

## New Intraspecific Taxa and a Hybrid of Vascular Plants from Suzaki, Shimoda City, Central Japan

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**Abstract** Sixteen new infraspecific taxa of vascular plants and a hybrid as well as a new rank are described from Suzaki, Shimoda City, Izu Peninsula in this paper; *Arisaema urashima* H.Hara var. *gigantum* Konta, *Akebia trifoliata* (Thunb.) Koidz. var. *litoralis* Konta & Katsuyama, *Viburnum dilatatum* Thunb. ex Murray var. *litorale* Konta & Katsuyama, *Lysimachia clethroides* Duby var. *crassifolia* Konta, *Campanula punctata* Lam. subsp. *punctata* var. *litoralis* Konta & S. Matsumoto, *Campanula punctata* Lam. subsp. *hondoensis* Kitam. var. *maritima* Konta & S. Matsumoto, *Atractylodes japonica* Koidz. ex Kitam. var. *coriacea* Konta & Katsuyama, *Salvia japonica* Thunb. var. *crassifolia* Konta & S. Matsumoto, *Viola sieboldii* Maxim. var. *litoralis* Konta & Katsuyama, *Cirsium japonicum* DC. var. *maritima* Konta & Katsuyama, *Scilla scilloides* (Lindl.) Druce var. *litoralis* Konta, *Hovenia dulcis* var. *crassifolia* Konta, *Euphorbia lasiocaula* Boiss. var. *maritima* (Hurs.) S. Matsumoto & Konta *Callicarpa japonica* Thunb. var. *luxurians* Rehder forma *albiflos* Konta, *Allium shoenoprasum* L. var. *idzuense* (H.Hara) H.Hara forma *purpurea* Konta, *Lycoris sanguinea* Maxim. forma *palensflos* Konta, *Vincetoxicum izuense* forma *chlorantum* Katsuyama & Konta, and *Hemerocallis* × *fallaxlittorea* Konta & S. Matsumoto.

**Key words:** Suzaki, vascular plants, new infraspecific taxa, new hybrid.

### Introduction

Eighteen new and interesting taxa from a taxonomic viewpoint have been found during the course of a floristic investigation of vascular plants of Suzaki, Shimoda City, Izu Peninsula. In this paper, 12 new varieties, 4 new forms, a new hybrid and a new rank are reported as a continuation of a previous paper (Konta *et al.*, 2005). These taxa are as follows. *Arisaema urashima* H. Hara var. *gigantum* Konta, *Akebia trifoliata* (Thunb.) Koidz. var. *litoralis* Konta & Katsuyama, *Viburnum dilatatum* Thunb. ex Murray var. *litorale* Konta & Katsuyama, *Lysimachia clethroides* Duby var. *crassifolia* Konta, *Campanula punctata* Lam. subsp. *punctata* var. *litoralis* Konta & S. Matsumoto, *Campanula*

*punctata* Lam. subsp. *hondoensis* Kitam. var. *maritima* Konta & S. Matsumoto, *Atractylodes japonica* Koidz. ex Kitam. var. *coriacea* Konta & Katsuyama, *Salvia japonica* Thunb. var. *crassifolia* Konta & S. Matsumoto, *Viola sieboldii* Maxim. var. *litoralis* Konta & Katsuyama, *Cirsium japonicum* DC. var. *maritima* Konta & Katsuyama, *Scilla scilloides* (Lindl.) Druce var. *litoralis* Konta, *Hovenia dulcis* var. *crassifolia* Konta, *Euphorbia lasiocaula* Boiss. var. *maritima* (Hurus.) S. Matsumoto & Konta, *Callicarpa japonica* Thunb. var. *luxurians* Rehder forma *albiflos* Konta, *Allium shoenoprasum* L. var. *idzuense* (H. Hara) H. Hara forma *purpurea* Konta, *Lycoris sanguinea* Maxim. forma *palensflos* Konta, *Vincetoxicum izuense* forma *chlorantum* Katsuyama & Konta, and *Hemerocallis* × *fal-*

*laxlittorea* Konta & S. Matsumoto.

### Materials and Methods

Materials were collected throughout Suzaki Peninsula, Shimoda City, Shizuoka, including the Suzaki Imperial Villa, which is situated on the eastern coast of Suzaki Peninsula. Most herbarium specimens of flowering plants were collected in their blooming or fruiting seasons. These specimens are preserved in TNS.

### Description

#### 1. *Arisaema urashima* H. Hara var. *gigantum* Konta variety nov.

Affinis *Arisaemati urashimate* var. *urashimate*, sed lamina valde gigante et lucido et coriaceo diversus.

*Habit.* Tuber depressed-globose, 9 cm in diameter, 6 cm in height, with 11 small lateral tubers on the upper part; leaf solitary, leaf sheath 20 cm long, the petiole terete, nearly erect, 65 cm long, 2.2 cm in diameter at the base, the leaflets 17 with one deeply split into a large lobe and a small one, oblong to oblanceolate, acuminate, the biggest one 33 cm long, 13 cm wide, coriaceous, 0.2 mm thick, deep green, and concave along veins on the adaxial side, lustrous, pale green on the abaxial one; peduncle 15 cm long, the fruiting spadix club shaped, 5.5 cm long 4.5 cm in diameter with young fruits.

*Habitat.* Growing in groups on the floor of mixed forest of evergreen and deciduous trees, ca. 3–5 m in height, on the top of a small hill protruding into the sea, 20 m above the sea level, where strong sunlight through canopy of the trees and warm temperature prevailing throughout the year.

*Type.* Japan. Honshu. Shizuoka: Suzaki, Shimoda City, Suzaki Peninsula; Tsumeki-zaki, *F. Konta*, 24477, I–VII (Holotype is composed of 7 sheets designated by I–VII Roman numerals following the collection number, TNS, Fig. 1, Fig. 8-1). *F. Konta*, 24342 (Paratype, TNS).

*Japanese name.* Oh-urashimaso.

*Notes.* Var. *gigantum* is characterized by distinctively large and thick, lustrous leaves. The size of the largest leaflet of the typical variety is distributed within 18 cm long and 3.5 cm wide, the length of the petiole is distributed within 40 cm long, and the size of the tuber is distributed within 6 cm in diameter.

#### 2. *Akebia trifoliata* (Thunb.) Koidz. var. *litoralis* Konta & Katsuyama var. nov.

Affinis *Akebiae trifoliatae* var. *litorali*, sed folium valde magnifica et coriacea et lucida diversus.

*Habit. and habitat.* Glabrous woody climber climbing up to the top of thicket or trees near the sea shore and cover them; leaves trifoliolate, leaflets very big on the upper part of vine covering surface of thicket or canopy of trees, ovate to narrowly ovate, 10–13 cm long, 10–12 cm wide, entire, coriaceous, 0.33–0.35 mm thick, deep green, concave along veins, and lustrous on the adaxial surface, margin abaxially recurved.

*Type.* Japan. Honshu. Shizuoka: Suzaki, Shimoda City, Suzaki Peninsula; Tsumeki-zaki, *F. Konta*, 24492 (TNS, Fig. 2). *F. Konta*, 24484 (Isotype, TNS).

*Japanese name.* Hama-mitsuba-akebi.

*Notes.* This new variety grows sunny place near the sea shore. Leaves grow 2–3 times bigger than the typical variety and thicker with lustrous surface (Fig. 8-2).

#### 3. *Viburnum dilatatum* Thunb. ex Murray var. *litorale* Konta & Katsuyama var. nov.

Affinis *Viburno dilatato* variety *dilatato*, sed lamina minusculo, luceo, crasso et paucihirto diversus.

*Habit.* Deciduous small shrub-like tree; leaves elliptic to obovate, 3.5–9.0 cm long, 1.5–6.0 cm wide, on the previous year's branch, linear-oblong, 7.0–9.5 cm long, 2.5–3.5 cm wide, on the hornotinous branch, coriaceous, lustrous, concave along veins, and dark green on the adaxial side, pale green and glandular dotted on the abaxial one, low hair density on the both sides; inflorescence 3–7(10) cm across, corolla 4–5

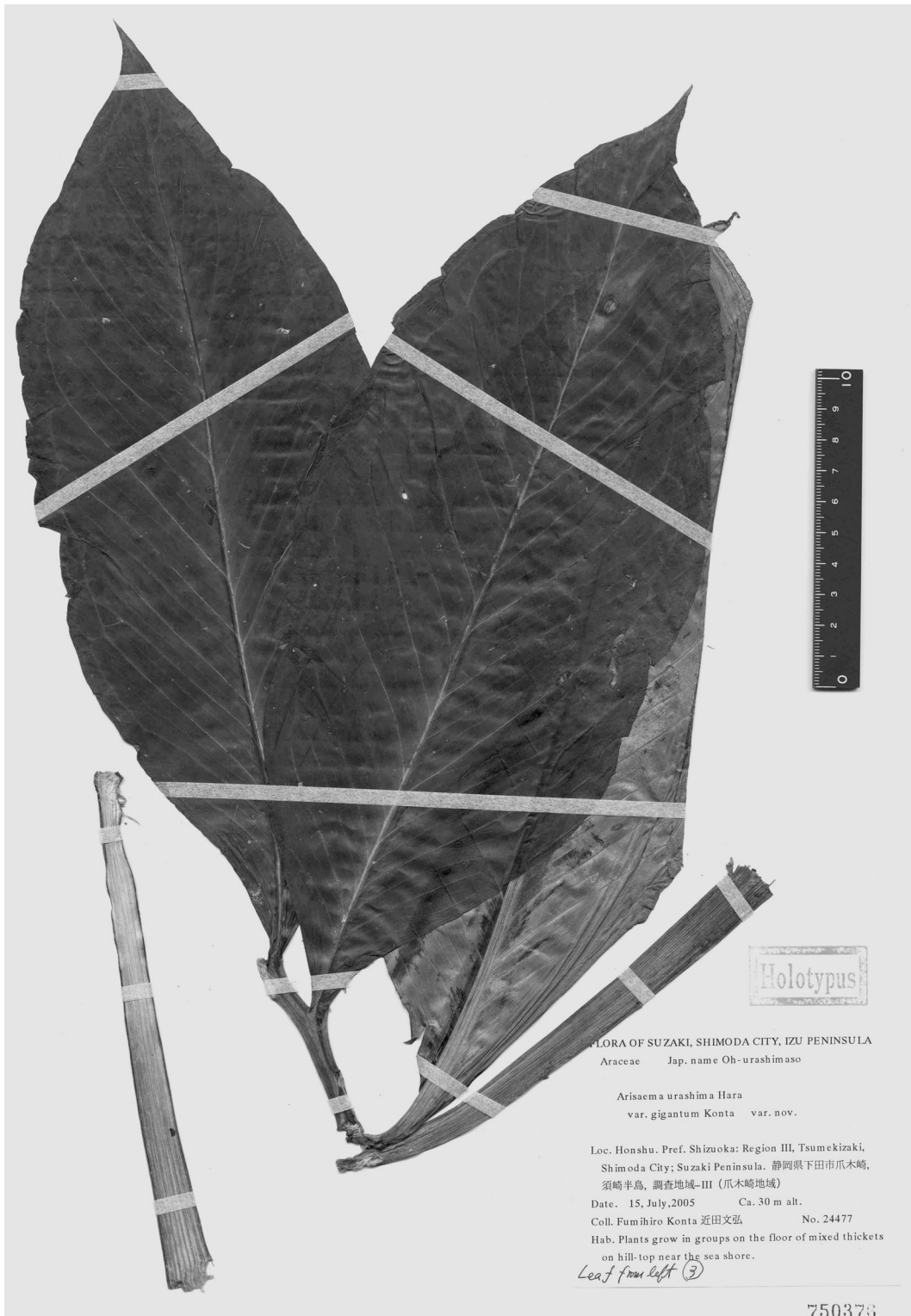


Fig. 1. Holotype of *Arisaema urashima* var. *gigantum*.

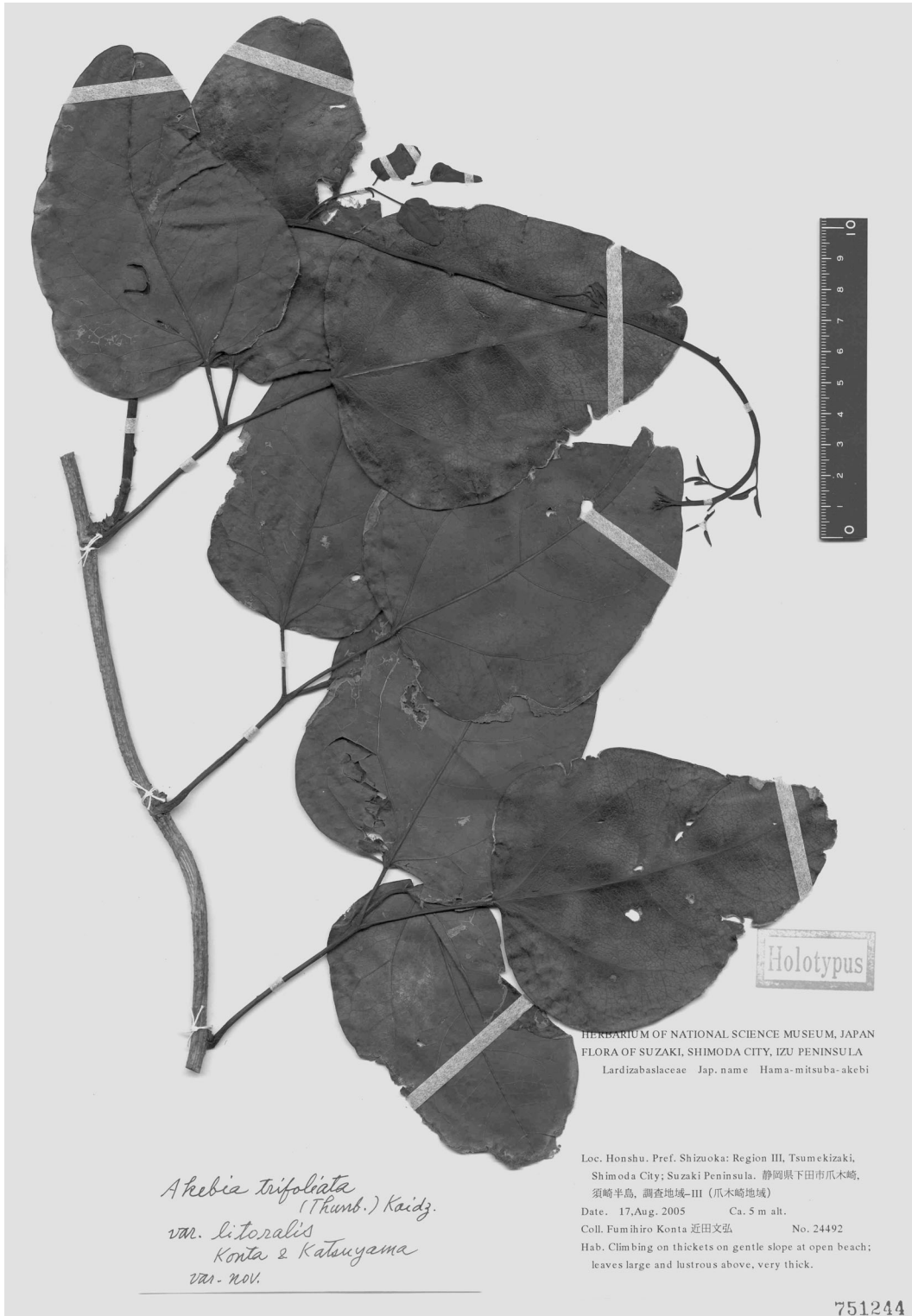
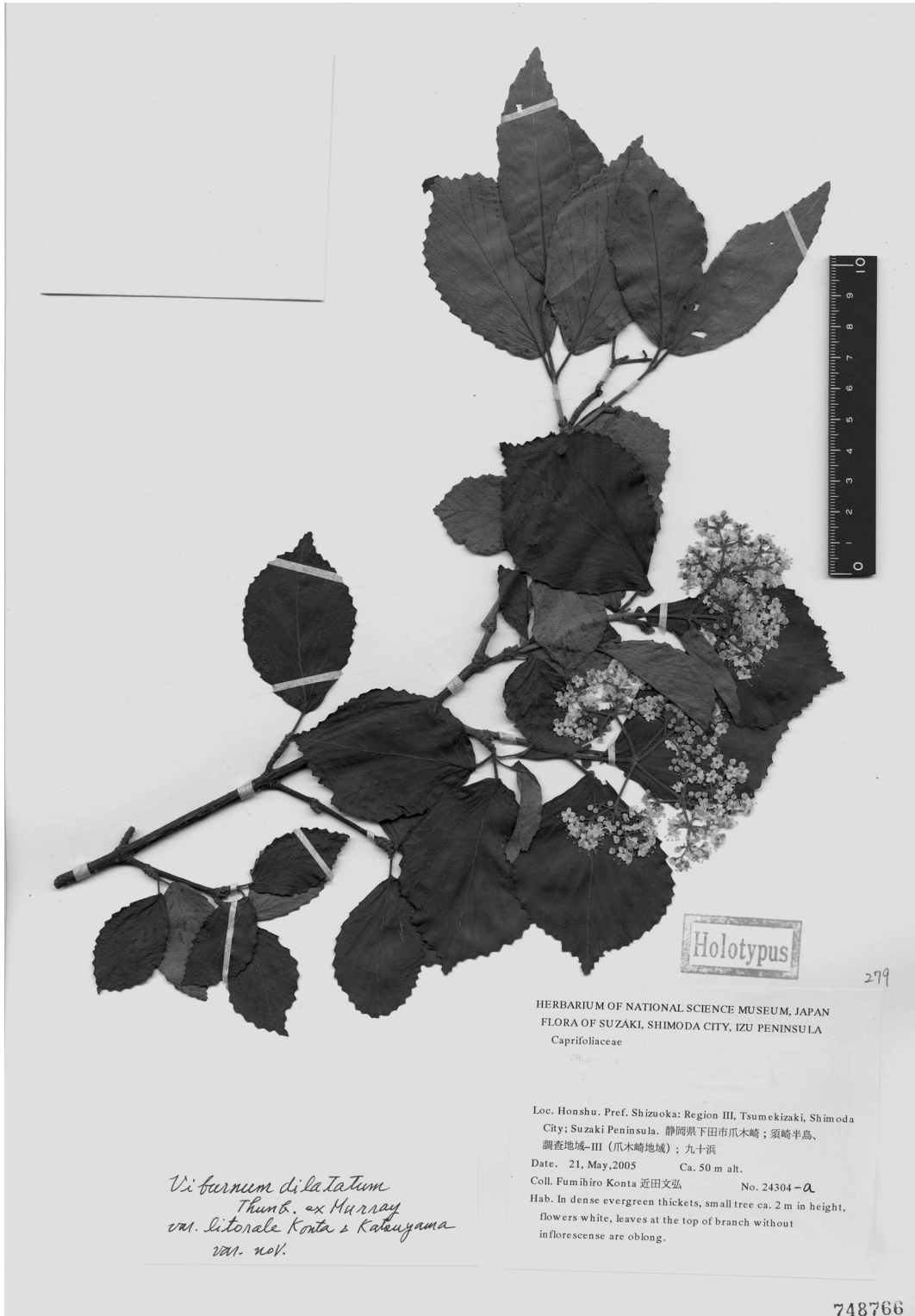


Fig. 2. Holotype of *Akebia trifoliata* var. *litoralis*.



*Viburnum dilatatum*  
 Thunb. ex Murray  
 var. *litorale* Kōta & Katsuyama  
 var. nov.

HERBARIUM OF NATIONAL SCIENCE MUSEUM, JAPAN  
 FLORA OF SUZAKI, SHIMODA CITY, IZU PENINSULA  
 Caprifoliaceae

Loc. Honshu. Pref. Shizuoka: Region III, Tsumekizaki, Shimoda  
 City; Suzaki Peninsula. 静岡県下田市爪木崎; 須崎半島、  
 調査地域-III (爪木崎地域); 九十浜  
 Date. 21, May, 2005 Ca. 50 m alt.  
 Coll. Fumihiko Kōta 近田文弘 No. 24304-α  
 Hab. In dense evergreen thickets, small tree ca. 2 m in height,  
 flowers white, leaves at the top of branch without  
 inflorescence are oblong.

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Fig. 3. Holotype of *Viburnum dilatatum* var. *litorale*.

lobed, 4–6 mm in diameter, white, fragrant, stamens longer than corolla-lobes.

*Habitat.* Thickets on hill slopes near the sea shore. Holotype is in the dense mixed thickets of evergreen and deciduous trees of 2–4 m in height in open valley facing the sea, where strong winds usually blow hard from the sea to the top of the valley. Specially strong winds by the typhoons in autumn in 2004 blew out almost leaves of the deciduous trees including this new plant.

*Type.* Japan. Honshu. Shizuoka: Suzaki, Shimoda City, Suzaki Peninsula; Tsumekizaki, *FKonta*, 24304-*a* (Holotype, TNS, Fig. 3, Fig. 8-3). *FKonta* 24304-*b*, (Isotype; TNS). *FKonta* 23940, 24298, 24309, The Suzaki Imperial Villa., Sotoura, *FKonta* 24324 (Paratypus, TNS).

*Japanese name.* Sonare-gamazumi.

*Notes.* This new variety has taxonomic characteristics, which share linear-oblong leaves on the hornotinous branch with forma *heterophyllum* (Nakai) Sugimoto, and smaller leaves with forma *microphyllum* (Nakai) Sugimoto. This new variety is considered to be a littoral type of *Viburnum dilatatum* with characteristics of leaves of coriaceous, lustrous and dark green on the adaxial side, almost glabrous condition, all of which show adaptation one. Larger leaves of this new variety than those of forma *microphyllum* seems also to show adaptation characteristic.

#### 4. *Lysimachia clethroides* Duby var. *crassifolia* Kōta var. nov.

Affinis *Lysimachiae clethroidi* forma *clethroidi*, sed lamina crassa et ovali diversus.

*Habit.* Stems erect, 35–80 cm high, terete, pubescent; leaves oblong to oblong-lanceolate or ovate, 4–13 cm long, 2–6 cm wide, acuminate to attenuate-acuminate at apex, acuminate to short stipe at base, entire, sometimes reflexed to the abaxial side, coriaceous, 0.3 mm thick, densely pubescent on both sides, pubescences on the adaxial side thicker, 0.3–0.5 mm long, more densely on veins, those on the abaxial side thinner, and longer, 0.7–10.0 mm long.

*Habitat.* Growing in groups on weedy roadside bank and hill continuing from the bank,

where strong winds often blow from the sea.

*Type.* Japan. Honshu. Shizuoka: Suzaki, Shimoda City, Suzaki Peninsula; The Imperial Villa, *FKonta*, 24430-*a* (Holotype, TNS, Fig. 4, Fig. 8-4). *FKonta*, 24430-*b,c,d* (Isotypes, TNS). *FKonta*, 24395-*a,b,s,d* (Paratypes, TNS).

*Japanese name.* Isokaze-okatorano-o

#### 5. *Campanula punctata* Lam. subsp. *punctata* var. *litoralis* Kōta & S. Matsumoto var. nov.

— *Campanula punctata* Lam. forma *lucida* Sugimoto, in Pl. Izu. 181 (1962) nom. nud.

Affinis *Campanulae punctatae* subsp. *punctatae* var. *punctatae*, sed lamina coriacea et lucida et litorali distributionali diversus.

*Habit.* Stems erect, 30–80 cm high, terete, pubescent; cauline leaves ovate to triangular, 4–9 cm long, 2–4 cm wide, acuminate, irregularly obtuse-toothed, coriaceous, lustrous, deep green, and concave along veins on the adaxial side, thinly pubescent on both sides, long petiolated on the lower cauline, sessile on the upper one, calyx segments deltoid-lanceolate with a reflexed appendage in the sinus; corolla white, with dark spots.

*Habitat.* Growing in groups on open and weedy place near the sea shore.

*Type.* Japan. Honshu. Shizuoka: Suzaki, Shimoda City, Suzaki Peninsula; Tsumekizaki, *FKonta* 24404-*a* (Holotype, TNS, Fig. 5, Fig. 8-5). *FKonta* 24404-*b* (Isotype, TNS).

*Japanese name.* Hama-hotarubukuro.

*Notes.* Sugimoto noted that forma *lucida* is a type of plants growing at beach with thick and lustrous leaves. We observed a great number of the same plants growing on hill slopes near the sea shore of Suzaki and recognized them var. *litoralis* because of the reason that they share both morphological and geographical features.

#### 6. *Campanula punctata* Lam. subsp. *hondoensis* Kitam. var. *maritima* Kōta & S. Matsumoto var. nov.

— *Campanula punctata* Lam. subsp. *hondoensis* Kitam. forma *hatsushimensis* Sugimoto, in Pl.

Fig. 4. Holotype of *Lysimachia clethroides* var. *crassifolia*.



*Campanula punctata* Lam.  
 subsp. *punctata*  
 var. *litoralis*  
 Konta & S. Matsumoto  
 var. nov.

Holotypus

HERBARIUM OF NATIONAL SCIENCE MUSEUM, JAPAN  
 FLORA OF SUZAKI, SHIMODA CITY, IZU PENINSULA

Loc. Honshu, Pref. Shizuoka: Region III, Tsumekizaki, Shimoda City; Suzaki Peninsula. 静岡県下田市爪木崎; 須崎半島、調査地域-III (爪木崎地域)  
 Date. 19 June, 2005 Ca. 10 m alt.  
 Coll. Fumihiro Konta 近田文弘 No. 24404  
 Hab. Open and gentle hill slope at beach, where strong wind and sea water from the sea form special ecological condition, plants growing in groups; leaves thick and shining, flowers white.

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Fig. 5. Holotype of *Campanula punctata* subsp. *punctata* var. *litoralis*.





Fig. 6. Holotype of *Campanula punctata* subsp. *hondoensis* var. *maritima*.

Izu. 181 (1962) nom. nud.

Affinis *Campanulae punctatae* subsp. *hondoensis* var. *hondoensis*, sed lamina coriacea et lucida et litorali distributionali diversus.

*Habit. and habitat.* Leaves lustrous and concave along veins on the adaxial side; calyx segments without a reflexed appendage in the sinuses; corolla white with dark spots; several groups of plants of this forma growing on sandy beach in the Imperial Villa, 1 m above the sea level.

*Type.* Japan. Honshu. Shizuoka: Suzaki, Shimoda City, Suzaki Peninsula; The Imperial Villa, *F.Konta et al.* 23813 (Holotype, TNS, Fig. 6, Fig. 8-6).

*Japanese name.* Sonare-yamahotarubukuro.

*Notes.* Sugimoto noted that many individuals of this type of plants with lustrous leaves were observed in Hatsushima Island, a small island in Atami City in Shizuoka Prefecture. We confirmed this type of plants near beach of Suzaki.

**7. *Atractylodes japonica* Koidz. ex Kitam. var. *coriacea* Kōta & Katsuyama var. nov.**

Affinis *Atractylodi japonicae* var. *japonicae*, sed folio coriacea et lucida diversus.

*Habit. and habitat.* Perennial herb; stem erect, 30–70 cm in height, hard, rather woody, hairy; radical leaves withering before anthesis, the cauline firmly coriaceous, long petiolate, oblong to pinnately 3–6 sected, 5–12 cm long, short spinulos on margin, glabrous, lustrous, and concave along veins on the adaxial side, hirtellous and tomentose on the abaxial; rather dry and weedy roadside bank, where strong winds from the sea often blow up.

*Type.* Japan. Honshu. Shizuoka: Suzaki, Shimoda City, Suzaki Peninsula; The Imperial Villa, *F.Konta* 24369-*a* (Holotype, TNS, Fig. 7, Fig. 8-7), *F.Konta* 24369-*b* (Isolotype, TNS), *F.Konta* 23274 (Paratype, TNS).

*Japanese name.* Hama-okera.

*Notes.* This new variety is distinctive in the thick and lustrous leaves.

**8. *Salvia japonica* Thunb. var. *crassifolia* Kōta & S. Matsumoto var. nov.**

Affinis *Salviae japonicae* var. *japonicae*, sed folio crassa et lucida diversus.

*Habit. and habitat.* Perennial herb, stem erect 40–70 cm in height; stem hirsute, leaves simple or once or twice pinnate, opposite, serrate at margin, coriaceous, almost glabrous with short hairs on veins, and concave along veins on the adaxial side, pubescent on the abaxial; flowers purple; sunny and weedy place near beach or on hills near the sea shore.

*Type.* Japan. Honshu. Shizuoka: Suzaki, Shimoda City, Suzaki Peninsula; Tsumekizaki, *F.Konta* 24459 (Holotype, TNS, Fig. 9, Fig. 15-1).

*Japanese name.* Sonare-akinotamuraso.

*Notes.* This new variety is distinctive in the thick leaves.

**9. *Viola sieboldii* Maxim. var. *litoralis* Kōta & Katsuyama var. nov.**

Affinis *Viola sieboldo* var. *sieboldo*, sed folio crassa et lucida adaxiali et purpurascenti abaxiali diversus.

*Habit. and habitat.* Small herb, leaves ovate to ovate-cordate, 1.0–4.0 cm long, 0.7–3.0 cm wide, obtuse, cordate at base, depressed-toothed, coriaceous, lustrous and deep green with thin short, white hairs at margin on the adaxial, purplish on the abaxial side; flowers white with purple stripes inside. Muddy bank in evergreen forest or roadside bank, in light shade, near the seashore, ca. 10–40 m above the sea level.

*Type.* Japan. Honshu. Shizuoka: Suzaki, Shimoda City, Suzaki Peninsula; Tsumekizaki, *F.Konta* 24250 (Holotype, TNS, Fig. 10, Fig. 15-2), *F.Konta* 22799 (Paratype, TNS).

*Japanese name.* Sonare-fumotosumire.

**10. *Cirsium japonicum* DC. var. *maritimum* Kōta & Katsuyama var. nov.**

Affinis *Cirsium japonico* var. *horrido*, sed folio coriaceo et lucido et bractea involucrali breviseto diversus.

*Habit.* Stems erect, 40–80 cm high, terete,

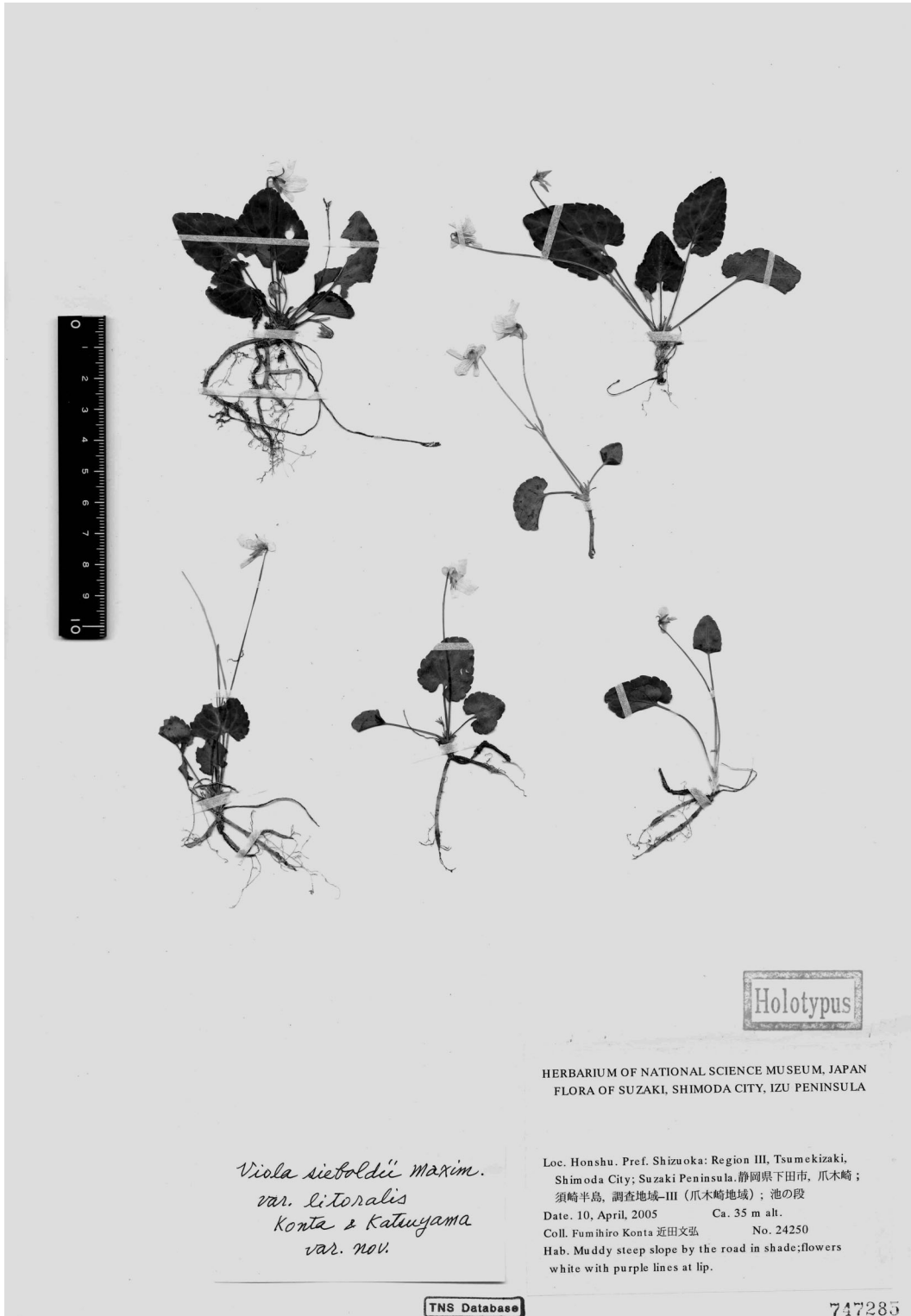
Fig. 7. Holotype of *Atractylodes japonica* var. *coriacea*.



Fig. 8. Habit of new varieties. 1. Holotype of *Arisaema urashima* var. *gigantum*. 2. *Akebia trifoliata* var. *litoricola* showing leaves lustrous and concave above. 3. *Viburnum dilatatum* var. *litorale* showing lustrous dark green leaves, concave lamina along veins. 4. Holotype of *Lysimachia clethroides* var. *crassifolia* showing thick pubescent leaves. 5. Holotype of *Campanula punctata* subsp. *punctata* var. *litoralis* showing lustrous leaves. 6. *Campanula punctata* subsp. *hondoensis* var. *litoralis*, which grow at beach showing lustrous leaves. 7. Holotype of *Atractylodes japonica* var. *coriacea* showing thick leaves.



Fig. 9. Holotype of *Salvia japonica* var. *crassifolia*.

Fig. 10. Holotype of *Viola sieboldii* var. *litoralis*.

pubescent; radical leaves ovate-oblong, 15–30 cm long, pinnately cleft to toothed, long spines at margin, 4–7 mm long, mid cauline leaves ovate to oblong, pinnately cleft 8–20 cm long, acuminate, coriaceous, lustrous and deep green or fresh green on the adaxial side, thinly pubescent on both sides, long spines at margin, 4–7 mm long (Fig. 15-3); spines on the tip of involucre bracts short, 2–4 mm long, corolla purple.

*Habitat.* Growing at open and weedy place near the sea shore.

*Type.* Japan. Honshu. Shizuoka: Suzaki, Shimoda City, Suzaki Peninsula; Tsumekizaki, *FKonta* 24294 (Holotype, TNS, Fig. 11). *FKonta* 22651, 23805, *Katsuyama et al.* 30528009 (Paratypes, TNS).

*Japanese name.* Shiokaze-noazami.

**11. *Scilla scilloides* (Lindl.) Druce var. *litoralis* Konta var. nov.**

Affinis *Scillae scilloidi* var. *scilloidi*, sed lamina ampla et crassa diversus.

*Habit. and habitat.* Bulbs ovoid-globose, 3.5–5.0 cm long, 2.0–3.5 cm wide, leaves linear 2–4 in number, 5.0–22.0 cm long, 5.0–13.0 mm wide, 0.45–0.85 mm thick, smooth, flowers rose-purple, open and grassy place by beach, where is exposed by strong sunlight and winds from the sea.

*Type.* Japan. Honshu. Shizuoka: Suzaki, Shimoda City, Suzaki Peninsula; Tsumekizaki, *FKonta* 24507 (Holotype, TNS, Fig. 12, Fig. 15-4). *FKonta* 23911, 23938 (Paratypes, TNS).

*Japanese name.* Hama-tsurubo.

**12. *Hovenia dulcis* Thunb. var. *crassifolia* Konta var. nov.**

Affinis *Hovenia dulci* var. *dulci*, sed folio crassa et lucida diversus.

*Habit.* Deciduous tree, leaves ovate, 5–16 cm long, 5–10 cm wide, short acuminate, rounded at base, coriaceous, 0.25–0.33 mm thick, deep green, lustrous, almost glabrous, and concave along veins on the adaxial side, pale green with brown hairs along vein on the abaxial side, flowers yellowish white.

*Type.* Japan. Honshu. Shizuoka: Suzaki, Shimoda City, Suzaki Peninsula; Kakisaki, *FKonta* 24448 (Holotype, TNS, Fig. 13, Fig. 15-5).

*Japanese name.* Atsuba-kenponashi.

*Notes.* Holotype is a tree, 8 m in height, 18 cm in trunk diameter growing in thickets by road near the sea, on hill slope at 30 m above the sea level. This species is rarely distributed in lower elevations of Izu Peninsula.

**13. *Euphorbia lasiocaula* Boiss. var. *maritima* (Hurus.) S. Matsumoto & Konta stat. nov.**

*Euphorbia lasiocaula* Boiss. var. *lasiocaula* f. *maritima* (Hurus.) T. Kuros. et H. Ohashi in J. Jap. Bot. **69**: 273 (1994).

— *Galarhoeus lasiocaulus* (Boiss.) Hurusawa var. *lasiocaulus* f. *maritimus* Hurusawa in J. Fac. Sci. Univ. Tokyo III, **6**: 264 (1954).

Affinis *Euphorbiae lasiocaulae* var. *lasiocaulae*, sed caule florenti curto ca. 30 cm et basi repenti et lamina crasso diversus.

*Japanese name.* Hama-takatodai.

*Notes.* Several plants transplanted from the seashore of Suzaki to the Tsukuba Botanical Garden of The National Science Museum, Tokyo have kept their taxonomic features above cited through years. It is, therefore, concluded that populations being distributed at the seashore of Suzaki have both geographical and genetic variations which suggest more distinct taxonomic position.

**14. *Callicarpa japonica* Thunb. var. *luxurians* Rehder forma *albiflos* Konta forma nov.**

Affinis *Callicarpae japonicae* var. *luxurianti* forma *luxurianti*, sed flore alba diversus.

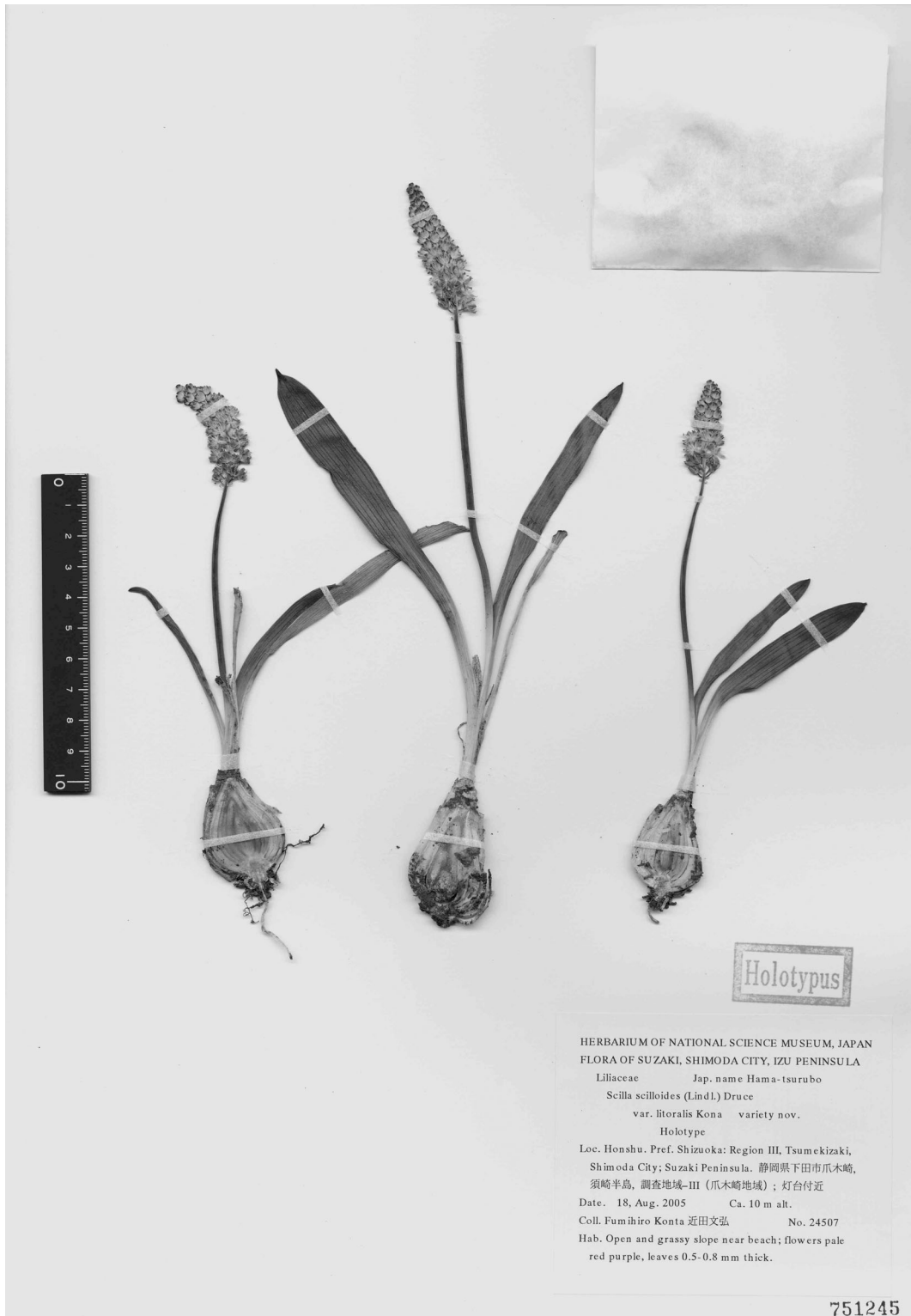
*Habit. and habitat.* Deciduous tree, 3 m in height; leaves opposite, petioles 2–3 cm long, blades oblong, acuminate, serrate, coriaceous, almost glabrous on the adaxial side, with small stellate hairs on the abaxial side; cymes 5–7 cm in diameter, more than 250 flowers per a cyme, corolla white; edge of dense thickets near beach.

*Type.* Japan. Honshu. Shizuoka: Suzaki, Shimoda City, Suzaki Peninsula; Tsumekizaki, *FKonta et al.* 24428-a (Holotype, TNS, Fig. 14,



Fig. 11. Holotype of *Cirsium japonicum* var. *maritima*.



Fig. 12. Holotype of *Scilla scilloides* var. *litoralis*.

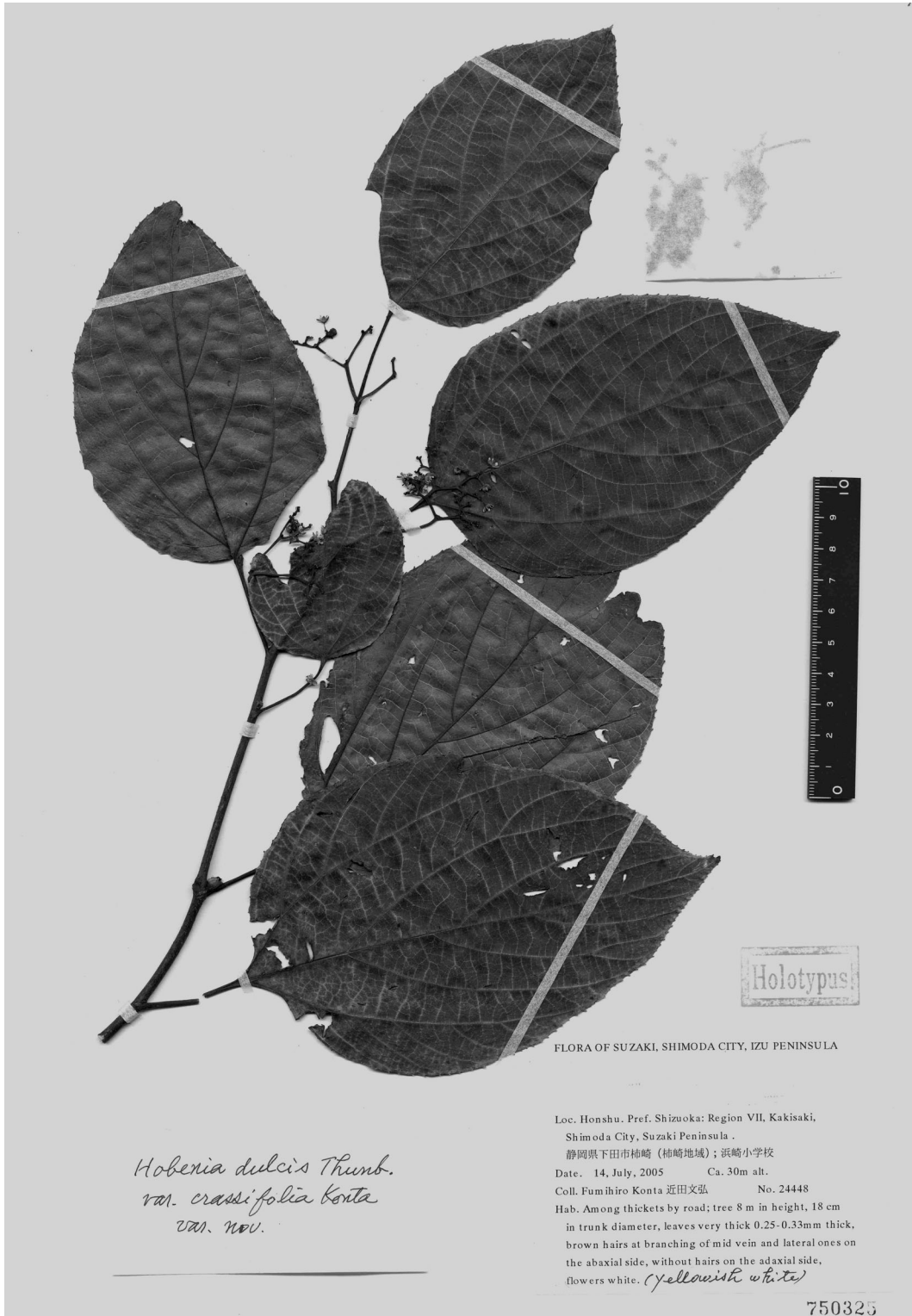
Fig. 13. Holotype of *Hovenia dulcis* var. *crassifolia*.



Fig. 14. Holotype of *Callicarpa japonica* var. *luxurians* forma *albiflos*.



Fig. 15. Habit of new taxa and counterparts 1. Holotype of *Salvia japonica* var. *crassifolia* showing thick dark green leaves with concave surface along veins on the adaxial side. 2. *Viola sieboldii* var. *litoralis* showing lustrous leaves. 3. Holotype of *Cirsium japonicum* var. *maritima* showing long spines on margin of leaves. 4. Holotype of *Scilla scilloides* var. *litoralis* showing thick and wide leaves. 5. Holotype of *Hovenia dulcis* var. *crassifolia* showing thick dark green leaves with concave parts along veins. 6. Holotype of *Callicarpa japonica* var. *luxurians* forma *albiflora* showing white flowers. 7. Flowers of *Callicarpa japonica* var. *luxurians* forma *luxurians* showing pink flowers of common plants.

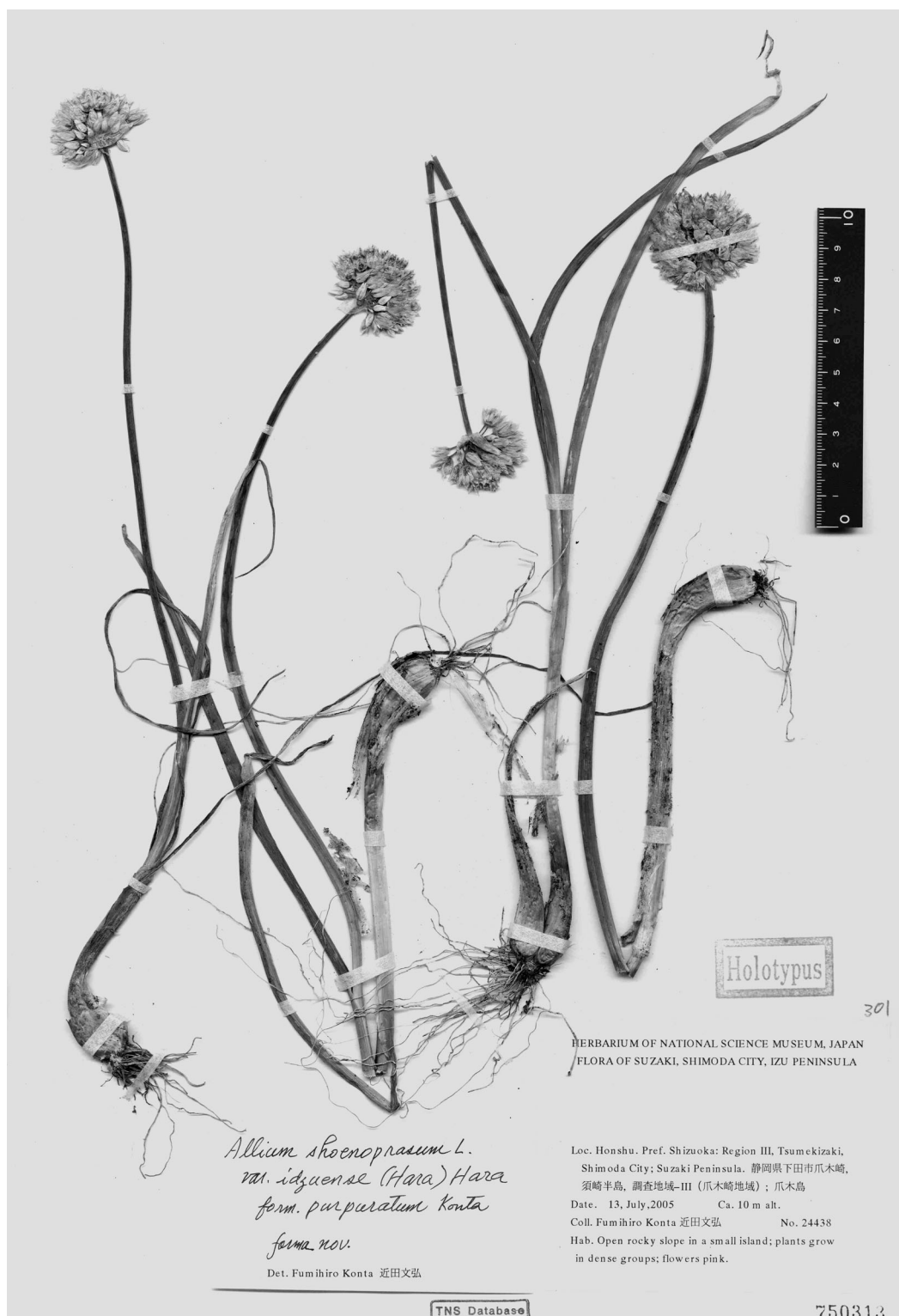


Fig. 16. Holotype of *Allium shoenoprasum* var. *idzuense* forma *purpuratum*.



Fig. 17. Holotype of *Lycoris sanguinea* forma *palensiflos*.

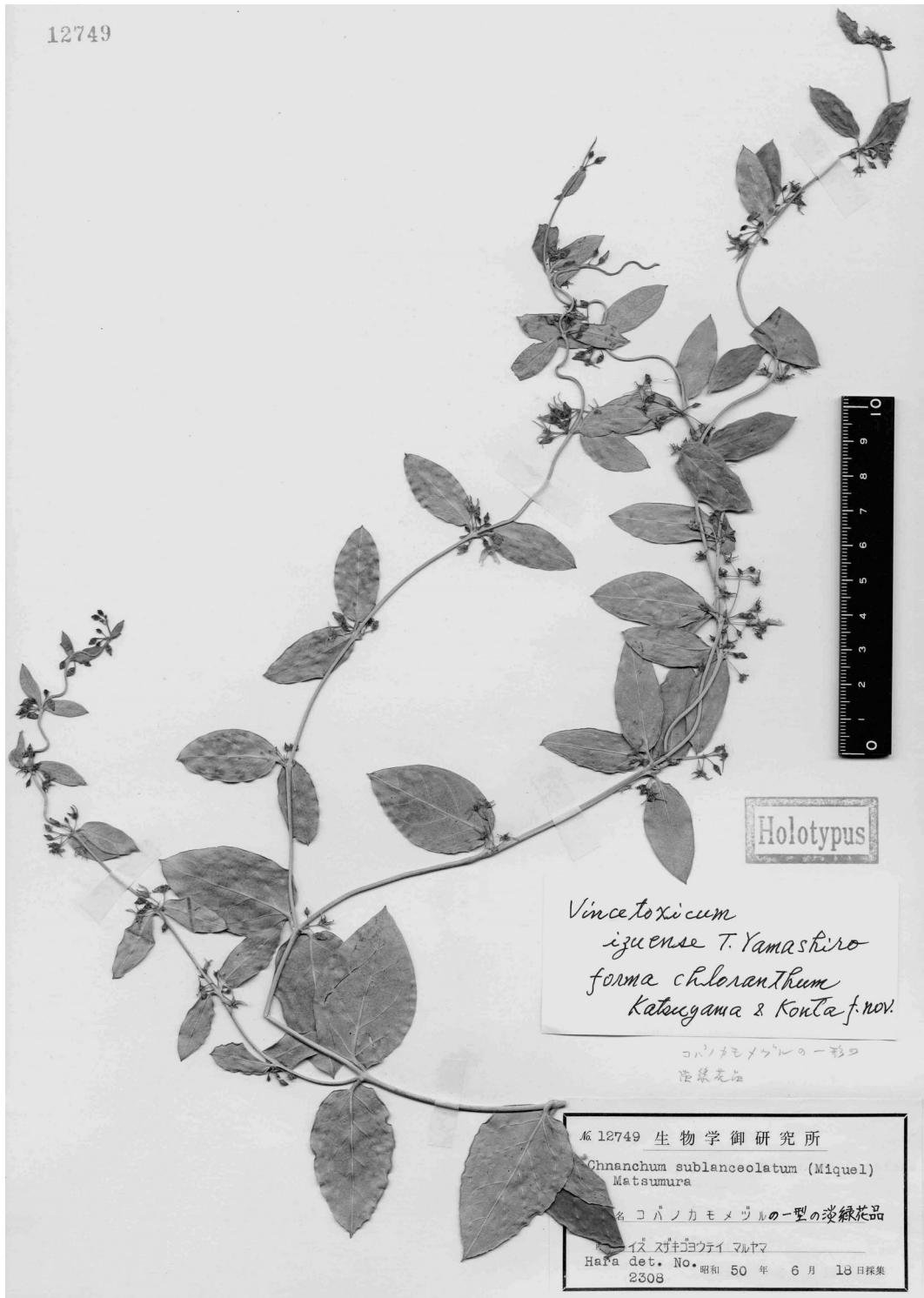


Fig. 18. Holotype of *Vincetoxicum izuense* forma *chloranthum*.

Fig. 19. Holotype of *Hemerocallis* × *fallax littorea*.



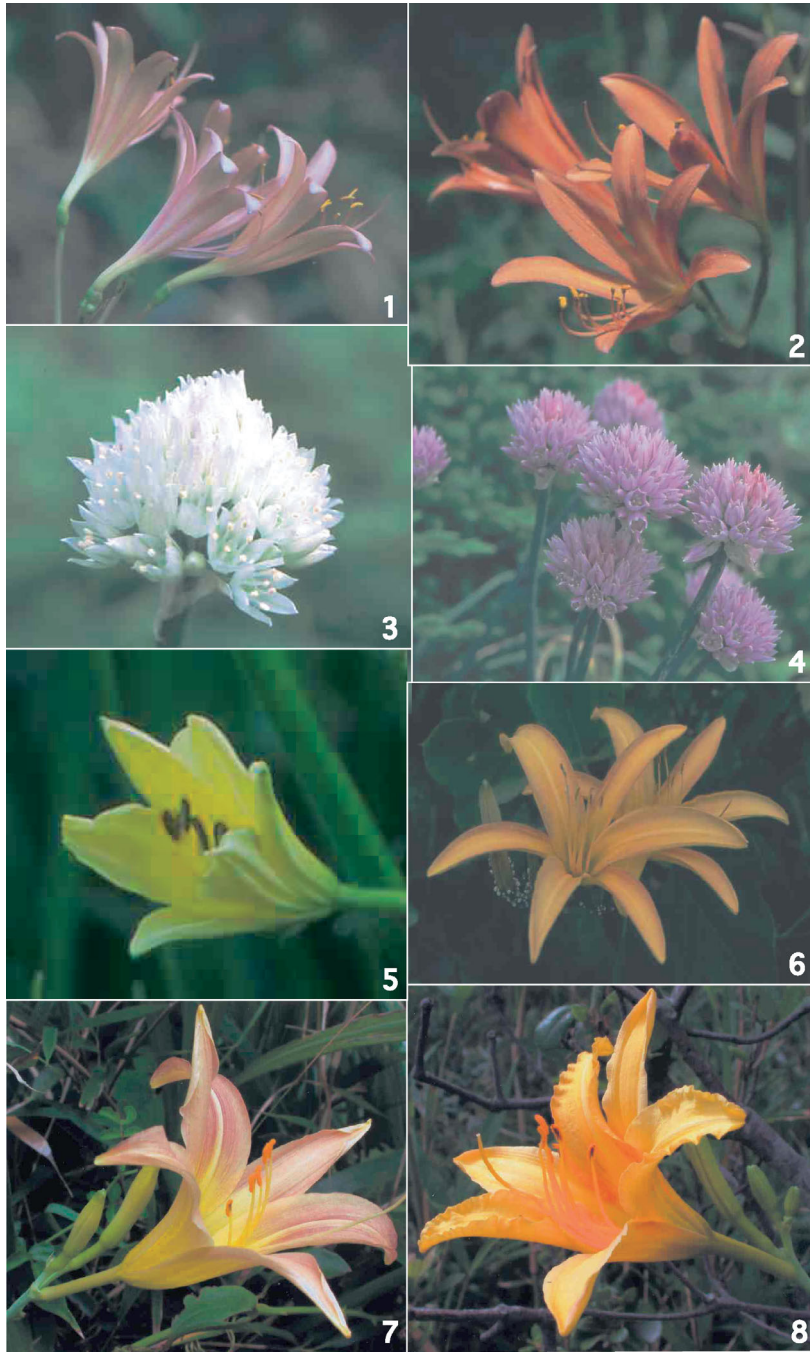


Fig. 20. Habit of new taxa and counterparts. 1. Flower of holotype of *Lycoris sanguinea* forma *palensiflos*. 2. Flower of *Lycoris sanguinea* forma *sanguinea*. 3. Flower of *Allium shoenoprasum* var. *idzuense* forma *idzuense*. 4. Flower of *Allium shoenoprasum* var. *idzuense* forma *purpuratum*. 5. Flower of *Hemerocallis citrina* var. *vespertina*. 6. Flower of *Hemerocallis fulva* var. *littorea*. 7. A flower of holotype of *Hemerocallis* × *fallaxlittorea*. 8. Another flower type of *Hemerocallis* × *fallaxlittorea* (S. Matsumoto 208165).

Fig. 15-6). *F.Kōta et al. 24428-a, b* (Isolotype, TNS).

*Japanese name.* Shirobana-oh-murasakishikibu.

*Notes.* This new forma is only distinctive in the color of flowers (Fig. 15-7).

**15. *Allium shoenoprasum* L. var. *idzuense* (H. Hara) H. Hara forma *purpuratum* Kōta forma nov.**

*Allium shoenoprasum* L. var. *idzuense* (H. Hara) H. Hara, in J. Jpn. Bot. **55**: 214 (1980) — *Allium idzuense* H. Hara, in J. Jpn. Bot. **49**: 1 (1974).

Affinis *Allio shoenopraso* var. *idzuensi* forma *idzuensi*, sed corolla purpurato diversus.

*Type.* Japan. Honshu. Shizuoka: Suzaki, Shimoda City, Suzaki Peninsula; Tsumekizaki, *F.Kōta 24438* (Holotype, TNS, Fig. 16).

*Japanese name.* Izu-asatsuki.

*Notes.* H. Hara (1980) made a combination of *Allium shoenoprasum* var. *idzuense*, based on the type of *Allium idzuense*, which is characterized by whitish flowers as well as leafless scape being separated from a tuft of leaves, looser umbels, and less pointed tepals. The type was collected at the sea shore in The Suzaki Imperial Villa. H. Hara (1980) noted 'Having observed a large number of individuals at the type locality, I noticed that the flowering scape arises mostly from the center of leaves and the flowers are purplish pink, and considered that it is better to treat the plant as a southern variety of *A. shoenoprasum* L.' A large number of individuals were observed by Kōta at more than 10 places along the sea shore of Suzaki Peninsula in addition of The Suzaki Imperial Villa, and only two plants with white flowers were recognized on the small rock protruded from the sea which is called Tsumeki Island (Fig. 20-3). Kōta considers that these white flowered plants should be distinguished as a forma level and called Shirobana-izu-asatsuki in Japanese. He checked carefully holotype and confirmed that all flowers in three inflorescences were strictly white color in younger stage of flowering. It is concluded that a

scientific name of *Allium shoenoprasum* var. *idzuense* forma *idzuense* should be given to white flowered plants including the holotype. On the other hand, *Allium shoenoprasum* var. *idzuense* forma *purpuratum* is given to the common plants with purplish pink flowers under Japanese name, Izu-asatsuki (Fig. 20-4).

**16. *Lycoris sanguinea* Maxim. forma *palensiflos* Kōta forma nov.**

Affinis *Lycoridi sanguinae* forma *sanguinae*, sed flore palescenti et rosea diversus.

*Type.* Japan. Honshu. Shizuoka: Suzaki, Shimoda City, Suzaki Peninsula; *F.Kōta 24513* (Holotype, TNS, Fig. 17, Fig. 20-1).

*Japanese name.* Usuiro-kitsunenokamisori.

*Notes.* *Lycoris sanguinea* forma *albiflora* Honda was reported from Shikoku with white flowers. Forma *palensiflora* is characterized by pale pink flower. Only two plants were recognized in a community with about 50 individuals (Fig. 20-2) growing in groups by path at moist place in light shade in a gorge, ca. 5 m above the sea level.

**17. *Vincetoxicum izuense* T.Yamashiro forma *chlorthus* Katsuyama & Kōta forma nov.**

Affinis *Vincetoxico izuensi* forma *izuensi*, sed flore chlortho diversus.

*Type.* Japan. Honshu. Shizuoka: Suzaki, Shimoda City, Suzaki Peninsula; The Imperial Villa, *S 12749* (Holotype, TNS, Fig. 18).

*Japanese name.* Midori-izukamomezuru.

**18. *Hemerocallis* × *fallaxlittoralis* Kōta & S. Matsumoto nothosp. nov.**

Affinis *Hemerocallidi citrinae* var. *vesperitinae*, sed flore diurna et aurantiaca diversus. Hybrida *Hemerocallis citrina* var. *vesperitina* (Fig. 20-5) et *H. fulva* var. *littorea* (Fig. 20-6).

*Type.* Japan. Honshu. Shizuoka: Suzaki, Shimoda City, Suzaki Peninsula; Tsumekizaki, *F.Kōta 28390* (Holotype, TNS, Fig. 19), *S.Matsumoto 208164*, *208165*, *F.Kōta 24483* (Paratypes, TNS).

*Japanese name.* Usugi-hamakanzo.

*Notes.* Holotype and paratypes (Fig. 20) grow together with parent plants at open hill slope facing the sea, 40 m above the sea level. This hybrid has flowering in the daytime, flowers have more yellow color than *H. fulva* var. *littorea*, though degree of yellow is variable. S. Matsumoto 208164 has yellowish flowers, but 208165 orange.

### References

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