franc. I. p. 177, t. 68 (1775); SCHUM., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. iv. p. 57 (1891)
Syn. *Uncaria*, SCHREB., Gen. Pl. I. p. 125 (1789); DC, Prodr. IV. p. 347 (1830); HOOK f., in BENTH. et HOOK. f. Gen. Pl. II. p. 31 (1873)
Restiaria, LOUR., Fl. Cochinch. I. p. 639 (1790)
Uruparia, O. KUNTZE, Rev. Gen. Pl. I. p. 301 (1891)

Ourouparia rhynchophylla, MATSUM., in Tokyo Bot. Mag. XIV. p. 127 (1900), et Ind. Pl. Jap. II. 2. p. 593 (1912); NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 515 (1927!); MASAMUNE, Prel. Rep. Veg. Yak. p. 121 (1929)
Syn. *Nauclea rhynchophylla*, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 108 (1867)
Uncaria rhynchophylla, MIQ., Cat. Mus. Bot. Lugd. Bat. p. 44 (1870); FR. et SAV., Enum. Pl. Jap. I. p. 206 (1875); MAK. et NEM., Fl. Jap. ed. 2. p. 1130 (1931)
Nom. Jap. *Kagikazura*
Leg. Iperse, Kosugidani, Aug. 12, 1928.
Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima.
Note. This climbing plant is found as a component of the laurisilvae, and is not yet reported further south than this island.

Nauclea, LINN., Sp. Pl. ed. 2. p. 243 (1762);
DC, Prodr. IV. p. 343 (1830); ENDL., Gen. Pl. n. 3280 (1836-40); HOOK, f., in BENTH. et HOOK. f. Gen. Pl. II. p. 31 (1873); SCHUM., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. iv. p. 57 (1891); LEMFÉ, Diet. Gen. Pl. Phan. IV. p. 654 (1932)
Syn. *Bancales*, [RUMPH., Herb. Amb. HI. p. 84, t. 55 (1743)] O. KUNTZE, Rev. Gen. Pl. I. p. 276 (1891)

Nauclea nipponica, MASAMUNE, nom. nov.

Syn. *Adina globiflora*, (non SALISB.) MAXIM., in Engl. Bot. Jahrb. VI. p. 67 (1835),

et in Bull. Acad. Sc. St. Pet. XXXI. p. 62 (1833); MATSUM., Ind. Pl. Jap. II. 2 p. 584 (1912)

Adina globiflora, var. *macrophylla*, NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 378, f. 199 (1922)

Nauclea orientalis, LINN. var. *macrophylla*, NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 511 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 121 [1929]; MAK. et NEM., Fl. Jap. ed. 2. p. 1121 (1931)

Nom. Jap. Taniwdtarinoki

Leg. Onoaida, Mart. 23, 1923.

Distr. Kyûsyû, Amami-Ôsima.

Note. The species grows along streams which flow on the southern side of the island at low altitudes.

Nauclea racemosa, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 178 (1846); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 103 (1867); NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 513 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 121 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1121 (1931)

Syn. Adina racemosa, MIQ., Cat. Mus. Bot. Lugd. Bat. p. 44 (1870) nomen; MAXIM., in Mém. Biolog. IX. p. 270 (1873); FR. et SAV., Enum. Pl. Jap. I. p. 206 (1875); FORB. et HEMSL., Ind. Fl. Sin. I. p. 370 (1838); MATSUM. et HAY., Enum. Pl. Formos. p. 183 (1935); MATSUM., Ind. Pl. Jap. II. 2. p. 584 (1912)

Nauclea tahvaniana, HAY., Mat. Fl. Formos. p. 139 (1911)

Nauclea transversa, HAY., Mat. Fl. Formos. p. 139 (1911)

Nom. Jap. Hekkanigaki

Lea. NAOHARA, Mart. 15, 1920.

Distr. Kyûsyû, Tanegasima, Okinawa, Taiwan, China.

Mussaenda, [BURM., ex LINN. Nov. Pl. Gen. p. 10 (1747), et Amoen Acad. I. p. 394 (1749)] et Sp. Pl. ed. 1. p. 177 (1753); ENDL., Gen. Pl. n. 3313 (1836-40); HOOK, f., in BENTH. et HOOK. f. Gen. Pl. II. p. 64 (1873); SCHUM., in ENGL. u. PRANT. Nat. Pfl.fam. IV. iv. p. 63 (1891); LEMÉE, Diet. Gen. Pl. Phan. IV. p. 598 (1932)

Syn. Belilla, ADANS., Fam. II. p. 159 (1763)

Mussenda, SCOP., Introd. p. 143 (1771)

Mussaenda parviflora, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 110 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 207 (1875); MATSUM., in Tokyo Bot. Mag. XIV. p. 147 (1900); MATSUM. et HAY., Enum. Pl. Formos. p. 183 (1906); MATSUM., Ind. Pl. Jap. II. 2. p. 591 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 121 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1120 (1931)

Syn. Mussaenda glabra, HOOK, et ARN., Bot. Capt. Beech. Voy. p. 264 (1836-40); FORB. et HEMSL., Ind. Fl. Sin. I. p. 379 (1833); HENRY, List Pl. Formos. p. 50 (1896); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 129 (1912)

Mussaenda parviflora, MIQ. var. *formosana*. MATSUM., in Tokyo Bot. Mag. XIV. p. 147 (1900)

Nom. Jap. Konronkwa

Leg. Ipe, Issô, Sept. 1, 1931.

Distr. Amami-dsima, Okinawa, Taiwan, China.

Note. The species occurs on somewhat sunny spots in the forest.

Mussaenda shikokiana, MAK., in Tokyo Bot. Mag. XVIII. p. 44 (1904), et XXV. p. 156 (1911); MATSUM., Ind. PL Jap. II. 2. p. 592 (1912); NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 564 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 121 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1120 (1931)

Nom. Jap. *Hiroha-konronkwa*

Leg. Ambô.

Distr. Sikoku, Kyûsyû.

Note. I have never collected the species in the island, but have seen the specimen collected by a member of the staff at Ambô Forest Station. It is not yet found in lands further south than this island.

Tarenna, GAERTN., Fruct. I. p. 139. t. 28 (1788);

DC, Prodr. IV. p. 395 (1830);

Syn. Chomelia, [LINN., Gen. Pl. ed. 1. p. 55 (1737)] O. KUNTZE, Rev. Gen. Pl. I. p. 278 (1891); SCHUM., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iv. p. 74 (1891)

Cupia, DC, Prodr. IV. p. 393 (1830) p.p.; ENDL., Gen. Pl. n. 3293 b (1836-40) P.P.

Webera, SCHRAB., Gen. II. p. 794 (1791); BENTH. et HOOK, f., Gen. Pl. II. p. 86 (1873)

Tarenna zeylanica, GAERTN., Fruct. I. p. 139 t. 28, f. 3 (1788); NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 561 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 122 (1929)

Syn. Webera corymbosa, WILLD., Sp. Pl. I. p. 1224 (1797)

Cupea corymbosum, PERSONN., Syn. Pl. I. p. 200 (1805);

Cupea corymbosa, DC, Prodr. IV. p. 394 (1830)

Stylocoryne Webera, A. RICH., in Mem. Soc. Hist. Nat. Paris V. p. 248 (1834)

Stylocoryne rigida, WIGHT, Ic. Ind. Or. t. 1064 (1846)

Chomelia corymbosa, K. SCHUMM., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iv. p. 74 (1891); MAK. et NEM., Fl. Jap. ed. 2. p. 1106 (1931)

Tarenna kotoensis, MASAMUNE, in Trans. Nat. Hist. Soc. Formos. XX. p. 462 (1932)

Nom. Jap. *Gyokusinkwa*

Leg. Ipse. Kosugidani, Jul. 26, 1927.

LHstr. Kyûsyû, Tanegasima, Amami-dsima, Okinawa, Taiwan.

Note. This shrub is found in the laurisilvae at low altitudes.

Gardenia, ELLIS, in Philos. Trans. LI. 2. p. 935

(1761); DC, Prodr. IV. p. 379 (1830); ENDL., Gen. Pl. n. 3305 (1836-40); BENTH. et HOOK, f., Gen. Pl. II. p. 89 (1873); SCHUM., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iv. p. 76 (1891); LEMÉE, Diet Gen. Pl. Phan. III. p. 197 (1931)

*Syn. Gardenia**, ADANS., Fam. II. p. 20 (1763)

Caquepiria, J. F. GMEL., Syst. II. p. 651 (1791)

Berghias, JUSS., in Mém. Mus. Paris. VI. p. 399 (1820)

Strtipa, BLANCO, Fl. Filip. p. 497 (1837)

Gardenia longisepala, MASAMUNE, sp. nov.

Syn. Gardenia angusta, MERR. var. *grandiflora*, MASAMUNE, Prel. Rep. Veg. Yak. p. 120 (1929)

Gardenia angusta, var. *longisepala*, MASAM., in Journ. Trop. IV. p. 195 (1932)

Nom. Jap. *Yakusima-kutinasi***Leg.** Ipse, Jun. 6, 1928.**Distr.** Endemica.**Note.** It is found in the laurisilvae or in the lauri-aciculisilvae.**Diplospora**, DC, Prodr. IV. p. 477 (1830. ; LEMÉE,

Diet. Gen. Pl. Phan. II. p. 664 (1930);

Syn. *Diplosporum*, DALZ., in Hook. Kew Journ. Sci. II. p. 257 U850)*Tricalysia* A. RICH.; BENTH. et HOOK, f., Gen. PL II. p. 95 U873) p.p.*Tricalysia*, Sect. *Diplospora*, K. SCHUM., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. iv. p. 82 U891)**Diplospora viridiflora**, DC, Prodr. IV. p. 477 a830) ; BENTH., Fl. Hongk. p. 157(1861) ; MAXIM., in Mél. Biolog. XII. p. 486 118861 ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 383 (1888) ; HENRY, List Pl. Formos. p. 50 U896); MATSUM., in Tokyo Bot. Mag. XV. p. 13 (1901); MATSUM. et HAY., Enum. PL Formos. p. 192 U906) ; HAY., Ic. PL Formos. II. p. 95 (1912), et V. p. 79 a915) ; MAK. et NEM., FL Jap. ed. 2. p. 1110 11930)**Syn.** *Tricalysia viridiflora*, MATSUM., Ind. PL Jap. II. 2. p. 596 (1912)**Nom. Jap. *Siromimizu*****Leg.** NAITO! 1932.**Distr.** Tanegasima, Amami-Ōsima, Okinawa, Taiwan, China.**Note.** The species has its northern limit of habitat in Tanegasima and any species of this genus is not yet reported in lands further north than Tanegasima.**Psychotria**, LINN., Syst. ed. 10, p. 929 (1759);

DC, Prodr. IV. p. 504 ;1830;; ENDL., Gen. PL n. 3147 U836-40;; HOOK, f, in BENTH. et HOOK. f. Gen. PL II. p. 123 '1873^'; SCHUM., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iv. p. 112 (1891)

Syn. *Polyozus*, BL., Bijdr. p. 947 U826)**Psychotria Reevesii**, WALL., in ROXB. in FL Ind. ed. CAR. II. p. 104 J824); PITARD., in LECOMTE, FL Ind. Chin. III. 3. p. 361 (1924); NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 556 (1927); MERR., Enum. Hainan PL p. 176 (1927) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 121 (1929); MAK. et NEM., FL Jap. ed. 2. p. 1126 11931)**Syn.** *Grumilea Reevesii*, HOOK, et ARN., Bot. Capt. Beech. Voy. p. 193 (1841)*Psychotria elliptica*, 'non KER.) BENTH., FL Hongk. p. 161 (1861); MAXIM., in OQuil. Acad. Imp. St. Pet. XXIX. p. 172 (1883), et in Mél. Biolog. XL p. 797 ,1883); ENGL. et MAXIM., in Engl. Bot. Jahrb. VI. p. 67 (1885); FORB. et HEMSL., Ind. FL Sin. I. p. 387 (1888); MATSUM. et HAY., Enum. PL Formos. p. 194 (1906); MATSUM., Ind. PL Jap. II. 2. p. 594 (1912); HAY., Ic. PL Formos. II. p. 97 i1912); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 133 (1912)**Nom. Jap. *Ryūkyū-aoki*****Leg.** Ipse, Onoaida, Sept. 5, 1926.**Distr.** Kyūsyū, Amami-6sima, Okinawa, Taiwan, Bonins, China.**Note.** The species is found as undergrowth in the laurisilvae.**Psychotria serpens**, LINN., Mant. PL II. p. 204 !177H ; DC, **Prodr.** IV. p. 519 (1830); BENTH., FL Hongk. p. 161 (1851; ; MAXIM., in Mél. Biolog. XL p. 796 (1883);

ENGL. u. MAXIM., in Engl. Bot. Jahrb. VI. p. 67 (1835); FORB. et HEMSL., Ind. Fl. Sin. I. p. 387 (1833); HENRY, List PL Formos. p. 50 (1896); MATSUM., in Tokyo Bot. Mag. XV. p. 16 (1901) et [Ind. Pl. Jap. II. 2. p. 594 (1912); MATSUM. et HAY., Enum. Pl. Formos. p. 195 (1905); HATTORI, Pfl.-Geogr. Bonn. p. 36 (1905); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 133 (1912); PITARD, in LECOMTE Fl. Ind. Chin. III. 3, p. 352 (1924); NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. Jed. 2. I. p. 558 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 122 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1126 (1931)

Syn. *Psychotria scandens*, HOOK. et ARNOT., Capt. Beech. Voy. p. 193 (1836)

Horn. Jap. Siratama-kazura

Leg. Ipse, Jul. 14, 1922.

Distr. Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Bonins, China.

Note. The species grows as an epiphyte from the sea level up to about 700 m.

Mephitidia, REINW., ex BL. Cat. Gew. Buitenzorg. p. 51 (1823), et Bijdr. Jp. 995 (1826); DC, Prodr. IV. p. 452 (1830); NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 523 (1927)

Syn. *Lasianthus*, JACK., in Trans. Linn. Soc. XIV. p. 125 (1823); HOOK. f., in BENTH. et HOOK. f. Gen. Pl. II. p. 129 (1873); SCHUMN., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iv. p. 120 (1891); LEMÉE, Diet. Gen. Pl. Phan. III. p. 955 (1931)
Octavia, DC, Prodr. IV. p. 464 (1830)

Nonatelia, O. KUNTZE, Rev. Gen. Pl. I. p. 289 (1891)

Mephitidia japonica, NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 1. p. 391 (1922) et ed. 2. I. p. 524 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 120 (1929)

Syn. *Lasianthus japonicus*, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 110 (1867); MAXIM., in Mém. Biolog. XI. p. 798 (1883); DIELS, Fl. Cent. Chin. p. 582 (1900); MATSUM. et HAY., Enum. Pl. Formos. p. 197 (1905); MATSUM., Ind. Pl. Jap. II. 2. p. 590 (1912); MAK. et NEM., Fl. Jap. ed. 2. p. 1117 (1931)

Nom. Jap. Ruriminoki

Leg. Ipse, Miyanoura, Aug. 5, 1927.

Distr. Honsyū, Sikoku, Kyūsyū, Okinawa, Taiwan, China.

Note. Grows as undergrowth in the laurisilvae or in the lauri-aciculisilvae.

Mephitidia satsumensis, NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 1. p. 392 (1922), et ed. 2. I. p. 526 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 120 (1929)

Syn. *Lasianthus satsumensis*, MATSUM., in Tokyo Bot. Mag. XV. p. 37 (1901) et Ind. Pl. Jap. II. 2. p. 590 (1912); MAK. et NEM., Fl. Jap. ed. 2. p. 1118 (1931)

Nom. Jap. Satsuma-ruriminoki

Leg. Ipse, Jul. 12, 1928.

Distr. Kyūsyū.

Note. The species is a small shrub and grows as undergrowth in the laurisilvae. It has its southern limit in this island.

Mephitidia, sp.

Nom. Jap. Yakusimaruriminoki

Leg. NAOHARA! On o aid a,

Note. This unknown species is related to *Mephitidia japonica*, but it has cordate leaves.

Paederia, LINN., Mant. I. pp. 7 et 52 (1767); DC, Prodr. IV. p. 471 (1830); ENDL., Gen. Pl. n. 3180 (1836-40); HOOK, f., in BENTH. et HOOK. f. Gen. Pl. II. p. 133 (1873); SCHUM., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iv. p. 125 (1891); LEMÉE, Diet. Gen. Pl. Phan. IV. p. 994 (1932)
Syn. *Hondbessen*, ADANS., Fam. II. p. 158 (1763)
Hondbesseion, O. KUNTZE, Rev. Gen. Pl. I. p. 285 (1891)

Paederia chinensis, HANCE, in Journ. Bot. VII. p. 228 (1878); FR., Pl. David. I. p. 155 (1884); NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 531 [1927]; MASAMUNE, Prel. Rep. Veg. Yak. p. 122 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1124 (1931)

Syn. *Paederia foetida*, (non LINN.) THUNB., in Nov. Reg. Soc. Sc. Upsal. IV. p. 32 (1783); MERR., Enum. Philipp. Pl. III. p. 570 (1923)

Paederia fomentosa, (non BL.) MAXIM., in Bull. Acad. Imp. Sc. St. Pet. XXIX. p. 173 (1883), et in Mém. Biolog. XI. p. 798 (1883); MATSUM. et HAY., Enum. Pl. Formos. p. 197 (1906); HAY., Fl. Mont. Formos. p. 115 (1903); NAK., Fl. Kor. I. p. 292 (1909); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 134 (1912); MATSUM., Ind. Pl. Jap. II. 2. p. 593 (1912)

Paederia Wilsonii, HESSE, in Mitteilung. Deutsch. Pflanz. Gesells. XXII. p. 268 (1913)

Norn. Jap. *Hekuso-kazura*

Leg. Ipse, Onoaida Sept 5, 1926.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Osima, Okinawa, Taiwan, Korea, China, Philippines.

Note. Occurs in waste lands of lowlands.

Mitchella, [LINN., Nov. Pl. Gen. p. 24 (1751)]
 et Amoen. Acad. III. p. 16 (1756); DC, Prodr. IV. p. 452 (1830); ENDL., Gen. Pl. n. 3188 (1836-40); HOOK, f., in BENTH. et HOOK. f. Gen. Pl. II. p. 137 (1873); SCHUM., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iv. p. 133 (1891); LEMÉE, Diet. Gen. Pl. Phan. IV. p. 498 (1932)

Syn. *Chamaedaphne*, MITCHELL, in Act. Nat. Cur. VIII. App. p. 222 (1784)

Disperma, J. F. GMEL., Syst. II. p. 892 (1791)

Mitchella undulata, SIEB. et ZUCC. var. *minor*, MASAMUNE, var. *nov.*

Folia 2-3 mm longa, 1.5 mm lata. Flores saepe rosei.

Syn. *Mitchella repens*, LINN. var. *undulata* (non MAK.) MASAMUNE, Prel. Rep. Veg. Yak. p. 120 (1929); SUZUKI, in Ann. Rep. Bot. Gard. Taihok. Imp. Univ. I. p. 176 (1931)

Norn. Jap. *Hime-turu-aridōsi*

Leg. Ipse, Jun. 6, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Korea, (Sp.); Taiwan (var.)

Note. The variety is found in the lauri-aciculisilvae and in the Pseudosasa Owatarii Association, and it is confined to this island and Formosa.

Damnacanthiis, GAERTN., Fuct III. p. 18, t 182 f. 7 (1805); DC, Prodr. IV. p. 473 (1830); ENDL., Gen. Pl. n. 3178 (1836-40); HOOK, f., in BENTH. et HOOK. f. Gen. Pl. II. p. 118 (1873); SCHUM., in ENGL. u.

PRANT. Nat. Pfl.-fam. IV. iv. p. 137 (1891); LEMÉE, Diet. Gen. Pl. Phan. II. p. 496 (1930)

Syn. *Baumannia*, DC, in Mem. Soc. Phys. Gen. IV. p. 583 (1833)

Damnacanthus indicus, GAERTN. var. *genuinus*, MAK., in Tokyo Bot. Mag. XL p. 279 (1897); et XVIII. p. 31 (1904); MATSUM., Ind. Pl. Jap. II. 2. p. 585 (1912); NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 540 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 120 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1108 (1931)

Syn. *Carissa spinarum*, (non LINN.) THUNB., Fl. Jap. p. 108 (1784)

Damnacanthus indicus, GAERTN.; SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 176 (1846); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 110 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 210 (1875); MAXIM., in Mém. Biolog. XL p. 795 (1883); MORI, Enum. Pl. Cor. p. 322 (1922)

Norn. Jap. Aridōsi

Leg. Ipse, Jun. 14, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Korea, China, India.

Note. The plant grows as undergrowth in the laurisilvae or in the lauri-aciculisilvae.

var. *microphyllus*, MAK., in Tokyo Bot. Mag. VI. p. (55) (1892), et X. D. 279 (1896); NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 542, f. 245 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 120 (1929)

Syn. *Baumannia geminiflora*, A. P. DC, Not. Pl. Rar. IV. p. 1. t. 25 (1833)

Damnacanthus indicus, a *genuinus*, f. *microphyllus*, MAK., in Tokyo Bot. Mag. XVIII. p. 31 (1904); MATSUM., Ind. Pl. Jap. II. 2. p. 585 (1912); MAK. et NEM., Fl. Jap. ed. 2. p. 1103 (1931)

Aom. Jap. Hime-aridōsi

Leg. Ipse, Kosugidani, Jun. 11, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Amami-6sima.

Note. Grows as undergrowth in the laurisilvae or in the lauri-aciculisilvae.

Morinda, [LINN., Gen. Pl. ed. 1. p. 57 (1737)] et Sp. Pl. ed. 1. p. 176 (1753); DC, Prodr. IV. p. 446 (1830); ENDL., Gen. Pl. n. 3183 (1836-40); HOOK, f., in BENTH. et HOOK. f. Gen. Pl. II. p. 117 (1873); SCHUM., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. iv. p. 138 (1891); LEMÉE, Diet. Gen. Pl. Phan. IV. p. 564 (1932)

Syn. *Guttenbergia*, ZOLL., in Nat. Gen. Arch. Neder. Ind. II. p. 2 (1846)

Morinda umbellata, LINN., Sp. Pl. ed. 1. p. 176 (1753); DC, Prodr. IV. p. 449 (1830); BENTH., Fl. Hongk. p. 159 (1861); HOOK, f., Fl. Brit. Ind. III. p. 157 (1880); MAXIM., in Mém. Biolog. XI. p. 795 (1883); FORB. et HEMSL., Ind. Fl. Sin. I. p. 386 (1888); MATSUM. et HAY., Enum. Pl. Formos. p. 194 (1906); HATTORI, Pfl.-Geogr. Bonn. p. 36 (1903!); MATSUM., Ind. Pl. Jap. II. 2. p. 591 (1912); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 133 (1912); RIDLEY, Fl. Malay II. p. 119 (1923); PITARD, in LECOMTE, Fl. Ind. Chin. III. 3. p. 422 (1924); MERR., Enum. Hainan Pl. p. 178 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 120 (1929); NAK., in Bull. Biogeog. Soc. Jap. I. p. 263 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 1119 (1931)

Syn. *Morinda tetrandra*, JACK, in Malayan Miscellan. I. p. 13 (1820)

Morinda scandens, ROXB., Fl. Ind. I. p. 548 (1832)

Nom. Jap. Hanagasanoki

Leg. Ipse, Koseda, Mart. 24, 1923.

Distr. Amami-6sima, Bonins, Taiwan, China.

Note. The species is found in lowlands in the laurisilvae, and has its northern limit in this island. It is widely distributed in warmer asiatic countries.

Galium, [LINN., Gen. Pl. ed. 1. p. 24 v_{1737j}] et Sp. Pl. ed. 1. p. 10^o ,1753[^]; DC, Prodr. IV. p. 593 ^1830; ; ENDL., Gen. Pl. n. 3100 ;1836-40'; HOOK, f, in BENTH/ et HOOK. f. Gen. Pl. II. p. 149 (1873); SCHUM., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iv. p. 149 (1891) ; LEMÉE, Diet. Gen. Pl. Phan. III. p. 186 (1931)

Syn. *Gallium*, [TOURN., ex LINN. Syst. ed. 1. (1735;]

Cruciata, (TOURN.¹ ex ADANS., Fam. II. p. 144 '1763'

Galium aparine, LINN., Sp. Pl. ed. 2. p. 157 H762); DC, Prodr. IV. p. 608 ;1830;; BENTH., Fl. Hongk. p. 164 (1861, et Fl. Austral. III. p. 447 (1866^N ; HOOK, f., Fl. Brit. Ind. III. p. 205 '(1881) ; FR. et SAV., Enum. Pl. Jap. I. p. 215 [1875! ; MAXIM., in Mél. Biolog. IX. p. 259 ;1873) ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 393 ;1888) ; DIELS, Fl. Centr. Chin. p. 583 (1901) ; KOM., Fl. Mansh. III. p. 491 ;1907' ; NAK., Fl. Kor. I. p. 296 ;1909; ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 135 ^1912); MATSUM., Ind. Pl. Jap. II. 2. p. 586 :1912*; MAK. et NEM., Fl. Jap. ed. 2. p. 1110 1931;

Syn. *Galium uliginosum*, THUNB., Fl. Jap. p. 53 ,1784

Galium strigosum, THUNB., in Nov. Act. Ups. VII. p. 141. t. 4 ff. 1-9 ,1815; ; DC, Prodr. IV. p. 611 ;i830 ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 112 {1847}

Nom. Jap. *Yaemugura*

Leg. Ipse, April. 3, 1927.

Distr. Saghalien, Yezo, Honsyū, Sikoku, Kyūsyū, Amami-6sima, Korea. Manchuria, China.

Note. Grows in waste lands near the sea level.

Galium gracile, BUNGE, Enum. Pl. in Chin. Bot. p. 35 ,1831); WALP., Rep. II. p. 456 fl843) ; MAXIM., Prim. Fl. Amur. p. 472 U859., et in Mél. Biolog. IX. p. 261 -1873), et XI. p. 802 ;1883) ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 394 (1888) ; DIELS, Fl. Cent. Chin. p. 583 (1901); MATSUM., in Tokyo Bot. Mag. XV. p. 39 (1901), et Ind. Pl. Jap. II. 2. p. 587 U912); MAK., in Tokyo Bot. Mag. XVII. p. 109 (1903) ; MATSUM. et HAY., Enum. Pl. Formos. p. 200 (1906); NAK., in Tokyo Bot. Mag. XXIII. p. 104 '1909^ ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 135 (1912) ; MORI, Enum. Pl. Cor. p. 323 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 120 ^1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1111 (193r

Syn. *Galium rotund urn*, THUNB., Fl. Jap. p. 59 ;1784

Galium trachyspermum, A. GRAY, Pl. Jap. p. 313 ,1859;; MIQ., in Ann. Mus. Bot. Lugd. Bat. I. p. 112 (1863) ; FR. et SAV., Enum. Pl. Jap. I. p. 214 (1875)

Galium pogonanthum, FR. et SAV., Enum. Pl. Jap. I. p. 213 ;i875\etII. p. 393 (1876)

Galium miltorrhizum, HANCE, in Journ. Bot. p. 113 '1868)

Nom. Jap. *Yotuba-mugura*

Leg. Ipse, Miyanaoura, Sept. 1, 1931.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Gsima, Taiwan, Korea, China.

Names of Plants	Regions									
	8 宮城	9 青森	10 岩手	11 秋田	12 山形	13 福島	Ryūkyūs 琉球	Kyūshū 九州	Hokkaidō 北海道	Other 諸島
<i>Mussaenda parviflora</i> , MIQ.			+	+	+					4
<i>Mussaenda sikokiana</i> , MAK.								+	+	
<i>Tarenna zeylanica</i> , GAERTN.			+	+	+			+	+	
<i>Gardenia longispala</i> , MASAMUNE										
<i>Diplospora viridiflora</i> , DC.			+	+	+					14
<i>Psychotria Reevesii</i> , WALL.			+	+	+			+	+	+
<i>Psychotria serpens</i> , LINN.			+	+	+			4	4	+
<i>Mephitidia japonica</i> , NAK.			+	+				+	+	+
<i>Mephitidia satsumensis</i> , NAK.								+		
<i>Mephitidia</i> sp.										
<i>Paederia chinensis</i> , HANCE.			+	+	+			+	4	4
<i>Mitchella undulata</i> , SIEB. et ZUCC. var. minor, MASAMUNE. (Sp.) ¹			+					+	4	+
<i>Damnacanthus indicus</i> , GAERTN. var. genuinus, MAK.				+	+			+	+	+
<i>D. i.</i> var. <i>microphyllus</i> , MAK.					+			+	+	4
<i>Morinda umbellata</i> , LINN.			+	+	+					+
<i>Gal him aparine</i> , LINN.					+			+	+	4
<i>Galium gracile</i> , BUNGE			+		+			+	+	4
<i>Galium setuliflorum</i> , MAK. vax. setuliflorum, MAK.								+	+	4
<i>Galium yakusimense</i> , MASAMUNE									+	
Total	29	413	16	16	17	11	20	13	11	8
Percentage		14	10	55	59	38	69	45	38	28

(Southern elements 21)

(Northern elements 21)

With regard to this family, the flora of the island shows a

close relationship with Amami-dsima and Kyûsyû, and comparatively less close one with the other floral regions.

Caprifoliaceae*

Caprifoliaceae, VENT., Tabl. II. p. 593 (1799)

Ebulus, GRARCKE, Fl. Nord. u. Mitteldeutsch-

land, ed. 7. p. 184 (1865);

Syn. Sambucus, Sect. *Ebulus*, SPACH, Hist. Nat. Veg. Phanér. VIII. p. 323 (1839) p.p.; FRITSCH, in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iv. p. 162 (1891) p.p.

Ebulus chinensis, NAK., Tent. Syst. Capr. Jap. p. 13 (1921); MAK. et NEM., Fl. Jap. ed. 2. p. 1135 (1931)

Syn. Sambucus canadensis, (non LINN.) THUNB., Fl. Jap. p. 126 (1784)

Sambucus chinensis, LINDL., in Trans. Hort. Soc. Lond. VI. p. 287 (1826); DC, Prodr. IV. p. 322 (1830); HANCE, in Journ. Bot. VII. p. 295 (1869), et XII. p. 260 (1874); NAK., in Tokyo Bot. Mag. XXXI. p. 211 (1917 -

Sambucus ebuloidea, (non DESVAUX) SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 174 (1846)

Sambucus Thunbergii, BL., apud MIQ. in Ann. Mus. Bot. Lugd. Bat. II. p. 265 (1866); FR. et SAV., Enum. Pl. Jap. I. p. 198 (1875)

Sambucus javanicus, (non REIWARDT) FORB. et HEMSL., Ind. Fl. Sin. I. p. 348 (1888); MATSUM., Ind. Pl. Jap. II. 2. p. 602 (1912) p.p.; REHD., in SARGENT PI. Wil. I. 2. p. 307 (1912) p.p.

Abut. Jap. Sokuzu

Leg. Ipse, Jul. 6. 1927.

Distr. Kyûsyû, Amami-dsima, Okinawa, Bonins, Taiwan.

Note. Occurs in the lowlands near dwellings.

Viburnum, [LINN., Syst. ed. 1 (1735), et Gen. Pl.

ed. 1. p. 86 (1737) et Sp. Pl. ed. 1. p. 267 (1753); DC, Prodr. IV. p. 323 (1830); ENDL., Gen. Pl. n. 3340 (1836-40); HOOK, f., in BENTH. et HOOK. f. Gen. Pl. II. p. 3 (1873); FRITSCH, in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iv. p. 163 (1891); NAK., Tent. Syst. Capr. Jap. p. 14 (1921)

Viburnum Awabucki, K. KOCH, in Wochenschr. Gart. Pfl. X. p. 103 (1867); NAK., Tent. Syst. Capr. Jap. p. 21 (1921), et in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 589 (1927); MORI, Enum. Pl. Cor. p. 331 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 122 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1144 (1931)

Syn. Viburnum odoratissimum, (non KER.) SIEB. et ZUCC., Fl. Jap. Fam. Nat. II. p. 173 (1846); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 268 (1866); FR. et SAV., Enum. Pl. Jap. I. p. 201 (1875); MAXIM., in Mém. Biolog. X. p. 649 (1880); SHIRASAWA, IC. For. Tree. Jap. I. p. 234 t. 88, ff. 1-9 (1911) p.p.; SCHNEIDER, Illust. Handb. Laubholz. II. p. 667 (1912) p.p.; MATSUM., Ind. Pl. Jap. II. 2. p. 603 (1912) p.p.

* In arranging the genera of this family I mainly followed the system given by Dr. T. NAKAI in his work "Tentamen Systematis Caprifoliacearum Japonicarum 1921V

Viburnum odoratissimum, var. *Awabucki*, ZABEL, in Ruempler, III. Gartenbau-Lexicon ed. 3. p. 77 (1902)

Norn. Jap. Sangozyu

Leg. Ipse, Jul. 14, 1922.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Ôsima, Okinawa, Korea.

yote. As a member of the laurisilvae or the lauri-aciculisilvae this plant is one of the components of the forests.

Viburnum erosum, THUNB., Fl. Jap. I. p. 124 (1784); DC, Prodr. IV. p. 327 (1830); SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 171 (1846); FR. et SAV., Enum. Pl. Jap. I. p. 200 (1875), et II. p. 308 (1876); MAXIM., in Mél. Biolog. X. p. 669 (1880); FORB. et HEMSL., Ind. Fl. Sin. I. p. 351 (1888) p.p.; NAK., Fl. Kor. I. p. 287 (1909); MATSUM., Ind. Pl. Jap. II. 2. p. 603 (1912); SCHNEID., Handb. Laubholz. II. p. 650 f. 417. h-k. (1912¹).

Syn. *Viburnum erosum*, THUNB. var. *punctatum*, FR. et SAV., Enum. Pl. Jap. II. p. 380 (1876); NAK., Tent. Syst. Capr. Jap. p. 39 (1921), et in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 603 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 122 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1146 (1931[^])

Viburnum erosum, THUNB. var. *furcipila*, FR. et SAV., Enum. Pl. Jap. II. pt. 1. p. 330 U876j

Nom. Jap. Kobano-gamazumi

Leg. Ipse, Jun. 17, 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Korea, China.

Note. The species is found in the laurisilvae.

Viburnum furcatum, BL., ex MIQ. in Ann. Mus. Bot. Lugd. Bat. II. p. 265 (1866); MAXIM., in Mél. Biolog. X. p. 657 (1880); MATSUM., Ind. Pl. Jap. II. 2. p. 603 (1912); NAK., Tent. Syst. Capr. Jap. p. 25 (1921), et in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 592 (1927); MORI, Enum. Pl. Cor. p. 331 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 123 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1147 (1931[^])

Syn. *Viburnum plicatum*, (non MICHAUX) A. GRAY, in Narr. Capt. Perry Exped. p. 313 U856)

Viburnum dilatatum, var. *radiata*, A. GRAY, in Memoire of Am. Acad. Art. & Sc. New. Ser. VI. p. 393 (1859)

Viburnum lantanoides, (non MICHAUX) MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 265 (1866)

Nom. Jap. Musikari

Leg. Ipse, Aikodake, Jun. 17, 1928.

Distr. Saghalien, Yezo, Honsyû, Sikoku, Kyûsyû, Korea.

Note. The plant grows as an epiphyte or as a terrestrial plant in the lauri-aciculisilvae from 1000 m up to 1800 m.

Viburnum japonicum, SPRENGL., Syst. Veg. I. p. 934 (1825); MAXIM., in Mél. Biolog. X. p. 657 (1880[^]); MATSUM., Ind. Pl. Jap. II. 2. p. 603 (1912); SCHNEIDER, III. Handb. Laubholz. II. p. 643, f. c-d. (1912) p.p.; NAK., Tent. Syst. Capr. Jap. p. 30 (1921), et in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 600 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 123 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1147 (1913)

Syn. *Cornus japonica*, THUNB., Fl. Jap. I. p. 63 (1784); ROEM. et SCHULT., Syst. Veg. III. p. 320 (1818)

Viburnum Buergeri, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 268 (1866) ;
FR. et SAV., Enum. Pl. Jap. I. p. 201 (1875) ; KOCH, Dendr. II. 1. p. 56
J872)

Norn- Jap. *Hakusanboku*

Leg. Ipse, Tabugawa, Jul. 21, 1928.

Distr. Honsyû, Kyûsyû.

Note. Grows on forest edges of the laurisilvae.

Viburnum urceolatum, SIEB. et ZUCC. form, *brevifolia*, MAK., in Tokyo Bot. Mag.
XXIV. p. 21 (1910) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 123 (1929) ; MAK. et
NEM., Fl. Jap. ed. 2. p. 1150 [193V

Syn. *Viburnum urceolatum*, SIEB. et ZUCC. var. *brevifolium*, NAK., in NAK. et KOIDZ.
Tree. & Shrub. Jap. ed. 2. I. p. 584 (1927'

Abut. Jap. *Yamasigure*

Leg. Ipse, Hananoegô, Jul. 3, 1928.

Distr. Endemica.

Note. This plant grows as an epiphyte or as a terrestrial plant in the lauri-aculi-
silvae from 600 m up to 1700 m above the sea level. The form is restricted to this
island and as species it has its southern limit in this island.

Abelia, R. BR., in Abel. Narr. Journ. Chin. App.

B. p. 376 cum. Ic. (1818[^]; DC, Prodr. IV. p. 339 (1830) ; ENDL., Gen. Pl. p. 566
n. 3333 i 1836-40) ; BENTH. et HOOK, f., Gen. Pl. II. p. 4 (1873); NAK., Tent Syst.
Capr. Jap. p. 52 (1921^N).

Syn. *Vaselia*, MARTENS et GALFOLLI, in Bull. Acad. Sci. Brunell. XI. p. 242 (1844)
Linnaea, Subg. *Abelia*, FRITSCH. in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iv. p.
166 -1891)

Linnaea, Subgn. *Abelia*, GRAEBNER, in Engl. Bot. Jahrb. XXIX. p. 125 (1901)

Abelia serrata, SIEB. et ZUCC., Fl. Jap. I. p. 76, t. 34 11836; MIQ., in Ann. Mus. Bot.
Lugd. Bat. II. p. 268 ;18661 ; FR. et SAV., Enum. Pl. Jap. I. p. 205 U875) ;
REHDER, in SARGENT, Pl. Wils. I. p. 125 ;1911); SCHNEID., Ill. Handb. Laubholzk.
II. p. 678 U912! ; NAK., Tent. Syst. Capr. Jap. I. p. 56 (1921), et in NAK. et
KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 621, t. 278 ||9Z7) ; MASAMUNE, Prel. Rep.
Veg. Yak. p. 122 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1132 (1931)

Syn. *Abelia spathulata*, (non SIEB. et ZUCC.) MIQ., in Ann. Mus. Bot. Lugd. Bat.
II. p. 269 (1866) p.p.

Linnaea serrata, GRAEBNER, in Engl. Bot. Jahrb. XXIX. p. 133 (1900); MAK.,
in Tokyo Bot. Mag. XV. p. 4 (1901) ; MATSUM., Ind. Pl. Jap. II. 2. p. 598
,1912)

Nom. Jap. *Kotukubane-utugi*

Leg. Ipse, Tatyûdake, Jul. 22, 1927.

Distr. Honsyû, Sikoku, Kyûsyû.

Note. The shrub is found in dry spots from 700 m up to 1500 m above the sea
level, and is not yet reported further south than this island.

var. *congesta*, NAK., in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. p. 623, f. 279, E
(1927; ; MASAMUNE, Prel. Rep. Veg. Yak. p. 122 (1929:

Nom. Jap. *Edautikotukubaneutugi*

Leg. Ipse, Tatyûdake, Jul. 27, 1922.

Distr. Kyûsyû.

Note. The variety is often found on sunny and rocky ground from about 1500 m up to 1800 m.

Lonicera, [LINN., Gen. Pl. ed. 1. p. 57 1737:] et Sp. Pl. ed. 1. p. 173 ;1753, p.p.; DC, Prodr. IV. p. 330 (1830) p.p.; ENDL., Gen. Pl. p. 568, n. 3337 (1836-40, p.p.); HOOK. f. in BENTH. et HOOK. f. Gen. Pl. II. p. 5 (1873. ; FRISTCH, in ENGL. U. PRANT. Nat. Pfl.-fam. IV. iv. p. 166 (1891: p.p.; NAK., Tent. Syst. Caprif. Jap. p. 61 (1921); LEMÉE, Diet. Gen. Pl. Phan. IV. p. 151 :1932) p.p.

Syn. *Caprifolium*, [TOURN., ex LINN. Syst. ed. 1 U735,] ADANS., Fam. II. p. 157 11763)

Isika, ADANS., Fam. II. p. 501 (1763)

Chamerasia, RAFIN., Ann. Gen. Sc. Phys. VI. p. 83 (1820)

Nintooa, SWEET, Hort. Brit. ed. 2. p. 258 (1830,

Lonicera affinis, HOOK, et ARN. Bot. Capt. Beech. Voy. p. 264 ,184r ; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 270 11866-; FR. et SAV., Enum. Pl. Jap. I. p. 204 '1875), et II. p. 652 '1876, ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 359 1888' ; MAXIM., in Mél. Biolog. X. p. 58 .1877! ; REHDER, Syn. Lon. p. 157 1903 , et in SARGENT, Pl. Wils. I. 1. p. 144 a911i ; NAK., Tent. Syst. Capr. Jap. p. 70 1921, et in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 636 ;1927 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 122 1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1136 193r

Syn. *Lonicera Buergeriana*, BL., in Herb, ex K. KOCH Dendr. II. p. 18 1872

Lonicera affinis, var. *hypoleuca*, (non REHDER¹ MATSUM., Ind. Pl. Jap. II. 2. p. 599 .1912'

Nom. Jap. Hatna-nindó

Leg. Ipse, Ambó, Aug. 31, 1926.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Ōsima, Okinawa, Taiwan, China.

Note. Found in littoral forest and in lowlands.

Lonicera hypoglauca, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 270 1866 ; FR. et SAV., Enum. Pl. Jap. I. p. 204 '1875), et II. p. 387 .1876; ; NAK., Tent. Syst. Capr. Jap. p. 71 (1921, , et in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 638 .1927. ; MASAMUNE, Prel. Rep. Veg. Yak. p. 122 ;1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1139 1931;

Syn. *Lonicera Leschenaultii*, (non WALL.) MIQ. in Ann. Mus. Bot. Lugd. Bat. II. p. 270 '1866

Lonicera affinis, var. *pubescens*, MAXIM., in Bull. Acad. St. Petersburg. XXIV. p. 24 1877, ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 359 (1888; ; MATSUM., Ind. Pl. Jap. II. 2. p. 599 1912)

Caprif olium hypoglaucum, O. KUNTZE, Rev. Gen. Pl. I. p. 274 ;i89r.

Lonicera affinis, var. *hypoglauca*, REHD., Synop. Gen. Lon. p. 158 1903,

Lonicera rubropunctata, HAY., Ic. Pl. Formos. IX. p. 48 ;1920)

Nom. Jap. Kidati-nindó

Leg. Ipse. Jul. 29, 1924.

Distr. Sikoku, Kytisyū, Amami-6sima, Okinawa, Taiwan, China.

Note. Grows in the laurisilvae.

Lonicera japonica, THUNB., Fl. Jap. p. 89 ;1784 ; EDWARD., in Bot. Reg. t. 70 ,1815); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 269 1866; ; FR. et SAV., Enum. Pl.

Jap. I. p. 203 (1875); MAXIM., in Mél. Biolog. X. p. 56 (1877) ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 364 (1888) ; DIPPEL, Handb. Laub. I. p.215f. 137 (1889) ; DIELS, Fl. Cent. Chin, in Engl. Bot. Jahrb. XXIX. p. 594 (1901[^]); NAK., Fl. Kor. I. p. 288 (1909) \ Tent. Syst. Caprif. Jap. p. 67 (1921), et in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 633 (1927) ; MATSUM., Ind. Pl. Jap. II. 2. p. 600 U912-[^]; DANG AY, in LECOMTE, Fl. Ind. Chin. III. p. 19 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 122; 19291 ; YAMAZUTA, List Manch. Pl. p. 253 (1930) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1139 (1931)

Syn. *Lonicera nigra*, (non LINN.) THUNB., Fl. Jap. p. 89 (1784)

Lonicera flexuosa, THUNB., in Trans. Linn. Soc. II. p. 330 (1794) ; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 270 U866[^] ; DIPPEL, Hand. Laubh. I. p. 217 (1889)

Caprifolium japonicum, DUMORT, de Courset le Bot. Cult. ed. 2 VII. p. 20a. (1814) ; O. KUNTZE, Rev. Gen. Pl. I. p. 274 (1891)

Lonicera chinensis, WATSEN, Dendrologia Britannicus, p. 70 (1830) ; DC, Prodr. IV. p. 333 (1830) ; HOOK., Bot. Mag. t. 3316 (1834) ; KOCH, Dendr. II. p. 17 (1872)

Nintooa japonica, SWEET, Hort. Brit. ed. 2. p. 258 (1830);

Lonicera confusa, (non DC.) MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 269 (1866)

Lonicera acuminata, var. *japonica*, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 270 (1866)

Lonicera flexuosa, var. *Halleana*, DIPPEL, Handb. Laubh. I. p. 217 (1889,

Caprifolium japonicum, var. *subverticillare*, O. KUNTZE, Rev. Gen. Pl. I. p. 273 (1891)

Aoin. Jap. *Suikazura*

Leg. Ipse, Jul. 18, 1928.

Dhtr. Yezo, Honsyft, Sikoku, Tan[^]asima, Amami-Ôsima, Taiwan [variety :Korea, Manchuria, China.

Diervilla, [TOURN., ex LINN. Syst. ed. 1. et Gen. Pl. ed. 1. p. 53 (1737)] ADANS., Fam. II. p. 157 (1763) ; JUSS., Gen. Pl. p. 211 (1789) ; ENDL., Gen. Pl. n. 3336 (1836-40) ; FRIT., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iv. p. 169 (183D) ; NAK., Tent. Syst. Capr. Jap. p. 103 (1921) ; LEMÉE, Diet. Gen. Pl. Phan. II. p. 616 (1930);

Syn. *Lonicera*, LINN., Sp. Pl. p. 173 (1753) p.p.

Weigela, THUNB., in Act. Stockh. p. 137, t. 5 ;1780\ et Fl. Jap. p. 6, t. 16 (1784)

Weigelia, PERSOON, Syn. Pl. I. p. 176 (1805)

Diervilla decora, NAK., in Tent. Syst. Capr. Jap. p. 117 (1921), et in NAK. et KOIDZ. Tree. & Shrub. Jap. ed. 2. I. p. 699 (1927) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1134 (1931)

Syn. *Weigela amabilis*, non CARR/. HOOK., in Bot. Mag. t. 4893 (1856)

Diervilla versicolor. (non SIEB. et ZUCC.) FR. et SAV., Enum. Pl. Jap. I. p. 202 (1875)

Diervilla floribunda, var. *versicolor*, REHDER, in BAILLY Cycl. Am. Hort. I. p. 484 (1900); MAK., in Tokyo Bot. Mag. XXII. p. 198 (1908); MATSUM., Ind. Pl. Jap. II. 2. p. 597 (1912); SCHNEID., III. Handb. Laubh. II. p. 85 (1912)

Xom. Jap. *Nisiki-utugi*

Leg. Ipse, Jun. 12, 1928.

Distr. Honsyū, Sikoku, Kyūsyū.

Note. The species is found in the Pseudosasa Owatarii Association at about 1800 m above the sea level.

Names of Plants	Regions												
	Philippines	Bonins	Taiwan	Okinawa	Amami-Oshima	Tanegashima	Kyūsyū	Sikoku	Honsyū	Korea	Yesso Southern Kuriles	Saghalien	Northern Kuriles & hatka Manchuria, Amur & China
<i>Ebulus chinensis</i> , NAK.					+	+	+	+	+	+	+		+
<i>Viburnum Awabucki</i> , K. KOCH				+	+	+	+	+	+	+	+		
<i>Viburnum erosum</i> , THUNB.						+	+	+	+	+	+		+
<i>Viburnum furcatum</i> , BL.							+	+	+	+	+	+	+
<i>Viburnum japonicum</i> , SPRENGL.						+	+	+	+				
<i>Viburnum urceolatum</i> , SIEB. & ZUCC. f. <i>brevifolia</i> , MAK.													
<i>Abelia serrata</i> , SIEB. et ZUCC.							+	+	+				
<i>A. s. var. congesta</i> , NAK.								+					
<i>Lonicera affinis</i> , HOOK, et ARN.		+	+	+	+	+	+	+	+				+
<i>Lonicera hypoglauca</i> , MIQ.		+	+	+	+	+	+	+					+
<i>Lonicera japonica</i> , THUNB.						+	+	+	+	+	+		++
<i>Diervilla decora</i> , NAK.							+	+	+				
Total		2	3	4	6	11	10	9	4	3	1		16
Percentage		17.25	22.5	33	50	92	83.75	53.33	25	8			850

(Southern elements 4)

(Northern elements 11)

The distribution of the plants of *Caprifoliaceae* of this island denotes that this island is closely related to the northern floral region in respect of this family.

Vaierianaceae

Valerianaceae, DUMORT, Anal. Fam. p. 32 (1829)

Patrinia, JUSS., in Ann. Mus. Paris. X. p. 311 (1807); DC, Prodr. IV. p. 623 (1830); ENDL., Gen. Pl. n. 2178 (1836-40); HOOK, f., in BENTH. et HOOK. f. Gen. Pl. II. p. 153 (1873); HOECK, in ENGL. u. PRANT. Nat. Pfl.-fam. IV. iv. p. 175 (1891)
 Syn. *Fedia*, ADANS., Fam. II. p. 152 U763 ; O. KUNTZE, Rev. Gen. Pl. I. p. 302 (1891)

Patrinia villosa, JUSS., in Ann. Mus. Par. X. p. 311 (1807), et ex DC. Prodr. IV. p. 624 (1830); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 116 U867); FR. et SAV., Enum. PL Jap. I. p. 216 (1875); FORB. et HEMSL., Ind. Fl. Sin. I. p. 398 (1888) ; MATSUM. et HAY., Enum. Pl. Formos. p. 200 (1906); HAY., Fl. Mont. Formos. p. 118 (1908) ; NAK., Fl. Kor. I. p. 302 (1909) ; MATSUM., Ind. Pl. Jap. II. 2. p. 606 (1912) ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 135 (1912) ; LOESN., Pfl.-welt. Kiautsch. Geb. p. 186 (1918) ; ARIENES, in LECOMTE, Fl. Ind. Chin. III. 4. p. 444, f. 36, t. 5 (1924) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 123 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1152 (1931)

Nom. Jap. Otokoesi

Leg. Ipse, Jul. 18, 1928.

Distr. Yezo, Honsyū, Sikoku, Kyfisyū, Tanegasima, Amami-dsima, Okinawa, Taiwan, Korea, China.

Note. Grows on open waste lands or by the roadside in the lowlands.

Name of Plant	Regions														
	Philippines	Bonins	Taiwan	Okinawa	Amami-Ōsima	Tanegasima	Kyūsyū Prop.	Sikoku	Honsyū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Usuri	China
<i>Patrinia villosa</i> , JUSS.			+	+	+	+	+	+	+	+	+				+

The distribution of the only species of *Valerianaceae* in the island does not indicate any special affinity to its neighbouring districts.

Cucurbitaceae

Cucurbitaceae, HALL., Enum. Stir p. Helvet. p. 34 (1742)

Trichosanthes, [LINN., Gen. Pl. ed. 1. p. 295 ; 1737,] et Sp. Pl. ed. 1. p. 1003 U753; ; SERING, in DC. Prodr. III. p. 313 U828) ; ENDL..

Gen. Pl. n. 5140 ;183&-40>; HOOK. f. in BENTH. et HOOK. f. Gen. Pl. I. p. 821
'1867'; MUELLER et PAX, in ENGL. u. PRANT. Nat. Pfl.-fam. IV. v. p. 31 '1889'
Syn. *Anguina*, [MICH., ex LINN. Syst. ed. 1 (1735)] O. KUNTZE, Rev. Gen. I. p. 254

Trichosanthes japonica, REGEL, Ind. Sem. Hort. Petrop. p. 90 (1868, ; MAXIM., in Gartenfl. p. 35, t. 714 J872* ; FR. et SAV., Enum. Pl. Jap. I. p. 172 (1875^ ; COGN., in DC. Monogr. Phan. III. p. 371 U881) ; ITO et MATSUM., Tent. Fl. Lutch. I. p. 236 (1899: ; MATSUM., Ind. Pl. Jap. II. 2. p. 612 (1912) ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. III '1912¹ ; MORI, Enum. Pl. Cor. p. 336 (1922^N ; MASAMUNE, Prel. Rep. Veg. Yak. p. 123 (1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1164 '1931^
Syn. *Trichosanthes cucumerina*, (non LINN.) THUNB., Fl. Jap. p. 322 11784
Gymnopetalum japonicum, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 82 .1865'
Nom. Jap. *Kikarasuuri*
Leg. Ipse, Jul. 13, 1928.
Distr. Yezo, Honsyu, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Korea, China.
Note. This climbing plant is found in the low lands along forest edges.

Trichosanthes multiloba, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 82 1865 ; FR. et SAV., Enum. Pl. Jap. I. p. 173 '1875 ; COGN., in DC. Monogr. Phan. III. p. 372 ,1881' ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 314 1837 ; MATSUM., Ind. Pl. Jap. II. 2. p. 612 (1912 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 124 ,1929' ; MAK. et NEM., Fl. Jap. ed. 2. p. 1165 '19311
Nom. Jap. *Momizi-karasU'Uri*
Leg. Ipse, Aug. 5, 1922.
Distr. Honsyu, Sikoku, Kyûsyû, China.
Note. The species is widely distributed in South Japan. In the island it occurs in the lowlands.

Trichosanthes shikokiana, MAK., in Tokyo Bot. Mag. VI. p. 54 √1892 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 124 1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1165 1931
Nom. Jap. *Ô-karasu-uri*
Leg. Ipse, Aug. 5, 1927.
Distr. Sikoku, Kyûsyû, Amami-6sima.
Note. The species is found in the lowland and on the edges of shrine groves and has its southern limit in Amami-6sima.

Gynostemma, BL., Bijdr. p. 23 √1825 ; ENDL., Gen. Pl. n. 4696 1835-40 ; HOOK, f., in BENTH. et HOOK. f. Gan. Pl. I. p. 839 1867 ; MUELL. et PAX, in ENGL. u. PRANT. Nat. Pfl.-fam. IV. v. p. 37 '1889' ; LEMÉE, Diet. Gen. Pl. Phan. III. p. 400 1931'

Gynostemma pentaphyllum, MAK., in Tokyo Bot. Mag. XVI. p. 179 √1902 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 123 1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1160 (1931);
Syn. *Vitis pentaphylla*, THUNB., Fl. Jap. p. 105 1784. ; SPRENG., Syst. Veg. I. p. 778 (1825) ; PLANCH., in DC. Monogr. Phan. V. 2. p. 627 ,1887.
Cissus pentaphylla, WILLD., Sp. Pl. I. p. 659 (1797); DC, Prodr. I. p. 627 .1824)
Gynostemma pedata, BL., Bijdr. p. 23 ,1825) ; SPRENG., Syst. Veg. IV. 2. p. 251 (1827); BENTH. et HOOK, f., Gan. Pl. I. p. 839 (1867/ ; C. B. CLARKE, in HOOK. f. FL Brit. Ind. II. p. 633 *excl. syn.* ,1879- ; COGN., in DC. Monogr.

Phan. III. p. 913 (1881); FR., PI. David. I. p. 136 (1884) ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 320 (1887); MUELL. et PAX, in ENGL. U. PRANT. Nat. Pfl.-fam. IV. v. p. 37 (1889) ; O. KUNTZE, Rev. Gen. Pl. I. p. 256 (1891) ; ITO et MATSUM., Tent. Fl. Lutch. I. p. 251 (1899) ; HAY., Fl. Mont. Formos. p. 100 (1908); MATSUM., Ind. Pl. Jap. II. 2. p. 609 (1912); MORI, Enum. Pl. Cor. p. 335 (1922)

Gynostemma cissoides, BENTH. et HOOK, f, Gen. Pl. I. p. 839 (1867) ; FR. et SAV., Enum. PL Jap. I. p. 176 (1875), et II. p. 316 (1876)

Aom. Jap. Amatyazuru

Leg. Ipse, ca. Miyanoura.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China.

Names of Plants	Regions													
	Ujii	Ori	Hsiwan	Osiwa	Siki-Osima	Tanegasima	Kasyu	Sikoku	Honsyū	Korea	Y. & Southern Kuril	S. Kuril	N. Kuriles & Kamchatka	M. Churia, Amur & Ussuri
<i>Trichosanthes japonica</i> , REGEL				+	+	+	+	+	+	+	+			+
<i>Trichosanthes multiloba</i> , MIQ.			+	+			+	+	+					+
<i>Trichosanthes shikokiana</i> , MAK.					+		+	+	+					
<i>Gynostemma pentaphyllum</i> , MAK.			+	+	+	+	+	+	+	+	+			+

As the above table shows we can not deduce any special relation between the flora of the island and its neighbouring districts from the distribution of the plants of *Cucurbitaceae* indigenous to this island.

Campanulaceae

Campanulaceae, JUSS., Gen. Pl. p. 163 (1789)

Adenophora, FISCH., in Mem. Soc. Nat. Mosc. VI. p. 165 (1823); DC, Prodr. VII. p. 491 (1839) ; ENDL., Gen. Pl. n. 3088 (1836-40) ; BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 563 (1876); SCHOENLAND, in ENGL. u. PRANT. Nat. Pfl.-fam. IV. v. p. 51 (1889) ; LEMfE, Diet. Gen. Pl. Phan. I. p. 79 (1929)

Syn. *Flozrkea*, SPRENG., *Anleit.* ed. 2. II. p. 523 (1818)

Adenophora verticillata, FISCH., in *Mém. Soc. Nat. Mosc.* VI. p. 167 (1823); DC, *Monogr. Camp.* p. 356 (1830); DC, *Prodr.* VII. p. 492 (1839); FR. et SAV., *Enum. PL Jap.* II. p. 422 (1876); FORB. et HEMSL., *Ind. Fl. Sin.* II. p. 14 (1889); KOM., *Fl. Mansh.* III. p. 566 (1907); NAK., *Fl. Kor.* II. p. 65 (1911); MATSUM., *Ind. PL Jap.* II. 2. p. 613 (1912); DUNN et TUTCH., *Fl. Kwang. & Hongk.* p. 153 (1912); MASAMUNE, *Prel. Rep. Veg. Yak.* p. 124 (1929); MAK. et NEM., *FL Jap.* ed. 2. p. 1169 (1931)

Syn. *Campanula verticillata*, PALL., *Reise Russ.* III. 2. t. G (1776) et in *Voyages.* IV. t. 34 (1793)

Campanula tetraphylla, THUNB., *Fl. Jap.* p. 87 (1784)

Adenophora verticillata, var. *typica*, REGEL, *Tent. FL Ussur.* p. 103 (1861)

Adenophora verticillata, FISCH. f. *genuina*, MAK., in *Tokyo Bot. Mag.* XII. p. 59 (1893); MATSUM., *Ind. PL Jap.* II. 2. p. 614 (1912)

Nom. Jap. *Turiganeninzin*

Leg. Ipse, Aug. 19, 1928.

Distr. Saghalien, Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Korea, Manchuria, China, Ussuri.

Note. Grows on waste lands, especially on conglomerate soil.

Perocarpa, HOOK. f. et THOMS., in *Journ. Linn.*

Soc. II. p. 26 (1858); BENTH., in BENTH. et HOOK. f. *Gen. PL* II. p. 558 (1876); SCHOENLAND, in ENGL. U. PRANT. *Nat. Pfl.-fam.* IV. v. p. 53 (1889)

Syn. *Perocarpus*, POST et O. KUNTZE, *Lexic. Gen. Phan.* p. 426 (1903)

Perocarpa carnosa, HOOK. f. et THOMS. in *Journ. Linn. Soc.* II. p. 26 (1858); C. B. CLARKE, in HOOK. f. *FL Brit Ind.* III. p. 437 (1881); HAY., *Fl. Mont. Formos.* p. 147 (1903); MATSUM., *Ind. PL Jap.* II. 2. p. 617 (1912); MASAMUNE, *Prel. Rep. Veg. Yak.* p. 124 (1929); MAK. et NEM., *FL Jap.* ed. 2. p. 1173 (1931) p.p.

Syn. *Campanula carnosa*, WALL., in ROXB. *FL Ind.* II. p. 102 (1832); DC, *Prodr.* VII. p. 474 (1839);

Campanula drcaeoides, (non SCHMIDT.) MIQ., in *Ann. Mus. Bot. Lugd. Bat.* III. pp. 195, et 204 (1867); FR. et SAV., *Enum. PL Jap.* I. p. 278 (1875); FORB. et HEMSL., *Ind. Fl. Sin.* II. p. 9 (1889)

Nom. Jap. *Tukusi-tani-gikyō*

Leg. Ipse, Jun. 12, 1928.

Distr. Sikoku, Kyūsyū, Taiwan, China, Himalay.

Note. The species grows as undergrowth along streams or in wet places in the lauri-aciculisilvae, from 800 m up to 1600 m above the sea level.

Wahlenbergia, SCHRAD., *Cat. PL Hort. Goetting.*

(1814), et in *Comm. Goatt.* VI. p. 123 (1823); DC, *Prodr.* VII. p. 424 (1839); ENDL., *Gen. PL* n. 3079 (183&40); BENTH., in BENTH. et HOOK. f. *Gen. PL* II. p. 555 (1876); SCHOENLAND, in ENGL. U. PRANT. *Nat. Pfl.-fam.* IV. v. p. 58 (1889)

Syn. *Campanopsis*, R. BR., *Prodr.* p. 561 (1810); O. KUNTZE, *Rev. Gen. PL* II. p. 378 (1891)

Streleskia, HOOK, f., in *Hook. Lond. Journ. Bot.* VI. p. 226 (1847)

Wahlenbergia ffracilis, SCHRAD., *Blumenb.* p. 33, in *Obs.*; DC, *Monogr. Camp.* p. 142 (1830) p.p., et *Prodr.* VII. p. 433 (1839) p.p.; FR., *PL David.* I. p. 192 (1834); FORB. et HEMSL., *Ind. Fl. Sin.* II. p. 4 (1889); MATSUM. et HAY., *Enum. PL*

Formos. p. 215 (1906); HAY., Fl. Mont. Formos. p. 145 (1908); MATSUM., Ind. PL Jap. II. 2. p. 618 (1912); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 152 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 124 (1929); MAK. et NEM., Fl. Jap. ed. 2, p. 1174 (1931)

Syn. *Wahlenbergia marginata*, (THUNB.) DC, Prodr. VII. p. 433 (1843); FR. et SAV., Enum. Pl. Jap. I. p. 277 (1875); MORI, Enum. Pl. Cor. p. 340 (1922);

Norn. Jap. *Hina-gikyô*

Leg. Iperse, Kurio, Mart. 22, 1922.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-6sima, Okinawa, Taiwan, Korea, China.

Note. Grows by the roadside or in waste lands at low altitudes.

Lobelia, [PLUM., ex LINN. Gen. Pl. ed. 1. p. 267 (1737);] et Sp. Pl. ed. 1. p. 929 (1753); DC, Prodr. VII. p. 357 (1839); ENDL., Gen. Pl. n. 3058 (1836-40); BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 551 (1876); SCHOENLAND, in ENGL. u. PRANT. Nat. Pfl.-fam. IV. v. p. 66 (1889); LEMÉE, Diet. Gen. Pl. Phan. IV. p. 136 (1932)

Syn. *Dortmanna*, [LINN., Syst. ed. 1 (1736)] ADANS., Fam. II. p. 134 (1763)

Rapuntium, (TOURN.) ex MILL., Gard. Diet. ed. 8 (1768)

Lobelia radicans, THUNB., in Trans. Linn. Soc. II. p. 330 (1793); C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. III. p. 425 (1881); FR., Pl. David. I. p. 192 (1884); FORB. et HEMSL., Ind. Fl. Sin. II. p. 3 (1889); MATSUM. et HAY., Enum. Pl. Formos. p. 214 (1906); MATSUM., in Tokyo Bot. Mag. XIV. p. 57 (1900), et Ind. Pl. Jap. II. 2. p. 616 (1912); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 152 (1912); MORI, Enum. Pl. Cor. p. 339 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 124 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1172 (1931)

Syn. *Lobelia erinoides*, (non LINN.) THUNB., Fl. Jap. p. 326 (1784)

Lobelia Erinus, (non LINN.) THUNB., Fl. Jap. p. 325 (1784)

Isolobus campanuloides, DC, Prodr. VII. p. 353 (1839); FR. et SAV., Enum. Pl. Jap. I. p. 274 (1875)

Names of Plants	Regions														
	ppines	c	g	awa	mi-6sima	Tanegasima	Kyûsyû Prop.	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Usuri	China
<i>Adenophora verticillata</i> , FISCH.				+	+	+	+	+	+	+	+			+	+
<i>Peracarpa carnosâ</i> , HOOK. f. et THOMS.			+				+	+							+
<i>Wahlenbergia gracillis</i> , SCHRAD.			+	+	+		+	+	+	+					+
<i>Lobelia radicans</i> , THUNB.	+			+		+	+	+	+	+					+

Isolobus radicans, DC, Prodr. VII. p. 353 (1839)
Isolobus Roxburghianus, DC, Prodr. VII. p. 353 (1839)
Isolobus Kerii, DC, Prodr. VII. p. 353 (1839)

Nom. **Jap.** *Azemusiro*

Leg. Ipse, Jul. 12, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Okinawa, Taiwan, Korea, China.

Note. Grows in wet ground such as near rice fields.

In this family the distribution of the plants indigenous to the island denotes that the island has a close relationship with both southern and northern lands.

Goodeniaceae

Goodeniaceae, DUMORT, Anal. Famil. p. 28 (1829)¹

Scaevola, LINN., Mant. II. p. 145 (1771); DC, Prodr. VII. p. 505 (1843); ENDL., Gen. Pl. n. 3038 (1836-40); BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 539 (1876); SCHOENLAND, in ENGL. u. PR ANT. Nat. Pfl.-fam IV. v. p. 76 (1889); KRAUSE, in ENGL. Pfl.-reich. IV. 277 [Heft 54] p. 117 (1912)

Syn. *Lobelia*, ADANS., Fam. II. p. 157 (1763);

Cerbera, LOUR., Fl. Cochinch. p. 136 (1790-)

Scaevola frutescens, KRAUSE, var. **glabra**, (MATSUM.) MASAMUNE, comb. nov.

Syn. *Lobelia Taccada*, GAERTN., Fruct. et Semin. Pl. I. p. 119, t. 25 (1788)

Scaevola Koenigii, VAHL, var. *glabra*, MATSUM., in Tokyo Bot. Mag. XIV. p. 57 (1900)

Scaevola sericea, FORST. f. var. *Taccada*, MAK., in Tokyo Bot. Mag. XVIII. p. 68 (1904); MAK. et NEM., Fl. Jap. ed. 2. p. 1175 (1931)

Scaevola frutescens, KRAUSE, var. *taccada* (MAK.) MASAMUNE, Prel. Rep. Veg. Yak. p. 124 (1929)

Name of Plant	Regions											
	Philippines	Bor-neo	Indo-china	Okinawa	Tanegashima	Ryūkyūs	Kyūsyū	Prop.	Kuriles	Saghalien	Northern Kuriles & Kamchatka	Amur & Ussuri
<i>Scaevola frutescens</i> KRAUSE, var. <i>glabra</i> , MASAMUNE	+	+	+	+	+							

Nom. Jap. Teriha-kusatobera

Leg. Ipse, Kurio, Mart. 23, 1923.

Distr. Tanegasima, Amami-6sima, Okinawa, Taiwan, Bonins.

Note. This psammophyte grows near the seashore, and has its northern limit in Tanegasima.

As the above table indicates, the island has a close relationship with the southern lands in respect of the plants of *Goodeniaceae*.

Compositae*

Compositae, VAILL., in Acta Acad. Paris, p. 143 (1718)

Adenostemma, FORST., Char. Gen. p. 89, t. 45

U776! ; ENDL., Gen. PI. n. 2261 (1836-40); DC, Prodr. V. p. 110 (1836) ; BENTH., in BENTH. et HOOK. f. Gen. PI. II. p. 239 (1873); HOFFM., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. v. p. 133 (1889) ; LEMÉE, Diet. Gen. PL Phan. I. p. 82 (1929)

Syn. Lavenia, SWARTZ, Prodr. Veg. Ind. Occ. p. 112 (1788)

Adenostemma lavenia, O. KUNTZE, Rev. Gen. PI. I. p. 304 (1891); MERR., Enum. Philipp. PI. III. p. 596 (1923) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 125 (1929)

Syn. Verbesina lavenia, LINN., Sp. PI. ed. 1. p. 902 (1753)

Adenostemma viscosum, FORST., Char. Gen. p. 90 (1776); DC, Prodr. V. p. III (1836) ; SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 181 (1846); BENTH., Fl. Hongk. p. 171 (1861); FR. et SAV., Enum. PI. Jap. I. p. 219 (1875); HOOK. f., Fl. Brit. Ind. p. 242 (1881); FR., PI. David. I. p. 159 (1884) ; HEMSL., Voy. Chall. Bot. I. 3. p. 159 (1884); FORB. et HEMSL., Ind. Fl. Sin. I. p. 403 (1888); HAY., Comp. Formos. p. 6 (1904), et Fl. Mont. Formos. p. 121 U908) ; MATSUM., Ind. PI. Jap. II. 2. p. 620 (1912); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 139 (1912) ; RIDLEY, Fl. Malay. II. p. 182 f. 84 (1923) ; GAGNEPAIN, in LECOMTE, Fl. Ind. Chin. III. 4. p. 499, f. 49 (1924) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1183 (1931)

Nom. Jap. Numa-daikon

Leg. Ipse, Aug. 11, 1928.

Distr. Honsyū, Sikoku, Kyūtsyū, Tanegasima, Amami-dsima, Okinawa, Taiwan, China, Philippines.

Note. Grows on wet ground or in open lands from the sea level up to 700 m.

Eupatorium, [TOURN., ex LINN. Syst. ed. 1. (1735),

Gen. PI. ed. 1. p. 247 (1737)] et Sp. PI. ed. 1. p. 836 (1753); DC, Prodr. V. p. 141 (1836); ENDL., Gen. PI. n. 2280 U836-40); BENTH., in BENTH. et HOOK. f. Gen. PI. II. p. 245 (1873); HOFFM., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. v. p. 138 (1898); LEMÉE, Diet. PI. Phan. III. p. 44 (1931)

Syn. Traganthes, WALLR., Sched. Crit. I. p. 456 (1822)

Bustantenta, ALAM., ex DC. Prodr. V. p. 166 (1836)

Eupatorium Fortunei, TURCZ. var. simplicifolium, NAK., in Tokyo Bot. Mag. XLI. p. 511 (1927); MAK. et NEM., Fl. Jap. ed. 2. p. 1232 (1931)

Syn. Eupatorium album, (non LINN.) THUNB., Fl. Jap. p. 308 (1784)

Eupatorium chinense, (non LINN.) THUNB., Fl. Jap. p. 308 (1784) p.p.

Eupatorium Fortunei, TURCZ., in Bull. Soc. Imp. Nat. Mosc. XXIV. p. 150 (1851)

Eupatorium japonicum, (non THUNB.) FR. et SAV., Enum. Pl. Jap. I. p. 219 (1875); FORB. et HEMSL., Ind. Fl. Sin. I. p. 403 (1888) *excl. syn.* NAK., Fl. Kor. II. p. 5 (1919) et FL Sylv. Kor. XIV. p. 111 (1923); MATSUM., Ind. Pl. Jap. II. 2. p. 647 (1912)

Eupatorium japonicum, var. *tripartitum*, MAK., in Tokyo Bot. Mag. XXIII. p. 142 (1909)

Nom. Jap. *Hiyodoribana*

Leg. Ipse, Aug. 8, 1924.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū. Tanegasima, Okinawa, Taiwan, Korea, China.

Note. The species is found on wet and open ground in the laurisilvae or in the lauri-aciculisilvae.

Eupatorium Lindleyanum, DC, Prodr. V. p. 180 (1836); BENTH., FL Hongk. p. 172 (1861); FORB. et HEMSL., Ind. FL Sin. I. p. 404 (1888); DIELS, Fl. Centr. Chin. p. 608 (1901); HAY., Comp. Formos. p. 9 (1904); MATSUM., in Tokyo Bot. Mag. XXI. p. (1920); (1907) et Ind. PL Jap. II. 2. p. 647 (1912); NAK., Fl. Kor. II. p. 5 (1911); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 139 (1912); LOESN., Pfl.-welt. Kiautsch. Geb. p. 188 (1918); MASAMUNE, Prel. Rep. Veg. Yak. p. 127 (1929); MAK. et NEM., FL Jap. ed. 2. p. 1233 (1931)

Syn. *Eupatorium album*, THUNB., Fl. Jap. p. 308 (1784); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 167 (1866); FR. et SAV., Enum. PL Jap. I. p. 220 (1875)

Eupatorium chinense, DC, Prodr. V. p. 179 (1836); FR. et SAV., Enum. PL Jap. I. p. 220 (1875); KOM, FL Mansh. III. p. 582 (1907);

Nom. Jap. *Sawa-hiyodori*

Leg. Ipse, Jul. 26, 1924.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China.

Note. Grows on wet open ground in the laurisilvae or in the lauri-aciculisilvae.

Eupatorium luchuense, NAK., in Tokyo Bot. Mag. XXX. p. 147 (1916); MASAMUNE, Prel. Rep. Veg. Yak. p. 127 (1929); MAK. et NEM., FL Jap. ed. 2. p. 1233 (1931)

Syn. *Eupatorium japonicum*, (non THUNB.) FORB. et HEMSL., Ind. Fl. Sin. I. p. 403 (1888) p.p.; HAY., Comp. Formos. p. 8 (1904); MATSUM. et HAY., Enum. PL Formos. p. 202 (1906)

Eupatorium Reevesii, (non WALL.), FORB. et HEMSL., Ind. Fl. Sin. I. p. 405 (1888) partim; HAY., Comp. Formos. p. 8 (1904); MATSUM. et HAY., Enum. PL Formos. p. 203 (1906)

Nom. Jap. *Simahuzibakama*

Leg. Ipse, Aug. 8, 1924.

Distr. Amami-6sima, Okinawa, Taiwan.

Note. The species is found on open ground in the laurisilvae and has its northern limit in this island.

Eupatorium variabile, MAK., in Tokyo Bot. Mag. XXIV. p. 59 (1910); MATSUM., Ind. PL Jap. II. 2. p. 648 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 127 (1929); MAK. et NEM., FL Jap. ed. 2. p. 1233 (1931)

Nom. Jap. *Yama-hiyodori*

Leg. Ipse, April. 1, 1924.

Distr. Kyūsyū, Tanegasima, Amami-6sima.

Note. The species is found as undergrowth on wet ground in the laurisilvae.

Solidago, [VAILL., ex LINN. Syst. ed. 1 1735!, et Gen. Pl. ed. 1 [1737]] et Sp. Pl. ed. 1. p. 878 (1753); ENDL., Gen. Pl. n. 2376 (1836-40); DC, Prodr. V. p. 330 (1836); BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 256 (1873); HOFFM., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. v. p. 150 (1890)

Syn. *Doria*, ADANS., Fam. II. p. 124 (1763)

Antphirhapis, DC, Prodr. V. p. 343 (1836)

Solidago virgaurea, LINN., Sp. Pl. ed. 1. p. 880 (1753[^]); THUNB., Fl. Jap. p. 317 (1784); DC, Prodr. V. p. 338 (1836); BENTH., Fl. Hongk. p. 179 (1861); FR. et SAV., Enum. Pl. Jap. I. p. 228 (1875); HOOK, f., Fl. Brit. Ind. III. p. 245 (188r); FORB. et HEMSL., Ind. Fl. Sin. I. p. 406 (1888); MIY., Fl. Kuril, p. 240 (1890); HAY., Com p. Formos. p. 10 (1904); KOM., Fl. Mansh. III. p. 583 (1907); NAK., Fl. Kor. II. p. 6 (1911); MATSUM., Ind. Pl. Jap. II. 2. p. 667 (1912^N); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 140 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 129 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1268 (1931); TATEWAKI, Phytogeogr. Middl. Kuril, pp. 212, 237, 258, 271, et 287 (1932)

Nom. Jap. *Akino-kirinsō*

Leg. Ipse, Aug. 31, 1926.

Distr. Saghalien, Kuriles, Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China.

Note. Grows from the sea level up to 1900m above; is widely distributed in the temperate zone of both hemispheres.

Solidago yakusimensis, MASAMUNE, nom. nov.

Syn. *Solidago virgaurea*, LINN. var. *rnutissima*, MAK., in Tokyo Bot. Mag. XXVIII. p. 179 (1914); MASAMUNE, Prel. Rep. Veg. Yak. p. 129 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1269 (1931)

Solidago virgaurea, LINN. var. *yakusimensis*, NAK., in Tokyo Bot. Mag. XLII. p. 17 (1928i)

Nom. Jap. *Issunkinkwa*

Leg. Ipse, Aug. 31, 1926.

Distr. Endemica.

Note. Grows on marshy ground which is scattered among the Pseudosasa Owattarii Association.

Dichrocephala, L'HERIT, ex DC in GUILLEMIN, Arch. de Bot. II. p. 517 (1833); DC, Prodr. V. p. 371 (1836); ENDL., Gen. Pl. n. 2396 (1836-40); BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 260 (1873); HOFFM., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. v. p. 153 (1890)

Dichrocephala latifolia, (LAM.) DC, in Contrib. Bot. Ind. p. 11 (1834); et Prodr. V. p. 372 (1836); HOOK, f., Fl. Brit. Ind. III. p. 245 (1881); MATSUM., Ind. Pl. Jap. II. 2. p. 645 (1912); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 140 (1912); RIDLEY, Fl. Malay II. p. 194 (1923); GAGNEPAIN, in LECOMTE, Fl. Ind. Chin. III. 5. p. 582 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 127 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1228 (1931)

Syn. *Grangea latifolia*, LAM., ex POIR. Encycl. Supp. II. p. 826 (1812)

Norn. Jap. Bukuryō-sai

Leg. Ipse, Kosugidani, Sept. 4, 1926.

*Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan
China.*

Note. The species is found in waste or in cultivated lands as a pioneer.

Lagenophora, CASS., in Bull. Soc. Philom. p. 34
,1818, et Diet. Sc. Nat. XXV. p. 109 (1822); DC, Prodr. V. p. 307 (1836); ENDL.,
Gen. Pl. n. 2351 (183&-40); BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 263
'1873); HOFFM., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. v. p. 155 (1890); LEMÉE,
Diet. Gen. Pl. Phan. III. p. 922 (1931)

Syn. Lagenifera, CASS., in Bull. Soc. Phil. p. 199 (1815)

Solenogyne, DC, Prodr. V. p. 367 (1836)

Lagenophora Billardieri, CASS., Diet. Nat. Soc. XXV. p. III (1822); DC, Prodr. V. p.
307 '1836'; BENTH., Fl. Hongk. p. 173 (186r); HOOK, f., Fl. Brit. Ind. III. p. 248
188r; FORB. et HEMSL., Ind. Fl. Sin. I. p. 407 (1888); DUNN et TUTCH., Fl.
Kwang. & Hongk. p. 140 '1912'; MERR., Enum. Philipp. Pl. III. p. 599 (1923^s);
GAGNEPAIN, in LECOMTE Fl. Ind. Chin. III. 5. p. 622 '1924'; MASAMUNE, Prel.
Rep. Veg. Yak. p. 128 '1929'; MAK. et NEM., Fl. Jap. ed. 2. p. 1247 (1931¹)

Nom. Jap. Koke-senbongiku

Leg. Ipse, Aug. 2, 1927.

*Distr. Honsyū, Kyūsyū, Amami-Ōsima, Okinawa, Taiwan, Qiina, Malay, Philip-
pines.*

*Note. The species is found in the lowlands especially on somewhat sunny ground,
but rather on rare occasions.*

Rhynchospermum, REINW., in Sylloge Ratisbonn.
II. p. 7 '1828'; ENDL., Gen. Pl. n. 2333 (1836-40); DC, Prodr. V. p. 296 (1836[^]);
BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 263 (1873^N); HOFFM., in ENGL. u.
PRANT. Nat. Pfl.-fam. IV. v. p. 155 (1890)

Syn. Leptocoma, LESS., in Linn. VI. p. 130 (1831):

Zollingeria, SCHULTZ, Bip. in Flora XXXVII. p. 273 11854[^]

Rhynchospermum verticillatum, REINW., in Syll. Ratisb. II. p. 8 (1828/; DC, Prodr. V.
p. 296 (1836[^]); FR. et SAV., Enum. Pl. Jap. I. p. 228 (1875); DIELS, Fl. Cent.
Chin. p. 609 '1901[^]); MATSUM., Ind. Pl. Jap. II. 2. p. 661 (1912); GAGNEPAIN, in
LECOMTE, Fl. Ind. Chin. III. 5. p. 624 (1924); MASAMUNE, Prel. Rep. Veg. Yak.
p. 129 '1929'; MAK. et NEM., Fl. Jap. ed. 2. p. 1256 (1931^{*})

*Syn. Rhynchospermum verticillatum, REINW, var. subsessilis, OLIVER; MORI, Enum. Pl.
Cor. p. 364 '1922*

Nom. Jap. Syūbunsō

Leg. Ipse, Aug. 20, 1928.

*Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Taiwan, Korea,
China.*

*Note. The species is found as undergrowth in the lauri-aciculisilvae, and is com-
mon in the southern part of Japan.*

Myriactis, LESS., in Linnaea VI. p. 127 (1831);
DC, Prodr. V. p. 308 (1836); ENDL., Gen. Pl. n. 2353 (1836-40); BENTH., in
BENTH. et HOOK. f. Gen. Pl. II. p. 262 (1873); HOFFM., in ENGL. u. PRANT. Nat.
Pfl.-fam. IV. v. p. 155 (1890); LEMÉE, Diet. Gen. Pl. Phan. IV. p. 609 (1932,

Syn. Botryadenia, FISCH. et MEY., Ind. Sem. Hort. Petr. II. p. 30 11835)
Hecatactis, F. MUELL, in TranS. Roy. Soc. Viet. New Ser. I. 2. p. 13 1889 >

Myriactis japonensis, KOIDZ., in Tokyo Bot. Mag. XXXVIII. p. 98 (1924); MAK. et NEM., Fl. Jap. ed. 2. p. 1252 (1931)

Syn. Solenogyne japonensis, MASAMUNE, Prel. Rep. Veg. Yak. p. 129 (1929)

Norn. Jap. Hime-kiku-tabirako

Leg. Ipse, Aug. 22, 1928.

Distr. Endemica.

Note. The species occurs on marshy ground from 1500 m up to 1900 m above the sea level. It is restricted to this island, and it is worth while observing that the genus *Myriactis* has not yet been discovered in lands further north than Yakusima, while it is found in Amami-Osima and Formosa.

Aster, [TOURN., ex LINN. Syst. ed. 1 1735, et Gen. PL ed. 1. p. 254 (1737),] et Sp. PL ed. 1. p. 872 (1753); ENDL., Gen. PL n. 2301 (1836-40); DC, Prodr. V. p. 226 (1836); BENTH., in BENTH. et HOOK. f. Gen. PL II. p. 271 (1873); HOFFM., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. v. p. 161 (1890); LEMfE, Diet. Gen. PL Phan. I. p. 421 (1929)

Syn. Coelestina, HILL., Hort. Kew. p. 8. (1769)

Asterornaea, BL., Bij. p. 901 (1827); DC, Prodr. V. p. 302 (1836);

Hisutsua, DC, Prodr. VI. p. 44. (1837)

Aster indicus, LINN., Sp. PL ed. 1. p. 876 (1753); FR. et SAV., Enum. PL Jap. II. p. 398 (1876); FR., PL David. I. p. 160 (1884); FORB. et HEMSL., Ind. Fl. Sin. I. p. 413 (1888); DIELS, FL Cent. Chin. p. 609 (1901); HAY., Comp. Formos. p. 14 (1904); NAK., Fl. Kor. II. p. 8 (1911), et in Bull. Biogeogr. Soc. Jap. I. p. 263 (1930); DUNN et TUTCH., FL Kwang. & Hongk. p. 141 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 125 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1196 (1931)

Syn. Asteromca in die a y BL., Bijdr. p. 901 (1828); DC, Prodr. V. p. 303 (1836); SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 184 (1846); MATSUM., Ind. PL Jap. II. 2. p. 629 (1912); LOESN., Pfl.-welt. Kiautch. Geb. p. 189 (1918)

Hisutsua serrata, HOOK, et ARN., Bot. Capt. Beech. Voy. p. 265 (1836-40)

Norn. Jap. Ko-yomena

Leg. Ipse, Onoaida, Sept. 5, 1926.

Distr. Honsyu, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Taiwan, Bonins, Korea, China.

Mote. The species occurs in low waste lands or on forest edges.

Aster Maackii, REGEL, Tent. FL Ussur. n. 252 (1861); MAK., in Tokyo Bot. Mag. XXI. p. 137 (1907); MATSUM., Ind. PL Jap. II. 2. p. 627 (1912); MAK. et NEM., FL Jap. ed. 2. p. 1197 (1931)

Syn. Aster Kodzumanus, MAK., in Tokyo Bot. Mag. XXI. p. 16 (1907/

Nom. Jap. Higosion

Leg. A. KIMURA! Aug. 1, 1922. ?

Distr. Kyûsyû.

Note. The species has its southern limit in this island.

Conyza, [LINN., Gen. PL ed. 1. p. 251 (1737)] et Sp. PL ed. 1. p. 861 (1753); LESS., Synops. Compos, p. 203 (1832); DC, Prodr. V. p. 377 (1836); ENDL., Gen. PL n.2405 (1836-40); BENTH., in BENTH. et HOOK, f. Gen. PL II. p. 283 (1873); HOFFM., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. v. p. 169 (1889); LEMfE, Diet. Gen. PL Phan. II. p. 293 (1930),

Syn. Marsea, ADANS., Fam. II. p. 122 (1763)
Conysa, BURM. f., Fl. Ind. p. 180 (1768)

Conyza japonica, (THUNB.) LESS., Syn. Comp. p. 204 (1832); DC, Prodr. V. p. 382 1836 ; SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 184 (1846) ; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 171 (1866[^]); FR. et SAV., Enum. Pl. Jap. I. p. 229 (1875); HOOK, f., Fl. Brit. Ind. III. p. 258 (1881); FORB. et HEMSL., Ind. Fl. Sin. I. p. 419 (1888) ; DIELS, Fl. Cent. Chin. p. 612 (1901); HAY., Comp. Formos. p. 15 1904 ; MATSUM., Ind. Pl. Jap. II. 2. p. 643 (1912) ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 142 (1912) ; CAGNEPAIN, in LECOMTE, Fl. Ind. Chin. III. 5. p. 614 '1924-; MASAMUNE, Prel. Rep. Veg. Yak. p. 126 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1226 (193b)

Syn. Erigeron japonicurn. THUNB., Fl. Jap. p. 312 (1784[^])
Conyza veronicaefolia, WALL.; DC, Prodr. V. p. 382 (1836) ; BENTH., Fl. Hongk. p. 176 (1861)

Nom. Jap. Watana

Leg. SERIZAWA! ca. Ambô.

Distr. Honsyu, Sikoku, Kyûsyû, Amami-6sima, Taiwan, China, Philippines, India.

Note. Occurs in waste lands or grows as an invader in clearings.

Elumea, DC, in Guillemin, Arch. de Bot. II. p. 514 1833 , et Prodr. V. p. 432 ,1836-; ENDL., Gen. Pl. n. 2413 (1836-40) ; BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 289 ;1873) ; HOFFM., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. p. 175 -v 1890 ; LEMÉE, Diet. Gen. Pl. Phan. I. p. 599 (1929) ;

Syn. Placus, LOUR., Fl. Cochinch. p. 496 1790.

Blumea fruticosa, KOIDZ., PL Nov. Amami-6sima, p. 9 (1928[^]) ; MAK. et NEM., FL Jap. ed. 2. p. 1202 '1931'

Nom. Jap. Ôkibana-mukasi-yomogi

Leg. Ipse, Mart. 21, 1923.

Distr. Amami-6sima, Okinawa.

Note. This species is found in the laurisilvae in somewhat wet places, and is restricted to the Ryûkyû archipelago.

Anaphalis, DC, Prodr. VI. p. 271 (1837) ; ENDL., Gen. Pl. n. 2768 183&40 ; BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 303 1873 ; HOFFM., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. v. p. 186 (1890) ; LEMÉE, Diet. Gen. Pl. Phan. I. p. 233 '1929.

Syn. Margaripes, DC, ex STEUD. Nom. ed. 2. II. p. 101 '1841'

Anaphalis yakusimensis, MASAMUNE, PL I., Prel. Rep. Veg. Yak. p. 125 '1929

Herbae perennes ca. 15 cm altae, saepe ramosae sericeo-lanatae. Folia obovato-lanceolata vel lineari-lanceolata 0.7-2.5 cm longa 1.5-4 mm lata, basi attenuata sessilia utrimque dense sericeo-lanata. Capitula 5-7 cymosa. Involucrum late obconico-campanulatum 2-5 mm longum 5-8 mm latum, bracteis multiseriatim dispositis, ovato-lanceolatis chartaceis albis apice obtusis, ca. 2-3 mm longis ca. 1 mm latis, basi hirsutis. FL V °o. Corollae filiformis.

Nom. Jap. Yakusima-usuyukisô

Leg. Ipse, Nagatadake, ca. 1500 m. Aug. 1928.

Distr. Endemica.

Note. Occurs in the alpine region especially in gravelly land in the Pseudosasa Owatarii Association.

Gnaphalium, [LINN., Gen. Pl. ed. 1. p. 250 (1737)]
 et Sp. Pl. ed. 1. p. 850 U753¹; DC, Prodr. VI. p. 221 (1837); BENTH., in BENTH.
 et HOOK. f. Gen. Pl. II. p. 305 (1873); HOFFM., in ENGL. u. PRANT. Nat. Pfl.-fam.
 IV. v. p. 187 (1890); LEMÉE, Diet. Gen. Pl. Phan. III. p. 289 (1931)

Syn. *Cyttarium*, PETERN., Fl. lip. exc. p. 609 (1838) p.p.

Gnaphalium japonicum, THUNB., Fl. Jap. p. 311 (1784; ; DC, Prodr. VI. p. 237 (1837);
 SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 187 U846); BENTH., Fl. Austral. III. p.
 653 (1866; ; FR. et SAV., Enum. Pl. Jap. I. p. 241 '1875^; FORB. et HEMSL., Ind.
 Fl. Sin. I. p. 427 ;1888 ; DIELS, Fl. Cent. Chin. p. 613 (1901); HAY., Comp.
 Formos. p. 32 (1904^; NAK., Fl. Kor. II. p. 14 '191r ; MATSUM., Ind. Pl. Jap. II.
 2. p. 649 (1912) ; MERR., Enum. Philipp. Pl. III. p. 608 (1923); MASAMUNE, Prel.
 Rep. Veg. Yak. p. 127 (1929^ ; MAK. et NEM., Fl. Jap. ed. 2. p. 1235 '1931)

Nom. Jap. *Titikogusa*

Leg. Ipse, Kosugidani, ca. 600 m April. 1927.

Distr. Sikoku, Kyūsyū, Amami-6sima, Taiwan, Korea, China, Philippines, Aust-
 ralia.

Note. The species is found in waste lands, in clearings in the laurisilvae or in
 the lauri-aciculisilvae. This is a common species in Eastern Asia.

Gnaphalium luteo-alfoum, LINN. var. *multiceps*, HOOK, f, Fl. Brit. Ind. III. p. 288
 1881¹

Syn. *Gnaphalium arenarium*, THUNB., Fl. Jap. p. 312 (1784)

Gnaphalium multiceps, BENTH., Fl. Hongk. p. 188 (1861; ; FR. et SAV., Enum.
 Pl. Jap. I. p. 241 (1875); FR., Pl. David. I. p. 163 (1884) ; MAXIM., in Engl.
 Bot. Jahrb. VI. p. 69 '1882); FORB. et HEMSL., Ind. Fl. Sin. I. p. 427
 ;1888); HAY., Comp. Formos. p. 31 11904\ NAK., Fl. Kor. II. p. 13
 ,1911); MATSUM., Ind. Pl. Jap. II. 2. p. 649 v1912); DUNN et TUTCH., Fl.
 Kwang. & Hongk. p. 144 11912; ; LOESN., Pfl.-welt. Kiautsch. Geb. p. 190
 1918 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 127 '1929)

Gnaphalium lutco album, non LINN. I HAY., Comp. Formos. p. 32 (1904¹ p.p.;
 MAK. et NEM., Fl. Jap. ed. 2. p. 1235 (1931¹ p.p.

Nom. Jap. *Hahako-gusa*

Leg. Ipse. Sept. 4. 1926.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa,
 Taiwan, Korea, China, India.

Note. Occurs in cultivated or waste lands in the laurisilvae and in the lauri-
 aciculisilvae.

Carpesium, [LINN., in Act. Soc. Up. p. 80 '1741.]
 et Sp. Pl. ed. 1. p. 859 1753 ; DC, Prodr. VI. p. 281 ,1837); ENDL., Gen. Pl. n.
 2775 (1836-40 ; BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 336 (1873, ; HOFFM.,
 in ENGL. u. PRANT. Nat. Pfl.-fam. IV. v. p. 206 1890; LEMÉE, Diet. Gen. Pl.
 Phan. I. p. 846 v1929

Syn. *Conyzoides*, ,TOURN. ex DC. Prodr. VI. p. 281 ,1837

Carpesium abrotanoides, LINN. var. **Thunbergianum**, MAK., in Journ. Jap. Bot. II. 6.
 p. 22 (1922\ et in MAK. et NEM. Fl. Jap. ed. 1. p. 36 (1925¹, et ed. 2. p. 1208
 1931. ; MASAMUNE, Prel. Rep. Veg. Yak. p. 126 1929¹

Syn. *Carpesium abrotanoides*, ,non LINN.; MAXIM., in Mél. Biolog. IX. p. 290 ,1874 ;
 FR. et SAV., Enum. Pl. Jap. I. p. 244 1875 ; MIQ., in Ann. Mus. Bot.

Lugd. Bat. II. p. 179 1866;; HAY., Comp. Formos. p. 33 U904^ ; NAK., Fl. Kor. II. p. 17 J9ir

Carpesium Thunbergii, SIEB. et ZUCC., Fl. Jap. Fam. Nat. II. p. 187 1846)

Nom. Jap. Yabu-tabako

Leg. Ipse, Aug. 10, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Taiwan, Korea.

Note. Occurs as undergrowth in clearings in the laurisilvae or the lauri-aciculisilvae.

Carpesium cernuum, LINN., Sp. Pl. ed. 1. p. 859 k 1753; MAXIM., in Mél. Biolog. IX. p. 286 .1874) ; FR. et SAV., Enum. Pl. Jap. I. p. 243 1875; ; HOOK, f, Fl. Brit. Ind. III. p. 300 '1881'; FR., Pl. David. I. p. 164 U884^ ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 430 ,1888^; KOM., Fl. Mansh. III. p. 616 .1907); NAK., Fl. Kor. II. p. 17 :i9ir ; MATSUM., Ind. Pl. Jap. II. 2. p. 635 '1912' ; LOESEN., Pfl.-welt. Kiautsch. Geb. p. 191 '1918^ ; MERR., Enum. Philipp. Pl. III. p. 609 '1923, ; GAGNEPAIN, in LECOMTE, Fl. Ind. Chin. III. 4. p. 560 f. 59-11 (1924 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 126 ,1929' ; MAK. et NEM., Fl. Jap. ed. 2. p. 1209 '1931;

Nom. Jap. Sazi-gankubi

Leg. Ipse, Kosugidani, Jul. 24, 1924.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-Ôsima, Korea, Manchuria, China, Philippines, India.

Note. Occurs as undergrowth in the laurisilvae or in the lauri-aciculisilvae.

Carpesium rosulatum, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 179 1866 ; MAXIM., in Mél. Biolog. IX. p. 287 1874^; FR. et SAV., Enum. Pl. Jap. I. p. 244 ;1875: ; MATSUM., Ind. Pl. Jap. II. 2. p. 635 '1912 ; MORI, Enum. Pl. Cor. p. 352 1922) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 126 ,1929. ; MAK. et NEM., Fl. Jap. ed. 2. p. 1209 1931,

Nom. Jap. HimC-gankubi

Leg. Ipse, Kosugidani, Aug. 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Korea.

Note. Occurs in clearings of the laurisilvae or the lauri-aciculisilvae.

Siegesbeckia, [LINN., Hort. Cliff, p. 412 .1737,, et Gen. Pl. ed. 1. p. 352 1737] et Sp. Pl. ed. 1. p. 900 U753. ; DC, Prodr. V. p. 495 1836 ; ENDL., Gen. Pl. n. 2451 1836-40); BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 359 .1873 ; HOFFM., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. v. p. 230 1890

Syn. Siegesbeckia, GLED., in Mem. Acad. Berlin V. p. 131 ,1751

Siegesbekia, ALL., Misc. Taurin. II. p. 59 .1761,

Siegesbeckia orientalis, LINN., Sp. Pl. ed. 1. p. 900 .1753 ; LOUR., Fl. Cochinch. ed. WILLD. p. 616 1793 ; ROXB., Fl. Ind. III. p. 439 ,1832- ; LESS., Synop. Comp. p. 211 .1832. ; DC, Prodr. V. p. 495 1836: ; SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 185 ,1846. p.p.; BENTH., Fl. Hongk. p. 182 ,18611, et Fl. Austral. III. p. 535 .1866-; FR. et SAV., Enum. Pl. Jap. I. p. 231 ,1875- p.p.; CLARKE, Comp. Ind. p. 133 -1876; ; OLIVER, Fl. Trop. Afr. III. p. 372 1877, ; HOOK, f, Fl. Brit. Ind. III. p. 304 1881); FR., Pl. David, p. 164 1884 ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 433 11888) ; HILLEBRAND, Fl. Hawai. Isl. p. 201 1888. ; HAY., Comp. Formos. p. 17 '1904: ; NAK., Fl. Kor. II. p. 19 1911 ; MATSUM., Ind. Pl. Jap. II. 2. p. 667 ,1912' ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 145 1912,; LOESN., Pfl.-welt

Kiautsch. Geb. p. 191 (1918); MERR., Enum. Philipp. PL III. p. 610 :1923 ; RIDLEY, Fl. Malay. II. p. 184 (1923); GAGNEPAIN, in LECOMTE Fl. Ind. Chin. III. 5. p. 600 (1924); MERR., Enum. Hainan PL p. 184 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 129 U929); MAK. et NEM., Fl. Jap. ed. 2. p. 1267 (1931)

Nom. Jap. *Tukusi-menamomi*

Leg. Ipse, Jul. 21, 1927.

Distr. Honsyû, Kyûsyû, Tanegasima, Amami-Ôsima, Taiwan, Korea, China. Malay, Philippines.

Note. Grows in low waste lands or in cleared lands.

Siegesbeckia pubescens, MAK., in Journ. Jap. Bot. I. p. 24 1917 .; MAK. et NEM., FL Jap. ed. 2. p. 1367 (1931)

Syn. *Siegesbeckia orientate*, non LINN/ THUNB., Fl. Jap. p. 321 √1784' p.p.; SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 185 U846) p.p.; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 172 1866) p.p.; MATSUM., Ind. PL Jap. II. 2. p. 667 1^2* p.p.

Nom. Jap. *Menamomi*

Leg. Ipse, April. 2, 1927.

Distr. Honsyû, Sikoku, Kyûsyû, Okinawa.

Note. Grows in cultivated or waste lands near villages.

Eclipta, LINN., Mant. II. p. 157; 1771 ; ENDL.,

Gen. PL n. 2446 ; 1836-40); DC, Prodr. V. p. 489 (1836;; BENTH., in BENTH. et HOOK. f. Gen. PL II. p. 361 ,1873) ; HOFFM., in ENGL. U. PRANT. Nat. PhVfam. IV. v. p. 231 (1890;; LEMÉE, Diet. Gen. PL Phan. II. p. 799 (1930)

Syn. *Ecliptica*, [RUM., Herb. Amb. VI. p. 48 '1750] O. KUNTZE, Rev. Gen. PL I. p. 334 1891'

Eclipta alba, HASSK., PL Jav. Rar. p. 528 1818 ; MIQ., in FL Ind. Bat. II. p. 65 1857; ; et in Ann. Mus. Bot. Lugd. Bat. II. p. 172 (1866 ; FR. et SAV., Enum. PL Jap. I. p. 230 1875 ; HOOK, f., Fl. Brit. Ind. III. p. 334 ,1881 ; HAY., Comp. Formos. p. 17 1904 ; KOM., Fl. Mansh. III. p. 629 ;1907 ; NAK., Fl. Kor. II. p. 19 1911 , et in Bull. Biogeogr. Soc. Jap. I. p. 264 .1930 ; MATSUM., Ind. PL Jap. II. 2. p. 645 ·1912.; DUNN et TUTCH., FL Kwang. & Hongk. p. 145 11912 ; MERR., Fl. Manila p. 476 ,1912 , et Enum. Hainan PL p. 184 .1927'; LOESN., Pfl.-welt. Kiautsch. Geb. p. 191 J918 ; GAGNEPAIN, in LECOMTE, Fl. Ind. Chin. III. 5. p. 599 1924, ; MASAMUNE. Prel. Rep. Veg. Yak. p. 127 ,1929* ; MAK. et NEM., Fl. Jap. ed. 2. p. 1228 (1931)

Syn. *Verbesina alba*, LINN., Sp. PL p. 903 ,1753.

Eclipta crecta, LINN., Mant. II. p. 286 ,1771

Eclipta prostrata, THUNB., FL Jap. p. 321 (1784:

Anthemis cotala, ^non LINN.) BLANCO, FL Filip. p. 633 :1837'

Nom. Jap. *Takasaburô*

Leg. Ipse, Jul. 20, 1927.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Korea, Bonins, Manchuria. China.

Note. Occurs in waste lands, by the roadside, in low lands, and in the lauri-silvae.

Wedelia, JACQ., Enum. PL Carib. p. 8 1760 , et

Select. Stirp. Amer. Hist. p. 217 1763.; ENDL., Gen. PL n. 2496 ,1836-40 ; DC,

Prodr. V. p. 538 (1836 ; BENTH., in BENTH. et HOOK. f. Gen. Pl. II. pp. 369 et 370 '1873' ; HOFFM., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. v. p. 234 (1890)
 Syn. *Seruneum*, [RUMPH., Herb. Amb. V. p. 423, t. 156 U747] O. KUNTZE, Rev. Gen. Pl. I. o. 364 (1891'

Wedelia biflora, (LINN.) DC, in Wight Contr. Bot. Ind. p. 18 U8341 ; BENTH., Fl. Hongk. p. 183 '1861, et Fl. Austral. III. p. 539 U866 ; HANCE, in Journ. Linn. Soc. XIII. p. 108 1872 ; CLARKE, Comp. Ind. p. 137 '1876 ^; OLIVER, Fl. Trop. Afric. III. p. 376 '1877' ; HOOK, f., Fl. Brit. Ind. III. p. 306 ;i88r. ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 433 (1888^N ; HAY., Comp. Formos. p. 19 f 19041 ; MATSUM., Ind. Pl. Jap. II. 2. p. 669 11912 ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 145 U912 ; RIDLEY, Fl. Malay, II. p. 185 (1923) ; GAGNEPAIN, in LECOMTE, Fl. Ind. Chin. III. 5. p. 604 '1924' ; MERR., Enum. Hainan Pl. p. 184 (1927 ; ; NAK., in Bull. Biogeogr. Soc. Jap. I. p. 264 U930) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1275 U931'
 Syn. *Verbesina biflora*, LINN., Sp. Pl. ed. 2. p. 1272 '1763.

Wollastonia biflora, DC, Prodr. V. p. 546 a836' ; MIQ., Fl. Ind. Bat. II. p. 70 ,1857,

Nom. Jap. *Simahamaguruma*

Leg. Ipse, Kurio, Aug. 4, 1928.

Distr. Honsyu, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, China, Philippines, Malay, Western Polynesia.

Note. The psammophyte covers the sandy ground of the seashore of the littoral regions.

Wedelia calendulacea, LESS., Syn. Comp. p. 222 1832' ; DC, Prodr. V. p. 539 '1836 ; WIGHT, IC. Pl. Ind. Or. t. 1107 1846 ; BENTH., Fl. Hongk. p. 182 U861\ et Fl. Austral. III. p. 537 1866 ; FR. et SAV., Enum. Pl. Jap. I. p. 232 11875* ; MAXIM., in Engl. Bot. Jahrb. VI. p. 68 (1885' ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 434 1888) ; HENRY, List Pl. Formos. p. 54 .1896, ; HAY., Comp. Formos. p. 19 ;1904) ; MATSUM., Ind. Pl. Jap. II. 2. p. 669 1912. ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 145 1912 ; GAGNEPAIN, LECOMTE, Fl. Ind. Chin. III. 5. p. 602 '1924' ; MASAMUNE, Prel. Rep. Veg. Yak. p. 129 '1929- ; MAK. et NEM., Fl. Jap. ed. 2. p. 1275 193r

Syn. *Verbesina calendulacea*, LINN., Sp. Pl. ed. 1. p. 902 '1753 ; LOUR., Fl. Cochinch. ed. 2. p. 506 1790 ; HOOK, et ARNOT., Bot. Capt. Beech. Voy. p. 265 183&-40

Nom. Jap. *Kumanogiku*

Leg. Ipse, Jul. 20, 1927.

Distr. Honsyu, Sikoku, Kyūsyū, Tanegasima, Amami-Gsima, Okinawa, Taiwan China.

Note. The species is often found in the lowland among cultivated rice fields.

Wedelia chinensis, OSBECK. MERR., in Philipp. Journ. Sc. XII. Bot. p. III 1917 , et Enum. Philipp. Pl. III. p. 611 1923 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 129 1929.

Syn. *Solidago chinensis*, OSBECK.. Dagbok. Ostind. Resa. p. 241 1757

Verbesina prostrata, HOOK, et ARNOT., Bot. Capt. Beech. Voy. p. 195 1836-40

Wollastonia prcstrata, HOOK, et ARN.. Bot. Cap. Beech. Voy. p. 265 1836-40

Wedelia prostrata, HEMSL., in FORB. et HEMSL. Ind. Fl. Sin. I. p. 431 '1888 ;

HAY., Comp. Formos. p. 18 1904 ; MATSUM., Ind. Pl. Jap. II. 2. p. 669

U912 ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 145 1912 ; NAK., in

Bull. Biogeogr. Soc. Jap. I. p. 264 (193W ; YAMAZUTA, List Manch. PI. p. 289 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 1275 (1931)

Nom. Jap. *Hama-guruma*

Leg. Ipse, Nagata, Aug. 21, 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-Ôsima, Okinawa, Taiwan, Bonins, China, Manchuria, Philippines.

Note. The psammophyte grows on sandy beaches, and is common in South Japan.

var. **robusta**, MASAMUNE, Prel. Rep. Veg. Yak. p. 123 (1929)

Syn. *Wedelia prostrata*, HEMSL. var. *robusta*, MAK., in Journ. Jap. Bot. 1. p. 23 f. 2 v1917\ MAK. et NEM., Fl. Jap. ed. 1. p. 1275 (1925);

Nom. Jap. *Ôhamaguruma*

Leg. Ipse, Nagata.

Distr. Sikoku.

Note. This psammophyte is found only in Sikoku and this island.

Bidens, [TOURN., ex LINN. Gen. PI. ed. 1. p. 248 (1737) et Sp. PI. ed. 1. p. 831 (1753); ENDL., Gen. PI. n. 2541 (1836-40'; DC, Prodr. V. p. 593 v1836); BENTH., in BENTH. et HOOK. f. Gen. PI. II. p. 387 ;1873>; HOFFM., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. v. p. 244 (1889); LEMfçE, Diet. Gen. PI. Phan. I. p. 571 (1929j

Bidens pilosa, LINN., Sp. PI. ed. 1. p. 832 (1753); THUNB., Fl. Jap. p. 307 (1784); LOUR., Fl. Cochinch. p. 488 (1790); HOOK., Niger Fl. 435 (1849); BENTH., Fl. Hongk. p. 183 .1861^; CLARKE, Comp. Ind. p. 140 (1876); OLIVER, Fl. Trop. Afric. III. p. 392 \1877); HEMSL., Voy. Chall. Bot. Part 1. p. 45, et Part 3. p. 161 (1884); MAXIM., in Engl. Bot. Jahrb. VI. p. 69 (1885); FORB. et HEMSL., Ind. Fl. Sin. I. p. 435 '18881; HILLEBRAND, Fl. Hawai. Isl. p. 217 (1888); DIELS, Fl. Centr. Chin, p. 616 .190H; HAY., Comp. Formos. p. 20 (1904); NAK, f. Fl. Kor. II. p. 20 (1911); et in Bull. Biogeogr. Soc. Jap. I. p. 263 • 1930); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 146 (1912); RIDLEY, Fl. Malay. II. p. 183 (1923); MERR., Enum. Philipp. PI. III. p. 614 J923\ et Enum. Hainan PI. p. 185 (1927); GAGNEPAIN, in LECOMTE, Fl. Ind. Chin. III. 5. p. 606 '1924,; MASAMUNE, Prel. Rep. Veg. Yak. p. 125 '1929.

Syn. *Bidens chinensis*, WILLD., Sp. PI. HI. p. 1719 1800'; LOESN., Pfl.-Welt. Kiautsch. Geb. p. 192 \1918;

Nom. Jap. *Sirobana-sendangusa*

Leg. Ipse, Onoaida, Sept. 5, 1926.

Distr. Honsyû, Sikoku, Amami-Ôsima, Okinawa, Taiwan, Bonins, Korea, China, Philippines, Malay.

Note. Occurs in the lowlands, waste lands and clearings, and is common in South Japan.

Chrysanthemum, [TOURN., ex LINN. Syst. ed. 1 1735 , et Gen. PI. ed. 1. p. 255 '1737] et Sp. PI. ed. 1. p. 887 ^1753); ENDL., Gen. PI. n. 2667 (1836-40^; DC, Prodr. VI. p. 63 ;1837); BENTH., in BENTH. et HOOK. f. Gen. PI. II. p. 424 1873:; HOFFM., in ENGL. u. PRANT. Nat. Pfl.-fam. V. v. p. 277 ;1890; LEMfçE, Diet. Gen. PI. Phan. II. p. 149 U930,

Syn. *Matricaria*, HALL, 'ex SCOP. Fl. Cam. ed. 2. II. p. 147 ;1772i

Chrysanthemum indicum, LINN., Sp. PI. ed. 1. p. 889 '1753; *excl. Syn.*; HOOK, f. in CURTIS'S Bot. Mag. t. 7874 1903.; MAK., in Tokyo Bot. Mag. XXIII. p. 18 1909 ;

NAK., Fl. Kor. II. p. 24 (1911); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 146 (1912); MATSUM., Ind. Pl. Jap. II. 2. p. 637 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 126 (1929); YAMAZUTA, List Manch. Pl. p. 272 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 1212 (1931)

Syn. Pyrethrum indie urn, CASS., in Diet. Soc. Nat. XLIV. p. 149 (1926)

Nom. Jap. Hamakangiku

Leg. Ipse, Jul. 21, 1924.

LHstr. Honsyû, Sikoku, Kyûsyû, Taiwan, Korea, Manchuria, China, India.

Note. Occurs in low and somewhat open lands.

Chrysanthemum japonense, NAK., in Tokyo Bot. Mag. XLII. p. 459 (1928); MAK. et NEM., Fl. Jap. ed. 2. p. 1212 (1931)

Syn. Chrysanthemum sinense, var. *sinense*, MAXIM., apud Mak. III. Fl. Jap. I. Pl. XLIII. (1891)

Chrysanthemum sinense, var. *spontaneum*, MAK., in Tokyo Bot. Mag. XXIII. p. 18 (1909); MATSUM., Ind. Pl. Jap. II. 2. p. 638 (1912)

Chrysanthemum morifolium, p. **genuinum**, f. **japonense**, MAK., in Tokyo Bot. Mag. XXVI. p. 216, f. XVIII. (1912)

Nom. Jap. Nozigiku

Leg. Ipse, April. 3, 1927.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-6sima.

Note. Occurs in open lands, and is rather common in South Japan.

Centipeda, LOUR., Fl. Cochinch. p. 492 (1790);

ENDL., Gen. Pl. n. 2396 (1836-40); HOFFM., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. v. p. 280 (1890); LEMÉE, Diet. Gen. Pl. Phan. II. p. 13 (1930);

Syn. Myriogyne, LESS., in Linnaea VI. p. 219 (1830)

Centipeda minima, A. BR. et ASCHERS., Ind. Sem. Hort. Berol. App. p. 6 (1867); NAK., Fl. Kor. II. p. 26 (1911); MERR., Fl. Manila p. 473 (1912) et Enum. Philipp. Pl. III. p. 615 (1923); MASAMUNE, Prel. Rep. Veg. Yak. p. 126 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1211 (1931);

Syn. Artemisia minima, LINN., Sp. Pl. ed. 1. p. 849 (1753);

Centipeda orbicularis, LOUR., Fl. Cochinch. p. 493 (1790); MIQ., Fl. Ind. Bat. II. p. 89 (1857); HOOK, f., Fl. Brit. Ind. III. p. 317 (1881); FR., Pl. David. I. p. 167 (1884); KOM., Fl. Mansh. III. p. 650 (1907); MATSUM., Ind. Pl. Jap. II. 2. p. 636 (1912); LOESN., Pfl.-welt. Kiautsch. Geb. p. 193 (1918)

Cotula minima, WILLD., Sp. Pl. III. p. 2170 (1804)

Myriogyne minuta, LESS., in Linn. VI. p. 219 (1831); DC, Prodr. VI. p. 139 (1837); SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 187 (1846); BENTH., Fl. Hongk. p. 186 (1861), et Fl. Austral. III. p. 553 (1866); FR. et SAV., Enum. Pl. Jap. I. p. 241 (1875); CLARKE, Comp. Ind. p. 151 (1876); FORB. et HEMSL., Ind. Fl. Sin. I. p. 440 (1888)

Nom. Jap. Tokinsô

Leg. Ipse, Jun. 23, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China, Philippines, Malay, India, Australia, Polynesia.

Note. Occurs by the roadside, in cultivated or waste lands at low altitudes.

Artemisia, [LINN., Syst. ed. 1. (1735). et Gen. Pl.

ed. 1. p. 250 (1737) et Sp. Pl. ed. I. p. 845 (1753); ENDL., Gen. Pl. n. 2694 (1835)-

4(Ti; DC. Prodr. VI. p. 93 (1837) ; BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 435 (1873); HOFFM., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. v. p. 281 (1890[^]); LEMÉE, Diet. Gen. Pl. Phan. I. p. 394 (1929)

Artemisia japonica, THUNB., Fl. Jap. p. 310 (1784); DC, Prodr. VI. p. 100 (1837); BENTH., Fl. Hongk. p. 186 (1861) ; MAXIM., in Mél. Biolog. VIII. p. 526 (1872[^]); FR., Pl. David. I. p. 168 (1884[^] ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 443 (1888); HAY., Fl. Mont. Formos. p. 135 (1908); NAK., Fl. Kor. II. p. 33 (1911) ; MATSUM., Ind. Pl. Jap. II. 2. p. 624 (1912[!] ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 147 (1912[!]; MERR., Enum. Philipp. Pl. III. p. 616 (1923) et Enum. Hainan Pl. p. 185 (1927; ; GAGNEPAIN, in LECOMTE, Fl. Ind. Chin. III. 5. p. 585 (1924) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 125 (1929) ; YAMAZUTA, List Manch. Pl. p. 264 (1930[!] ; MAK. et NEM., Fl. Jap. ed. 2. p. 1190 (1931)

Syn. *Artemisia parviflora*, BUCH., ex ROXB. Fl. Ind. III. p. 420 (1832; ; HOOK, f. Fl. Brit. Ind. III. p. 322 (1881)

Artemisia cuneifolia, DC, Prodr. VI. p. 126 (1837;

Nom. Jap. *Otokoyomogi*

Leg. Ipse, Amboi, Aug. 31, 1931.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China, Philippines, India.

Note. Occurs in cultivated or waste lands near the sea level.

Artemisia lavandulaefolia, DC, Prodr. VI. p. 110 (1837); KOM., Fl. Mansh. III. p. 678 (1907[!] ; NAK., Fl. Kor. II. p. 29 (1911) ; LOESNER, Pfl.-welt. Kiautsch. Geb. p. 193 (1918; ; MASAMUNE, Prel. Rep. Veg. Yak. p. 125 (1929[^] ; MAK. et NEM., Fl. Jap. ed. 2. p. 1191 (1931)

Syn. *Artemisia vulgaris*, LINN. var. *parviflora*, MAXIM., Prim. Fl. Amur. p. 160 (1859) ; FR. et SAV., Enum. Pl. Jap. I. p. 239 (1875[^] ; MATSUM., Ind. Pl. Jap. II. 2. p. 626 (1912[!]

Nom. Jap. *Hime-yomogi*

Leg. Ipse, Aug. 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Korea, Manchuria, China.

Note. Occurs in waste lands or by the roadside at low altitudes.

Artemisia vulgaris, LINN. var. **indica**, MAXIM., Prim. Fl. Amur. p. 536 (1859) ; FR. et SAV., Enum. Pl. Jap. I. p. 239 (1875); HAY., Comp. Formos. p. 24 (1904) ; MATSUM., Ind. Pl. Jap. II. 2. p. 626 (1912) ; MORI, Enum. Pl. Cor. p. 346 (1922) ; GAGNEPAIN, in LECOMTE, Fl. Ind. Chin. III. 5. p. 584 (1924[!] ; MASAMUNE, Prel. Rep. Veg. Yak. p. 125 (1928[!] ; YAMAZUTA, List Manch. Pl. p. 266 (1930) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1193 (1931)

Syn. *Artemisia indica*, WILLD., Sp. Pl. III. p. 1846 (1800) ; DC, Prodr. VI. p. 114 (1837)

Artemisia nipponica, NAK., in Bull. Biogeogr. Soc. Jap. I. p. 263 (1930) nom.

Nom. Jap. *Yomogi*

Leg. Ipse, Aug. 13, 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Bonins, Korea, Manchuria, China.

Note. Occurs in cultivated fields, waste lands, and clearings from the sea level up to 700 m, and is widely distributed throughout Japan.

Petasites, [TOURN., ex LINN. Syst. ed. 1 (1735)]

GAERTN., Fruct. II. p. 406, t. 166 (179r ; DC, Prodr. V. p. 206 (1836[^] ; ENDL.

Gen. PI. n. 2286 (183&-40: ; BENTH., in BENTH. et HOOK. f. Gen. PI. II. p. 438
'1873i ; HOFFM., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. v. p. 290 (1892^

Petasites japonicus, MIQ. var. **typicus**, MAK., in Tokyo Bot. Mag. XXIII. p. 17 '1909^;
MASAMUNE, Prel. Rep. Veg. Yak. p. 128 U929)

Syn. *Tusilago petasites*, SIEB., Syn. PI. Oecon. Jap. p. 39 v1830,
Nardosima japonica, SIEB. et ZUCC, Fl. Jap. Fam. Nat. II. p. 181 v1846
Petasites atom, non GAERTN.j A. GRAY, in Narr. Perry Exp. II. p. 314 (1856)
Petasites spurius, non REICHB. f.) MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p.
168 (1866)
Petasites japonicus, MIQ., Prol. Fl. Jap. p. 330 U865-67, ; FR. et SAV., Enum.
PI. Jap. I. p. 220 11875) ; LOESN., PflVwelt. Kiautsch. Geb. p. 194 (1918, ;
MAK. et NEM., Fl. Jap. ed. 2. p. 1254 ^ 19311

Nom. Jap. *Huki*

Leg. Ipse, Kosugidani, Cult.?

Distr. Saghalien, Kuriles, Yezo, Honsyû, Sikoku, Kyûsyû, Korea, China.

Note. The variety has its southern limit in this island.

Gynura, CASS., in Diet. Sc. Nat. XXXIV. p. 391
,1825; ; ENDL., Gen. PI. n. 2792 1836-40 ; DC, Prodr. VI. p. 298 ,1837) ; BENTH.,
in BENTH. et HOOK, f. Gen. PL II. p. 445 :1873 ; HOFFM., in ENGL. u. PRANT.
Nat. Pfl.-fam. IV. v. p. 295 ,1892 ; LEMÉE. Diet. Gen. PI. Phan. III. p. 401 (1931)
Syn. *Crassocephalum*, MOENCH, Meth. p. 516 ;1794^X ; O. KUNTZE, Rev. Gen. PL I. p.
331 '1891)
Crernocephalum, CASS., in Diet. Sc. Nat. XXXIV. p. 390 ;1825;
Cynaëura, HASSK., Cat. PL Hort. Bog. Alt. p. 103 ,1844^N

Gynura bicolor, DC, Prodr. VI. p. 299 1837' ; HOOK, f, FL Brit. Ind. III. p. 335 ;1881) ;
FORB. et HEMSL., Ind. FL Sin. I. p. 447 1888 ; HAY.. Comp. Formos. p. 25
,1904 ; MATSUM., Ind. PL Jap. II. 2. p. 649 1912: ; MERR., Enum. Hainan PL
p. 185 1927, ; MASAMUNE, Prel. Rep. Veg. Yak. p. 128 1929 ; MAK. et NEM.,
FL Jap. ed. 2. p. 1236 :1931

Syn. *Cacalia bicolor*, ROXB., Cat. Calc. n. 61 1813 , et Fl. Ind. III. p. 412 1832' ;
Bot. Reg. II. t. 110 :1826

Gynura angulosa% HANCE, in Journ. Bot. XXI. p. 322 1883;

Nom. Jap. *Suizenzina*

Leg. Ipse, April. 2, 1927.

Distr. Tanegasima, Amami-Osima, Okinawa, Taiwan.

Note. Occurs on several occasions on wet ground at low altitudes.

Cacalia, [BURM., Thes. Zeyl. p. 52, t. 21 1737]
LINN., Sp. PL ed. 1. p. 831 1753 ; ENDL., Gen. PL n. 2806 ,1836-40 ; DC,
Prodr. VI. p. 327 1837 ; O. KUNTZE, in POST et O. KUNTZE Lexic. Gen. Phan.
p. 515 '1903 ; HOFFM., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. v. p. 296 '1892;

Cacalia krameri, MATSUM., Syokubutu-meii n. 586 41895 , et Ind. PL Jap. II. 2. p. 633
'1912^ ; KOIDZ., in Tokyo Bot. Mag. XXXIX. p. 317 1925 ; MAK. et NEM., FL
Jap. ed. 2. p. 1206 1931;

Syn. *Senedo krameri*, FR. et SAV., Enum. PL Jap. I. p. 213 1875 , et II. p. 406
'1876,

Nom. Jap. *Yabure-gasa*

Leg. Y. KUDO! Aug. 1907.

Distr. Honsyū, Kyūsyū.

Note. I have not collected this species in the island, but Dr. KUDO found it there. It has its southern limit in the island. In Formosa, it is reported to be found, but I think the Formosan species is a different one from this.

Cacalia kiusiana, MAK., in Tokyo Bot. Mag. XXIV. p. 228 (1910) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 126 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1206 (1931)

Norn. Jap. Momizi-hōmori

Leg. Ipse, Yaegadake, Sept. 1, 1931.

Distr. Kyūsyū.

Note. Grows in the Pseudosasa Owatarii Association in mountainous region from about 1600 m up to 1900 m above the sea level.

Cacalia yakusimensis, MASAMUNE, Prel. Rep. Veg. Yak. p. 126 (1929), et in Journ. Trop. Agr. II. p. 37 (1930) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1207 (1931)

Norn. Jap. Yakusima-kōmorisō

Leg. Ipse, Tatyūtake, Sept. 5, 1926.

Distr. Endemica.

Note. It is found in the lauri-aciculisilvae, and in the alpine region.

Senecio, [TOURN., ex LINN. Syst. ed. 1 (1735), et

Gen. PL I. p. 251 (1737) et Sp. PL ed. 1. p. 866 (1753) ; ENDL., Gen. PL n. 2811 11836-40 ; DC, Prodr. VI. p. 340 (1837) ; BENTH., in BENTH. et HOOK. f. Gen. PL II. p. 446 (1873) ; HOFFM., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. v. p. 296 (1892):

Syn. *Jacobaea*, ADANS., Fam. II. p. 124 (1763)

Doria, THUNB., NOV. Fam. II. p. 124 (1763)

Senecio, HILL, Hort. Kew. p. 25 (1768)

Emilia, CASS., in Bull. Soc. Philom. p. 68 (1817)

Senecio sonchifolia, MOENCH., Meth. Supp. p. 231 (1802) ; BENTH., Fl. Hongk. p. 189 (1861) ; MATSUM., Ind. PL Jap. II. 2. p. 666 (1912) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 129 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1265 (1931)

Syn. *Cacalia sonchifolia*, LINN., Sp. PL ed. I. p. 835 (1753)

Emilia sonchifolia, DC, Prodr. VI. p. 302 (1837) ; HOOK., Fl. Niger, p. 439 (1849) ; FR. et SAV., Enum. PL Jap. I. p. 245 (1875) ; CLARKE, Comp. Ind. p. 174 (1876) ; OLIVER, Fl. Trop. Afr. III. p. 405 (1877) ; MAXIM., in Engl. Bot. Jahrb. VI. p. 69 (1885) ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 449 (1888) ; DIELS, Fl. Centr. Chin. p. 619 (1901) ; HAY., Comp. Formos. p. 26 (1904) ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 148 (1912) ; RIDLEY, Fl. Malay II. p. 184 (1923) ; GAGNEPAIN, in LECOMTE Fl. Ind. Chin. III. 4. p. 517 (1924) ; MERR., Enum. Hainan PL p. 185 (1927)

Nom. Jap. *Usubeni-nigana*

Leg. A. KIMURA! Aug. 10, 1922.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Okinawa, Taiwan, China.

Note. Occurs by the roadside on the edge of forests and near dwellings.

Ligularia, CASS., in Bull. Soc. Philom. p. 198

1816 ; ENDL., Gen. PL n. 2799 (1836-40) ; DC, Prodr. VI. p. 313 (1837) ; BENTH., in BENTH. et HOOK. f. Gen. PL II. p. 449 (1873) ; HOFFM., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. v. p. 301 (1892);

- Syn.* *Senecillis*, GAERTN., Fruct. II. p. 453, t. 173 (1791)
Erythrochaete, SIEB. et ZUCC, Fl. Jap. Fam. Nat. U. p. 188 (1846)
Farfugium, LINDL., in Gard. Chron. p. 4 (1857)

Ligularia hiberniflora, MAK., in Tokyo Bot. Mag. XXIV. p. 34 (1910'); MATSUM., Ind. PL Jap. II. 2. p. 655 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 128 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1249 (1931)

Norn. Jap. *Kan-tuwabuki*

Leg. Ipse, Kusagawa, Jul. 19, 1928.

Distr. Tanegasima.

Note. The species occurs in wet places and on the edges of forests from the sea level up to about 400 m above, and is restricted to Tanegasima and Yakusima.

Ligularia tussilaginea, MAK., in Tokyo Bot. Mag. XVIII. p. 52 (1904); MATSUM., Ind. PL Jap. II. 2. p. 657 (1912'); MASAMUNE, Prel. Rep. Veg. Yak. p. 128 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1250, 1931 >

Syn. *Tussilago japonica*, LINN., Mant. PL I. p. 113 (1767); HOUTT., Nat. Hist. XXVIII. p. 634 t. 68, t. 2 '1779*'; THUNB., Fl. Jap. p. 313 H784; WILLD., Sp. PL III. p. 1963 '1800'; SIEB., Syn. PL Oecon. Jap. p. 59 '1830)

Arnica tussilaginea, BURM., Fl. Ind. p. 182 '1768¹

Senecio tussilaginea, O. KUNTZE, Rev. Gen. PL I. p. 364 U891

Senecio japonicus. LESS., Syn. Gen. Compos, p. 392 J832)

Senecio Kaempferi, DC, Prodr. VI. p. 363 '1837^'; MAXIM., in Mém. Biolog. VIII. p. 14 '1871'; FR. et SAV., Enum. PL Jap. I. p. 247 '1875); FORB. et HEMSL., Ind. Fl. Sin. I. p. 454 J888'

Ligularia Kaempferi, SIEB. et ZUCC, Fl. Jap. I. p. 77, t. 35 '1838)

Farfugium Kaempferi, BENTH., Fl. Hongk. p. 191 '1861'

Norn. Jap. *Tuwabuki*

Leg. Ipse, Jul. 13, 1928.

Distr. Honsyu, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, China.

Note. Occurs in wet places from the sea level up to about 400 m.

Saussurea, DC, in Ann. Mus. Paris XVI. pp. 156, 196, tt. 10 et 13 (1810, et Prodr. VI. p. 531 (1837); ENDL., Gen. PL n. 2853 '1836-40, p.p.; BENTH., in BENTH. et HOOK. f. Gen. PL II. p. 471 (1873); HOFFM., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. v. p. 320 (1892)
Syn. *Saussuria*, ST.-LAG., in Ann. Soc. Bot. Lyon. VIII. p. 175 (1881)
Jurincea, BAILL., Hist. Pl. VIII. p. 81 (1886)

Saussurea yakusimensis, MASAMUNE, in Journ. Trop. Agr. II. p. 36 (1930)

Abut. Jap. *Yakusimahigotai*

Leg. Ipse, Hitigodake, Aug. 7, 1928.

Distr. Endemica.

Note. I found this new species in the alpine region under huge rocks.

Hemistepta, BUNGE, in Dorpat. Jahrb. Litt. I. p. 221 '1833'

Hemistepta carthamoides, O. KUNTZE, Rev. Gen. PL I. p. 344 '1891); MASAMUNE, Prel. Rep. Veg. Yak. p. 128 U929); MAK. et NEM., Fl. Jap. ed. 2. p. 1239 U931)

Syn. *Serratula carthamoides*, BUCH, ex ROXB. Fl. Ind. III. p. 407 (18321)

Hemistepta lyrata, BUNGE, in Dorpart. Jahrb. Litt. 1. p. 221 11833', et in FISCH. et MEY., Ind. Sem. Hort. Petrop. II. p. 13 (1835); MAXIM., in Mél. Biolog. IX. p. 334 (1874)

Saussurea affinis, SPRENG., in DC. Prodr. VI. p. 540 11837); CLARKE, Comp. Ind. p. 232 11876); HOOK, f, Fl. Brit. Ind. III. p. 373 (1881); FORB. et HEMSL., Ind. Fl. Sin. I. p. 463 (1838); DIELS, Fl. Cent. Chin. p. 624 (1901); HAY., Comp. Formos. p. 35 U904^; KOM., Fl. Mansh. III. p. 717 (1907); NAK., Fl. Kor. II. p. 42 (1911) ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 149 (1912); LOESN., Pfl.-welt. Kiautsch. Geb. p. 195 {1918)

Aplotaxis carthamoides, DC, Prodr. VI. p. 540 (1837)

Aplotaxis multicaulis, DC, Prodr. VI. p. 540 (1837) ; MIQ., in Ann. Mus. Bot Lugd. Bat. II. p. 183 (1866;

Aplotaxis Bungei, DC, Prodr. VI. p. 539 (1837)

Serratula tinctoria, SIEB., ex MIQ. in Ann. Mus. Bot. Lugd. Bat. II. p. 183 U866;

Saussurea Bungei, BENTH. et HOOK. f. Gen. Pl. II. p. 472 '1873 ;; FR. et SAV., Enum. Pl. Jap. I. p. 255 '1875 ;; FR., Pl. David. I. p. 182 (1884)

Worn. Jap. JQtuneazami

Leg. Ipse, Kurio, Mart. 22, 1923.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan. Korea, Manchuria, China.

Note. Occurs in low waste lands.

Cirsium, (TOURN.) ex ADANS., Fam. II. p. 116 (1763 ; DC, in Lam. et DC Fl. Fr. ed. 3. IV. p. 110 (1805), et Prodr. VI. p. 634 (1837.; ENDL., Gen. Pl. n. 2887 1836-40' ; BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 468 '1873 ; HOFFM., in ENGL. U. PRANT. Nat. Pfl.-fam. IV. v. p. 322 (1892^v ; LEMÉE, Diet. Gen. Pl. Phan. II. p. 171 11930'

Syn. *Cnicus*, [LINN., Syst. ed. 1 1735., et Gen. Pl. ed. 1. p. 245 (1737;] et Sp. Pl. ed. 1. p. 826 (1753 p.p.

Cirsium japonicum, DC, Prodr. VI. p. 640 1837 ; MATSUM., Ind. Pl. Jap. II. 2. p. 640 11912'; LOESN., Pfl.-welt. Kiautsch. Geb. p. 196 1918.; KITAMURA, *Cirsium Nov.* p. 10 1931:

Syn. *Carduus eriophorus*, THUNB., Fl. Jap. p. 305 '1784'

var. typicum, NAK., in Tokyo Bot. Mag. XXVI. p. 379 J912.; MAK. et NEM., *Fl Jap.* ed. 2. p. 1219 ;1931)

Syn. *Cnicus japonicus*, a *typicus*, MAXIM., in Mél. Biolog. IX. p. 323 U874); FR. et SAV., Enum. Pl. Jap. II. p. 415 1876 ; GAGNEPAIN, in LECOMTE, *Fl Ind.* Chin. III. 4, p. 496 ,1921

Cirsium japonicum, subsp. *gcmûmim*, a *typicum*, NAK., in Tokyo Bot. Mag. XXV. p. 59 (1911; p.p.

Nom. Jap. *No-azami*

Leg. Ipse, Jul. 13, 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, China?

Note. Occurs as a member of the secondary vegetation in the land which lies waste after clearing or burning and is not yet reported in the lands further **south than** this island.

Cirsium brevicaule, A. GRAY, Bot. Jap. p. 396 (1858 ; HAY., Comp. Formos. p. 34

(1904) p.p.; MATSUM., Ind. Pl. Jap. II. 2. p. 639 (1912); MAK. et NEM., Fl. Jap. ed. 2. p. 1217 (1931) p.p.

Sun. *Cirsium ntaritimum*, (non MAK.) MASAMUNE, Prel. Rep. Veg. Yak. p. 126 (1929)

Nom. Jap. *Hamaazami*

Leg. Ipse, Mart. 15, 1930.

Distr. Kyûsyû, Tanegasima.

Note. The species is restricted to this island and the southern part of Kyûsyû.

Cirsium yakusimense, MASAMUNE, Prel. Rep. Veg. Yak. p. 126 (1929) et in Tokyo.

Bot. Mag. XLIV. p. 219 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 1224 (1931)

Abut. Jap. *Yakusima-azami*

Leg. Ipse, ca. Hananoegô, Jul. 31, 1927.

Distr. Endemica.

Note. Occurs in open lands from 700 m up to 1900 m above the sea level.

Ainsliaea, DC, Prodr. VII. p. 13 (1838); ENDL., Gen. Pl. n. 2928 (1836-40); BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 493- (1873); HOFFM., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. v. p. 342 (1889); LEMSE, Diet. Gen. Pl. Phan. I. p. 129 (1929)

Sun. *Diaspanthus*, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 186 (1865)

Ainsliea, POST et O. KUNTZE, Lex. Gen. Phaner. p. 15 (1903)

Ainsliaea acerifolia, SCH. BIP., in Pollichia XVIII. p. 188 (1866); MIQ., in Ann. Mus.

Bot. Lugd. Bat. II. p. 187 (1866); FR. et SAV., Enum. Pl. Jap. I. p. 264 (1876);

FORB. et HEMSL., Ind. Fl. Sin. I. p. 470 (1888); MATSUM., Ind. Pl. Jap. II. 2. p.

620 (1912); MAK. et NEM., Fl. Jap. ed. 2. p. 1184 (1931)

Nom. Jap. *Momizi-haguma*

Leg. Ipse, Jul. 29, 1927.

Distr. Honsyû, Sikoku, Kyûsyû, China.

Note. It grows in the crevices of granite rocks in the Pseudosasa Owatarii Association. It has its southern limit in this island.

Ainsliaea apiculata, SCHULTZ-BIP., in Pollichia XVIII. p. 188 (1866); MIQ., in Ann.

Mus. Bot. Lugd. Bat. II. p. 187 (1866); FR. et SAV., Enum. Pl. Jap. I. p. 264

(1875); NAK., Fl. Kor. II. p. 50 (1911); MATSUM., Ind. Pl. Jap. II. 2. p. 620 (1912);

MASAMUNE, Prel. Rep. Veg. Yak. p. 125 (1929); MAK. et NEM., Fl. Jap. ed. 2. p.

1184 (1931)

Sun. *Ainsliaea offinis*, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 187 (1866); FR. et SAV., Enum. Pl. Jap. II. p. 264 (1876)

1. scapifolia, MASAMUNE, nov.

Scapus per totam longitudinem foliatus, foliis obovato-lanceolatis apice acutis apiculatis.

Nom. Jap. *Tôzaki-kikkô-haguma*

Leg. Ipse, Jun. 7, 1928.

Note. This endemic plant has leaves in its scape, and is found in the lauriculisilvae at about 700 m above the sea level.

var. multiscapa, MASAMUNE, var. nov.

Folia cum petiolo lanuginosa, 3 vel 5, palmato-dentata. Scapi 2-3, saepe ramosissimi.

Nom. Jap. *Tagyd-kikkô-haguma*

Leg. Ipse, Kosugidani, ca. 600 m. Aug. 1928.

Distr. Endemica.

Note. The plant is more or less covered by woolly hairs. And the variety is restricted to this island.

var. *acerifolia*, MASAMUNE, var. nov.

Folia longe petiolata, petiolis ca. 3 cm longis lanuginosis, laminis 3- vel. 5- palmato-dentatis, supra saepe glabris, subtus vix lanuginosis.

Nom. Jap. Momiziba-kikko-haguma

Leg. Ipse, Jul. 29, 1924.

Distr. Endemica.

Note. The variety is found in the lauiisilvae, and is restricted to this island..

var. *typica*, MASAMUNE, var. nov.

Folia vix 3-5 undulato-dentata, saepe glabriuscula.

Nom. Jap. Kikko-haguma

Leg. Ipse, Jul. 27, 1924.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Korea.

Note. Grows as undergrowth in the lauri-aciculisilvae.

var. *ovatifolia*, MASAMUNE, var. nov.

Folia ovata, basi cuneata vel rotundato-cuneata apice acuta apiculata supra glabriuscula, subtus lanuginoso-hirsuta, petiolis ca. 3-5 cm longis lanuginoso-hirsutis.

Nom. Jap. Tamagoba-kikko-haguma

Leg. Ipse, Kosugidani, 1928.

Note. The endemic variety is also found in the lauri-aciculisilvae as undergrowth.

var. *rotundifolia*, MASAMUNE, var. nov.

Folia rotundata, hirsuta, apiculata basi cordata.

Nom. Jap. Maruba-kikko-haguma

Leg. Ipse, Jul. 25, 1924.

Note. The endemic variety is also found in the lauri-aciculisilvae as undergrowth.

Ainsliaea Faurieana, BEAUVERD, in Bull. Soc. Bot. Genève Sér. II. 1. p. 381 (1909); MASAMUNE. Prel. Rep. Veg. Yak. p. 125 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1184 (1931)

Syn. *Ainsliaea linearis*, MAK., in Tokyo Bot. Mag. XXIII. p. 250 (1909)

Nom. Jap. Hosoba-haguma

Leg. Ipse, Kosugidani, Sept. 3, 1926.

Distr. Endemica.

Note. The species is found on granite rocks scattered in river beds from the sea level up to about 900 m. It is restricted to this island.

Lampsana, '*Lapsana*' [LINN., Meth. Sex. (1737), Syst. ed. 2. p. 23 (1740) p.p.] et Sp. PL. ed. 1. p. 811 (1753); ENDL., Gen. PL. n. 2967 (1836-40); BENTH., in BENTH. et HOOK. f. Gen. PL. II. p. 509 (1873); HOFFM. in ENGL. u. PRANT. Nat. Pfl.-fam. IV. v. p. 357 (1893); LEMRE, Diet. Gen. PL. Phan. III. p. 949 (1931)

Lampsana apogonoides, MAXIM., in Mém. Biolog. IX. p. 20 (1873); FR. et SAV., Enum. PL. Jap. I. p. 266 (1875); FR., Pl. David. I. p. 185 (1884); FORB. et HEMSL., Indl

Fl. Sin. I. p. 474 1888 ; MATSUM., Ind. Pl. Jap. II. 2. p. 655 1912¹ ; MORI, Enum. Pl. Cor. p. 361 '1922' ; MAK. et NEM., Fl. Jap. ed. 2. p. 1247 1931)

Atom. Jap. *Ko-onitabirako*

Leg. Ipse, Onoaida.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Korea, China.

Note. Occurs in waste land at low altitudes, and is commonly distributed throughout Japan.

Picris, [LINN., Syst. ed. 1 • 1735 , et Gen. Pl. ed.

1. p. 237 '1737] et Sp. Pl. ed. 1. p. 792 '1753'; ENDL., Gen. Pl. n. 2999 11836-40; DC, Prodr. VII. p. 128 '1833 ; BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 511 (1873 ; HOFFM., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. v. p. 364 '1893)

Syn. *Closiospermum*, NECK., Elem. I. p. 54 1790'

Choeroseris, LINK, Handb. I. p. 798 '1829

Picris hieracioides, LINN. var. *japonica*, REGEL., Pl. Radd. Monp. III. iv. p. 25 (1861 ; DIELS, Fl. Centr. Chin. p. 630 1901 ; YABE, in Tokyo Bot. Mag. XVIII. p. 104 (1904; ; MASAMUNE, Prel. Rep. Veg. Yak. p. 129 '1929 ; MAK. et NEM, Fl. Jap. ed. 2. p. 1255 '1931

Syn. *Picris japonica*, THUNB., Fl. Jap. p. 299 '1784 ; FR. et SAV., Enum. Pl. Jap. I. p. 268 1875 ; MIY., Fl. Kuril, p. 245 '1890 ; KOM., Fl. Mansh. III. p. 766 1907 ; NAK., Fl. Kor. II. p. 58 '1911¹

Picris hieracioides, MATSUM., Ind. Pl. Jap. II. 2. p. 660 1912

Nom. Jap. *Kdzōrina*

Leg. Ipse, Ambō.

Distr. Saghalien, Kuriles, Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Osima, Okinawa, Korea, Manchuria, China.

Note Occurs in open lowlands, in waste or cultivated lands.

Taraxacum, [LINN., Syst. ed. 1 1735 ; HALL.,

Enum. Stirp. Helvet. II. p. 739 '1742] WIGGERS, Prim. Fl. Holast. p. 56 (1780 ; JUSS., Gen. Pl. p. 169 '1789 ; DC, in Lam. et DC. Fl. Fr. ed. 3. IV. p. 44, V. p. 450 11815 , et Prodr. VII. p. 145 ;1833 ; ENDL., Gen. Pl. n. 3010 ,1836-40); BENTH., in BENTH. et HOOK, f. Gen. Pl. II. p. 522 11873 ; HOFFM., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. v. p. 370 1893

Syn. *Dens Leonis*, [TOURN., ex RUPP. Fl. Jen. ed. 3. p. 197 1745]

Leontodon, ADANS., Fam. II. p. 112 '17631

Taraxacum albidum, DAHL., in Act. Hort. Berg. IV. p. 11. t. 2, ff. 9-15 1907 , et in Fedd. Rep. Nov. VII. p. 135 '1909' ; MASAMUNE, Prel. Rep. Veg. Yak. p. 129 (1929; ; MAK. et NEM., Fl. Jap. ed. 2. p. 1272 '1931'

Syn. *Taraxacum officinale*, var. *albiflorum*, MAK., in List Seeds Bot. Gard. Imp. Univ. Tokyo p. 20 '1895 , et in Tokyo Bot. Mag. VII. p. 101 1893/; NAK., Fl. Kor. II. p. 52 1911

Taraxacum mongolicum, HANDEL-MAZ., Monogr. Tarax. p. 67 ,1907/, et in Ostr. Bot. Zeit. LXX. p. 264 '1929-

Taraxacum albiflorum, KOIDZ., in Tokyo Bot. Mag. XXXVII. p. 91 ,1923

Nom. Jap. *Sirobanatanpopo*

Leg. Ipse, Issō.

Distr. Honsyū, Sikoku, Kyūsyū, Amimi-dsima, Okinawa, Korea, China.

Note. Occurs in cultivated lands.

Sonchus, [TOURN., ex LINN. Syst. ed. 1 (1735); et Gen. Pl. ed. 1. p. 233 (1737) et Sp. Pl. ed. 1. p. 793 (1753); ENDL., Gen. Pl. n. 3003 11836-40^ ; BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 528 (1873); HOFFM., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. v. p. 371 1893`

Sonchus oleraceus, LINN., Sp. Pl. ed. 1. p. 791 1753 ; THUNB., Fl. Jap. p. 299 (1784); BENTH., Fl. Hongk. p. 194 (1861) ; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 191 U866); FR. et SAV., Enum. Pl. Jap. I. p. 272 1875 ; HOOK. f., Fl. Brit. Ind. III, p. 414 118811; FORB. et HEMSL., Ind. Fl. Sin. I. p. 487 1888 ; HAY., Comp. Formos. p. 41 1904 ; MATSUM., Ind. Pl. Jap. II. 2. p. 667 1912` ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 151 (1912); LOESN., Pfl.-welt. Kiautsch. Geb. p. 197 (1918); MERR., Enum. Philipp. Pl. III. p. 621 1923 ; NAK., Fl. Sylv. Kor. XIV. p. 125 1923) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1270 (1931)

Norn. Jap. Nogesi

Leg. Ipse, Jun. 24, 1928.

Distr. Honsyu, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China, Philippines.

Mote. Occurs by the roadside in cultivated or waste lands.

Mycelis, CASS., in Diet. Sc. Nat. XXXIII. p. 483

(1824)

Syn. Lactuca, Sect. *Mycelis*, DC, Prodr. VII. p. 139 (1838)

Mycelis sororia, NAK., in Tokyo Bot. Mag. XXXVI. p. 24 1922 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 128 1929`

Syn. Lactuca sororia, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 189 (1866) ; MAXIM., in Mél. Biolog. IX. p. 358 1874 ; FR. et SAV., Enum. Pl. Jap. I. p. 268 (1875) ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 484 1888 > ; MATSUM., Ind. Pl. Jap. II. 2. p. 655 1912 ; YAMAZUTA, List Manch. Pl. p. 279 (1930) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1246 (1931 -

Abm. Jap. Murasakinigana

Leg. Ipse, Jul. 21, 1927.

Distr. Honsyu, Sikoku, Kyûsyû, Manchuria.

Note. Grows in the laurisilvae and especially on the edges of forests.

Ixeris, CASS., in Diet. Sc. Nat. XXIV. p. 49 U822);

DC, Prodr. VII. p. 151 1833 ; LEMKE, Diet. Gen. Pl. Phan. III. p. 792 U931)

Ixeris chinensis, THUNB. NAK., in Tokyo Bot. Mag. XXXIV. p. 152 1920^, et Fl. Sylv. Kor. XIV. p. 113 1923

Syn. Prenanthes chinensis, THUNB., Fl. Jap. p. 301 1784 ; WILLD., Sp. Pl. III. p. 1533 ;1800 ; SPRENG., Syst. Veg. III. p. 654 1826

Chondrilla chifimicis, POIR., Encycl. Supp. II. p. 331 ;1823>

Youngia chinensis, DC, Prodr. VII. p. 191 (1833`

Prenanthes versicolor, TURCZ., ex DC Prodr. VII. p. 151 1833 ; FISCH., in Bung. Enum. Pl. Chin. Bor. p. 40 1831

Crepis versicolor, FISCH., ex DC Prodr. VII. p. 151 ;1833`

Ixeris versicolor, DC, Prodr. VII. p. 151 1833` p.p.; MAXIM., Prim. Fl. Amur. pp. 180, 473 1859` ; FR. et SAV., Enum. Pl. Jap. I. p. 269 1875.

Lactuca versicolor, SCHULTZ-BIP., Herb. Pl. Radd. III. 4. p. 39 1862 ; MAXIM., in Mél. Biolog. IX. p. 362 1874 ; FR., Pl. David. I. p. 188 (1884); FORB. et HEMSL., Ind. Fl. Sin. I. p. 485 1888

Lactuca chinensis, MAK., in Tokyo Bot. Mag. XVII. p. 89 (1903^N; MAK. et NEM., Fl. Jap. ed. 2. p. 1241 (1931)

Norn. Jap. Takasagosō

Leg. Ipse, Jul. 21, 1927.

Distr. Honsyū, Sikoku, Kyūsyū, Korea.

Note. Occurs in open grassland.

Ixeris dentata, (THUNB.) NAK., Fl. Sylv. Kor. XIV. p. 114 (1923);

Syn. *Prenanthes dentata*, THUNB., Fl. Jap. p. 301 (1784)

Ixeris Thunbergii, A. GRAY, PL Jap. p. 397 (1856); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 191 (1866); FR. et SAV., Enum. Pl. Jap. I. p. 270 (1875)

Lactuca Thunbergii, MAXIM., in Mém. Biolog. IX. p. 361 (1874); FORB. et HEMSL., Ind. Fl. Sin. I. p. 484 (1888[^]); MIY., Fl. Kuril, p. 245 (1890)

***Lactuca dentata*, var. *flaviflora*, subv. *Thunbergii*, MAK., in Tokyo Bot. Mag. XXIV. p. 75 (1910)**

Lactuca dentata, MAK. var. *Thunbergii*, MAK., in Tokyo Bot. Mag. XXVII. p. 29 (1913); MATSUM., Ind. Pl. Jap. II. 2. p. 653 (1912); MAK. et NEM., Fl. Jap. ed. 2. p. 1242 (1931)

Nom. Jap. Nigana

Leg. Ipse, Mart. 16, 1930.

Diatr. Kuriles, Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Korea.

Note. Grows in cultivated lands or in waste places.

Ixeris repens, A. GRAY, PL Jap. p. 397 (1856); FR. et SAV., Enum. PL I. p. 271 (1875); NAK., Fl. Sylv. Kor. XIV. p. 114 (1923)

Syn. *Lactuca repens*, BENTH., in BENTH. et HOOK. f. Gen. PL II. p. 526 (1873); MAXIM., in Mém. Biolog. IX. p. 364 (1874); MIY., Fl. Kuril, p. 245 (1890); HAY., Comp. Formos. p. 40 (1904); KOM., Fl. Mansh. III. p. 785 (1907); NAK., Fl. Kor. II. p. 54 (1911); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 150 (1912); LOESN., Pfl.-welf. Kiautsch. Geb. p. 198 (1918); MERR., Enum. Hainan PL p. 186 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 128 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1245 (1931)

Lactuca brachyrhyncha, HAY., Ic. PL Formos. VIII. p. 74 (1919)

Norn. Jap. Hama-nigana

Leg. Ipse, Aug. 12, 1928.

Distr. Kamtchatka, Saghalien, Kuriles, Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Osima, Okinawa, Taiwan, Korea, Manchuria, China.

Note. The psammophyte grows on sandy beaches.

Ixeris stenophylla, (MAK.) MASAMUNE, Prel. Rep. Veg. Yak. p. 28 (1929)

Syn. *Lactuca stenophylla*, MAK., in Journ. Jap. Bot. IV. p. 10 (1927); MAK. et NEM., Fl. Jap. ed. 2. p. 1246 (1931)

Lactuca dentata, var. *lanceolata*, MAK., in Tokyo Bot. Mag. XXVII. p. 30 (1913)

Norn. Jap. Yanagi-nigana

Leg. Ipse, Jul. 23, 1927.

Distr. Endemica.

Note. Occurs in the high lands of the Pseudosasa Owatarii Association.

Ixeris stolonifera, A. GRAY, PL Jap. p. 395 (1856); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 191 (1866); FR. et SAV., Enum. PL Jap. I. p. 271 (1875); NAK., FL

Sylv. Kor. XIV. p. 114 (1923), et in Bull. Biogeogr. Soc. Jap. I. p. 264 (1930)

:Syn. *Lactuca stolonifera*, BENTH., in BENTH. et HOOK. f. Gen. Pl. II. p. 526 (1873);
MAXIM., in Mél. Biolog. IX. p. 364 (1874); NAK., Fl. Kor. II. p. 54 (1911);
MATSUM., Ind. Pl. Jap. II. 2. p. 655 (1912); DUNN et TUTCH., Fl. Kwang.
& Hongk. p. 150 (1912); MIURA, List Pl. Manch. & Mong. p. 357 (1925);
MASAMUNE, Prel. Rep. Veg. Yak. p. 128 (1929); MAK. et NEM., Fl. Jap.
ed. 2. p. 1246 (1931)

Nom. Jap. *Iwa-nigana*

Leg. Ipse, Hirauti, April. 2, 1927.

Distr. Yezo, Honsyu, Sikoku, Kyūsyū, Bonins, Korea, Manchuria, China.

Note. Grows in open and dry lands, or in waste lands.

Paraixeris, NAK., in Tokyo Bot. Mag. XXXIV. p.

155 (1920)

Paraixeris denticulata, NAK., in Tokyo Bot. Mag. XXXIV. p. 156 (1920); MASAMUNE,
Prel. Rep. Veg. Yak. p. 128 (1929)

Syn. *Prenanthes denticulata*, HOUTTUYN., Nat. Hist. XXVIII. p. 335, t. 66, f. 4 (1779),
et Syst. IV. p. 50, t. 66, f. 4 (1783)

Prenanthes hastata, THUNB., Fl. Jap. p. 301 (1784)

Ixeris rarnosissima, GRAY, in Memoir. Am. Acad. VI. p. 397 (1859); BENEH.,
Fl. Hongk. p. 193 (1861); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 190
(1866)

Youngia chrysantha, MAXIM., Prim. Fl. Amur. p. 181 (1859)

Lactuca denticulata, MAXIM., in Mél. Biolog. IX. p. 359 (1874); MATSUM., Ind.
Pl. Jap. II. 2. p. 653 (1912); FORB. et HEMSL., Ind. Fl. Sin. I. p. 480 (1888);
KOM., Fl. Mansh. III. p. 780 (1937*); NAK., Fl. Kor. II. p. 55 (1911); MATSUM.,
Ind. Pl. Jap. II. 2. p. 653 (1912)

Lactuca denticulata, a *typica*, MAXIM., in Mél. Biolog. IX. p. 359 (1874); PALIB.,
Consp. Fl. Kor. I. p. 123 (1893); MAK. et NEM., Fl. Jap. ed. 2. p. 1242
(1931)

Paraixeris denticulata, f. *typica*, NAK., in Tokyo Bot. Mag. XXXIV. p. 157 (1920)

Nom. Jap. *Yakusisō*

Leg. Ipse, Jun. 6, 1928.

Distr. Yezo, Honsyu, Sikoku, Kyūsyū, Tanegasima, Korea, Manchuria, China.

Note. Grows by the roadside or in waste lands.

Lactuca, [TOURN., ex LINN. ed. 1 (1735) et Gen.

Pl. ed. 1. p. 240 (1737) et Sp. Pl. ed. 1. p. 795 (1753); ENDL., Gen. Pl. n.
3008 (1836-40) p.p.; DC, Prodr. VII. p. 133 (1833); BENTH., in BENTH. et HOOK,
f. Gen. Pl. II. p. 524 (1873) p.p.; HOFFM., in ENGL. u. PRANT. Nat. Pfl.-fam.
IV. v. p. 371 (1893) p.p.; LEMÉE, Diet. Gen. Pl. Phan. III. p. 914 (1931)

Syn. *Micranchenia*, FROELICH, in DC. Prodr. VII. p. 239 (1833)

Lactuca laciniata, MAK., in Tokyo Bot. Mag. XVII. p. 83 (1903); MATSUM., Ind. Pl.
Jap. II. 2. p. 654 (1912); NAK., Fl. Sylv. Kor. XIV. p. 114 (1923); MAK. et NEM.,
Fl. Jap. ed. 2. p. 1243 (1931)

Syn. *Prenanthes laciniata*, HOUTT., Handb. X. p. 331, t. 66, f. 1 (1779)

Prenanthes squarrosa, THUNB., Fl. Jap. p. 303 (1784)

Lactuca brevirostris, CHAMP., in Hook. Journ. Bot. Kew Miscel. IV. p. 237
(1852); BENTH., Fl. Hongk. p. 192 (1861); HOOK, f, Fl. Brit. Ind. III. p.

405 1881 ; FORB. et HEMSL., Ind. Fl. Sin. I. p. 479 11888) ; HAY., Com p. Formos. p. 33 11904i ; DUNN et TUTCH., Fl. Kwang. & Hongk. p 150 (1912^ ; LOESN., Pfl.-welt. Kiautsch. Geb. p. 197 11918»

Lactuca arnurensis, REGEL, Ind. Sem. Hort. Peterop. p. 42 (1857; ; MAXIM., Prim. Amur. pp. 178, et 473 ;1895<

Lactuca squarrosa, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 189 (1866); MAXIM., in Mél. Biolog. IX. p. 353 1874'; FR., Pl. David. I. p. 187 (1884); KOM., Fl. Mansh. III. p. 778 '1907^; NAK., Fl. Kor. II. p. 54 (1911)

Lactuca indica, ;non LINN. ' MERR., Enum. Philipp. Pl. III. p. 621 (1923\ et Enum. Hainan Pl p. 186 1927- ; GAGNEPAIN, in LECOMTE, Fl. Ind. Chin. III. 5. p. 654 (1924) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 128 (1929)

Nom. Jap. Akino-nogesi

Leg. Ipse, Hunayuki, Jul. 24, 1924.

Distr. Yezo, Honsyu, Sikoku, Kyûsyû, Tanegasima, Amami-dsima, Okinawa, Taiwan, Korea, Manchuria, China, Philippines.

Note. Grows by the roadside or in cultivated lands.

Crepis, [VAILL, ex LINN. Gfen. Pl. ed. 1. a 240 (1737] et Sp. Pl. ed. 1. p. 805 '1753 ; ENDL., Gen. Pl. n. 3022 (1836-40); DC, Prodr. VII. p. 160 '1838 ; BENTH., in BENTH. et HOOK. f. Gen. Pl. II. pp. 513 et 515 J873 ; HOFFM., in ENGL. u. PRANT. Nat. Pfl.-fam. IV. v. p. 373 (1893) p-p ; LEMÉE, Diet. Gen. Pl. Phan. II. p. 369 1930

Syn. Hieracioides, [MOEHR., Hort. Priv. p. 48 1736] ; RUPR., Fl. Ingr. p. 624 (1860) *Crenamum*, ADANS., Fam. II. p. 112 1763 *Hieracioides*, O. KUNTZE, Rev. Gen. Pl. I. p. 34-1 ;1891)

Crepis japonica, BENTH., Fl. Hongk. p. 194 1861 , et Fl. Austral. HI. p. 679 (1866); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 190 1866 ; MAXIM., in Mél. Biolog. IX. p. 346 '1874' ; FR. et SAV., Enum. Pl. Jap. I. p. 271 (1875^; HOOK, f, Fl. Brit. Ind. III. p. 395 '1881. ; HEMSL., in Voy. Chall. I..1. p. 46 (18811; FR., Pl David. I. p. 185 U884'; HILLEBRAND, Fl. Hawai. Isl. p. 233 (1888; ; FORB. et HEMSL., Ind. Fl. Sirf. I. p. 475 ;1888 ; DIELS, Fl. Cent. Chin. p. 632 (1901); NAK., Fl. Kor. II. p. 57 11911', et in Biogeogr. Soc. Jap. I. p. 264 ',1930; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 150 ^1912 ; LOESN., Pfl.-welt. Kiautsch. Geb. p. 198 (1918); GAGNEPAIN, in LECOMTE Fl. Ind. Chin. III. 5. p. 642 '1924); MERR., Enum. Hainan Pl. p. 186 '1927^; RIDLEY, Fl. Malay II. p. 197 (1929); MASAMUNE, Prel. Rep. Veg. Yak. p. 127 (1929; ; MAK. et NEM., Fl. Jap. ed. 2. p. 1227 (1931)

Syn. Prenanthes japonica, LINN., Mant. I. p. 107 1767 ; THUNB., Fl. Jap. p. 302 (1784 ; HOOK, et ARNOT., Bot. Capt. Beech. Voy. p. 266 (1836-40^

Youngia japonica, DC, Prodr. VII. p. 194 1839^

Youngia Thunbergiana, DC, Prodr. VII. p. 192 1839)

Crepis lyrata, BENTH., ex MAXIM, in Mél. Biolog. IX. p. 346 (1874)

Nom. Jap. Oni-tabirako

Leg. Ipse, Aug. 29, 1926.

Dirtr. Yezo, Honsyu, Sikoku, Kyûsyû, Tanegasima, Amami-6sima. Okinawa, Taiwan, Bonins, Korea, China, Indo-China, Malay, India, Australia.

Note. It is a widely distributed species, and in this island it is often found in the low lands.

Crepidiastrum, NAK., in Tokyo Bot. Mag. XXXIV. p. 147 (1920); LEM&E, Diet. Gen. Pl. Phan. II. p. 368 (1930)

Names of Plants	Regions																
	Philippines	Bonins	Taiwan	Okinawa	Amami-Osima	Ryûkyû	Tanegasima	Kyûsyû Prop.	Kyûsyû	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchû Gû, Amur & Usuri	China
<i>Eupatorium variabile</i> , MAK.						+	+	+									
<i>Solidago Virgaurea</i> , LINN.			+	+	+	+	+	+	+	+	+	+	+	+			+
<i>Solidago yakusimensis</i> , MASAMUNE																	
<i>Dichrocephala latifolia</i> , DC.	+		+	+	+	+	+	+	+	+	+						+
<i>Lagenophora Billardieri</i> , CASS.	+		+	+	+	+	+	+	+	+	+						+
<i>Rhynchosporium verticillatum</i> , REINW.	+		+		+	+	+	+	+	+	+						+
<i>Myriactis japonensis</i> , KOIDZ.																	
<i>Aster indicus</i> , LINN.		+	+	+	+	+	+	+	+	+	+	+					+
<i>Aster Maackii</i> , REGEL.									+								
<i>Conyza japonica</i> , LESS.	+		+	+	+	+	+	+	+	+	+						+
<i>Blumea fruticosa</i> , KOIDZ.				+	+												
<i>Anaphalis yakusimensis</i> , MASAMUNE																	
<i>Gnaphalium japonicum</i> , THUNB.	+		+	+	+			+	+	+	+	+					+
<i>Gnaphalium luteo-album</i> , LINN. var. <i>multiceps</i> , HOOK. f.			+	+	+	+	+	+	+	+	+	+	+				+
<i>Carpesium abrotanoides</i> , LINN. var. <i>Thunbergianum</i> , MAK.			+										+				
<i>Carpesium cernuum</i> , LINN.	+				+				+	+	+	+	+			+	+
<i>Carpesium rosulatum</i> , MIQ.									+	+	+	+	+				
<i>Siegesbeckia orientalis</i> , LINN.	+		+	+	+	+	+	+	+	+	+	+	+				+
<i>Siegesbeckia pubescens</i> , MAK.				+					+	+	+	+					
<i>Eclipta alba</i> , HASSK.	+	+	+	+	+	+	+	+	+	+	+	+				+	+
<i>Wedelia biflora</i> , DC.	+		+	+	+	+	+	+	+	+	+	+					+
<i>Wedelia calendulacea</i> , LESS.			+	+	+	+	+	+	+	+	+	+					+
<i>Wedelia chinensis</i> , MERR.	+	+	+	+	+	+	+	+	+	+	+	+				4	+
<i>W. c. var. robusta</i> , MASAMUNE									+	+	+	+					

Names of Plants	Regions														
	China	Himalayas	Japan	Okinawa	Ryûkyûs	Tanegasima	Kyûsû Prop.	Kyûsû	Hokkaido	Honshû	Korea	Yezo & Southern Kuriles	Saghalien	Northern	Other
<i>Ixeris chinensis</i> , NAK.							+	+	+	+					
<i>Ixeris dentata</i> , NAK.				+	+	+	+	+	+	+	+				
<i>Ixeris repans</i> , A. GRAY.				+	+	+	+	+	+	+	+	+		+	+
<i>Ixeris stenophylla</i> , MASAMUNE															
<i>Ixeris stolonifera</i> , A. GRAY.			+				+								+
<i>Paraixeris denticulata</i> , NAK.							+	+	+	+					+
<i>Lactuca laciniata</i> , MAK.	+	+	+	+	+	+	+	+	+	+	+	+		+	+
<i>Crepis japonica</i> , BENTH.			+	+	+	+	+	+	+	+	+				+
<i>Crepidiastrum lanceolatum</i> , NAK. var. <i>typicum</i> , NAK.			+	+	+	+	+	+	+	+	+				+
Total	70	16	8	32	31	35	52	46	48	33	15	4	1	16	37
Percentage	23	12	4	49	51	50	54	66	69	47	21	6	1	12	35
				i	i	i	i	i	i	i	i	i	i	i	i
	Southern elements 41						Northern elements 55								

Many botanists, systematists or synanthologists have studied this large interesting family taxonomically, systematically, and phytogeographically, amongst whom James SMALL has published an elaborate work on this family entitled "The Origin and Development of the Compositae" which covers the whole field of the two branches of plant science, i. e. systematics and phytogeography of this family.

In dealing with the synanthaeogeography he divided the world into the following 12 regions.

" America is divided thus:

U. S. A. Region: Including Canada and Alaska.

Mexican region: Including Central America and California.

West Indian region: Including all the West Indian Islands in the widest sense.

Andine region: Including West tropical South America.

Brazilian region: Including East tropical South America.

Chilian region: Including extra tropical South America.

The rest of the world is divided thus :

Eur-Asiatic region: Including Northern and Central Europe, Siberia and the eastern parts of subtropical Asia.

Mediterranean region: Including South Europe, North Africa and western parts of subtropical Asia.

Tropical Asiatic region: Including India south of the Himalayas, the East Indies and the Malay Archipelago.

Tropical African region.

South African region: Including extra-tropical South Africa.

Australian region: Including the Australian islands "

Japan is situated in SMALL'S Eurasiatic region and at the same time it has some feature of his Tropical Asiatic region. In this respect I think the Japanese territory should be divided into two sub-regions, the northern sub-region which extends from Yakusima northward to Yezo, the southern Kuriles and Saghalien, and the southern sub-region extending from Amami-Ôsima southward to Formosa. And though the fact that the island of Yakusima belongs to the northern sub-region in respect of the distribution of the plants of the *Compositae* is clearly shown by the above table, there are in it a few elements of the southern sub-region like *Myriactis* and *Blumea*. Therefore it may be allowed to apply WATASE'S Line in zoogeography also to synanthaeogeography.

MONOCOTYLEDONES

Alismaceae

Alismaceae, DC, in LAM. et DC. Fl. Fr. ed. 3. III. p. 181 1805

Sagittaria, [RUP], ex LINN. Syst. ed. 1 1735 J
et Sp. Pl. ed. 1. p. 993 1753 ; ENDL., Gen. Pl. n. 1042 18156-40 ; BENTH. et

HOOK., Gen. Pi. III. p. 1006 :1883 ; BUCHENAU, in ENGL. U. PRANT. Nat. PL Fam. II. i. p. 231 (1889 , et in ENGL. Pfl.-reich. IV. 15 ,Heft 16 p. 35 (1903)

Syn. *Sagitta*, ADAN., Fam. II. p. 459 1763'

Sagittaria trifolia, LINN. var. *typica*, MAK., in Journ. Jap. Bot. I. p. 35 ;1918) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1290 :1931,

Syn. *Sagittaria trifolia*, LINN., Sp. PI. ed. 1. p. 993 ,1753 ; HOUTT., Pfl.-Syst. X. p. 213 ;1783 ; LAM., Encycl. Bot. II. p. 504 1790 ; WILLD., Sp. PI. IV. p. 411 ;1805

Sagittaria sagittata, THUNB., Fl. Jap. p. 242 1784

Sagittaria sagittifolia, LOUR., Fl. Cochinch. p. 570 ,1790 , et ed. WILLD. p. 698 '1793¹ ; ROXB., Fl. Ind. III. p. 645 :1832; ; FR. et SAV., Enum. PL Jap. II. p. 16 :1879 ; FR., PI- David. I. p. 314 ,1884¹ ; MATSUM., Ind. PL Jap. II. 1. p. 31 '1905 ; MAK., in INUNA Somoku-Dzusetu ed. MAK. IV. pp. [1296\ et 30, t. 28 ,1912

Sagittaria hastata, DON, Prodr. FL Nep. p. 22 • 1825

Sagittaria sagittifolia, var. *an gustifolia*, SIEB., Syn. PL Oec. Jap. p. 17 (1827!

Sagittaria hirundinacea, BL., Enum. PL Jav. I. p. 34 .1830^v ; KUNTH, Enum. PL HI. p. 153 .1841 ; MIQ., FL Ind. Bat. III. 1. p. 243 ,1855;

Sagittaria sagittifolia, [J *subaequiloba*, REGEL, Tent. FL Ussur. p. 140 (1861); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 138 ,1865

Sagittaria sagittifolia, var. *leucopetala*, MIQ., 111. Orch. Ind. FL p. 49 (1870); BUCH, Alism. in Engl. Pfl.-reich. IV. 15. .Heft 16 p. 43 ,1903) ; MATSUM., Ind. PL Jap. II. 1. p. 31 ,1905

Sagittaria sagittifolia, a *diversifolia*, MICH., Alism. in DC. Monogr. Phan. III. p. 67 ,1881' p.p.

Sagittaria sagittifolia, HOOK, f., FL Brit. Ind. VI. p. 561^1893^ ; WRIGHT, in Joum. Linn. Soc. Lond. Bot. XXXVI. p. 190 1903 p.p.

Nom. Jap. *Omodaka*

Leg. Ipse, Nagata, Aug. 21, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Amami-ōsima, Taiwan, China.

Note. In rice fields the plant is often found, and is common in eastern Asia.

Regions	China	Manchuria	Northern Kuriles & Kamtchatka	Saghalien	Yezo	Korea	Honsyū	Sikoku	Kyūsyū	Taneg.	Mi-ōsima	Ryūkyūs
Name of Plant												
<i>Sagittaria trifolia</i> , LINN. var. <i>typica</i> , NAK.												

Only one wide spread representative is indigenous to this island.

Hydrocharitaceae

Hydrocharitaceae, ASCHERS., Fl. Prov. Brandenburg. I. p. 647 (1864) et in Linn. XXXV. p. 158 (1867)

Blyxa, NOR., ex THOUARS. Gen. Nov. Madagascar. p. 4 (1806) ; ENDL., Gen. PI. n. 1210 (1836-40) ; BENTH. et HOOK, f., Gen. PI. III. p. 451 (1880) ; ASCHERSON u. GJRKE, in ENGL. U. PRANT. Nat. Pfl.-fam. II. i. p. 252 (1889); LEMÉE, Diet. Gen. PL Phan. I. p. 600 (1929)

Syn. *Saivala*, JONES, in As. Res. IV. p. 275 (1799)

Diplosiphon, DECNE., in Jacquem. Voy. Bot. p. 166, t. 167 (1844)

Hydrotrophus, C. B. CLARKE, in Journ. Linn. Soc. XIV. p. 8. t. 1 (1873)

Blyxa Shimadai, HAY., Ic. PI. Formos. V. p. 209 (1915); MASAMUNE, Prel. Rep. Veg. Yak. p. 40 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1292 (1931)

Norn. Jap. *Taiwan-subuta*

Leg. Ipse, Onoaida, Aug. 21, 1928.

Distr. Okinawa, Taiwan.

Note. It occurs in rice fields on rather rare occasions, and is not yet reported in regions further north of this island, but there is a grave doubt whether the species is one and the same with *B. certosperma* common in Japan proper. \

Regions	Phippines	Berituis	Taiwan	Okinawa	Amni-Osya	China	KyQsyu	Sikoku	Konsyu	Worea	Hozo & Southce Kiriles	Saghalien	Northern Kirilo & Kamtehatka	Manchuria, Am. & U. S.	China
Blyxa Shimadai , HAY.			+	+											

Since the only representative of the family in this island has its northern limit here, the island is closely related to the southern lands.

Triuridaceae

Triuridaceae, LINDL., Veg. Kingd. p. 213 (1847)

Sciaphila, BL., Bijdr. p. 514 (1826) ; ENDL., Gen. PI. n. 1878 (1836-40) ; BENTH. et HOOK, f., Gen. PI. III. p. 1002 (1883) ; ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. II. i. p. 237 (1889),

Sciaphila japonica, MAK., in Tokyo Bot. Mag. XVI. p. 211 ;1902', et XIX. p. 141
1905 ; MATSUM., Ind. PL Jap. II. 1. p. 31 (1905* ; MASAMUNE, Prel. Rep. Veg.
Yak. p. 40 ,1929. ; MAK. et NEM., Fl. Jap. ed. 2. p. 1294 fl93r

Nom. Jap. Hongosó

Leg. Ipse, Mugio, Jul. 1928.

Distr. Honsyú, Sikoku, Kyúsyú, Okinawa.

Aote. The species is found on humus ground in the lauri-aciculisilvae, and is restricted to southern Japan, but does not occur in Formosa.

Regions	Philippines Bonins Taiwan	Okinawa	Amami-Ōshima Tanegasima	Kyúsyú Prop. Sikoku	Honsyú	Korea	Yezo & Southern Kuriles Saghalien	Northern Kuriles & Kamtchatka Manchuria, Amur & Ussuri China
Name of Plant								
Sciaphila japonica, MAK.		+	+	+	+			

Triuridaceae has only one genus in Japan, and one of the species of this family appears in Yakusima. As it is found in both southern and northern regions beyond Yakusima, I cannot deduce any special affinity between the island and the neighbouring districts so far as the distribution of the plants of this family is concerned.

Gramineae*

Gramineae, B. JUSS., in Hort. Trianon et ex JUSS. Gen. p. LCIV. p. 28 *1789; ; HACK., in ENGL. U. PR ANT. Nat. Pfl.-fam. II. ii. p. 1. ,1837

Pseudosasa, MAK., in Journ. Jap. Bot. II. p. 15 ,1920j

Pseudosasa japonica, MAK., in Journ. Jap. Bot. II. p. 15 ,1920 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 45 1929 ; MAK. et NEM., FJ. Jap. ed. 2. p. 1389 (1931)

Syn. Arundinaria japonica, SIEB. et ZUCC. ex STEUD. Syn. Gram. p. 331 (1855); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 284 ;18Mi ; A. GRAY, Pl. Jap. p. 328 ,1856 ; MAK., in Tokyo Bot. Mag. XIV. p. 80 1900

^t In arranging the genera of this family I chiefly followed the system of Dr. M. HONDA as given in his work " Monographia Poacearum JapDnicarum Bambusoideis exclusis." 1930

Sasa japonica, MAK., in Tokyo Bot. Mag. XXVI. p. 13, f. 2, 1912

Aom. Jap. *Yadake*

Leg. Ipse, Aug. 8, 1924.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima.

Aate. It occurs in the laurisilvae, and has its southern limit in this island.

Pseudosasa Owatarii, MAK., in Journ. Jap. Bot. II. p. 16, 1920; MASAMUNE, Prel.

Rep. Veg. Yak. p. 45, 1929; MAK. et NEM., Fl. Jap. ed. 2. p. 1339, 1931

Syn. *Arundinaria Owatarii*, MAK., in Tokyo Bot. Mag. XXI. p. 16, 1907

Sasa Owatarii, MAK., in Tokyo Bot. Mag. XXVI. p. 14, 1912

Norn. Jap. *Yakusirna-dake*

Leg. Ipse, Kosugidani, Jul. 10, 1928.

Distr. Endemica.

Aote. It grows from about 500 m up to the highest point of the island on various grounds, but it flourishes most abundantly in the higher parts of the island and forms a consociation there.

Pleioblastus, NAK., in Journ. Arnold Arb. VI,

p. 146, 1925

Syn. *Arundinaria*, MUNRO, in Trans. Linn. Soc. XXVI. p. 13, 1868, p.p.; BENTH.

et HOOK. f. Gen. Pl. III. p. 1207, 1833, p.p.; HACK., in ENGL. U. PRANT,

Nat. Pfl.-fam. II. ii. p. 93, 1889, p.p.

Thamnocalamus, MUNRO, in Trans. Linn. Soc. XXVI. p. 33, 1868, p.p.

Pleioblastus Hindsii, NAK., in Journ. Arnold Arb. VI. p. 146, 1925; MASAMUNE,

Prel. Rep. Veg. Yak. p. 45, 1929; MAK. et NEM., Fl. Jap. ed. 2. p. 1377, 1931

Syn. *Arundinaria Hindsii*, MUNRO, Monogr. Bamb. p. 31, 1866; MAK., in Tokyo

Bot. Mag. XIV. p. 63, 1900; MATSUM., Ind. Pl. Jap. II. 1. p. 88, 1905;

SHIRASAWA, Ic. For. Tree. Jap. II. t. 5, ff. 1-3, 1912; NOHL., in Mitt!

Deutsch. Dendr. Ges. XXIV. p. 100, 1915

Thamnocalamus Hindsii, CAM., Monogr. p. 52, Pl. 25. f. A, 1913

Aom. Jap. *Kanzantiku*

Leg. Ipse, April. 4, 1927.

Distr. Kyūsyū, Tanegasima, Amami-Ōsima, Kutinoerabu, Okinawa.

Aote. The bamboo grows near the sea level and forms a consociation. The species is rather widely distributed in South Japan.

Pleioblastus Masamuneanus, MAK., in Journ. Jap. Bot. VI. p. 5, 1929; MASAMUNE,

Prel. Rep. Veg. Yak. p. 45, 1929; MAK. et NEM., Fl. Jap. ed. 2. p. 1378, 1931

Aom. Jap. *Kuriozasa*

Leg. Ipse, Kurio, Mart. 1923, et Jul. 4, 1928.

Distr. Endemica.

Aote. I found this species as a pure association in the village of Kurio. I doubt whether the species is not an introduced one.

Agropyron, '*Agropyrum*' J. GAERTN., in Nov.

Comm. Acad. Sc. Peterop. XIV. pt. 1. p. 539, 1770; BENTH., in BENTH. et HOOK.,

f. Gen. Pl. III. p. 1202, 1883; HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii.

pp. 76, 78, 1887; LEMÉE, Diet. Gen. Pl. Phan. I. p. 125, 1929

Syn. *Elytrigia*, DESVAUX, in Nouv. Bull. Soc. Philom. II. p. 190, 1810, et in Journ.

Bot. I. p. 74, 1813

Agropyron semicostatum, NEES, ex STUED. Syn. Glum. I. p. 346 1855 ; BENTH. et HOOK, f, Gen. Pl. III. p. 1203 1833 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 40 1929 ; HONDA, Monog. Poac. Jap. Bamb. excl. p. 29 ;1930 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1303 1931.

Syn. *Triticum semicostatum*, NEES, apud STEUD. Syn. Glum. I. p. 346 1855 ; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 287 1866 ; FR. et SAV., Enum. Pl. Jap. II. p. 185 1876,

Triticum cilare, f. *semicostatum*, KORSHINSKY, in Act. Hort. Petrop. XII. p. 415 1892

Agropyrum semicostatum, NEES var. *transiens*, HACK., in Bull. Herb. Boiss. sér. II. iii. p. 507 1903 ; NAK., Fl. Kor. II. p. 376 1911

Norn. Jap. *Kamozi-gusa*

Leg. Ipse, Jul. 19, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Ôsima, Okinawa, Korea.

Mote. Occurs in waste or cultivated lands or by the roadside; common in the eastern hemisphere.

Erachypedium, BEAUV., ESS. Agrost. pp. 100, et 155 1812. p.p.; ENDL., Gen. Pl. nn. 899b et 913c 1836-40 ; BENTH. et HOOK. :, Gen. Pl. III. pp. 1093, 1201 1883' ; HACK., in ENGL. U. PRANT. Nat. Pfl.-fam. II. ii. p. 76 1887 ; HITCHCOCK, in U. S. Dept. Agric. Bull. 772, p. 31 1920 ; LEMKE. Diet. Gen. Pl. Phan. I. p. 656 1929

Syn. *Trachynia*, LINK, Hort. Berol. I. p. 40 1827

Brachypodium miserum, KOIDZ., in Tokyo Bot. Mag. XXXIX. p. 3D3 1925 ; MASAMUNE, Prel. Rep. Ves. Yak. p. 41 1929 ; HONDA, \I0n03r. Poac. Jap. Bamb. excl. p. 32 1930 ; MIY. et KUDO, Fl. Hokk. & Sagh. II. p. 175 1931 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1319 1931

Syn. *Festuca misera*, THUNB., Fl. Jap. p. 52 1784 ; WILLD., Sp. Pl. I. p. 427 1797 ; ROEM. et SCHULT., Syst. Veg. II. p. 732 1817 ; SPRENGL., Syst. Veg. I. p. 356 1825 ; KUNTH, Enum. Pl. I. p. 410 1833 ; STEUD., Syn. Glum. I. p. 315 1855.

Bromus conformis, STEUD., Syn. Glum. I. p. 323 1855 ; A. GRAY, in Narr. Perr. Exped. p. 323 ;1856,

Brachypodium silvaticum, [non ROEM. et SCHULT.] MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 285 1866 ; FR. et SAV., Enum. Pl. Jap. II. p. 185 1876 ; HACK., in Bull. Herb. Boiss. VII. p. 714 1899 ; MATSUM., Ind. Pl. Jap. II. 1. p. 43 1905

Brachypodium japonicum, MIQ., in Ann. Mus. Bof. Lugd. Bat. II. p. 286 1856 ; HACK., in Engl. Bot. Jahrb. VI. p. 50 1835 , et in Bull. Herb. Boiss. VII. p. 714 1899 , et p. 529 1904 ; MATSUM., Ind. Pl. Jap. II. 1. p. 43 1905 ; NAK., in Tokyo Bot. Mag. XXXI. p. 101 1917 ; MORI, Enum. Pl. Cor. p. 39 (1922);

Brachypodium japonicum, var. *minor*, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 287 1866 ; FR. et SAV., Enum. Pl. Jap. II. p. 185 1376 ; MATSUM., Ind. Pl. Jap. II. 1. p. 43 1905

Agropyrum miserum, TANAKA, in Bull. Sc. Fakult. Terkult. KjubU Imp. Univ. I. p. 197 1925

Brachypodium silvaticum, var. *miserum*, KOIDZ., Fl. Symb. Or. As. p. 80 1930

Aom. Jap. *Yam a-kamozi-gusa*

Leg. Ipse, Aug. 31, 1926.

Dish: Yezo, Honsyū, Sikoku, Kyūsyū, Taiwan, Korea.

Note. Often found on mountain passes which lie through the Pseudosasa Owatarii Association.

Festuca, LINN., Sp. PL p. 73 1753, et Gen. PL ed. 5. p. 33 1754; KUNTH, Enum. PL I. p. 391 1833-; ENDL., Gen. PL n. 899 1836-40; STEUD., Syn. Glum. I. p. 301 1855; HACK., Monogr. Fest. Europ. p. 77 1882 et in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 74 1887; BENTH. et HOOK, f., Gen. PL III. p. 1198 1853; LEMÉE, Diet. Gen. PL Phan. III. p. 113 1931.

Syn. *Vulpina*, GMELIN, Fl. Badens. I. p. 8 1805; HACK., in Flora p. 47 1830
Schedonorus, BEAUV., ESS. Agrost. p. 99 1812

Festuca ovina, LINN., Sp. PL ed. 1. p. 73 1753.; KUNTH, Enum. PL I. p. 398 1833; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 282 1866; FR. et SAV., Enum. PL Jap. II. p. 181 1876; HACK., Monogr. Fest. Europ. p. 82 1882, et in ENGL. U. PRANT. Nat. Pfl.-fam. II. ii. p. 75, f. 87 1887; KOM., Fl. Mansh. I. p. 310 1901; MATSUM., Ind. PL Jap. II. 1. p. 56 1905; HULT., Fl. Kamt. I. p. 144 1927; MIY. et KUDO, Fl. Hokk. & Sagh. II. p. 168 1931; MAK. et NEM., Fl. Jap. ed. 2. p. 1345 1931

Syn. *Bromus ovinus*, SCOPOLI, Fl. Cam. I. p. 77 1772.

Festuca ovina, LINN. var. *vulgaris*, KOCH, Syn. ed. 1. p. 812 1837.; HACK., Monogr. Fest. Europ. p. 86 1882, et in Bull. Herb. Boiss. VII. p. 713 1899.; NAK., Fl. Kor. II. p. 373 1911; KOM., Fl. Fen. Kamtsch. I. p. 189 1927; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 48 1930.

Aom. Jap. *Usinok-gusa*

Lio. Ipse, 1928.

Distr. Kamtchatka, Saghalien, Kuriles, Yezo, Honsyū, Sikoku, Kyūsyū, Taiwan, Korea, Manchuria.

Aotv. It occurs on dry ground, or on rocks, in mountain peaks. It is distributed nearly all over the northern hemisphere of temperate and arctic regions and Australia and New Zealand.

Festuca pauciflora, THUNB., Fl. Jap. p. 52 1781; WILLD., Sp. PL I. p. 125 1797; KUNTH, Enum. PL I. p. 409 1833; STEUDL., Syn. Glum. I. p. 315 1855; TURCZAN., Fl. Baical.-Dahur. I. p. 40 1856; PRINTZ., Veg. Siberian, Mongoliana Front, p. 132 1921; MASAMUNE, Prtl. Rep. Veg. Yak. p. 43 1929; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 55 1930

Syn. *Festuca remotiflora*, STEUDL., Syn. Glum. I. p. 315 1855.; PILGER, in Encl. Bot. Jahrb. XXIX. p. 226 1900

Schedonorus remotiflorus, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 233 1866; FR. et SAV., Enum. PL Jap. II. p. 181 1876; FR., PL David. I. p. 339 1884, et II. p. 146 1838

Bromus pauciflorus, HACK., in Bull. Herb. Boiss. VII. p. 713 1899, et p. 506 1903; RENDLE, in FORB. et HESML. Ind. Fl. Sin. III. p. 430 1934; MATSUM., Ind. PL Jap. II. 1. p. 44 1905; NAK., Fl. Kor. II. p. 374 1911; MIY. et KUDO, Fl. Hokk. & Sash. II. p. 172 1931; MAK. et NEM., Fl. Jap. ed. 2. p. 1321 1931

Aom. Jap. *Kitunegaya*

Leg. Ipse, 1927.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Korea.

Nate. Occurs by the side of newly cutout roads and vertical surfaces made artificially or naturally by land slips, or on dry ground; very common in the Far East.

Poa, [LINN., Gen. ed. 1. p. 20 (1737)] et Sp. Pl. ed. 1. p. 67 ;1753, et Gen. Pl. ed. 5. p. 31 '1754'; KUNTH, Enum. Pl. I. p. 324 1833 p.p.; ENDL., Gen. Pl. n. 876 v 1836-40'; STEUD., Syn. Glum. I. p. 249 11855'; BENTH., in BENTH. et HOOK. f. Gen. Pl. III. pp. 1093 et 1196 11883'; HACK., in ENGL. U. PRANT. Nat. Pfl.-fam. II. ii. p. 73 U887.; HITCHCOCK, in U. S. Dep. Agric. Bull. 772 p. 38 '1920'; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 66 (1930);

Poa acroleuca, STEUD., Syn. Glum. I. p. 256 '1855); A. GRAY, Pl. Jap. p. 328 ;1856 ; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 280 (1866); FR. et SAV., Enum. Pl. Jap. II. p. 175 .1876 ; HACK., in Bull. Herb. Boiss. VII. p. 710 '1899). et 2 sér. III. p. 506 1903 ; KOM., Fl. Mansh. I. p. 305 •1901) ; MATSUM., Ind. Pl. Jap. II. 1. p. 76 1905 ; NAK., Fl. Kor. II. p. 370 '1911) ; HULT., Fl. Kamtsch. II. p. 136 ;1927, ; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 69 11930 ; MIY. et KUDO, Fl. Hokk. & Sagh. II. p. 163 '1931 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1381 ;1931'

Syr. *Poa psilocaulis*, STEUD., Syn. Glum. I. p. 256 ,1855

Pea familiaris, STEUD., Syn. Glum. I. p. 426 (1855.) ; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 280 ;1866 ; FR. et SAV., Enum. Pl. Jap. II. p. 175 '18761

Poa acroleuca, var. *psilocaulis*, MUNRO, in MIQ. Ann. Mus. Bot. Lugd. Bat. II. p. 280 '1866 ; FR. et SAV., Enum. Pl. Jap. II. p. 175 ,1876;

Poa acroleuca, var. *purpurascens*, NAK., Rsp. Veg. Quelp. p. 20 v1914.

Nom. Jap. *Mizo-iiigo-tunagi*

Leg. Ipse, Kosugidani, Jun. 4, 1928.

Distr. Kamtschatka, Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Okinawa, Korea, Manchuria, China.

Note. Occurs in the laurisilva; widely distributed in Eastern Asia.

var. *spiciformis*, HONDA, in Tokyo Bot. Mag. XLI. pp. 640 et 657, 11927., et Monogr.

Poac. Jap. Bamb. excl. p. 70 '1930.; MAK. et NEM., Fl. Jap. ed. 2. p. 1331 ;19311

Aom. Jap. *Yamamizoitigotunagi*

Leg. Ipse, Isso, Mart. 21, 1923.

Distr. Honsyū, Kyūsyū.

Note. The variety is restricted to the above cited regions, and is found in waste places on forest edges in the laurisilvae.

Poa annua, LINN., Sp. Pl. ed. 1. p. 68 '1753 ; WILLD., Sp. Pl. I. p. 390 11797; ; KUNTH, Enum. Pl. I. p. 349 ,1833 , et Supp. I. p. 296 (1835; ; STEUD., Syn. Glum. I. p. 250 ;1855 ; MIQ., Fl. Ind. Bat. III. p. 395 U855^, et in Ann. Mus. Bot. Lugd. Bat. II.tfp. 279 1866^; A. GRAY, Pl. Jap. p. 328 ;1856) ; FR. et SAV., Enum. Pl. Jap. II. p. 174 11876; ; BRITT. et BROWN, Ill. Fl. I. p. 201 (1896); STAPF., in HOOK. f. Fl. Brit. Ind. VII. p. 345 ;1897. ; HACK, in Bull. Herb. Boiss. VII. p. 708 (1899); RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 422 (1904^ ; MATSUM., Ind. Pl. Jap. II. 1. p. 76 '1905^ ; MATSUM. et HAY., Enum. Pl. Formos. p. 547 U906.; KOIDZ., Pl. Nakah. p. 21 '1910. ; TAKEDA, Fl. Sikot. p. 496 ^1914 ; MIY. et MIYAKE, Fl. Sagh. p. 576 11915; ; HAY., Ic. Pl. Formos. VII. p. 93 11918); HITCHCOCK, in U. S. Dept. Agric. Bull. 772 p. 72 11922.; KOM, Fl. Pen. Kamtsch. I. p. 165 [1927);

HULT., Fl. Kamtsch. p. 124 (1927) ; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 71 (1930) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1382 (1931)

Nom. Jap. Suzurnz-no-katabira

Leg. Ipse, Mart. 21, 1923.

Dislr. Kamtschatka, Saghalien, Kuriles, Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Osima, Okinawa, Taiwan, Bonins, Korea, Manchuria, China.

Note. Common species in both hemispheres; in the island it is found in open lands at low altitudes, and seems to have been introduced from elsewhere.

Eriza, [LINN., Syst. ed. 1 (1753)] et Sp. Pl. ed. 1. p. 70 (1753) et Gen. Pl. ed. 5. p. 32 (1754) ; KUNTH, Enum. Pl. I. p. 371 (1833) ; ENDL., Gen. Pl. n. 883 ; 1835-40; ; BENTH. et HOOK, f, Gen. Pl. III. pp. 1093, 1194 (1833) ; HACK., in ENGL. U. PRANT. Nat. Pfl.-fam. II. ii. p. 72 (1857) ; LEMKE, Diet. Gen. Pl. Phan. I. p. 673 (1929)-

Eriza minor, LINN., Sp. Pl. ed. 1. p. 70 (1753) et Gen. Pl. ed. 5. p. 32 (1754) ; WILLD., Sp. Pl. I. p. 403 (1797) ; KUNTH, Enum. Pl. I. p. 372 (1833) , et Supp. I. p. 303 (1835) ; GRISEBACH, in Ledeb. Fl. Ros. IV. p. 366 (1853) ; STEUD., Syn. Glum. I. p. 282 (1855) ; MIQ., Fl. Ind. Bat. III. p. 396 (1855) ; FR. et SAV., Enum. Pl. Jap. II. p. 178 (1876) ; HACK., in ENGL. U. PRANT. Nat. Pfl.-fam. II. ii. p. 72 (1857) et in Bull. Herb. Boiss. VII. p. 70S (1839) ; RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 422 (1904) ; MATSUM., Ind. Pl. Jap. II. 1. p. 43 (1905) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 43 (1929) ; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 88 (1930) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1319 (1931)

Nom. Jap. Hime-kobansô

Leg. Ipse, Yosida, Mart. 21, 1923.

Eislr. Honsyû, Sikoku, Kyûsyû, Amami-Osima, Taiwan, Korea, China.

Note. The plant occurs by the roadside and on cultivated lands, and is said to be an European plant.

Lophatherum, BRONGNIART, in Duperrey Voy. Coq. Bot. p. 49 (1825) ; KUNTH, Enum. Pl. I. p. 393 (1833) ; ENDL., Gen. Pl. n. 897 (1835-40) ; BENTH. et HOOK, f, Gen. Pl. III. p. 1191 (1833) ; HACK., in ENGL. U. PRANT. Nat. Pfl.-fam. II. ii. p. 71 (1837)

Syn. Acroelytrum, STEUD., in Flora XXIX. p. 20 (1846) ;

Allelothea, STEUD., Syn. Glum. I. p. 117 (1855)

Lophatherum gracile, BRONGNIART, var. *datum*, BENTH., Fl. Hongk. p. 433 (1839) ; HACK., in Bull. Herb. Boiss. VII. p. 707 (1899) ; MATSUM., Ind. Pl. Jap. II. 1. p. 63 (1905) ; MATSUM. et HAY., Enum. Pl. Formos. p. 547 (1906) ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 329 (1912) ; MERR., Enum. Hainan Pl. p. 35 (1927) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 44 (1929) ; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 91 (1930) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1358 (1931)

Syn. Lophatherum elatum, ZOLLINGER et MORITZ, Syst. Verz. p. 103 (1845-46) ; STEUD., Syn. Glum. I. p. 300 (1855) ; MIQ., Fl. Ind. Bat. III. p. 400 (1855) , et in Ann. Mus. Bot. Lugd. Bat. II. p. 282 (1866) ; FR. et SAV., Enum. Pl. Jap. II. p. 179 (1876) ; HACK., in Engl. Bot. Jahrb. VI. p. 50 (1884) ; MORI, Enum. Pl. Cor. p. 46 (1922)

Acroelytrum japonicum, STEUD., in Flora, XXIX. p. 21 (1846)

Allelothea Urvillei, STEUD., Syn. Glum. I. p. 117 (1855)

Lophatherum japonicum, STEUD., Syn. Glum. I. p. 300 ;1855
Acroelytrum Urivillei, STEUD., Syn. Glum. I. p. 117 1855
Lophatherum Lehmanni, NEES, ex STEUD. Syn. Glum. I. p. 300 1855 ; HENRY,
 List Pl. Formos. p. 109 1896
Lophatherum gracile, van genuinurn, HACK., in Bull. Herb. Boiss. VII. p. 707
 1899 ; MATSUM., Ind. Pl. Jap. II. 1. p. 63 1905 ; MAK. et NEM., Fl. Jap.
 ed. 1. p. 1462 1925

Rom. Jap. Sasakusa

Ley. Ipse, 1926.

Bistr. Honsyu, Sikoku, Kyûsya, Okinawa, Taiwan, Korea, China.

Rote. Occurs as undergrowth from the sea level up to about 800 m; widely distributed in southern Japan.

Eragrostis, HOST., Gram. Austral. IV. p. 14
 1809 ; BEAUV., ESS. Arost. p. 70 1812 ; ENDL., Gen. Pl. n. 876b 1836-40 ;
 STEUD., Syn. Glum. I. p. 263 1855 ; BENTH. et HOOK. f, Gen. Pl. III. p. 1186
 1833 ; HACK., in ENGL. U. PRANT. Nat. Pfl.-fam. II. ii. p. 69 (1887) ; LEMÉE,
 Diet. Gen. Pl. Phan. II. p. 896 1930

Syn. Erochloe, RAF., Neogensyt. p. 4 1825

Eragrostis atrovirens, TRINIUS, ex STEUD. Nomencl. p. 562 1840 , et Syst. Glum. I. p.
 26S 1855 ; HACK., in Bull. Herb. Boiss. VII. p. 725 1899 , et p. 529 1905 ;
 MATSUM., Ind. Pl. Jap. II. 1. p. 53 1905 ; HAY., Ic. Pl. Formos. VII. p. 92 1918 ;
 MASAMUNE, Prel. Rep. Veg. Yak. p. 42 1929 ; HONDA, Monogr. Poac. Jap. Bamb.
 excl. p. 100 1930 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1341 1931

Syn. Poa atrovirens, DESFONTAINES, Fl. Atlant. I. p. 73, t. 17 1793

Eragrostis elongata, non JACQUIN JACQ., Eclog. Gram. III. t. 3 1818 ; PRESL,
 Rel. Haenk. I. p. 275 1830 ; RENDL., in FORB. et HEMSL. Ind. Fl. Sin. III.
 p. 413 1904 ; HAY., Enum. Pl. Formos. p. 512 1906 , et Mat. Fl. Formos.
 p. 407 1911 ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 329 1912

Eragrostis orientalis, non TRINIUS NEES, in Nov. Act. Nat. Cur. XIX. Suppl.
 I. p. 205 1843 ; BENTH., Fl. Hongk. p. 432 1851, ; HENRY, List Pl. Formos.
 p. 109 1896

Eragrostis bulbifera, STEUD., Syn. Glum. I. p. 267 1855 ; HACK., in Bull.
 Herb. Boiss. 2. sér. IV. p. 529 1904 ; MATSUM., Ind. Pl. Jap. II. 1. p. 53
 1905 ; MATSUM. et HAY., Enum. Pl. Formos. p. 542 1906 ;

Eragrostis Brownii, non NEES MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 281
 1865

Eragrostis bahiensis, non SCHRADER HANCE, in Journ. Linn. Soc. XII. p. 136
 1873 ; FR. et SAV., Enum. Pl. Jap. II. p. 177 1876

Rom. Jap. Ito-suzumegaya

Leg. Ipse, Koseda, Sept. 7, 1926.

Distr. Honsyu, Sikoku, Kyûsya, Okinawa, Taiwan, China.

Rote. Grows by the roadside or on exposed ground; common in southern Japan.

Eragrostis pilosa, BEAUV., ESS. Arost. pp. 71, et 162 1812 ; ROEM. et SCHULT., Syst.
 Veg. II. p. 595 1817 ; GRISEBACH, Fl. Ross. IV. p. 332 1853 ; TURCZAN., Fl.
 Baical.-Dahur. I. p. 42 1856 ; MAXIM., Prim. Fl. Amur. p. 320 1859 ; BENTH.,
 Fl. Hongk. p. 432 1861 , et Fl. Austral. VII. p. 645 1878 ; FR. et SAV., Enum.
 Pl. Jap. II. p. 176 1876 ; STAPF., in HOOK. f. Fl. Brit. Ind. VII. p. 323 1897 p.
 p. ; HACK., in Bull. Herb. Boiss. VII. p. 706 1899 , et 2 sér. III. p. 505 1903 ;

ASCHERSON et GRAEBN., Syn. Mitteleurop. Fl. II. 1. p. 373 (1900 ; KOMŦ Fl. Mansh. I. p. 292 (1901¹ ; MATSUM., Ind. PL Jap. II. 1. p. 54 ;1905¹ ; NAK., Fl. Kor. II. p. 366 (1911¹ partim.; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 329 1912 ; LOESN., Pfl.-welt. Kiautsch. Geb. p. 91 1918 ; PRINTZ, Veg. Siberian. Mongoliana Front, p. 130 (1921); MERR., Enum. Philipp. PL I. p. 90 1922 ; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 102 1930 ; MAK. et NEM., FL Jap. ed. 2. p. 1342 (1931[^]

Syn. *Poa Pilosa*, LINN., Sp. PL ed. 1. p. 68 1753 ; WILLD., Sp. PL I. p. 391 ;1799 ; KUNTH, Enum. PL I. p. 329 11833

Poa parviflora, R. BR., Prodr. p. 180 '1810

Eragrostis verticillata, BEAUV., ESS. Agrost. p. 162 .1812 ; NEES, in HOOK, et ARNOT. Bot. Capt. Beech. Voy. p. 253 :1836-40

Nom. Jap. *Ōniwahokori*

Lea. Ipse, Haro, Sept. 6, 1926.

Distr. Honsyu[†], Sikoku, Kyūsyū^Q, Okinawa, Korea, Manchuria, China, Philippines, India, Siberia, Europe.

Note. Occurs by the roadside and in waste lands.

Phragmites, ADANS., Fam. II. pp. 34 et 559 1763 ;

KUNTH, Enum. PL I. p. 230 ;1833¹ ; ENDL., Gen. PL n. 824 (1836-4D ; STEUD., Syn. Glum. I. p. 195 (1855[!] ; BENTH. et HOOK, f, Gen. PL III. p. 1179 '1833 ; HACK., in ENGL. U. PRANT. Nat. Pfl.-fam. II. ii. p. 68 (1887¹

Syn. *Arundo*, Sect. *Phragmites*, GRISEB., in LEDEB. Fl. Ross. p. 393 (1853

Phragmites japonica, STEUD., Syn. Glum. I. p. 196 (1855[;] MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 278 ,1866, ; FR. et SAV., Enum. PL Jap. II. p. 170 '1876¹ ; MORI, Enum. PL Cor. p. 51 .1922, ; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 116 1930

Syn. *Phragmites communis*, var. *pumila*, HACK., in Bull. Herb. Boiss. VII. p. 704 1899¹:

Phragmites communis, non TRINIUS MATSUM., Ind. PL Jap. II. 1. p. 75 1905, p.p.

Phragmites prostratus, MAK., in Tokyo Bot. Mag. XXVI. p. 237 (1912 , et XXVIII. p. 23 1914, ; MAK. et NEM., FL Jap. ed. 1. p. 1481 {1925 , et ed. 2. p. 1373 ,1931- ; MASAMUNE, Prel. Rep. Veg. Yak. p. 45 (1929 ; MIY. et KUDO, Fl. Hokk. & Sagh. II. p. 152 1931¹

Nom. Jap. *Turu-yosi*

Liff. Ipse, Nagata, Aug. 20, 1928.

Distr. Yezo, Honsyu[†], Sikoku, Kyūsyū^Ŧ, Korea.

Note. I found several individuals of this plant on the sea coast of Nagata. It has its southern limit in this island.

Arundo, [TOURN., ex LINN. Gen. ed. 1. p. 19

1737] et Sp. PL ed. 1. p. 81 :1753 p.p., et Gen. PL ed. 5. p. 35 '1754 p.p.; KUNTH, Enum. PL I. p. 246 (1833^X ; ENDL., Gen. PL n. 821 (1836-40 ; STEUD., Syn. Glum. I. p. 193 11855 ; BENTH. et HOOK, f, Gen. PL III. p. 1179 1833 ; HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 63 ;1837. ; LEMÉE, Diet. Gen. PL Phan. I. p. 404 ;1929;

Syn. *Dinax*, BEAUVOIS, Ess. Ag;03t. p. 77 ,1812 ; ASCHERSON, Fl. Brand. I. p. 837 1864

Scolochloa, non LINK' MERTENS et KOCH, Deutschl. Fl. I. p. 374 1823
Amphidonax, NEES, in LINDL. Nat. Syst. ed. 2. p. 449 1836

Arundo donax, LINN., Sp. Pl. ed. 1. p. 81 1753'; KUNTH, Enum. Pl. I. p. 246 1833 ,
 et Supp. I. p. 189 t. XIV. f. 71 1835 ; GRISEBACH, in LEDEBOUR Fl. Ross. IV.
 p. 394 1853'; STEUDEL, Syn. Glum. I. p. 193 1855 ; HACK., in ENGL. u. PR ANT.
 Nat. Pfl.-fam. II. ii. p. C8 [1837 , et in Bull. Herb. Boiss. VII. p. 704 1899 ;
 HOOK, f., Fl. Brit. Ind. VII. p. 302 1897 ; MAK., Glum. Jap. Photo. I. Pl. XXIII.
 1901 ; RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 403 1904 ; MATSUM.,
 Ind. Pl. Jap. II. 1. p. 41 1905' ; HITCHCOCK, in U. S. Dept. Agric. Bull. 772 p.
 60, Pl. VII. f. 26 1920 ; MERR., Enum. Hainan Pl. p. 35 1927 , et in Lingn. Sc.
 Journ. VII. p. 194 1929 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 41 1929 ; HONDA,
 Monogr. Poac. Jap. Bamb. excl. p. 120 1930 ; MAK. et NEM., Fl. Jap. ed. 2. p.
 1313 1931i

Syn. *Arundo saliva*, LAM., Fl. Fr. ed. 3. III. p. 616 1778^

Arundo benghalensis, RETZIUS, Obs. IV. p. 22 1786 , ROXB., Fl. Ind. I. p. 348
 1832 ; KUNTH, Enum. Pl. I. p. 247 1833 ; HENRY, List Pl. Formos. p. 109
 1896^

Arundo bifaria, RETZIUS, Obs. IV. p. 22 1785 ; KUNTH, Enum. Pl. I. p. 247
 1833' ; MAK., in Tokyo Bot. Mag. X. p. 321 1896 ; HACK., in Bull. Herb.
 Boiss. VII. p. 704 1899,

Donax arundinaceus, BEAUV., Ess. Agrost. p. 78, t. 16, f. 4 et t. 19, f. 1 1812

Donax benghalensis, BEAUV., Ess. Agrost. p. 78 1812

Amphidonax bifaria, NEES ex STEUDEL, Syn. Glum. I. p. 197 1855 ; MIQ., Fl.
 Ind. Bat. HI. p. 410 1855. ; FR. et SAV., Enum. Pl. Jap. II. p. 171 1876

Nom. Jap. *Dantiku*

Leg. Ipse, 1924.

Distr. Honsyu, Sikoku, Kyūsyū, Tanegasima, Amami-Ōsima, Okinawa, Taiwan.

Mote. The species stretches along the rivers from the sea level up to about 703 m
 and is one of the pandemic species distributed in the Caucasus, Himalaya, Siberia,
 Europe and the western part of Africa.

A vena, [LINN., Syst. ed. 1. 1735] et Sp. Pl. ed.
 1. p. 79 1753., et Gen. Pl. ed. 5. p. 34 1754^N. partim; KUNTH, Enum. Pl. I. p.
 299 1833. ; ENDL., Gen. Pl. n. 864 1836-40. ; STEUDEL, Syn. Glum. I. p. 229
 1855- ; HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 55 1887 ; LEMÉE,
 Diet. Gen. Pl. Phan. I. p. 468 1929.

Avena fatua, LINN., Sp. Pl. ed. 1. p. 80 1753 ; BENTH., Fl. Hongk. p. 430 1361 ; MIQ.,
 in Ann. Mus. Bot. Lugd. Bat. II. p. 279 1866* ; FR. et SAV., Enum. Pl. Jap. II.
 p. 173 1876 ; HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 55 1837 ; HOOK,
 f., Fl. Brit. Ind. VII. p. 275 1897 ; MATSUM., Ind. Pl. Jap. II. 1. p. 42 1905 ;
 DUNN et TUTCH., Fl. Kwang. & Hongk. p. 326 1912 ; HAY., Ic. Pl. Formos. VII.
 p. 90 1918 ; HITCHCOCK, in U. S. Dept. Agric. Bull. 772 p. 111. f. 58 (1920 ;
 HONDA, Monogr. Poac. Jap. Bamb. excl. p. 131 1933' ; MAK. et NEM., Fl. Jap.
 ed. 2. p. 1315 1931)

Syn. *Avena nigra*, WALL., in Linn. XIV. p. 544 1810}

Avena fatua, var. *glabrata*, non PETER nee STAPEi MORI, Enum. Pl. Cor. p.
 39 192L

Abut. Jap. *Karasumugi*

Leg. Ipse, Yosida, Mart. 21, 1923.

Bistr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Ōsima, Okinawa, Taiwan, Korea, China, Siberia, India.

Aote. It is found in low wet lands, and is widely distributed in the northern hemisphere.

Deschampsia, BEAUV., ESS. A[^]rost. p. 91 1812 ;

KUNTH, Enum. PL. I. p. 236 1833 ; ENDL., Gsn. PL. n. 857 1835-40 ; BENTH. et HOOK, f., Gen. PL. III. p. 1157 1883 ; HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 54 1887 ; LEMÉE, Diet. Gen. PL. Phan. II. p. 552 1930

Syn. *Aira*, LINN., Sp. PL. ed. 1. p. 63 1753 p.p.; KUNTH, Enum. PL. I. p. 283 1833 p.p.; STEUD., Syn. Glum. I. p. 218 1855) p.p.; HITCHCOCK, in U. S. Dept. Agric. Bull. 772. p. 114 1920,

Acra, ASCHERSON, Fl. Brand, ed. 1. I. p. 830 1864' p.p.; ASCHERSON et GRAEBN., Syn. Mitteleurop. Fl. I. p. 277 1899 p.p.

Deschampsia ctespitosa, BEAUV., Ess. Agrost. p. 91. t. 18. f. 3 1812 ; KUNTH, Enum. PL. I. p. 236 ,1833 , et Supp. I. p. 241 .1835 ; GRISEB., in LEDEB. Fl. Ross. IV. p. 421 .1853 ; MAXIM., Prim. Fl. Amur. p. 323 .1859 ; BENTH. Fl. Austral. VII. p. 537 ,1878) ; HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 54 f. 61 1887\ et in Bull. Herb. Boiss. VII. p. 702 ,1899. ; BRITT. et BROWN, III. Fl. I. p. 169, f. 337 ,1896. ; HOOK, f., Fl. Brit. Ind. VII. p. 273 ,1897. ; RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 399 ,1901; MATSUM., Ind. Pl. Jap. II. 1. p. 50 1905 ; HEG., III. Fl. Mitt. Europ. I. p. 243, t. 29 f. 1. ,1905. ; HAY., Fl. Mont. Formos. p. 233 .1903., et Ic. Pl. Formos. VII. p. 90 ,1918; ; KOIDZ., Fl. Nakah. p. 19 1910 ; MIY. et MIYAKE, Fl. Sash. p. 570 '1915. ; MORI, Enum. PL. Cor. p. 41 1922 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 42 '1929,; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 133 .1930 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1336 1931 ; MIY. et KUDO, Fl. Hokk. & Sagh. II. p. 146 '1931

Syn. *Aira caespitosa*, LINN., Sp. PL. ed. 1. p. 64 1753 ; TRINIUS, Sp. Gram. Ic. III. t. 253 1835 ; STEUDL., Syn. Glum. I. p. 219 1855 ; KOM., Fl. Mansh. I. p. 233 1901¹ ; HITCHCOCK, in U. S. Dept. Agric. Bull. 772. p. 116, f. 60 '1920

Avna caespitosa, GRIESSELICH, Fl. Schrift. p. 52 '1835.

Acra caestirosa, ASCHERSON et GRAEBN., Syn. Mitteleurop. Fl. II. 1. p. 239 1899

Deschampsia caespitosa, var. *coreensis*, HACK., ex NAK. Veg. Isl. Quelp. p. 19 '1914 ; MORI, Enum. PL. Cor. p. 41 1922,

Norn. Jap. Miyama-komesusukl

Leg. Ipse, Miyanouragadake, 1926.

Distr. Saghalien, Kuriles, Yezo, Honsyū, Sikoku, Kyūsyū, Taiwan, Korea, Manchuria.

Aole. This lithophyte grows on the granite rocks scattered in the Pseudosasa Owatarii Association in the higher portions of the island, and is found in the boreal regions of the northern hemisphere.

Deschampsia flexuosa, TRINIUS, in Bull. Ac. St. Pet. I. p. 66 (1836); GRISEBACH, in LEDEB. Fl. Ross. IV. p. 420 (1853 ; MATSUM., Cat. p. 332 U8S5), et Ind. Pl. Jap. • II. 1. p. 50 ,1905); HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 54 (1887 , et in Bull. Herb. Boiss. VII. p. 702 1899); MIY., Fl. Kuril, p. 269 1890- ; HEGI, II. Fl. Mitteleurop. I. p. 245 (1905. ; HAY., Fl. Mont. Formos. p. 233 U908 , et Ic. Pl. Formos. VII. p. 90 1918) ; TAKEDA, Fl. Shikot. p. 495 U914) ; MIY. et MIYAKE, Fl. Saghal. p. 569 '1915, ; KOM., Fl. Pen. Kamt. I. p. 153 .1927. ; MASAMUNE, Prel. Rep. Veg. Yak. p. 42 .1929 ; HONDA, Monogr. Poac. Jap. Bamb. excl. p.

- 134 '1930 ; MIY. et KUDO, Fl. Hokk. & Sagh. II. p. 147 ;1931 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1337 (1931,
 Syn. *Aira flexuosa*, LINN., Sp. PL. p. 65 '17531 ; KUNTH, Enum. PL I. p. 290 '1833 , et Supp. I. p. 243 ;1835' ; STEUD., Syn. Glum. I. p. 222 U855
Avena flexuosa, LEERS, Fl. Herb. p. 5 '1775 ; MERTENS et KOCH, Deutschl. Fl. I., p. 570 '1823)
Lerchenfeldia flexuosa, SCHUR., Enum. PL Transsylv. p. 754 '1866
Aira flexuosa, var. *montana*, ^non PARLATORE FR. et SAV., Enum. PL. Jap. II. p. 172 (1876¹)
Aira flexuosa, ASCHERSON et GRAEBN., Syn. Mitteleurop. Fl. II. 1. p. 236 (1899
 Norn. Jap. *Kome-susuki*
 Lea. Ipse, Jul. 8, 1928.
 Distr. Kamtschatka, Saghalien, Kuriles, Yezo, Honsyû, Sikoku, Kyûsyû, Taiwan, Manchuria, Siberia, Caucasus, Europe.
 Net?. The species grows as a lithophyte in the crevices of granite rocks scattered in the Pseudosasa Owatarii Association. It is distributed in the northern temperate regions or in the alpine regions of the northern hemisphere.
- f. *pallida*, HACK, ex HONDA, apud MASAMUNE, Prel. Rep. Veg. Yak. p. 42 :1929 , et Monogr. Poac. Jap. Bamb. excl. p. 135 1930
 A' out. Jap. *Ao komesusuki*
 Lea. Ipse, 1928.
 Distr. Honsyû.
 Xct?. Grows on rocks or in crevices of granite rocks scattered in the alpine regions of the island. It is restricted to Honsyû and to this island.

Eleusine, GAERTN., Fruct. and Sem. I. p. 7 1788 ; KUNTH, Enum. PL I. p. 272 '1833 ; ENDL., Gen. PL n. 841 1836-40 ; GRISEBACH, in LEDEB. Fl. Ross. IV. p. 452 :1853 ; STEUDEL, Syn. Glum. I. p. 210 1855); BENTH. et HOOK, f, Gen. PL. III. p. 1172 i.1883¹ p.p.; HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 61 1887 ; HOOK, f, Fl. Brit. Ind. VII. p. 293 1897 p.p.; LEMÉE, Diet. Gen. PL. Phan. II. p. 821 1930' p.p.

- Eleusine indica*, GAERTN., Fruct. I. p. 8 11733 ; LAM., Ill. I. p. 203, t 43, f. 3 '1791 ; ROXB., Fl. Ind. I. p. 315 .1832- ; KUNTH, Enum. PL. I. p. 272 ,1833 , et Supp. I. p. 221- 1835 ; GRISEBACH, in LEDEB. Fl. Ross. IV. p. 453 [1853 ; STEUD., Syn. Glum. I. p. 211 '1855) ; MIQ., Fl. Ind. Bat. III. p. 335 (1855), et in Ann. Mus. Bot. Lugd. Bat. II. p. 279 1866 ; BENTH., Fl. Hongk. p. 429 ^1861,, et Fl. Austral. VII. p. 615 1878' ; FR. et SAV., Enum. PL. Jap. II. p. 171 (1876; ; HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 61, f. 71 ;1857>, et in Bull. Herb. Boiss. VII. p. 703 ;1899.; HOOK, f, Fl. Brit. Ind. VII. p. 293 ,1897 ; RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 405 1901' ; MATSUM., Ind. PL. Jap. II. 1. p. 52 '1905 ; NAK., Fl. Kor. II. p. 362 '1911' ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 327 1912 ; HAY., Ic. PL. Formos. VII. p. 90 ,1918, ; LOESN., Pfl.-welt. Kiautsch. Geb. p. 90 1913^ ; YABE, Prel. Rep. Fl. Tsing-Tau-Region, p. 25 (1919; ; MERR., Enum. Philipp. PL I. p. 85 (19221, et Enum. Hainan PL p. 34 (1927 ; HITCHCOCK, in Lingn. Sc. Journ. VII. p. 203 1929 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 42 '1929 ; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 150 ;1930 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1340 il931
 Syn. *Cynosurus indie us*, LINN., Sp. PL ed. 1. p. 72 ;1753' ; THUNB., Fl. Jap. p. 52 1784- ; LOUR., Fl. Cochinch. p. 59 ;1790 ; WILLD., Sp. PL I. p. 417 (1797,

Eleusine japonica, STEUDL., Syn. Glum. I. p. 211 1855

Abm. Jap. *Ohiziu*

Lea. Ipse, Jun. 24, 1928.

Disir. Honsyu, Sikoku, Kyûsyû, Okinawa, Amami-6sima, Taiwan, Bonins, Korea, China, Philippines, India.

Ncte. Grows in waste or cultivated lands in the submountain zone.

Cyriocon, RICHARD, in PERSOON, Syn. PL I. p. 85

1805 ; KUNTH, Enum. PI. I. p. 259 1833 ; ENDL., Gen. PI. n. 836 1836-10 ; STEUDEL, Syn. Glum. I. p. 212 1855 ; BENTH. et HOOK, f, Gen. PI. III. p. 1164 1883 ; HACK., in ENGL. U. PRANT. Nat. Pfl.-fam. II. ii. p. 58 1887 ; HOOK, f, Fl. Brit. Ind. VII. p. 238 1897 ; ASCHERSON et GRAEB., Syn. Mitteleurop. Fl. II. 1. p. 84 1893 ; LEMÉE, Diet. Gen. PI. Phan. II. p. 458 U930

Syn. *Capriola*, ADANS., Fam. PI. II. pp. 31. et 532 1763 ; O. KUNTZE, Rev. Gen. PI. II. p. 764 1891 ; BRIT, et BROWN, III. Fl. 1. p. 175 1896 ; HITCHCOCK, in U. S. Dept. Agric. Bull. 772, p. 175, f. 105 1920

Dactylon, VILLARS, Pl. Delph. II. p. 69 1787. p.p.

Fibichia, KOELER, Gram. Gall, et Germ. p. 303 1802

Dactylus, ASCHERSON, Fl. Brandenb. I. p. 810 (1864

Cynodon dactylon, ;LINN. PERSOON, Syn. PI. I. p. 85 1805 ; ROEM. et SCHULT., Syst. Veg. II. p. 410 1817 ; KUNTH, Enum. PI. I. p. 259 1833, et Suppl. p. 203, t. XVI. f. 1. 1835 ; GRISEBACH, in LEDEB. Fl. Ross. IV. p. 452 1853 ; STEUDEL, Syn. Glum. I. p. 212 (1855 ; MIQ., Fl. Ind. Bat. III. p. 382 1855, et in Ann. Mus. Bot. Lugd. Bat. II. p. 279 1866) ; BENTH., Fl. Hongk. p. 428 1861, et Fl. Austral. VII. p. 609 1878 ; FR. et SAV., Enum. PI. Jap. II. p. 172 U876^x ; HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 53, f. 67 (1887, et Bull. Herb. Boiss. VII. p. 703 1899 ; HOOK, f, Fl. Brit. Ind. VII. p. 233 1897 ; RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 402 1904 ; MATSUM., Ind. PI. Jap. II. 1. p. 50 U905 ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 325 1912 ; HAY., Ic. PL Formos. VII. p. 93 1918 ; LOESN., Pfl.-welt. Kiautsch. Geb. p. 90 1918 ; YABE, Prel. Rep. Fl. Tsing-Tau-Region. p. 21 1919 ; MERR., Enum. Philipp. PI. I. p. 83 U922, et Enum. Hainan PI. p. 31 1927 ; MORI, Enum. PI. Cor. p. 41 1922 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 42 1929 ; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 154 (1930 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1335 1931

Syr. *Panicum Dactylon*, LINN., Sp. PI. ed. I. p. 58 (1753 ; WILLD., Sp. PI. I. p. 342 1797 ; ROXB., Fl. Ind. I. p. 289 1832)

Faspatum Dactylon, LAM., III. I. p. 176 1791

Paspalum umbellatum, LAM., III. I. p. 177 1791

Fibichia umbellata, KOELER, Gram. Gall, et Germ. p. 303 1802

Cynodon linearis, WILLD., Enum. Hort. Berol. p. 90 1803 ; NEES, in HOOK. Journ. Bot. Kew. Miscel. II. p. 93 1850

Panicum glumaepatulum, STEUD., Syn. PI. Glum. I. p. 41 1854,

Digitaria glumaepatula, MIQ., Fl. Ind. Bat. III. p. 439 1857

Capriola Dactylon, O. KUNTZE, Rev. Gen. PI. II. p. 764 (1891 ; BAILLON, Hist. PI. XII. p. 159 1894 ; HITCHCOCK, in U. S. Dept. Agric. Bull. 772 p. 173 1920

Aom. Jap. *Gyôgi-siba*

Leg. Ipse, 1924.

Distr. Yezo, Honsyu, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Bonins, Korea, China, Philippines.

Not?. Grows by the roadside or in waste lands near dwellings; a pandemic species distributed in the tropics and warm lands.

Calair.agrostis, ADANS., Fam. Pl. II. pp. 31. 530
1763 ; KUNTH, Enum. Pl. I. p. 236 1833 ; ENDL., Gen. Pl. n. 817 1835-40 ;
STEUDEL, Syn. Glum. I. p. 187 U855 ; BENTH. et HOOK. f., Gen. Pl. III. p. 1150
1883 ; HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 51 1887 ; HOOK, f.,
Fl. Brit. Ind. VII. p. 260 1897 ; LEMEE. Diet. Gen. Pl. Phan. I. p. 744 1929
Syn. *Deycuxia*, CLARION, ex BEAUV. ESS. Agrost. p. 43 t. 9 ff. 9 et 10 1812 ; BENTH.
et HOOK, f., Gen. Pl. III. p. 1152 1883,

Calamagrostis hakonensis, FR. et SAV., Enum. Pl. Jap. II. p. 163 1375 , et p. 599 1879 ;
TAKEDA, in Kew Bull. Miscell. p. 217 1912 ; KUDO, Contr. Fl. North. Saghal.
p. 21 1923 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 41 1929 ; HONDA, Monogr.
Poac. Jap. Bamb. excl. p. 167 1933 ; MIY. et KUDO, Fl. Hokk. & Sagh. II. p. 141
1931 *excl. syn.*; MAK. et NEM., Fl. Jap. ed. 2. p. 1324 1931,
Syn. *Calamagrostis sachalinensis*, non FR. SCHMIDT HACKEL, in Engl. Bot. Jahrb.
VI. p. 50 1885 , et in Bull. Herb. Boiss. VII. p. 650 1899. p.p.; MATSUM.
Ind. Pl. Jap. II. 1. p. 47 1905 p.p.

Nom. Jap. *Hime-nogariyasii*

Leg. Ipse, Miyanoura, Aug. 31, 1928.

Distr. Saghalien, Yezo, Honsyū, Sikoku, Kyūsyū.

Note. The species is found in the Pseudosasa Owatarii Association where the land is exposed. It is widely distributed in northern Japan and has its southern limit in this island.

Calamagrostis longiseta, HACK., ex MATSUM. in Tokyo Bot. Mag. XII. p. 25 1893 ,
et Ind. Pl. Jap. II. 1. p. 46 1905 ; HACK., in Bull. Herb. Boiss. VII. p. 650 1899 ;
KOIDZ., in Tokyo Bot. Mag. XXVIII. p. 113- 1914 , et XXXIII p. 204 1919 ;
MASAMUNE, Prel. Rep. Veg. Yak. p. 41 1929-; HONDA, Monogr. Poac. Jap.
Bamb. excl. p. 182 1930 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1326 1931

Nom. Jip. *Hige-nogariyasu*

Leg. Ipse, 1927.

Distr. Yezo, Honsyū, Kyūsyū.

Note. The species is found in the Pseudosasa Owatarii Association ranging from Yezo to Yakusima and has its southern limit in this island.

Calamagrostis Masamunei, HONDA, in Tokyo Bot. Mag. XLIII. p. 191 1929 , et Mo-
nogr. Poac. Jap. Bamb. excl. p. 182 1930 ; MASAMUNE, Prel. Rep. Veg. Yak. p.
42 1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1326 1931;

Nom. Jap. *Yakusima-nogariyasu*

Leg. Ipse, Jul. 28, 1922.

Disti. Endemica

Note. Grows along small streams which flow through the Pseudosasa Owatarii Association.

Calamagrostis orthophylla, HAY. et HONDA, ex HONDA, in Tokyo Bot. Mag. XL. pp.
325, et 329 1926 , et Monogr. Poac. Jap. Bamb. excl. p. 172 1933 ; MASAMUNE,
Prel. Rep. Veg. Yak. p. 42 1929. ; MAK. et NEM., Fl. Jap. ed. 2. p. 1327 1931

Nom. Jap. *Tati-iwanogariyasu*

Leg. Ipse, Aug. 31, 1926.

Distr. Honsyū, Sikoku, Kyūsyū.

Mote. Occurs in the Pseudosasa Owatarii Association and marks its southern limit in this island.

Agrostis, [LINN., Syst. ed. 1. '1735', et Gen. ed.

1. p. 19 '1737] Sp. PL ed. 1. p. 61 '1753', et Gen. PL ed. 5. p. 30 '1754'; KUNTH, Enum. PL I. p. 217 '1833'; ENDL., Gen. PL n. 810 '1836-40'; BENTH. et HOOK, f., Gen. PL" III. p. 1149 '1883'; HACK., in ENGL. U. PRANT. Nat. Pfl.-fam. II. ii. p. 50 '1887'; LEMÉE, Diet. Gen. PL Phan. I. p. 125 '1929

Syn. *Vilfa*, ADANS., Fam. II. p. 495 '1763'

Apera, ADANS., Fam. II. p. 495 '1763'

Agrostis alba, LINN., Sp. PL ed. 1. p. 63 '1753'; WILLD., Sp. PL I. p. 371 '1797'; KUNTH, Enum. PL I. p. 219 '1833'; et Supp. I. p. 175 '1836'; STEUD., Syn. Glum. I. p. 167 '1855'; TURCZAN., Fl. Baical-Dahur. I. p. 17 '1856'; BENTH., Fl. Austral. VII. p. 576 '1878'; HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 50 '1887', et in Bull. Herb. Boiss. VII. p. 649 '1899'; MATSUM., in Tokyo Bot. Mag. XL p. 445 '1897', et Ind. PL Jap. II. 1. p. 34 '1905'; PILG., in Engl. Bot. Jahrb. XXIX. p. 224 '1900'; RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 389 '1904'; MIY. et MIYAKE, FL Saghal. p. 563 '1915'; LOESN., Pfl.-welt. Kiautsch. Geb. p. 89 '1918'; PRITZ, Veg. Siberian-Mongoliana Front, p. 122 '1921'; MIURA, Fl. Manch. & Mong. p. 26 (1925); MERR., Enum. Philipp. PL I. p. 81 '1922:

Syn. *Agrostis palustris*, HUDSON, FL Angl. p. 27 '1762'; HITCHCOCK, in U. S. Dept. Agric. Bull. 772, p. 128, PL XIII. f. 67 '1920'; HONDA, in Tokyo Bot. Mag. XL. p. 322 '1926', et Monogr. Poac. Jap. Bamb. excl. p. 186 (1930); MASAMUNE, Prel. Rep. Veg. Yak. p. 40 '1929'; MAK. et NEM., FL Jap. ed. 2. p. 1305 '1931'; MIY. et KUDO, Fl. Hokk. & Saghal. II. p. 133 (1931)

Agrostis alba, forma *coarctata*, HACK., in Bull. Herb. Boiss. VII. p. 649 '1899

Aom. Jap. *Konukagusa*

Leg. Ipse, 1927.

Distr. Saghalien, Kuriles, Yezo, Honsyū, Sikoku, Kyūsyū, Korea, Manchuria, China, Philippines, Himalaya.

Note. The species is found by the roadside, from 700 m up to 1800 m above the sea level, and is widely distributed in the northern part of Japan.

Agrostis flaccida, HACK, in Bull. Herb. Boiss. VII. p. 649 '1899'; MATSUM., Ind. PL Jap. II. 1. p. 34 '1905'; TAKED., FL Sikot. p. 495 '1914'; MORI, Enum. PL Cor. p. 36 '1922'; MASAMUNE, Prel. Rep. Veg. Yak. p. 40 '1929'; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 189 '1930'; MIY. et KUDO, FL Hokk. & Saghal. II. p. 134 '1931'; MAK. et NEM., FL Jap. ed. 2. p. 1304 '1931:

Syn. *Agrostis canina*, non LINN. FR. SCHMIDT., Reisen. Amur. Sachal. p. 203 '1868'; MIY., Fl. Kuril, p. 269 '1890'; MIY. et MIYAKE, FL Saghal. p. 564 '1915.

Agrostis debilis, HACK., ex MATSUM. in Tokyo Bot. Mag. XL p. 445 '1897

Nom. Jap. *Miyama-nukabo*

Leg. Ipse, Yaedake, 1926.

Distr. Saghalien, Kuriles, Yezo, Honsyū, Sikoku, Kyūsyū, Korea.

Note. The species occurs by the roadside and on mountain passes at high altitudes and has its southern limit in this island.

Agrostis Matsumurae, HACK., ex MATSUM. in Tokyo Bot. Mag. XI. p. 445 '1897'; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 191 '1930,

Syn. *Agrostis tenuiflora*, non WILLDN., STEUD., Syn. Glum. I. p. 163 1855[^]; HACK., in Bull. Herb. Boiss. VII. p. 648 1899; YABE, in Tokyo Bot. Mag. XVII. p. 126 1903; MATSUM., Ind. Pl. Jap. II. 1. p. 35 1905; MORI, Enum. Pl. Cor. p. 37 1922; MASAMUNE, Prel. Rep. Veg. Yak. p. 41 (1929[^]); MAK. et NEM., Fl. Jap. ed. 2. p. 1306 1931,

Agrostis perennans, non TUCKERMAN; MAK. et NEM., Fl. Jap. ed. 1. p. 1414 1925^T partim.

Rom. Jap. Nukabo

Leg. Ipse, 1924.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Korea, Taiwan.

Note. Occurs in the Pseudosasa Owatarii Association; rather common in Japan.

Agrostis clavata, TRIN., in SPRENG. Neue Entdeck. II. p. 55 1821², et Syst. I. p. 260 1825; KUNTH, Enum. Pl. I. p. 227 1833; PRINZ., Veg. Siberian.-Mongolian. Front, p. 122 1921); HULT., Fl. Kamtch. I. p. 95 1927; KOM., Fl. Pen. Kamtsch. I. p. 140 1927; MIY. et KUDO, Fl. Hokk. & Saghal. II. p. 137 1931)

Syn. *Cornucopiae perennans*, WALTER, Fl. Carol, p. 74 1788¹

Trichodium Perennans, ELLIOR., Sketch. I. p. 99 1821)

Trichodium Clavatum, SCHULT., Mant. III. p. 556 1827²

Agrostis perennans, TUCKERMAN, in Amer. Journ. Sci. XLV. p. 44 1843; STEUD., Syn. Glum. I. p. 165 1855; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 277 1866; FR. et SAV., Enum. Pl. Jap. II. p. 166 1876; MIY., Fl. Kuril, p. 269 1890; PILG., in Engl. Bot. Jahrb. XXIX. p. 224 1900; RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 390 1904; MATSUM., Ind. Pl. Jap. II. 1. p. 34 1905; KOIDZ., Pl. Saghal. Nakah. p. 16 1910; HAY., Mat. Fl. Formos. p. 407 1911, et Ic. Pl. Formos. VII. p. 86 1918; NAK., Fl. Kor. II. p. 359 1911; MIY. et MIYAKE, Fl. Saghal. p. 565 1915; MORI, Enum. Pl. Cor. p. 36 1922; KOM., Fl. Pen. Kamtsch. I. p. 142 1927; MASAMUNE, Prel. Rep. Veg. Yak. p. 41 1929; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 193 1930; MAK. et NEM., Fl. Jap. ed. 2. p. 1305 1931)

Agrostis scabra, non WILLD., A. GRAY, Pl. Jap. p. 439 1856; NAK., Fl. Kor. II. p. 359 1911

Agrostis laxiflora, non R. BR., TURCZAN., Fl. Baical.-Dahur. I. p. 18 1856; Fr. SCHMID., Reisen Amur. Sachal. in Mem. Acad. Imp. Sc. Petersb. Ser. VII. t. XII. 2. p. 203 1868;

Agrostis Scouleri, non TRINIUS HACKEL, in Bull. Herb. Boiss. 2 sér. IV. p. 523 1904; MATSUM., Ind. Pl. Jap. II. 1. p. 35 1905; MAK. et NEM., Fl. Jap. ed. 1. p. 1415 1925¹

Agrostis Michauxii, TRIN., De Gram. Uniflor. p. 206 1821

Aom. Jap. Yama-nukabo

Leg. Ipse, 1928.

Distr. Kamtchatka, Saghalien, Yezo, Honsyû, Sikoku, Kyûsyû, Okinawa, Taiwan, Korea, China.

Acfe. The species occurs in the Pseudosasa Owatarii Association at high altitudes. It is distributed in the northern part of the north hemisphere and especially flourishes in subalpine meadows.

Sporobolus, R. BR., Prodr. Fl. Nov. Holl. p. 169

1810.; KUNTH, Enum. Pl. I. p. 209 1833; ENDL., Gen. Pl. n. 809 1836-40; BENTH. et HOOK, f, Gen. Pl. III. p. 1148 1883; HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 49 1887)

Syn. Agrosticula, RADDI, *Agrost. Bras.* p. 33 t. 1. f. 2 (1823)
Bcnnetia, RAF., in *Bull. Bot. Seringe*, I. p. 220 (1830)

Sporobolus elongatus, R. BR., *Prodr. Fl. Nov. Holl.* p. 170 (1810.; KUNTH, *Enum. PI.* I. p. 212 (1833), et *Supp. I.* p. 168 (1835); MIQ., *Fl. Ind. Bat. III.* p. 376 (1855), et in *Ann. Mus. Bot. Lugd. Bat. II.* p. 278 (1865); FR. et SAV., *Enum. PI. Jap. II.* p. 166 (1876); HACK., in *Bull. Herb. Boiss. VII.* p. 648 (1899-); MATSUM., *Ind. PI. Jap. II.* 1. p. 84 (1905); NAK., *Fl. Kor. II.* p. 355 (1910); YABE, *Prel. Rep. Fl. Tsing-Tau-Region* p. 24 (1919); MASAMUNE, *Prel. Rep. Veg. Yak.* p. 46 (1929); HONDA, *Monogr. Poac. Jap. Bamb. excl.* p. 203 (1930); MAK. et NEM., *Fl. Jap. ed.* 2. p. 1405 (1931).

Syn. Cinna japonica, STEUD., *Syn. Glum. I.* p. 182 v (1855)

Sporobolus indicus, non R. BR. J BENTH., *Fl. Hongk.* p. 426 (1861. p.p., et *Fl. Austral. VII.* p. 622 (1873) p.p.; HOOK, f., *Fl. Brit. Ind. VII.* p. 247 (1897 partim.; RENDLE, in *FORB. et HEMSL. Ind. Fl. Sin. III.* p. 388 (1904); MATSUM. et HAY., *Enum. PI. Formos.* p. 534 (1906); NAK., *Fl. Kor. II.* p. 356 (1911¹); MATSUDA, in *Tokyo Bot. Mag. XXVIII.* p. 322 (1914); HAY., *Ic. PI. Formos. VIII.* p. 83 (1918¹); DUNN et TUTCH., *Fl. Kwang. & Hongk.* p. 325 (1912); LOESN., *Pfl.-welt. Kiautsch. Geb.* p. 89 (1918); MERR., *Enum. Hainan PI.* p. 34 (1927); HITCHCOCK, in *Lingn. Sc. Journ. VII.* p. 193 (1929i)

Aō/Ti. Jap. *Nezutni-no-o*

Leg. Ipse, Ambō.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China.

Aōfe. Occurs in waste lands or by the roadside; common in the Far East.

Alopecurus, [LINN., *Syst. ed.* 1 (1735), *Gen. ed.*

1. p. 18 (1737)] *Sp. PI. ed.* 1. p. 60 (1753), et *Gen. PI. ed.* 5. p. 30 (1754); KUNTH, *Enum. PI. I.* p. 23 (1833); ENDL., *Gen. PI. n.* 747 (1836-40); STEUD., *Syn. Glum. I.* p. 147 (1855); BENTH. et HOOK, f., *Gen. PI. III.* p. 1140 (1883); HACK., in *ENGL. u. PRANT. Nat. Pfl.-fam. II.* ii. p. 43 (1887¹); LEMÉE, *Diet. Gen. PI. Phan. I.* p. 168 (1929).

Syn. Tozzettia, SAVI, in *Mem. Soc. Ital. VIII.* p. 477 (1793)

Alopecurus geniculatus, LINN., *Sp. PI. ed.* 1. p. 60 (1753), et *Gen. PL. ed.* 5. p. 30 (1754); THUNB., *Fl. Jap.* p. 49 (1784⁸); KUNTH, *Enum. PI. I.* p. 24 (1833), et *Supp. I.* p. 18, t. VII. f. 1 (1835); GRISEB., in *LEDEB. Fl. Ross. IV.* p. 464 (1853); STEUDEL, *Syn. Glum. I.* p. 147 (1855); MAXIM., *Prim. Fl. Amur.* p. 336 (1859); BENTH., *Fl. Hongk.* p. 403 (1861); MIQ., in *Ann. Mus. Bot. Lugd. Bat. II.* p. 277 (1866); FR. et SAV., *Enum. PI. Jap. II.* p. 158 (1876); HOOK, f., *Fl. Brit. Ind. VII.* p. 239 (1897); MATSUM., *Ind. PI. Jap. II.* 1. p. 36 (1905); LOESN., *Pfl.-welt, Kiautsch. Geb.* p. 89 (1918); HITCHCOCK, in *U. S. Dept. Agr. Bull.* 772, p. 137 (1920); MASAMUNE, *Prel. Rep. Veg. Yak.* p. 41 (1929); HONDA, *Monogr. Poac. Jap. Bamb. excl.* p. 204 (1930)

Syn. Alopecurus aequalis, SOBOLEVSKY, *Fl. Petropol.* p. 16 (1793¹); RENDL., in *FORB. et HEMSL. Ind. Fl. Sin. III.* p. 384 (1904); MATSUM. et HAY., *Enum. PI. Formos.* p. 533 (1906); DUNN et TUTCH., *Fl. Kwang. & Hong.* p. 325 (1912); HAY., *Ic. PI. Formos. VII.* p. 82 (1918); HULT., *Fl. Kamtch. I.* p. 89 (1927)
Alopecurus fulvus, J. E. SMITH, in *Engl. Bot. XXI.* t. 1467 (1805); KUNTH, *Enum. PI. I.* p. 24 (1833); FR. SCHMID., *Reisen. Amur. Sachal.* p. 203 (1868);

HACK., in Bull. Herb. Boiss. VII. p. 643 1893 ; MAK., Glum. Jap. I. 1. Pl. 1. ,1901 ; KOM., Fl. Mansh. I. p. 271 1901 ; MATSUM., Ind. Pl. Jap. II. 1. p. 35 1905 ; KOIDZ., Fl. Sachal. Nakah. p. 15 (1910 ; NAK., Fl. Kor. II. p. 355 1911. ; MIY. et MIYAKE, Fl. Saghal. p. 562 U915 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1306 1931 \

Alopecurus geniculatus, subsp. *fulvus*, HOOK, f., Student Fl. Brit. Isl. ed. 3. p. 474 1884 ; MIY., Fl. Kuril, p. 269 1890

Xom. Jap. Suzume-no-teppó

Leg. Ipse, 1927.

Distr. Kamtschatka, Saghalien, Kuriles, Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China, Siberia, America.

Rote. The species is found in cultivated or waste lands and very often in wet places, and it is a widely distributed species in the world.

Alopecurus japonicus, STEUD., Syn. Glum. I. p. 149 1855 ; FR. et SAV., Enum. PL Jap. II. p. 158 1876 ; HACK., in Bull. Herb. Boiss. VII. p. 648 1899 ; RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 385 1904 ; MATSUM., Ind. Pl. Jap. II. 1. p. 36 1905 ; MAK. et NEM., Fl. Jap. ed.1. p. 1416 1925 , et ed. 2. p. 1307 1931 ; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 205 1930

Syn. *Alopecurus malacostachyus*, A. GRAY, in Narr. Perry's Exped. Jap. p. 328 1856
Alopecurus agrestis, non LINN. PILG., in Engl. Bot. Jahrb. XXIX. p. 224 1900

fïom. Jap. Seto-gaya

Leg. Ipse, Kurio, Mart. 23, 1923.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, China.

Note. Occurs in the lowlands on somewhat sunny ground.

Anthoxanthum, [LINN., Gen. ed. 1. p. 18 1737]

Sp. Pl. ed. 1. p. 23 1753 , et Gen. PL ed. 5. p. 17 1754 ; KUNTH, Enum. PL I. p. 37 1833 ; ENDL., Gen. n. 756 1836-40 ; STEUD., Syn. Glum. I. p. 12 1855 ; BENTH. et HOOK, f., Gen. PL III. p. 1138 1883 ; HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 43 1887 ; LEMKE, Diet. Gen. PL Phan. I. p. 309 1929

Anthoxanthum odoratum, LINN., Sp. PL ed. 1. p. 28 1753; KUNTH, Enum. PL I. p. 38 1833 , et Supp. p. 28, t. 8 1835 ; STEUD., Syn. Glum. I. p. 13 1855¹ ; BENTH., Fl. Austral. VII. p. 557 1878 ; HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. 2. p. 43 1887 , et in Bull. Herb. Boiss. VII. p. 646 1899 ; HOOK, f., Fl. Brit. Ind. VII. p. 222 1897 ; PRINTZ, Veg. Sieb. Mongolian. Front, p. 117 1921[^] ; MASAMUNE, Prel. Rep. Veg. Yak. p. 41 1929 ; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 226 1930 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1310 1931 ; MIY. et KUDO, Fl. Hokk. & Saghal. II. p. 125 1931

Nom. Jap. Harugaya

Leg. Ipse, Jul. 26, 1927.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Siberia, Causasus.

Note. Occurs in the Pseudosasa Owatarii Association in the alpine region.

Pennisetum, RICHARD, in PERSOON, Syn. PL I.

p. 72 1805 ; KUNTH, Enum. PL I. p. 160 1833 ; ENDL., Gen. PL n. 781 1836-40 ; STEUD., Syn. Glum. I. p. 102 1855 ; BENTH. et HOOK, f., Gen. PL III. p. 1105 1883 ; HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 38 1887

Syn. *Penicillaria*, WILLD., Enum. Hort. Berol. p. 1036 1809 ; KUNTH, Enum. PL I. p. 165 1833,

Gymnothrix, BEAUV., ESS. Agrost. p. 59 t. 13. f. 6 (1812 J)

Gyrnnothrix, SPRENG., Anleit. ed. 2. II. 1. p. 154 (1817)

Catatherophora, STEUD., in Fl. XII. p. 465 (1829)

Pennisetum sordidum, KOIDZ., in Tokyo Bot. Mag. XXXIII. p. 112 (1919- ; MASAMUNE, Prel. Rep. Veg. Yak. p. 45 (1929;; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 233 (1930. ; MAK. et NEM., Fl. Jap. ed. 2. p. 1371 (1931)

Syn. *Pennisetum japonicum*, var. *viridescens*, MATSUM., Ind. PL Jap. II. 1. p. 74 (1905) p.p.; MATSUM. et HAY., Enum. PI. Formos. p. 512 (1906; p.p.

Nom. Jap. *Sima-tikarasiba*

Leg. Ipse, 1927.

Distr. Kyûsyû, Amami-6sima, Bonins, Taiwan.

Note. The lithophyte grows in crevices of sedimental rocks in the littoral region.

Setaria, inon ACHARIUS nee MICHAUXI BEAUV., Fl. d'Oware. II. p. 80 (1807-18 , et Ess. Agrost. p. 51 (1812); HUMBOLT, BONPLAND et KUNTH, Syn. PI. I. p. 183 (1822) ; KUNTH, Enum. PI. I. p. 149 (1833); ENDL., Gen. PL n. 781a ;183&-40 ; BENTH. et HOOK, f, Gen. PL III. p. 1105 (1883); HACK., in ENGL. U. PR ANT. Nat. Pfl.-fam. II. ii. p. 36 (1887)

'Syn. *Panicum*, Sect. *Setaria*, STEUD., Syn. Glum. I. p. 49 (1855) ; ASCHERSON et GRAEBN., Syn. Mitteleurop. Fl. II. 2. p. 233 (1930)

Chaetochloa, SCRIBNER, in U. S. Dept. Agric. Agrost. Bull. IV. p. 38 (1897) ; HITCHCOCK, in Contrb. U. S. Nat. Herb. XVII. 3. p. 259 (1913) ; HONDA, in Tokyo Bot. Mag. XXXVIII. p. 191 (1924;

.Setaria lutescens, HUBB., in Rhodora XVIII. p. 232 (1916;; MIY. et KUDO, FL Hokk. & Sagh. II. p. 119 a931»

Syn. *Panicum lutescens*, WEIGEL., Obs. Bot. p. 20 J7721

Setaria glauca, BEAUV., Ess. Agr. p. 51 ;1812); KUNTH, Enum. PL I. p. 149 1833 ; MAXIM., Prim. FL Amur. pp. 330, et 479 -1859-; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 275 ,1856; HOOK, f, FL Brit. Ind. VII. p. 78 (1897) p.p.; KOM., Fl. Mansh. I. p. 257 ,1901. ; RENDL., in FORB. et HEMSL. Ind. FL Sin. III. p. 335 .1904·; MATSUM., Ind. PL Jap. II. 1. p. 82 :1905); MATSUM. et HAY., Enum. PI. Formos. p. 510 (1906; ; NAK., FL Kor. II. p. 350 1911 ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 316 (1912 ; HAY., Ic. PL Formos. VII. p. 67 ,1918 ; MAK. et NEM., FL Jap. ed. 1. p. 1493 .1925

Panicum glaucum, inon LINN.. TRINIUS, Diss. II. p. 162 11826· , et Sp. Gram. Ic. II. t. 195 ,1829 ; STEUD., Syn. Glum. I. p. 50 :1855) ; BENTH., FL Hongk. p. 411 1861 ; FR. et SAV., Enum. PL Jap. II. p. 161 (1876;

•var. genuina, HONDA, ex MASAMUNE, Prel. Rep. Veg. Yak. p. 46 (1929 , et Monogr. Poac. Jap. Bamb. excl. p. 237 1930 ; HITCHCOCK, in Lingn. Sc. Journ. VII. p. 227 ·1929·

Syn. *Chaetochloa lutescens*, a *genuina*, HONDA, in Tokyo Bot. Mag. XXXVIII. p. 194 1924 ; MAK. et NEM., FL Jap. ed. 2. p. 1331 ;193r

Nom. Jap. *Kinenokoro*

Leg. Ipse, 1926.

Distr. Saghalien, Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Bonins, Korea, Manchuria, China.

Note. The variety is found in waste lands and by the roadside at low altitudes and is common throughout the world.

- var. **longispica**, HONDA, Monogr. Poac. Jap. Bamb. excl. p. 238 (1930)
Syn. *Chaetochloa lutescens*, § *longispica*, HONDA, in Tokyo Bot. Mag. XXXVIII. p. 195.
 (1924[^]; MAK. et NEM., Fl. Jap. ed. 1. p. 1493 (1925)
Setaria glauca, var. *longispica*, MAK. et NEM., Fl. Jap. ed. 1. p. 1493 (1925)
Nom. Jap. Nagabono-kinenokoro
Leg. Ipse, Koseda, 1924.
Distr. Honsyû, Kyûsyû, Taiwan, Korea.
Note. The variety is found in sunny waste lands and by the roadside.

- Setaria viridis*, BEAUV. var. **pachystachys**, MAK. et NEM. subvar. *typica*, MAK. et NEM., Fl. Jap. ed. 1. p. 1499 (1925); MASAMUNE, Prel. Rep. Veg. Yak. p. 46 (1929); HONDA, Monogr. Poac. Jap. Bamb. excl. p. 241 (1930)
Syn. *Setaria pachystachys*, var. *lanceolata*, HACK., ex MATSUM. in Tokyo Bot. Mag. XI. p. (443) (1897), et Ind. Pl. Jap. II. 1. p. 82 (1905)
Chaetochloa viridis, var. *pachystachys*, subvar. *o typica*, HONDA, in Tokyo Bot. Mag. XXXVIII. p. 198 (1924[^]; MAK. et NEM., Fl. Jap. ed. 2. p. 1331 (1931)
Chaetochloa viridis, var. *pachystachys*, subvar. *lanceolata*, MAK. et NEM., Fl. Jap. ed. 1. p. 1499 (1925)
Nom. Jap. Hama-enokoro
Leg. Ipse, 1928.
Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Ôsima, Okinawa, Taiwan, Korea, China.
Note. Occurs by the roadside, on waste lands, cultivated grounds, and on sandy beaches.

- var. **purporascens**, MAXIM., Prim. Fl. Amur. p. 330 (1859); TAKEDA, in Tokyo Bot. Mag. XXIV. p. 180 (1910); MORI, Enum. Pl. Cor. p. 55 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 46 (1929); HONDA, Monogr. Poac. Jap. Bamb. excl. p. 242 (1930); MIY. et KUDO, Fl. Hokk. & Sagh. II. p. 121 (1931)
Syn. *Setaria purpurascens*, HUMBOLT, BOMPLAND et KUNTH, Nov. Gen. et Sp. I. p. 110 (1815), et Syn. Pl. I. p. 184 (1822); KUNTH, Enum. Pl. I. p. 151 (1833)
Setaria viridis, non BEAUV.) MATSUM., Ind. Pl. Jap. II. 1. p. 83 (1905) p.p.
Setaria viridis, var. *purpurascens*, MAXIM., Prim. Fl. Amur. p. 330 (1859); TAKEDA, in Tokyo Bot. Mag. XXIV. p. 180 (1910)
Chaetochloa viridis, var. *purpurascens*, HONDA, in Tokyo Bot. Mag. XXXVIII. p. 197 (1924); MAK. et NEM., Fl. Jap. ed. 2. p. 1332 (1931)
Nom. Jap. *Murasaki-enokoro*
Leg. Ipse, Sept. 5, 1926.
Distr. Honsyû, Sikoku, Kyûsyû, Korea, China, Siberia.
Note. Occurs by the roadside, in waste lands at low altitudes; common in the northern hemisphere.

- Panicum**, [LINN., Syst. ed. 1 (1735), et Gen. ed. 1. p. 17. M737] Sp. Pl. ed. 1. p. 55 (1753[^]); et Gen. Pl. ed. 5. p. 29 (1754^x); KUNTH, Enum. Pl. I. p. 75 (1833); ENDL., Gen. Pl. n. 770 (1836-40); STEUD., Syn. Glum. I. p. 37 (1855) p.p.; BENTH. et HOOK, f., Gen. Pl. III. p. 1100 (1883); HACK., in ENGL. U. PRANT. Nat. Pfl. Fam. II. ii. p. 35 (1887) p.p.
Syn. *Eatonia*, RAF., in Journ. de Phys. LXXXIX. p. 104 (1819)

Panicum bisulcatum, THUNB., in Nov. Act. Soc. Upsal. VII. p. 141 (1815 ; TANAKA in Bulh Soc. Fak. :Terk. Kjusû. Imp. Univ. I. p. 195 (1925); HONDA, Monogr. Poa. Jap. Bamb. excl. p. 249 (1931); MAK. et NEM., Fl. Jap. ed. 2. p. 1365 (1931); MIY. et KUDO, Fl. Hokk. & Sagh. II. p. 118 (1931)

Syn. *Panicum grossarium*, (non LINN.) THUNB., Fl. Jap. p. 48 (1784)

Panicum aeroanthum, STEUD., Syn. Glum. I. p. 87 (1855 ; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 275 (1866); FR. et SAV., Enum. Pl. Jap. II. p. 162 (1876); HACK., in Engl. Bot. Jahrb. VI. p. 49 (1885 ; HOOK, f, Fl. Brit. Ind. VII. p. 52 (1897); MATSUM. et HAY., Enum. Pl. Formos. p. 500 (1906) ; NAK., Fl. Kor. II. p. 346 U91D ; HAY., Ic Pl. Formos. VII. p. 64 11918^

Norn. Jap. Nukakibi

Leg. KUDO! Kurio, Aug. 1907.

Distr. Yezo, Honsyû, Kyûsyû, Okinawa, Taiwan, Korea, China, India.

Note. Occurs in grasslands near the sea level; rather common in Japan, and is distributed all over the eastern hemisphere.

Panicum repens, LINN., Sp. Pl. ed. 2. p. 87 (1762 ; KUNTH, Enum. Pl. I. p. 103 (1833) ; BENTH., Fl. Hongk. p. 412 (1861), et Fl. Austr. VII. p. 484 (1878 ; HOOK, f, Fl. Brit. Ind. VII. p. 49 (1897); HACK., in Bull. Herb. Boiss. VII. p. 644 (1899); RENDL., in FORB. et HEMSL. Ind. Fl. Sin. III. p. 332 (1904 ; MATSUM., Ind. Pl. Jap. II. 1. p. 71 (1905); MATSUM. et HAY., Enum. Pl. Formos. p. 505 U906> ; DUNN et TUTCH., Fl. Kwangt. & Hongk. p. 315 (1912) ; MERR., Enum. Philipp. Pl. I. p. 67 U922 , et Enum. Hain. Pl. p. 32 (1927' ; HITCHCOCK, in Lingn. Sc. Journ. VII. p. 227 U929); MASAMUNE. Prel. Rep. Veg. Yak. p. 44 (1929 ; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 250 (1930^ ; MAK. et NEM., Fl. Jap. ed. 2. p. 1363 (1931)

Syn. *Panicum ischaemoides*, RETZIUS, Obs. Bot. IV. p. 17 (1786;; NEES, in HOOK. et ARNOT. Bot. Capt. Beech. Voy. pp. 233, 273 (1836-40'; STEUDEL, Syn. Glum. I. p. 98 (1855; ; MIQ. Fl. Ind. Bat. III. p. 450 (1857'

Panicum arenarium, BROTERO, Fl. Lusit. I. p. 82 (1804), et Phyt. Lusit. I. p. 15, t. 6 (1816^ ; NEES, in HOOK, et ARNOT. Bot. Capt. Beech. Voy. p. 170 (1833); STEUD., Syn. Glum. I. p. 73 (1855)

Panicum convolutum, BEAUV., ex SPRENG. Syst. I. p. 319 (1825 ; STEUD., Syn. Gl. p. 73 (1855)

Norn. Jap. Haikibi

Leg. Ipse, Kurio.

Distr. Kyûsyû, Tanegasima, Amami-ôshima, Okinawa, Taiwan, China, Malay, Philippines, India.

Note. Grows in the lowlands, on somewhat wet places, or on sandy beaches; common in south Japan.

Panicum plicatum, LAM., Ill. I. p. 171 (1791); KUNTH, Enum. Pl. I. p. 94 (1833); BENTH., Fl. Hongk. p. 411 (1861) ; HOOK, f, Fl. Brit. Ind. VII. p. 55 (1897); MASAMUNE, Prel. Rep. Veg. Yak. p. 44 (1929) ; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 256 (1930;; MAK. et NEM., Fl. Jap. ed. 2. p. 1367 (1931)

Syn. *Panicum neurodes*, (non SPRENG.) HACKEL, in Bull. Herb. Boiss. VII. p. 644 (1899); MATSUM., Ind. Pl. Jap. II. 1. p. 71 (1905J; MAK. et NEM., Fl. Jap. ed. 1. p. 1474 (1925)

Sctaria mauritiana, SPRENGEL, Syst. Veg. I. p. 305 (1825;; RENDLE, in FORR et HEMSL. Ind. Fl. Sin. III. p. 336 (1904)

Panicum excurrens, (non TRINIUS) FR. et SAV., Enum. Pl. Jap. II. p. 161 (1876) ; HACKEL, in Bull. Herb. Boiss. VII. p. 644 (1899); MATSUM., Ind.

Pl. Jap. II. 1. p. 69 (1905'; MATSUM. et HAY., Enum. PL Formos. p. 502
1905'; HAY., Ic. PI. Formos. VII. p. 64 '1918'

Setaria mariscus, MATSUDA, in Tokyo Bot. Mag. XXIV. p. 173 ;1910'

Nom. Jap. Sasa-kibi

Leg. KIMURA! Aug. 10, 1922.

Distr. Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, China.

Note. The species occurs as an invader of clearings in the laurisilvae from the sea level up to about 800 m, and is distributed nearly all over tropical and subtropical regions of eastern Asia.

Sacciolepis, NASH, in BRITTON, Man. p. 80
'1901 ; HITCHCOCK, in Contrib. U. S. Nat. Herb. XVII. 3. p. 254 (1913^

Sacciolepis spicata, LINN. · HONDA, ex MASAMUNE, Prel. Rep. Veg. Yak. p. 46 (1929),
et Monogr. Poac. Jap. Bamb. excl. p. 261 ;1930'

Syn. *Aira spicata*, LINN., Sp. Pl. ed. I. p. 63 (1753'

Panicum indicwn, LINN., Mant. II. p. 184 ;177i-; ROXB., Fl. Ind. I. p. 285 ;1832 ;
KUNTH, Euum. Pl. I. p. 133 1833^; STEUDEL, Syn. Glum. I. p. 84 '1855 ;
BENTH., Fl. Hongk. p. 413 1861 , et Fl. Austral. VII. p. 480 (1878'; HOOK
f., Fl. Brit. Ind. VII. p. 41 1897'; HACK., in Bull. Herb. Boiss. VII. p. 644
1899 ; PILGER, in Engl. Bot. Jahrb. XXIX. p. 223 1901 ; RENDLE, in FORB.
et HEMSL. Ind. Fl. Sin. III. p. 330 ,1904 ; MATSUM., Ind. Pl. Jap. II. 1. p. 70
1905 p.p.; MATSUM. et HAY., Enum. Pl. Formos. p. 503 ,1906) p.p.; NAK.,
Fl. Kor. II. p. 317 1911 p.p.; DUNN et TUTCH., Fl. Kwangt. & Hongk. p.
315 1912 ; HAY., Ic. Pl. Formos. VII. p. 61 1918 ; MERR., Enum. Philipp.
Pl. p. 64 1922

Panicum microstachyurn, LAMARK, Ill. I. p. 170· 179f ; KUNTH, Enum. Pl. I. p.
83 1833

Panicum angustum, TRINIUS, Sp. Gram. Ic. III. t. 334; 1836;; STEUD., Syn.
Glum. I. p. 84 1855,

Hymenachne indica, BUHSE, ex MIQ., Fl. Ind. Bat. III. p. 458 ,1855^

Panicum indicum, fl. contraction, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 275
1866 p.p.; FR. et SAV., Enum. Pl. Jap. II. p. 163 ,1876; p.p.; RENDLE, in
FORB. et HEMSL. Ind. Fl. Sin. III. p. 350 1904

Panicum indicum, var. *angustum*, HOOK, f., Fl. Brit. Ind. VII. p. 42 ,1897 ;
RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 330 1904)

Sacciolepis indica, CHASE, in Proc. Biol. Soc. Washington XXI. p. 8 ,1903 ;
HONDA, in Tokyo Bot. Mag. XXXVII. p. 116 1923 ; MAK. et NEM., Fl.
Jap. ed. 2. p. 1392 1931.

Panicum indicum, var. *oryzctorum*, non MAK. · MORI, Enum. Pl. Cor. p. 49
1922

Nom. Jap. Hainumcri

Leg. Ipse, Onoaida, Jun. 23, 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-Ôsima, Okinawa, Taiwan, Korea, China,
India, Philippines.

Note. The plant occurs on wet ground or in somewhat swampy places from the sea level up to 600 m, and is common in eastern Asia.

Echinochloa, BEAUV., ESS. Agrost. p. 53 '1812.;
HITCHCOCK, in Contrib. U. S. Nat. Herb. XVII. 3. p. 256 1913 ; LEMEE. Diet.
Gen. Pl. Phan. II. p. 789 1930

Syn. *Oplismenus*, Sect. *Echinochloa*, KUNTH, Enum. PI. I. p. 142 (1833'
Panicum, Sect. *Echinochloa*, STEUDEL, Syn. Glum. I. p. 46 (1855); BENTH. et
 HOOK, f., Gen. PI. III. p. 1102 (1833); HACKEL, in ENGL. u. PRANT. Nat.
 Pfl.-fam. II. 2. p. 35 (1887)

Echinochloa crus-galli, BEAUV. Subsp. **hispidula**, (RETZIUS HONDA, ex MASAMUNE
 Prel. Rep. Veg. Yak. p. 43 (1929), et Monogr. Poac. Jap. Bamb. excl. p. 267 (1930);
 MAK. et NEM., Fl. Jap. ed. 2. p. 1339 (1931)

Syn. *Panicum hispidulum*, RETZ., Obs. Bot. V. p. 13 (1786'; ROXB., Fl. Ind. I. p. 303
 >1832^N; FR. et SAV. f. Enum. PI. Jap. II. p. 160 (1876' p.p.

Oplismenus hispidulus, KUNTH, Enum. PI. I. p. 143 (1833'; MIQ., in Ann. Mus.
 Bot. Lugd. Bat. II. p. 274 (1866[^]

Panicum crus-galli, var. *hispidulum*, HACKEL, in Bull. Herb. Boiss. VII. p. 644
 {1899'; MATSUM., Ind. PI. Jap. II. 1. p. 69 (1905¹; NAK., Fl. Kor. II. p. 347
 {1911'

Panicum Crus-galli, subsp. *subnutica*, var. *hispidula*, MAK. et NEM., Fl. Jap. ed.
 1. p. 147 (1925;

horn. **Jap.** *Tabie*

Leg. Ipse, Jul. 29, 1928.

Distr. Yezo, Honsyû, Sikoku, KyGsyû, Amami-6sima, Okinawa, Taiwan, Korea.

Note. Occurs in rice fields, near stagnant water or on wet ground in the low
 lands; common in eastern Asia.

Oplismenus, BEAUV., Fl. d'Owar. II. p. 14 (1807-
 18'; KUNTH, Enum. PI. I. p. 138 (1833); ENDL., Gen. PL n. 778 (1836-40 \; BENTH.
 et HOOK. U Gen. PI. III. p. 1104 (1883); HACKEL, in ENGL. u. PRANT. Nat. Pfl.-
 fam. II. ii. p. 36 ,1887'; LEMEE, Diet. Gen. PI. Phan. IV. p. 870 (1932[>]

Syn. *Orthopogon*, R. BR., Prodr. Nov. Hokk. p. 194 (1810[^]

Panicum, Sect. *Orthopogon*, STEUD., Syn. Glum. I. p. 44 (1855[^]

Oplismenus Burmanni, BEAUV., Ess. Agrost. p. 54 (1812'; KUNTH, Enum. PI. I. p.
 139 ;1833); HOOK, f., Fl. Brit. Ind. VII. p. 63 (1897); HONDA, Mono?r. Poac. Jap.
 Bamb. excl. p. 270 '1930)

Syn. *Panicum hirtellum*, -non LINN. BURMANN, Ind. p. 24, t. 12, f. 1 (1769)

Panicum Burmanni, RETZIUS, Obs. Bot. III. p. 10 (1783'

Orthopogon Burmanni, R. BR., Prodr. p. 194 (18HT'; MIQ., Fl. Ind. Bat. III. j>.
 442 (1855[^]

var. **intermedius**, HONDA, in Tokyo Bot. Mag. XXXVIII. p. 191 (1924', et Monozr.
 Poac. Jap. Bamb. excl. p. 270 (1930'; MASAMUNE, Prel. Rep. Veg. Yak. p. 44
 ,1929)

Sj,n. *Oplismenus undulatifolius*, >non BEAUV.) MATSUM. et HAY., Enum. PI. Formos.
 p. 509 (1906[^]; HAY., Ic. PI. Formos. VII. p. 66 (1918)

Oplismenus undulatifolius, var. *imbecillis*, (non HACKEL' HAY., in Tokyo Bot.
 Mag. XXI. p. 50 ,1907)

ISom. **Jap.** *Taiton-kobunagusa*

Leg. Ipse, 1928.

Distr. Taiwan.

Note. The species is often found in the laurisilvae on somewhat sunny ground,
 or on forests edges and is not reported in any place except in Formosa and this
 island.

Oplismenus compositus, BEAUV., ESS. Agrost. p. 54 (1812); ROEM. et SCHULT., Syst. Veg. II. p. 484 (1817); KUNTH, Enum. PL I. p. 141 (1833); BENTH., FL Austr. VII. p. 491 (1878); HOOK, f., Fl. Brit. Ind. VII. p. 66 (1897); RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 337 (1904); MATSUM., Ind. Pl. Jap. II. 1. p. 67 (1905) partim.; MATSUM. et HAY., Enum. Pl. Formos. p. 509 (1906) p.p.; HAY., Ic. Pl. Formos. VII. p. 66 (1918) p.p.; MERR., Enum. Philipp. PL I. p. 71 (1922), et Enum. Hainan Pl. p. 32 (1927); HITCHCOCK, in Lingn. Sc. Journ. VII. p. 223 (1929);

- MASAMUNE, Prel. Rep. Veg. Yak. p. 44 (1929); HONDA, Monogr. Poac. Jap. Bamb. excl. p. 271 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 1363 (1931)

Syn. *Panicum compositum*, LINN., Sp. PL ed. 1. p. 57 (1753); STEUD., Syn. Glum. I. p. 44 (1855); BENTH., Fl. Hongk. p. 411 (1861)

Orlhopogon compositus, R. BR., Prodr. p. 194 (1810); MIQ., FL Ind. Bat III. p. 443 (1855)

Oplismenus hirtellus, BEAUV., Ess. Agrost. pp. 54, et 168 (1812); ROEMER et SCHULTES. Syst. Veg. II. p. 481 (1817); KUNTH, Enum. PL I. p. 140 (1833)

Oplismenus loliaceus, BEAUV., Ess. Agrost. p. 170 (1812); HUMBOLT, BONPLAND et KUNTH, Syn. PL I. p. 181 (1822); KUNTH, Enum. PL I. p. 140 (1833,

Nom. Jap. *Edauti-tizimizasa*

Leg. Ipse, Aug. 7, 1924.

Distr. Kyūsyū, Amami-Ōsima, Okinawa, Taiwan, Bonins, China, Philippines.

Note. As undergrowth the species is often found in the laurisilvae and is common in all the warmer parts of the earth.

Oplismenus japonicus, HONDA, in Tokyo Bot. Mag. XXXVIII. pp. (153), et 189 (1924), et Monogr. Poac. Jap. Bamb. excl. p. 273 (1930); MASAMUNE, Prel. Rep. Veg. Yak. p. 44 (1929); MAK. et NEM., Fl. Jap. ed. 1. p. 1466 (1925), et ed. 2. p. 1363 (1931)

Syn. *Panicum japonicum*, STEUD., in Flora XXIX. p. 18 (1846)

Oplismenus Burmanni, (non BEAUV.) MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 274 (1866); HOOK, f., FL Brit. Ind. VII. p. 68 (1897) p.p.; MATSUM., Ind. PL Jap. II. 1. p. 67 (1905) p.p.; MATSUM. et HAY., Enum. PL Formos. p. 508 (1906); NAK., Fl. Kor. II. p. 349 (1911)

Panicum Burmanni, (non RETZIU.) FR. et SAV. Enum. PL Jap. I. p. 160 (1876)

Oplismenus undulatifolius, var. *japonicus*, KOIDZ., in Tokyo Bot. Mag. XXXIX. p. 302 (1925)

Norn. Jap. *Kotizimizasa*

Leg. Ipse, Aug. 11, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Osima, Okinawa, Taiwan, Korea.

Note. Grows in the laurisilvae and the lauri-aciculisilvae as undergrowth; is restricted to Japan.

Oplismenus microphyllus, HONDA, ex MASAMUNE, Prel. Rep. Veg. Yak. p. 44 (1929), et Monogr. Poac. Jap. Bamb. excl. p. 274 (1930)

Norn. Jap. *Tyabo-tizimizasa*

Leg. Ipse, Kosugidani, Aug. 31, 1931.

Diatr. Honsyū, Kyūsyū.

Note. In mountain passes, clearings, and waste lands, the species enters as one of the pioneers, but the plant is also found in somewhat shady places in the laurisilvae and the lauri-aciculisilvae.

Isachne, R. BR., Prodr. p. 195 (1810); KUNTH, Enum. PI. I. p. 135 (1833); ENDL., Gen. PI. n. 773 (1836-40); BENTH. et HOOK. f. Gen. PL III. p. 1100 (1883[^]); HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 35 (1887); LEMÉE, Diet. Gen. PI. Phan. III. p. 767 (1931[^])

Isachne globosa, O. KUNTZ, Rev. Gen. PI. II. p. 778 (1891); MERR., Enum. Philipp. PI. I. p. 59 (1922[^]), et Enum. Hainan PI. p. 30 (1927¹); MASAM., Prel. Rep. Veg. Yak. p. 43 (1929); HONDA, Monogr. Poac. Jap. Bamb. excl. p. 279 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 1352 (1931)

Syn. *Milium globoswn*, THUNB., Fl. Jap. p. 49 (1784); WILLD., Sp. PI. I. p. 360 (1797); ROEM. et SCHULT., Syst. Veg. II. p. 321 (1817); STEUD., Syn. Glum. I. p. 34 (1851)

Isachne australis, R. BR., Prodr. p. 196 (1810); KUNTH, Enum. PI. I. p. 135 (1833); BENTH., Fl. Hongk. p. 414 (1866^V); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 276 (1866^N); FR. et SAV., Enum. PI. Jap. II. p. 164 (1876ⁱ); HACK., in Engl. Bot. Jahrb. VI. p. 50 (1885), et in Bull. Herb. Boiss. VII. p. 643 (1899[^]); HOOK. f., Fl. Brit. Ind. VII. p. 24 (1897); RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 321 (1904); MATSUM., Ind. PI. Jap. II. 1. p. 60 (1905¹); MATSUM. et HAY., Enum. PI. Formos. p. 493 (1906); NAIL. Fl. Kor. II. p. 346 (1911); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 313 (1912¹); YABE, Enum. PI. Manch. p. 14 (1912); HAY., Ic. PL Formos. VII. p. 57 (1918)

Eriochloa globosa, KUNTH, Rev. Gram. I. p. 30 (1829)

Agrostis globosa, POIR., in LAM. Encycl. Supp. I. p. 257 (1832)

Panicum lepidotum, STEUD., in Flora XXIX. p. 19 (1846⁶), et Syn. Glum. I. p. 95 (1855); A. GRAY, PI. Jap. p. 329 (1856)

Eriochloa japonica, KUNTH, ex STEUD., Syn. Glum. I. p. 99 (1855¹)

Isachne Clarkei, (non J. D. HOOK.) HAY., Fl. Mont. Formos. p. 234 (1908[^])

Isachne globosa, (non O. KUNTZE.) TANAKA, in Bult. Sci. Fakult. Terkult Kjušu. Imp. Univ. I. p. 196 (1925¹)

Nom. Jap. Tigo-zasa

Leg. Onoaida, Jun. 23, 1928.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China, Malay, India, Philippines.

Note. Occurs in the low lands, in ditches among rice fields; distributed nearly all over Asia, Malaya, and Australia.

Isachne myosotis, NEES, var. minor, HONDA, in Tokyo Bot. Mag. XXXVIII. p. 58 (1924), et Monogr. Poac. Jap. Bamb. excl. p. 281 (1930); MASAMUNE, Prel. Rep. Veg. Yak. p. 43 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1352 (1931)

Norn. Jap. Hina-tigozasa

Leg. Ipse, Kosugidani, Jul. 23, 1928.

Distr. Okinawa.

Note. The species is found by the side of newly made road, in clearings, and in the lauri-aculisilvae at about 600m above the sea level; this variety is restricted to Okinawa and Yakusima.

Paspalum, LINN., Syst. Nat. ed. 10 p. 855 (1759); KUNTH, Enum. PI. I. p. 40 (1833); ENDL., Gen. PI. n. 761 (1836-40); STEUD., Syn. Glum. I. p. 16 (1855); BENTH. et HOOK. f., Gen. PI. III. p. 1097 (1853);

HACK., in ENGL. U. PRANT. Nat. Pfl.-fam. II. ii. p. 33 (1887); HOOK, f. Fl. Brit. Ind. VII. p. 10 (1897)

Syn. *Sabsab*, ADANS., Fam. II. p. 31 (1763)

Paspalum scrobiculatum, LINN., Mant. p. 29 (1767), et Pflanzensyst. XII. p. 216, t. 89, f. 3 (1785); ROXB., Fl. Ind. I. p. 278 (1832); KUNTH, Enum. Pl. I. p. 53 (1833); STEUD., Syn. Glum. I. p. 21 (1855); BENTH., Fl. Hongk. p. 408 (1861); HOOK, f. Fl. Brit. Ind. VII. p. 10 (1897); HACK., in Bull. Herb. Boiss. VII. p. 721 (1899); PILG., in DIELS Fl. Cent. Chin. p. 223 (1900); RENDL., in FORB. et HEMSL. Ind. Fl. Sin. III. p. 320 (1904); MATSUM., Ind. Pl. Jap. II. 1. p. 73 (1905); MATSUM. et HAY., Enum. Pl. Formos. p. 497 (1906); HAY., Ic. Pl. Formos. VII. p. 53 (1918); MERR., Enum. Philipp. Pl. I. p. 56 (1922); HITCHCOCK, in Lingn. Sc. Journ. VII. p. 216 (1929); MASAMUNE, Prel. Rep. Veg. Yak. p. 44 (1929); HONDA, Monogr. Poac. Jap. Bamb. excl. p. 285 (1930)

Syn. *Paspalum kora*, WILLD., Sp. Pl. I. p. 332 (1797)

Paspalum cartilagineum, PRESL, Rel. Haenk. II. p. 1216 (1828); MIQ., Fl. Ind. Bat. III. p. 432 (1857)

Paspalum Thunbergii, var. *minor*, MAK., in Tokyo Bot. Mag. VI. pp. (48), et 128 (1892)

***Paspalum scrobiculatum*, var. *orbiculare* MAK., in Tokyo Bot. Mag. X. p. 60 (1896); MAK. et NEM., Fl. Jap. ed. 2. p. 1370 (1931)**

Aom. Jap. Suzume-no-kobie

Leg. Ipse, 1927.

Distr. Honsyū, Sikoku, Kyūsyū, Okinawa, Taiwan, China, Philippines, India.

Note. Occurs by the roadside and in waste lands.

Paspalum Thunbergii, KUNTH, ex STEUD. Syn. Glum. I. p. 28 (1855); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. pp. 130, 273 (1856); FR. et SAV., Enum. Pl. Jap. II. p. 159 (1876); HACK., in Bull. Herb. Boiss. VII. p. 643 (1899); MATSUM., Ind. Pl. Jap. II. 1. p. 73 (1905); NAK., Rep. Veg. Is. Quelp. p. 17 (1914); LOESN., Pfl.-welt. Kiautsch. Geb. p. 87 (1918); MASAMUNE, Prel. Rep. Veg. Yak. p. 45 (1929); HONDA, Monogr. Poac. Jap. Bamb. excl. p. 286 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 1370 (1931); MIY. et KUDO, Fl. Hokk. & Saghal. II. p. 113 (1931)

Syn. *Paspalum dissectum*, (non LINN.) THUNB., Fl. Jap. p. 45 (1784)

***Paspalum scrobiculatum*, var. *Thunbergii*, MAK., in Tokyo Bot. Mag. X. p. 60 (1896)**

Nom. Jap. Suzumehie

Leg. Ipse, Jul. 20, 1927.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Osima, Korea, China.

Note. The species is found by the roadside, in the low lands, and in waste lands.

It is a pan-eastasiatic species.

Eriochloa, HUMBOLT, BONPL. et KUNTH, Nov. Gen. et Sp. I. p. 94, t. 30 et 31 (1815); KUNTH, Enum. Pl. I. p. 71 (1833); ENDL., Gen. Pl. n. 767 (1836-40); BENTH. et HOOK, f. Gen. Pl. III. p. 1099 (1883); HACK., in ENGL. U. PRANT. Nat. Pfl.-fam. II. ii. p. 35 (1837); LEMÉE, Diet. Gen. Pl. Phan. II. p. 923 (1930)

Syn. *Monachne*, BEAUV., ESS. Agrost. p. 49, t. 10 (1812)

Helopus, TRINIUS, Fund. Agrost. p. 103 (1820); STEUD., Syn. Glum. I. p. 99 (1855);

Eriochloa villosa, KUNTH, Rev. Gram. I. p. 203, 1.13 [1829] et Enum. PI. I. p. 72 (1833); FR. et SAV., Enum. PI. II. p. 164 (1876); FR., PI. David. I. p. 322 (1834); HACK., in Engl. Bot. Jahrb. VI. p. 49 (1885); KOM., Fl. Mansh. I. p. 253 (1901); PILG., in DIELS, Fl. Cent. Chin. p. 223 (1937); RENDL., in FORB. et HEMSL. Ind. Fl. Sin. III. p. 320 (1904); MATSUM., Ind. PI. Jap. II. 1. p. 55 (1905); MATSUM. et HAY., Enum. PI. Formos. p. 498 (1905); NAK., Fl. Kor. II. p. 346 (1911); HAY., Ic. PI. Formos. VII. p. 55 (1918); LOESN., Pfl.-welt. Kiautsch. Geb. p. 87 (1918); MASAMUNE, Prel. Rep. Veg. Yak. p. 42 (1929); HONDA, Monogr. Poac. Jap. Bamb. excl. p. 289 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 1343 (1931);

Syn. *Paspalum villosum*, THUNB., Fl. Jap. p. 45, t. 8 (1784); MAXIM., Prim. Fl. Amur. p. 327 (1859); FR., in Mem. Soc. Sci. Nat. Cherb. XXIV. p. 267 (1834)

Holopus villosus, NEES, in MARTIUS, Fl. Bras. II. p. 17 (1829); STEUD., Syru Glum. I. p. 100 (1855); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 276 (1856)

Panicum tuberculiflorum, STEUD., Syn. Glum. I. p. 59 (1855)

Eriochloa villosa, form, *distachya*, HACK., in Engl. Bot. Jahrb. VI. p. 49 (1885)

Norn. Jap. *Naruko-bie*

Leg. Ipse, Aug. 18, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Amami-ōshima, Okinawa, Taiwan, Korea, Manchuria, China.

Aote. The species grows in cultivated lands, and in waste lands, and is restricted to the Sino-Japanese region.

Syntherisma, WALTER, Fl. Carol. p. 76 (1783);

HITCHCOCK, in Contrib. U. S. Nat. Herb. VII. 3. p. 319 (1913)

Syn. *Digitaria*, non HEISTER nee ADANSON) HALLER, Stirp. Helv. II. p. 244 (1768); MIQ., Fl. Ind. Bat. III. p. 435 (1855); RICHARD, in PERSOON, Syn. PI. I. p. 84 (1805)

Panicum, Sect. *Digitariac*, KUNTH, Enum. PL I. p. 80 (1833)

Panicum, Sect. *Digitaria*, BENTH. et HOOK, f., Gen. PI. III. p. 1101 (1883); HACK., in ENGL. U. PRANT. Nat. Pfl.-fam. II. ii. p. 35 (1887)

Syntherisma ischaemum, NASH., N. Amer. Fl. XVII. p. 151 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 46 (1929); HONDA, Monogr. Poac. Jap. Bamb. excl. p. 292 (1930); MIY. et KUDO, Fl. Hokk. & Sagh. II. p. 115 (1931); MAK. et NEM., Fl. Jap. ed. 2. p. 1407 (1931)

Syn. *Panicum filiforme*, non LINN.) THUNB., Fl. Jap. p. 48 (1784)

Panicum linearis, non LINN./ KROCKER, Fl. Siles. I. p. 95 (1787); NAK., Fl. Kor. II. p. 349 (1911)

Digitaria humifusa, PERSOON, Syn. PL I. p. 85 (1805); RENDL., in FORB. et HEMSL. Ind. Fl. Sin. III. p. 324 (1901); YABE, Enum. PL Manch. p. 13 (1912)

Paspalum ambiguum, A. P. DC., Fl. Gall. p. 123 (1805); HOOK, f., Fl. Brit. Ind. VII. p. 17 (1897)

Panicum glabrum, GAUDIN, Agrost. Helvet. I. p. 22 (1811); TRINIUS, Sp. Gram. Ic. II. t. 149 (1829); KUNTH, Enum. PL I. p. 83 (1833); STEUD., Syn. Glum. I. p. 41 (1855); MAK., in Tokyo Bot. Mag. X. p. 314 (1896); HACK., in Bull. Herb. Boiss. VII. p. 643 (1899); MATSUM., Ind. PL Jap. II. 1. p. 70 (1905);

Digitaria glabra, BEAUV., Agrost. p. 51 (1812); ROEM. et SCHULT., Syst. Veg. II. p. 471 (1817); MAXIM., Prim. Fl. Amur. p. 328 (1859);

- Digitaria violascens*, LINK, Hort. I. p. 229 (1827); MERR., in Philipp. Journ. Bot. p. 347 (1905); HAY., Ic. PI. Formos. VII. p. 65 (1918)
- Panicum violascens*, KUNTH, Rev. Gram. I. p. 331 (1829); STEUD., Syn. Glum. I. p. 42 (1855); HACK., in Bull. Herb. Boiss. VII. pp. 643, 721, (1899-, 2 sér. III. p. 501 (1903), et IV. p. 523 (1904); MATSUM., Ind. PI. Jap. II. 1. p. 73 (1905); MATSUM. et HAY., Enum. PI. Formos. p. 503 (1905); NAK., Fl. Kor. II. p. 348 (1911)
- Paspalum filiculme*, NEES ex MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 274 (1866); FR. et SAV., Enum. PI. Jap. II. p. 159 U876;
- Paspalum filiforme*, (non SWARTZ.) MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 274 (1866); FR. et SAV., Enum. PI. Jap. II. p. 159 f 1876;
- Digitaria linearis*, ROSTAF, in Verh. Zool. Bot. Ges. Wien. XXII. p. 99 (1872); KOM., Fl. Mansh. I. p. 254 (1901)

Norn. Jap. Aki-rnehiziwa

Leg. Ipse, Jul. 20, 1927.

Distr. Saghalien, Yezo, Honsyū, Sikoku, Kyūsyū, Amami-dsima, Okinawa, Taiwan, Bonins, Korea, Manchuria, China, Amur, Ussuri, Philippines.

Note. Occurs in low lying waste lands and by the roadside; common in Japan.

Syntherisma sanguinalis, DULAC. var. *ciliaris*, HONDA, in Tokyo Bot. Mag. XXXVIII. p. 120 (1924), et Monogr. Poac. Jap. Bamb. excl. p. 295 (1930); MASAMUNE, Prel. Rep. Veg. Yak. p. 46 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1407 (1931)

- Syn.** *Panicum ciliare*, RETZIUS, Obs. IV. p. 16 (1786); R. BR., Prodr. I. p. 192 (1810); ROXB., Fl. Ind. I. p. 293 (1832); KUNTH, Enum. PI. I. p. 82 (1833); STEUD., Syn. Glum. I. p. 39 (1855); FR., in Mem. Sc. Nat. Cherb. XIV. p. 267 (1884)
- Digitaria ciliaris*, PERSON, Syn. PI. I. p. 85 (1805); MIQ., Fl. Ind. Bat. III. p. 436 (1855), et in Ann. Mus. Bot. Lugd. Bat. II. p. 276 (1855).
- Digitaria commutata*, SCHULT., Mant. II. p. 262 (1824); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 276 (1866)
- Panicum cammutatum*, NEES, in HOOK, et ARNOT. Bot. Capt. Beech. Voy. p. 232 (1836-4CT; BENTH., Fl. Hongk. p. 410 (18611); FR. et SAV., Enum. PI. Jap. II. p. 163 (1876)
- Digitaria sanguinalis*, var. *ciliaris*, DOELL., Rhein. Fl. p. 125 (1843); RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 325 (1904);
- Panicum sanguinale*, var. *ciliare*, GRENIER et GODRON, Fl. III. p. 451 (1856); MAK., in Tokyo Bot. Mag. X. pp. 66, et (314) (1895, et XXIV. p. 320 (1910); HACK., in Bull. Herb. Boiss. VII. pp. 643, et 723 (1899); MATSUM., Ind. PI. Jap. II. 1. p. 72 (1905) p.p.
- Paspalum sanguinale*, var. *ciliare*, HOOK, f, Fl. Brit. Ind. VII. p. 15 (1897)
- Digitaria sanguinalis*, (non SCOPOLI) HAY., Ic. PI. Formos. VII. p. 65 (1918) P.P.
- Syntherisma sanguinalis*, (non DULAC) HONDA, in Tokyo Bot. Mag. XXXVIII. p. 119 (1924) p.p.

Nom. Jap. Me-hiziwa

Leg. Ipse, 1924.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-dsima, Okinawa, Taiwan, Bonins, Korea, China, Africa, Australia, Europe.

Note. Occurs in waste lands, and by the roadside at low altitudes.

Spinifex, LINN., Mant. II. p. 163 (1771); KUNTH, Enum. PI. I. p. 174 (1833); ENDL., Gen. PI. n. 791 (1836-40); STEUD., Syn. Glum.

I. p. 113 (1855); BENTH. et HOOK, f. Gen. PI. III. p. 1109 (1883); HACK., in ENGL. U. PRANT. Nat. Pfl.-fam. II. ii. p. 33, f. 34 (1837)

Spinifex littoreus, MERR., in Philipp. Journ. Sc. VII. p. 229 (1912\ Fl. Manila, p. 97 (1912), Sp. Balnc. p. 69 (1918 , et Enum. Philipp. PI. I. p. 76 (1922² ; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 302 (1930;

Sgm. *Stipa spinifex*, LINN., Mant. I. p. 34 ' 1767 >

Stipa littorea, N. L. BURMAN, Fl. Ind. p. 29 (1768

Spinifex squarrosus, LINN., Mant. II. p. 300 (1771, ; KUNTH, Enum. PI. I. p. 175 (1833 ; STEUD., Syn. Glum. I. p. 113 (1855 ; BENTH., Fl. Hongk. p. 415 (186r ; HACK., in Engl. Bot. Jahrb. VI. p. 50 ,1885 , et in Bull. Herb. Boiss. 2 sér. IV. p. 528 ;1904 ; HOOKX, Fl. Brit. Ind. VII. p. 63 (1897 ; RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 340 11904 ; MATSUM., Ind. PI. Jap. II. 1. p. 83 ,1905 ; MATSUM. et HAY., Enum. PI. Formos. p. 513 (1906 ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 317 (1912 ; HAY., Ic. PI. Formos. VII. p. 66 ,1918 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 46 (1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1403 J931!

Norn. Jap. *Tuki-ige*

Leg. Ipse. Kurio, Jul. 4, 1928.

Distr. Tanegasima, Amami-6sima, Okinawa, Taiwan, China, Philippines.

Note. The plant grows on sandy beaches and forms a consociation. This tropic and subtropic littoral plant has its northern limit in Tanegasima and Yakusima. **From** this point of view the Ōsumi-Strait has deep significance since the strait has prevented the distribution of this plant.

Arundinella, RADDI, Agrost. Bras. p. 37, t. 1 U823[^] ; ENDL., Gen. PI. n. 951 ,1836-40 ; STEUD., Syn. Glum. I. p. 114 (1855[^] ; BENTH. et HOOK, f. Gen. PI. III. p. 1118 (1883 ; HACK., in ENGL. u. PRANT. Nat PflVfam. II. ii. p. 32 (1837. ; LEMÉE, Diet. Gen. PI. Phan. I. p. 403 11929,

Arundinella hirta, TANAKA, in Bult. Sci. Fakul. Terkult. Kjusû. Imp. Univ. I. 4. p. 196 H925)

Sgn. *Poa hirta*, THUNB., Fl. Jap. p. 49 '1784' ; STEUD., Syn. Glum. I. p. 256 (1855)

Arundinella anomala, (non STEUD.' YABE, in Tokyo Bot. Mag. XVII. p. 125 (1903 ; MATSUM., Ind. PI. Jap. II. 1. p. 40 ,1905 p.p.; MAK. et NEM., Fl. Jap. ed. 1. p. 1426 (1925

Arundinella a no mala, var. *lasiophylla*, HACK., ex NAK. Rep. Veg. Isl. Quel. p. 16 (1914 ; MORI, Enum. PI. Cor. p. 33 (1922:

Arundinella hirta, (non TANAKA . KOIDZ., in Tokyo Bot. Mag. XXXIX. p. 302 (1925) ; MAK.- et NEM., Fl. Jap. ed. 2. p. 1312 '19311

Arundinella hirta, var. *Hondana*, KOIDZ., in Tokyo Bot. Mag. XXXIX. p. 303 (1925)

var. typica, HONDA, ex MASAMUNE, Prel. Rep. Veg. Yak. p. 41 (1929,, et Monogr. Poac. Jap. Bamb. excl. p. 305 !1930,

Norn. Jap. *Ke-toiasiba*

Leg. Ipse, Jul. 21, 1924.

JKrfr. Yezo, Honsyû, Sikoku, Kyûsyû, Korea.

Note. The species grows by the roadside, and in waste lands, and it is a pioneer in the land when the laurisilvae are cleared.

- Zoysia*, *Zoisia*, WILLD., in Gesells, NaL Fr. Berlin Schrift III. p. 440 1801 ; KUNTH, Enum. Pl. I. p. 471 1833 ; ENDL., Gen. Pl. n. 935 1836-40 ; STEUD., Syn. Glum. I. p. 414 1855 ; BENTH. et HOOK. f., Gen. Pl. III. p. 1124 1883
- Syn.* *Osterdamia*, NECKER, Elem. Bot. III. p. 218 1793 ; O. KUNTZE, Rev. Gen. Pl. II. p. 781 1891
- Zoysia japonica*, STEUD., Syn. Glum. I. p. 414 1855 ; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 314 1930 ; MIY. et KUDO, Fl. Hokk. & Sagh. II. p. III (1931); MAK. et NEM., Fl. Jap. ed. 2. p. 1412 193r
- Syn.* *Zoysia pungens*, non WILLD. i' MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 288 1866 ; FR. et SAV., Enum. Pl. Jap. II. p. 186 1876 ; KOM., Fl. Mansh. I. p. 251 1901, ; MATSUM. et HAY., Enum. Pl. Formos. p. 516 (1906) pip.; NAK., Fl. Kor. II. p. 344 ,1911
- Zoysia pungens*, var. *japonica*, HACK., in Bull. Herb. Boiss. VII. p. 642 (1899); MATSUM., Ind. Pl. Jap. II. 1. p. 87 1905
- Osterdamia japonica*, HITCHCOCK, in U. S. Dept. Agric. Bull. 772, pp. 166, et 255 1920 ; HONDA, in Tokyo Bot. Mag. XXXVI. p. 112 1922); MAK. et NEM., Fl. Jap. ed. 1. p. 1367 1925
- Aom. Jap. Siba*
- Leg.* Ipse, Jul. 25, 1927.
- Distr.* Yezo, Honsyû, Sikoku, Kyûsyû, Okinawa, Taiwan, Bonins, Manchuria, China.
- Note.* The species grows on somewhat sandy ground caused by the crumbling of granite at high altitudes.
- Zoysia macrostachya*, FR. et SAV., Enum. Pl. II. pp. 187, et 603 1876 ; HACK., in Bull. Herb. Boiss. VII. p. 642 1899 ; MATSUM., Ind. Pl. Jap. II. 1. p. 87 ,1905); MASAMUNE, Prel. Rep. Veg. Yak. p. 46 1929 ; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 316 193D ; MAK. et NEM., Fl. Jap. ed..2. p. 1412 1931¹; MIY. et KUDO, Fl. Hokk. & Sagh. II. p. 112 1931
- Syn.* *Ischaemum muticum*, non LINN. HACK., ex MATSUM. in Tokyo Bot. Mag. XL p. 442 1897. ; HACK., in Bull. Herb. Boiss. VII. p. 641 ,1893; ; MATSUM., Ind. Pl. Jap. II. 1. p. 61 1905
- Osterdamia macrostachya*, HONDA, in Tokyo Bot. Mag. XXXVI. p. 114 (1922) p.p.; MAK. et NEM., Fl. Jap. ed. 1. p. 1468 1925
- Aom. Jap. Oni-siba*
- Leg.* Ipse, Jul. 1928.
- Distr.* Yezo, Honsyû. Sikoku, Kyûsyû, Tanegasima, Amami-Ôsima.
- Note.* The plant occurs in littoral sandy beaches and sometimes forms a consociation. The plant is restricted to the above cited districts and has its southern limit in Amami-6sima.
- Zoysia tenuifolia*, TRINIUS, in Mem. Acad. St. Petersb. ser. 6 pt. 4. Sci. Nat. 2. p. 95 1835 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 46 1929 ; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 318 1930 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1412 (1931)
- Syn.* *Zoysia tenuifolia*, non TRINIUS WILLD., ex. STEUD. Syn. Glum. p. 414 1855 ; MATSUM., Ind. Pl. Jap. II. 1. p. 87 1905 p.p.
- Zoysia pun gens*, var. *tenuifolia*, MAK., in Tokyo Bot. Mag. XII. p. 228 (1893)
- Osterdamia tenuifolia*, O. KUNTZE, Rev. Gan. Pl. II. p. 781 1891 ; HITCHCOCK, in U. S. Dept. Agric. Bull. 772, p. 166 1920)

Osterdamia Zoisia, a *typica* et [*i tenuifolia*, HONDA, in Tokyo Bot. Mag. XXXVI. p. 113 · 1922)

Norn. Jap. *Ito-siba*

Leg. Ipse, 1927.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-Ôsima, Okinawa, Taiwan, Bonins, Java.

Note. The species is found in the littoral regions.

Dimeria, R. BR., Prodr. p. 204 1810 ; KUNTH, Enum. Pl. I. p. 471 · 1833 ; ENDL., Gen. Pl. n. 936 1836-40 ; STEUD., Syn. Glum. I. p. 412 1855 ; BENTH. et HOOK, f, Gen. Pl. III. p. 1128 1883 ; HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 22 1887 , et DC. Monogr. Phan. VI. p. 76 (1889); LEMÉE, Diet. Gen. Pl. Phan. II. p. 626 1930

Syn. *Haplachne*, J. S. PRESL, in C. B. PRESL Rel. Haenk. I. p. 234 t. 38 1830

Dimeria *ornithopoda*, TRINIUS, var. *yakushimensis*, HONDA, ex MASAMUNE, Prel. Rep. Veg. Yak. p. 42 1929 ; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 325 1933 <

Nom. Jap. *Yakusima-karimatagaya*

Leg. Ipse, Aug. 30, 1926.

Distr. Endemica.

Note. Occurs in marshy places from 1603 m up to 1800 m above the sea level.

Arthraxon, BEAUV., ESS. Agrost. p. III t. 11 f. 2 (1812' ; ENDL., Gen. Pl. n. 937 · 1836-40' ; BENTH. et HOOK, f, Gen. Pl. III. p. 1128 1883 ; HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 26 1887 , et in DC. Monogr. Than. VI. p. 315 1889 ; LEMÉE, Diet. Gen. Pl. Phan. I. p. 395 (1929)

Arthraxon *hispidus*, MAK., in Tokyo Bot. Mag. XXVI. p. 214 · 1912 *emend*; KOIDZ., Fl. Symb. As. p. 70 1930 ; MIY. et KUDO, Fl. Hokk. & Sagh. II. p. III 193r

Sgn. *Phalaris hispida*, THUNB., Fl. Jap. p. 44 1784 ; WILLD., Sp. Pl. I. p. 330 1797 ; ROEM. et SCHULT., Syst. Veg. II. p. 407 · 1817 ; MERR., in Philipp. Journ. Sc. VII. p. 229 1912 ; HITCHCOCK, in Lingn. Sc. Journ. VII. p. 241 1929;

Chilochloa hispida, BEAUV., Ess. Agr. p. 158 1812

Lccrsia hispida, THUNB., Pl. Jap. Nov. Sp. p. 5 1824

Digitaria hispida, SPRENGL., Syst. Veg. I. p. 271 1825

Arthraxon japonicus, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 288 1866'

Arthraxon ciliaris, subsp. *Langsdorfii*, var. *cryptatherus*, HACK., in DC. Monogr. Phan. VI. p. 355 1839 ; MAK., in Tokyo Bot. Mag. X. p. 66 1896

Arthraxon ciliaris, subsp. *nudus*, HACK., in DC. Monogr. Phan. VI. p. 356 1839,, et in Bull. Herb. Boiss. sér. 2. IV. p. 527 1904 ; MATSUM., Ind. Pl. Jap. II. 1. p. 40 1905 ; MATSUM. et HAY., Enum. Pl. Formos. p. 523 · 1906

Arthraxon ciliaris, var. *cryptatherus*, HACK., in Bull. Herb. Boiss. VII. p. 612 ,1899

Arthtoxon hispidus, non MAK. · MERR., in Philipp. Journ. Sc. VII. p. 229 1912.

Arthraxon ciliaris, var. *Langsdorfii*, HACK., apud HAY. Ic. Pl. Formos. VII. p. 79 1918

Arthraxon hispidus, non MAK. nee MERR. TANAKA. in Bull. Sc. Fakul. Terk. Kjuŝu. Imp. Univ. I. p. 194 1925

Arthraxon hispidus, var. *cryptatherus*, HONDA, in Tokyo Bot. Mag. XXXIX. p. 277 1925

Arthraxon cryptatherus, KOIDZ., in Tokyo Bot. Ma?. XXXIX. p. 301 1925,'

includ. subsp. *nuius* et *submuticus*¹; MAK. et NEM., Fl. Jap. ed. 2. p. 1311
1931.

var. *typicus*, HONDA, ex MASAMUNE, Prel. Rep. Veg. Yak. p. 41 (1929, et Monogr.
Poac. Jap. Bamb. excl. p. 326 '1930)

Nom. Jap. Siro-kobunagusa

Leg. Ipse, Jun. 26, 1928.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Okinawa, Taiwan, China, Philippines.

Note. Occurs in the laurisilvae and is widely distributed in Eastern Asia.

Cymbopogon, SPRENG., Pugill. II. p. 14 (1815);

HONDA, Monogr. Poac. Jap. Bamb. excl. p. 337 '1930); LEMEE, Diet. Gen. Pl.

Phan. II. p. 453 1930;

Syn. Andropogon, Subgen. *Cymbopogon*, NEES, Fl. Afr. Austral. I. p. 109 (1841);

STEUDEL, Syn. Glum. I. p. 333 1855; BENTH. et HOOK, f, Gen. Pl. III. p.

1134 1833; HACK., in DC. Monogr. Phan. VI. p. 592; 1839

Cymbopogon Goeringii, HONDA, in Tokyo Bot. Mag. XL. p. 105 '1926, et Monogr.

Poac. Jap. Bamb. excl. p. 337 1930.; MASAMUNE, Prel. Rep. Veg. Yak. p. 42

(1929; MAK. et NEM., Fl. Jap. ed. 2. p. 1335 1931.

Syn. Andropogon Goeringii, STEUD., in Flora p. 22 1846;

Andropogon Iwarankusa, non BLAN. STEUD., Syn. Glum. I. p. 383 (1855)

Andropogon Schocnanthus, non LINN. MIQ., in Ann. Mus. Bot. Lugd. Bat

II. p. 290 1866.; FR. et SAV., Enum. Pl. Jap. II. p. 191 1876

Andropogon Nardus, subsp. *marginatus*, var. *Goeringii*, HACK., in DC. Monogr.

Phan. VI. p. 607 1889.; PALIB., Consp. Fl. Kor. p. 130 1901)

Andropogon Nardus, var. *Goeringii*, HACK., in Bull. Herb. Boiss. VII. p. 642

,1899, 2. sér. IV. p. 527 1904; MATSUM., Ind. Pl. Jap. II. 1. p. 37 (1905);

NAK., Fl. Kor. II. p. 313 ,1911, et in Tokyo Bot. Mag. XXVI. pp. 9. et 46

1912-

Cymbopogon Nardus, subsp. *marginatus*, var. *Qlocringii*, RENDLE, in FORB. et

HEMSL. Ind. Fl. Sin. III. p. 376 1904; MATSUM. et HAY., Enum. Pl. Formos.

VII. p. 82 1918,

var. *genuinus*, HONDA, Monogr. Poac. Jap. Bamb. excl. p. 338 (1930)

Nom. Jap. Ogarukaya

Leg. Ipse, Miyanoura, Sept. 1, 1927.

Distr. Honsyū, Sikoku, Kyūsyū, Okinawa, Taiwan, Bonins, Korea, China, Philip-
pines.

Note. The species grows on dry ground at low altitudes as a pioneer in waste
lands and clearings. It is widely distributed in the tropics and subtropics of the old
world.

Andropogon, LINN., Sp. Pl. ed. 1. p. 1045(1753)

p.p., et Gen. Pl. ed. 5. p. 463 '1754'; KUNTH, Enum. Pl. I. p. 4tt (1833) p.p.;

ENDL., Gen. Pl. n. 950 1836-40; STEUD., Syn. Glum. I. p. 363 ! 1855 p.p.; BENTH.

et HOOK, f, Gen. Pl. III. p. 1133 '1883) p.p.; HACK., in ENGL. U. PRANT. Nat Pl-

fam. II. ii. p. 26 1887, et in DC. Monogr. Phan. VI. p. 359 1889 p.JJ.; LEMEE,

Diet. Gen. Pl. Phan. I. p. 252 1929, p.p.

Andropogon micranthus, KUNTH, Rev. Gram. I. p. 165 '1829', et Enum. Pl. I. p. 504

(1833; STEUD., Syn. Glum. I. p. 396 1855; HACK., in DC. Monogr. Phan. VI

p. 488 ,1889., et in Bull. Herb. Boiss. 2 sér. III. p. 501 11903); HOOK, f, FL Brit

Ind. VII. p. 178 (1897); RENDLE, in Forb. et HEMSL. Ind. Fl. Sin. III. p. 374 U904); MATSUM. et HAY., Enum. Pl. Formos. p. 529 (1906); NAK., Fl. Kor. II. p. 343 (1911); DUNN et TUTCH., Fl. Kwangt. & Hongk. p. 323 (1912.); YABE, Enum. PL Manch. p. 12 (1912); MATSUDA, in Tokyo Bot. Mag. XXVIII. p. 317 (1914); HAY., Ic. Pl. Formos. VII. p. 80 (1918); LOESN., Pfl.-welt. Kiautsch. Geb. p. 86 (1918); MERR., Enum. Philipp. Pl. I. p. 46 (1922), et Enum. Hainan Pl. p. 28 (1927); HITCHCOCK, in Lingn. Sc. Journ. VII. p. 244 (1929); MASAMUNE, Prel. Rep. Veg. Yak. p. 41 (1929); HONDA, Monogr. Poac. Jap. Bamb. excl. p. 343 (1930)

Syn. *Holcus parviflorus*, R. BR., Prodr. p. 199 (1810)

Sorghum parviflorum, BEAUV., apud ROEM. et SCHULT. Syst. Veg. II. p. 840 1817

Anathentm parviflorwn, SPRENG., Syst. Veg. I. p. 290 (1825)

Andropogon violascens, TRINIUS, in Mem. Acad. Petersb. sér. 6 II. p. 319 (1833); MAK., in Tokyo Bot. Mag. X. p. 66 (1896)

Andropogon violascens, NEES, ex STEUDEL Syn. Glum. I. p. 396 (1855); MAK. et NEW., Fl. Jap. ed. 2. p. 1303 (1931)

Andropogon capilliflorus, STEUD., in ZOLLING. Syst. Veg. p. 58 (1854-55), et Syn. Glum. I. p. 297 (1855); FR. et SAV., Enum. Pl. Jap. II. p. 192 (1876)

Andropogon assimilis, STEUD., Syn. Glum. I. p. 397 (1855); HOOK, f., Fl. Brit. Ind. VII. p. 179 (1897); RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 370 (1904); MATSUM., Ind. Pl. Jap. II. 1. p. 36 (1905)

Andropogon serratus, non THUNBJ MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 290 (1866); FR. et SAV., Enum. Pl. Jap. II. p. 192 (1876)

Andropogon micranthus, var. *genuinus*, HACK., in DC. Monogr. Phan. VI. p. 489 (1889); MATSUM., Ind. Pl. Jap. II. 1. p. 37 (1905)

Andropogon micranthus, var. *spicigerus*, HACK., in Bull. Herb. VII. p. 642 (1899); MATSUM., Ind. Pl. Jap. II. 1. p. 37 (1905)

Norn. Jap. *Himc-abura-sitsuki*

Leg. Ipse, Jun. 23, 1928. •

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China, Philippines, Africa, Australia.

Note. Occurs in the low lands, waste lands and near cultivated lands.

Ischaemum, [LINN., Gen. Pl. ed. 2. p. 525 (1742) et Sp. Pl. ed. 1. p. 1049 (1753); KUNTH, Enum. Pl. I. p. 511 (1833); ENDL., Gen. Pl. n. 951 (1836-40); BENTH. et HOOK, f., Gen. Pl. III. p. 1132 (1883); HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 26 (1887), et in DC. Monogr. Phan. VI. p. 200 (1889). p.p.; LEMEE, Diet. Gen. Pl. Phan. HI. p. 770 (1931)^

Syn. *Schoenanthus*, ADANS., Fam. II. p. 38 (1763)

Andropogon, Sect. *Ischaetnonaea*, STEUD., Syn. Glum. I. p. 374 (1855)

Ischaemum anthephroides, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 193 (1876); HACK., in DC* Monogr. Phan. VI. p. 216 (1889).

var. **eristachyum**, HONDA, ex MASAMUNE, Prel. Rep. Veg. Yak. p. 43 (1929), et Monogr. Poac. Jap. Bamb. excl. p. 352 (1930); MIY. et KUDO, Fl. Hokk. & Sagh. II. p. 110 (1931); MAK. et NEM., Fl. Jap. ed. 2. p. 1353 (1931)

Syn. *Andropogon caricosus*, non LINN. THUNB., Fl. Jap. p. 39 (1784)

Ischaemum barbatum, non RETZIUS: MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 291 (1866)^

Ischaemum anthephroides, non MIQ.) FR. et SAV., Enum. Pl. Jap. II. p. 19a

(1876 p.p.; HACK., in Bull. Herb. Boiss. VII. p. 641 (1899 ; RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 361 '1904' ; MATSUM., Ind. Pl. Jap. II. 1. p. 60 1905

Ischaemum criostachyurn, HACK., in DC. Monogr. Phan. VI. p. 218 1889 , et in Bull. Herb. Boiss. 2 s^{én} IV. p. 523 ,1904 ; RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 365 -1904^N ; MATSUM., Ind. Pl. Jap. II. 1. p. 61 1905)

Ischaemum anthephroides, f. *minor*, HACK., in Bull. Herb. Boiss. VII. p. 641 ,1899

Ischaemum Sieboldii, [non MIQ.] NAK., Fl. Kor. II. p. 342 '1911 ; LOESN., Pfl.-welt. Kiautsch. Geb. p. 86 ;1918'

Norn. Jap. *Ke-kamonohasi*

Leg. Ipse, 1924.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Ôsima, Korea, China.

Note. The plant is a kind of psammophyte which grows on sandy beaches.

van **typicum**, HONDA, in Tokyo Bot. Mag. XLI. p. 377 1927 , et Monogr. Poac. Jap. Bamb. excl. p. 352 1930 ; MASAMUNE, Prel. Rep. Ve*. Yak. p. 43 1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1353 1931

Nom. Jap. *Tukusi-kckamonohasi*

Leg. Ipse, 1927.

Distr. Kyûsyû.

Note. A psammophyte; endemic to southern Kyûsyû and Yakusima.

Ischaemum crassipes, THELLUNG., in Fedde Rep. Sp. Nov. X. p. 239 1912 ; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 353 1930

Syn. *Andropogon crassipes*, STEUD., Syn. Glum. I. p. 375 1855

Ischaemum Sieboldii, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 291 1866 ; FR. et SAW, Enum. Pl. Jap. II. p. 193 1876 ; HACK., in DC. Monogr. Phan. VI. p. 217 1889 , et in Bull. Herb. Boiss. VII p. 641 1899 , et 2 s^{ér}. III. p. 501 1903 ; RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 366 1901 ; MATSUM., Ind. Pl. Jap. II. 1. p. 61 1905 p.p.; MATSUM. et HAY., Enum. Pl. Formos. p. 526 .1906 ; NAK., Fl. Kor. II. p. 342 1911 partim.; MASAMUNE, Prel. Rep. Veg. Yak. p. 43 ,1929

Ischaemum crassipes, non THELLUNG NAK., in Cat. Sem. et Sp. Hort. Bot. Univ. Imp. Tokyo p. 4 1914', p. 3 '1916 , p. 4 1918 , et in Tokyo Bot. Mag. XXXIII. p. 1 1919 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1353 1931

var. **typicum**, NAK., in Tokyo Bot. Mag. XXXIII. p. 1 1919

Nom. Jap. *Kamonohasi*

Leg. Ipse, Aug. 5, 1924.

Distr. Honsyû, Sikoku. Kyûsyû, Okinawa, Taiwan, Korea.

Note. Grows as psammophyte on sandy or rocky beaches.

var. **aristatum**, NAK., ex HONDA in Tokyo Bot. Mai?. XXXVII. p. 121 1923 , et Monogr. Poac. Jap. Bamb. excl. p. 35i 1930 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 43 1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1353 1931

Syn. *Ischaemum Sieboldii*, non MIQ. MATSUM., Ind. Pl. Jap. II. 1. p. 61 1905) p.p.; MATSUM. et HAY., Enum. Pl. Formos. p. 526 1906 p.p.

Ischaemum crassipes, var. *Hondac*, NAK., in Tokyo Bot. M:uj. XXXIII. p. 2 1919

Nom. Jap. *No gc-kamonohasi*

Leg. Ipse, Aug. 6, 1924.

Distr. Honsyfi, Kyûsyû, Okinawa, Taiwan, Korea.

Note. The variety is found as psammophyte in littoral regions, and as far as my present knowledge extends it is restricted to the above cited regions.

var. **formosanum**, NAK., in Tokyo Bot. Mag. XXXIII. p. 2 '1919'; MASAMUNE, Prel. Rep. Veg. Yak. p. 43 '1929'; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 355 1930; MAK. et NEM., Fl. Jap. ed. 2. p. 1353 1931;

Syn. *Ischaemum Sieboldii*, var. *formosanum*, HACK., in Bull. Herb. Boiss. 2 sér. IV. p. 527 1904; MATSUM., Ind. PI. Jap. II. 1. p. 62 1905; MATSUM. et HAY., Enum. PI. Formos. p. 527 1905; HAY., Ic. PL Formos. VII. p. 78 1918,

Aom. Jap. Taiwan-kamonohasi

Leg. Ipse, 1928.

Distr. Taiwan.

Note. The variety is a psammophyte and is restricted to Formosa and to this island.

Rottboellia, (non SCOPOLI: LINN, f., Nov. Gram.

Gen. p. 22 '1779; KUNTH, Enum. PI. I. p. 466 '1833; ENDL., Gen. PI. n. 927 1836-40; STEUD., Syn. Glum. I. p. 360 (1855); BENTH. et HOOK, f., Gen. PI. III. p. 1129 1883; HACK., in ENGL. U. PRANT. Nat. Pfl.-fam. II. ii. p. 25 (1887 p., et in DC. Monogr. Phan. p. 278 (1889)

Syn. *Manisuria*, LINN., Mant. PI. II. p. 164 (1771); O. KUNTZE, Rev. Gen. PI. II. p. 779 1891

Stegosia, LOUR., Fl. Cochinch. I. p. 51 (1790

Hemarthria, R. BR., Prodr. p. 207 (1810); KUNTH, Enum. PI. I. p. 464 '1833; STEUD., Syn. Glum. I. p. 358 <1855; BENTH. et HOOK, f., Gen. PI. III. p. 1131 '1883

Rottboellia compressa, LINN, f., Supp. PI. p. 114 (1781); ROXB., Fl. Ind. I. p. 354 1832; HACK., in DC. Monogr. Phan. VI. p. 286, [1889] et in Bull. Herb. Boiss. VII. p. 723 1899; HOOK, f., Fl. Brit. Ind. VII. p. 153 (1897); KOM, Fl. Mansh. I. p. 247 1901; MATSUM., Ind. PI. Jap. II. 1. p. 81 '1905; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 321 1912; MERR., Enum. Hainan PI. p. 26 (1927); HITCHCOCK, in Lingn. Sc. Journ. VII. p. 239 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 45 1929; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 369 (1930)

Syn. *Hemarthria compressa*, R. BR., Prodr. p. 207 '1810'; KUNTH, Enum. PI. I. p. 465 '1833; STEUD., Syn. Glum. I. p. 358 '1855'; MIQ., Fl. Ind. Bat. III. p. 406 1855, et in Ann. Mus. Bot. Lugd. Bat. II. p. 287 (1855); FR. et SAV., Enum. PI. Jap. II. p. 186 1876

Rottboellia compressa, var. *genuina*, HACK., in DC. Monogr. Phan. VI. p. 286 1889; HOOK, f., Fl. Brit. Ind. VII. p. 153 (1897); RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 361 (1904); MATSUM. et HAY., Enum. PI. Formos. p. 524 '1906; HAY., Ic. PI. Formos. VII. p. 79 (1918); MAK. et NEM., Fl. Jap. ed. 2. p. 1391 '1931

Manisuris compressa, O. KUNTZE, Rev. Gen. PI. II. p. 779 (1891)

Norn. Jap. Koba-no-usinosippe

Leg. Ipse, Jul. 18, 1928.

Distr. Kyûsyû, Taiwan, China, India.

Note. Occurs in the low lands and on wet but sunny ground.

Imperata, CYRILLO, PI. Rar. Neap. II. p. 26 t. 11

, 1792; KUNTH, Enum. PI. I. p. 477 '1833; ENDL., Gen. PI. n. 940 (1836-40);

STEUD., Syn. Glum. I. p. 405 ;1855 ; BENTH. et HOOK, f, Gan. PI. III. p. 1125
1883 ; HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 23 U887 , et in DC.
Monogr. Phan. VI. p. 91 1889 ; LEMÉE, Diet. Gen. PI. Phan. III. p. 748 (1931

Imperata cylindrica, BEAUVOIS, ESS. Agrost. p. 165 1812 ; MERR., Enum. Hainan PI.
p. 24 1927

Syn. Lagurus cylindricus, LINN., Sp. PI. ed. 1. p. 120 1753 , et Syst. Veg. ed. 10. p.
878 1759.

Saccharum cylindricum, LAM., Encycl. I. p. 594 ;1783

Imperata arundinacea, CYRILLO, PI. Rar. Neap. II. p. 26, t. 11. 1792 ; KUNTH,
Enum. PI. I. p. 477 ,1833 ; HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II.
ii. p. 23 1887 , et in DC. Monogr. Phan. VI. p. 92 1889)

var. **Koenigii**, DURAND et SCHIZ., ex A. CAMUS, in Rev. Bot. Agric. Colon. V. 42. p.
110 1925 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 43 1929 ; HONDA, Monogr.
Poac. Jap. Bamb. excl. p. 375 1930 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1351 1931

Syn. Saccharum spicatum, -non LINN. THUNB., Fl. Jap. p. 42 ,1784)

Saccharum Koenigii, RETZIUS, Obs. V. p. 16 1789.

Imperata Koenigii, BEAUV., ESS. Agrost. p. 165 1812 ; ROEM. et SCHULT., Syst.
Veg. II. p. 289 1817

Imperata arundinacea, var. *Koenigii*, subvar. *glabrescens*, BIJSE, in PI. Jungh. III.
p. 366 1854 ; HACK., in DC. Monogr. Phan. VI. p. 95 1889 , et in Bull.
Herb. Boiss. 2 sér. VII. p. 501 1903 ; NAK, Fl. Kor. II. p. 333 1911

Imperata arundinacea, var. *Koenigii*, BENTH., Fl. Hongk. p. 419 1861 ; HACK.,
in Engl. Bot. Jahrb. VI. p. 50 1885 , in DC. Monogr. Phan. VI. p. 94 1889 ,
in Bull. Herb. Boiss. VII. p. 639 1899 , et 2 sér. IV. p. 526 (1904 ; RENDL.,
in FORB. et HEMSL. Ind. Fl. Sin. III. p. 316 1904 ; MATSUM., Ind. PI. Jap.
II. 1. p. 59 1905 ; MATSUM. et HAY., Enum. PI. Formos. p. 517 1905 ;
NAK., Fl. Kor. II. p. 333 1911 ; HAY., Ic. PI. Formos. VII. p. 63 1918

Imperata cylindrica, var. *Koenigii*, BENTH. apud MERR. in Philipp. Journ. Sc.
I. Supp. p. 322 1905 , et Enum. Philipp. PI. I. p. 30 1922

Imperata cylindrica, var. *Koenigii*, non DURAND et SCHINZ HONDA, in Tokyo
Bot. Mag. XXXIX. pp. 39 et 173 .1925,

Norn. Jap. *Tigaya*

Leg. Ipse, Miyanoura

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan,
Bonins, Korea, China, Philippines.

Note. One of the pioneers which invade the cultivated lands which is wasted at
low altitudes.

Miscanthus, ANDERSSON, in Oefvers. Svensk.

Vet. Akad. Stockh. p. 165 1855 ; BENTH. et HOOK, f, Gen. PI. III. p. 1125 1883 ;
HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 23 1837 , et in DC. Monogr.
Phan. VI. p. 101 1889 ; LEMKE, Diet. Gen. PI. Phan. IV. p. 495 1932

Syn. Eulalia, non KUNTH , TRINIUS, in Mem. Acad. Petersb. VI. 2. p. 332 1833
p.p.; MIQ., Fl. Ind. Bat. III. p. 517 1855

Miscanthus condensatus, HACK., in Bull. Herb. Boiss. VII. p. 639 1899 ; MATSUM.,
Ind. PI. Jap. II. 1. p. 64 1905 p.p.; MAK., in Tokyo Bot. Mag. XXVII. p. 265
'1913.; NAK., in Tokyo Bot. Mag. XXXI. p. 14 '1917 p.p.; HONDA, Monogr.
Poac. Jap. Bamb. excl. p. 379 1930

Syn. Miscanthus sine mis, var. *condensatus*, MAK., in Tokyo Bot. Mag. XXVII. p. 254

1913); MASAMUNE, Prel. Rep. Veg. Yak. p. 44 (1929¹; MAK. et NEM., Fl. Jap. ed. 2. p. 1361, 1931)

Nom. Jap. *Hatizyo-susuki*

Leg. Ipse, ca. Onoaida, Aug. 1928.

Distr. Honsyū, Kyūsyū, Okinawa, Bonins.

Note. It occurs in low lands as a member of the initial formation and sometimes makes a consocieties which stretches for over quite a considerable area.

Miscanthus sinensis, ANDERSSON, in Oefvers, Svensk. Vet. Akad. Forh. 1855 p. 166 ;1856.; HACK., in ENGL. U. PRANT. Nat. Pfl.-fam. II. ii. p. 23 (1887, et in DC. Monogr. Phan. VI. p. 105 (1889 ; HOOK., in Curtis Bot. Mag. t. 7304 1893 ; RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. **III**. p. 348, 1904. ; MATSUM., Ind. PI. Jap. II. 1. p. 65 (1905 ; MATSUM. et HAY., Enum. PI. Formos. p. 518 1906 ; NAK., Fl. Kor. II. p. 339 (1911; YABE, Enum. PI. Manch. p. 15, 1912 ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 319 1912 ; HAY., Ic. PI. Formos. VII. p. 69 1918, ; MIURA, Fl. Manch. & Mong. p. 29 1925' ; MERR., Enum. Hainan PI. p. 24 1927 ; HITCHCOCK, in Lingn. Sc. Journ. VII. p. 230 (1929) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 44 1929.; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 332 1930 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1351 1931 ; MIY. et KUDO, Fl. Hokk. & Sagh. II. p. 105 1931;

Syn. *Saccharum polydactylon*, var. p THUNB., Fl. Jap. p. 43 (1784[^])

Saccharum japo/ticum, THUNB., in Trans. Linn. Soc. II. p. 328 1794

Erianthus japonicus, BEAUV., ESS. Agrost. p. 14 1812.; ROEM. et SCHULT., Syst. Veg. II. p. 324 1817, ; NEES, in HOOK, et ARNOT. Bot. Capt. Beech. Voy. p. 242 1836-40:

Eulalia japonica, TRINIUS, in Mem. Acad. Petersb. sér. 6. II. p. 333 1833 ; MIQ., Fl. Ind. Bat. III. p. 518 1855 ; STEUD., Syn. Glum. I. p. 412 1865 ; FR. et SAV., Enum. PI. Jap. II. p. 189 1876

Miscanthus japonicus, non ANDERSSON PILG., in Perk. Frag. Fl. Philipp. p. 137 1904

Xom. Jap. *Susuki*

Lig. Ipse, Aug. 1928.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Ōsima, Okinawa, Taiwan, Korea, Manchuria, China, Philippines.

Note. Occurs in waste lands.

Var. **purpurascens**, RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. **III**. p. 348 1904 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 44 1929 ; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 335 1930 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1351 1931

Syn. *Miscanthus purpurascens*, ANDERSSON, in Oefvers. Svensk. Vet. Akad. Forh. 1855 p. 167 1856 ; HACK., in DC. Monogr. Phan. VI. p. 106 1889, et in Bull. Herb. Boiss. VII. p. 639 1899, ; PALIB., Consp. Fl. Kor. III. p. 129 1901 ; KOM., Fl. Mansh. I. p. 244 1901 p.p.; MATSUM., Ind. PI. Jap. II. 1. p. 65, 1905 ; NAK., Fl. Kor. II. p. 339 1911 ; TAKEDA, Fl. Shik. p. 494 1914 ; MIY. et KUDO, Fl. Hokk. & Sagh. II. p. 105 1931

Miscanthus sinensis, f. *purpurascens*, NAK., in Tokyo Bot. Mag. XXXI. p. 16 1917

Miscanthus sinensis, var. *purpurascens*, HOOK, f.; MAK. et NEM., Fl. Jap. ed. 1. p. 1464 1925,

Som. Jap. *Murasaki-susuki*

Leg. Ipse, Aug. 23, 1928.

Distr. Saghalien, Kuriles, Yezo, Honsyū, Sikoku, Kyūsyū, Korea, Manchuria, China.

Note. The variety is found in the Pseudosasa Owatarii Association. It is found in lands further north than those where the type species can be found, but nearly always in the same localities.

Microstegium, NEES, in LINDL. Nat. Syst. ed. 2.

p. 447 1836 ; STEUD., Syn. Glum. I. p. 411 (1855* ; LEMÉE, Diet. Gen. Pl. Phan. IV. p. 467 U932

Syn. Pollinia, non SPRENG. TRINIUS, in Mem. Ac. Petersb. sér. 6. II. p. 304 '1833 ; STEUD., Syn. Glum. I. p. 409 (1855^ ; BENTH. et HOOK, f, Gen. Pl. III. p. 1127 (1883 p.p.; HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 24 '1887, p.p., et in DC. Monogr. Phan. VI. p. 151 (1889' p.p.

Leptatherum, NEES, in Proc. Linn. Soc. I. p. 92 (1841 , et in STEUD., Nom. Bot. ed. 2. II. p. 29 '1841,

Pollinia, Sect. *Leptatherum*, BENTH. et HOOK, f, Gen. Pl. III. p. 1127 '1883 ; HACK., in ENGL. U. PRANT. Nat. Pfl.-fam. II. ii. p. 24 '1887

Pollinia, subgen. *Leptatherum*, HACK., in DC. Monogr. Phan. VI. p. 170 '1889.

Microstegium nudum, A. CAMUS, in Ann. Soc. Linn. Lyon. t. LXVIII. p. 201 1921 ; HONDA, Monogr. Poac. Jap. Bamb. excl. p. 405 1930 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 44 1929 ; MIY. et KUDO, Fl. Hokk. & Sagh. II. p. 103 1931

Syn. Pollinia nuda, TRINIUS, in Mem. Ac. Petersb. sér. 6 II. p. 307 '1833¹ ; STEUD., Syn. Glum. I. p. 410 1855 ; HACK., in DC. Monogr. Phan. VI. p. 178 1889 ; HOOK, f, Fl. Brit. Ind. VII. p. 117 1897 ; MATSUM., in Tokyo Bot. Mag. IX. p. 427 '1895 , et Ind. Pl. Jap. II. 1. p. 80 1905 ; RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 356 '1904) ; MAK. et NEM., Fl. Jap. ed. 2. p. 138 193r

Leptatherum Royleanum, NEES, in Proc. Linn. Soc. I. p. 92 ; 1841'

Pollinia japonica, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 290 1866

Leptatherum japonicum, FR. et SAV., Enum. Pl. Jap. II. pp. 190 et 609 '1876,

Eulalia nuda, O. KUNTZE, Rev. Gen. Pl. II. p. 775 1891

Microstegium japonicum, KOIDZ., in Tokyo Bot. Mag. XLIII. p. 394 1929

Xom. Jap. Sasa-gaya

Leg. Ipse, Kosugidani, Sept. 30, 1926.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Amami-ōsima, Okinawa, Korea, China.

Note. Occurs in the lauri-aciculisilvae; distributes in the temperate regions of Asia and southern Africa.

Pogonatherum, BEAUV., ESS. Agrost. p. 56 t. 11.

f. 7 1812 ; KUNTH, Enum. Pl. I. p. 477 1833 ; ENDL., Gen. Pl. n. 941(1836-40 ; STEUDL., Syn. Glum. I. p. 412 1855'; BENTH. et HOOK, f, Gen. Pl. III. p. 1127 '1883 ; HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 24 '1837 , et in DC. Monogr. Phan. VI. p. 190 '1889;

Syn. Homoplitis, TRINIUS, Fund. Agrost. p. 166 '1820

Pogonopsis, J. PRESL, in C. B. PRESL, Rel. Haenk. I. p. 333 t. 46 (1830.

Pogonatherum crinitum, TRIN., Fund. p. 166 (1820;; KUNTH, Enum. Pl. I. p. 478 '1833 ; MIQ., Fl. Ind. Bat. HI. p. 516 (1855 , et in Ann. Mus. Bot. Lugd. Bat. II. p. 289 1866 ; FR. et SAV., Enum. Pl. Jap. II. p. 189 '1876, ; HOOK, f, Fl. Brit. Ind. VII. p. 141 '1897); MASAMUNE, Prel. Rep. Veg. Yak. p. 45 (1929); HONDA,

Monogr. Poac. Jap. Bamb. excl. p. 414 (1933); MAK. et NEM., Fl. Jap. ed. 2. p. 1386 (1931)

Syn. *Andropogon criniturn*, THUNB., Fl. Jap. p. 40, t. 7 (1784)

Pogonatherum saccharoideum, BEAUV., ESS. Agrost. p. 176, t. 11. f. 7 (1812); STEUD., Syn. Glum. I. p. 412 (1855); HACK., in DC. Monogr. Phan. VI. p. 192 (1889); HOOK, f., Fl. Brit. Ind. VII. p. 141 (1897); RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 357 [1904¹]; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 320 (1912)

Pogonatherum polystachyum, ROEM. et SCHULT., Syst. Veg. II. p. 497 (1817)

Homoplitis crinita, TRINIUS, Fund. Agrost. p. 165 (1820)

Pollinia polystachys, SPRENG., Syst. Veg. I. p. 233 (1825)

Pogonatherum saccharoideum, a *genuinum*, HACK., in DC. Monogr. Phan. VI. p. 193 (1889)

Pogonatherum saccharoideum, \$ *monandrum*, HACK., in DC. Monogr. Phan. VI. p. 193 (1889), in Bull. Herb. Boiss. VII. p. 611 (1899); et 2 sér. IV. p. 527 (1904); RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 357 (1904); MATSUM., Ind. Pl. Jap. II. 1. p. 79 (1905); MATSUM. et HAY., Enum. Pl. Formos. p. 522 (1906); HAY., Ic. Pl. Formos. VII. p. 79 (1918)

Pogonatherum paniceum, HACK., in Allg. Bot. Zietschr. XII. p. 178 (1905); MERR., Enum. Philipp. Pl. I. p. 35 (1922)

Nom. Jap. *Itati-gaya*

Lea. Ipse, Nagata, Y. KUDO! Aug. 1907.

Distr. Honsyu, Sikoku, Kyūsyū, Tanegasima, Amami-6sima. Okinawa, China, Philippines.

Note. Common species in South Japan. Occurs on vertical walls and on surfaces artificially produced by cutting, or on dry ground.

Coix, [LINN., Gen. ed. 1. p. 280 (1737) Sp. Pl. ed. 1. p. 972 (1753); et Gen. Pl. ed. 5. p. 419 (1754)]; KUNTH, Enum. Pl. I. p. 20 (1833); ENDL., Gen. Pl. n. 743 (183&-40J); STEUD., Syn. Glum. I. p. 9 (1855); BENTH. et HOOK, f., Gen. Pl. III. p. 1112 (1883); HACK., in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 21 (1887); LEMÉE, Die. Gen. Pl. Phan. II. p. 245 (1930)

Coix lichryma-Jobi, LINN., Sp. Pl. ed. 1. p. 972 (1753)

var. *susutama*, HONDA, in Monogr. Poac. Jap. Bamb. excl. p. 416 (1930)

Syn. *Coix Lacryma*, non LINN.; THUNB., Fl. Jap. p. 37 (1784); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 273 (1856); FR. et SAV., Enum. Pl. II. p. 155 (1876)

Coix agrestis, LOUR., Fl. Cochinch. p. 551 (1790); MIQ., Fl. Ind. Bat. III. p. 476 (1855-59), et in Ann. Mus. Bot. Lugd. II. p. 273 (1866); FR. et SAV., Enum. Pl. Jap. II. p. 157 (1876); HACKEL, in Bull. Herb. Boiss. VII. p. 638 (1899); MATSUM. et HAY., Enum. Pl. Formos. D. 49 (1906); YABE, Enum. Pl. Manch. p. 13 (1912); MORI, Enum. Pl. Cor. p. 41 (1922)

Coix Lacryma, a *susutama*, SIEB., Syn. Pl. Oec. Jap. p. 10 (1830)

Coix Lacryma Jobi, (non LINN.) HACKEL, in Bull. Herb. Boiss. VII. p. 638 (1899); RENDLE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 345 (1904); MATSUM., Ind. Pl. Jap. II. 1. p. 49 (1905); MATSUM. et HAY., Enum. Pl. Formos. p. 68 (1905); MASAMUNE, Prel. Rep. Veg. Yak. p. 42 (1929); MERR., Enum. Hainan Pl. p. 24 (1927)

Coix Lacryma Jobi, form, *susutama*, MAK., in Tokyo Bot. Mag. XX. p. 10 (1906); MAK. et NEM., Fl. Jap. ed. 2. p. 1334 (1931)

Coix Lacryma-Christi, NAK., Veg. Isl. Quel. p. 18 U914

Nom. Jap. *Zyuzudama*

Leff. Ipse, Miyanoura.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Ōsima, Okinawa, Taiwan, Korea, Manchuria, China, Philippines.

Note. Occurs on marshy ground or along rivers at low altitudes, and is common in the warmer parts of eastern Asia.

Names of Plants	Regions											
	Philippines	Taiwan	Okinawa	Amami-ōshima	Megas	Kyūsyū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamchatka	Manchuria & Amur & Ussuri	China
<i>Pseudosasa japonica</i> , MAK.					+	+	+					
<i>Pseudosasa Owatarii</i> , MAK.												
<i>Pleiblastus Hindsii</i> , NAK.			+	+	+	+						
<i>Pleiblastus Masamuneanus</i> , MAK.												
<i>Agropyron semicostatum</i> , NEES			+	+	+	+	+	+	+			
<i>Brachypodium miserum</i> , KOIDZ.		+				+	+	+	+			
<i>Festuca ovina</i> , LINN.		+				+	+	+	+	+	+	+
<i>Festuca pauciflora</i> , THUNB.					+	+	+	+	+			
<i>Poa acroleuca</i> , STEUD.			+		+	+	+	+	+	+	+	+
<i>P. a. var. spiciformis</i> , HONDA						+	+	+				
<i>Poa annua</i> , LINN.	+	+	+	+	+	+	+	+	+	+	+	+
<i>Briza minor</i> , LINN.		+		+		+	+	+				+
<i>Lophatherum gracile</i> , BRONG. var. <i>elatum</i> , BENTH.		+	+	+		+	+	+				+
<i>Eragrostis atrovirens</i> , TRINIUS		+	+	+		+	+	+				+
<i>Eragrostis pilosa</i> , BEAUV.	+		+			+	+	+			+	+
<i>Phragmites japonica</i> , STEUD.						+	+	+	+			
<i>Arundo donax</i> , LINN.		+	+	+	+	+	+	+				+
<i>Avena fatua</i> , LINN.		+	+	+	+	+	+	+				+
<i>Deschampsia caespitosa</i> , BEAUV.	+					+	+	+	+		+	

<i>Deschampsia flexuosa</i> , TRINIUS	I . i	+ . + ; + : + ; + ; +	
<i>D. f. form. pallida</i> , HACK.			1 1
<i>Eleusine indica</i> , GAERTN.	4 + 4 4 4	14 4 4 4 i	14
<i>Cynodon dactylon</i> , PERSOON.	+ + + + + 4	4 + > + + .	+
<i>Calamagrostis hakonensis</i> , FR. & SAV.	I	4 4 4 J + +	i
<i>Calamagrostis longiseta</i> , HACK.		4 : 4 ! ' 4	
<i>Calamagrostis Masamunei</i> , HONDA.			: 1
<i>Calamagrostis orthophylla</i> , HAY. et HONDA.		4 4 4 1 . :	
<i>Agrostis alba</i> , LINN.	+	4 4 4 > 1 1 4 4 + 4	
<i>Agrostis flaccida</i> , HACK.		4 4 4 4 4 4 :	
<i>Agrostis Matsumurae</i> , HACK.	+	+ + + + +	
<i>Agrostis clavata</i> , TRIN.	+ +	IV i i i i i i i i	1 1
<i>Sporobolus elongatus</i> , R. BR.	+ ; + 4 4	+ ; + ! + + !	+
<i>Alopecurus geniculatus</i> , LINN.	+ 1 + 4 4	+ : + + + + +	+ + +
<i>Alopecurus japonicus</i> , STEUD.	!	4 + : + ; +	+
<i>Anthoxanthum odoratum</i> , LINN.		+ . . . + + 4	
<i>Pennisetum sordidum</i> , KOIDZ.	4 + ! 4	+ i i !	
<i>Setaria lutescens</i> , HUBB. var. <i>genuina</i> , HONDA	+ ; + ' + : 4 4	+ : + + + + +	+ +
<i>S. l. var. longispica</i> , HONDA.	+ M 4	+ ; ! ! + +	
<i>Setaria viridis</i> , BEAUV. var. <i>pachystachys</i> , subv. <i>typica</i> , MAK. et NEM.	+ > : 4 4	+ + + +	: +
<i>S. v. var. purpurascens</i> , MAXIM.	1	4 ' 4 4 4 !	i +
<i>Panicum bisulcatum</i> , THUNB.	1 + + ;		4
<i>Panicum Trepense</i> , LINN.	4 4 4 4	4 I I	4
<i>Panicum plicatum</i> , LAM.	4 4 4 4	4 +	4
<i>Sacciolepis spicata</i> , HONDA.	4 U 1 * 4	4 ? 4 4 ?	4
<i>Echinochloa crus-galli</i> , BEAUV. subsp. <i>hispidula</i> , HONDA	4 4 4	+ i + + ! 4 4	
<i>Oplismenus Burmanni</i> , BEAUV. var. <i>intermedius</i> , HONDA	4	: I	
<i>Oplismenus compositus</i> , BEAUV.	4 + + 4	+ 1 !	1 4
<i>Oplismenus japonicus</i> , HONDA.	+ + 4 +	+ + + : 4	
<i>Oplismenus microphyllus</i> , HONDA.		+ i + !	
<i>Isachne globosa</i> , O. KUNTZE]]	+ + + 4	+ ; + + ! + V	4 4
<i>Isachne myosotis</i> , NEES, var. <i>minor</i> , HONDA	+	i 1	i ;
<i>Paspalum scrobiculatum</i> , LINN.	4 4 4 4	H + + ;	4

Pogonatherum crinitum, KUNTH	+	+ - f j - -	+ ! ! + ; ; ; ! ! ! ! !	+
Coix lachryma-Jobi, LINN. var. susutama, HONDA	j	+ + +	+ + + + + + +	+ +
Total	78	181347 44139	29! 69 5563453512 7 1742	
Percentage		231760 56,50	37!88 7181584415 9 2254	
(Southern elements 58)			(Northern elements 71)	

Studying the table, it appears that even though in the island there are some elements which are thought to have originated in southern districts, like *Spinifex*, most of the elements of this family indigenous to this island are considered as elements of the northern districts. From these facts I reached the conclusion that the island is more closely related to the northern than to the southern lands. Thus in the case of this family the sea that divides Amami-Ōsima and Yakusima is significant as a line of demarkation of the Flora of Japan.

Cyperaceae

Cyperaceae, J. ST.-HIL., Expos. Famil. I. p. 62, t. 12 1835.

Syn. *Cyeroideac*, JUSS., Gsn. p. 26 1789.

Lipocarpha, R. BR., in Tuckey, Congo, p. 459

1818 ; KUNTH, Enum. Pl. II. p. 265 1837. ; ENDL., Gsn. Pl. n. 987 1836-10. ;

BENTH. et HOOK, f, Gen. Pl. III. p. 1051 1883. ; PAX, in ENGL. u. PRANT. Nat.

Pfl.-fam. II. ii. p. 106 1887. ; LEMEE, Diet. Gen. Pl. Phan. IV. p. 117 1932

Syn. *Hypaelytum*, VAHL, Enum. II. p. 283 1806.

Lipocarpha microcephala, KUNTH, Enum. Pl. II. p. 268 U837;; MIQ., Fl. Ind. Bat. III.

p. 331 a856,, et in Ann. Mus. Bot. Lugd. Bat. II. p. 147 1855 ; BENTH., Fl.

Hongk. p. 388 (1851) ; BOECK, in Linnaea XXXVII. p. 118 1871 ; FR. et SAV.,

Enum. Pl. Jap. II. p. 120 J876. ; FR., in Mém. Soc. Sc. Nat. Cherb. XXIV. p.

264 1881) ; C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. VI. p. 668 1893i; DIELS,

Fl. Cent. Chin. p. 227 (1900) ; MATSUM. Ind. Pl. Jap. II. 1. p. 155 11905 ; NAK., Fl.

Kor. II. p. 284 11911) ; RIDLEY, Fl. Malay, II. p. 108 19231 ; MERR., Enum. Philipp.

Pl. I. p. 102 1922) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 49 1929 ; YAMAZUTA,

List Manch. Pl. p. 49 1930!; MAK. et NEM., Fl. Jap. ed. 2. p. 1478 1931

Syn. *Hypaelytum microcephalum*, R. BR., Prodr. p. 220 1810i

Ascolepis kyllingioides, STEUDEL, in ZOLL. Verz. Pfl. Ind. Arch. II. p. 61 1834

Scirpus leptocarpus, F. MUELL., in Trans. Phil. Soc. Viet. I. p. 103 1835

Kyllinga squarrosa, STEUDEL, Syn. Pl. Glum. II. p. 68 1855,

Isolepis sjuarrosa, non ROEM. et SCHULTJ MIQ., in Ann. Mus. Bot. Lugd.

Bat. II. p. 211 '1865' ; OLIV., in Journ. Linn. Soc. IX. p. 170 '1857' ; FR. et SAV., Enum. Pl. Jap. II. p. 115 '1876

Nom. Jap. Hinzi-gayatsuri

Lea. Ipse, Aug. 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Amami-6sima, Taiwan, Korea, Manchuria, China, Malay, Philippines.

Note. Occurs in cultivated, waste, or somewhat wet lands at low altitudes.

Cyperus, [MICH., ex LINN. Syst. ed. 1 [1735, Gen. Pl. ed. 1. p. 12 1737] et Sp. Pl. ed. 1. p. 41 1753 ; KUNTH, Enum. Pl. II. p. 2, 1837 ; ENDL., Gen. Pl. n. 1003 '1836 ; BENTH. et HOOK, f., Gen. Pl. III. p. 1043 '1883 ; PAX, in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 107, 1887 ; LEMFÉ, Diet. Gen. Pl. Phan. II. p. 463, 1930

Syn. Chlorocyperus, RIKLI, in Pringsheim, Jahrb. XXVII. p. 563 '1895

Cyperus compressus, LINN., Sp. Pl. ed. 1. p. 46 1753 ; KUNTH, Enum. Pl. II. p. 23 1837 ; HOOK., in Journ. Bot. Kew. Misc. VI. p. 27 '1854' ; BOECK., in Linnaea, XXXV. p. 517 '1857-8 ; FR. et SAV., Enum. Pl. Jap. II. p. 105 ; 1876 ; C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. VI. p. 605 1894 et in FORB. et HEMSL. Ind. Fl. Sin. III. p. 210 1903 ; MATSUM., Ind. Pl. Jap. II. 1. p. 140 1905 ; MERR., Enum. Philipp. Pl. I. p. 103 '1922', et Enum. Hainan Pl. p. 37 '1927 ; RIDLEY, Fl. Malay V. p. 144 (1925) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 48 1929 ; YAMAZUTA, List Manch. Pl. p. 46 1930 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1463 1931

Syn. Cyperus pectiniformis, NEES, in Wight Contrib. p. 77 (1834 ; HOOK, et ARN., Bot. Capt. Beech. Voy. p. 22, 1830

Cyperus Meyenii, NEES, in Nov. Act. Acad. Nat. Cur. XIX. Supp. 1. p. 57 (1843

Nom. Jap. Kugugayaturi

Lea. Ipse, Jul. 14, 1922.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Manchuria, China, Philippines.

Note. Occurs by the roadside, in waste lands at low altitudes; rather common in Japan.

Cyperus flavidus, RETZ., Obs. V. p. 13 '1785 ; ROXB., Fl. Ind. I. p. 200 1832 ; C. B. CLARKE, in Journ. Linn. Soc. XXXIV. p. 23 (1898 ; MATSUM., Ind. Pl. Jap. II. 1. p. 140 1905 ; NAK., Fl. Kor. II. p. 287 1911 ; DUNN, Supp. List Chinese, Flow. Pl. p. 439 1911 ; CAMUS, in LECOMTE Fl. Ind. Chin. VII. p. 50 1912 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 48 1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1463 1931

Syn. Cyperus pseuao-haspan, MAK., in Tokyo Bot. Mag. VI. p. 47 1892

Nom. Jap. Koazegayaturi

Lea. Ipse, Jun. 24, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Amami-6sima, Okinawa, Taiwan, Korea, China.

Note. Grows on wet place in the lowlands, especially in rice fields; common in the warmer parts of Japan.

Cyperus hakonensis, FR. et SAV., Enum. Pl. Jap. II. pp. 104, et 538 1876 ; MAK., in Tokyo Bot. Mag. IV. p. 229 1890 ; MATSUM., Ind. Pl. Jap. II. 1. p. 140 1905 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1464 1931

Aom. Jap. Hinagayaturi

Leg. Ipse, Jul. 1928.

Distr. HonsyG, Sikoku, Kyûsyû.

Mote. The species is found in the lowlands among cultivated fields and is not yet reported in lands further south than Yakusima.

Cyperus haspan, LINN., Sp. PL ed. 1. p. 45 (1753 ; KUNTH, Enum. PL II. p. 34 (1837 ; MIQ., Fl. Ind. Bat. III. p. 267 (1856 ; BENTH., Fl. Hongk. p. 385 (1861), et Fl. Austral. VII. p. 270 (1878) ; BOECK., in Linn. XXXV. p. 574, var. a (1857-8 ; C. B. CLARKE, in Hook. f. Fl. Brit. Ind. VI. p. 600 (1894), et in FORB. et HEMSL. Ind. Fl. Sin. III. p. 213 (1903 ; DIELS, Fl. Cent. Chin. p. 227 (1900 ; MATSUM., Ind. PL Jap. II. 1. p. 141 (1905 ; CAMUS, in LECOMTE, Fl. Ind. Chin. VII. 1. p. 50 (1922) ; MERR., Enum. Philipp. PL I. p. 105 (1922), et Enum. Hainan PL p. 37 (1927 ; RIDLEY, Fl. Malay, V. p. 142 (1925 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 48 (1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1464 (1931

Aom. Jap. Mizuhanabi

Leg. Ipse, Onoaida, Sept. 1, 1926.

Distr. HonsyG, Sikoku, Kyûsyû, Amami-6sima, Okinawa, Taiwan, Korea, China, Philippines.

Note. Grows in open sunny, but wet places at low altitudes; common in tropical and warmer regions.

Cyperus iria, LINN., Sp. PL ed. 1. p. 45 (1753 ; THUNB., Fl. Jap. p. 36 (1781 ; KUNTH, Enum. PL II. p. 38 (1837) ; NEES, in HOOK, et ARNOT Bot. Capt. Beech. Voy. p. 223 (1836-40) ; BENTH., Fl. Hongk. p. 386 (1851) ; BOECK., in Linn. XXXV. p. 595 (1867-8), et in Engl. Bot. Jahrb. VI. p. 51 (1885) ; FR., in Bull. Soc. Bot. Fr. XXIX. p. 12 (1882) ; C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. VI. p. 606 (1894), in FORB. et HEMSL. Ind. Fl. Sin. III. p. 213 (1903), et III. Cyp. t. XIV. 1. p. 1909 ; MAK., in Tokyo Bot. Mag. VIII. p. 380 (1894) ; DIELS, Fl. Cent. Chin. p. 227 (1901) ; PALIBIN, Consp. Fl. Kor. III. p. 19 (1901) ; KOM., Fl. Mansh. I. p. 334 (1901) ; MATSUM., Ind. PL Jap. II. 1. p. 141 (1905) ; MATSUM. et HAY., Enum. PL Formos. p. 473 (1906) ; NAK., Fl. Kor. II. p. 288 (1911) ; CAMUS, in LECOMTE, Fl. Ind. Chin. VII. 1. p. 59 (1912) ; MERR., Enum. Philipp. PL I. p. 106 (1922), et Enum. Hainan PL p. 28 (1927 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 48 (1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1465 (1931,

Aom. Jap. Kogomegayaturi

Leg. KUDO! Aug. 1907.

Distr. HonsyG, Sikoku, Kyûsyû, Amami-Ôsima, Okinawa, Taiwan, Korea, Manchuria, China, India, Philippines.

Note. Occurs in wet ground near the sea level especially in cultivated fields; rather common throughout the warmer regions of the world.

Cyperus rotundus, LINN., Sp. PL ed. 1. p. 45 (1753), et Syst. Veg. p. 96 (1781) ; THUNB., Fl. Jap. p. 36 (1781) ; LOUR., Fl. Cochinch. ed. WILLD. p. 53 (1793 ; KUNTH, Enum. PL II. p. 58 (1837) p.p.; BOECK., in Linn. XXXVI. p. 283 (1859-70) ; BENTH., Fl. Hongk. p. 387 (1861) ; FR., in Mém. Soc. Sc. Nat. Cherb. XXIV. p. 262 (1884) ; C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. VI. p. 614 (1894), et in FORB. et HEMSL. Ind. Fl. Sin. III. p. 216 (1903) ; DIELS, Fl. Cent. China, p. 227 (1900) ; MATSUM., Ind. PL Jap. II. 1. p. 143 (1905 ; MATSUM. et HAY., Enum. PL Formos. p. 475 (1906) ; CAMUS, in LECOMTE, Fl. Ind. Chin. VII. 1. p. 69 (1912) ; MERR., Enum. Philipp. PL I. p. 107 (1922), et Enum. Hainan PL p. 38 (1927 ; RIDLEY, Fl. Malay

V. p. 145 1925); MASAMUNE, Prel. Rep. Veg. Yak. p. 48 (1929`); YAMAZUTA, List Manch. PL p. 47 ,1930; MAK. et NEM., Fl. Jap. ed. 2. p. 1457 ^1931
 Syn. *Cyperus hexastachyus*. ROTTB., Descr. et Ic. p. 28, t. 14, f. 2 ^1773 ; HOOK, et ARNOT., Bot. Capt. Beech. Voy. p. 272 (183&-40)

Norn. Jap. *Hamasuge*

Leg. Ipss, Aug. 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-dsima, Okinawa, Taiwan, Korea, Manchuria, China, Philippines, India.

Note. Grows in littoral regions on sandy soil; is distributed all over t'is tropical and temperate regions of both hemispheres.

Cyperus truncatus, TURCZ., in Bull. Soc. Mosc. p. 103 '1833 ., et Fl. Dahur. II. 1. p. 245 1855!

var. *orthostachya*, C. B. CLARKE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 218 (1903 ; MATSUM., Ind. Pl. Jap. II. 1. p. 143 1905,

Syn. *Cyperus orthostachyus*, FR. et SAV., Enum. Pl. Jap. II. pp. 103, et 539 '1876

Cyperus truncatus, non TURCZ. KOM., Fl. Mansh. I. p. 329 1901 p.p.; MORI. Enum. Pl. Cor. p. 71 1922.

Cyperus truncatus. TURCZ. var. *robustus*, NAK., in Tokyo Bot. Mag. XL. p. 146 1926; MAK. et NEM., Fl. Jap. ed. 2. p. 1468 (1931; ; MIY. et KUDO Fl. Hokk. & Sagh. II. p. 196 1930,

Norn. Jap. *Usikugu*

Leg. Ipse, Sept. 6, 1926.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Korea, Manchuria.

Note. Occurs in open grassland at low altitudes and on somewhat wet ground.

Pycneus, BEAUV., Fl. d'Oware et Benin II. p. 48,

t. 85 1807;

Syn. *Picreus*, JUSS., in Diet. Sc. Nat. XL. pi. 194 1826)

Cyperus, Sect. *Pycneus*, ^*Picreus*; GRISEB., Spicil. Fl. Rumel. II. p. 419 ,1844

Pycneus globosus, REICHB., Fl. Excurs. Addend, p. 140 ;1830-32; ; C. B. CLARKE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 203 .1903); MATSUM., Ind. Pl. Jap. II. 1. p. 157 1912 ; NAK., in Bull. Biogeo^r. Soc. Jap. I. p. 254 ,1930,

Syn. *Cyperus strictus*. ROXB., Fl. Ind. I. p. 146 (1820; ; KUNTH, Enum. Pl. II. p. 12 1837;

Cyperus Linneanus, NEES, in Linnaea, IX. p. 283 ,1834;

Cyperus tortuosus, KOENIG. in ROXB. Fl. Ind. I. p. 201 1832 ; KUNTH, finum. Pl. II. p. 16 1837'

Cyperus globosus, ALL. var. *stricta*, C. B. CLARKE, in Journ. Linn. Soc. XXI. p. 47 1831 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1464 1931)

Norn. Jap. *Azegayaturi*

Leg. Serizawa! 1931.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Okinawa, Taiwan, Bonins, Korea, Manchuria, China, India, Philippines.

Note. Grows on open and damp grassland at low altitudes; rather common in the tropics, subtropics, and warmer regions of the old world.

Pycneus odoratus, URB., Symb. Austil. II. p. 164 ,1900; ; MERR., Enum. Philipp. Pl. I. p. 110 (1922., et Enum. Hainan Pl. p. 38 1927]

Syn. *Cyperus odoratus*, LINN., Sp. PI. ed. 1. p. 46 U753-
Pyrreus polystachyus, BEAUV., PI. d'Oware et Benin. II. p. 48, t. 85 f. 2 '1807 ;
 NEES, in Nov. Act. Acad. Nat. Cur. XIX. Suppl. p. 55 (18W ; C. B. CLARKE,
 in HOOK. f. Fl. Brit. Ind. VI. p. 592 (1894), et in FORB. et HEMSL. Ind. Fl.
 Sin. III. p. 205 '1903 ; MATSUM., Ind. PI. Jap. II. 1. p. 158 (1905); CAMUS,
 in LECOMT. Fl. Ind. Chin. VII. 1. p. 34 '1912'; MORI, Enum. PI. Cor. p. 75
 i 1922 ; RIDLEY, Fl. Malay V. p. 139 U925^ ; MASAMUNE, Prel. Rep. Veg. Yak.
 p. 49 '1929 ^

Cyperus polystachyus, inon ROTTB. R. BR., Prodr. p. 214 [1810; ; KUNTH, Enum.
 PI. II. p. 13 '1837; ; HOOK, et ARN., Bot. Capt. Beech. Voy. p. 220 (1836-40 ;
 MIQ., Fl. Ind. Bat. III. p. 258 J856i; BENTH., Fl. Hongk. p. 385 '1861 ;
 BOECK., in Linn. XXXV. p. 477 .1857-8 ; FR., in Mém. Soc. Nat. Cherb.
 XXIV. p. 252 '1831 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1466 '1931

Cyperus bruneus, non SWARTZ* HOOK, et ARN., Bot. Capt. Beech. Voy. p. 99
 (1841

Norn. Jap. Iga-gayaturi

Lea. Ipse, Miyanoura, Sept. 1, 1931

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan,
 Korea, China, Philippines, India, Malay.

Note. Occurs on wet ground near rice-fields at low altitudes; common in tropical
 or warmer countries.

Mariscus, HALL., Enum. Stirp. Helver. I. p. 251
 1742 ; KUNTH, Enum. PI. II. p. 115 :1847: ; O. KUNTZE, Rev. Gen. PI. II. p. 754
 1891 ; LEMÉE, Diet. PI. Phan. IV. p. 314 ,1932'

Syn. *Cyperus*, Sect. *Mariscus*, ENDL., Gen. PI. p. 119 '1836:
Opctiola, GAERTN., Fruct. I. p. 14, t. 2 (1788

Mariscus sieberianus, NEES, in Linnaea, IX. p. 286 '1834 ; C. B. CLARKE, in HOOK.
 f. Fl. Brit. Ind. VI. p. 622 1894¹, FORB. et HEMSL., Ind. Fl. Sin. III. p. 221 '1903 ,
 et III. Cyp. t. XXIII. 7 1909⁸; MATSUM., Ind. PI. Jap. II. 1. p. 156 (1905^; MATSUM.
 et HAY., Enum. PI. Formos. p. 477 '1906'; MORI, Enum. PI. Cor. p. 75 (1922 ;
 MERR., Enum. Philipp. PI. I. p. 114 (1922¹; MASAMUNE, Prel. Rep. Veg. Yak. p.
 49 1929

Syn. *Mariscus cyperinus*, non VAHLi' PRESL, in Oken, Isis. XXI. p. 270 '1829 ;
 HOOK, et ARN., Bot. Capt. Beech. Voy. p. 270 (1836-40; p.p.

Cyperus umbellatus, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 142 (1865

Cyperus Sieberianus, DIELS, Fl. Cent. China p. 227 '1900

Mariscus Sieberianus, NEES, var. *subcomposita*, CLARKE; MAK. et NEM., 'Fl.
 Jap. ed. 2. p. 1478 '1931

Nom. Jap. Kugu

Leg. Ipse, Sept. 7, 1926.

Distr. Honsyū, Sikoku, Kyūsyū, Amami-Ōsima, Okinawa, Taiwan, Bonins, Korea,
 China, Philippines.

Note. Occurs on waste ground at low altitudes; is distributed in all tropical and
 subtropical lands.

Kyllingia, \Kyllingia ROTTB., Descr. et Ic. PI. p.
 12, t. 4 11773 ; ENDL., Gen. PI. n. 1003b. r1836-40; KUNTH, Enum. PI. II. p. 127
 1837 ; BENTH. et HOOK. f., Gen. PI. III. p. 1045 ,1883'; PAX, in ENGL. U. PRANT.
 Nat. Pfl.-fam. II. ii. p. 109 J887 ; LEMKE, Diet. Gen. PI. Phan. III. p. 900 U931,

Syn. *Kyllingia*, LINN, f, Suppl. p. 11 1781/
IGllingia, JUSS., Gen. PL p. 27 .1789/

Kyllingia brevifolia, ROTTB., Descr. et Ic. p. 13, t. 4 f. 3 '1773 ; KUNTH, Enum. PL II. p. 130 1837, ; BOECK, in Linnaea, XXXV. p. 424 (1857-3); C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. VI. p. 533 1893 , in FORB. et HEMSL. Ind. Fl. Sin. III. p. 223 1903; , et III. Cyp. t. I. 1939 ;•, DIELS, Fl. Cent. China p. 228 (1900); MATSUM., Ind. PL Jap. II. 1. p. 154 il935); NAK., Fl. Kor. II. p. 289 U911; , et in Bull. Biogeogr. Soc. Jap. I. p. 254 ,1930.; YABE, Enum. PL Manch. p. 20 (1912;); CAMUS, in LECOMTE, FL Ind. Chin. VII. 1. p. 24 (1912); MERR., Enum. Philipp. PL I. p. 114 v1922\ et Enum. Hainan PL p. 33 (1927); RIDLEY, FL Malay V. p. 139 1925; ; HULT., FL Kamtch. I. p. 157 ',1927j; MASAMUNE, Prel. Rep. Veg. Yak. p. 49 1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1477 ; 1931' -; MIY. et KUDO, Fl. Hokk. & Sagh. II. p. 197 ,1931'

Syn. *Kyllingia rmonocephala*, 'non LINN. THUNB., FL Jap. p. 35 1784 ; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 142 .1855); KOM., Fl. Mansh. I. p. 335 1901;

Kyllingia gracilis, KUNTH, Enum. PL II. p. 134 ;1837

Kyllingia longiclumis, MIQ., FL Ind. Bat. III. p. 292 ,1855,

Kyllingia gracillirna, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 142 1855 ; FR. et SAV., Enum. PL Jap. II. p. 103 1876

Kyllingia monocephala, LINN. var. *leiolepis*, FR. et SAV., Enum. PL Jap. II. p. 103 1876

Nom. Jap. *Himckugu*

Leg. Ipse, Kosugidani, Sept. 4, 1926.

Distr. Kamtchatka, Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Ôsima, Okinawa, Taiwan, Bonins, Korea, Manchuria, China, Philippines.

Note. Occurs in waste lands and on somewhat opsn places; widely distributed in eastern Asia and the Malayan regions.

Scirpus, [TOURN., ex LINN. Syst. I. 1753 , Gen. PL ed. 1. p. 12 1737] et Sp. PL ed. 1. p. 47 1753 ; ENDL., Gen. PL n. 1033 r 1836-40 ; KUNTH, Enum. PL II. p. 157 1837 ; BENTH. et HOOK, f, Gen. PL III. p. 1049 1883 ; PAX, in ENGL. U. PRANT. Nat. Pfl.-fam. II. ii. p. 111 ,1837,

Scirpus erectus, POIR., Encycl. VI. p. 761 1804;; C. B. CLARKE, in HOOK. f. FL Brit. Ind. VI. p. 656 1894 , et in FORB. et HEMSL. Ind. Fl. Sin. III. p. 248 ,1903' ; DIELS, FL Cent. China p. 228 1903 ; KOM., Fl. Mansh. I. p. 3U ,1931 ; MATSUM., Ind. PL Jap. II. 1. p. 161 ' 1935;; MATSUM. et HAY., Enum. PL Formos. p. 488 1905 ; NAK., Fl. Kor. II. p. 292 1911' ; CAMUS, in LECOMTE, FL Ind. Chin. VII. 2. p. 136 1912 ; MERR., Enum. Philipp. PL I. p. 117 ' 1922 ; RIDLEY, FL Malay V. p. 161 1925 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 292 1929 ; MAK. et NEM., FL Jap. ed. 2. p. 1483 1931, ; MIY. et KUDO, FL Hokk. & Sagh. II. p. 203 ,1931)

Syn. *Scirpus debilis*, PURSH, FL Amer. Sept. I. p. 55 1814; KUNTH, Enum. PL II. p. 159 ,1837' ; BENTH., Fl. Austral. VII. p. 332 1878-

Scirpus juncoides, ROXB., Hort. Beng. p. 81 1814 , et FL Ind. I. p. 216 1820 ; KUNTH, Enum. PL II. p. 160 1837 ; BENTH., Fl. Hongk. p. 395 1861.

Scirpus luzonensis, PRESL, Rel. Haenk. I. p. 193 1823 ; NEES, in Nov. Act. Nat. Cur. XIX. Suppl. I. p. 93 1813;

Nom. Jap. *Hot ami*

Leg. Ipse, Nakama, Mart. 23, 1923.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China, Philippines, India, Madagascar, North America, Tropical Africa.

Aote. Occurs on wet ground scattered at low altitudes; is widely distributed in warmer parts of both hemispheres.

Scirpus ternatanus, REINW., ex MIQ. Fl. Ind. Bat. III. p. 307 (1855); C. B. CLARKE, in Journ. Linn. Soc. XXXIV. p. 83 (18&9), et in FORB. et HEMSL. Ind. Fl. Sin. III. p. 254 (1903); MATSUM., Ind. Pl. Jap. II. 1. p. 164 (1905); MATSUM. et HAY., Enum. Pl. Formos. p. 490 (1906); MERR., Enum. Philipp. Pl. I. p. 118 (1922); MAK. et NEM., Fl. Jap. ed. 2. p. 1485 (1931[^])

Syn. *Scirpus chinensis*, MUNRO, in SEEM. Bot. Voy. Herald p. 423 (1857); BENTH., Fl. Hongk. p. 395 (1861[^]); DIELS, Fl. Cent. China, p. 228 (1900); NAK., in Biogeogr. Soc. Jap. I. p. 255 (1930)

Norn. Jap. Oaburagaya

Leg. Ipse, Jun. 27, 1928.

Distr. Kyūsyū, Amami-6sima, Okinawa, Taiwan, Bonins, China, Philippines, Indo-China, Celebes, Moluccas, Europe, South Africa, Australia.

Mote. Occurs on wet ground such as river sides at low altitudes.

Eleocharis, *Hcleocharis* R. BR., Prodr. p. 224 (18KT); KUNTH, Enum. Pl. II. p. 139 (1837); ENDL., Gen. Pl. n. 1033 c. 11836-40; BENTH. et HOOK, f, Gen. Pl. III. p. 1047 (1883); PAX, in ENGL. U. PRANT. Nat. Pfl-fam. II. ii. p. 112 (1837^N); LEMÉE, Diet. Gen. Pl. Phan. III. p. 495 (1931)

Syn. *Trichophyllum*, EHRB., Beitr. IV. p. 147 (1789)

Hcliocharis, LINDL., Syn. Brit. Fl. p. 281 (1829)

Chaetocyperus, NEES, in Linn. IX. p. 289 (1834)

Eleocharis acicularis, R. BR., Prodr. Nepal, p. 221 (1810), et ROEM. et SCHULT., Syst. Veg. II. p. 154 (1817); KUNTH, Enum. Pl. II. p. 141 (1837); C. B. CLARKE, in HOOK, f. Fl. Brit. Ind. VI. p. 623 (1894, et in FORB. et HEMSL. Ind. Fl. Sin. III. p. 225 (1903); KOM., Fl. Mansh. I. p. 350 (1901); MATSUM., Ind. Pl. Jap. II. 1. p. 144 (1905); MATSUM. et HAY., Enum. Pl. Formos. p. 480 (1905); MORI, Enum. Pl. Cor. p. 71 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 48 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1463 (1931); MIY. et KUDO, Fl. Hokk. & Sagh. II. p. 207 (1931)

Syn. *Scirpus acicularis*, LINN., Sp. Pl. ed. 1. p. 48 (1753); HULT., Fl. Kamtch. I. p. 161 (1927)

Chaetocyperus Limnocharis, NEES, in Hook. Journ. Bot. II. p. 397 (1836-40); HOOK. et ARN., Bot. Capt. Beech. Voy. p. 272 (1836-40)

Chaetocyperus costulatus, NEES et MYEN, in Mov. Act. Nat. Cur. XIX. Supp. 1. p. 96 (1843[^])

Hcleocharis acicularis, KOCH, Syn. Fl. Germ. ed. 2. p. 853 (1845); BOECK., in Linn. XXXVI. p. 431 (1869-70); DIELS, Fl. Cent. Chin. p. 288 (1900)

Elacocharis acicularis, LEDEB., Fl. Ross. IV. p. 213 (1853); MAXIM., Prim. Fl. Amur. p. 298 (1859)

Elacoctaris chaactaria, non ROEM. et SCHULT. HANCE, in Journ. Bot. XVII. p. 112 (1878)

Abut. Jap. Matubai

Leg. Ipse, Yaegadake, ca. 1600 m.

Distr. Kamtchatka, Yezo, Honsyū, Sikoku, Kyūsyū, Okinawa, Taiwan, Korea, Manchuria, China.

Note. The species grows on marshy ground in the laurisilvae or in the lauri-aciculisilvae.

Eleocharis japonica, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 142 (1865'; KOM., Fl. Mansh. I. p. 351 (1901) et Fl. Pen. Kamtsch. I. p. 209 (1927*); MATSUM., Ind. Pl. Jap. II. 1. p. 145 (1905); MATSUM. et HAY., Enum. Pl. Formos. p. 481 (1906); NAK., Fl. Kor. II. p. 297 (1911); MAK. et NEM., Fl. Jap. ed. 2. p. 1469 (1931); MIY. et KUDO, Fl. Hokk. & Sagh. II. p. 210 (1931)

Syn. *Heleocharis japonica*, BOECK., in Linn. XXXVI. p. 422 (1869-70)

Scirpus japonicus, FR. et SAV., Enum. Pl. Jap. II. p. 109 (1876'; HULT., Fl. Kamtsch. I. p. 165 (1927);

Eleocharis afflata, var. *japonica*, CLARKE, ex LÉVELL in Bull. Acad. Ind. Geogr. Bot. p. 203 (1904)

Norn. Jap. Hari-i

Leg. Ipse, Jun. 23, 1928.

Distr. Kamtchatka, Yezo, Honsyū, Sikoku, Kyūsyū, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, Amur.

A'ofe. Occurs in marshy places in the laurisilvae or the lauri-aciculisilvae.

Eleocharis tetraquetra, NEES, in WIGHT, Bot. Ind. p. 113 (1834'; KUNTH, Enum. Pl. II. p. 150 (1837); STEUD., Syn. Glum. p. 78 (1855); BOECK., in Linn. XXXVI. pp. 447, 448 (1859-70); C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. VI. p. 630 (1834), in FORB. et HEMSL. Ind. Fl. Sin. III. p. 228 (1903) et Ill. Cyp. t. 37, ff. 17-21 (1909); PALIB., Consp. Fl. Kor. III. p. 19 (1901); KOM., Fl. Mansh. I. p. 351 (1901); MATSUM., Ind. Pl. Jap. II. 1. p. 146 (1905); NAK., Fl. Kor. II. p. 297 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 48 (1929); MIY. et KUDO, Fl. Hokk. & Sagh. II. p. 210 (1931)

Syn. *Heleocharis tetraquetra*, BOECK., in Linn. XXXVI. p. 448 (1869-70)

Scirpus Wichurai, non BOECK.) FR. et SAV., Enum. Pl. Jap. II. p. 544 (1876)

Scirpus hakonensis, FR. et SAV., Enum. Pl. Jap. II. p. 110 (1876)

Scirpus Onoei, FR. et SAV., Enum. Pl. Jap. II. pp. 111 et 544 (1876)

Scirpus petasatus, MAXIM., in Bull. Soc. Mosc. LIV. p. 64 (1879)

Heleocharis alta, BOECK., Cyp. Nov. I. p. 17 (1888)

Eleocharis tetraquetra, NEES. var. *Wichurai*, MAK., in Tokyo Bot. Mag. XIX. p. 16 (1905); MAK. et NEM., Fl. Jap. ed. 2. p. 1470 (1931)

Nom. Jap. Sikakui

Leg. NAGAI! Kurio.

Distr. Kuriles, Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China, Himalaya, New South Wales.

Sote. Occurs along rivers at low altitudes.

Fimbristylis, VAHL., Enum. II. p. 285 (1806);

KUNTH, Enum. Pl. II. p. 220 (1837); ENDL., Gen. Pl. n. 998 (1836-40); BENTH. et HOOK. f. Gen. Pl. III. p. 1048 (1883); PAX, in ENGL. U. PRANT. Nat. Pfl.-fam. II. ii. p. 113 (1887); LEMÉE, Diet. Gen. Pl. Phan. III. p. 122 (1931)

Syn. *Pseudocyperus*, STEUD., in Flora XXXIII. p. 229 (1850)

Iriha, O. KUNTZE, Rev. Gen. Pl. II. p. 751 (1891)

Fimbristylis annua, ROEM. et SCHULT., Syst. 2. p. 95 (1817); MERR., Enum. Philipp.

PL I. p. 121 (1922), et Enum. Hainan PL p. 39 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 49 (1929); MAK. et NEM., FL Jap. ed. 2. p. 1472 (1931); MIY. et KUDO, FL Hokk. & Sagh. II. p. 211 (1931)

Syn. *Scirpus annuus*, ALL., FL Pedem. II. p. 277 (1785)

Scirpus diphyllus, RETZ., Obs. V. p. 15 (1789)

Fimbristylis diphylla, VAHL., Enum. II. p. 289 (1806); NEES, in Nov. Act. Acad. Nat. Cur. XIX. Supp. I. p. 81 (1843); BENTH., FL Hongk. p. 392 (1861); C. B. CLARKE, in HOOK. f. FL Brit. Ind. VI. p. 636 U894 et in FORB. et HEMSL. Ind. FL Sin. III. p. 233 (1903); DIELS, FL Cent. Chin. p. 229 (1900); MATSUM., Ind. PL Jap. II. 1. p. 148 (1905); MATSUM. et HAY., Enum. PL Formos. p. 483 (1906); NAK., FL Kor. II. p. 291 (1911)

Fimbristylis laxa, VAHL., Enum. II. p. 292 (1806); KUNTH, Enum. PL II. p. 232 (1837)

Fimbristylis tomentosa, VAHL., Enum. II. p. 290 (1806); NEES, in HOOK. et ARNOT. Bot. Capt. Beech. Voy. p. 225 (1836-40), et in Nov. Act. Acad. Nat. Cur. XIX. Supp. I. p. 81 (1843); FR., in Mem. Soc. Sc. Nat. Cherb. XXIV. p. 264 (1884)

Fimbristylis depauperrata, R. BR., Prodr. p. 227 (1810)

Fimbristylis communis, KUNTH, Enum. PL II. p. 234 (1837), p.p.

Norn. Jap. *Tentuki*

Leg. Ipse, Aug. 11, 1928.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China, Philippines, India, Australia, Europe.

*Note** Grows in cultivated or waste lands at low altitudes.

Fimbristylis autumnalis, ROEM. et SCHULT., Syst. II. p. 97 (1817); KUNTH, Enum. PL II. p. 227 (1837); FR. et SAV., Enum. PL Jap. II. p. 119 (1876); MATSUM., Ind. PL Jap. II. 1. p. 147 (1905); YAMAZUTA, List Manch. PL p. 49 (1930); MAK. et NEM., FL Jap. ed. 2. p. 1472 (1931)

Nom. Jap. *Hime-tentuki*

Leg. Ipse, Sept. 5, 1926.

Distr. Honsyū, Sikoku, Kyūsyū, Okinawa, Tanegasima, Manchuria.

Note. Occurs in waste lands at low altitudes.

Fimbristylis complanata, LINK, var. *Kraussiana*, CLARKE, in HOOK. f. FL Brit. Ind. VI. p. 646 (1893), et in FORB. et HEMSL. Ind. FL Sin. III. p. 231 (1903); MATSUM., Ind. PL Jap. II. 1. p. 148 (1905); MAK. et NEM., FL Jap. ed. 2. p. 1473 (1931)

Syn. *Fimbristylis Kraussiana*, HOCHST.; KRAUSS. in Flora. XXVIII. p. 757 (1845)

Fimbristylis connectens, THW., Enum. PL Zeyl. p. 349 (1864)

Fimbristylis Pierotii, MIQ.; MORI, Enum. PL Cor. p. 74 (1922)

Nom. Jap. *Notentuki*

Leg. Ipse, Aug. 6, 1924.

Distr. Honsyū, Sikoku, Kyūsyū, Okinawa, Korea, China, India, Africa.

Note. Occurs on wet ground and in waste places at low altitudes.

Fimbristylis ferruginea, VAHL., Enum. II. p. 291 (1806); KUNTH, Enum. PL II. p. 236 (1837); HOOK. et ARN., Bot. Capt. Beech. Voy. p. 312 (1840); BENTH., FL Hongk. p. 391 (1861); BOECK., in Linn. XXXVII. p. 16 (1871); C. B. CLARKE, in HOOK. f. FL Brit. Ind. VI. p. 638 (1893), et in FORB. et HEMSL. Ind. FL Sin. III. p. 235 (1903); MATSUM., Ind. PL Jap. II. 1. p. 149 (1905); MATSUM. et HAY., Enum. PL Formos. p. 483 (1906); DUNN et TUTCH. FL Kwang. & Hongk. p. 299 (1912);

CAMUS, in LECOMTE Fl. Ind. Chin. VII. 2. p. 103 (1912); MORI, Enum. Pl. Cor. p. 73 119221; MERR., Enum. Philipp. Pl. I. p. 123 (1922); RIDLEY, Fl. Malay, V. p. 156 U925[^]; MASAMUNE, Prel. Rep. Veg. Yak. p. 49 (1929); NAK., in **Bull. Biogeogr. Soc. Jap.** I. p. 254 (1930[^]); MAK. et NEM., Fl. Jap. ed. 2. p. 1473 (1931)
Syn. *Scirpus ferrugineus*, LINN., Sp. Pl. ed. 1. p. 50 (1753)

Fimbristylis arvensis, VAHL., Enum. II. p. 291 (1805); KUNTH, Enum. Pl. II. p. 237 (1837)

Fimbristylis tristachya, R. BR., Prodr. p. 226 fl810^v; NEES, in Nov. Act. Acad. Cur. XIX. Supp. I. p. 76 (1843)

Nom. Jap. *Sima-tentuki*

Leg. Ipse, Jun. 14, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Okinawa, Taiwan, Bonins, Korea, China, Philippines, India.

Note. The species grows on rocky ground near the sea shore, and is common in warm countries, and especially flourishes by the seashore where the influence of sea water is felt.

Fimbristylis longispica, STEUD., *Syn. Cyper.* p. 118 '1855 ; C. B. CLARKE, in HOOK, f. Fl. Brit. Ind. VI. p. 639 (1893[^]), et in FORB. et HEMSL. Ind. Fl. Sin. III. p. 239 (1903[;]; MATSUM., Ind. Pl. Jap. II. 1. p. 150 '1905[^] ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 299 11912); MORI, Enum. Pl. Cor. p. 73 1922[^] ; YAMAZUTA, List Manch. Pl. p. 49 (1930[^] ; MAK. et NEM., Fl. Jap. ed. 2. p. 1474 1931

Syn. *Fimbristylis Buergeri*, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 144 11865); FR. et SAV., Enum. Pl. Jap. II. p. 119 1876

Fimbristylis spadica, var. *major*, BOECK, in Linn. XXXVII. p. 20 '1871!

Fimbristylis Didrichsenii, BOECK., in Engl. Bot. Jahrb. V. p. 505 '1884) p.p.

Nom. Jap. *Otentuki*

Leg. Ipse, Onoaida.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Okinawa, Korea, Manchuria, China.

Note. Occurs in waste lands near the sea level.

Fimbristylis miliacea, VAHL., Enum. II. p. 287 1806 ; KUNTH, Enum. Pl. II. p. 230 (1837-; BENTH., Fl. Hongk. p. 393 ,1861 ; BOECK., in Linn. XXXVII. p. 42 1871), et in Engl. Bot. Jahrb. VI. p. 51 .1885 ; FR., Pl. David. I. p. 318 1884 ; C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. VI. p. 644 1893 , et in FORB. et HEMSL. Ind. Fl. Sin. III. p. 239 ^1903[;]; DIELS, Fl. Centr. Chin. p. 229 1900 ; MATSUM., Ind. Pl. Jap. II. 1. p. 150 11905); MATSUM. et HAY., Enum. Pl. Formos. p. 484,1906); NAK., Fl. Kor. II. p. 290 (1911 , et in Bull. Biogeogr. Soc. Jap. I. p. 254 .1930); MERR., Enum. Philipp. Pl. I. p. 124 U922 ; YAMAZUTA, List Manch. Pl. p. 49 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 1474 1931 .

Syn. *Scirpus miliaceu?*, LINN., Syst. ed. 10. p. 868 1759 ; THUNB., Fl. Jap. p. 37 (1784) P.P.

Trichelostylis meliacea, NEES, Wight, Cont. p. 103 ;1834\ et in HOOK, et ARN.. Bot. Capt. Beech. Voy. p. 226 ;1836)

Nom. Jap. *Hideriko*

Leg. Ipse, Aug. 6, 1924.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Ōsima, Okinawa, Taiwan, Bonins, Korea, Manchuria, China, Philippines.

Note. Occurs in marshy places or in rice fields; very frequent in warmer countries.

- Fimbristylis monostachya*, HASSK., Pl. Jav. Rar. p. 61 (1848); HANCE, in Journ. Linn. Soc. XIII. p. 132 (1873); BENTH., Fl. Austral. VII. p. 308 (1878); C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. VI. p. 649 (1893), et in FORB. et HEMSL. Ind. Fl. Sin. III. p. 240 (1903); MATSUM. et HAY., Enum. Pl. Formos. p. 484 (1905); MERR., Fl. Manila, p. 117 (1912), et Enum. Philipp. Pl. I. p. 124 (1922*); MAK. et NEM., Fl. Jap. ed. 2. p. 1474 (1931).
- Syn.* *Cyperus monostacyus*, LINN., Mant. II. p. 180 (1771)*
- Abildgaardia monostachya*, VAHL., Enum. II. p. 296 (1805); KUNTH, Enum. Pl. II. p. 247 (1839); BENTH., Fl. Hongk. p. 389 (1851); BOECK., in Linn. XXXVII. p. 53 (1871)
- Abildgaardia compressa*, PRESL., Rel. Haenk. I. p. 179 (1828); MIQ., Fl. Ind. Bat. III. p. 297 (1856)
- Abildgaardia Rottboelliana*, NEES, in WIGHT Contrib. p. 95 (1834), et in HOOK. et ARNOT. Bot. Capt. Beech. Voy. p. 272 (1836-40)
- Nom. Jap. Yari-tentuki*
- Leg.* Ipse, Aug. 7, 1924.
- Distr.* Kyûsyû, Tanegasima, Amami-Ôsima, Okinawa, Taiwan, China, Philippines.
- Note.* Occurs on sandy beaches or in open grassland; common in warmer regions.
- Fimbristylis Sieboldii*, MIQ., Cat. Mus. Bot. Lugd. Bat. p. 118 (1870, nom. nud.); FR. et SAV., Enum. Pl. Jap. II. p. 118 (1876); C. B. CLARKE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 243 (1903); MATSUM., Ind. Pl. Jap. II. 1. p. 151 (1905); NAK., Fl. Kor. II. p. 291 (1911); MAK. et NEM., Fl. Jap. ed. 2. p. 1475 (1931)
- Syn.* *Fimbristylis Iciocarpa*, non MAXIM.) MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 144 (1865)
- Nom. Jap. Isoyama-tentuki*
- Leg.* Y. KUDO! Aug. 1907.
- Distr.* Honsyû, Sikoku, Kyûsyû, Amami-Ôsima, Korea, China.
- Note.* Occurs on rocks and in rocky or sandy beaches.
- Fimbristylis spathacea*, ROTH, Nov. Pl. Sp. p. 24 (1821); KUNTH, Enum. Pl. II. p. 246 (1837); C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. VI. p. 610 (1893), et in FORB. et HEMSL. Ind. Fl. Sin. III. p. 244 (1903); MATSUM., Ind. Pl. Jap. II. 1. p. 152 (1905); MERR., Enum. Philipp. Pl. I. p. 126 (1922)
- Syn.* *Scirpus glomeratus*, non LINN. RETZ., Obs. IV. p. 11 (1786)
- Fimbristylis Wightiana*, NEES ab ESENB., in WIGHT Bot. Ind. p. 99 (1834), et in Linn. IX. p. 290 (1834); KUNTH, Enum. Pl. II. p. 241 (1837); MORI, Enum. Pl. Cor. p. 74 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 49 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1476 (1931)
- Fimbristylis glomerata*, NEES, in Linn. IX. p. 290 (1834); KUNTH, Enum. Pl. II. p. 246 (1837); BOECK., in Linn. XXXVII. p. 47 (1871) p.p.
- Fimbristylis rigida*, KUNTH, Enum. Pl. II. p. 241 (1837);
- Fimbristylis biumbellata*, BOECK., in Flora, XLI. p. 603 (1858)
- Nom. Jap. Siokazc-tentuki*
- Leg.* Ipse, Kurio, Jul. 4, 1928.
- Distr.* Sikoku, Kyûsyû, Tanegasima, Amami-Ôsima, Okinawa, Taiwan, Korea, China, Philippines
- Note.* Occurs on rocks or on rocky ground.

- p. 75 11843' ; BENTH., Fl. Hongk. p. 391 1861 ; HANCE, in Journ. Bot. XVII. p. 16 (1879 ; C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. VI. p. 634 (1893, et in FORB. et HEMSL. Ind. Fl. Sin. III. p. 245 '1903 ; KOM., Fl. Mansh. I. p. 346 '1901) ; MATSUM., Ind. Pl. Jap. II. 1. p. 152 (1905 ; NAK., Fl. Kor. II. p. 291 (1911); DUNNET TUTCH., Fl. Kwang. & Hongk. p. 299 (1912' ; LOESN., Pfl.-welt. Kiautsch. Geb. p. 94 '1918) ; MERR., Enum. Philipp. PL I. p. 126 :1922.; MASAMUNE, Prel. Rep. Veg. Yak. p. 49 ;1929^ ; MAK. et NEM., Fl. Jap. ed. 2. p. 1475 (1931
Syn. *Fimbristylis japonica*, SIEB. et ZUCC, ex STEUD. in ZOLL. Verz. Ind. Arch. II. p. 63 (1855» ; FR. et SAV., Enum. Pl. Jap. II. p. 117 '1876^
Fimbristylis bispicata, NEES, in HOOK, et ARN. Bot. Capt. Beech. Voy. p. 224 (1841`

Norn. Jap. Yamai

Leg. Ipse, Aug. 7, 1924.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China, Philippines.

Note. Occurs as undergrowth in wet places in the laurisilvae or in the lauriaciculilvae.

Bulbostylis, KUNTH, Enum. Pl. II. p. 205 '1837);
 LEMÉE, Diet. Gen. Pl. Phan. I. p. 711 ;1929

Bulbostylis barbata, KUNTH, Enum. Pl. II. p. 203 (1837 ; C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. VI. p. 651 '1893', et in FORB. et HEMSL. Ind. Fl. Sin. III. p. 247 (1903¹; MAK., in Tokyo Bot. Mag. IX. p. (390) v1895^; PALIB., Consp. Fl. Kor. III. p. 18 (1901); MATSUM., Ind. Pl. Jap. II. 1. p. 97 (1905.; MATSUM. et HAY., Enum. Pl. Formos. p. 487 '1906;; NAK., Fl. Kor. II. p. 295 (1911); YABE, Enum. Pl. Manch. p. 18 \ 1912^; CAMUS, in LECOMTE, Fl. Ind. Chin. VII. 2. p. 126 ;1912); MERR., Enum. Philipp. Pl. I. p. 127 '1922 , et Enum. Hainan Pl. p. 39 1927. ; MASAMUNE, Prel. Rep. Veg. Yak. p. 46 (1929* ; MAK. et NEM., Fl. Jap. ed. 2. p. 1414 '1931)

Syn. *Scirpus capillaris*, LINN., Sp. Pl. eel. 2. p. 73 (1763) partim.

Scirpus barbatus, ROTTB., Descr. I. p. 52, t. 17, f. 4 (1773); HANCE, in Journ. Linn. Soc. XIII. p. 131 '1873); BOECK., in Linn. XXXVI. p. 751 (1859-70!

Isolepis barbata, R. BR., Prodr. p. 212 (181CT ; NEES, in HOOK, et ARN. Bot. Capt. Beech. Voy. p. 226 (1836); BENTH., Fl. Hongk. p. 393 (1861

Oncostylis barbata, NEES, in Hook. Journ. Bot. Kew Miscel. VI. p. 29 1854)

Isolepis Cumingii, STEUD., Syn. Glum. II. p. 101 (1855

Fimbristylis barbata, BENTH., Fl. Austral. VII. p. 32 (1878,

JVom. Jap. Hatagaya

Leg. Ipse, Nagata, Aug. 21, 1928.

DUtr. Honsyû, Sikoku, Kyûsyû, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China, Philippines.

Note. Occurs on cultivated or sandy ground near the sea level.

Cladium, P. BR., Hist. Jamaica, p. 114 1756) ;
 SCHRAD., Fl. Germ. I. p. 74 1805 ; KUNTH, Enum. Pl. II. p. 303 (1837 ; ENDL., Gen. Pl. n. 980 f1836-40' ; BENTH. et HOOK., Gen. Pl. II. p. 1065 '1883· ; PAX, in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 116 U887 ; LEMÉE, Diet. Gen. Pl. Phan. II. p. 178 1930·

Syn. *Baumca*, GAUDICH, in Bot. Voy. Freycinet p. 416, t. 29 .1826,
Chapelliera, NEES, in Linn. IX. p. 298 .1834

Cladium glomeratum, R. BR., Prodr. p. 237 (1810^N); KUNTH, Enum. PL II. p. 304 (1837); BENTH., Fl. Austral. VII. p. 404 (1878^N); C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. VI. p. 675 (1894) et in FORB. et HEMSL. Ind. Fl. Sin. III. p. 262 (1903); MATSUM., Ind. PL Jap. II. 1. p. 139 (1905); MASAMUNE, Prel. Rep. Veg. Yak. p. 48 (1929); MAK. et NEM., FL Jap. ed. 2. p. 1462 (1931)

Syn. Baumea Brownei, BOECK., in Linn. XXXVIII. p. 242 (1874)

Baumea rubiginosa, BOECK., in Linn. XXXVIII. p. 241 (1874)

Chapelliera glomerata, NEES, in LEHM. PL Preiss. II. p. 76 (1846-48); FR. et SAV., Enum. PL Jap. II. p. 121 (1876)

Norn. Jap. Anpcrai

Leg. Onoaida, Jun. 23, 1928.

Distr. Honsyu, Sikoku, Kyūsyū, Okinawa, China, Australia, New Zealand, Bengal.

Note. Occurs on sunny but wet ground at low altitudes; widely distributed, but not so common in southern Japan.

Cladium mariscus, R. BR., Prodr. p. 236 (1810^N); KUNTH, Enum. PL II. p. 303 (1837); BENTH., Fl. Hongk. p. 397 (1861); BOECK., in Linn. XXXVIII. p. 232 (1874); HOOK. f. Fl. Brit. Ind. VI. p. 673 (1894); NAK., Fl. Kor. II. p. 513 (1911¹); MASAMUNE, Prel. Rep. Veg. Yak. p. 48 (1929); MAK. et NEM., FL Jap. ed. 2. p. 1462 (1931)

Syn. Cladium jamaicense, CRANTZ, Inst. I. p. 362 (1766); FORB. et HEMSL., Ind. Fl. Sin. III. p. 262 (1903); New Gen. & Sp. p. 124 (1908), et III. Cyp. t. 82, ff. 7-8 (1909); DUNN et TUTCH., FL Kwang. & Hongk. p. 302 (1912); NAK. in Bull. Biogeogr. Soc. Jap. I. p. 254 (1930)

Cladium Icptostachyum, NEES, in Linn. IX. p. 301 (1834), et in HOOK. et ARN. Bot. Capt. Beech. Voy. p. 227 (1841); HANCE, in Journ. Linn. Soc. Bot. XIII. p. 132 (1873)

Schoenus Mariscus, LINN., Sp. PL ed. 1. p. 42 (1753)

Norn. Jap. Hitomotc-susuki

Leg. Ipse, Miyanoura, Sept. 8, 1926.

Distr. Honsyu, Sikoku, Kyūsyū, Tanegasima, Amami-Osima, Okinawa, Bonins, Taiwan, Korea, China, Polynesia, Africa.

Note. Occurs on marshy ground near the sea level.

Rhynchospora, [*Rhynchospora*] VAHL., Enum. II. p. 229 (1806); ENDL., Gen. PL n. 967 (1836-40); KUNTH, Enum. PL II. p. 287 (1837); PAX, in ENGL. u. PRANT. Nat. Pfl.-fam. II. ii. p. 116 (1887); C. B. CLARKE, in Bull. Misc. Add. sér. VIII. p. 117 (1908);

Syn. Phaeoccephalum, EHRH., Beitr. IV. p. 146 (1789)

Triodon, L. C. RICH., in PERSON, Synops. I. p. 6 in note. (1805)

Rhynchospora glauca, VAHL. var. *chinensis*, CLARK., in Bull. Acad. Intern. Geogr. Bot. p. 198 (1904); MATSUM., Ind. PL Jap. II. 1. p. 159 (1905); MASAMUNE, Prel. Rep. Veg. Yak. p. 49 (1929)

Syn. Rhynchospora glauca, VAHL.; MAK. et NEM., FL Jap. ed. 2. p. 1480 (1931)

Nom. Jap. Torano-hanahige

Leg. Ipse, Jul. 25, 1924.

Distr. Honsyu, Sikoku, Kyūsyū, Tanegasima, Amami-Osima, Okinawa.

Note. Occurs in marshy places in waste lands in the laurisilvae or in the lauriculisilvae; rather common in Japan.

Rhynchospora rubra, MAK., in Tokyo Bot. Mag. XVII. p. 180 (1903); MERR., Enunu Philipp. PL I. p. 130 (1922); MAK. et NEM., FL Jap. ed. 2. p. 1480 (1931)

- Syn.** *Schoenus tuber*, LOUR., Fl. Cochinch. p. 41 (1790'
Rhynchospora Haenkei, PRESL, Rel. Haenk. I. p. 199 (1828[^] ; KUNTH, Enum. PI. II. p. 290 (1837) ; MIQ., Fl. Ind. Bat. III. p. 336 (1856)
Haplostylis Meyenii, NEES, in Edinb. New Phil. Journ. no. 34, p. 265 (1834), et in HOOK, et ARN. Bot. Capt. Beech. Voy. p. 227 U83&40¹
Morisia Wallichii, NEES, in Edinb. New Phil. Journ. n. 34. p. 265 (1834¹
Cephaloschoenus parvus, NEES, in Linn. IX. p. 295 (1834), et in Nov. Act. Nat. Cur. XIX. Suppl. I. p. 100 (1843)
Rhynchospora Wallichiana, KUNTH, Enum. PI. II. p. 289 (1837) ; STEUD., Syn. Cyp. p. 148 [1855" ; BENTH., FL Hongk. p. 396 (1861) ; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 145 (1865) ; BOECK., in Linn. XXXVII. p. 542 (1873) p.p., et in Engl. Bot. Jahrb. VI. p. 51 (1885[^] ; FR. et SAV., Enum. PI. Jap. II. p. 121 (1876[^] ; MATSUM., Ind. PI. Jap. II. 1. p. 159 (1905) ; MATSUM. et HAY., Enum. PI. Formos. p. 491 (1906)
Sphaeroschoenus Wallichii, ARN. et NEES, in Nov. Act. Nat. Cur. XIX. Suppl. I. p. 97 (1843i
Rhynchospora Wallichiana, C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. VI. p. 668 1893 , et in FORB. et HEMSL. Ind. Fl. Sin. III. p. 260 1903
- Nom. Jap. Igakusa**
Leg. Ipse, Jun. 24, 1928.
Distr. Honsyû, Sikoku, Kyûsyû, Amami-6sima, Okinawa, Taiwan, Bonins, China, Philippines, India.
Note. Occurs in somewhat wet grassland.

Rhynchospora yakusimensis, MASAMUNE, sp. nov.

Syn. *Rhynchospora Umemurae*, MAK. var. *yakusimensis*, MASAMUNE, in Trans. Nat. Hist. Soc. Formos. XXIII. p. 210 (1933

Nom. Jap. Yakusima-hime-inunohige

Leg. Hananoegô, Aug. 30, 1926.

Distr. Endemica.

Note. The species is found on boggy ground distributed in the higher regions of the island and composes one of the elements of *Rhynchospora-Eriocaulon* Association. It is restricted to this island.

Scleria, BERG., in Vet. Akad. Handl. Stockholm. XXVI. p. 142, t. 425 (1765) ; ENDL., Gen. PI. n. 964 (1836-40) ; KUNTH, Enum. PI. II. p. 339 (1837) ; BENTH. et HOOK, f., Gen. PI. III. p. 1070 (1883) ; PAX, in ENGL. U. PRANT. Nat. Pfl.-fam. II. ii. p. 120 (1887) ; C. B. CLARK., in Bull. Miscel. Kew. Add. sér. VIII. p. 131 (1908)

Syn. *Diaphora*, LOUR., Fl. Cochinch. p. 578 (1790

Scleria scrobiculata, NEES, ab. ME YEN. in Wight, Contrib. Bot. Ind. p. 117 (1834 , et in Nov. Act. Nat. Cur. XIX. Suppl. I. p. 119 (1843) ; KUNTH, Enum. PI. II. p. 342 (1837) ; MIQ., Fl. Ind. Bat. III. p. 342 (1856) ; BOECK., in Linn. XXXVIII. p. 503 (1874) ; MAK., in Tokyo Bot. Mag. X. p. 65 (1896) ; C. B. CLARK., in FORB. et HEMSL. Ind. Fl. Sin. III. p. 266 (1903) , et in Bull. Miscel. Kew Add. VIII. p. 133 (1908) ; MATSUM., Ind. PI. Jap. II. 1. p. 165 (1905[^] ; MATSUM. et HAY., Enum. PI. Formos. p. 492 (1906) ; MERR., Enum. Philipp. PI. I. p. 135 (1922) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 50 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1487 (1931).

Syn. *Scleria tessellata*. (non WILLD.) DECAIS., in Nouv. Ann. Mus. III. p. 362 (1834)
Scleria Neesiana, HOOK, et ARN., Bot. Capt. Beech. Voy. p. 229 (1836-40-

Scleria keyensis, K. SCHUM., in Engl. Bot. Jahrb. XIII. p. 267 [1891]

Nom. Jap. *6-sinzyugaya*

Leg. Ipse, Jun. 24, 1928.

Distr. Tanegasima, Amami-6sima, Okinawa, Taiwan, China, Philippines, Java, Malay, New Guinea.

Note. Occurs in the lowlands; common in southern Japan.

Carex, [DILL., ex LINN. Syst. ed. 1 (1735)] et Sp.

PI. ed. 1. p. 972 [1753; ; ENDL., Gen. PI. n. 957 [1836-40; ; KUNTH, Enum. PI. II.

p. 368 (1837); BENTH. et HOOK, f, Gen. PI. III. p. 1073 [1833; ; PAX, in ENGL. u.

PRANT. Nat. Pfl.-fam. II. ii. p. 122 (1887); KIJKENTHAL, in ENGL. Pfl.-reich. IV.

20 (Heft 381 p. 67 [1909]; LEMEE, Diet. Gen. PI. Phan. I. p. 836 (1929)

Syn. *Physiglochis*, NECK, Elem. III. p. 245 (1790)

Pseudocarex, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 146 [1865]

Carex atroviridis, OHWI, Contr. Caricolog. As. Orient. II. p. 241 (1931)

Nom. Jap. *Yakusima-suge*

Leg. Ipse, Jul. 12, 1928.

Distr. Endemica.

Note. Occurs in the Pseudosasa Owatarii Association.

Carex breviculmis, R. BR. Subsp. **Royleana**, NEES, ex Wight Contr. Bot. Ind. p. 127

(1834); [KIJKENTH., in Engl. Pfl.-reich. IV. 20 (Heft 38) p. 469 (1909); NAK., Fl.

Kor. II. p. 318 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 47 (1929); YAMAZUTA,

List Manch. PI. p. 39 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 1417 (1931)

Syn. *Carex Royleana*, NEES, ab ESENB., in Wight Bot. Ind. p. 127 (1834); KUNTH,

Enum. PI. II. p. 441 (1837); FR. et SAV., Enum. PI. Jap. II. p. 138 (1876);

MIY. et KUDO, Fl. Hokk. & Sagh. II. a 250 (1931)

Carex puberula, BOOTT, in A. GRAY, Narr. Exp. Perry II. p. 324 (1857)

Carex breviculmis, BOOTT, Illustr. IV. p. 181 (1867) partim; FR. et SAV., Enum.

PI. Jap. II. p. 136 (1876); C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. VI. p.

746 (1894), et in FORB. et HEMSL. Ind. Fl. Sin. III. p. 276 (1903); FR. f in

Nouv. Arch. Mus. Paris. III. sér. IX. p. 192 (1897); KOM., Fl. Mansh. I. p.

374 (1901); PALIB., Consp. Fl. Kor. III. p. 122 (1900)

Nom. Jap. *Ao-suge*

Leg. Ipse, Kusugawa, Jul. 12, 1928.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China.

Note. Grows in cultivated lands, by the roadside, on waste lands at low altitudes; **common** in Japan.

t aphanandra, KIJKENTHAL, in ENGL. Pfl.-reich. IV. 20 [Hert 38) p. 470 (1909; ; MAK.

et NEM., Fl. Jap. ed. 1. p. 1332 [1925], et ed. 2. p. 1417 [1931! ; MASAMUNE, Prel.

Rea Veg. Yak. p. 47 [1929)

Nom. Jap. *Yakusima-aosuge*

Leg. Ipse, Yaegadake, 1927.

Distr. Endemica.

Note. Grows from the sea level up to about 700 m in the island.

Carex Doniana, SPRENG., Syst. Veg. III. p. 825 (1826); FR. et SAV., Enum. PI. Jap. II.

p. 152 (1879); AKIYAMA, Consp. Car. Jap. p. 196, f. 141 (1932);

- Syn.* *Carex chlorostachys*, (non STEVEN) D. DON, in Trans. Linn. Soc. XIV. p. 330 (1825) ; MIY. et KUDO, Fl. Hokk. & Sagh. II. p. 263 (1931)
Carex japonica, (non THUNB.) BOOTT, Ills. II. p. 88, t. 257 (1860 ; BOECK., in Linn. XLI. p. 283 (1877); HOOK. f. Fl. Brit. Ind. IV. p. 736 (1886)
Carex patens, FR. f. in Bull. Soc. Par. 8 s^{én} VII. p. 90 (1895)
Carex japonica, var. *alopectoidea*, (non CLARKE) FR., in Nouv. Arch. X. p. 78 (1898)
Carex baviensis, FR., Carex de L'Asie Orientale p. 77 (1898)
Carex alopecuroides, var. *chlorostachya*, C. B. CLARKE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 271 (1903) p.p.
Carex japonica, THUNB. var. *chlorostachys*, KÜKENTHAL, apud MATSUM. Ind. Pl. Jap. II. 1. p. 116 (1905), et in ENGL. Pfl.-reich. IV. 20 (Heft 38[^] p. 620 1909' ; NAK., Fl. Kor. II. p. 327 (1911) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 47 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1431 (1931)

Nom. Jap. Sira-suge

Leg. Ipse, Jun. 6, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Korea, China, India.

Note. Occurs from the sea level up to about 700 m, and is common in eastern Asia.

Carex filicina, NEES, in Wight Contrib. p. 123 (1834) ; KUNTH, Enum. Pfl. II. p. 510 (1837 ; BOECK., in Linn. XL. p. 352 (1876); C. B. CLARKE, in HOOK. f. Fl. Brit. Ind. VI. p. 717 (1885[^]); FR., in Nouv. Arch. Mus. sér. 3, VIII. pp. 254, 260 (1896), DIELS, Fl. Cent. Chin. p. 231 (1900 ; FORB. et HEMSL., Ind. Fl. Sin. III. p. 285 (1903. ; KÜKENTHAL, in ENGL. Pfl.-reich. IV. 20 (Heft 38) p. 274 (1909 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1424 (1931) ; AKIYAMA, Consp. Car. Jap. p. 85 (1932)

Syn. *Carex ceylonica*, BOECK., in Linn. XL. p. 341 (1876); KÜKENTHAL, in ENGL. Pfl.-reich. IV. 20 (Heft 38) p. 279 (1903)

Nom. Jap. Hanabi-suge

Leg. NAOHARA! Jul. 22, 1930,

Distr. Kyûsyû, Taiwan, China, India, Malay.

Note. The species is found in sunny but damp places such as the edges of clearings on the southern side of the island, and is widely distributed in Japan.

Carex gibba, WAHLENBERG, in Vet. Acad. Handl. Stockholm. XXIV. p. 148 (1807); KUNTH, Enum. Pl. II. p. 420 (1837); BOOTT, Carex, p. 187 (1867 ; BOECK., in Linn. XXXIX. p. 127 (1875); FR. et SAV., Enum. Pl. Jap. II. p. 132 (1879); FR., in Nouv. Arch. Mus. Paris, III. sér. VIII. p. 236 (1896) ; KÜKENTHAL, in ENGL. Pfl.-reich IV. 20. (Heft 38) p. 238 f. 37 L. M. (1903 ; MATSUM., Ind. Pl. Jap. II. 1. p. 111 (1905); DIELS, Fl. Cent. China p. 230 (1900) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1427 (1931); AKIYAMA, Consp. Car. Jap. p. 83 (1932)

Syn. *Carex remota*, (non LINN.) THUNB., Fl. Jap. p. 37 (1784)

Carex anomala, (non STEUD.) BOOTT, in Perry, Exped. Jap. p. 327 (1856); PALIBIN, Consp. Fl. Kor. III. p. 121 (1901)

Carex alta, var. *brevior*, Lf^éV. et VANOT, in Bull. Acad. Geogr. Bot. III. sér. X. p. 126 (1901)

Nom. Jap. Masukusa

Leg. Ipae, Jul. 21, 1924.

Distr. Honsyû, Sikoku, Kyûsyû, Korea, China.

Note. The plant grows in thickets in the low lands; and is common in Japan proper, but not yet reported in lands further south than this island.

Carex ischnostachya, STEUD., Syn. Cyp. p. 222 1855.; FR., in Nouv. Arch. Mus. Paris, III. sér. X. p. 47 U898; C. B. CLARKE, in FORB. et HEMSL., Ind. Fl. Sin. III. p. 292 (1903); MATSUM., Ind. Pl. Jap. II. 1. p. 114 1905-; KÜKENTHAL, in ENGL. Pfl.-reich. IV. 20 (Heft 38) p. 614 (1909); NAK., Fl. Kor. II. p. 326 (1911); MAK. et NEM., Fl. Jap. ed. 2. p. 1430 1931; MIY. et KUDO. Fl. Hokk. & Sagh. II. p. 261 193r; AKIYAMA, Consp. Car. Jap. p. 189 1932i

Syn. *Carex Ringgoldiana*, BOOTT, in GRAY, Bot. Jap. p. 149 '1853'; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 149 1866; FR. et SAV., Enum. Pl. Jap. II. p. 148 (1876)

Carex Ringgoldiana, BOOTT, var. *stenandra*, FR. et SAV., Enum. Pl. Jap. II. p. 577 (1876)

Nom. Jap. *Zyuzu-suge*

Leg. Ipse, Jun. 7, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Amami-Ôsima, Okinawa, Korea, China.

Note. The species grows in somewhat wet places and it is not yet reported in lands further south than Okinawa.

Carex Krameri, FR. et SAV., Enum. Pl. II. pp. 124, et 551 1876; FR., in Nouv. Arch. Mus. Paris, III. sér. VIII. p. 200, t. 2. f. 4 1896; AKIYAMA, Consp. Car. Jap. p. 53 f. 7 1932)

Syn. *Carex Onoei*, FR. et SAV. var. *Kramerii*, KÜKENTH., apud MATSUM. Ind. Pl. Jap. II. 1. p. 124 (1905), et in ENGL. Pfl.-reich, IV. 20 (Heft 33) p. 101 (1903); MASAMUNE, Prel. Rep. Veg. Yak. p. 47 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1442 (1931)

Nom. Jap. *Koharisugc*

Leg. Ipse, Jun. 12, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû.

Note. The species is often found in marshy places in the lauri-aciculisilvae, and has its southern limit of habitat in this island.

Carex macrocephala, WILLD. var. **kobomugi**, MIY. et KUDO, Fl. Hokk. & Saghal. II. p. 221 1931; AKIYAMA, Consp. Car. Jap. p. 67 1932'

Syn. *Carex macrocephala*, non WILLD. GRAY, Pl. Jap. p. 328 1856; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 147 1865; FR. et SAV., Enum. Pl. Jap. II. p. 132 1876; FR., in Nouv. Arch. Mus. Paris. III. sér. VIII. p. 237 (1896); KOM., Fl. Mansh. I. p. 356 1901; C. B. CLARKE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 296 (1903) p.p.; MATSUM., Ind. Pl. Jap. II. 1. p. 119 (1905) p.p.; KÜKENTHAL, in ENGL. Pfl.-reich. VI. 20, Heft 38; p. 187 (1909) p.p.; NAK., Fl. Kor. II. p. 306 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 47 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1436 (1931) p.p.

Carex Kobomugi, OHWI, Contrib. Car. As. Or. I. p. 281 (1930)

Nom. Jap. *Kobômugi*

Leg. Ipse, Jul. 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Amami-Ôsima, Okinawa, Taiwan, Korea, Manchuria.

Note. This psammophyte is found on the sea beaches, and is common in South Japan.

Carex Morrowii, BOOTT, var. **laxa**, OHWI, Contrib. Car. As. Or. I. p. 260 (1930)

Nom. Jap. *Yakusima-kansuge*

Leg. Ipse, Jul. 16, 1922.

Distr. Endemic a.

Note. Grows in the lauri-aciculisilvae as undergrowth, or in somewhat sunny places; is restricted to this island.

Carex nagatadakensis, MASAMUNE, sp. nov.

Syn. *Carex Doenitzii*, non BOECK. MASAMUNE, Prel. Rep. Veg. Yak. p. 47 (1929)

Culmus electus ca. 40 cm altus laevis, vix ad supra medium usque foliatus. Vaginae infimae brevissime foliiferae rubrofuscae. Folia culmo subaequalia, ca. 4-5 mm lata. Bracteae foliaceo-subulatae rubro-fuscae, foliaceae haud variantes inflorescentiam superans. Spiculae 2-3 subdistantes oblongae, inferiores graciliter pedunculatae, superiores sessiles, suprema breviter pedunculata tota mascula, omnes fuscae. Squamae rubrofuscae femineae et masculae lanceolatae longe attenuatae in cuspidem flavum desinentes. Squamae femineae utriculos occultantes cum cuspidem 12 mm longae. Utriculi pallide virentes erecti ovato-lanceolati membranacei 2-1 mm longi, 1.5 mm lati, vix glabri, apice longe rostrati, rostro profunde bifido, lobis aristaeformibus ca. 2 mm longis. Stylus filiformis ca. 1.5 mm longus, bifidus. Nux plano-ellipticus glaber ca. 2 mm longus.

Nom. Jap. *Yakusima-kotanukiran*

Leg. Ipse, Nagatadake, Jun. 12, 1928.

Distr. Endemica.

Note. The new species is closely related to *C. Okitboi*, but its "crura" is much longer than that of the latter, and the spike is not sessile. It is a noteworthy fact that *Carex* Sect. *Frigidae* which abounds in northern regions has one of its representatives in this island, which shows that the island has a close connection with the northern regions.

Carex oahuensis, MEYER, in Mem. Acad. St. Petersburg. I. p. 218 (1831)

var. robusta, FR. et SAV., Enum. Pl. Jap. II. p. 563 (1876); OHWI, in Contrib. Car. As. Or. I. p. 287 (1930); AKIYAMA, Cons. Car. Jap. p. 204, f. 148 (1932)

Syn. *Carex Bongardi*, non BOOTT MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 150 (1866)

Carex Bongardi, [*> robusta*, FR. et SAV., Enum. Pl. Jap. II. p. 561 (1876)

Carex oahuensis, var. *Boottiana*, KIKKENTH. in ENGL. Pfl.-reich. IV. 20. Heft 38 p. 632 (1909); NAK., Fl. Kor. II. p. 329 (1911); MAK. et NEM., Fl. Jap. ed. 2. p. 14 (1931)

Carex st upon da, LKVEL. et VANT; MASAM. Prel. Rep. Veg. Yak. p. 47 (1929)

Nom. Jap. *Isosugc*

Leg. Ipse, ca. Kusugawa

Distr. Honsyū, Kyūsyū, Amami-6sima, Okinawa, Korea.

Note. Occurs on rocky ground in the littoral regions.

Carex Ohwii, MASAMUNE, nom. nov.

Syn. *Carex Orniana*. var. *yakushimana*, OHWI, in Act. Phyt. I. p. 71 (1932)

Nom. Jap. *Yakusima-kawazusuge*

Leg. Ipse, Jul. 11, 1922.

Distr. Endemica.

Note. This endemic species is often found in the alpine region especially in the Pseudosasa Owatarii Association.

Carex rara, BOOTT, var. *biwensis*, KIKENTH., apud MATSUM. Ind. PL Jap. II. 1. p. 130 (1905), et in ENGL. Pfl.-reich. IV. 20 (Heft 38) p. 102 (1909); NAK., Fl. Kor. II. p. 302 (1911); MAK. et NEM., Fl. Jap. ed. 2 p. 1448 (1931); AKIYAMA, Consp. Car. Jap. p. 54 (1932)

Syn. *Carex biwensis*, FR., in Bull. Soc. Philom. Paris. Sér. 8 VII. p. 28 (1895), et in Nouv. Arch. Mus. sér. III. VIII. p. 197, t. 2. f. 2. 1896^y; C. B. CLARKE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 275 :1903

Nom. Jap. *Matubasuge*

Leg. Ipse, Kosugidani, Jun. 7, 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Korea, China.

Note. I was able to find this variety on marshy ground scattered in the laurisilvae or in the lauri-aciculisilvae. It is rather widely distributed in Japan proper.

Carex pociata, BOOTT, in Mém. Americ. Acad. n. sér. VI. p. 420, et II. Carex IV. p. 200 (1867); FR., Carex Asi.-Orient. p. 59 (1898); C. B. CLARKE, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 311, 1904; MATSUM., Ind. PL Jap. II. 1. p. 133, 1905; OHWI, Contr. Car. As. Orient. I. p. 262 (1930); AKIYAMA, Cons. Car. Jap. p. 200 1932;

Syn. *Carex chinensis*, non RETZ! FR., in Nouv. Arch. Mus. Paris III. sér. IX. p. 182 (1897); KUKENTH., in ENGL. Pfl.-reich. IV. 20, (Heft 38) p. 625 1909[^] p.p.; FORB. et HEMSL., Ind. Fl. Sin. III. p. 280 (1903); MATSUM. et HAY., Enum. PL Formos. p. 494 (1906); MAK. et NEM., FL Jap. ed. 2. p. 1420 1931

Carex nexa, var. *strictior*, KIKEN., ex MATSUM. Ind. PL Jap. II. 1. p. 122 '1905'; MATSUM. et HAY., Enum. PL Formos. p. 496 (1906)

Carex ligata, var. *strictior*, KIKEN., in ENGL. Pfl.-reich. IV. 20, (Heft 38[^] p. 474 1909[^]); MASAMUNE, Prel. Rep. Veg. Yak. p. 47 1929; ; MAK. et NEM., FL Jap. ed. 2. p. 1434 1931

Nom. Jap. *Sinasuge*

Leg. Ipse, Mart. 1, 1923.

Distr. Tanegasima, Amami-6sima, Okinawa, Taiwan.

Note. The species is found in the lowlands near the sea level and in open sunny ground, and has not yet been reported in lands further north than this island.

Carex* tenuissima, BOOTT, in Proc. Linn. Soc. I. p. 288 (1845); FR. et SAV., Enum. PL Jap. II. p. 147 1876; FR., in Nouv. Arch. Mus. Paris. III. sér. X. p. 63 1898; LKVEL. et VANT., in Bull. Acad. Géogr. Bot. XI. p. 109 1902^x; MATSUM., Ind. PL Jap. II. 1. p. 135 1905; KIKENTH., in ENGL. Pfl.-reich. IV. 20 (Heft 38 p. 475 (1909); NAK., Fl. Kor. II. p. 319 1911; MIY. et KUDO, FL Hokk. & Sagh. II. p. 251 1931; MAK. et NEM., Fl. Jap. ed. 2. p. 1458 1931; AKIYAMA, Consp. Car. Jap. p. 144 (1932)

Nom. Jap. *Itosuge*

Leg. Ipse, Jul. 30, 1924.

Distr. Honsyû, Sikoku, Kyûsyû, Korea, China.

Note. Occurs on marshy ground in the laurisilvae or in the lauri-aciculisilvae and marks its southern limit in this island.

Carex teiogyna, BOOTT, var. *scabriculum*, KUKENTH., in ENGL. Pfl.-reich. IV. 20. Heft 38 p. 602 1909; NAK., Fl. Kor. II. p. 325 '1911; MASAMUNE, Prel. Rep. Veg. Yak. p. 48 1929^x; MAK. et NEM., FL Jap. ed. 2. p. 1456 1931; AKIYAMA, Consp. Car. Jap. p. 183 f. 129 1932

Nom. Jap. *Husanakirisuge*

Leg. Ipse, Yaegadake, 1922.

Distr. Sikoku, Korea.

Note. Occurs in the laurisilvae and in the lauri-aciculisilvae.

Carex yakusimensis, MASAMUNE, in Journ. Trop. Agric. IV. p. 77 1932)

Norn. Jap. Yakusima-hamasugc

Leg. Ipse, April. 5, 1927.

Distr. Endemica.

Note. Occurs in the lowlands and in the laurisilvae near the sea level.

Names of Plants	Regions																		
	Philippines	Bonins	Taiwan	Okinawa	Amami-Osima	Ryû	Tanegasima	Kyûsyû Prop.	Kyûsyû	Sikoku	Honsyû	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamchatka	Manchuria, Amur & Ussuri	China		
<i>Lipocarpa microcephala</i> , KUNTH	+		+			+		+	+	+	+	+					+	+	
<i>Cyperus compressus</i> , LINN.	+		+			+		+	+	+	+	+						+	+
<i>Cyperus flavidus</i> , REIZ.			+			+		+	+	+	+	+							+
<i>Cyperus hakonensis</i> , FR. et SAV.								+	+	+	+	+							
<i>Cyperus Haspan</i> , LINN.	+		+			+		+	+	+	+	+							+
<i>Cyperus Iria</i> , LINN.	+		+			+		+	+	+	+	+							+
<i>Cyperus rotundus</i> , LINN.	+		+			+		+	+	+	+	+							+
<i>Cyperus truncatus</i> , TURCZ. var. <i>orthostachya</i> , CLARKE.								+	+	+	+	+	+						+
<i>Pycreus globosus</i> , REICHB.	+	+	+			+		+	+	+	+	+							+
<i>Pycreus odoratus</i> , URB.	+		+			+		+	+	+	+	+							+
<i>Mariscus sieberianus</i> , NEES	+	+	+			+		+	+	+	+	+							+
<i>Kyllingia brevifolia</i> , ROTT.	+	+	+			+		+	+	+	+	+							+
<i>Scirpus erectus</i> , POIR.	+		+			+		+	+	+	+	+							+
<i>Scirpus ternatanus</i> , REINVV.	+	+	+			+		+											+
<i>Eleocharis acicularis</i> , R. BR.			+			+		•	+	+	+	+							+
<i>Eleocharis japonica</i> , MIQ.			+			+		+	+	+	+	+							+
<i>Eleocharis tetraquetra</i> , NEES			+			+		+	+	+	+	+							+
<i>Fimbristylis annua</i> , ROEM. & SCHULT.	+		+			+		+	+	+	+	+							+

Fimbristylis autumnalis, ROEM. & SCHULT.		+	+	•W+W		+
Fimbristylis complanata, LINN. var.	>					
Kraussiana, CLARKE		+		+	+	+
Fimbristylis ferruginea, VAHL.	+	+	+	+	+	+
Fimbristylis longispica, STEUD.			+	+	+	+
Fimbristylis miliacea, VAHL.	f	+	+	+	+	+
Fimbristylis monostachya, HASSK.	f	•!	•+	+	+	!
Fimbristylis Sieboldii, MIQ.			+	+	+	+
Fimbristylis spathacea, ROTH.	+		+	+	+	+
Fimbristylis sub-bispicata, NEES & MEY. 1	+	+	+	+	+	+
Bulbostylis barbata, KUNTH.	+	+	+	+	+	+
Cladium glomeratum, R. BR.			+	!	+	+
Cladium mariscus, R. BR.	+	+	+	+	+	+
Rhynchospora glauca, VAHL. var.	i	+	+	+	+	+
chinensis, CLARKE	j	+	+	+	+	+
Rhynchospora rubra, MAK.	+	+				
Rhynchospora yakusimensis, MASAMUNE		+	+	+		
Scleria scrobiculata, NEES. & MEY.	+					
Carex atroviridis, OHWI	/					
Carex breviculmis, R. BR. subsp.	•	+	+	+	+	+
Royleana, NEES.						
C. b. form, aphanandra, KUKENTH.			+	+	+	+
Carex Doniana, SPRENG.		+				
Carex filicina, NEES.				+	+	+
Carex gibba, WAHLENGERG.		+	+	+	+	+
Carex ischnostachya, STEUD.				+	+	+
Carex Kramerii, FR. et SAV.		+	+	+	+	+
Carex macrocephala, WILLD. var. kobomugi, MIY. et KUDO.		+	+	+	+	+
Carex Morrowii, BOOTT, var. laxa, OHWI						
Carex nagatadakensis, MASAMUNE						
Carex oahuensis, MEY. var. robusta, FR. & SAV.	•	+	+	+	+	+
Carex Ohwii, MASAMUNE						
Carex rara, BOOTT, var/biwenensis, KUKENTH.				+	+	+
Carex sociata, BOOTT.	i	+	+	+		
Carex tenuissima, BOOTT.				+	+	+
Carex teiogyna, BOOTT, var. scabriculmis, KUKENTH.				+	+	

Names of Plants	Regions										
	Shikoku	Kansai	Kyūshū	Ryūkyūs	Tanegasima	Kyūshū	Sikoku	Honsyū	Korea	Yezo & Kuriles	Japan & U.S.
<i>Carex yakusimensis</i> , MASAMUNE											
Total	52	20	830	34	34	20	42	393	833	13	31835
Percentage	38	15	58	65	65	38	81	75	73	63	25
	Southern elements 38					Northern elements 44)					

The genus *Carex* is supposed to have originated in northern lands, because it has numerous species in the northern part of the earth. Several representatives of this genus which are indigenous to this island have their southern limit here and have a close relation with the north. On the contrary Genera *Fimbristylis*, *Cyperus*[^] *Kyllingia*, *Bulbostylis* are thought to have originated in tropical and in subtropical regions and their representatives in Yakusima denote that the island is closely related to the southern lands. But most of those species are also found in lands further north than Yakusima. Considering these facts I should like to conclude that the island is closely related to the northern lands so far as the phytogeography of *Cyperaceous* plants is concerned.

Palmaceae

Palmaceae, LINDL., Veff. Kind. ed. 3. p. 134 1753.
Syn. Palmae, B. JUSS., in Hort. Trianon 1759 ; DRUDE, in EXGL. u. PRANT. **Nat** Pfl.-fam. II. iii. p. 1 1889
Livistona, R. BR., Prodr. p. 267 1810 ; ENDL., Gen. PI. n. 1754 1836-40 ; BENTH. et HOOK, i^o, Gen. PI. III. p. 929 1883 ; DRUDE, in ENGL. U. PRANT. **Nat. Pfl.-fam. II. iii. p. 35 1889 ; LEMFE, Diet. Gen. PI. Phan. IV. p. 133 1932.**

Syn. Saribus, BL., Rumphia, II. p. 48, tt. 95 et 96 (1836)

Livistona japonica, NAK., apud MASAMUNE, Prel. Rep. Veg. Yak. p. 50 (1929)

Syn. Livistona chinensis, non R. BR.) MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 165 (1867); FR. et SAV., Enum. Pl. Jap. II. p. 2 (1876); MATSUM., Ind. Pl. Jap. II. 1. p. 167 (1905); MAK. et NEM., Fl. Jap. ed. 2. p. 1491 (1931) exclud. ad. Pl. ex Bon.

Norn. Jap. Bird

Leg. Ipse, Ambô. introduced?¹

Distr. Sikoku, Kyûsyû, Tanegasima, Amami-Ôsima, Okinawa, Taiwan.

Note. The species is found in the low lands in the laurisilvae and it is restricted to Taiwan 'Kizan Island', Kyûsyû and Sikoku so far and has its northern limit in Sikoku and Kyûsyû Okinosima Island. But according to "Koziki," the oldest book of history in Japan, the species must have been distributed as far as the middle part of Honsyû.

Name of Plant	Regions													
	Philippines	Bonins	Taiwan	Okinawa	Amami-Ôsima	Tanegasima	Kyûsyû Prop.	Sikoku	Honsyû	Korea	Yezo & Southern	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri
<i>Livistona japonica</i> , NAK.			+	+	+	+	+	+						

Dr. KUDO reported the occurrence of *Arenga Engleri* in the island in *Gakuyiikai Zassi* (published from Seventh High School at Kagosima) Vol. XIII. p. 36 (1919), but I could not find it in the island. But if Dr. KUDO'S report is right, *Arenga*, genus of *Palmaceae*, has its northern limit in this island. From this point of view the island is closely connected with the southern lands where the *Arenga* lives. It is also a noteworthy fact that *Rhapis humilis* is found in quite a naturalized state in the southern part of this island.

Araceae

Araceae, NECK., Acta Acad. Theod.-Palat. II. p. 462 (1770), emend. SCHOTT, in SCHOTT et ENDL. Melet. p. 16 (1832);

Acorus, [LINN., Gen. PI. ed. 1. p. 104 U737:] et Sp. PI. ed. 1. p. 324 U753 ; ENDL., Gen. PI. n. 1708 ;1836-40 ; KUNTH, Enum. PI. III. p. 86 ·1841 ; ENGL., in DC. Monogr. Phan. II. p. 215 (1879 ; BENTH. et HOOK, f., Gen. PI. III. p. 999 '1833 ; ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. II. iii. p. 118 1889 , et in Pfl.-reich. IV. 23 (Heft 2V p. 303 ;1905-; LEMÉE, Diet. Gen. PI. Phan. I. p. 44 :1929,

Acorus gramineus, SOLAND, in AIT. Hort. Kew. p. 474 '1789 ; WILLD., Sp. PI. II. p. 199 1799 ; KUNTH, Enum. PI. III. p. 87 (1841); ENGL., in DC. Monogr. Phan. II. p. 218 ·1879 ; HOOK, f., Fl. Brit. Ind. VI. p. 556 (1894 ; DIELS, Fl. Cent. Chin. p. 234 (1900 ; FORB. et HEMSL., Ind. Fl. Sin. III. p. 187 (1903); ENGL., in Engl. Pfl.-reich. IV. 23 'Heft 21 ' p. 312 (1905^; MATSUM., Ind. PI. Jap. II. 1. p. 168 (1905^; MATSUM. et HAY., Enum. PI. Formos. p. 460 (1906^ ; MORI, Enum. PI. Cor. p. 78 '1922 ; MERR., Enum. PI. Philipp. I. p. 175 (1922\ et Enum. Hainan PI. p. 43 {1927 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 50 (1929^ ; MAK. et NEM., Fl. Jap. ed. 2. p. 1494 ·1931

Syr. *Acorus terrestris*, SPRENG., Syst. Veg. II. p. 118 '1825 ; SCHOTT, Prodr. Aroid. p. 579 1860

Acorus calamus, LOUR., Fl. Cochinch. p. 203 11790 ; BENTH., Fl. Hongk. p. 345 ·1861

Acorus tatarinoivii, SCHOTT, in Österr. Bot. Zeit. p. 101 1859

Acorus calamus, var. *terrestris*, ENGL., in DC. Monogr. Phan. II. p. 217 1879)

Nom. Jap. *Sekisyô*

Leg. Ipse, Jun. 26, 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Taiwan, Korea, China, Philippines.

Note. The species is found as undergrowth in the laurisilvae and in wet places e.g. along streams. It is found from South Japan to the Philippines and South China.

Alocasia, NECK., Elem. III. p. 289 (1790 ; SCHOTT, in SCHOTT et ENDL. Melet. p. 18 (1832 ; ENDL., Gen. PI. n. 1683b 1836-40.; ENGL., in DC. Monogr. Phan. II. p. 491 '1879' ; BENTH. et HOOK, f., Gen. PI. III. p. 975 ;1883 ; ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. II. iii. p. 137 (1889 ; ENGL. u. KRAUSE, in ENGL. Pfl.-reich. IV. 23 (Heft 71^ p. 71 (1920^; LEMÉE, Dict. Gen. PI. Phan. I. p. 167 1929,

Alocasia macrorrhiza, SCHOTT, in SCHOTT et ENDL. Melet. p. 18 (1832 , in Öster. Bot. 18, Wochenbl. IV. p. 409 1854 , Gen. Aroid. t. 40 ;1858 , et Prodr. p. 146 1860 ; MIQ., Fl. Ind. Bat. III. p. 205 '1856 ; FR. et SAV., Enum. PI. Jap. II. p. 8 ;1876 ; BENTH., Fl. Austral. VII. p. 155 <1878 ; ENGL., in DC. Monogr. Phan. II. p. 502 (1879 ; MAK., in Tokyo Bot. Mag. V. p. 126 '1891' ; HOOK. f. Fl. Brit. Ind. VI. p. 526 ·1893 ; FORB. et HEMSL., Ind. Fl. Sin. III. p. 184 [1903]; MATSUM., Ind. PI. Jap. II. 1. p. 169 1905 ; MATSUM. et HAY., Enum. PI. Formos. p. 458 1906.; ENGL. u. KRAUSE, in ENGL. Pfl.-reich. IV. 23 :Heft 71 p. 84, 1.15 1920 ; MASA-MUNE, Prel. Rep. Veg. Yak. p. 50 (1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1496 (1931

Syn. *Arum macrorrhiza*, LINN., Fl. Zeyl. p. 327 '1747 . et Sp. PI. ed. 1. p. 965 1753)

Arum mucronatum, LAM., Encycl. III. p. 12 1789-

Colocasia macrorrhiza, R. BR., Prodr. Fl. Nov. Holl. p. 336 '1810

Colocasia macrorrhiza, SCHOTT, in SCHOTT et ENDL. Melet. I. p. 18 (1832)

Colocasia mucronata, KUNTH, Enum. III. p. 40 ;1841

Alocasia indie a, (non SCHOTT) NAVES, Novis App. p. 293 (1882); ENGL. U. KRAUSE, in ENGL. Pfl.-reich. IV. 23 E. (Heft 71) p. 87 (1920) p.p.

Nom. Jap. Kuwazuimo

Leg. Ipse, Jim. 20, 1927.

Distr. Sikoku, KyGsyG, Tanegasima, Amami-6sima, Okinawa, Taiwan.

Note. The species is found in the laurisilvae as undergrowth from the sea level up to about 600 m and is also found in tropical and subtropical countries of eastern Asia.

Arisaema, MART., in Flora XIV. p. 458 (1831);

ENDL., Gen. Pl. n. 1674 (1836-40); KUNTH, Enum. Pl. III. p. 15 (1841); ENGL., in DC. Monogr. Phan. II. p. 533 (1879), in ENGL. u. PRANT. Nat. Pfl.-fam. II. iii. p. 150 (1889) et in ENGL. Pfl.-reich. IV. 23 F. (Heft 73) p. 149 (1920); BENTH. et HOOK, f., Gen. Pl. III. p. 965 (1883); LEMSE, Diet. Gen. Pl. Phan. I. p. 381 (1929)

Syn. Amidena, RAF., Fl. Tellur. IV. p. 15 (1836)

Dochafa, SCHOTT, Synops. Aroid. p. 24 (1856)

Arisaema heterocephalum, KOIDZ., in PL Nov. Amami-dsima, p. 12 (1928)

Nom. Jap. Hosoba-tennansyd

Leg. Ipse, Jul. 25, 1924.

Distr. Amami-dsima.

Note. Occurs as undergrowth in somewhat wet places, in the laurisilvae, or in the lauri-aciculisilvae, from 400 m up to 700 m above the sea level.

Arisaema japonicum, BL., Rumphia, I. p. 106 (1855) excl. Syn.; KUNTH, Enum. Pl. III. p. 19 (1841) excl. syn.; SCHOTT, Prodr. Aroid. p. 40 (1860) excl. syn.; MIQ., in Ann. Mus. Bot. Lugd. Bat II. p. 202 (1866) p.p.; FR. et SAV., Enum. Pl. Jap. II. p. 5 (1876) p.p.; ENGL., in DC. Monogr. Phan. II. p. 549 (1879); MASAMUNE, Prel. Rep. Veg. Yak. p. 50 (1929)

Syn. Arisaema serratum, SCHOTT, var. Blumei, MAK., in Tokyo Bot Mag. XV. p. 129 (1901); MATSUM., Ind. Pl. Jap. II. 1. pp. 170, 171 (1905)

Nom. Jap. Tennansyô

Leg. Ipse, Jul. 22, 1927.

Distr. HonsyQ, Sikoku, KyQsyQ, Tanegasima, Amami-6sima.

Note. Occurs in the lauri-aciculisilvae as undergrowth; rather common in South Japan.

Arisaema nanum, NAK., in Tokyo Bot. Mag. XLIII. p. 532 (1929); MASAMUNE, Prel. Rep. Veg. Yak. p. 50 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1499 (1931)

Nom. Jap. Himetennansyd

Leg. Ipse, Jun. 11, 1928.

Distr. KyQsyQ.

Note. The plant occurs in the Pseudosasa Owatarii Association from 1700 m up to 1900 m and is restricted to this island and South KyQsyQ.

Arisaema Negishii, MAK., in Journ. Jap. Bot. I. p. 41 (1918); NAK., in Tokyo Bot. Mag. XLIII. p. 529 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1500 (1931)

Syn. Arisaema heterophyllum, (non BL.) BROWN, in Journ. Linn. Soc. XVIII. p. 250 (1831)

Arisaema koreanum, ENGL., in ENGL. Pfl.-reich. IV. 23. F. (Heft 73) p. 186. (1920)

Nom. Jap. Simatennansyd

Leg. Ipse, Aug. 1931.

Distr. Honsyū, Kyūsyū, Korea.

Note. Occurs in the laurisilvae as undergrowth.

Arisaema ringens, SCHOTT, var. **praecox**, ENGL., in DC. Monogr. Phan. II. p. 535 (1879); MAK., in Tokyo Bot. Mag. VII. p. 301 (1894); MATSUM., Ind. PI. Jap. II. 1. p. 170 (1905); ENGL., in ENGL. Pfl.-reich. IV. 23 F (Heft 73) p. 210 (1920) MASAMUNE, Prel. Rep. Veg. Yak. p. 50 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1501 (1931)

Syn. *Arisaema praecox*, de VRIESE, Cat. Hort. Spaurenberg, ex. C. KOCH, in Aligem. Gartenzeit. p. 87 (1857); SCHOTT, Prodr. Aroid. p. 32 (1860); HOOK., in Bot. Mag. t. 5267 (1851); FR. et SAV., Enum. PI. Jap. II. p. 4 (1876)

Arisaema ringens, SCHOTT, in Fl. des Serres XII. p. 167, tt. 1269, 1270 (1857); REGEL, in Gartenfl. p. 1. t. 313 (1851); FR. et SAV., Enum. PI. Jap. II. p. 4 (1876); NAK., Fl. Kor. II. p. 271 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 50 (1929)

Nom. Jap. **Murasaki-musasiabumi**

Leg. Ipse, Jul. 16, 1922.

Distr. Honsyū, Sikoku, Kyūsyū, Okinawa, Taiwan, Korea, China.

Note. Occurs as undergrowth in the lauri-aciculisilvae; common in South Japan.

Arisaema serratum, SCHOTT, var. **euserratum**, ENGL., in ENGL. Pfl.-reich. IV. 23. F (Heft 73) p. 206 (1920) excl. fig.

Syn. *Arum Dracunculus*, (non LINN.) THUNB., Fl. Jap. p. 233 (1784) p.p.

Arum Dracontium, (non LINN.) THUNB., Fl. Jap. p. 233 (1784)

Arum serratum, THUNB., in Trans. Linn. Soc. II. p. 338 (1792) et Ic. PI. Jap. IV. t. 7 :1802 ^; WILLD., Sp. PI. IV. 1. p. 479 (1805); POIRET, Supp. Encycl. Méth. II. p. 820 (1811); SPRENG., Syst. Veg. III. p. 770 (1825)

Arisaema serratum, SCHOTT, in SCHOTT et ENDL. Melet. Bot. p. 17 (1832); BL., Rumph. I. p. 107 (1835); KUNTH, Enum. PI. III. p. 19 (1841); SCHOTT, Syn. Aroid. p. 29 (1856), et Prodr. Syst. Aroid. p. 41 (1860); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 202 (1866); FR. et SAV., Enum. Fl. Jap. II. p. 5 (1876);

Arisaema serratum, SCHOTT, f. *Thunbergii*, MAK., in Tokyo Bot. Mag. XV. p. 128 (1901); MATSUM., Ind. PI. Jap. II. 1. p. 170 (1905); NAK., in Tokyo Bot. Mag. XLIII. p. 535 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1501 (1931)

Nom. Jap. **Murasakimamusigusa**

Leg. Ipse, Jun. 26, 1927.

Distr. Honsyū, Sikoku, Kyūsyū.

Note. The plant is found as undergrowth in the lauri-aciculisilvae or the laurisilvae.

Pinellia, TENORE, in Atti III. Rium. Scienz.

Ital. p. 522 (1830); SCHOTT, Syn. Aroid. p. 5 (1856); ENDL., Gen. PI. n. 1693 (1836-40); ENGL., in DC. Monogr. Phan. II. p. 565 (1879); et in ENGL. u. PRANT. Nat. Pfl.-fam. II. iii. p. 151 (1889); BENTH. et HOOK, f, Gen. PI. III. p. 964 (1883)

Syn. *Atherurus*, BL., Rumphia I. p. 136 (1835)

Pinellia tripartita, SCHOTT, Syn. Aroid. p. 5 (1856), et Prodr. p. 20 (1860); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 201 (1866); FR. et SAV., Enum. PL Jap. II. p. 3 (1876); ENGL., in DC. Monogr. Phan. II. p. 566 (1879); BROWN, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 174 (1903); MATSUM., Ind. PI. **Jap.** II. 1. p. 173 (1905);

MASAMUNE, Prel. Rep. Veg. Yak. p. 51 (1929); MAK. et NEM., FJ. Jap. ed. 2. p. 1506 (1931)

Syn. *Atherurus tripartitus*, BL., Rumphia I. p. 137, tt. 31. et 37f. (1835); KUNTH, Enum. Pl. III. p. 54 (1841)

Arisaema tripartitum, ENGL., in DC. Monogr. Phan. II. p. 538 (1879)

Norn. Jap. dhange

Leg. Ipse, Miyanoura, Sept. 1, 1931.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-Ôsima, Okinawa, China.

Note. In the laurisilvae about 200 m above the sea level I once found this species on humus ground. The species is widely distributed in South Japan.

Names of Plants	Regions													
	Philippines	Bonins	Taiwan	Iriomote	Amami-Ôsima	Tanegasima	Kyûsyû Prop.	Sikoku	Honsyû	Sea & Southern Kuriles	Saghalien	Northern Kuriles & Kamohatka	Manchuri, Amur & Ussuri	China
<i>Acorus gramineus</i> , SOLAND.	+	+				+	+	+	+					+
<i>Alocasia macrorrhiza</i> , SCHOTT.			+	+	+	+	+	+						
<i>Arisaema heterocephalum</i> , KOIDZ.					+	+								
<i>Arisaema japonicum</i> , BL.					+	+	+	+	4					
<i>Arisaema nanum</i> , NAK.							+					!!!		
<i>Arisaema Negishii</i> , MAK.							+		+	+				
<i>Arisaema ringens</i> , SCHOTT, var. <i>praecox</i> , ENGL.			+	+			+	+	+	+				+
<i>Arisaema serratum</i> , SCHOTT, var. <i>euserratum</i> , ENGL.							+	+	+					
<i>Pinellia tripartita</i> , SCHOTT.				+	+		+	+						+
Total	9	1	3	3	4	4	8	6	6	3				3
Percentage	11	33	33	44	44	89	67	67	33					33

(Southern elements 6)

.Northern elements 9)

As regards this family the island is represented by nine elements out of which three have their southern limit here. So from this point of view the island shows a closer relationship to the northern regions.

Lexnaceae

Lemnaceae, DUMORT., Fl. Belg. p. 147 (1827'

Lemna, [LINN., Syst. ed. 1 (1735') et Sp. Pl. ed.

1. p. 970 ,1753 ; ENDL., Gen. Pl. n. 1668 (1836-401; KUNTH, Enum. Pl. III. p. 4 1841; BENTH. et HOOK, f., Gen. Pl. III. p. 1001 ;1883 ; ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. II. iii. p. 164 '1889'

Syn. *Lenticula*, ADANS., Fam. II. p. 471 (1763^

Lemna paucicostata, HEGELMAIER, Lemn. p. 139, t. 8 (1868 , et ENGL. Bot. Jahrb. XXI. p. 294 '1895¹ ; FR. et SAV., Enum. Pl. Jap. II. p. 12 (1876) ; HOOK, f., Fl. Brit. Ind. VI. p. 556 ;1894); MAK., in Tokyo Bot. Mag. IX. p. 230 (1895); KOM., Fl. Mansh. I. p. 417 (190H ; WRIGHT, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 188 ;1903 -; MATSUM., Ind. Pl. Jap. II. 1. p. 174 (1905); MATSUM. et HAY., Enum. Pl. Formos. p. 462 '1906` ; MERR., Enum. Philipp. Pl. I. p. 190 (1922* ; RIDLEY, Fl. Malay Pen. V. p. 132 .1925 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 51 (1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1508 (1931 .

Norn. Jap. Aoukikusa

Leg. Ipse, Nagata, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Taiwan, Manchuria, China, Philippines.

Note. I have once collected the species in the rice fields, but it is not very abundant here. It is widely distributed in warmer countries.

Name of Plant	Regions														
	Philippines	Bonins	K ² S	O ² S	Am ²	sima	Tanegasima	Prop.	Honsyū	Korea	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Usuri	China
<i>Lemna paucicostata</i> , HEGELMAIER	+	+	+	+				+	+	+				+	+

In the island only one cosmopolitan species is present.

Eriocaulaceae

Eriocaulaceae, LINDL., Veg. King. p. 122 1847;

Syn. Eriocauloneae, RICH., in Ann. Mus. Paris. XVII. p. 62 (1811'

Eriocaulaea, KUNTH, Enum. Pl. III. p. 492 (1841

Eriocaulon, [LINN., Gen. Pl. ed. 2. p. 35 (1742'

et Sp. Pl. ed. 1. p. 87 (1753 ; KUNTH, Enum. Pl. III. p. 539 (1841 ; BENTH. et

HOOK, f, Gen. Pl. III. p. 1020 (1883); HIERON, in ENGL. U. PRANTL Nat. Pfl.-fam. II. iv. p. 26 (1837); RUHLAND, in ENGL. Pfl.-reich. IV. 30 (Heft 13) p. 30 (1903), et in ENGL. u. PRANT. Nat. Pfl.-fam 2-auf. B. 15a. p. 49 (1930); LEMÉE, Diet. Gen. Pl. Phan. II. p. 921 (1930)

Syn. Randalia, PETIV., Gazophyl. t. 53 (1709)

Nasmythia, HUDZ., Fl. Angl. ed. 2. p. 414 (1762)

Leucocephala, ROX., Fl. Ind. III. p. 612 (1832)

Eriocaulon cinereum, R. BR., Prodr. p. 254 (1810); BENTH., Fl. Austr. VII. p. 193 (1878); MERR., Enum. Philipp. Pl. I. p. 192 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 51 (1929);

Syn. Eriocaulon sexangulare, MART., in WALL. Pl. As. Rar. III. p. 28 (1832); MAXIM., Diagn. Pl. As. Rar. VIII. p. 10 (1892); RUHL., in ENGL. Bot. Jahrb. XXVII. p. 83 (1899);

Leucocephala spathacea, ROX., Fl. Ind. III. p. 613 (1832)

Eriocaulon Sieboldianum, SIEB. et ZUCC, ex STEUD. Syn. Pl. Cyp. II. p. 272 (1855); HOOK. f. Fl. Brit. Ind. VI. p. 577 (1894); MAK., in Tokyo Bot. Mag. VIII. p. 507 (1894); WRIGHT, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 200 (1903); RUHL., in ENGL. Pfl.-reich. VI. 30 (Heft 13) p. 111 (1903); MATSUM., Ind. Pl. Jap. II. 1. p. 177 (1905); MATSUM. et HAY., Enum. Pl. Formos. p. 467 (1906); NAK., Fl. Kor. II. p. 282 (1911); MAK. et NEM., Fl. Jap. ed. 2. p. 1514 (1931)

Eriocaulon heteranthum, BENTH., Fl. Hongk. p. 382 (1851)

Norn. Jap. Hosikusa

Leg. Ipse, Onoaida.

Distr. Honsyū, Sikoku, Kyfisyū, Tanegasima, Amami-dsima, Okinawa, Taiwan, Korea, Philippines, India.

Note. Occurs in rice-fields and ditches.

Eriocaulon decemflorum, MAXIM., f. **coreinum**, NAK., in MATSUM. Ic. Pl. Koishik. II. p. 47 Pl. 108 (1914*); MASAMUNE, Prel. Rep. Veg. Yak. p. 51 (1929)

Norn. Jap. Tannainunohige

Leg. Ipse, Aug. 31, 1928.

Distr. Kyūsyū, Korea.

Note. The plant is found in marshy places scattered among the Pseudosasa Owatarii Association and is not yet reported in lands further south than this island.

Eriocaulon hananoegoensis, MASAMUNE, sp. nov.

Syn. Eriocaulon at rum non NAK.) MASAMUNE, Prel. Rep. Veg. Yak. p. 51 (1929)

Acaules. glabri. Radix alba. Folia rosulata, subulata, basi latissima ca. 2 cm longa, 1.5-2 mm lata. Pedunculi graciles, pauci, 2 cm alti glabri haud torti; vaginae laxiusculae oblique fissae; capitula semiglobosa laxiflora; bracteae involucratae ovatae obtusae glabrae stramineo-flavidulae ca. 2 mm longae 1 mm latae; apice rotundatae vel vix acuteae bracteae flores stipantes obovatae obtusiusculae glabrae flavido-nigriusculae; flores trimeri. Fl. a sepala spathaceo-connata, glabra niijriuscula tenui-membranacea. Petala 3 elongato-deltaidea parva aequalia antherae oblongae nigrae. Fl. 9 sepala in spatham illi floris \$ similem connata. Petala 3, libera unguiculato-spathulata, basi angusta supura media intus glandulifera.

Abut. Jap. Yakusima-hosikusa

Leg. Ipse, ca. 1700 m alt. Hananoegō.

Distr. Endemica.

Aote. This interesting little plant is found in the marshy spots which are scattered in the alpine region of this island.

Names of Plants	Regions													
	FF. Sines	Bonin	H. i. n	O. wa	H. i. Osie	H. anegai	W. yûsyû	Z. ikoku	X. onsyû	Korea	Y. ezô & South Kuriles	S. H. Kuriles & Kamtchatka	Manchu & Amur & Suri	Citina
<i>Eriocaulon cinereum</i> , R. BR.	+		+	+	+	+	+	+	+					
<i>Eriocaulon decemflorum</i> , MAXIM. f. <i>coreanum</i> , NAK.							+							
<i>Eriocaulon hahanoegoensis</i> , MASAMUNE . .														

As regards this family the island is closely related to the northern lands for one of these three elements is common to Kyûsyû, and one which is endemic has its related species, *E. atorum*, in the northern regions.

Commelinaceae

Coir.melinaceae, REICHB., Consp. p. 57 1828 ; C. B. CLARKE, in DC. Monogr. Phan. III. p. 113 1831

Pollia, THUNB., NOV. Gen. Pl. I. p. 11 1781 ; ENDL., Gen. Pl. n. 1029 '1836-40'; KUNTH, Enum. Pl. IV. p. 75 1813 ; C. B. CLARKE, in DC. Monogr. Phan. III. p. 121 1831¹; BENTH. et HOOK. f. Gen. Pl. III. p. 846 1883 ; SCHONLAND, in ENGL. U. PRANT. Nat. Pfl.-fam. II. iv. p. 62 1883 ; BRUCK., in id. 2-auf. B. 15a. p. 170 1930[^]
Syn. *Lamprocarpus*, BL.; ROEM. et SCHULT., Syst. Addend, p. 1726 1830

Pollia japonita, THUNB., Diss. I. Nov. Gen. I. p. 11 '1781', Fl. Jap. p. 138 1784, et Ic. Pl. Jap. III. t. 5 1801 ; WILLDN., Sp. Pl. II. p. 149 1799 ; ROEM. et SCHULT., Syst. VII. p. 1149 1829-30 ; KUNTH, Enum. Pl. IV. p. 75 1843 ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 143 1867[^]; FR. et SAV., Enum. Pl. Jap. II. p. 94 1876 ; C. B. CLARKE, in DC. Monogr. Phan. III. p. 122 1831[^]; MATSUM., in Tokyo Bot. Mag. XII. p. 1. 1893 ; MATSUM. et HAY., Enum. Pl. Formos. p. 445 1906 ; MORI, Enum. Pl. Cor. p. 81 1922[^] ; MASAMUNE, Prel. Rep. Veg. Yak. p. 52 1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1519 1931

Syn. *Am'lema japonicum*, KUNTH, Enum. Pl. IV. p. 70 1843

Aom. Jap. Yabumyōga

Leg. Ipse, Hirauti, Jun. 29, 1928.

Distr. Honsyu, Sikoku, Kyūsyū, Amami-Ōsima, Okinawa, Taiwan, Korea.

Note. Occurs in somewhat wet places in the laurisilvae as undergrowth.

Pollia minor, HONDA, in Tokyo Bot. Mag. XLV. p. 2 (1931); MAK. et NEM., Fl. Jap. ed. 2. p. 1519 (1931)^

Norn. Jap. Koyabu-myōga

Leg. Ipse, Issō, Mart. 21, 1923.

Distr. Okinawa, Taiwan.

Note. Occurs in the same environment as the previous species.

Aneilema, R. BR., Prodr. p. 270 '1810 ; ENDL., Gen. Pl. n. 1028 b. (1836-40^ ; C. B. CLARKE, in DC. Monogr. Phan. III. p. 195 1881 ; BENTH. et HOOK, f., Gen. Pl. III. p. 849 (1883) ; SCHONLAND, in ENGL. u. PRANT. Nat. Pfl.-fam. II. iv. p. 64 [1888] ; BRUCK., in id. 2-auf. B. 15a. p. 175 1930 ; LEMÉE, Diet. Gen. Pl. Phan. I. p. 258 (1929)

Syn. *Aphylax*. SALISB., in Trans. Hort. Soc. I. p. 27 (1812^

Anilema, KUNTH, Enum. Pl. IV. p. 64 '1843'

Aneilema Kcisak, HASSK., Commel. Ind. p. 32 (1870) ; C. B. CLARKE, in DC. Monog. Phan. III. p. 209 (1881; FR., Pl. David. I. p. 310 (1884^N. ; DIELS, Fl. Cent. Chin, p. 237 1900 ; KOM, Fl. Mansh. I. p. 421 (1901) ; E. BROWN, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 152 • 1903 ; MATSUM., Ind. Pl. Jap. II. 1. p. 178 a905) ; MATSUM. et HAY., Enum. Pl. Formos. p. 447 (1906.; NAK, f. Fl. Kor. II. p. 265 (1911.; MASAMUNE, Prel. Rep. Veg. Yak. p. 51 11929' ; MAK. et NEM., Fl. Jap. ed. 2. p. 1517 1931

Syn. *Aneilema oliganthum*, FR. et SAV., Enum. Pl. Jap. II. pp. 94 et 532 (1876,

Norn. Jap. Ibokusa

Leg. Ipse, Aug. 18, 1928.

Distr. Honsyu, Sikoku, Kyūsyū, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China.

Xctc. Occurs in wet lands near rice-fields; common in South Japan.

Aneilema malabaricum, MERR., in Philipp. Journ. Sc. VII. Bot. p. 232 11912 , Enum. Philipp. Pl. I. p. 196 1922 , et Enum. Hainan Pl. p. 45 d927,

Syn. *Tradescantia malabarica*, LINN., Sp. Pl. ed. 2. p. 412 (1762`

Commclina nudicaulis, BURM. f., Fl. Ind. p. 17, t. 8, f. 1. 11768/

Aneilema nudiflorum, R. BR., Prodr. p. 271 ,1810, ; MIQ., Fl. Ind. Bat. III. p. 537 '1859 . ; BENTH., Fl. Hongk. p. 376 '1861` ; C. B. CLARKE, in DC. Monogr. Phan. II. p. 210 '1876 ; HOOK, f., Fl. Brit. Ind. VI. p. 378 (1892) ; E. BROWN, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 153 ;1903]; MATSUM., Ind. Pl. Jap. II. 1. p. 178 1905.; MATSUM. et HAY., Enum. Pl. Formos. p. 447 '1906 ; RIDLEY, Fl. Malay Penn. IV. p. 355 '1924` ; MASAMUNE, Prel. Rep. Veg. Yak. p. 51 '1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1517 (1931)

Commclina nudiflora, LINN., Mant. I. p. 77 .1767, non Sp. Pl. ed. 1.

Norn. Jap. Sima-ibokusa

Leg. Ipse, Jun. 23, 1928.

Distr. Tanegasima, Amami-6sima, Okinawa, Taiwan, China, Philippines, Malay, India.

Note. The species is found by the roadside and in waste low lands and is rather common in the southern part of Japan. But it has not yet been found in Kyûsyû.

Commelina, [PLUM., ex LINN. Syst. ed. 1 1735]
 et Sp. Pl. ed. 1. p. 40 (1753) ; ENDL., Gen. Pl. n. 1023 (1836-40) ; C. B. CLARKE, in DC. Monogr. Phan. III. p. 138 (1881) ; BENTH. et HOOK, f, Gen. Pl. III. p. 847 1883 ; SCHONLAND, in ENGL. U. PRANT. Nat. Pfl.-f am. II. iv. p. 63 1838 ; BRUCK., in id. 2-auf. B. 15a. p. 177 ,1930/ ; LEMÉE, Diet. Gen. Pl. Phan. II. p. 270 1930
Syn. *Erxlebia*, MEDIK., in Act. Acad. Theod. Palat. VI. Phys. p. 494 1790
Commelyna, ENDL., Gen. Pl. p. 125 ; 1836 ; KUNTH, Enum. Pl. IV. p. 35 .1843.
Omphalotheca, HASSK., in Bull. Congr. Bot. Amsterdam, p. 1856 p. 30 1866.

Commelina benghalensis, LINN., Sp. Pl. ed. 1. p. 41 '1753' ; KUNTH, Enum. Pl. IV. p. 50 ,1843) ; WIGHT, Ic. Pl. Ind. Or. VI. p. 29, t. 2065 1853,; MIQ., Fl. Ind. Bat. III. p. 533 '1859i ; BENTH., Fl. Hongk. p. 376 (1861); C. B. CLARKE, in DC. Monogr. Phan. III. p. 159 '1881, et in FORB. et HEMSL. Ind. Fl. Sin. III. p. 155 .1903' ; HOOK, f, Fl. Brit. Ind. VI. p. 370 1892^ ; DIELS, Fl. Cent. Chin. p. 237 '1900^ ; MATSUM., Ind. Pl. Jap. II. 1. p. 179 .1905 ; MATSUM. et HAY., Enum. Pl. Formos. p. 448 (1906 ; MERR., Enum. Philipp. PL I. p. 195 1922 ; RIDLEY, Fl. Malay Penn. IV. p. 353 1924 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 52 1929 ; NAK., in Bull. Biogeogr. Soc. Jap. I. p. 255 1930: ; MAK. et NEM., Fl. Jap. ed. 2. p. 1518 1931
Syn. *Commelina procurrens*, SCHLECHT, in Linnaea XXIV. p. 656 1851 , et XXV. p. 183 '1852)

Nom. Jap. *Maruba-iuyukusa*

Leg. Ipse, Jul. 19, 1928.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-6sima, Okinawa, Taiwan, Bonins, China, Philippines, Malay, Java, Tropical Africa and Asia.

Note. Occurs in cultivated or waste lands; common in southern Japan; widely distributed in Africa and Asia.

Commelina com munis, LINN., Sp. Pl. ed. 1. p. 40 1753;; THUNB., Fl. Jap. p. 35 1784 ; KUNTH, Enum. Pl. IV. p. 36 '1843.; BENTH., Fl. Hongk. p. 376 1861 ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 142 1867,; DEBEAUX, in Act. Soc. Linn. Bordeaux XXX. p. 117 ,1874' et XXXII. p. 27 1875); HANCE, in Journ. Bot. XI. p. 262 1874 ; FR. et SAV., Enum. Pl. Jap. II. p. 92 1876;; C. B. CLARKE, in DC. Monogr. Phan. III. p. 170 '1881.' ; FR., in Mem. Soc. Nat. Cherb. XXIV. p. 260 1882 ; KOM., Fl. Mansh. I. p. 420 .1901;; MATSUM., Ind. Pl. Jap. II. 1. p. 179 ,1905,; NAK., Fl. Kor. II. p. 264 ,1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 52 1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1518 1931

Syn. *Commelina polygama*, ROTH, Cat. Bot. I. p. 1 '1797;; ROEM. et USTERI, Mag. Bot. IV. p. 14 '1790 ; KUNTH, Enum. PL IV. p. 37 '1843)

Norn. Jap. *Tuyukusa*

Leg. Ipse, Nagata, Aug. 21, 1928.

Distr. Saghaliën, Yezo, Honsyû, Sikoku, KyGsyG, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria. China, Ussuri.

Note. This is a common weed and flourishes in cultivated or waste lands.

Commelina nudiflora, LINN., Sp. Pl. ed. 1. p. 41 ,1753,; C. B. CLARKE, in DC. Monogr. Phan. III. p. 144 ,1881 ; HOOK, f, Fl. Brit. Ind. VI. p. 369 1892 ; E. BROWN, in FORB. et HEMSL. Ind. FL Sin. III. p. 156 ,1903 ; MATSUM., Ind. Pl. Jap. II. 1. p. 179 ,1905,; MATSUM. et HAY., Enum. Pl. Formos. p. 448 ,1905 ; RIDLEY, Fl.

Malay Penn. IV. p. 352 (1924); MERR., Enum. Hainan Pl. p. "44 ;1927 ; MASA-MUNE, Prel. Rep. Veg. Yak. p. 52 ,1929;; MAK. et NEM., Fl. Jap. ed. 2. p. 1518 1931)

Syn. *Commelia ochrcata*, SCHAUER, in Nov. Act. Acad. Cur. XIX. Suppl. I. p. 447 1843^s

Norn. Jap. *Sitna-tuyukusa*

Leg. Ipse, April. 2, 1927.

Distr. Amami-6sima, Kutinoerabu, Okinawa, Taiwan, China, Philippines.

Note. The species grows in waste land or along the roadside. It is rather common in Amami-6sima, Okinawa and Formosa, but it is not yet found in lands further north than Yakusima.

Names of Plants	Regions										
	P	B	Ta	Oki	Amami-6sima	Tanegasima	K	S	H	Y	S
<i>Pollia japonica</i> , THUNB.			+	+	+		+	+	+		
<i>Pollia minor</i> , HONDA.			+	+	+						
<i>Aneilema Keisak</i> , HASSK.			+	+	+		+	+	+		+
<i>Aneilema malabaricum</i> , MERR.	+	+	+	+	+	+					+
<i>Commelina benghalensis</i> , LINN.	+	+	+	+	+	+	+	+			+
<i>Commelina com munis</i> , LINN..			+	+	+	+	+	+	+	+	+
<i>Commelina nudiflora</i> , LINN.	+	+	+	+	+						r
Total	7	3	7	7	7	2	4	4	3	1	5
Percentage	43	14	100	100	100	29	57	57	57	43	14

.Southern elements 7) (Northern elements 5

Considering the above table, the flora of the island appears more closely related to the southern lands than to the northern. So the so-called WATASE'S line of the zoogeographers does not acquire any special importance in phytogeography when taking the distribution of only this family into consideration.

Pontederiaceae

Pontederiaceae, MEISSN., Gen. p. 398, 1842

Monochoria, C. PRESL., Rel. Haenk. I. p. 127 1830 ; KUNTH, Enum. PI. IV. p. 132 (1843) ; SOLMS-LAUBACH, in DC. Monogr. Phan. IV. p. 522 (1883) ; BENTH. et HOOK. f., Gen. PI. III. p. 839 (1883) ; SCHONLAND, in ENGL. U. Prant. Nat. Pfl.-fam. II. iv. p. 73 (1888) ; SCHWARTZ, in id. 2-auf. B. 15a. p. 186 (1930) ; LEMEE, Diet. Gen. PI. Phan. IV. p. 536 1932

Syn. *Pontederia*, Sect. *Monochoria*, ENDL., Gen. PI. n. 1038 b P, 1836

Monochoria vaginalis, PRESL. var. **plantaginea**, SOLMS-LAUB., in DC. Monogr. Phan. IV. p. 524 (1883) ; E. BROWN, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 150 (1903) ; MATSUM., Ind. Pl. Jap. II. 1. p. 182 (1905) ; MATSUM. et HAY., Enum. PI. Formos. p. 444 (1906) ; MORI, Enum. PI. Cor. p. 81 (1922) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 52 (1929) ; YAMAZUTA, List Manch. PI. p. 55 (1930) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1521 (1931) ;

Syn. *Pontederia plantaginea*, ROXB., Fl. Ind. II. p. 123 (1832)

Monochoria plantaginea, KUNTH, Enum. PI. IV. p. 135 (1843) ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 143 (1867) ; FR. et SAV., Enum. PI. Jap. II. p. 95 (1876)

Monochoria linearis, MIQ., Fl. Ind. Bat. III. p. 549 (1850)

Monochoria vaginalis, PRESL. var. *pauciflora*, MERR., Enum. Philipp. PI. I. p. 201 (1922) , et Enum. Hainan PI. p. 46 (1927)

Som. Jap, *Konagi*

Leg. Ipse, Onoaida.

Distr. Yezo, Honsyu, Sikoku, Kyusyu, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China, Philippines, India, Malay.

Note. In the island the plant grows rather rarely in rice-fields or muddy marshy places.

Name of Plant	Regions													
	Philippines	Hainan	Okinawa	Amami-6sima	Kyusyu	Tanegasima	Kyusyu Prop.	Sib	Hokkaido	Yezo & Southern Kuriles	Saghalien	Northern Kuriles & Kamtchatka	Manchuria, Amur & Ussuri	China
<i>Monochoria vaginalis</i> , PRESL. var. <i>plantaginea</i> , SOLMS-LAUB.	+	+	+	+	+	+	+	+	+	+	+	+	+	+

There is only one representative of this family in the island, which belongs to the pandemic plants. Therefore the phytogeographical

position of Yakusima cannot be discussed from the point of view of the distribution of the plants of this family.

Philydraceae

Philydraceae, LINDL., Nat. Syst. ed. 2. p. 357, 1836.

Philydrum, BANKS, ex GAERTNER, Fruct. I. p. 62, t. 16 (1788 ; ENDL., Gen. Pl. n. 1061 (1836-40.; KUNTH, Enum. Pl. III. p. 380 1841, ; BENTH. et HOOK, f, Gen. Pl. III. p. 840 (1883 ; ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. II. iv. p. 76 '1888); PILGER, in id. 2-auf. B. 15a p. 190 '1930

Syn. *Garciana*, LOUR., Fl. Cochinch. p. 14 (1790)

Philydrum lanuginosum, BANKS, in Gaertn. Fruct. I. p. 62, t. 16, f. 10 '1788 ; WILLD., Sp. Pl. I. p. 17 (1797); Bot. Mag. t. 783 (1804); KUNTH, Enum. Pl. III. p. 380 1841 ; LAM., Encycl. V. p. 254 (1804); BENTH., Fl. Hongk. p. 380 (1861, et Fl. Austral. VII. p. 74 (1878); HANCE, in Journ. Bot. p. 202 (1871); CARUEL, in DC. Monogr. Phan. III. p. 3 (1881); HOOK, f, Fl. Brit. Ind. VI. p. 363 (1892); MAK., in Tokyo Bot. Mag. X. p. 56 (1896); E. BROWN, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 150 (1903); MATSUM., Ind. Pl. Jap. II. 1. p. 182 (1905 ; MATSUM. et HAY., Enum. Pl. Formos. p. 445 (1906); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 282 1912 ; RIDLEY, Fl. Malay Penn. IV. p. 347 f. 201 U924; MASAMUNE, Prel. Rep. Veg. Yak. p. 52 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1522 (1931)

Syn. *Garciana cochinchinensis*, LOUR., Fl. Cochinch. p. 15 (1790)

Norn. Jap. *Tanukiayame*

Leg. Ipse, Aug. 1924.

Distr. Kyūsyū, Tanegasima, Amami-Ōsima, Okinawa, Taiwan, China, Malay, Australia, Cochinchina, Java.

Acte. The species is found in marshy places at low altitudes, and even though it is common in the southern part of Japan, it is not yet found in lands further north than the Provs. Satuma and Ōsumi in Kyūsyū.

Name of Plant	Regions
Philydrum lanuginosum, BANKS.	Philippines Formosa Taiwan Okinawa Amami-Ōsima Ryūkyū Formosa Kyūsyū Prop. Mikoku Honsyū Korea Yezo & Southern Korea Saghalien Northern Kuriles & Kamohitka Manchuria, Amur & Ussuri G. Ussuri

Only one species of the family is found in the island and its distribution extends north and south of Yakusima.

Juncaceae

Juncaceae, VENT., Tabl. II. p. 150 (1799) p.p.; ENDL., Gen. Pl. p. 130 (1836)

Juncus, [TOURN., ex LINN. Syst. ed. 1 (1735) et Sp. Pl. ed. 1. p. 325 (1753); ENDL., Gen. Pl. n. 1049 (1836-401); KUNTH, Enum. Pl. III. p. 315 (1841[^]); BENTH. et HOOK. f. Gen. Pl. III. p. 867 (1883); BUCHENAU, in ENGL. U. PRANT. Nat. Pfl.-fam. II. v. p. 5 (1888), ENGL. Bot. Jahrb. XII. p. 167 (1890), et in ENGL. Pfl.-reich. IV. 36. Heft 25) p. 93 (1905); VIERHAPPER, in ENGL. U. PRANT. Nat. Pfl.-fam. 2-auf. B. 15a p. 214 (1930); LEMÉE, Diet. Gen. Pl. Phan. III. p. 826 (1931)

Syn. *Isoetes*, WEIGEL, Obs. Bot. p. 36, t. 2. f. 7 (1772)

Stygiaria, EHRH., Beitr. IV. p. 146 (1789)

Juncastrum, FOUR., in Ann. Soc. Linn. Lyon. Nouv. sér. XVII. p. 171 (1869)

Juncus decipiens, NAK., Veg. Kamikditi p. 35 (1928); MIY. et KUDO, Fl. Hokk. & Sagh. III. p. 299 (1932/

Syn. *Juncus effusus*, LINN. var. *decipiens*, BUCH., in ENGL. Bot. Jahrb. XII. p. 229 (1890), et in ENGL. Pfl.-reich. IV. 36 (Heft 25) p. 136 (1906); MATSUM., Ind. Pl. Jap. II. 1. p. 183 (1905); MASAMUNE, Prel. Rep. Veg. Yak. p. 53 (1929); YAMAZUTA, List Manch. Pl. p. 55 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 1523 (1931)

Juncus effusus, inon LINN. NAK., Fl. Kor. II. p. 267 (1911)

Aojfi. Jap. /

Leg. Ipse, Aug. 5, 1924.

Distr. Saghalien, Yezo, Honsyû, Sikoku, Kyûsyû, Korea, Manchuria.

Mote. The species grows from the sea level up to about 1900 m in wet places.

Juncus prismatocarpus, R. BR. var. *Leschenaultii*, BUCH. subv. *pluritubulosus*, BUCH., in ENGL. Bot. Jahrb. XII. p. 311 (1890), et in ENGL. Pfl.-reich. IV. 36 (Heft 25) p. 181 (1906); MATSUM., Ind. Pl. Jap. II. 1. p. 185 (1905); MAK. et NEM., Fl. Jap. ed. 2. p. 1526 (1931); MIY. et KUDO, Fl. Hokk. & Sagh. III. p. 301 (1932)

Syn. *Juncus prismatocarpus*, MATSUM. et HAY., Enum. Pl. Formos. p. 451 (1906)

Norn. Jip. Kôgaizekisyô

Leg. Ipse, Onoaida, Mart. 24, 1923.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan.

Note. Occurs in the lowlands among rice-fields.

subvar. *unitubulosus*, BUCH., in Engl. Bot. Jahrb. XII. p. 312 (1890); et ENGL. Pfl.-reich. IV. 36 (Heft 25) p. 181 (1906); KOM., Fl. Mansh. I. p. 428 (1901), et Fl. Pen. Kamtch. I. p. 281 (1927); MATSUM., Ind. Pl. Jap. II. 1. p. 185 (1905); NAK., Fl. Kor. II. p. 267 (1911); MIY. et MIYAKE, Fl. Sagh. p. 492 (1915); MAK. et NEM., Fl. Jap. ed. 2. p. 1526 (1931); MIY. et KUDO, Fl. Hokk. & Sagh. III. p. 302 (1932);

Syn. *Juncus Wallickianus*, LAHARPE, Monogr. June. p. 139 (1827)

Juncus articulatus, LINN, a *genuina*, et p *acutiflora*, RUPR., in MAXIM. Prim. Fl. Amur. p. 293 (1859); REGEL, Tent. Fl. Uss. p. 157 (1861)

Nom. Jap. *Hari-kôgm-zekisyô*

Leg. Ipse, Jun. 6, 1928.

Distr. Kamtchatka, Saghalien, Yezo, Honsyû, Sikoku, Kyûsyû, Okinawa, Korea, Manchuria.

Note. The species, including many varieties and species, is widely distributed in the Far East and is found also in India, the Himalaya, Ceylon, Java, Australia, New-Zealand, and Tasmania.

subvar. **viviparus**, KOIDZ., in Tokyo Bot. Mag. XXIX. p. 309 (1915); MASAMUNE, Prel. Rep. Veg. Yak. p. 53 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1526 (1931)

Nom. Jap. *Komoti-kôgai-zekisyô*

Leg. Ipse, Jul. 13, 1923.

Distr. Honsyû, Kyûsyû.

Note. Occurs in open and wet places from 100 m up to 1900 m.

Luzula, DC, in LAM. et DC. Fl. Fr. ed. 3. III. p. 158 1805[^]; ENDL., Gen. Pl. n. 1047 (1836-40); KUNTH. Enum. Pl. HI. p. 296 (1841); BENTH. et HOOK, f, Gen. Pl. III. p. 868 (1883); BUCH., in ENGL. u. PRANT. Nat. Pfl.-fam. II. v. p. 7 (1888), in ENGL. Bot. Jahrb. XII. p. 74 (1890), et in ENGL. Pfl.-reich. IV. 36 (Heft 25) p. 42 (1906); VIERHAPPER, in ENGL. u. PRANT. Nat. Pfl.-fam. 2-auf. B. 15a. p. 221 (1930); LEMÉE, Diet. Gen. Pl. Phan. IV. p. 196 (1932);

Syn. *Cyperella*, KRAMER, Tent. Bot. p. 41 (1744)

Juncastrum, HEIST., Syst. p. 12 (1745)

Ischaemon, SCHMEIDEL, in Gesner. Hist. Pl. p. 13 (1759);

Juncoides, ADANS., Fam. II. p. 47 (1763)

Leucophoba, EHRH., Beitr. IV. p. 148 (1789)

Luciola, SMITH, Engl. Fl. II. p. 177 (1824)

Gymnodes, FOURR., in Ann. Soc. Linn. Lyon. Nouv. sér. XVII. p. 172 (1869)

Juncodes, O. KUNTZE, Rev. Gen. Pl. II. p. 722 (1891)

Luzula campestris, DC. var. **capitata**, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 165 (1867); FR. et SAV., Enum. Pl. Jap. I. p. 97 (1876); BUCR, Monogr. June, in Engl. Bot. Jahrb. XII. p. 160 (1890), et in ENGL. Pfl.-reich. IV. 36 (Heft 25; p. 92 (1906); KOIDZ., Pl. Sachal. Nakah. p. 31 (1910); NAK., Fl. Kor. II. p. 268 (1911*); TAKEDA, Fl. Shikot. p. 490 (1914); MIY. et MIYAKE, Fl. Sagh. p. 494 (1915); KUDO, Fl. Paramush. p. 87 (1922); MIURA, List Manch. & Mong. p. 71 (1925); MASAM., Prel. Rep. Veg. Yak. p. 53 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1527 (1931)

Syn. *Luzula campestris*, var. *congesta*, MIY., Fl. Kuril, p. 267 (1890¹)

Luzula campestris, DC; KOM., Fl. Mansh. I. p. 430 (1900)

Luzula capitata, MIY. et KUDO, Fl. Hokk. & Sagh. III. p. 295 (1932)

Nom. Jap. *Suzume-no-hie*

Leg. Ipse, Mart. 21, 1923.

Distr. Saghalien, Kuriles, Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Osima, Bonins, Korea, Manchuria.

Note. Occurs by the roadside, in the lowlands and waste lands.

var. **yakusimensis**, MASAMUNE. in Journ. Trop. Agric. IV. p. 302 (1932)

Syn. *Luzula campestris*, var. *pallescens*, (non WHALENB) MASAMUNE, Prel. Rep. Veg. Yak. p. 53 (1929);

Norn. Jap. Yakusima-suzumenohie

Leg. Ipse, Kuromidake, Jul. 12, 1928.

Distr. Endemic a.

Note. Occurs in the Pseudosasa Owatarii Association.

Names of Plants	Regions											
	Philippine Islands	Sa	Amami-Oshima	Tanegasima	Kyūshū Prop.	Kyūshū	Kyūshū	Kyūshū	Kyūshū	Kyūshū	Kyūshū	China
<i>Juncus decipiens</i> , NAK		+				+	+	+	+	+	+	+
<i>Juncus prismatocarpus</i> , R. BR. var. <i>Leschenaultii</i> , BUCH. subv. <i>pluritubulosus</i> , BUCH.		+	+	+	+	+	+	+	+	+	+	+
<i>J. p.</i> var. <i>L.</i> subvar. <i>unitubulosus</i> , BUCH.						+	+	+	+	+	+	+
<i>J. p.</i> var. <i>L.</i> subvar. <i>viviparus</i> , KOIDZ.			+			+		+				
<i>Luzula campestris</i> , DC. var. <i>capitata</i> MIQ.	+		+	+	+	+	+	+	+	+	+	+
<i>L. c.</i> var. <i>yakusimensis</i> , MASAMUNE												
Total	6	13	3	2	2	5	4	5	4	4	3	13
Percentage		17	5	3	3	83	67	83	67	67	50	17

Southern elements 5)

Northern elements 5

As the above table shows the flora of Yakusima has close relationship both to the northern and to southern lands in respect of this family.

Stemonaceae

Stemonaceae, FR. et SAV., Enum. Pl. Jap. II. p. 92 (1879)

Syn. *Roxburghiaccac*, WALL., Pl. As. Rar. III. p. 49 (1832)

Croomia, TORR., ex TORR. et GRAY Fl. North-Amer. I. p. 663 (1840); ENDL., Gen. Pl. Supp. I. p. 1419 n. 4815/1 (1836-40); BENTH. et HOOK, f., Gen. Pl. III. p. 747 (1883); ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. II. v. p. 9 (1888); KRAUSE, in id. 2-auf. B. 15a. p. 226 (1930[^]); LEMKE, Diet. Gen. Pl. Phan. II. p. 376 (1930).

Syn. *Torreya*, CROOM., ex MEISSN. Gen. p. 340 (1842).

Croomia kiusiana, MAK., in Tokyo Bot. Mag. XVIII. p. 156 (1904) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 53 U9291; MAK. et NEM., Fl. Jap. ed. 2. p. 1529 1931;

Syn. *Croomia pauciflora*, (non TORR. nee. A. GRAY) MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 193 [1867]; FR. et SAV., Enum. PL Jap. II. p. 93 ;1876 ; MATSUM., Ind. Pl. Jap. II. 1. p. 187 • 1905)

Norn. Jap. *Hime-nabewari*

Leg. Ipse, Yudomari, Jun. 6, 1928.

Distr. Kyûsyû, Amami-6sima.

Note. The species grows as undergrowth in the laurisilvae and is restricted to Yakusima, Amami-6sima, and the southern part of Kyûsyû.

Regions	Philippines	Bonin	Taiwan	Amami-Ôsima	Tanegashima	Kyûsyû Prop.	Sikoku	Hokkaido	Korea	Yezo & Southern Kuriles	Saghalien	North Korea	Mancchia	China
Croomia kiusiana, MAK.				+		+								

There is only one representative of this family in the island which is found also only in Kyûsyû and Amami-Ôsima, from this fact these two districts and Yakusima may be included in one floristic region.

Smilacaceae

Smilacaceae, R. BR., Prodr. p. 292 1810 p.p.

Syn. *Liliaceae*, Trib. *Smilacac*, BENTH. et HOOK, f., Gen. Pl. III. p. 751 1883

Liliaceae, subf. *Smilacoidac*, ENGL., Fuhrer, Bot. Gart. Breslau p. 26 1886 , et in ENGL. u. PRANT. Nat. Pfl.-fam. II. v. p. 87 '1887;

Smilax, [TOURN., ex LINN. Syst. ed. 1 1735]

et Sp. PL ed. 1. p. 1028 1753; ; ENDL., Gen. PL n. 1184 1836-40 ; KUNTH, Enum. PL V. p. 160 1850 ; BENTH. et HOOK, f., Gen. PL III. p. 763 1883 ; ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. II. v. p. 88 '1888' ; KRAUSE, in id. ed. 2. B. 15a. p. 382 1930;

Smilax biflora, SIEB., ex MIQ. in Ann. Mus. Bot. Lugd. Bat. III. p. 149 1867 ; MAXIM., in Mém. Biolog. VIII. p. 408 1871 ; FR. et SAV., Enum. Pl. Jap. II. p. 49 1876 ; DC, Monogr. Phan. I. p. 49 1878 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 55 1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1566 1931,

Syn. Smilax china, LINN. var. *biflora*, MAK., in Tokyo Bot. Mag. XIV. p. 184 (1900;

Nom. Jap. Himekakara

Leg. Ipse, Jun. 10, 1928.

Distr. Amami-6sima.

Note. The species is found as undergrowth from 700 m up to 1800 m above the sea level on somewhat sunny open ground. It is restricted to Amami-Osima and Yakusima.

Smilax china, LINN., Sp. Pl. ed. 1. p. 1029 (1753[^]; THUNB., Fl. Jap. p. 152 (1784); LOUR., Fl. Cochinch. p. 622 (1790); KUNTH, Enum. PL V. p. 243 (1850); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 149 (1867); MAXIM., in Mém. Biolog. VIII. p. 408 [1871]; HANCE, in Journ. Linn. Soc. Bot. XIII. p. 130 (1872); FR. et SAV., Enum. PL Jap. II. p. 49 (1876); DC, Monogr. Phan. I. p. 46 (1878); DIELS, Fl. Cent. Chin. p. 255 (1900); PALIB., Consp. Fl. Kor. III. p. 9 (1901); WRIGHT, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 96 (1903); MATSUM., Ind. PL Jap. II. 1. p. 212 (1905); MATSUM. et HAY., Enum. PL Formos. p. 435 (1906); NAK., Fl. Kor. II. p. 237 (1911); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 278 (1912); LOESN., Pfl.-welt. Kiautsch. Geb. p. 103 (1918); MERR., Enum. Hainan PL p. 48 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 55 (1929); YAMAZUTA, List Manch. PL p. 66 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 1566 (1931); MIY. et KUDO, Fl. Hokk. & Sagh. III. p. 347 (1932).

Syn. Smilax ferox, WALL., Cat. no. 5119 (1828); BENTH., Fl. Hongk. p. 370/1861; MOORE, in Journ. Bot. XIV. p. 138 (1878*); HOOK, f., Fl. Brit. Ind. VI. p. 307 (1894).

Coprosmanthus japonicus, KUNTH, Enum. PL V. p. 268 (1850).

Smilax japonica, A. GRAY, in Narr. Perr. Exped. p. 320 (1856), et in Mem. Amer. Acad. VI. p. 412 (1857).

Smilax sebeana, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 149 (1867).

Atom. Jap. Sarutori-ibara

Leg. NAOHARA! Onoaida, Mart 16, 1930.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Okinawa, Taiwan, Korea, Manchuria, China, Philippines, Eastern Himalaya, Bengal.

Note. Grows in waste lands or in clearings.

var. **yakusimensis**, MASAMUNE, in Journ. Trop. Agr. IV. p. 195 (1932).

Nom. Jap. Yakusima-kakara

Leg. Ipse. Yaegadake ca. 1000 m alt. Aug. 30, 1926.

Distr. Endemica.

Smilax Sieboldii, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 150 (1867); MAXIM., in Mém. Biolog. VIII. p. 406 (1871); FR. et SAV., Enum. PL Jap. II. p. 49 (1876); DC, Monogr. Phan. I. p. 48 (1878); NAK., Fl. Kor. II. p. 237 (1911); MASAMUNE, Prel. Rep. Veg. Yak. p. 55 (1929); YAMAZUTA, List Manch. PL p. 66 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 1568 (1931).

Nom. Jap. Yama-gasyū

Leg. A. KIMURA! Aug. 8, 1922.

Distr. Honsyū, Sikoku, Kyūsyū, Korea, Manchuria.

Note. This species is not yet found in lands further south than this island.

Smilax stenopetala, A. GRAY, Bot. Jap. p. 412 (1858); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 149 (1867); MAXIM., in Mém. Biolog. VIII. p. 405 (1871); FR. et SAV., Enum. PL Jap. II. p. 49 (1876); DC, Monogr. Phan. I. p. 189 (1878); DIELS., Fl.

Cent. Chin. p. 259 11900 ; WRIGHT, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 101 (1903); MATSUM., Ind. Pl. Jap. II. 1. p. 214 '1905' ; MATSUM. et HAY., Enum. Pl. Formos. p. 434 (1906 ; MASAMUNE, Prel. Rep. Veg. Yak. p. 55 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1569 (1931

Nom. Jap. *Satuma-sankirai*

Leg. Ipse, Issô, Mart. 21, 1923.

Distr. Kyûsyû, Tanegasima, Amami-Ôsima, Okinawa, Taiwan, China.

Note. This climbing plant is found in the littoral forests.

Heterosmilax, KUNTH, Enum. Pl. V. p. 270 (1850);

BENTH. et HOOK. f. Gen. Pl. III. p. 763 (18831 ; ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. II. v. p. 91 (1837 ; KRAUSE, in id. 2-auf. B. 15a. p. 385 ;1930 ; LEMEE, Diet. Gen. Pl. Phan. III. p. 571 (1931

Syn. *Oligosmilax*, SEEM., in Journ. Bot. VI. p. 258, t. 83 (1868

Heterosmilax japonica, KUNTH, Enum. Pl. V. p. 270 (1850) ; MAXIM., in Mél. Biolog. VIII. p. 415 (1871); FR. et SAV., Enum. Pl. Jap. II. p. 50 (1876. ; MAK., Phan. et Pterid. Jap. III. I. t. 13 (1899' ; WRIGHT, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 96 (1903); MATSUM., Ind. Pl. Jap. II. 1. p. 198 (1905^N); MASAMUNE, Prel. Rep. Veg. Yak. p. 54 (1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1549 (1931:

Norn. Jap. *Karasukiba-sankirai*

Leg. Y. KUDO! Aug. 1907.

Regions	Ryûkyûs										Kyûsyû	Okinawa	Iles	S	Manchuria, Amur & Usur	China
	Philippines	1	t	1	1	tsima	tsima	tsima	tsima	tsima						
Names of Plants																
<i>Smilax biflora</i> , SIEB.																
<i>Smilax china</i> , LINN.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<i>S. c. var. yakusimensis</i> , MASAMUNK																
<i>Smilax Sieboldii</i> , MIQ.																
<i>Smilax stenopetala</i> , A. GRAY		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<i>Heterosmilax japonica</i> , KUNTH		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Total	6	3	3	4	2	1	3	2	2	2	1			2	2	
Percentage	17	50	50	67	33	50	33	33	33	33	17			33	33	
	Southern elements 4										Northern elements 3)					

Distr. Amami-6sima, Okinawa, Taiwan.

Note. The species was collected by Dr. KUDO, but I have not yet found it in the island.

In respect of this family the flora of the island shows close relationship to the southern floral regions. In general the plants of this family abound in warmer countries, and it is a noteworthy fact that *Smilax biflora* is restricted to Yakusima and Amami-dsima.

Liliaceae

Liliaceae, ADANS., Fam. II. p. 42, 1763

Syn. *Lilia*, B. JUSS., Hort. Trianon 1759, et ex Juss., Gen. Pl. LXIV. et 48 (1789)

Tofieldia, HUDS., Fl. Angl. ed. 2. p. 157 (17781;

ENDL., Gen. Pl. n. 1062 1836-40; BENTH. et HOOK, f., Gen. Pl. III. p. 828 (1883);

ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. II. v. p. 20 1888; KRAUSE, in ENGL. u. PRANT. Pfl.-fam. 2-auf. B. 15a. p. 254 1930

Syn. *Aspkodcliris*, [MOEHR., Hort. Priv. p. 15 1736] O. KUNTZE, Rev. Gen. Pl. II p. 706 1891

Hcritria, SCHRANK, Baier. Fl. p. 133 1789

hidrogalvia, RUIZ, et PAV., Fl. Peru, et Chil. III. p. 69 t. 302 U802:

Iridrogalvia, PERS., Synops. I. p. 399 1805

Teffieldia, SCHRANK, in Denkschr. Akad. Munchen. 1813 p. 94 U814)

Triantha, BAK., in Journ. Linn. Soc. XVII. p. 490 1879

Tofieldia Yosiana, MAK., in Tokyo Bot. Mag. XXVII. p. 255 1913; MASAMUNE, Prel. Rep. Veg. Yak. p. 55 1929; MAK. et NEM., Fl. Jap. ed. 2. p. 1572 (1931)

Aom. Jap. *Yakusimatyabo-zckisyd*

Leg. Ipse, Aikodake. Jul. 12, 1928.

Distr. Endemica.

Note. The species is found in wet and marshy places in the laurisilvae and in the lauri-aciculisilvae from 600 m up to 1800 m above the sea level. It is very close to *T. Nuda*, MAXIM., and I would rather prefer to include it in this species. *Tofieldia* is not yet reported further south than this island.

Chionographis, MAXIM., in Bull. Acad. St

Petersb. XI. p. 435 1867; BENTH. et HOOK, f., Gen. Pl. III. p. 826 1883; ENGL.,

in ENGL. u. PRANT. Nat. Pfl.-fam. II. v. p. 22 1887; KRAUS., in ENGL. u. PRANT.

Nat. Pfl.-fam. 2-auf. B. 15a. p. 255 1930; LEMKE, Diet. Gen. Pl. Phan. II. p. 113 1930

Chionographis japonica, MAXIM., in Mel. Biolog. VI. p. 210 1867; FR. et SAV., En urn. Pl. Jap. II. p. 86 1876; BAK., in Journ. Linn. Soc. XVII. p. 469 1879; M ATSUM., Ind. Pl. Jap. II. 1. p. 192 1905; MERR., Enum. Hainan Pl. p. 46 1927¹; MAK. et NEM., Fl. Jap. ed. 2. p. 1542 1931

Syn. *Mclanthium lutcum*, THUNB., Fl. Jap. p. 1784

Chamaehrium luteum, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 144 1879)

var. yaktisimensis, MASAMUNE, var. nov.

Syn. *Chionographis japonica*, MASAMUNE, Prel. Rep. Veg. Yak. p. 54 1929,

Herb a minora et tenuiora quam typica. Flores albi.

Norn. Jap. Yakusima-siraitosd

Leg. Ipse, Jul. 7, 1928.

Distr. SpJ Honsyû, Sikoku, Kyûsyû, China.

Note. The variety grows on the edges of the lauri-aciculisilvae as undergrowth. Type species is reported in Hainan by Dr. MERRILL, but it is not found in Taiwan, Okinawa and Amami-Ôsima.

Heloniopsis, A. GRAY, in Mem. Amer. Acad. 2. sér. VI. p. 416 (1853-59); BENTH. et HOOK, f. Gen. PL III. p. 827 (1883); ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. II. v. p. 22 1888; KRAUSE, in ENGL. u. PRANT. Nat. Pfl.-fam. 2-auf. B. 15a. p. 259 1930; LEMÉE, Diet. Gen. PL Phan. III. p. 512 (1931)

Syn. Sugerokia, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 144 1867;

Hclniopsis, BAK., in Journ. Bot. XII. p. 278 1874

Hclionopsis. FR. et SAV., Enum. PL Jap. II. p. 529 1879.

Heloniopsis japonica, MAXIM, var. yakusimensis, MASAMUNE, var. nov.

Herba minora quam typica. Folia rosulata oblanceolata coriaceo-membranacea ca. 3 cm longa 1 cm lata margine vix repanda, apice acuta basi longe attenata. Scapis 2 cm longis basi foliis minoribus sursum squamis instructis apice 1 vel rarius 2 floriferis. Segmeta perianthii, 6 obovato-elliptica pupureo-candida 5 mm longa 2.5 mm lata apice obtusissima basi vix attenuata. Stamina 6 filamentis ca. 1 mm longis glabris, antheris oblongis ca. 2 mm longis 1 mm latis, apice obtusis basi obtusis. Ovarium triangulari-obconicum, stylo 4 mm longo.

Nom. Jap. Hime-syozyobakama

Leg. Ipse, ca. 1500 m.

Distr. Kyûsyû.

Note. Occurs in wet places in the higher regions of the island.

Metanarthecium, MAXIM, in Bull. Acad. St.-Petersb. XI. p. 438 1867.; BENTH. et HOOK, f. Gen. PL III. p. 825 (1883); ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. II. v. p. 22 1887.; KRAUSE, in ENGL. u. PRANT. Nat. Pfl.-fam. 2-auf. B. 15. p. 260 1930.; LEMÉE, Diet. Gen. PL Phan. IV. p. 422 1932,

Metanarthecium luteo-viride, MAXIM, in Mel. Biolog. VI. p. 213 1867; BAK., in Journ. Linn. Soc. XVII. p. 286 1875; FR. et SAV., Enum. PL Jap. II. p. 88 (1876); MATSUM, Ind. PL Jap. II. 1. p. 207 1905; MAK. et NEM., Fl. Jap. ed. 2. p. 1557 1931); MIY. et KUDO, FL Hokk. & Sagh. III. p. 310 1932;

Syn. Aletris lutcoviridis, FR., in Journ. de Bot. p. 202 1896.

Nom. Jap. Nogiran

Leg. Ipse, Jul. 31, 1924.

Distr. Kuriles, Yezo, Honsyû, Sikoku, Kyûsyû.

Note. Occurs in the *Pseudosasa* *Otvatari*L

form, yakusimensis, MASAMUNE, f. nov.

Planta rosulata; folia obovatolanceolata apice acuta. Scapus ca. 2-5 cm longus.

Nom. Jap. Himenogiran

Leg. Ipse, Aug. 1, 1924.

Distr. Endemica.

Note. Occurs in Hananoegô in the alpine region of the island.

Tricyrtis, WALL., Tent. Fl. Nep. p. 61, t. 46
 \IS26"; ENDL., Gen. Pl. n. 1081 (1836-40); BENTH. et HOOK, f., Gen. Pl. III. p. 831
 (1883'; ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. II. v. p. 27 (1887); KRAUSE, in
 id. 2-auf. B. 15a. p. 269 (1930/; MASAMUNE, in Journ. Trop. Agr. II. p. 38 (1930)
 :**Syn.** *Compsoa*, D. DON, Prodr. Fl. Nep. p. 50 (1825^s

Compsanthus, SPRENG., Syst. IV. Cur. Post. p. 137 (1827)

'Tricyrtis flava, MAXIM., in Mel. Biolog. VI. p. 268 (1867); MASAMUNE, Prel. Rep. Veg.
 Yak. p. 55 U929, et in Journ. Trop. Agr. II. p. 40 (1930); MAK. et NEM., Fl.
 Jap. ed. 2. p. 1572 1931.

Syn. *Tricyrtis nana*, YATABE, in Tokyo Bot. Mag. VII. p. 39, t. 3; 1893)

Tricyrtis flava, MAXIM, van *nana*, MAK., in Tokyo Bot. Mag. XI. p. 282 (1867);
 MATSUM., Ind. Pl. Jap. II. 1. p. 216 (1905)

Nom. Jap. *Tyabo-hototogisu*

Leg. Ipse, Kosugidani, Sept. 4, 1926.

Distr. Honsyû, Sikoku, Kyûsyû.

Note. The species grows as undergrowth in the lauri-aciculisilvae from about
 600 m up to 1100 m above the sea level, and is distinguished by its short stem. The
 plant is not yet reported further south than this island.

Tricyrtis hirta, var. **parviflora**, MASAMUNE, in Journ. Trop. Agric. II. p. 42 (1930);
 MAK. et NEM., Fl. Jap. ed. 2. p. 1573 H931^N.

Syn. *Uvularia hirta*, THUNB., Fl. Jap. p. 136 (1784)

Tricyrtis parviflora, DAMMER, in Fedde. Rep. XV. p. 367 (1918)

Nom. Jap. *Hototogisu*

Leg. KUDO! Aug. 1907.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû.

Note. I have not collected this *Tricyrtis*, but Dr. KUDO informed me that he had
 found it in the island. The species is not yet reported in lands further south than
 this island.

Alectorurus, MAK., in Tokyo Bot. Mag. XXII. p.
 14 11908; KRAUSE, in ENGL. u. PRANT. Nat. Pfl.-fam. 2-auf. B. 15a. p. 283 (1930);
LEMÉE, Diet. Gen. Pl. Phan. I. p. 143 (1929)

Alectorurus yedoensis, 'MAXIM.' MAK., in Tokyo Bot. Mag. XXII. p. 16 (1908); MAK.
 et NEM., Fl. Jap. ed. 2. p. 1534 1931

Syn. *Anthericum yedoense*, MAXIM., in FR. et SAV. Enum. Pl. Jap. II. pp. 83, et
 529 1876.

Bulbinella yedoensis, MATSUM., in Tokyo Bot. Mag. IX. p. 39 \1901\ et Ind.
 Pl. Jap. II. 1. p. 192 1905

Nom. Jap. *Keibiran*

Leg. Ipse, Aug. 10, 1928.

Distr. Honsyû, Sikoku, Kyûsyû.

Note. The plant is found as a lithophyte or an epiphyte on rocks or on rare
 occasions on tree trunks in the laurisilvae or in the lauri-aciculisilvae; the species is
 not yet found in the lands further south than Yakusima.

var. **platypetalus**, MASAMUNE, in Journ. Trop. Agr. II. p. 153 (1930); MAK. et NEM.,
 Fl. Jap. ed. 2. p. 1534 1931

Syn. *Alectorurus platypetalus*, MASAMUNE, Prel. Rep. Veg. Yak. p. 53 (1929)

Nom. Jap. *Yakusima keibiran*

Leg. Ipse, Aug. 1928.

Distr. Endemica.

Note. This endemic variety is found as a lithophyte in the crevices of the granite rocks which are scattered over the Pseudosasa Owatarii Association.

Dianella, LAM., Encycl. II. p. 276 (1786); ENDL., Gen. Pl. n. 1160 1836-40'; KUNTH, Enum. PL p. 42 U850.; BENTH. et HOOK, f., Gen. Pl. III. p. 793 :1883i; ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. II. v. p. 39 (1887); KRAUSE, id. 2-auf. B. 15a. p. 295 1930; LEMEE, Diet. Gen. Pl. Phan. II. p. 571 1930:

Syn. *Diana*, LAM., Encycl. II. p. 276 (1786)

Rhuacophila, BL., Enum. Pl. Jav. p. 13 1827,

Dianella *ensifolia*, DC, in Red. Lil. I. t. 1 1802'; Bot. Mag. t. 1404 (1811); BAKER, in Journ. Linn. Soc. XIV. p. 576 (1875); HOOK, f., Fl. Brit. Ind. VI. p. 337 (1892); MERR., Enum. Philipp. Pl. I. p. 203 1922), et Enum. Hainan Pl. p. 47 (1927); RIDLEY, Fl. Malay Penn. IV. p. 329 1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 54 1929¹; MAK. et NEM., Fl. Jap. ed. 2. p. 1543 (1931)

Syn. *Dracaena ensifolia*, LINN., Mant. I. p. 63 (1767)

Dianella nernorosa, LAM., Encycl. II. p. 276 (1786); MIQ., Fl. Ind. Bat. HI. p. 560 (1850'; WRIGHT, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 119 (1903); MATSUM., Ind. Pl. Jap. II. 1. p. 194 U905); MATSUM. et HAY., Enum. PL Formos. p. 439 (1906); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 280 (1912); NAK., in Bull. Biogeogr. Soc. Jap. I. p. 255 1930)

Dianella odorata, BL., Enum. Pl. Jav. I. p. 13 (1830); FR. et SAV., Enum. PL Jap. II. p. 58 1876^N; ENGL., Bot. Jahrb. VI. p. 53 1885)

Dianella javanica, KUNTH, Enum. Pl. V. p. 52 (1850)

Nom. Jap. Kikyōran

Leg. Ipse, Jul. 17, 1922.

Distr. Honsyfl, Kyūsyū, Tanegasima, Amami-dsima, Okinawa, Taiwan, Bonins, Philippines, China.

Note. Occurs in dry sunny spots near the sea level; often forms a consociation.

Hosta, TRATT., Arch. Gewächskunde, I. p. 55 18121; ENDL., Gen. Pl. n. 1100 U83&-40/; ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. II. v. p. 39 (1887); KRAUSE, in id. 2-auf. B. 15a. p. 295 (1930); LEMEE, Diet. Gen. Pl. Phan. III. p. 652 U931)

Syn. *Saussurea*, SALISB., in Trans. Linn. Soc. VIII. p. 11. (1807)

Funkia, SPRENG., Anleit. ed. 2. II. 1. p. 246 (18171, et Syst. II. p. 40 (1825); BENTH. et HOOK. f. Gen. PL III. p. 774 (1883)

Funkea, O. KUNTZE, Rev. Gen. Pl. II. p. 711 (1891)

Hosta Sieboldiana, ENGL. var. **yakusimensis**, MASAMUNE, in Journ. Trop. Agr. IV. P. 301 (1932[^])

Syn. *Hosta Sieboldiana*, ENGL. var. *longipes*, ;non MAUSUMJ MASAMUNE, Prel. Rep. Veg. Yak. p. 54 ^ 1929)

Aom. Jap. Yakusimagibōsi

Leg. Ipse, Kosugidani, Jun. 21, 1927.

Distr. Endemica. (spj Honsyū, Kyūsyū.

Note. The variety is found on wet ground about 600 m above the sea level. The type species *Hosta Sieboldiana* has not yet been discovered in the lands further south than this island.

Hemerocallis, [LINN., Syst. ed. 1. '1735] et Sp. PL ed. 1. p. 324 '1753 ; ENDL., Gen. PI. n. 1143 '1836-40 ; BENTH. et HOOK, f., Gen. PI. III. p. 773 '1883 ; ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. II. v. p. 40 (1887); KRAUSE, in id 2-auf. B. 15a. p. 296 (1930'; LEMÉE, Diet. Gen. PL Phan. III. p. 515 (1931

Syn. *Cameraria*, BOEHM., in LUDWIG. Defin. Gen. p. 56 (1760`

Hemerocalis, MURR., Syst. ed. 14. p. 339 '1784

Hemerocallis disticha, DON van kwanso, NAK., in Tokyo Bot. Mag. XXXVIII. p. (180) (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 54 (1929 ; MIY. et KUDO, Fl. Hokk. & Sagh. III. p. 317 ^1932^

Syn. *Hemerocallis fulva*, var. *Kwanso*, REGEL, in Gartenfl. XV. p. 66, t. 500 (1866); MAK., in Tokyo Bot. Mag. X. p. '142 '1896 ; MATSUM., Ind. PI. Jap. II. 1. p. 198 (1905' ; MAK. et NEM., Fl. Jap. ed. 2. p. 1548 (193r

Nom. Jap. *Kanzô*

Leg. Ipse, Ambô, Aug. 10, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû.

Note. Occurs in waste lands among cultivated fields; widely distributed in Japan.

Allium, [TOURN., ex LINN. Syst. ed. 1 (1735] et Sp. PI. ed. 1. p. 294 (1753' ; ENDL., Gen. PI. n. 1137 '1836-40' ; BENTH. et HOOK, f., Gen. PI. III. p. 802 ,1883'; ENGL., in ENGL. u. PR ANT. Nat. Pfl.-fam. II. v. p. 55 (1887); KRAUSE, in id. 2-auf. B. 15a. p. 319 ,1930' ; LEMÉE, Diet. Gen. PI. Phan. I. p. 158 ,1929^N

Syn. *Cepa*, TOURN. ADANS., Fam. II. p. 50 '1763

Porrurn, ·TOURN.· ADANS., Fam. II. p. 50 1763

Allium Thunbergii, DON. All. Monogr. Mem. Edingb. Werner Soc. VI. p. 84 (1827 ; KUNTH, Enum. PI. IV. p. 454 '1843;; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 154 (1867); A. GRAY, in Narr. Perry Exped. p. 322 '1856^ ; REGEL, in Act. Hort. Peterop. X. p. 355 '1887 , et All. Spec. As. Cent. p. 77 (1887); BAKER et MOORE, in Journ. Linn. Soc. XVII. p. 388 (1879); KOIDZ., in Tokyo Bot. Mag. XXXIX. p. 312 a925) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 53 (1929) ; YAMAZUTA, List Manch. PI. p. 58 '1930.; MAK. et NEM., Fl. Jap. ed. 2. p. 1537 (1931)

var. **typicuim**, NAK., in Tokyo Bot. Mag. XLIV. p. 512 (1930>

Syn. *Allium japonicum*, REGEL, Monogr. All. p. 133 ;1875 ; FR. et SAV., Enum. PI. Jap. II. p. 77 '1876)

Allium chinense, G. DON; MATSUM., Ind. PI. Jap. II. 1. p. 188 1905* ; MATSUM. et HAY., Enum. PI. Formos. p. 439 '1906 ; NAK., Fl. Kor. II. p. 262 (1911)

Nom. Jap. *Yama-rakkyô*

Leg. Ipse, Wariisi-dake, Jul. 25, 1928.

Ditr. Honsyû, Sikoku, Kyûsyû, Taiwan, Korea, Manchuria.

Note. Occurs on somewhat wet but open ground, about 1500 m above the sea level.

Lilium, [TOURN., ex LINN. Gen. PI. ed. 1. p. 91 (1737)] et Sp. PI. ed. 1. p. 302 '1753'; ENDL., Gen. PI. n. 1098 '1836-40'; BENTH. et HOOK, f., Gen. PI. III. p. 816 ;1883 ; ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. II. v. p. 60 '1887 ; KRAUSE, in id. 2-auf. B. 15a. p. 329 1930'; LEMEE, Diet. Gen. PI. Phan. IV. p. 92 1932

Syn. Lirium, LINN., Syst. ed. 1 (1735 ; GMEL., Fl. Siber. I. p. 41 (1747)
Lilliurn, HILL., Hort. Kew. p. 354 (1768)

Lilium japonicum, HOUTT., Nat. Hist. Pl. XII. p. 243, t. 82, f. 2 (1870); KOIDZUMI, in Tokyo Bot. Mag. XL. p. 332 (1926); MASAMUNE, Prel. Rep. Veg. Yak. p. 54 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1553 (1931)

Syn. Lilium candidum, (non LINN.) THUNB., Fl. Jap. p. 133 (1784)¹
Lilium longiflorum, THUNB., in Trans. Linn. Soc. II. p. 333 (1794) et in Mém. Acad. Soc. Pet. III. p. 203 t. 4 (1811)¹; LEMAIRE, in Fl. de Serres III. t. 270 (1847); SPAE, in Mém. Gen. Lis. p. 13 (1817); BAKER, in Gard. Chron. p. 479 (1871), et in Journ. Linn. Soc. XIV. p. 229 (1874)[^]; FR. et SAV., Enum. Pl. Jap. II. p. 71 (1876-); ELWES, Monogr. Lil. t. 7 (1830)¹; WALLACE, Nat. Lil. ed. 2. p. 129 (189r); FR., in Journ. Bot. VI. p. 311 (1892); MATSUM., Ind. Pl. Jap. II. 1. p. 204 (1905)¹; TILTON, in BAILEY, Stand. Cycl. Hort. IV. p. 1867 (1916)[^]; WILS., Lil. East. Asia, p. 23 (1925)

Norn. Jap. Teppôyuri

Leg. Ipse, Hunayuki.

Distr. Amami-6sima, Okinawa, Taiwan.

Note. The lily is rarely found near the sea level in waste lands; it is not yet reported further north than Yakusima.

Lilium Maximowiczii, REGEL, Suppl. Ind. Sem. Hort. Petrop. p. 26 (1856); et in Garten fl. XVII. p. 322, t. 596 (1868); FR. et SAV., Enum. Pl. Jap. II. p. 65 (1876)[<]; ELEWS, Monogr. Lilium. t. 40 (1880)¹; MATSUM., Ind. Pl. Jap. II. 1. p. 204 (1905)¹; MORI, Enum. Pl. Cor. p. 90 (1925); MASAMUNE, Prel. Rep. Veg. Yak. p. 54 (1929); YAMAZUTA, List Manch. Pl. p. 63 (1930)¹; MAK. et NEM., Fl. Jap. ed. 2. p. 1554 (1931)

Syn. Lilium psudotigrinum, CARRIERE, in Rev. Hort. t. 411 (1857)¹; BAKER, in Journ. Linn. Soc. XIV. p. 248 (1874)

Lilium Leichtlinii, var. *Maximowiczii*, BAKER, in Gard. Chron. p. 1422 (1871); WILS., Lil. East. As. p. 71 (1925)¹

Nom. Jap. Ko-oniyuri

Leg. Ipse, Jul. 24, 1928.

Distr. Honsyu, Sikoku, Tanegasima, Amami-6sima, Korea, Manchuria.

Note. Occurs on the southern slopes of the island, in waste lands near the sea level.

Cardiocrinum, MAK., in Tokyo Bot. Mag. XXVII.

p. 124 (1913)

Syn. Lilium, sect. *Cardiocrinum*, ENDL., Gen. Pl. p. 141 (1836-40)

Cardiocrinum cordatum, MAK., in Tokyo Bot. Mag. XXVII. p. 124 (1913); MAK. et NEM., Fl. Jap. ed. 2. p. 154 (1931)

Syn. Hemelocallis cordata, THUNB., Fl. Jap. p. 143 (1781); GAERTN., Fruct. et Sem. Pl. II. p. 48, t. 179, f. 5 (1791)*

Lilium cordifolium, THUNB., in Trans. Linn. Soc. II. p. 332 (1797); WILLD., Sp. Pl. II. p. 134 (1799)[^]; SPRENG., Syst. Veg. IV. p. 134 (1827); SIEB. et ZUCC., Fl. Jap. I. p. 33, tt. 13, 14 (1836); KUNTH, Enum. Pl. IV. p. 268 (1843)[^]; LEMAIRE, in Van. HOUTT., Fl. de Serres, III. t. 216 (1847); MIQ., in Ann. Mus. Bot. Lugd. Bat. HI. p. 157 (1857); FR. et SAV., Enum. Pl.

Jap. II. p. 12 1876 ; ENGL., in ENGL. Bot. Jahrb. VI. p. 54 (1885); MATSUM., Ind. PL Jap. II. 1. p. 202 1905.; WILS., Lil. East. Asia p. 97 (1925) p.p.
Sausurea cordifolium, SALISB., in Trans. Linn. Soc. VIII. p. 11 (1807)
Lilium cordifolium, ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. II. p. 5 (1888) p.p.
Lilium cordifolium, BAKER., in Kew. Bull. p. 118 (1889) p.p.
Cardiocrinum cordifolium, MAK., in Tokyo Bot. Mag. XXVII. p. 125 (1913)

Nom. Jap. *Uba-yuri*

Leg. Ipse, Nagatadake, Jun. 12, 1928.

Distr. Honsyū, Sikoku, Kyūsyū.

Avte. Occurs in the Pseudosasa-Owatarii Association.

Scilla, [LINN., Syst. ed. 1 1735), Gen. PL. ed. 1. p. 95 1737,] et Sp. PL ed. 1. p. 308 (1753); ENDL., Gen. PL n. 1130 (1836-40); BENTH. et HOOK, f., Gen. PL III. p. 814 (1883); ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. II. v. p. 66 (1837); KRAUSE, in id. 2-auf. B. 15a. p. 342 (1930)

Syn. *Stellaster*, HEIST, ex FABRICIUS, Enum. PL Hort. Helmstad ed. 2. p. 23 (1763)
Hyacinthides, MEDIK., in Usteri, Ann. Bot. II. p. 9 (1791)
Epimcnidion, RAF., Fl. Tellur. II. p. 13 (1836)
Sugillaria, SALISB., Gen. PL p. 18 (1866)

Scilla Thunbergii, MIY. et KUDO, in Trans. Sapp. Nat. Hist. Soc. VII. p. 3 (1921), et FL Hokk. & Sagh. III. p. 328 (1932); MAK. et NEM., FL Jap. ed. 2. p. 1565 (1931)

Syn. *Ornithogalum japonicum*, THUNB., FL Jap. p. 137 (1781)
Barnardia japonica, SCHULTES f., Syst. VII. p. 555 (1829); KUNTH, Enum. PL IV. p. 337 (1843); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 154 (1867); FR. et SAV., Enum. PL Jap. II. p. 75 (1876)
Scilla japonica, 'non THUNB.' BAK., in Journ. Linn. Soc. XIII. p. 233 (1872); KOM., Fl. Mansh. I. p. 465 (1901); WRIGHT, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 127 (1903); MATSUM., Ind. PL Jap. II. 1. p. 212 (1905); MASAMUNE, Prel. Rep. Veg. Yak. p. 55 (1929)
Scilla chinensis, (non BENTH.) NAK., FL Kor. II. p. 263 (1911)

Nom. Jap. *Turubo*

Leg. Ipse, Nakama, Mart. 23, 1923.

DUtr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Osima, Okinawa, Tiiwan, Korea, Manchuria, China.

Note. Occurs by the roadside on waste lands.

Asparagus, [TOURN., ex LINN. Syst. ed. 1 (1735), Gen. PL ed. 1. p. 93 (1737)] et Sp. PL ed. 1. p. 313 (1753); ENDL., Gen. PL n. 1164 (1836-40); KUNTH, Enum. PL V. p. 57 (1850); BENTH. et HOOK, f., Gen. PL III. p. 765 (1883); ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. II. v. p. 77 (1887); KRAUSE, in id. 2-auf. B. 15a. p. 362 (1930); LEMÉE, Diet. Gen. PL Phan. I. p. 413 (1929);

Syn. *Elide*, MEDIK., Phil. Bot. II. p. 71 (1791)

Hecatrix, SALISB., Gen. PL p. 66 (1866)

Asparagus cochinchinensis, MERR., in Philipp. Journ. Sc. XV. p. 230 (1919), Enum. Philipp. PI. p. 206 (1922), et XL p. 38 (1932); MASAMUNE, Prel. Rep. Veg. Yak. p. 54 (1929)

Syn. *Melanthium cochinchinensis*, LOUR., Fl. Cochinch. p. 216 (1790)

Asparagus lucidus, LINDL., Bot. Reg. Misc. p. 29. n. 36 (1844); KUNTH, Enum. PI. V. p. 72 (1850); BENTH., Fl. Hongk. p. 371 (1861); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 151 (1867); BAK., in Journ. Linn. Soc. Bot. XIV. p. 605 (1875[^]); FR. et SAV., Enum. PI. Jap. II. p. 58 (1876); MATSUM., Ind. PI. Jap. II. 1. p. 191 (1905); MATSUM. et HAY., Enum. PI. Formos. p. 437 (1906); NAK., Fl. Kor. II. p. 242 (1911); MAK. et NEM., Fl. Jap. ed. 2. p. 1539 (1931); MIY. et KUDO, Fl. Hokk. & Sagh. III. p. 329 (1932)
Asparagus insularis, HANCE, in Ann. Soc. Nat. 5^{me} sér. V. p. 245 (1856)

Nom. Jap. *Kusasugi-kazura*

Leg. Ipse, Jun. 6, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, China, Philippines.

Note. Occurs in waste lands near the sea level and is distributed in Eastern Asia.

Majanthemum, (*Maianthcmum*) WEB., in WIGGERS, Prim. Fl. Holsat. p. 14 (1780); ENDL., Gen. PI. n. 1183a (1836-40); BENTH. et HOOK, f., Gen. PI. III. p. 770 (1883); ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. II. v. p. 79 (1887); KRAUSE, in id. 2-auf. B. 15a. p. 367 (1930); LEMÉE, Diet. Gen. PI. Phan. IV. p. 262 (1932)

Syn. *Unifolium*, [MOEHR., Hort. Priv. p. 101 (1736)] ADANS., Fam. II. p. 54 (1763)
Valentia, HEIST., ex FABRICIUS Enum. PI. Hort. Helmstad ed. 2. p. 37 (1763)
Evallaria, NECK., Elem. III. p. 189 (1790)
Bifolium, GAERTN., MEY. et SCHERB. Fl. Wetterau. I. p. 209 (1799)
Monophyllon, DELARB., Fl. d'Auvergne ed. 2. p. 615 (1800)
Mayanthernum, DC, in LAM. et DC. Fl. Fr. ed. 3. III. p. 177 (1805)
Maia, SALISB., Gen. PI. p. 64 (1866)

Majanthemum nipponiwn, NAK., in Tokyo Bot. Mag. XXXVIII. p. (181) (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 54 (1929)

Syn. *Majanthemum bifclium*, (non DC.) DC, Fl. Fr. III. p. 177 (1805); KOM., Fl. Mansh. I. p. 473 (1901); NAK., Fl. Kor. II. p. 244 (1911); MAK. et NEM., Fl. Jap. ed. 2. p. 1557 (1931); MIY. et KUDO, Fl. Hokk. & Sagh. III. p. 333 (1932)

Maianthcmum Convallaria, WIGG. et ROTH.; MATSUM., Ind. PI. Jap. II. 1. p. 206 (1905)

Nom. Jap. *Maizurusô*

Leg. Ipse, Jun. 20, 1928.

Distr. Saghalien, Kuriles, Yezo, Honsyû, Sikoku, Kyûsyû, Korea, Manchuria.

Note. As lithophyte the plant is found in crevices of granite rocks in the Pseudosasa Owatarii Association, and has its southern limit in this island.

Disporum, SALISB., in Trans. Hort. Soc. I. p. 331 (1812); ENDL., Gen. PI. n. 1082 (1836-40); KUNTH, Enum. PI. IV. p. 206 (1843); BENTH. et HOOK, f., Gen. PI. III. p. 831 (1883); ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. II. v. p. 80 (1887); KRAUSE, in id. 2-auf. B. 15a. p. 368 (1930); LEMÉE, Diet. Gen. PI. Phan. II. p. 691 (1930)

Syn. *Lethea*, NOV., in Verh. Batav. Gen. V. ed. 1. Art. IV. p. 2 (1790)
Drapiezia, BL., Enum. PI. Jav. p. 8 (1827)

Prosartes, D. DON, in Proc. Linn. Soc. I. p. 48 (1839, et Trans. Linn. Soc. XVIII. p. 531 (1841)

Disporum sessile, DON, Prodr. Fl. Nepal, p. 50 (1825); KUNTH, Enum. PI. IV. p. 208 (1843); A. GRAY, in Narr. Perry. Exp. p. 321 (1856); BAK., in Journ. Linn. Soc. Bot. XIV. p. 589 (1875^N); FR. et SAV., Enum. PI. Jap. II. p. 51 (1876); HANCE, in Journ. Bot. XXI. p. 358 (1833), et XXV. p. 13 (1837); MAXIM., in Mém. Biolog. XI. p. 860 (1883); ENGL., Bot. Jahrb. VI. p. 53 (1835); FR., in Bull. Soc. Bot. Fr. XLVI. p. 214 (18991); WRIGHT, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 143 (1903); MATSUM., Ind. PI. Jap. II. 1. p. 194 (1905); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 281 (1912[^]); LOESN., Pfl.-welt. Kiautsch. Geb. p. 101 (1918); MORI, Enum. PL Cor. p. 87 (1922[^]); MASAMUNE, Prel. Rep. Veg. Yak. p. 54 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1544 (1931); MIY. et KUDO, Fl. Hokk. and Sagh. III. p. 335 (1932[^])

Nom. Jap. *Hoityakusô*

Leg. Ipse, Jul. 14, 1922.

Distr. Saghalien, Yezo, Honsyû, Sikoku, Kyûsyû, Amami-6sima, Okinawa, Korea, China.

Note. Occurs as undergrowth in the lauri-aciculisilvae.

Rhodea, ROTH, Nov. PI. Sp. p. 196 (1821); ENDL.,

Gen. PI. n. 1189 (1837); KUNTH, Enum. PI. V, p. 320 (1850); BENTH. et HOOK, f., Gen. PI. III. p. 772 (1883); ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. II. v. p. 82 (1887); KRAUSE, in ENGL. u. PRANT. Nat. Pfl.-fam. 2-auf. p. 372 (1930)

Syn. *Titragyne*, SALISB., Gen. PI. p. 9 (1866)

Rhodea japonica, ROTH, Nov. PI. Sp. p. 197 (1821); KUNTH, Enum. PI. V. p. 321 (1850¹); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 144 (1867); BAK., in Journ. Linn. Soc. Bot. XIV. p. 582 (1875^{*}); FR. et SAV., Enum. PI. Jap. I. p. 86 (1876); FR., in Bull. Soc. Bot. Fr. XLIII. p. 40 (1896); WRIGHT, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 115 (1903[^]); MATSUM., Ind. PI. Jap. II. 1. p. 211 (1905); MASAMUNE, Prel. Rep. Veg. Yak. p. 55 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1564 (1931)

Syn. *Orontium japonicum*, THUNB., Fl. Jap. p. 144 (1784); Bot. Mag. t. 898 (1806)

Nom. Jap. *Omoto*

Leg. Ipse, Nagata, Mart. 22, 1923.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, China.

Note. The species is found in the lauri-aciculisilvae and is not yet reported in Okinawa and Taiwan.

Paris, [RUPP., ex LINN. Syst. ed. 1 (1735[^]) et

Sp. PI. ed. 1. p. 367 (1753); ENDL., Gen. PI. n. 1176 (1836-40); BENTH. et HOOK, f., Gen. PI. III. p. 833 (1883); ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. II. v. p. 83 (1887); KRAUSE, in id. 2-auf. B. 15a. p. 374 (1930)

Paris tetraphylla, A. GRAY, Bot. Jap. p. 412 (1858); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 147 (1867); FR. et SAV., Enum. PL Jap. II. p. 57 (1876); MATSUM., Ind. PI. Jap. II. 1. p. 209 (1905[^]); MAK. et NEM., Fl. Jap. ed. 2. p. 1560 (1931); MIY. et KUDO, Fl. Hokk. & Sagh. III. p. 312 (1932);

var. **yakusimensis**, MASAMUNE, var. nov.

Syn. *Paris tetraphylla*, MASAMUNE, Prel. Rep. Veg. Yak. p. 55 (1929)

Herba minora quam typica, ca. 4-16 cm alta.

Nom. Jap. *Yakusimatukubanesō*

Leg. Ipse, Yaegadake, Jun. 20, 1928.

Distr. Endemica, (SpJ Yezo, Honsyū, Sikoku, Kyūsyū, Manchuria.

Note. Occurs as undergrowth in the lauri-aciculilivae.

Liriope, LOUR., Fl. Cochinch. p. 200 (1790);

BENTH. et HOOK, f., Gen. PI. III. p. 678 (1833[^]; ENGL. in ENGL. U. PRANT. Nat.

Pfl.-fam. II. v. p. 85 (1837*); KRAUSE, in id 2-auf. B. 15a. p. 376 (1930)

88K* *Mondo*, ADANS., Fam. II. p. 496 (1763)

Ophiopogon, KUNTH, Enum. PI. V. p. 297 (1850)

Liriope cernua, (THUNB.) MASAMUNE, comb. nov.

Syn. *Convallaria cernua*, THUNB., in Mus. Upsal. XII. p. 97 (1792)

Ophiopogon spicatus, var. *minor*, MAXIM., in Mém. Biolog. VII. p. 324 (1870);

FR. et SAV., Enum. PI. Jap. II. p. 84 (1876)

Liriope graminifolia, var. *minor*, BAK., in Journ. Linn. Soc. XVII. p. 503 (1879)

Liriope minor, MAK., in Tokyo Bot. Mag. VII. p. 323 (1893); MATSUM., Ind.

PI. Jap. II. 1. p. 206 (1905); MAK. et NEM., Fl. Jap. ed. 2. p. 1556 (1931);

MIY. et KUDO, Fl. Hokk. & Sagh. III. p. 345 (1932)

Mondo cernua, KOIDZ., in Tokyo Bot. Mag. XL. p. 332 (1926); MASAMUNE,

Prel. Rep. Veg. Yak. p. 55 (1929)

Nom. Jap. *Hime-yaburan*

Leg. Ipse, Kurio, Mart. 23, 1923.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Okinawa, Taiwan.

Note. Occurs as undergrowth in the laurisilvae.

Ophiopogon, KER., in Bot. Mag. t. 1053 (1807);

ENDL., Gen. PI. n. 1192 (1836-40); BENTH. et HOOK, f., Gen. PI. III. p. 678 (1883);

ENGL., in ENGL. u. PRANT. Nat. Pfl.-fam. II. v. p. 85 (1887)

Syn. *Mondo*, ADANSON, Fam. PI. II. p. 496 (1763); KRAUSE, in ENGL. u. PRANT. Nat.

Pfl.-fam. 2-auf. B. 15a. p. 377 (1930)

Flueggea, L. C. RICH., in SCHRAD. Neu. Journ. Bot. II. p. 8.1.1 (1807); KUNTH,

Enum. PI. V. p. 301 (1850)

Sloteria, [*Slateria*] STEUD., Nom. ed. 2. II. p. 597 (1811)

Ophiopogon jaburan, LODD., Bot. Cab. t. 1876 U818-24'; MAXIM., in Mém. Biol. VII.

p. 324 (1870); FR. et SAV., Enum. PI. Jap. II. p. 84 (1876); Engl. Bot. Jahrb. VI.

p. 54 (1885); WRIGHT, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 77 (1903);

MATSUM., Ind. PI. Jap. II. 1. p. 207 (1905); MORI, Enum. PI. Cor. p. 92 (1922);

MASAMUNE, Prel. Rep. Veg. Yak. p. 55 (1929[^]); MAK. et NEM., Fl. Jap. ed. 2. p.

1558 (1931)

• **Syn.** *Convallaria japonica*, var. *major*, THUNB., Fl. Jap. p. 139 (1784)

Slateria Jaburan, SIEB., in Vegh. Batav. Gen. XII. p. 15 (1830)

Flueggea Jaburan, KUNTH, Enum. PI. V. p. 303 (1850); BAKER, in Journ. Linn.

Soc. Bot. XVII. p. 502 (1879)

Nam. Jap. *Nosiran*

Leg. Ipse, Jul. 21, 1927.

Distr. Honsyū, Sikoku, Kyūsyū, Amami-6sima, Okinawa, Korea.

Note. Occurs as epiphyte or undergrowth in the laurisilvae.

Ophiopogon japonicus, KER., in Bot. Mag. t. 1053 (1808); MAXIM., in Mém. Biolog. VII. p. 325 (1870); FR. et SAV., Enum. Pl. Jap. II. p. 84 (1876); PALIB., Consp. Fl. Kor. III. p. 5 (1901); WRIGHT, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 78 (1903); MATSUM., Ind. Jap. Pl. II. 1. p. 203 (1905); MATSUM. et HAY., Enum. Pl. Formos. p. 426 (1906); NAK., Fl. Kor. II. p. 240 (1911); DUNN et TUTCH., Fl. Hongk. & Kwang. p. 274 (1912); MASAMUNE, Prel. Rep. Veg. Yak. p. 55 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1558 (1931)

Syn. *Convallaria japonica*, LINN, f., Supp. p. 204 (1784)

Convallaria japonica, var. *minor*, THUNB., Fl. Jap. p. 139 (1784)

Fluggca japonica, RICH., in Schrad. New Journ. II. 1. p. 9. t. la (1807); KUNTH, Enum. Pl. V. p. 302 (1850); GRAY, in Narr. Perr. Exp. p. 322 (1857); BAKER, in Journ. Linn. Soc. XVII. p. 50 (1879)

Slatcria japonica, DESV., in Verg. Batav. Gen. XII. p. 15 (1830)

Ophiopogon japonicus, var. *genuinus*, MAXIM., in Bull. Acad. St. Peter. XV. p. 87 (1871), et in Mém. Biolog. VII. p. 327 (1870);

Ophiopogon Wallichianus, HOOK, f., Fl. Brit. Ind. VI. p. 268 (1892)

Nom. Jap. *Zyanohige*

Leg. Ipse, Aug. 31, 1931.

Distr. Yezo, Honsyū, Sikoku, Kyūsyū, Tanegasima, Okinawa, Taiwan, Korea,

Note. Occurs in waste land and by the roadside near the sea level.

Aletris, LINN., Sp. Pl. ed. 1. p. 319 (1753); ENDL., Gen. Pl. n. 1259 (1836-40); BENTH. et HOOK, f., Gen. Pl. HI. p. 677 (1883); ENGL., in ENGL. u. PR ANT. Nat. Pfl.-fam. II. v. p. 85 (1887); KRAUSE, in id.2-auf. B. 15a. p. 378 (1930); LEMEE, Diet. Gen. Pl. Phan. I. p. 146 (1929),

Aletris spicata, FR., in Journ. de Bot. X. p. 199 (1896); MASAMUNE, Prel. Rep. Veg. Yak. p. 53 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1534 (1931)

Syn. *Hypoxis spicata*, THUNB., Fl. Jap. p. 136 (1784)

Aletris farinosa, THUNB., in Trans. Linn. Soc. II. p. 334 (1794)

Aletris japonica, LAMB., in Trans. Linn. Soc. X. p. 407 (1811); A. GRAY, Narr. Perrey, Exp. p. 320 (1856), et in Mem. Amer. Acad. New sér. VI. p. 417

Names of Plants	Regions
<i>Tofieldia Yosiana</i> , MAK.	Philippines
<i>Chionographis japonica</i> , MAXIM.	China
var. <i>yakusimensis</i> , MASAM.	China
	Yezo
	Honsyū
	Sikoku
	Kyūsyū Prop.
	Tanegasima
	Kyūsyū
	Ryū
	Yezo O Southern Kuriles
	Saghalien
	Northern Kuriles & Kamchatka
	Manchuria, Amur & Ussuri
	China

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Ōsima, Okinawa, Taiwan, China, Philippines.

Note. Occurs in waste lands.

In the *Liliaceae* there are eight elements which have **their** southern limit in this island; thus the flora of the island is **closely** related to the northern lands if we consider the distribution of **the** plants of this family.

Amaryllidaceae

Amaryllidaceae, LINDL., Nat. Syst. ed. 2. p. 328 (1836);

Syn. *Amaryllideae*, R. BR., Prodr. Fl. Nov. Holl. p. 296 (1810)

Leucojaceae, BATSCH., Tabula Affinitatum, Regni Veg. p. 147 (1802)

Crinum, [LINN., Gen. Pl. ed. 1. p. 97 (1737)]
et Sp. Pl. ed. 1. p. 291 (1753); ENDL., Gen. Pl. n. 1276 (1836-40); BENTH. et HOOK.
f., Gen. Pl. III. p. 726 (1883); PAX, in ENGL. U. PRANT. Nat. Pfl.-fam. II. v. p. 108
(1887); PAX u. HOFFM., in ENGL. u. PRANT. Nat. Pfl.-fam. 2-auf. B. 15a. p. 409
(1930); LEMÉE, Diet. Gen. Pl. Phan. II. p. 371 (1930)

Syn. *Tanghckolli*, ADANS., Fam. II. p. 57 (1763)

Scandianus, RAF., Atlant. Journ. p. 164 (1833)

Liriamus, RAF., Fl. Tellur. IV. p. 23 (1836)

Crinopsis, HERB., Amaryll. p. 270 (1837)

Panratio-Crinum, HERB., ex STEUD., Nomencl. ed. 2. II. p. 250 (1841)

Stenolirion BAK., in Hook. Ic. Pl. XXV. t. 2493 (1896)

Crinum asiaticum, LINN. var. *japonicum*, BAK., Handb. Amaryll. p. 75 (1833); MATSUM.,
Ind. Pl. Jap. II. 1. p. 219 (1905); MORI, Enum. Pl. Cor. p. 96 (1922); MASAMUNE,
Prel. Rep. Veg. Yak. p. 56 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1530 (1931)

Syn. *Crinum latifolium*, THUNB., Fl. Jap. p. 131 (1784)

Crinum asiaticum, LINN. var. *declinatum*, KUNTH; MIQ., in Ann. Mus. Bot
Lugd. Bat. II. p. 139 (1865); FR. et SAV., Enum. Pl. Jap. II. p. 45 (1876);
MAXIM., in Engl. Bot. Jahrb. VI. p. 77 (1885)

Norn. Jap. *Hamaomoto*

Leg. Ipse, Jui. 20, 1927.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Osima, Korea.

Note. The psammophyte is found on the littoral beaches.

Lycoris, HERB., App. Bot. Reg. p. 20 (1821); ENDL.,
Gen. Pl. n. 1273 h. (1836-40); KUNTH, Enum. Pl. II. p. 544 (1850); BENTH. et
HOOK. f., Gen. Pl. III. p. 727 (1883); PAX, in ENGL. u. PRANT. Nat. Pfl.-fam. II.
v. p. 113 (1887); PAX u. HOFFM., in ENGL. u. PRANT. Nat. Pfl.-fam. 2-auf. B.
15a. p. 416 (1930)

Lycoris radiata, HERB., App. Bot. Reg. p. 20 (1821); KUNTH, Enum. Pl. V. p. 546 (1850);
HANCE, in Journ. Bot. XXI. p. 262 (1874); FR. et SAV., Enum. Pl. Jap. II. p. 44
(1876); MAXIM., in Engl. Bot. Jahrb. VI. p. 78 (1885); BAK., Handb. Amaryll.
p. 40 (1888); WRIGHT, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 89 (1903); MASA-

MUNE, Prel. Rep. Veg. Yak. p. 56 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1582 (1931)

- Syn.** *Amaryllis radiata*, L'HERIT., Sert. Angl. p. 16 ;1786;
Amaryllis 'sarniensis, (non LINN.) THUNB., Fl. Jap. p. 131 (1784); LOUR., FL Cochinch. p. 200 11790)
Nerine japonica, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 139 (1865); FR. et SAV., Enum. Pl. Jap. II. p. 44 (1876)

Nom. Jap. *Higanbana*

Leg. Ipse, Ambō, Sept. 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Okinawa, China.

Note. The species is found on cultivated lands near the sea level.

Curculigo, GAERTN., Fruct. I. p. 63, t. 16 (1788);

ENDL., Gen. Pl. n. 1263 (1836-40); BENTH. et HOOK, f, Gen. Pl. III. p. 717 (1883); PAX, in ENGL. u. PRANT. Nat. Pfl.-fam. II. v. p. 121 ^1887), PAX, u. HOFFM., in id. 2.-auf. B. 15a. p. 426 (1930); LEMSE, Diet. Gen. Pl. Phan. II. p. 417 11930)

- Syn.** *Fabricia*, THUNB., in J. C. Fabricius, Reise nach Norweg. p. 23 (1779)
Forbesia, ECKL., Verz. Pflzsammlg. p. 4 (1827)
Aurota, RAF., Fl. Tellur. III. p. 61 (1836)

Curculigo orchioides, GAERTN., Fruct. I. p. 63, f. 11 (1788); DRYAND, in AIT. Hort. Kew. ed. 2. II. p. 253 (1811) ; BAK., in Journ. Linn. Soc. XVII. p. 124 U878); MAK., Ill. Fl. Jap. I. n. 10. Pl. LXII. (1891) ; WRIGHT, in FORB. et HEMSL. **Ind**, Fl. Sin. III. p. 87 (1903); MATSUM., Ind. Pl. Jap. II. 1. p. 220 (1905) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 56 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1580 (1931)

- Syn.** *Curculigo ensifolia*, R. BR., Prodr. p. 290 U810^ ; MAXIM., in Engl. Bot. Jahrb. VI. p. 75 (1885)
Curculigo orchioides, GAERTN. var. *minor*, BENTH., Fl. Hongk. p. 366 (1861); Bot. Mag. t. 1076 (1908)
Curculigo malabrica, WRIGHT, Ic. Pl. Ind. Or. t. 2043 (1853)
Hypoxis orchioides, KURZ., in Ann. Mus. Bot. Lugd. Bat. IV. p. 177 (1868)

Nom. Jap. *Kinbaizasa*

Leg. Ipse, Jul. 10, 1928.

Distr. Sikoku, Kyūsyū, Tanegasima, Amami-Osima, Okinawa, China, India, Australia.

Note. The species is found on waste land or in sunny places.

Hypoxis, LINN., Syst. ed. 10. p. 986 (1759) ; ENDL.,

Gen. Pl. n. 1264 (1836-40) ; BENTH. et HOOK, f, Gen. Pl. III. p. 717 (1833); PAX, in ENGL. u. PRANT. Nat. Pfl.-fam. II. v. p. 121 (1837) ; PAX u. HOFFM., in id. 2.-auf. B. 15a. p. 426 ;1930) ; LEMEE, Diet. Gen. Pl. Phan. III. p. 727 (1931)

Hypoxis aurea, LOUR., Fl. Cochinch. p. 200 ', 1790) ; HANCE, in Journ. Bot. VIII. p. 276 (1870;., et XVI. p. 111 (1878) ; BAK., in Journ. Linn. Soc. Bot. XVII. p. 108 (1877); MAXIM., in Engl. Bot. Jahrb. VI. p. 75 (1885) ; MAK., Ill. Fl. Jap. I. n. 10. Pl. LXIII. (1891;.; HOOK, f, Fl. Brit. Ind. VI. p. 277 (1894); FR., in Bull. Soc. Bot. Franc. XLVI. p. 214 (1901); WRIGHT, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 86 (1903) ; MATSUM., Ind. Pl. Jap. II. 1. p. 220 (1905); MASAMUNE, Prel. Rep. Veg. Yak. p. 56 (1929. ; MAK. et NEM., Fl. Jap. ed. 2. p. 1582 ,1931;

Syn. Hypoxis minor, DON, Prodr. Fl. Nepal, p. 53 (1825); ROYLE, III. Bot. Himal. p. 376, t. 91, f. 3 (1839)

Hypoxis Franquevillei, MIQ., Fl. Ind. Bat. III. p. 586 '1857

Nom. Jap. Kokinbaizasa

Leg. Ipse, Aug. 12, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Amami-6sima, Okinawa, Taiwan, China, India, Java.

Note. Occurs in grassy lands near the sea level.

Regions	Hokkaido		Honshū		Kyūshū		Ryūkyūs		Other Regions									
	Il.	on.	Ma.	mi.	Sh.	Ch.	Am.	ma.	Tanegasima	Kyūsyū Prop.	Honsyū	Korea	Yezo & Southern Kuriles	Manchuria & Korea	atka	Us.	Chō	
Grinum asiaticum, LINN. var. japonicum, BAK.																		
Lycoris radiata, HERB.																		
Curculigo orchioides, GAERTN.																		
Hypoxis aurea, LOUR.																		

The flora of this family in the island shows no special phyto-geographical relation either with the northern or the southern lands.

Dioscoreaceae

Dioscoreaceae, LINDL., Nat. Syst. ed. 2. p. 359 U836)

Syn. Dioscoreae, R. BR., Prodr. p. 294 (1810); ENDL., Gen. PI. p. 157 (1836-40)

Dioscorineae, KUNTH, in Abh. Akad. Wiss. Berlin. 1848. p. 70 (1850)

Dioscorea, [PLUM., ex LINN. Gen. ed. 1. p. 306 '1737] et Sp. PI. ed. 1. p. 1032 1753 ; ENDL., Gen. PI. n. 1201 v 1836-40) ; KUNTH, Enum. PI. V. p. 325 '1850- ; BENTH. et HOOK, f, Gen. PI. III. p. 742 '1883) ; PAX, in ENGL. u. PR ANT. Nat. Pfl.-fam. II. v. p. 133 < 1837 - ; KUNTH, in ENGL. PflV reich. IV. 43. Heft 87 p. 45 '1924 , et in ENGL. u. PRANT. Nat. Pfl.-fam. 2-auf. B. 15a. p. 445 '1930 ; LEMÉE, Diet. Gen. PI. Phan. II. p. 641 '1930)

Syn. Rieophora, MILL., Gard. Diet. ed. 6. App. 175 (1752)

• *Ubium*, J. F. GMEL., Syst. II. p. 839 '1791 j

Discorea, MIQ., in Fl. Ind. Bat. III. p. 572 '1859)

Discoridh, ST.-LAG., in Ann. Soc. Bot. Lyon. VIII. p. 175 (1881)

Dioscorea bulbifera, LINN., Sp. Pl. ed. 1. p. 1033 (1753 ; LAM., Encycl. III. p. 232 U789 ; R. BR., Prodr. I. p. 294 (1810); BL., Enum. Pl. Jav. I. p. 1688 (1830' ; WIGHT, Ic. Pl. Ind. Or. III. t. 878 (1840-56); DUNN et TUTCH., Fl. Kwang. & Hongk. p. 276 (1912); PRAIN et BURKILL, in Journ. Asiat. Soc. Bengal. X. p. 26 U9LT ; MERR., Interp. Rumbph. Herb. Amboin. p. 146 (1917), et Enum. Phil. Pl. I. p. 215 (1922); KOORDR., Excursionfl. Jav. IV. p. 264 f. 501 (1923) ; KUNTH, in ENGL. Pfl.-reich. IV. 43 (Heft 87) p. 88 (1924); YAMAMOTO, Supp. Ic. Pl. Formos. III. p. 6 (1927) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 56 (1929)

Syn. *Dioscorea sativa*, THUNB., Fl. Jap. p. 151 (1784) ; KUNTH, Enum. PL V. p. 340 \1850 ; BENTH., Fl. Hongk. p. 368 (1861) ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 159 (1867) p.p.; HILLEBR., Fl. Hawaii. Isl. p. 438 (1838); HOOK. f., Fl. Brit. Ind. VI. p. 295 (1892); TRIMEN, Handb. Fl. Ceylon IV. p. 278 '1898) ; HAY., Ic. Pl. Formos. X. p. 44. f. 24 (192r ; MORI, Enum. PL Cor. p. 97 (1922)^

Dioscorea eburnea, LOUR., Fl. Cochinch. ed. WILLD. II. p. 767 (1793);

Dioscorea sativa, LINN. f. *domestica*, MAK., in IINUMA Somoku Dzusetu ed. 3. IV. t. 58 (1912)

Dioscorea bulbifera, LINN. f. *spontanea*, (MAK.) MAK. et NEM., FL Jap. ed. 2. p. 1585 (1931)

Norn. Jap. *Nigagasyū*

Leg. Ipse, Miyanoura, Aug. 1927.

Distr. Honsyū. Sikoku, Kyūsyū, Okinawa, Taiwan, Korea, China, India, Manila, Philippines, Himalaya.

Note. Occurs on the forest edges of the laurisilvae or in the lauri-aciculisilvae.

Dioscorea japonica, THUNB., FL Jap. p. 151 (1784); KUNTH, Enum. PL V. p. 388 (1850 ; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 159 (1867); MAK., III. Fl. Jap. I. PL XXII. 11889) ; MAXIM., in Eng. Bot. Jahrb. VI. p. 52 (1885) ; WRIGHT, in FORB. et HEMSL. Ind. FL Sin. III. p. 92 (1903) ; MATSUM., Ind. PL Jap. II. 1. p. 223 \1905.; MATSUM. et HAY., Enum. PL Formos. p. 433 (1906); MORI, Enum. PL Cor. p. 97 (1922); KUNTH, in Engl. Pfl.-reich. IV. 43 (Heft 87) p. 262 (1924) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 56 (1929); YAMAZUTA, List Manch. PL p. 69 ; 1930. ; MAK. et NEM., Fl. Jap. ed. 2. p. 1586 (1931)^

Syn. *Dioscorea Goeringiana*, KUNTH, Enum. PL V. p. 402 (1850

Norn. Jap. *Yamanoimo*

Leg. Ipse, Jul. 6, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Amami-Osima, Okinawa, Taiwan, Korea, Manchuria, China.

Note. Occurs in sunny spots in the laurisilvae or in the lauri-aciculisilvae.

Dioscorea quinqueloba, THUNB., FL Jap. p. 150 (1784); KUNTH, Enum. PL V. p. 350 (1850. ; MAXIM., Prim. FL Amur. p. 478 (1859); MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 159 (1867) ; FR. et SAV., Enum. PL Jap. II. p. 46 (1876); MAK., III. FL Jap. I. PL XXVI (1889); KOM., FL Mansh. I. p. 487 (1901); WRIGHT, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 92 U903); PRAIN et BURKILL, in Journ. Asiat. Soc. Bengal. LXXIII. Supp. 9, X. p. 14 (1904); MORI, Enum. PL Cor. p. 97 (1922 ; KUNTH, in ENGL. Pfl.-reich. IV. 43 (Heft 87) p. 179 (1924); MASAMUNE, Prel. Rep. Veg. Yak. p. 56 (1929); MAK. et NEM., FL Jap. ed. 2. p. 1587 U931)

Nom. Jap. *Kaede-dokoro*

Leg. Ipse, Aug. 13, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Korea, Manchuria, China.

Note. Occurs in somewhat sunny spots in the laurisilvae or the lauri-aciculi-silvae.

Dioscorea tenuipes, FR. et SAV., Enum. Pl. Jap. II. pp. 48 et 523 U876^x; MAXIM., in Engl. Bot. Jahrb. VI. p. 52 '1885; ; MAK., Ill. Fl. Jap. I. t. 6 U889!; MATSUM., Ind. Pl. Jap. II. 1. p. 225 ,1905. ; KUNTH, in ENGL. Pfl.-reich. IV. 43 ,Heft 87} p. 178 [1924); MAK. et NEM., Fl. Jap. ed. 2. p. 1587 (1931)

Nom. Jap. Hintedokoro

Leg. Ipse, Aug. 1927.

Distr. Honsyū, Sikoku, Kyūsyū, Tanegasima, Okinawa.

Note. Occurs on forest edges of the laurisilvae.

Dioscorea tokoro, MAK., in Tokyo Bot. Mag. III. p. 112 1839', et Ill. Fl. Jap. I. Pl. XXIV. v1889) ; MIY., in Tokyo Bot. Mag. VIII. p. 485 1894.'; MATSUM., Ind. Pl. Jap. II. 1. p. 225 a905i; PRAIN et BURKILL, in Journ. Asiat. Soc. Bengal. X. p. 14 ;1914); MORI, Enum. Pl. Cor. p. 97 [1922); KUNTH, in ENGL. Pfl.-reich. IV. 43 ;Heft 87) p. 316 (1924 .; MASAMUNE, Prel. Rep. Veg. Yak. p. 56 (1929' ; MAK. et NEM., Fl. Jap. ed. 2. p. 1587 il931)

Syn. *Dioscorea sativa*, MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 159 1867 p.p.; FR. et SAV., Enum. Pl. Jap. II. p. 47 ,1879) p.p.

Dioscorea yokusai, PRAIN et BURKILL, in Journ. Asiat. Soc. Bengal. LXXIII. Supp. p. 10 1904,

Norn. Jap. Onidokoro

Names of Plants	Regions				Names of Regions									
	1	2	3	4	Amami-Osima	Ryūkyūs	Kyūshū	Shikoku	Honshū	South. Honshū	Korea	Japan & Kamchatka	Amur & Ussuri	
<i>Dioscorea bulbifera</i> , LINN.	+	+	+	+										
<i>Dioscorea japonica</i> , THUNB.		+	+	+										
<i>Dioscorea quinqueloba</i> , THUNB.														
<i>Dioscorea tenuipes</i> , FR. et SAV.				+										
<i>Dioscorea tokoro</i> , MAK.					+									
Total	5	1	2	3	3	2	5	5	4	1			2	
Percentage	20	4	16	60	40	100	100	100	80	20			40	

Southern elements A,

Northern elements 5)

Leg. Ipse, Jun. 24, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Amami-6sima, Korea.

Note. Occurs in somewhat sunny spots in the laurisilvae or in the lauri-aciculisilvae from the sea level up to 500 m.

The representatives of *Dioscoreaceae* in the island are rather widely distributed in eastern Asia and do not offer any data upon which to determine the phytogeographical position of the island.

Iridaceae

Iridaceae, LINDL., Nat. Syst. ed. 2. p. 332 (1836)

Syn. hides, B. JUSS., in Hort. Trianon ; 1759; , et ex JUSS., Gen. Pl. LXIII. p. 57 (1789)

Belamcanda, ADANS., Fam. II. p. 60 (1763);

ENDL., Gen. Pl. n. 1231 (1836-40; ; BENTH. et HOOK, f., Gen. Pl. III. p. 697 (1883; ; PAX, in ENGL. u. PRANT. Nat. Pfl.-fam. II. v. p. 150 (1887); DIELS, in ENGL. u. PRANT. Nat. Pfl.-fam. 2-auf. B. 15a. p. 477 (1930; ; LEMÉE, Diet. Gen. Pl. Phan. I. p. 539 (1929)

Syn. Belemcanda, [RHEEDE, Hort. Indie. Malabar, p. 308, t. 7 (1692)

Gemmingia, FABR., Enum. Pl. Horti, Helmstad. ed. 2. p. 27 (1763); O. KUNTZE, Rev. Gen. Pl. II. p. 701 (1891,

Pardanthus, KER., in KOENIG, et SIMS, in Ann. Bot. I. p. 246 (1805 i

Belamcanda chinensis, DC, in Red. Lil. III. t. 121 (1807; ; NAK., Fl. Kor. II. p. 234 (1919; ; LOESN., Pfl.-welt. Kiautsh. Geb. p. 105 (1918; ; MERR., Enum. Hainan Pl. p. 50 (1927); MASAMUNE, Prel. Rep. Veg. Yak. p. 57 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1589 (1931)

Syn. Ixia chinensis, LINN., Sp. Pl. ed. 1. p. 36 (1753;

Moraca chinensis, THUNB., Fl. Jap. p. 34 (1784)

Belamcanda punctata, MOENCH., Meth. p. 529 (1794); WRIGHT, in FORB. et HEMSL. Ind. Fl. Sin. III. p. 86 (1903); MATSUM., Ind. Pl. Jap. II. 1. p. 225

Regions	Philippines	Bonins	Taiwan	Okinawa	Amami-Ôsima	Ryûkyûs	Tanegasima	Kyûsyû	Prop.	Hor	Nariles	ern Kuriles & Kamtchatka
Name of Plant												
<i>Belamcanda chinensis</i> , DC.		+	+	+	+	+	+					+

11905 ; MATSUM. et HAY., Enum. PL Formos. p. 428 (1906; ; DUNN et TUTCH., Fl. Kwang. & Hongk. p. 274 (1912); MIURA, List Pl. Manch. & Mong, p. 86 U925

Pardanthus chinensis, KER., in Kon. Ann. Bot. I. p. 246 (1805^x; BENTH., FL Hongk. p. 365 ,1861 ; HANCE, in Journ. Bot. XII. p. 262 (1874)

Belamcanda chinensis, LEMAN., in Red. Lil. t. 121 (1807); BAK., in Journ. Linn. Soc. Bot. XVI. p. 113 '1877 ; HOOK. f. FL Brit. Ind. VI. p. 277 -1894)

Norn. Jap. Hiôgi

Leg. Ipse, ca. Onoaida.

Distr. Honsyû, Sikoku, Kyfisyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, Korea, Manchuria, China.

Note. The species is found in waste or sunny places, spreading its fanshaped leaf cluster with its flower stalk against the sun.

There is only one widely distributed species of this family in the island and I can not deduce from it any data as to the determining of the phytogeographical position of the island.

Musaceae

Musaceae, J. ST.-HILL., Expos. Fam. I. p. 151 (1805,

Syn. Musae, JUSS., Gen. Pl. p. 61 '1789,

Scitamineae, TRIB., *Museae*, BENTH., in BENTH. et HOOK. f. Gen. PL HI. p. 636 1883

Musa, [LINN., Hort. Cliff, p. 2 (1736., et Gen. PL ed. 1. p. 315 1737] et Sp. PL ed. 1. p. 1043 :1753^N ; ENSETE, Bruce Trav. V. 1790 ; ENDL., Gen. PL n. 1648 1836-40'; BENTH. et HOOK, f, Gen. PL III. p. 655 1883 ; PETERSEN., in ENGL. U. PRANT. Nat. Pfl.-fam. II. vi. p. 7 (1888); SCHUM., in ENGL. Pfl.-reich. IV. 45 (Heft 1) p. 13 (1900.; WINKL., in ENGL. u. PRANT. Nat. Pfl.-fam. 2-auf. B. 15a. p. 538 [1930; ; LEMfêE, Diet. Gen. PL Phan. IV. p. 594 '1932'

Syn. Muza, STOKES, Bot. Mag. Med. I. p. 472 (1812/

Mnasium, STACKH., Extr. Bruces Trav. Abyss, p. 18. t. 2 (1815

Musa *Textilis*, NEES, in Anal. Cienc. Nat. IV. p. 123 '1801); BAK., in Ann. Bot. VII. p. 211 1893[^] ; SCHUM., in ENGL. Pfl.-reich. IV. 45 (Heft 1) p. 19 (1900); MERR., Enum. Philip. PL I. p. 227 1922` ; MAK. et NEM., Fl. Jap. ed. 2, p. 1597 (1931,

Syn. Musa mindanaensis, RUMPH.; MIQ. FL Ind. Bat. III. p. 588 (1859.)

var. *liukiuensis*, MASAMUNE, nom. nov.

Syn. Musa sapient urn, LINN. var. *liukiuensis*, MATSUM., Tokyo Bot. Mag. XI. p. 69 ,1897;

Musa liukiuensis, MAK., in Tokyo Bot. Mag. XXVI. p. 180 (1912); MAK. et NEM., Fl. Jap. ed. 2. p. 1596 ,19311

Nom. Jap. ItO'basyô

Distr. Amami-Osima, Okinawa.

Note. The plant occurs in low moist lands; I doubt whether this plant has not been introduced from outside.

Name of Plant	Regions													
	philipino	Boroe	Taiwan	Okinawa	Amami-Ōshima	Taiŷasima	Kyŷyŷ ŷ Prop.	Sikoku	Hokkaido	Korea	Yesso Southern Kuriles	Saporo	Manchuria Kuriles Kamohatka Sakhalin Amur & Ureli	Chishima
Musa Textilis, NEES, van liukiensis, MASAMUNE				+	+									

There is only one representative of the *Musaceae* in Yakusima, which is closely related to those of the southern regions.

Zingiberaceae

Zingiberaceae, L. C. RICH., Anal. Fruit, p. 36 .1803;

Zingiber, ADANS., Fam. II. p. 66 .1763 ; ROXB., Coromand. Pl. III. t. 253 1819, ; ROSCOE, Monandr. PL t. 83 1828, ; BL., Enum. Pl. Jav. I. p. 41 ;1827; ; WIGHT, Ic. t. 2004 ;1853, ; Van HALL., Observ. Zingib. Lugd. Bat. ,1858, ; HORAN, Monogr. p. 27 ^1862 ; BENTH. et HOOK, f, Gen. Pl. III. p. 646 1883, ; PETERS., in ENGL. U. PRANT. Nat. Pfl.-fam. II. vi. p. 25 1838;; SCHUM, in Engl. Pfl.-reich. IV. 46 ^Heft 20/ p. 165 1903, ; LOESN., in ENGL. U. PRANT. Nat. Pfl.-fam. 2-auf. B. 15a. p. 586 1930)

Syn. *Lampujang*, KOEN., in Retz. Observ. III. p. 62 ,1783;
Thumung, KOEN., in Retz. Observ. III. p. 62 1783,
Jaegera, GISEKE, Prael. et Linn. p. 203 1792)
Cassumunar, COLLA, Nov. Scitam. Gen. Comm. Taurin. 1. t. 1 1830
Zerumbet, (non WENDL.) LESTIBOUDOIS, in Ann. Sc. Nat. 2. sér. XV. p. 329 .1841]

Zingiber mioga, ROSC, in Trans. Linn. Soc. VIII. p. 348 .1807]; MIQ., in Ann. Mus. Bot. Lugd. Bat. III. p. 140 (1867) ; FR. et SAV., Enum. PL Jap. II. p. 20 1876 ; MATSUM., Ind. Jap. II. 1. p. 233 ;1905, ; MORI, Enum. PL Cor. p. 99 1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 57 v1929, ; MAK. et NEM., Fl. Jap. ed. 2. p. 1604 v193D

Syn. *Amomum mioga*, THUNB., Fl. Jap. p. 14 1784)

Norn. Jap. Myōga

Leg. Ipse, Koseda, Jul. 12, 1928.

Distr. Kydsyŷ, Tanegasima, Amami-ŷsima, Korea.

Note. The species is found as undergrowth in the laurisilvae at low altitudes. It is distributed southward as far as Amami-ŷsima and not in Okinawa and Taiwan;

Nom. Jap. Satuma-kumatakeran

Leg. Ipse, Aug. 5, 1925.

Distr. Kyûsyû.

Note. Grows as undergrowth in the laurisilvae.

As the above table shows, the flora of the island shows a slight resemblance with that of northern lands so far as the distribution of this family is concerned.

Burnianniaceae

Burri.anniaceae, BL., Enum. PL I. p. 27 (1827)

Burmannia, [LINN., Syst. ed. 1. (1735)] et Sp. PL ed. 1. p. 287 (1753*; ENDL., Gen. PL n. 1219 (1836-40;; BENTH. et HOOK. f., Gen. PL III. p. 457 11883;; ENGL., in ENGL. U. PRANT. Nat. Pfl.-fam. II. vi. p. 50 1889, ; LEMÉE, Diet. Gen. PL Phan. I. p. 721 (1929)

Syn. Vogelia, J. F. GMEL., Syst. p. 107 (179H

Tripterella, L. C. RICH., in MICHX. Fl. Bor. Amer. I. p. 19. t. 3 (1803)

Maburnia, THOU., Gen. Nov. Madagascar, p. 4 (1806)

Gonianthes, BL., Catal. Gew. Buit. p. 19 (1823)

Gonyanthes, NEES, in Ann. Sc. Nat. III. p. 369 U834)

Tetraptera, MIERS., in Lindl. Veg. Kingd. p. 172 (1847;

Cryptonema, TURCZ., in Bull. Soc. Nat. Mosco XXI. p. 1. p. 590 (1848,

Nephrocodium, BENTH. et HOOK. f. Gen. PL III. p. 457 (1883I

Burmannia cryptopetala, MAK., in Tokyo Bot. Mag. XXVII. p. 3 (1913); MASAMUNE, Prel. Rep. Veg. Yak. p. 57 U929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1607 [1931,

Nom. Jap. Siro-syakuzyd

Leg. Ipse, Nakama, Aug. 6, 1928.

Distr. Honsyû, Kyûsyû.

Note. Occurs as undergrowth in the laurisilvae or in the lauri-aciculisilvae.

Burmannia japonica, MAXIM; MAK., 111. Fl. Jap. I. t. 35 (1891), et in Tokyo Bot. Mag. XVII. p. 6 1903; ; MASAMUNE, Prel. Rep. Veg. Yak. p. 58 11929;; MAK. et NEM., FL Jap. ed. 2. p. 1607 -1931)

Syn. Burmannia sp. MAK., 111. Fl. Jap. I. PL XXXV. (1890,

Burmannia cap it at a, MAK., in Tokyo Bot. Mag. IV. p. 23 (1890;

Nom. Jap. Hinano-syakuzyô

Leg. Ipse, Aug. 8, 1924.

Distr. Honsyû, Sikoku, Kyûsyû.

Note. The species grows as undergrowth on humus ground in the laurisilvae or in the lauri-aciculisilvae, and has its southern limit in this island.

Burmannia Itoana, MAK., in Tokyo Bot. Mag. XXVII. p. 1 1913; ; MASAMUNE, Prel. Rep. Veg. Yak. p. 57 U929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1607 (1931/

Syn. Burmannia coelestis, in on DON, MATSUM, Ind. PL Jap. II. 1. p. 234 U905.

Nom. Jap. Ruri-syakuzyô

Leg. Ipse, ca. Kurio, Jul. 1928.

Distr. Amami-Osima, Okinawa.

Note. The spades has been found several times on humus ground in the lauri-silvae about 500 m above the sea level. But it is not yet reported in lands further north than this island.

Names of Plants	Regions														
	Philippines	Bonins	Taiwan	Okinawa	M ⁿ nisio	Ryûkyûs	Tanegasima	Kyûsû Prop.	S ³	I	Yezo & South Kuriles	Saghalien	Northern Kurûs & Kamtchatka	Manchuria, Amur & Usuri	Sina
<i>Burmattia cryptopetala</i> , MAK.															
<i>Burmattia japonica</i> , MAXIM.															
<i>Burmattia Itoana</i> , MAK.				+	+										

Since two species of this family have their southern limit here, the island may be said to be closely related to the northern floral regions. But it is an interesting fact that *Burmattia Itoand*, the representative of the Ryûkyû elements, is found in this island.

Orchidaceae

Orchidaceae, LINDL., Nat. Syst. ed. 2. p. 336 (1836); emend REICHB. Norn. '1841 ; PFITZ., in ENGL. u. PRANT. Nat. Pfl.-fam. II. vi. p. 52 (1888)

Syn. Orchides, LINN. [Phil. Bot. p. 27 (1751)] JUSS., Gen. Pl. p. 64 (1789); ENDL., Gen. Pl. p. 185 (1837); BENTH., in BENTH. et HOOK. f. Gen. Pl. III. p. 460 (1883);

Orchides, B. JUSS., in Hort. Triannon (1759); et ex JUSS., Gen. Pl. LXIV. (1789); ADANS., Fam. II. p. 68 (1763);

Amitostigma, SCHLTR., Orchid. Sinojap. Prodr. p. 91 (1919); LEMfE, Diet. Gen. Pl. Phan. I. p. 199 (1929)

Syn. Mitostigma, (non DECNE.) BL., MUS. Bot. Lugd. Bat. II. p. 189 (1856)

Amitostigma lepidum, SCHL., Orchid. Si no-Jap. Prodr. p. 94 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 58 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1615 (1931)

* In arranging the genera of this family, I mainly followed the plan used by Dr. SCHLECHTER in his work "Die Orchideen (1915)."

Syn. Gymnadenia lepida, RCHB. f. Ot. Bot. Hamb. p. 51 (1873); ROLF., in FORB. et HEMSL. Ind. Fl. Sin. III. p. 53 (1933); MATSUM., Ind. Pl. Jap. II. 1. p. 249 (1905)

Cynosorchis japonica, KRANZL., Gan. & Sp. Orch. I. p. 487 (1898)

Nom. Jap. Ryūkyū-tidori

Leg. Ipse, Kurio, Mart. 22, 1923.

Distr. Kyūsyū, Amami-Ōsima, Okinawa.

Note. The species abounds on the southern side of the island and is found in the lowlands and grassy lands spread among cultivated lands and in waste lands.

Herminium, [LINN., Syst. ed. 1. 1735] R. BR., in AIT. Hort. Kew ed. 2. p. 191 (1813); ENDL., Gen. Pl. n. 1524 (1835-40); BENTH. et HOOK, f., Gen. Pl. III. p. 622 (1833); PFITZ., in ENGL. u. PRANT. Nat. Pfl.-fam. II. vi. p. 91 (1859); SCHL., Orchid, p. 63 (1915); LEMÉE, Diet. Gen. Pl. Phan. III. p. 543 (1931)

Syn. Aopla, LINDL., Bot. Reg. t. 1701 (1835)

Herminium angusti folium, BENTH. et HOOK, f., Gen. Pl. III. p. 622 (1833); HOOK, f., Fl. Brit. Ind. VI. p. 129 (1890); ROLF., in FORB. et HEMSL. Ind. Fl. Sin. III. p. 50 (1903); MATSUM. et HAY., Enum. Pl. Formos. p. 418 (1906); SCHL., Orchid. Sino-Jap. Prodr. p. 100 (1919); MERR., Enum. Philip. Pl. I. p. 255 (1922); YAMAZUTA, List Manch. Pl. p. 74 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 1652 (1931); MIY. et KUDO, Fl. Hokk. & Sagh. III. p. 359 (1932)

Syn. Aceras angustifolia, LINDL., Gen. & Sp. Orch. p. 232 (1835); WIGHT, Ic. V. 11. p. 1691 (1840-56)

Platanthera angustifolia, RCHB. f., Ot. Bot. Hamb. p. 39 (1878); MATSUM., Ind. Pl. Jap. II. 1. p. 258 (1905)

var. *longicuris*, MAK., in Tokyo Bot. Mag. X. p. (109) (1896), et id. XII. p. 15 (1898); YABE, in Tokyo Bot. Mag. XVII. p. 142 (1903); SCHL., Orchid. Sino-Jap. Prodr. p. 100 (1919); MIY. et KUDO, Fl. Hokk. & Sagh. III. p. 359 (1932)

Syn. Aceras longicuris, WRIGHT, in Mem. Acad. sc. 2. VI. p. 461 (1859); A. GRAY, Bot. Jap. p. 411 (1858);

Aceras angustifolia, LINDL. var. *longicuris*, MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 207 (1866); FR. et SAV., Enum. Pl. Jap. II. p. 30 (1876); MAK., in Tokyo Bot. Mag. III. p. 7 (1839);

Nom. Jap. Mukago-sō

Leg. Ipse, O no aid a, Jun. 23, 1928.

Diatr. Yezo, Honsyū, Sikoku, Kyūsyū, Amami-Gsima, Manchuria.

Note. Occurs on open grassy lands at low altitudes.

Platanthera, L. C. RICH., in Mem. Mus. Paris. IV. p. 48 (1818); ENDL., Gen. Pl. n. 1515 (1836-40); BENTH. et HOOK, f., Gen. Pl. III. p. 624 (1883); PFITZ., in ENGL. u. PRANT. Nat. Pfl.-fam. II. vi. p. 92 (1889); SCHL., Orchid, p. 64 (1915);

Syn. Lysias, SALISB., in Trans. Hort. Soc. I. p. 288 (1812)

Mecosa, BL., Bijdr. p. 403, t. 1 (1825)

Benthamia, non LINDL. A. RICH., in Mem. Soc. Hist. Nat. Paris. IV. p. 37 (1828)

Platanthera amabilis, KOIDZ., in MATSUM. Ic. Pl. Koishik. III. 5. p. 89. t. 193 (1917);

MASAMUNE, Prel. Rep. Veg. Yak. p. 62 '1929 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1668 (1931)

Aom. Jap. *Yakusimatidori*

Leg. Ipse, Aug. 31, 1931.

Distr. Endemica.

Mote. Very often occurs in the lauri-aciculisilvae as undergrowth.

Platanthera intempta, MAXIM., in Mém. Biolog. XII. p. 550 (1887), et in Bull. Acad. Sc. Petersb. XXXI. p. 106 (1837); ROLF., in FORB. et HEMSL. Ind. Fl. Sin. III. p. 56 fl903 ; MATSUM., Ind. Pl. Jap. II. 1. p. 259 (1905) ; NAK., Fl. Kor. II. p. 220 (1911); YAMAZUTA, List Manch. Pl. p. 75 (1930) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1670 (1931)

Norn, Jap. *Obano-totnbosô*

Leg. Ipse, Aug. 1931.

Distr. Honsyû, Sikoku, Kyûsyû, Korea, Manchuria, China.

Actc. Occurs in somewhat wet places in the lauri-aciculisilvae.

Platanthera nipporica, MAK., in Tokyo Bot. Mag. XVI. p. 153 (1902) ; MATSUM., Ind. Pl. Jap. II. 1. p. 260 (1905); SCHL., Orchid. Sino-Jap. Prodr. p. 115 (1919) ; MASAMUNE, Prel. Rep. Veg. Yak. p. 62 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1671 (1931)

Syn. *Platanthera Matsumurana*, SCHL., in Fedd. Repert. II. p. 167 (1906,

Aom. Jap. *Kobanotonbosô*

Leg. Ipse, Aug. 31, 1931.

Distr. Honsyû, Sikoku.

Kcte. Occurs on wet ground in the lauri-aciculisilvae from 600 m up to 1700 m above the sea level.

Platanthera yakumontana, MASAMUNE, sp. nov.

Terrestris glabra erecta, ca. 15 cm alta, radicibus incrassatis, carnosis villosis; folio basilaris singulo, elliptico, apice rotundato, basi cuneato, in petiolum brevem angusto, ca. 3 cm longo 2 cm lato, glabro, caule substricto, tereti, glabro, basi vagina 1-2 praedito; foliis caulinis 3-5 sessilibus, distantibus, erecto-patentibus, inferiore ovato-elliptico acuto, amplexicauli ca. 3 cm longo, 1 cm lato, superioribus multo minoribus. Spica erecta laxa ca. 5 flora, bracteis erectis linearilanceolatis acuminatis ca. 8 mm longis superioribus gradatim brevioribus. Flores albo-virides. Sepala subaequalia patentia, posticum latius late ovatum 2 mm longum 1.5 mm latum apice obtusum et incurvatum, lateralia oblique ovato-lanceolata ca. 3 mm longa 1.3 mm lata, patentia. Petala oblique ovato-lanceolata, ca. 2.5 mm longa 1.2 mm lata. Labellum ovato-oblongum 2.5 mm longum 1.7 mm latum integrum basi calcaratum, calcar 2 mm longo 0.8 mm lato apice obtuso vix recurvo. Columna ca. 1 mm alta.

Aom. Jap. *Tukusi-tidori*

Leg. Ipse, Jul. 1928.

Distr. Kyûsyû, Amami-Ôsima.

Aote. The species is often found in the lauri-aciculisilvae as undergrowth from about 600 m up to 1700 m above the sea level, and it is not yet reported in lands further south than Amami-Ôsima.

Habenaria, WILLD., Sp. Pl. IV. 1. p. 44 (1805) ;

ENDL., Gen. Pl. n. 1525 (1836-40) ; BENTH. et HOOK, f. Gen. Pl. III. p. 624 (1833) ;

PFITZ., in ENGL. u. PRANT. Nat. Pfl.-fam. II. vi. p. 95 (1839); SCHL., Orchid, p. 75 (1915); LEMÉE, Diet. Gen. Pl. Phan. III. p. 407 (1931)

Habenaria formosana, (MATSUM. et HAYJ SCHL., Orchid. Sino-Jap. Prodr. p. 127 '1919; ; MAK. et NEM., Fl. Jap. ed. 2. p. 1650 (1931)

Syn. *Coeoglossum fortinosanutn*, MATSUM. et HAY., ex SCHL. Orchid. Sino-Jap. Prodr. p. 127 (1919)

Habenaria tentaculata, RCHB. f. var. *acutifolia*, HAY., Mat. Fl. For. p. 354 (1911)

Nom. Jap. *Takasago-sagisô*

Leg. Iperse, Jul. 12, 1928.

Distr. Nakanosima, Okinawa, Taiwan.

Note. Occurs by the roadside, and on waste but somewhat humus ground.

Microtis, R. BR., Prodr. p. 320 (1810! ; ENDL., Gen. Pl. n. 1588 (1836-40); BENTH. et HOOK, f., Gen. Pl. III. p. 609 (1833.; PFITZ., in ENGL. u. PRANT. Nat. Pfl.-fam. II. vi. p. 101 (1889); SCHL., Orchid, p. 83 (1915); LEMÉE, Diet. Gen. Pl. Phan. IV. p. 473 (1932)

Microtis formosana, SCHL., in Engl. Jahrb. XLV. p. 382 (1911); SCHL., Orchid. Sino-Jap. Prodr. p. 138 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 61 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1660 (1931)

Syn. *Microtis parviflora*, (non R. BR.) HANCE, in Journ. Bot. XVII. p. 15 (1879;; ROLF., in FORB. et HEMSL. Ind. Fl. Sin. III. p. 46 (1903); MATSUM., Ind. Pl. Jap. II. 1. p. 254 (1905); MATSUM. et HAY., Enum. Pl. Formos. p. 417 (1906)

Microtis unifolia, (non RCHB.) KRANZL., in Engl. Bot. Jahrb. VI. p. 55 (1834;

Nom. Jap. *Nirabaran*

Leg. Iperse, Hirauti, April. 2, 1927.

Distr. Honsyû, Sikoku, Kyûsyû, Amami-dsima, Okinawa, Taiwan, China.

Note. Occurs in the plains, waste lands and the borders of cultivated lands.

Listera, R. BR., in AITON Hort. Kew ed. 2. V. p. 201 (1813); ENDL., Gen. Pl. n. 1552 (1836-40); BENTH. et HOOK. f., Gen. Pl. III. p. 595 (1833); PFITZ., in ENGL. u. PRANT. Nat. Pfl.-fam. II. vi. p. 113 (1839); SCHL., Orchid, p. 95 (1915); LEMÉE, Diet. Gen. Pl. Phan. IV. p. 124 (1932)

Syn. *Cardiophyllum*, EHRB., IV. p. 148 (1789)

Diphryllurn, RAF., in Med. Repos. New York. V. p. 356 (1803,

Listeria, SPRENG., Anleit. ed. 2. II. 1. p. 293 (1817)

Listera Makinoana, OHWI, in Tokyo Bot. Mag. XLV. p. 384 (1931)

Syn. *Listera puberula*, (non MAX.] K. M. WIEG., in Bull. Torr. Bot. Cl. XXVI. p. 61. t. 356, 1 (1898:

Listera Savatieri, (non MAXIM.) MAK., in Tokyo Bot. Mag. XIX. p. 7 (1905); NAK., Fl. Kor. II. p. 230 (1911); SCHL., Orchid. Sino-Jap. Prodr. p. 142 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 61 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1657 (1931)

Listera Eschscholtziana, (non CHAM.) MATSUM., Ind. Pl. Jap. II. 1. p. 253 (1905

Ophrys Savatieri, MAK., in Jap. Journ. Bot. VI. p. 34 (1929,

Nom. Jap. *Ao-hutabaran*

Leg. Kosugidani, Jul. 28, 1927.

Distr. Yezo, Honsyû, Sikoku, Korea.

Note. Grows in the lauri-aciculisilvae, and marks its southern limit in this island.

Listera shikokiana, MAK., in Tokyo Bot. Mag. VII. p. 68 (1893); MATSUM., Ind. Pl. Jap. II. 1. p. 253 (1905); SCHL., Orchid. Sino-Jap. Prodr. p. 143 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 61 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1657 (1931)

*Aoi*7i. Jap. *Murasaki-hutabaran*

Leg. Ipse, Kosugidani, Mart. 17, 1927.

Dist. Honsyū, Sikoku, Kyūsyū, Amami-6sima.

Note. Occurs on humus ground in the lauri-aciculisilvae.

var. *albo-striata*, MASAMUNE

Folia ad medio albo-striata.

Nom. Jap. *Hui-ri-himehutabaran*

Leg. Ipse, Kosugidani, Sept. 18, 1923.

Note. Endemic variety. Occurs in the lauri-aciculisilvae.

Pogonia, JUSS., Gen. Pl. p. 65 (1789); ENDL., Gen. Pl. n. 1601 (1836-40); BENTH. et HOOK, f., Gen. Pl. III. p. 615 (1833); PFITZ., in ENGL. U. PRANT. Nat. Pfl.-fam. II. vi. p. 106 (1839); SCHL., Orchid. p. 95 (1915)

Pogonia japonica, RCHB. f. var. *minor*, MAK., in Tokyo Bot. Mag. XII. p. 103 (1838); MATSUM., Ind. Pl. Jap. II. 1. p. 262 (1905); SCHL., Orchid. Sino-Jap. Prodr. p. 144 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 62 (1929)

Syn. *Pogonia minor*, MAK., in Tokyo Bot. Mag. XXIII. p. 137 (1909); MORI, Enum. Pl. Cor. p. 106 (1922); MAK. et NEM., Fl. Jap. ed. 2. p. 1673 (1931)

Nom. Jap. *Yamatokisō*

Leg. Ipse, Jul. 18, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Korea, Yezo (Species \ Taiwan Species).

Note. Grows in wet lands in the Pseudosasa Owatarii Association, and marks its southern limit in this island.

Galeola, LOUR., Fl. Cochinch. II. p. 520 (1790); ENDL., Gen. Pl. n. 1617 (1836-40); BENTH. et HOOK, f., Gen. Pl. III. p. 589 (1833); PFITZ., in ENGL. U. PRANT. Nat. Pfl.-fam. II. vi. p. 103 (1839); SCHL., Orchid. p. 97 (1915)

Syn. *Erythrorchis*, BL., Rumphia I. p. 200, t. 70 (1835)

Pogochilus, FALCON, in Hook. Journ. Bot. IV. p. 73 (1842)

Haematorchis, BL., Rumphia, IV. t. 200 B (1848)

Galeola septentrionalis, REICHB. f., Xen. Orch. II. p. 73 (1855); MAXIM., in Mém. Biolog. VIII. p. 647 (1872); FR. et SAV., Enum. Pl. Jap. II. p. 39 (1876); MATSUM., Ind. Pl. Jap. II. 1. p. 246 (1905); SCHL., Orchid. Sino-Jap. Prodr. p. 145 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 59 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1644 (1931); LEMÉ, Diet. Gen. Pl. Phan. III. p. 182 (1931)

Abut. Jap. *Tuti-akebi*

Leg. Ipse, Aug. 28, 1928.

Diatr. Yezo, Honsyū, Sikoku, Kyūsyū.

Note. Occurs on rich humus ground in the laurisilvae or in the lauri-aciculisilvae; has its southern limit in this island.

Lecanorchis, BL., MUS. Bot. Lugd. Bat. II. p. 188 (1856); BENTH. et HOOK, f., Gen. Pl. III. p. 605 (1833); PFITZ., in ENGL. U.

PRANT. Nat. Pfl.-fam. II. vi. p. 107 (1839^y); SCHL., Orchid, p. 98 (1915); LEMÉE, Diet. Gen. Pl. Phan. III. p. 933 (1931)

Lecanorchis japonica, BL._f Mus. Bot. Lugd. Bat. II. p. 188 (1856; et Orch. Arch. Ind. I. p. 177 t. 62, f. 1 (1864[^]); FR. et SAV., Enum. Pl. Jap. II. p. 34 (1876); MATSUM., Ind. Pl. Jap. II. 1. p. 251 (1905); SCHL., Orchid. Sino-Jap. Prodr. p. 146 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 60 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1653 (1931)

Norn. Jap. *Muyōran*

Leg. Ipse, Aug. 8, 1924.

Distr. Honsyū, Sikoku, Kyūsyū, Okinawa.

Note. Occurs on rich humus ground in the laurisilvae or in the lauri-aciculisilvae.

Lecanorchis purpurea, MASAMUNE, Prel. Rep. Veg. Yak. p. 60 (1929);

Norn. Jap. *Murasaki-muyōran*

Leg. Ipse, Aug. 8, 1924.

Distr. Kyūsyū.

Note. Occurs as undergrowth on rich humus ground in the laurisilvae.

Aphyllorchis, BL., Bijdr. f. 77 (1825), et Mus.

Bot. Lugd. Bat. I. p. 30 (1825); BENTH. et HOOK, f., Gen. Pl. III. p. 606 (1883-; PFITZ., in ENGL. u. PRANT. Nat. Pfl.-fam. II. vi. p. 112 (1839); SCHL., Orchid, p. 98 (1915)

Syn. *Epiphanes*, BL., Bijdr. p. 421, t. 4. (1825)

Gamoplexis, FALCON, in Trans. Linn. Soc. XX. p. 293, t. 13 (1847)

Aphyllorchis tanegashimensis, HAY., Mat. Fl. Formos. p. 344 (1911); SCHL., Orchid. Sino-Jap. Prodr. p. 147 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 58 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1616 (1931); LEMÉE, Diet. Gen. Pl. Phan. I. p. 334 (1929)

Nom. Jap. *Tanegasima-tnuyōran*

Leg. Ipse, Aug. 6, 1924.

Distr. Okinawa, Tanegasima.

Note. Occurs as undergrowth in the laurisilvae near the sea level. Mr. SASAKI reported that the species is indigenous* to Formosa, but the one which was thought to be is not the *Aphyllorchis*.

Epipactis, ADANS., Fam. II. p. 70 (1763); R. BR., in AITON, Hort. Kew ed. 2. V. p. 201 (1813); ENDL., Gen. Pl. n. 1553 (1836-40); BENTH. et HOOK, f., Gen. Pl. III. p. 619 (1883); PFITZ., in ENGL. u. PRANT. Nat. Pfl.-fam. II. vi. p. 111 (1889); SCHL., Orchid, p. 102 (1915); LEMÉE, Diet. Gen. Pl. Phan. II. p. 888 (1930)

Syn. *Limonias*, EHRB., Beitr. IV. p. 147 (1789)

Epipacturn, RITZ., in Marburg. Schrift. II. p. 125 (1831)

Limodorum, O. KUNTZE, Rev. Gen. Pl. II. p. 671 (1891) p.p.

Epipactis longifolia, BL., Orch. Arch. Ind. p. 185 (1858); SCHL., Orchid. Sino-Jap. Prodr. p. 148 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 59 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1639 (1931)

Syn. *Serapias longi/olia*, THUNB., Fl. Jap. p. 28 (1784)

Epipactis Thunbergii, A. GRAY, in Narr. Perry Exped. II. p. 319 (1856); WETTST.,

in Oerst Bot. Zeit. XXXIX. p. 428 (1839); MATSUM., Ind. Pl. Jap. II. 1. p. 245 (1905); NAK., Fl. Kor. II. p. 222 (1911)

Limodorum Thunbergii, O. KUNTZE, Rev. Gen. PL II. p. 672 (1891)

Helleborine Thunbergii, DRUCE, in Bull. Torr. Bot. Cl. XXXVI. p. 547 (1909,

Norn. Jap. Suzuran

Leg. Ipse, Kosugidani, Jul. 12, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Korea.

Note. Occurs in open wet lands in the lauri-aciculilvae from 500 m up to 700 m above the sea level, and has its southern limit in this island.

Epipogon, (*Epipogum*) [GMEL., Fl. Sibir. I. p. 11, t. 272 U747J] L. C. RICH, f, in Mem. Mus. Paris. IV. pp. 42, 50 (1818); ENDL., Gen. Pl. n. 1545 (1836-40); BENTH. et HOOK, f, Gen. Pl. III. p. 617 (1883); PFITZ., in ENGL. U. PRANT. Nat. Pfl.-fam. II. vi. p. 111 (1889); SCH., Orchid, p. 103 U915); LEMÉE, Diet. Gen. Pl. Phan. II. p. 890 (1930)

Epipogon Rolfei, (HAY.) SCHLT., in Fedde, Rep. Sp. Nov. X. p. 5 (1911), et Orchid. Sino-Jap. Prodr. p. 153 U919 ; MAK. et NEM., FL Jap. ed. 2. p. 1640 (1931);

Syn. *Galera Rolfei*, HAY., Mat. FL Formos. p. 348 (1911)

Nom. Jap. Ryûkyû-muyôran

Leg. Ipse, Jun. 29, 1928.

Distr. Okinawa, Taiwan.

Note. Found in the laurisilvae about 100 m above the sea level.

Spiranthes, L. C. RICH., in Mém. Mus. Paris. IV. p. 50 (1818); ENDL., Gen. Pl. n. 1547 (1836-40); BENTH. et HOOK, f, Gen. Pl. p. 596 (1883); PFITZ., in ENGL. u. PRANT. Nat. Pfl.-fam. II. vi. p. 113 (1889); SCHL., Orchid, p. 112 (1915)

Syn. *Orchiastrum*, [MICH., Nov. PL Gen. p. 30, t. 26 (1729),] ex GREENE, Man. Bot. San Francisco Bay. p. 305 (1894)

Aristotelea, LOUR., FL Cochinch. p. 522 (1790)

Spiranthes, ST.-LAG., in Ann. Soc. Bot. Lyon VII. p. 56 (1830)

Spiranthes sinensis, (PERS.) AMES, Orch. II. p. 53 (1908); SCHL., Orchid. Sino-Jap. Prodr. p. 160 (1919); MERR., Enum. Philipp. PL I. p. 268 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 62 U9291 ; MIY. et KUDO, FL Hokk. and Sagh. III. p. 377 (1932)

Syn. *Aristotelea spiralis*, LOUR., FL Cochinch. p. 522 (1790)

Neottia sinensis, PERS., Syn. II. p. 511 (1807)

Spiranthes australis, KOM., Fl. Mansh. I. p. 525 (1901); MATSUM., Ind. Pl. Jap. II. 1. p. 263 (1905); NAK., FL Kor. II. p. 225 (1911)

Spiranthes spiralis, MAK., in Journ. Jap. Bot. III. p. 25 (1926); MAK. et NEM., FL Jap. ed. 2. p. 1676 (1931)

Nom. Jap. Nezibana

Leg. Ipse, Jun. 1928.

Distr. Saghalien, Yezo, Honsyû, Sikoku, Kyûsyû, Amami-dsima, Okinawa, Taiwan, Korea, Manchuria, China.

Note. Occurs on wet grounds in the lauri-aciculilvae, and common in the Far East.

Goodyera, R. BR., in AITON, Hort. Kew ed. 2. V. p. 197 (1813); ENDL., Gen. Pl. n. 1559 (1836-40); BENTH. et HOOK, i., Gen. Pl.

III. p. 602 (1883); PFITZ., in ENGL. U. PRANT. Nat. Pfl.-fam. II. vi. p. 117 ;1889- ; SCHL., Orchid, p. 114 (1915); LEMÉE, Diet. Gen. Pl. Phan. III. p. 318 (1931,
Syn. Orchiodes, [TREW., in Acta Acad. Nat. Cur. III. p. 4091.6. f. 7 (1736)] O. KUNTZE,
 Rev. Gen. Pl. II. p. 674 (1891)
Goodiera, KOCH, Synops. ed. 2. p. 802 (1844)

Goodyera Matsumurana, SCH., in Bull. Herb. Boiss. sér. 2. p. 298 (1906), et in Orchid. Sino-Jap. Prodr. p. 164 (1919); MATSUM. et HAY., Enum. Pl. Formos. p. 417 ;1906); MASAMUNE, Prel. Rep. Veg. Yak. p. 60 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1647 (1931)

Syn. Epipactis Matsumurana, EATON, in Proc. Biol. Soc. Wash. XXI. p. 64 (1908);

Nom. Jap. Ryūkyū-syusuran

Leg. Ipse, Hirauti, April. 3, 1927.

Distr. Amami-6sima, Okinawa, Taiwan.

Note. Occurs in the laurisilvae about 200 m above the sea level.

Goodyera Maximowicziana, MAK., in Tokyo Bot. Mag. XXIII. p. 137 ;1909; NAK., Fl. Kor. II. p. 266 (1911); SCHL., Orchid. Sino-Jap. Prodr. p. 164 ;1919; MAK. et NEM., Fl. Jap. p. 1647 ;1931)

Syn. Goodyera bifida, MAXIM., in Mém. Biolog. XII. p. 922 (1888)

Nom. Jap. Akebono-syusuran

Leg. Ipse, Aug. 5, 1924.

Distr. Honsyū, Sikoku, Kyūsyū, Korea.

Note. Occurs on humus ground in the laurisilvae as undergrowth and marks its southern limit in this island.

Goodyera Ogatai, YAMAMOTO, Suppl. Ic. Pl. Formos. III. p. 9 (1926); MASAMUNE, Prel. Rep. Veg. Yak. p. 60 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1648 (1931)

Nom. Jap. Sima-syusuran

Leg. Onoaida, Sept. 5, 1926.

Distr. Okinawa, Taiwan.

Note. Occurs on humus ground made by fallen foliage in the laurisilvae.

Goodyera pendula, MAXIM., in Mém. Biolog. XII. p. 924 (1888); MATSUM., Ind. Pl. Jap. II. 1. p. 247 (1905); SCHL., Orchid. Sino-Jap. Prodr. p. 166 ;1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 60 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1648 (1931)

Syn. Epipactis pendula, EATON, in Proc. Biol. Soc. Wash. XXI. p. 65 (1908)

Nom. Jap. Turi-syusuran

Leg. Ipse, Jul. 31, 1924.

Distr. Sikoku, Kyūsyū, Taiwan.

Note. Occurs as epiphyte in the laurisilvae.

Goodyera procera, HOOK., Exot. Fl. t. 39 (1823); MAXIM., in Mém. Biolog. XII. p. 926 (1890); ROLF., in FORB. et HEMSL. Ind. Fl. [Sin. III. p. 45 (1903); MATSUM. et HAY., Enum. Pl. Formos. p. 417 (1906); SCHL., Orchid. Sino-Jap. Prodr. p. 166 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 60 (1929); NAK., in Biogeogr. Soc. Jap. I. J. 255 (1930); MAK. et NEM., Fl. Jap. ed. 2. p. 1648 (1931)

Syn. Neottia procera, KER., in Bot. Reg. t. 639 (1822)

Cionosaccus lanceolatus, BRED., Orch. Kuhl. Hass. t. 1 (1827)

Goodyera carnea, A. RICH., in Ann. Sci. Nat. Ser. 2. XV. p. 40 (1811)

Cordylostylis foliosa, FALC., in Hook. Journ. Bot. IV. p. 75 (1842)

Leucostachys procera, HOFFSG., Preisv. Orch. p. 26 (1842)

Goodyera land folia, FR. et SAV., Enum. PL Jap. II. p. 520 (1876)

Orchiodes procerum, O. KUNTZE, Rev. Gen. Pl. II. p. 675 (1891)

Epipactis procera, EATON, in Proc. Biol. Soc. Wash. XXI. p. 65 (1938)

Nom. *Jap.* *Kinginsô*

Leg. Onoaida, Jul. 1928.

Distr. Amami-6sima, Okinawa, Taiwan, Bonins, China.

Note. I found this plant in the laurisilvae about 300 m above the sea level. It is not yet reported in lands further north than this island.

Goodyera Schlechtendalifana, REICHB. f., in Linnaea XXII. p. 861 (1849); MATSUM., Ind. Pl. Jap. II. 1. p. 248 (1905); NAK., Fl. Kor. II. p. 226 (1911); SCHL., in Orchid. Sino-Jap. Prodr. p. 167 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 60 U929; ; MAK. et NEM., Fl. Jap. ed. 2. p. 1649 (1931)

Syn. *Georchis Schlechtendalifana*, REICHB. f., in Linnaea XXII. 861 (1849)

Goodyera japonica, BL., Orch. Arch. Ind. p. 58 (1858)

Goodyera similis, BL., Orch. Arch. Ind. p. 59 (1858)

Orchiodes Schlechtendalianum, O. KUNTZE, Rev. Gen. Pl. II. p. 675 U891,

Epipactis Schlechtendalifana, EATON, in Proc. Biol. Soc. Wash. XXI. p. 68 (1908)

Nom. *Jap.* *Miyama-uzura*

Leg. Ipse, Jul. 25, 1924.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-Osima, Korea, China.

Note. Occurs on humus ground in the laurisilvae or in the lauri-aciculisilvae.

Goodyera velutina, MAXIM., in REGEL. Gartenfl. XVI. p. 36, t.533 (1867); FR. et SAV., Enum. Pl. Jap. II. p. 38 (1876[^]); KRANZ., in Engl. Bot. Jahrb. VI. p. 55 (1885); MAK., Ill. Fl. Jap. I. t. 38, a-b1 (1891); ROIF., in FORB. et HEMSL. Ind. Fl. Sin. III. p. 46 (1903); MATSUM., Ind. Pl. Jap. II. 1. p. 248 (1905); NAK., Fl. Kor. II. p. 227 (1911); SCHL., Orchid. Sino-Jap. Prodr. p. 168 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 60 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1649 (1931).

Syn. *Orchiodes velutinum*, O. KUNTZE, Rev. Gen. Pl. II. p. 675 (1891)

Epipactis velutina, EATON, in Proc. Biol. Soc. Wash. XXI. p. 65 (1908)

Nom. *Jap.* *Syusuran*

Leg. Ipse, Aug. 31, 1931.

Distr. Honsyû, Kyûsyû, Tanegasima, Korea, China.

Note. Occurs as undergrowth in the lauri-aciculisilvae, and has its southern limit in this island.

Goodyera yakushimensis, NAK., in Tokyo Bot. Mag. XXXVII. p. 8 (1923); MASAMUNE, Prel. Rep. Veg. Yak. p. 60 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1649 (1931).

Nom. *Jap.* *Yakusimasyusuran*

Leg. Ipse, Jul. 25, 1924.

Distr. Amami-6sima.

Note. Occurs on humus ground in the laurisilvae at low altitudes; is restricted to Amami-6sima and Yakusima.

Zeuxine, (*Zeuxina*; LINDL., Orchid. Seel. p. 9 11826[^]; ENDL., Gen. Pl. n. 1577 11836-40; BENTH. et HOOK, f., Gen. Pl. III. p. 599 (1883); PFITZ., in ENGL. u. PRANT. Nat. Pfl.-fam. II. vi. p. 116 a889); SCHL., Orchid, p. 123 (1915)

Syn. *Adenostylis*, BL., Bijdr. p. 414 (1825);

Tripleura, LINDL., in WALL. Cat. n. 7391 (1832) ; Bot. Reg. t. 1618 (1833)

Zuxine, WIGHT, IC. V. p. 16 (1852)

Adenostyles, BENTH. et HOOK, f., Gen. Pl. III. p. 599 U883i

Zeuxine strateumatica, SCHL., Orch. Dtsch. Neu.-Guin. p. 77 (191D, et Orchid. Sino-Jap. Prodr. p. 173 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 62 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1682 (1931)

Syn. *Orchis strateumatica*, LINN., Sp. Pl. ed. 1. p. 943 (1753)

Neottia strateumatica, R. BR., Prodr. p. 319 (1810)

Spiranthes strateumatica, LINDL., Bot. Reg. sub. t. 823 (1824);

Adenostylis sulcata, BL., Bijdr. p. 414 (1825)

Zeuxine sulcata, LINDL., Gen. Sp. Orch. p. 485 (1840i; ITO, in Tokyo Bot. Mag.

XIV. p. 27, t. 2 (1900); ROLF., in FORB. et HEMSL. Ind. Fl. Sin. III. p. 42

11903); MATSUM, Ind. Pl. Jap. II. 1. p. 264 (1905)

Adenostylis strateumatica, AMES, Orchid. II. p. 59 (1908)

from. **Jap.** Kinuran

Leg. Ipse, Kurio, Mart. 22, 1923.

Distr. Kyūshū, Okinawa, Taiwan, China.

Note. Occurs in the plain, on waste ground, or near cultivated lands.

Zeuxine yakusimensis, MASAMUNE, in Journ. Trop. Agr. III. p. 393 (1931)

Nom. Jap. *Yakusima-aka-syusuran*

Leg. Ipse, ca. O no aid a, Sept. 1, 1931.

Note. This endemic species was found as undergrowth in the lauri-aciculisilvae about 500 m above the sea level.

* ***Myrmechis***, BL., Fl. Jav. Nov. sér. I. Orchid, p. 64 t. 21 (1858); BENTH. et HOOK, f., Gen. Pl. III. p. 601 (1833); PFITZ., in ENGL. u. PRANT. Nat. Pfl.-fam. II. vi. p. 117 (1889); SCHL., Orchid, p. 124 (1915); LEMÉE, Diet. Gen. Pl. Phan. IV. p. 617 (1932)

Myrmechis tsukusiana, MASAMUNE, in Tokyo Bot. Mag. XLIII. p. 250 (1929), et Prel. Rep. Veg. Yak. p. 61 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1660 (1931)

Nom. Jap. *Tukusi-aridōsiran*

Leg. Ipse, Jul. 12, 1928.

Distr. Endemica.

Note. Occurs on humus ground in the laurisilvae; flowering time from August to September.

Odontochilus, BL., Fl. Jav. Nov. sér. I. Orchid. p. 66, tt. 29 et 36 (1858); BENTH. et HOOK, f., Gen. Pl. III. p. 600 (1833); PFITZ., in ENGL. u. PRANT. Nat. Pfl.-fam. II. vi. p. 117 (1889); SCHL., Orchid, p. 124 (1915); LEMÉE, Diet. Gen. Pl. Phan. IV. p. 809 (1932)

Odontochilus Inabai, HAY., Ic. Pl. Formos. IV. p. 104 (1914); SCHL., Orchid. Sino-Jap. Prodr. p. 175 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 62 (1929),

Syn. *Anoectocaulus Inabai*, HAY., Ic. Pl. Formos. IV. p. 102, t. 16 (1914); MAK. et NEM., Fl. Jap. ed. 2. p. 1616 (1931)

Nom. Jap. *Inabaran*

Leg. Ipse, ca. Hirauti, Jul. 25, 1924.

Distr. Okinawa, Taiwan.

Note. This orchid is found as undergrowth in the lauri-aciculisilvae about 300 m above the sea level on the southern side of the island.

Anoetochilus, BL., Bijdr. p. 411 t. 15 (1825);
 ENDL., Gen. PI. n. 1569 [183&-40]; BENTH. et HOOK. f. Gen. PL III. p. 593 (1883);
 PFITZ., in ENGL. U. PRANT. Nat. Pfl.-fam. II. vi. p. 116 (1889); SCHL., Orchid, p.
 125 (1915); LEMÉE, Diet. Gen. PI. Phan. I. p. 286 (1929)

Syn. *Anoetochilus*, BL., Bijdr. p. 411, t. 15 (1825)

Chrysobaphus, WALL., Tent. Fl. Nepal, p. 37, t. 27 (1826)

Anoetochilus, LINDL., Gen. et Sp. Orchid, p. 498 (1840)

Anoetochilus, BL., Fl. Jav. nov. sér. I. Orchid, p. 38 (1858)

Anoetochilus yakushimensis, YAMAMOTO, in Tokyo Bot. Mag. XXXVIII. p. 131 (1923),
 et Supp. Ic. PI. Formos. II. p. 3 (1926); MASAMUNE, Prel. Rep. Veg. Yak. p. 5&
 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1616 (1931)

Norn. Jap. *Yakusimahime-aridósiran*

Leg. Ipse, Kosugidani, Sept. 30, 1926.

Distr. Okinawa.

Note. Occurs as undergrowth in the lauri-aciculisilvae; flowering time from August to September.

Tropidia, LINDL., in Wall. Cat. n. 7386 (1832);
 Bot. Reg. t. 1618 (1833); ENDL., Gen. PI. n. 1565 (1833-40); BENTH. et HOOK. f.
 Gen. PI. III. p. 592 (1883^N); PFITZ., in ENGL. u. PRANT. Nat. Pfl.-fam. II. vi. p. 121
 (1888); SCHL., Orchid, p. 127 (1915)

Syn. *Cnemidia*, LINDL., Bot. Reg. t. 1618 (1833)

Decaisnia, LINDL., Gen. et Sp. Orchid. PI. p. 462 (1810)

Govindocia, WIGHT, Ic. VI. p. 34, t. 2090 a853!

Tropidia nipponica, MASAMUNE, in Tokyo Bot. Mag. XLIII. p. 249 (1929), et Prel. Rep.
 Veg. Yak. p. 62 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1689 (1931)

Norn. Jap. *Yakusimanettairan*

Leg. Ipse, ca. Hirauti, Jun. 29, 1928.

Distr. Kyfisyū, Sikoku.

Note. Occurs as undergrowth in the laurisilvae from about 100 m up to 300 m above the sea level.

Tainia, BL., Bijdr. p. 354 (1825); ENDL., Gen.
 PI. n. 1395 (1836-40); BENTH. et HOOK. f. Gen. PI. III. p. 515 (1883 p.p.); PFITZ.,
 in ENGL. u. PRANT. Nat. Pfl.-fam. II. vi. p. 153 (1889 p.p.); SCHL., Orchid, p. 129
 (1915)

Syn. *Mitopetalum*, BL., Fl. Jav. PI. p. VIII. (1828);

Ania, LINDL., Gen. et Sp. Orchid. PI. p. 129 (1831)

Tainia laxiflora, MAK., in Tokyo Bot. Mag. XXIII. p. 138 (1909); SCHL., Orchid. Si no-
 Jap. Prodr. p. 180 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 62 (1929); MAK.
 et NEM., Fl. Jap. ed. 2. p. 1677 (1931)

Syn. *Oreorchis laxiflora*, ITO ex MAK., in Tokyo Bot. Mag. XXIII. p. 138 (1909)

Calanthe laxiflora, MAK., in Tokyo Bot. Mag. XXIII. p. 138 (1909)

Nom. Jap. *Hime-tokenran*

Leg. Ipse, Yaegadake, Mart. 19, 1923.

Distr. Honsyū, Kyfisyū, Amami-Osima, Okinawa.....

Note. This terrestrial orchid grows in the laurisilvae from 400 m up to 800 m above the sea level.

Oberonia, LINDL., Gen. et Sp. Orchid. Pl. p. 15
11830[;]; ENDL., Gen. Pl. n. 1330 ;183&-40); BENTH. et HOOK, f., Gen. Pl. III. p.
494 '1883); PFITZ., in ENGL. U. PRANT. Nat. Pfl.-fam. II. vi. p. 131 (1889); SCHL.,
Orchid, p. 160 (1915[;]; LEMÉE, Diet. Gen. Pl. Phan. IV. p. 789 (1932)
Syn. *Iridorkis*, THOU., in Nour. Bull. Soc. Philom. Paris. I. p. 319 (1809)
Iridorchis, THOU., Hist. Pl. Orchid. Tabl. des Esp^sc. III. et t. 91 (1822:
Titania, ENDL., Prodr. Fl. Norfolk, p. 31 (1833)

Oberonia japonica, MAK., Ill. Fl. Jap. I. t. 41 (1891); MATSUM., Ind. Pl. Jap. II. 1. p.
255 '1905[;]; SCHL., Orchid. Sino-Jap. Prodr. p. 195 (1919); MORI, Enum. Pl. Cor.
p. 104 '1922[^]; MASAMUNE, Prel. Rep. Veg. Yak. p. 61 (1929)
Syn. *Malaxis japonica*, MAXIM., in Bull. Acad. Petersb. XXII. p. 257 (1877,
Oberonia japonica, MAK. var. *aurantiaca*, MAK., in Journ. Jap. Bot. IV. 6, p. 10 '
1927^N; MAK. et NEM., Fl. Jap. ed. 2. p. 1662 (1931)
Nom. Jap. *Yōrakuran*
Leg. Ipse, Kosugidani, Aug. 1928.
Distr. Honsyū, Sikoku, Kyūsyū, Korea.
Note. Occurs in the lauri-aciculisilvae.

Oberonia Makinoi, MASAMUNE, nom. nov.

Syn. *Oberonia japonica*, MAK. form, *major*, MAK., in IINUMA Sōmoku Dzusetzu ed.
Mak. IV. p. 1198 Pl. XXIX [1912)
Oberonia, sp. MASAMUNE, Prel. Rep. Veg. Yak. p. 61 (1929)
Nom. Jap. *dbayōrakuran*
Leg. Ipse, Jul. 25. 1924.
Note. This plant grows as epiphyte on tree trunks in the laurisilvae near the
sea level and in the lauri-aciculisilvae.

Liparis, L. C. RICHL., in Mem. Mus. Paris. IV. pp.
43, 52 1818 ; ENDL., Gen. Pl. n. 1340 U836-40) ; BENTH. et HOOK, f., Gen. Pl. III.
p. 495 ,1883^V ; PFITZ., in ENGL. u. PRANT. Nat. Pfl.-fam. II. vi. p. 130 (1889[;]; SCHL.,
Orchid, p. 161 .1915/; LEMÉE, Diet. Gen. Pl. Phan. IV. p. 115 U932)
Syn. *Leptorkis*, THOU., in Nouv. Bull. Soc. Philom. Paris. I. p. 319 (18091
Leptorchis, THOU., Hist. Pl. Orchid. Tabl. des Esp^sc. I. et t. 25 (1822;
Empusa, LINDL., Bot. Reg. t. 825 1,1824)
Gastroglottis, BL., Bijdr. p. 397 il825)
Empusaria, REICHB., Consp. p. 69 (1828)
Androchilus, LIEBM., in Bot. Notis, p. 101 (1844)
Platylepis, LINDL., Veg. Kingd. p. 181 (1847)

Liparis formosana, REICHB. f., Gard. Chron. I. p. 394 (1880); MATSUM., Ind. Pl. Jap.
II. 1. p. 251 ,1905 ; SCHL., Orchid. Sino-Jap. Prodr. p. 198 (1919); MASAMUNE,
Prel. Rep. Veg. Yak. p. 60 1929[;]; MAK. et NEM., Fl. Jap. ed. 2. p. 1654 (1931[^]
Nom. Jap. *Yūkokuran*
Leg. A. KIMURA! Aug. 10, 1922.
Distr. Honsyū, Kyūsyū, Amami-6sima, Okinawa, Taiwan.
Note. This terrestrial orchid grows in the laurisilvae or the lauri-aciculisilvae and
sometimes in the open.

Liparis Kramerii, FR. et SAV., Enum. Pl. Jap. II. pp. 22, 509 (1876 ; MAK., in Tokyo Bot Mag. III. p. 7 (1889) ; MATSUM., Ind. Pl. Jap. II. 1. p. 252 (1905); NAK., Fl. Kor. II. p. 224 (1911^X ; SCHL., Orchid. Sino-Jap. Prodr. p. 199 (1919); MAK. et NEM., Fl. Jap. ed. 2. p. 1654 (1931)

:Syn. *Leptorchis Kramerii*, O. KUNTZE, Rev. Gen. Pl. p. 671 (1891)

Norn. Jap. *Zigabati-sô*

Leg. Ipse, Yaegadake, Jun. 18, 1928.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Korea.

Note. Occurs as undergrowth in the lauri-aciculisilvae from 1000 m up to 1500 m above the level of the sea and has its southern limit in this island.

Liparis nervosa, LINDL., Gen. et Sp. Orch. Pl. p. 26 (1840⁶ ; FR. et SAV., Enum. Pl. Jap. II. p. 21 (1876); ROLF., in FORB. et HEMSL. Ind. Fl. Sin. III. p. 7 (1903); MATSUM., Ind. Pl. Jap. II. p. 252 (1905); MATSUM. et HAY., Enum. Pl. Formos. p. 406 (1906); SCHL., Orchid. Sino-Jap. Prodr. p. 201 (1919^V ; MASAMUNE, Prel. Rep. Veg. Yak. p. 61 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1655 (1931)

Sun. *Ophrys nervosa*, TfflJNB., Fl. Jap. p. 27 (1784,

Epidendrum nervosum, THUNB., in Journ. Linn. Soc. II. p. 327 (1794);

Cymbidium nervosum, Sw., in Nov. Act. Ups. VI. p. 76 (1799)

Malaxis nervosa, Sw., in Vet. Acad. Hand. Stochk. XXL p. 235 (1800)

Sturmia nervosa, RCHB. f., in Bonpl. III. p. 250 (1855³)

Leptorchis nervosa, O. KUNTZE, Rev. Gen. Pl. II. p. 671 (1891)

Liparis cornicaulis, MAK., Ill. Fl. Jap. t. 47 (1891)

Liparis bambusaefolia, MAK., in Tokyo Bot. Mag. VI. p. 48 (1892)

Norn. Jap. *Kokuran*

Leg. Ipse, Jul. 30, 1924.

Distr. Honsyû, Sikoku, Kyûkyû, Tanegasima, Amami-6sima, Okinawa, Taiwan, China.

Note. Occurs in the laurisilvae near the sea level or in the lauri-aciculisilvae about 800 m above the sea level.

Liparis odorata, LINDL., Gen. et Sp. Orchid. Pl. p. 26 (1830¹); ROLF., in FORB. et HEMSL. Ind. Fl. Sin. III. p. 7 (1903); MATSUM., Ind. Pl. Jap. II. 1. p. 252 (1905); MATSUM. et HAY., Enum. Pl. Formos. p. 407 (1906); SCHL., Orchid. Sino-Jap. Prodr. p. 201 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 61 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1655 (1931)

:Syn. *Malaxis odorata*, WILLD., Sp. Pl. IV. p. 91 (1805[^])

Stelis racemosa, SM., in Rees. Cyclop. XXXIV. p. 10 (1814);

Tribrachia racemosa, LINDL., Coll. Bot. Sub. t. 41 (1825)

Liparis paradoxa, RCHB. f., in Walp. Ann. VI. p. 218 (1861)

Leptorchis odorata, O. KUNTZE, Rev. Gen. Pl. II. p. 671 (1891)

JNom. Jap. *Sasabaran*

Leg. Ipse, ca. Onoaida, Jun. 24, 1928.

Distr. Kyûsyû, Amami-dsima, Okinawa, Taiwan, China.

Note. This terrestrial orchid is found in waste lands or by the roadside.

Liparis plicata, FR. et SAV., Enum. Pl. Jap. II. pp. 22, 509 (1876 ; ROLF., in FORB. et HEMSL. Ind. Fl. Sin. III. p. 8 (1903) ; MATSUM., Ind. Pl. Jap. II. 1. p. 253 (1905); MATSUM. et HAY., Enum. Pl. Formos. p. 408 (1906); SCHL., Orchid. Sino-Jap. Prodr. p. 202 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 61 (1929) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1656 (1931)

Norn. Jap. Tikeiran

Leg. Ipse, Jul. 21, 1924.

Bistr. Kyūsyū, Tanegasima, Amami-6sima, Taiwan, China.

Note. Grows as epiphyte in the laurisilvae or in the lauri-aciculisilvae from the sea level up to about 500 m.

Liparis yakusimensis, MASAMUNE, in Tokyo Bot. Mag. XLIII. p. 250 (1929), et Prel. Rep. Veg. Yak. p. 61 1929; ; MAK. et NEM., Fl. Jap. ed. 2. p. 1656 (1931)

Nom. Jap. Gibōsiran

Leg. Ipse, Aug. 31, 1931.

Distr. Kyūsyū Mt. Kaimon in Prov. Satsuma)

Note. Occurs in the lauri-aciculisilvae from about 700 m up to 1100 m above the sea level; marks its southern limit in this island.

Dendrobium, SWARTZ, in Nova Act. Soc. Upsal.

VI. p. 82 1790; ; LINDL., Gen. et Sp. Orchid. PL p. 74 (1830i; ; ENDL., Gen. Pl. n. 1369 1836-40 ; BENTH. et HOOK, f., Gen. Pl. III. p. 498 (1883); PFITZ., in ENGL. u. PRANT. Nat. Pfl.-fam. II. vi. p. 173 (1839) ; KRANZ., in Engl. Pfl.-reich. IV. 50 ii. B. 21, ,Heft 45; p. 25 U910); SCHL., Orchid, p. 249 (1915); LEMÉE, Diet Gen. PL Phan. II. p. 539 (1930)

Syn. Callista, LOUR., Fl. Cochinch. p. 519 (1790)

Ceraia, LOUR., FL Cochinch. p. 518 (1790)

Hedcrorkis, THOU., in Nouv. Bull. Soc. Philom. Paris. I. p. 319 (1809)

Hedcrorchis, THOUR., Hist. PL Orchid. Tabl. des Espèc. III. et t. 90 (1822)

Dendrobium moniliforme, SW., in Nov. Act. Upsal. VI. p. 85 (1790); FR. et SAV., Enum. PL Jap. II. p. 23 U876); ROLF., in FORB. et HEMSL. Ind. FL Sin. III. p. 12 .1903.; MATSUM., Ind. PL Jap. II. p. 242 U905); KRANZLIN, in Engl. Pfl.-reich. IV. 50. ii. B. 21. ,Heft 45) p. 25 (1910); NAK., Fl. Kor. II. p. 218 (1911); HAY., Ic. PL Formos. IV. p. 44 il914† ; SCHL., Orchid. Sino-Jap. Prodr. p. 212 U919); MASAMUNE, Prel. Rep. Veg. Yak. p. 59 (1929)

Syn. Epidendrum moniliforme, LINN., Sp. PL I. p. 954 J753)

Epidendrum monile, THUNB., FL Jap. p. 30 (1784)

Onychium japonicum, BL.. Bijdr. p. 328 (1825)

Dendrobium catena turn, LINDL., Gen. et Sp. Orchid. PL p. 84 (1830)

Dendrobium japonicum, LINDL., Gen. et Sp. Orchid. Pi. p. 89 (1830)

Ormostemma albiflora, RAF., FL Tellur IV. p. 38 U826)

Dendrobium cast urn, BATEM., ex GARDN. Chron. p. 943 t1868)

Callista japonica, O. KUNTZE, Rev. Gen. PL II. p. 655 il891)

Callista moniliformis, O. KUNTZE, Rev. Gen. PL II. p. 655 il891)

Dendrobium monile, KRANZ., in ENGL. Pfl.-reich. IV. 50 ii. B. 21 (Heft 45) p. 50 .1910. ; MAK. et NEM., Fl. Jap. ed. 2. p. 1636 (1931)

Nom. Jap. Sekkoku

Leg. Ipse, Kosugidani, Aug. 1928.

Distr. Sikoku, Kyūsyū, Tanegasima, Taiwan, Korea, China.

Note. Occurs in the laurisilvae or in the lauri-aciculisilvae from the sea level up to about 700 m.

Dendrobium tosaeneae, MAK., Ill. FL Jap. I. t. 46 ;1891); MATSUM., Ind. PL Jap. II. 1. p. 243 (1905.; SCHL., Orchid. Sino-Jap. Prodr. p. 215 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 59 1929 ; MAK. et NEM., FL Jap. ed. 2. p. 1638 (1931)

Syn. Dendrobium peŕe-Faurie, HAY., Ic. PL Formos. VI. p. 70 (1916);

Nom. Jap. *IGbana-sekkoku*

Leg. Ipse, Onoaida, Aug. 12, 1928.

Distr. Kyŕsyŕ, Sikoku, Amami-Osima, Okinawa, Taiwan.

Note. The species flourishes at low altitudes and ranges from the sea level up to about 400 m.

Eria, LINDL., Bot. Reg. XL t. 904 (1825), et Gen. et Sp. Orchid. PL p. 65 (1830); ENDL., Gen. PL n. 1363 (1837); BENTH. et HOOK, f., Gen. PL III. p. 509 (1883); PFITZ., in ENGL. U. PRANT. Nat. Pfl.-fam. II. vi. p. 175 (1889); KRANZ., in ENGL. Pfl. Reich. IV. 50. II. B. 21 (Heft 45) p. 15 (1911); SCHL., Orchid, p. 280 (1915); LEMEE, Diet. Gen. PL Phan. II. p. 911 (1930)

Syn. Ceratium, B L., Bijdr. p. 341 t. 46 (1825)

Octomeria, DON, Prodr. FL Nepal, p. 31 (1825)

Eria reptans, MAK., in Tokyo Bot. Mag. XV. p. 128 (1901); MAK. et NEM., FL Jap. ed. 2. p. 1642 (1931)

Syn. Dendrobium reptans, FR. et SAV., Enum. PL Jap. II. p. 510 (1879);

Eria japonica, MAXIM., in Bull. Acad. Sc. Petersb. XXXI. p. 103 (1887); MATSUM., Ind. PL Jap. II. 1. p. 245 (1905)

Caltista reptans, O. KUNTZE, Rev. Gen. PL II. p. 655 (1891)

Eria reptans, SCHL., Orchid. Sino-Jap. Prodr. p. 219 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 59 (1929)

Nom. Jap. *Osaran*

Leg. Ipse, Kosugidani, Jul. 18, 1928.

Distr. Honsyŕ, Sikoku, Kyŕsyŕ, Amami-Osima.

Note. Occurs as epiphyte in the laurisilvae or in the lauri-aciculisilvae from 400 m up to 800 m above the sea level.

Eria yakushimensis, NAK., in Tokyo Bot. Mag. XXXVI. p. 20 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 59 (1929); MAK. et NEM., FL Jap. ed. 2. p. 1642 (1931)

Nom. Jap. *Oosaran*

Leg. Irid NAKAI,

Distr. Endemic a.

Note. This orchid has not yet been collected by myself.

Phajus, LOUR., FL Cochinch. p. 529 (1790); ENDL., Gen. PL n. 1388 (1836-40); BENTH. et HOOK, f., Gen. PL III. p. 512 (1883); PFITZ., in ENGL. u. PRANT. Nat. Pfl.-fam. II. vi. p. 152 (1889); SCHL., Orchid, p. 302 (1915)

Syn. Cyanorkis, THOU., in Nour. Bull. Soc. Philom. Paris. I. p. 317 (1809)

Pachyne, SALISB., in Trans. Hort. Soc. I. p. 299 (1812)

Cyanorchis, THOU., Hist. PL Orch. Table des Espèc. I. et t. 33 (1822)

Tankervillia, LINK, Handb. I. p. 251 (1829)

Hecate, RAF., FL Tellur. IV. p. 44 (1836)

Phajus maculatus, LINDL., in WALL. Cat. n. 3748 (1828); BL., MUS. Bot. Lugd. Bat. I. p. 9, t. 5 (1849); MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 204 (1866); FR. et SAV., Enum. PL Jap. II. p. 24 (1876); MAK., in Tokyo Bot. Mag. X. p. 109 (1896); MATSUM., Ind. PL Jap. II. 1. p. 257 (1905); MAK. et NEM., FL Jap. ed. 2. p. 1666 (JS31j)

Nom. Jap. Hosikeiran
Leg. Ipse, April. 4, 1927.
Distr. Honsyû, Sikoku, Kyûsyû.
Note. Occurs in the laurisilvae.

Phajus minor, BL., MUS. Bot. Lugd. Bat. II. p. 181 (1858); SCHL., Orchid. Sino-Jap. Prodr. p. 231 U919); MASAMUNE, Prel. Rep. Veg. Yak. p. 62 (1929)
Syn. Phajus maculatm, LINDL. var. *minor*, FR. et SAV., Enum. Pl. Jap. II. p. 24 (1876); MATSUM., Ind. Pl. Jap. II. 1. p. 257 (1905); MAK. et NEM., Fl. Jap. ed. 2. p. 1666 (1931)
Nom. Jap. Gamekiran
Leg. Ipse, Jun. 17, 1928.
Distr. Honsyû, Kyûsyû, Tanegasima.
Note. This terrestrial orchid is found in the laurisilvae.

Calanthe, R. BR., in Bot. Reg. sub. t. 573 (1821);
 ENDL., Gen. Pl. n. 1501 (1836-40); BENTH. et HOOK, f., Gen. Pl. III. p. 520 (1883);
 PFITZ., in ENGL. U. PRANT. Nat. Pfl.-fam. II. vi. p. 153 (1839); SCHL., Orchid, p. 304 (1915); LEMÉE, Diet. Gen. Pl. Phan. I. p. 748 (1929)
Syn. Alismorkis, THOU., in Nouv. Bull. Soc. Philom. Paris. I. p. 318 (1809)
Sylvalismis, THOU., Hist. Pl. Orchid, t. 36 (1822)
Alismorchis, THOU., id. t. 35 (1822)

Calanthe Fauriei, SCHL., Orchid. Sino-Jap. Prodr. pp. 66, 236 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 58 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1620 (1931)
Nom. Jap. Simaebine
Leg. Ipse, Jul. 29, 1928.
Distr. Okinawa.
Note. The species is found as undergrowth in the lower part of the laurisilvae and in the lauri-aciculisilvae.

Calanthe Matsumurana, SCHL., in Fedd. Rep. II. p. 168 (1906), et Orchid. Sino-Jap. Prodr. p. 239 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 58 (1929)
Syn. Calanthe veratrifolia, KRANZ., in Engl. Bot. Jahrb. VI. p. 54 (1885)
Calanthe triplicata, AMES, in Philipp. Journ. Sci. II. Bot. p. 326 (1901); MAK. et NEM., Fl. Jap. ed. 2. p. 1623 (1931)
Calanthe veratrifolia, R. BR.; MATSUM. et HAY., Enum. Pl. Formos. p. 411 (1906)
Nom. Jap. Tururan
Leg. Ipse, Jul. 21, 1924.
Distr. Kyûsyû, Amami-Osima, Okinawa, Taiwan, Philippines.
Note. Occurs as undergrowth in the laurisilvae.

Calanthe striata, R. BR. var. *Sieboldi*, MAXIM., in Mém. Bioloz. VIII. p. 641 (1872); FR. et SAV., Enum. Pl. Jap. II. p. 24 (1876); MAK., in Tokyo Bot. Mag. III. p. 448 (1889); YATABE, Iconog. Fl. Jap. I. 3. p. 209 Pl. LI (1893), et in Tokyo Bot. Mag. XVII. p. 143 (1903); MATSUM., Ind. Pl. Jap. II. 1. p. 238 (1905); SCHL., Orchid. Sino-Jap. Prodr. p. 242 [1919,1; MAK. et NEM., Fl. Jap. ed. 2. p. 1622 U931)
Syn. Calanthe Sieboldi, DECN., ex REGEL, Ind. Sem. Hort. Petersb. p. 80 (1868); MORI, Enum. Pl. Cor. p. 100 (1922);
Nom. Jap. Kiebinc

Leg. NAOHARA! Mart. 15, 1930.

Distr. Kyûsyû.

Note. Occurs as undergrowth in the laurisilvae or in the lauri-aciculisilvae.

Calanthe Textori, MIQ., in Prol. p. 136 (1867); MAXIM., in Mém. Biolog. VIII. p. 643 (1872); MATSUM., Ind. Pl. Jap. II. 1. p. 233 (1905); SCHL., Orchid. Sino-Jap. Prodr. p. 242 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 58 (1929),

Syn. *Calanthe japonica*, BL., ex MIQ. Prol. p. 137 (1867)

Calanthe pleiochrota, RCHB. f., in Gardn. Chron. p. 938 (1871)

Calanthe violacea, DECN., ex MAXIM., in Mém. Biolog. VIII. p. 646 (1872.)

Alismorchis japonica, O. KUNTZE, Rev. Gen. Pl. II. p. 650 (1891)

Alismorchis pleiochrota, O. KUNTZE, Rev. Gen. Pl. II. p. 650 (1891)

Alismorchis Textori, O. KUNTZE, Rev. Gen. Pl. II. p. 650 (1891)

Calanthe triplicata, AMES; MAK. et NEM., Fl. Jap. ed. 2. p. 1623 (1931)

Norn. Jap. Kwaran, Ryûkyû-ebine.

Leg. Ipe, Nakama, Aug. 6, 1928.

Distr. Kyûsyû, Amami-6sima, Okinawa, Taiwan,

Note. Occurs as undergrowth in the laurisilvae or in the lauri-aciculisilvae.

Calanthe venusta, SCHL., Orchid. Sino-Jap. Prodr. pp. 69, 244 (1919[^]); MASAMUNE; Prel. Rep. Veg. Yak. p. 58 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1623 (1931)

Syn. *Calanthe gracilis*, MATSUM., Ind. Pl. Jap. II. 1. p. 237 ;1905)

Norn. Jap. Tokusaran

Leg. Y. KUDO! Aug. 1907.

Distr. Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan.

Note. Grows as undergrowth in the laurisilvae; rather common in South Japan.

Bulbophyllum, [*Bolbophyllum*] THOU., Hist. Pl.

Orchid. Tabl. des Espéc. III. et tt. 93-97 (1822); ENDL., Gen. Pl. n. 1352 (1836-40) p.p.; BENTH. et HOOK, f., Gen. Pl. III. p. 501 (1883) p.p.; PFITZ., in ENGL. u. PRANT. t. Jap. Pfl.-fam. II. vi. p. 178 (1889) p.p.; SCHL., Orchid, p. 321 (1915); LEMÉE, Diet. Gen. Pl. Phan. I. p. 711 (1929)

Syn. *Tribrachia*, LINDL., Bot. Reg. t. 832 (1824)

Anisopetalum, HOOK., Exot Fl. t. 149 (1825)

Lyraca, LINDL., Gen. et Sp. Orchid. Pl. p. 46 (1830)

Bulbophyllum drymoglossum, MAX.; OKUBO, in Tokyo Bot. Mag. I. p. 14, t. 3 (1887); MAK., Ill. Fl. Jap. I. t. 19 (1891); MATSUM., Ind. Pl. Jap. II. 1. p. 236 (1905); SCHL., Orchid. Sino-Jap. Prodr. p. 248 (1919); MORI, Enum. Pl. Cor. p. 100 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 58 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1618 (1931)

Nom. Jap. Mamezutaran

Leg. Ipe, Aug. 1, 1924.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Korea.

Note. The species is found as epiphyte on tree trunks and on rocks in the laurisilvae.

Bulbophyllum inconspicuum, MAX., in Mém. Biolog. XII. p. 545 (1886); MAK., Ill. Fl. Jap. I. t. 20 (1891); MATSUM., Ind. Pl. Jap. II. 1. p. 236 (1905); SCHL., Orchid. Sino-Jap. Prodr. p. 248 (1919); MORI, Enum. Pl. Cor. p. 100 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 58 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1618 (1931)

Norn. Jap. *Mugiran*

Leg. Ipse, Aug. 22, 1928.

Distr. Honsyū, Sikoku, Kyūsyū, Korea.

Note. Grows as epiphyte in the lauri-aciculisilvae; marks its southern limit in this island.

Cirrhopetalum, LINDL., Bot. Reg. sub. t. 832

(1824); ENDL., Gen. Pl. n. 1353 (1836-40); BENTH. et HOOK., Gen. Pl. III. p. 504 U883; PFITZ., in ENGL. U. PRANT. Nat. Pfl.-fam. II. vi. p. 178 (1889); SCHL., Orchid, p. 330 (1915)

Cirrhopetalum japonicum, MAK., Ill. Fl. Jap. I. p. 42 (1891); MATSUM., Ind. Pl. Jap. II. 1. p. 239 (1905); SCHL., Orchid. Sino-Jap. Prodr. p. 253 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 59 (1929); LEMÉE, Diet. Gen. Pl. Phan. II. p. 170 (1930)

Syn. *Bulbophyllum japonicum*, MAK., in Tokyo Bot. Mag. XXIV. p. 31 (1910); MAK. et NEM., Fl. Jap. ed. 2. p. 1618 (1931)

Norn. Jap. *Miyama-mugiran*

Leg. Ipse, Jul. 11, 1928.

Distr. Sikoku, Kyūsyū, Tanegasima.

Note. Grows as epiphyte in the laurisilvae or in the lauri-aciculisilvae; marks its southern limit in this island.

Cirrhopetalum Makinoanum, SCHL., Orch. Sino-Jap. Prodr. p. 254 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 59 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1625 (1931)

Syn. *Cirrhopetalum boninense*, non SCHL.; MAK., in IINUMA Sōmoku Dzusetu ed. Mak. IV. p. 1191 t. 20 (1912)

Bulbophyllum Makinoanum, MASAMUNE, in Journ. Trop. Agr. II. p. 153 (1930)

Abut. Jap. *Sikōran*

Leg. Y. KUDO! Aug. 1907.

Distr. Tanegasima, Amami-Ōsima, Okinawa.

Note. I have not seen this interesting epiphyte in the island, but Dr. KUDO told me that he had collected it once in the island.

Cymbidium, SWARTZ, in Nova. Act. Upsal. VI

p. 70 (1799); ENDL., Gen. Pl. n. 1427 (1836-40); BENTH. et HOOK., f., Gen. Pl. III. p. 536 (1883); PFITZ., in ENGL. u. PRANT. Nat. Pfl.-fam. II. vi. p. 184 (1889); SCHL., Orchid, p. 357 (1915); LEMÉE, Diet. Gen. Pl. Phan. II. p. 452 (1930)

Syn. *Trichorhiza*, LINDL., ex STEUD. Nomencl. ed. 2. II. p. 702 (1841)

Iridorchis, BL., Fl. Jav. I. Orchid, p. 75 t. 26 (1858)

Cymbidium hoosai, MAK., in Tokyo Bot. Mag. XVI. p. 27 (1902); MATSUM., Ind. Pl. Jap. II. 1. p. 240 (1905); SCHL., Orchid. Sino-Jap. Prodr. p. 268 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 59 (1929)

Syn. *Cymbidium sinense*, non WILLD.) MATSUM. et HAY., Enum. Pl. Formos. p. 412 (1906); MAK. et NEM., Fl. Jap. ed. 2. p. 1632 (1931)

Norn. Jap. *Hōsairan*

Leg. IWAGAWA? Kurio.

Distr. Taiwan, Okinawa, Amami-Ōsima.

Note. The inhabitants of the island collected this orchid in the southern slopes of the island. It has its northern limit in this island.

Cymbidium kanran, MAK., in Tokyo Bot. Mag. XVI. p. 10 (1902); YABE, in Tokyo

Bot. Mag. XVII. p. 143 (1903 ; MATSUM., Ind. Pl. Jap. II. 1. p. 240 (1905 ; SCHL., Orchid. Sino-Jap. Prodr. p. 269 (1919) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1629 (193r

Nom. Jap. *Kanran*

Leg. Ipse, ca. Kosedo, Jul. 12, 1928.

Distr. Honsyû, Kyûsyû, Amami-6sima, Okinawa.

Note. Grows as undergrowth in the laurisilvae or in the lauri-aciculisilvae.

Cymbidium nagi-folium, MASAMUNE, in Tokyo Bot. Mag. XLIV. p. 220 U930 ; MAK. et NEM., Fl. Jap. ed. 2. p. 1630 (1931

Syn. *Cymbidium land folium*, (non HOOK., MAK., in Tokyo Bot. Mag. X. p. (109) (1896 ; MATSUM., Ind. Pl. Jap. II. 1. p. 240 (1905) ; MAK. et NEM., Fl. Jap. ed. 1. p. 1159 (1925).

Nom. Jap. *Nagiran*

Leg. Ipse, Jul. 21, 1924.

Distr. Honsyû, Sikoku, Kyûsyû, Tanegasima, Amami-6sima, Okinawa, Taiwan.

Note. Found as undergrowth in the laurisilvae.

Cymbidium virescens, LINDL., Bot. Reg. Misc. p. 37 (1838 ; SCHL., Orchid. Sino-Jap. Prodr. p. 272 (1919) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1632 (1931) ; MIY. et KUDO, Fl. Hokk. and Sagh. III. p. 387 (1932

Syn. *Maxillaria Goeringii*, RCHB. f. in Bot. Zeit. p. 334 (1845

Cymbidium Goeringii, RCHB. f. in Ann. Walp. III. p. 547 (1852

Cymbidium virens, RCHB. f. in Walp. Ann. VI. p. 626 (1861) ; MIQ., in Ann. Mus. Bot. Lugd. Bat. II. p. 205 (1866) ; FR. et SAV., Enum. Pl. Jap. II. p. 27 (1876) ; YABE, in Tokyo Bot. Mag. XVII. p. 143 (1903 ; MATSUM., Ind. Pl. Jap. II. 1. p. 241 (1905) ; MORI, Enum. Pl. Cor. p. 101 (1922-

Nom. Jap. *Syunran*

Leg. KUDO! Aug. 1907.

Distr. Yezo, Honsyû, Sikoku, Kyûsyû, Korea, China.

Note. Dr. KUDO told me that he had collected this species in the island. The orchid has its southern limit in this island.

Pachyrhizante, NAK., in Tokyo Bot. Mag. XLV.

p. 109 (1931)

Syn. *Cymbidium*, Sect. *Pachyrhizante*, SCHL., Orchid. Sino-Jap. Prodr. p. 73 (1919)

Pachyrhizante nipponicum, NAK., in Tokyo Bot. Mag. XLV. p. 109 (1931)

Syn. *Bletia nipponica*, FR. et SAV., Enum. Pl. Jap. II. p. 511 (1876) ; TAN., in Tokyo Bot. Mag. I. p. 186 (1837)

Cymbidium nipponicum, MAK., in Tokyo Bot. Mag. XVIII. p. 107 (1904) ; MATSUM., Ind. Pl. Jap. II. 1. p. 240 (1905) ; SCHL., Orchid. Sino-Jap. Prodr. p. 270 (1919) ; MAK. et NEM., Fl. Jap. ed. 2. p. 1630 (1931

Nom. Jap. *Mayaran*

Leg. Ipse, ca. 700 m. Jun. 17, 1928.

Distr. Honsyû, Sikoku, Kyûsyû.

Note. Occurs as undergrowth in the lauri-aciculisilvae; has its southern limit here.

Aerides, LOUR., Fl. Cochinch. p. 525 (1790) ;

ENDL., Gen. Pl. n. 1493 (1836-40) ; BENTH. et HOOK, f. Gen. Pl. III. p. 576 (1833) ; PFITZ., in ENGL. U. PRANT. Nat. Pfl.-fam. II. vi. p. 217 (1839) ; SCHL., Orchid, p. 548 (1915) ; LEMEE. Diet. Gen. Pl. Phan. I. p. 97 (1929,

*Syn** *Orexera*, RAF., Fl. Tellur, IV. p. 37 (1836)

Aerides japonicum, REICHB. f. in Hamb. Gartenz. XIX. p. 210 (1863); MATSUM., Ind. PL Jap. II. 1. p. 234 (1905); SCHL., Orchid. Sino-Jap. Prodr. p. 278 (1919); MORI, Enum. Pl. Cor. p. 100 (1922); MASAMUNE, Prel. Rep. Veg. Yak. p. 58 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1614 (1931)

Nom. Jap. *Nagoran*

Leg. Ipse, Aug. 8, 1924.

Distr. Honsyû, Kyûsyû, Amami-6sima, Tanegasima, Okinawa, Korea.

Note. The epiphyte grows in the iaurisilvae. It was rather abundant in the island but recently it has been collected for its beauty and is getting rarer.

Luisia, GAUDICH, in Bot. Voy. Freycinet p. 426 t. 37 (1826); ENDL., Gen. Pl. n. 1427b (1836-40); BENTH. et HOOK, f., Gen. Pl. III. p. 571 (1883); PFITZ., in ENGL. u. PR ANT. Nat. Pfl.-fam. II. vi. p. 210 (1889); SCHL., Orchid, p. 556 (1915); LEMÉE, Diet. Gen. Pl. Phan. IV. p. 190 (1932)

Syn. *Birchea*, A. RICH., in Ann. Sc. Nat. 2 s^{én} XV. p. 66 t. 10 U838)

Luisa, ENDL., Gen. Pl. p. 199 (1837)

Mesoclastes, LINDL., Gen. et Sp. Orchid. Pl. p. 44 (1830)

Lufeia Fauriei, SCHL., Orchid. Sino-Jap. Prodr. p. 75 et 280 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 61 (1929); MAK. et NEM., Fl. Jap. ed. 2. p. 1658 (1931)

Nom. Jap. *Tanegasima-bôran*

Leg. Ipse, Aug. 11, 1924.

Distr. Tanegasima.

Note. The species is restricted to Tanegasima and Yakusima.

Lnisia teres, BL., Rumph. IV. p. 50 (1840); MATSUM., Ind. PL Jap. II. 1. p. 254 (1905); SCHL., Orchid. Sino-Jap. Prodr. p. 281 (1919); MASAMUNE, Prel. Rep. Veg. p. 61 (1929)

Syn. *Epidendrum teres*, THUNB., Fl. Jap. p. 30 (1793); MAK. et NEM., Fl. Jap. ed. 2. p. 1658 (1931)

Nom. Jap. *Bôran*

Leg. Ipse, Kurio.

LHstr. Kyûsyû, Tanegasima, Amami-6sima, Okinawa.

Note. The species is found as epiphyte on the trunks of *Pinus Thunbergii* in lowlying lands.

Gastrochilus, D. DON, Prodr. Fl. Nepal, p. 32 (1825); SCHL., Orchid, p. 581 (1915); LEMÉE, Diet. Gen. Pl. Phan. III. p. 207 (1931)

Gastrochilus japonicus, (MAK.) SCHL., in Fedd. Rep. XII. p. 315 (1913), et Orchid. Sino-Jap. Prodr. p. 283 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 60 (1929)

Syn. *Saccolabium japonicum*, MAK., Ill. Fl. Jap. I. 3. t. 16 (1890); MATSUM., Ind. Pl. Jap. II. 1. p. 262 (1905); MAK. et NEM., Fl. Jap. ed. 2. p. 1674 (1931)

Nom. Jap. *Kasinokiran*

Leg. Ipse, ca. Hirauti

Distr. Sikoku, Kyûsyû, Amami-6sim*, Okinawa.

Note. The epiphyte is found in the iaurisilvae.

Gastrochilus matsuran, (MAK.) SCHL., Orchid. Sino-Jap. Prodr. p. 289 (1919); MASAMUNE, Prel. Rep. Veg. Yak. p. 60 (1929)

<i>Cymbidium virescens</i> , LINDL.						+	+	+	+	+												+	
<i>Pachyrhizanthè nipponicum</i> , NAK.						+	+	+															
<i>Aerides japonicum</i> , RECHB. f.		+	+			+	+			+	+												
<i>Luisia Fauriei</i> , SCHL.						+																	
<i>Luisia teres</i> , BL.		+	+			+	+																
<i>Gastrochilus japonicus</i> , SCHL.		+	+			+	+																
<i>Gastrochilus matsuran</i> , SCHL.												+											
<i>Nipponorchis falcata</i> , MASAMUNE		i	+	+		+				+	+	+											
Total	68	1	222	32	30	16	47	31	32	16	9	1											312
Percentage		1	232	47,44		24	69	46	47	24	13	1											418
		(Southern elements 41)										(Northern elements 53)											

At first I thought the island had a closer connection with the southern regions in respect of the phytogeography of the *Orchidaceae* plants, because there are several species and genera of Orchids which are thought to have their northern limit of habitat in this island. But as my studies on the *Orchidaceae* plants proceeded I learned that even those which are thought to have their northern limit here are also found in Kyûsyû and Sikoku. The fact forced me to conclude the island is closely related with the northern regions as shown in the table above. But most of the orchids in the island have their northern limit in Kyûsyû or in the southern part of Honsyû which indicates that the island is intimately related to those regions so far as the distribution of *Orchidaceae* plants is concerned.

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