

## BRYOPHYTAE INDOSINICAE

### LISTS OF WESTERN INDOCHINA MOSSES

(Assam, Chittagong, Burma)

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#### Résumé

The author gives a list of mosses known from Western Indochina (Assam, Chittagong, Burma). It contains 66 genera and 440 species. The Malayan influences along the coast go up until the Ganges Delta.

Our knowledge of the Indochinese phytogeography is relatively poor comparing to that of the Indonesian, Indian and Philippine formations. The "Flore de l'Indochine" is more a study of herbarium specimens than a research in this nature. It is only in the last fifteen years that the floristic works have been undertaken as those of J. VIDAL for Laos, M. SCHMID for South Vietnam and P. DY-PHON for maritime Cambodia.

The lack of knowledge of the vegetal formations in the Indochinese peninsula gives a false idea of the biogeographical delimitations, I think to the existence of a belt of the Philippines influence in the northern and the eastern part of Vietnam which limits do not correspond to those that the Dutch botanists established for the Malesian flora.

The bryophytes represent a sort of hiatus between the cormophytes and the thallophytes: their small size, their morphology, etc. . . . do not permit either the current herbarium work as for the cormophytes or the use of techniques as for fungi.

The bryophytes bring a good deal of problems by themselves; they are related to the cormophytes by their aerial characters and to the thallophytes by their protonema and asexual reproduction. However they present, after all, more evolutionary and biological interest than another classes of living beings. Hard to study, depending more on the microscopic than on the macroscopic examination and on a scattered

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literature, of which the best synthesis are written in German, the bryophytes are, often, unpleasant to the ordinary botanist.

We may accept that the list of mosses is an interesting contribution to the general knowledge of the flora and to the problems of evolution and biogeography.

### WESTERN BIOGEOGRAPHICAL BOUNDARIES OF INDOCHINA (*lato sensu*)

Until recently the biogeographical boundaries have been subjected to the political frontiers. The "Flora of India" by HOOKER contains Burmese and Malayan plants. The delimitation of the Indo-Pakistan subcontinent and of the South-East Asia after the Second World War helps to form our phytogeographical conceptions. If the biogeographical boundaries between India and Indochina should be established, the limit may be given by a line from the Ganges Delta to the high Brahmaputra and the Sino-Indian confine leaving aside the Khasia Hills region.

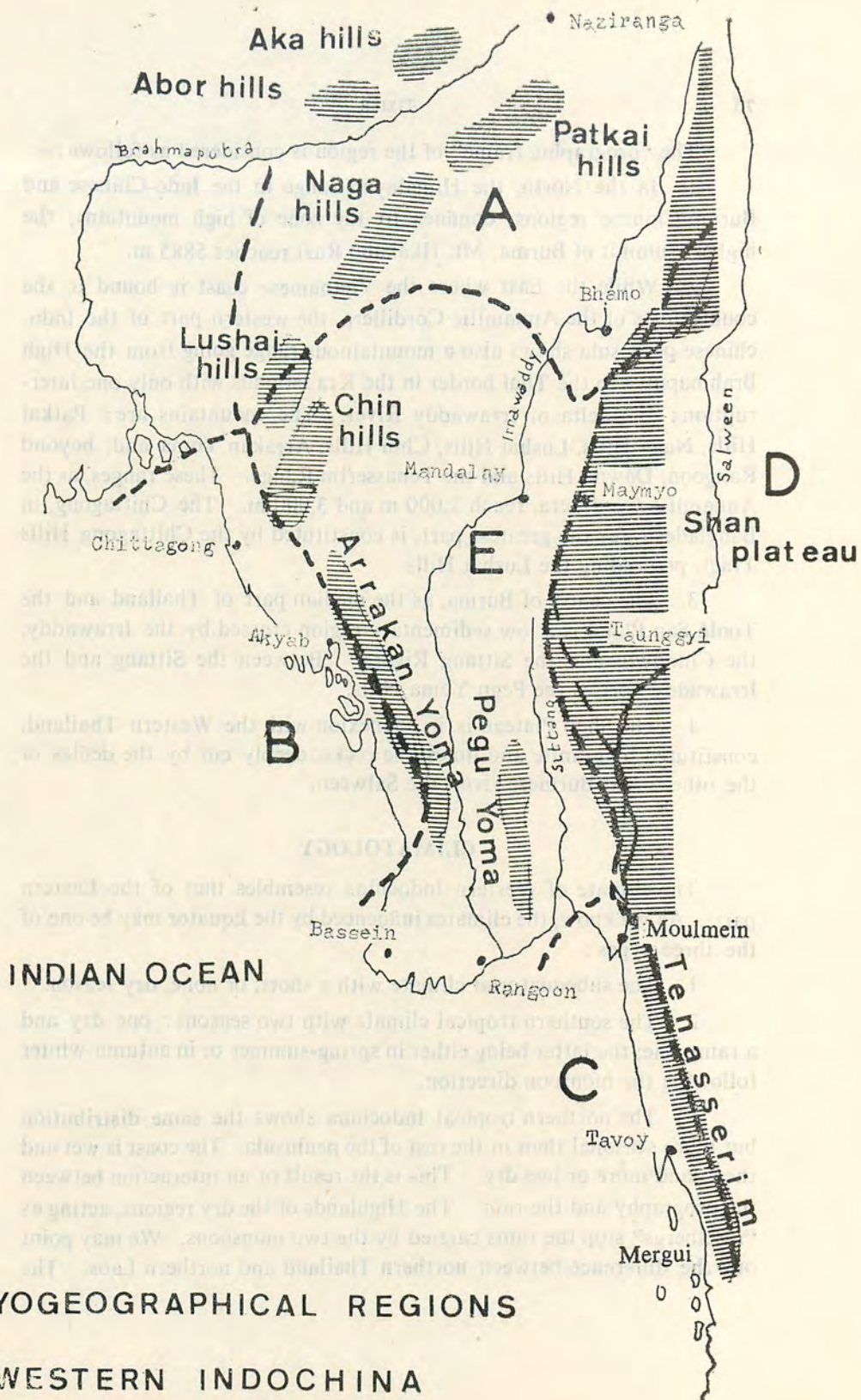
I. The characteristic vegetal formation of the Central Indochina is the Dry Dipterocarp forest reaching the border of Chittagong while the Sal forest proper to India starts in the North of Dacca (Bangladesh).

II. The forest of Chittagong spreads towards the lowland forest of the Indochinese peninsula. *Dipterocarpus alatus* constitutes the essence of the somewhat ruined reserved forest of Southern Chittagong. Climatologically the coast from the Ganges Delta to Ranong in Thailand is very uniform; the rainfall grows from 3,000 mm/year in the North to 5,000 mm/year in the South.

### OROGRAPHY OF THE REGION

Only a few data are available for Burma, a closed country even in the time of the British Empire, and also a few references on its geology. The mosses are related to the climatic factors; relatively low temperatures and heavy rainfalls, that is, to the highlands or to the very wet coastal lowlands. We must remember that the mosses are more sensitive to the temperature than the liverworts.





**BRYOGEOGRAPHICAL REGIONS**  
**in WESTERN INDOCHINA**

The "orographic frame" of the region is considered as follows :—

1. In the North, the Himalayan range in the Indo-Chinese and Burmo-Chinese regions, confines to the zone of high mountains; the highest summit of Burma, Mt. Hkakabo Razi reaches 5885 m.

2. While the East where the Vietnamese coast is bound to the counterforts of the Annamitic Cordillera, the western part of the Indo-chinese peninsula shows also a mountainous range going from the High Brahmaputra to the Thai border in the Kra Isthmus with only one interruption: the delta of Irrawaddy River. The mountains are: Patkai Hills, Naga Hills, Lushai Hills, Chin Hills, Arrakan Yoma and, beyond Rangoon, Dawna Hills and the Tenasserim Range. These ranges, as the Annamitic Cordillera, reach 2,000 m and 3,000 m. The Chittagong, in Bangladesh, for the greatest part, is constituted by the Chittagong Hills Tract, preceeding the Lushai Hills.

3. The centre of Burma, as the median part of Thailand and the Tonlé Sap Plain, is a low sedimentary region crossed by the Irrawaddy, the Chindwin and the Sittang Rivers. Between the Sittang and the Irrawaddy uprises the Pegu Yoma Hills.

4. The Shan Plateau is, in connexion with the Western Thailand, constituted by granite and limestone rocks, deeply cut by the defiles of the other great Burmese river, the Salween.

### CLIMATOLOGY

The climate of Western Indochina resembles that of the Eastern part. As we know, the climates influenced by the Equator may be one of the three types:

1. The subequatorial climate with a short, or none, dry season.
2. The southern tropical climate with two seasons: one dry and a rainy one; the latter being either in spring-summer or in autumn-winter following the monsoon direction.
3. The northern tropical Indochina shows the same distribution but more seasonal than in the rest of the peninsula. The coast is wet and the inland more or less dry. This is the result of an interaction between the orography and the rain. The Highlands of the dry regions, acting as "inselbergs" stop the rains carried by the two monsoons. We may point out the difference between northern Thailand and northern Laos. The



rainfall in the first country with only "inselbergs" is of 800–1,200 mm/year while in the border of the western side of Tran Ninh Plateau, in the stations of Paksane and Vang Vieng the rainfall is of 3,000 mm/year. The dry Indochinese area approximatively from the Mekong Delta to the Chittagong Frontiers is broken by the mountains in the so-called "bassins" protected against the two monsoons by the hills. It is the case of Tonlé Sap Plain in Cambodia, between the Cardamones Range and the South Annamitic Range, that of Korat Plateau between its western edge and the range of the middle and southern Laos, and finally that of the valley of Irrawaddy between the Arrakan Yoma and the Shan Plateau where the minimum does not reach 1,000 mm/year, sometimes remains at about 500 mm/year.

These climates may be characterized by the Indochinese Dipterocarp forest, the Thai Pa daeng or the Burmese Indaing, polymorphous formation of the centre of the peninsula. It exists also in the coastal part of the Cardamones where the rainfall is high enough for keeping the evergreen or dense forest (mosaic forest of southern Cambodia, open coastal forest in the vicinity of Trat in Thailand).

Following the rainfall it is possible to distinguish four regions :

1. The wettest region of Assam (with the highest rainfall in the world at Tcherrapundji in the Khasia Hills).
2. The coastal border, which, with the Arrakan and the Tenasserim, represents the most rainy country of South-East Asia. Some stations get up to 5,000 mm/year rainfall (in west Borneo the maximum is 3,400 mm/year). The delta of Irrawaddy represents a disconnexion in the rainfall pattern.
3. The dry central plain with some stations, in the North receiving only 750 mm/year, the delta is more humid (2,500 mm/year).
4. The Shan plateau with a rainfall of 1,200 to 1,800 mm/year.

### BIOGEOGRAPHICAL REGIONS

#### A. The Northern Region

It corresponds mainly to the high mountain, except the high valley of Brahmaputra, with a relatively heavy rainfall and a cold season (chiefly in the highlands).

### B. The Hilly Border

Between the delta of the Ganges and the delta of the Irrawaddy : wet to very wet climate. Few data are available for the mountain range of the region particularly the Chin Hills.

### C. The Southern Coastal Part

Usually named Tenasserim.

### D. The Shan Plateau

### E. The Central Region (Plain of the Irrawaddy River)

This low region as well as the plains of the Chao Phraya in Thailand, highly cultivated, are poor in bryophytes.

## COLLECTIONS AND DETERMINATIONS

Perhaps the region Burma-Assam was less prospected than Thailand and Indochina. Three periods may be distinguished : the XIXth century; the early XXth century and the late XXth century. During the XIXth century, the main publication on Indian and Indochinese mosses was that of W. MITTEN (1859), a compilation of all mosses known from the East Indies. LEVIER (1891) wrote a short paper concerning the collection of FEA with the help of CARL MUELLER. H.N. DIXON, in 1914, named the mosses collection of the Abor Hills Expedition in northern Assam and in 1937, gave a long list of the collections of N.L. BOR (Khasia Hills, border of Himalaya in the East of Bhotan, Aka Hills, Daffa Hills). In the South of Assam BOR visited the Naga Hills. All these regions are poorly known according to DIXON.

E.B. BARTRAM (1943 and 1954) analysed in two papers large Burmese collections. In the first he published the list of the material given by F.G. DICKASON, who apparently travelled through all Burma, and that of the plant explorer, F. KINGDON WARD from the North. The publication of 1954 gives references to the plants of R.D. SVIHLA who taught some years in Rangoon, these collections concern the Shan Plateau, the vicinity of Rangoon and the coastal Tenasserim. E. BESCHERELLE (1895 & 1897) in his monographs of genera *Calymperes* and *Ochrobryum* gave some descriptions of Burmese species.



Personally, I am modestly contributing a list of my collections from the Chittagong, made during a botanical trip under the auspices of the South-East Asia Treaty Organization, those made in Assam by my friend, J. BRUNEL, ornithologist, during the spring of 1961 and, finally, those I made in Burma at the end of the year 1971.

Abbreviation of the author's names :

Bartram	:	Bart.
Bescherelle	:	Besch.
Dixon	:	Dix.
Levier	:	Lev.
Mitten	:	Mitt.
Tixier	:	Tix.

### SPHAGNACEAE

#### I. *Sphagnum* Ehr.

1. *S. acutifoloides* Warn.  
A.—Aka Hills, Mt. Piri, 3,000 m (Dix., 37-772);  
Assam.
2. *S. feae* C. Muell. *nom. sol.*  
D.—Bhamo (Lev., 91-601);  
Endemic.
3. *S. subsecundum* Nees  
B.—Chin Hills, Mt. Victoria, 3,000 m (Bart., 43-172);  
Europe, Asia, North America.

### FISSIDENTACEAE

#### II. *Fissidens* Hedw.

4. *F. anomalus* Mont.  
A.—Aka Hills, Mt. Piri, 2,500 m (Dix., 37-773);  
Nilghiris, Sikkim, Khasia, Ceylon, Java, Vietnam.
5. *F. areolatus* Griff.  
A.—Aka Hills, Mt. Piri (Dix., 37-773);  
Sikkim, Khasia, Ava.
6. *F. burmensis* Bart. (Rev. Bryol. Lichénol., XXIII, 1954, 242)  
D.—Maymyo;  
Endemic.

7. *F. ceylonensis* Doz. & Molk.  
B.—Kaptai (Chittagong) (Tix., 67-2);  
Ceylon, Indochina, Malesia.
8. *F. choprai* Norkett in sched.  
A.—Assam, Naziranga (Tix., 67-2);  
India, Vietnam.
9. *F. diversifolius* Mitt.  
A.—Kobo (Dix., 14-60);  
Himalaya.
10. *F. hollianus* Doz. & Molk.  
D.—Maymyo, Gokteik Gorge (Bart., 54-242);  
Java.
11. *F. intrmarginatus* Bart. (Rev. Bryol. Lichénol., XXIII, 1954, 242);  
D.—South Shan States, Taunggyi, 1,500 m;  
Endemic.
12. *F. javanicus* Doz. & Molk.  
A.—Assam, Negrogam (sub. nom. *F. acutifolius* Mitten);  
B.—Chittagong, Kaptai (Tix., 67-2);  
Java.
13. *F. lativaginitus* Bart. (Rev. Bryol. Lichénol., XXIII, 1954, 242)  
D.—South Shan States, Kalaw;  
Endemic.
14. *F. longisetus* Griff. (Moss. East. Ind. Mitt., 1859, 141);  
A.—Assam, rivièrè Mumbra;  
Endemic.
15. *F. leptopelma* Dix. (J. Bombay Nat. Sc. Soc, XXXIX, 1937, 773);  
Endemic.
16. *F. mittenii* Par.  
C.—Tenasserim, Thawbawleik Mines; idem, Mergui, Pahaw  
Islands (Bart., 54-243);  
Ceylon, Indochina.
17. *F. newcomerii* Bart. (Rev. Bryol. Lichénol., XXIII, 1954, 242)  
A.—Shinburyang;  
Endemic.



18. *F. nobilis* Griff.
  - A.—Balipara Frontier Tract, 900 m (Dix., 37, 773); Abor Hills (Dix., 14-61); Sin Lum Kaba (Bart., 43-172);
  - B.—South Shan States, Kalaw Reservoir (Bart., 54-243); Himalaya, Malesia, Indochina, Hong Kong.
19. *F. papillosus* Broth.
  - C.—Mergui;
  - D.—Maymyo, Gokteik Gorge;
  - E.—Mandalay (Bart., 54-242); Thailand.
20. *F. pulchellus* Mitt.
  - A.—Abor Hills (Dix., 14-61); Sikkim.
21. *F. rubricaulis* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 772)
  - A.—Balipara Frontier Tract; Endemic.
22. *F. semperfalcatus* Dix.
  - C.—Mergui, Pahtaw Islands; Thailand.
23. *F. splachnoides* Broth.
  - D.—Maymyo, Gokteik Gorge (Bart., 54-241); Ghates, Java.
24. *F. sylvaticus* Griff.
  - A.—Between Hopone and Taunggyi (Tix.); Common in the south of the country (Bart.); South-East Asia.
25. *F. xiphoides* Fleisch.
  - C.—Tenasserim, Thawbawleik Mines;
  - D.—Maymyo (Bart., 54-242); Java.
26. *F. zollingeri* Mont.
  - D.—Taunggyi, Bhamo (Bart., 54-241); Andamans, Indochina, Malesia, Tahiti.

## DITRICHACEAE

III. *Garckea* C. Muell.

27. *G. comosa* (Doz. & Molk.) Wjick & Marg.  
 A.—Balipara Frontier Tract (Dix., 37-773);  
 B.—Chittagong, Kaptai (Tix., 67-2);  
 C.—Tenasserim, Thawbawleik Mines; Tavoy (Bart., 43-173,  
 54-243);  
 D.—Taunggyi; Maymyo, Kalaw, Bhamo;  
 E.—Rangoon (Bart., 43-173);  
 South-East Asia.

IV. *Ditrichum* Hamp.

28. *D. heteromallum* (Hedw.) Britt.  
 A.—Aka Hills, Mt. Piri, 2,300 mm (Dix., 37-772);  
 Europe, North America, Terra del Fuego.

## DICRANACEAE

V. *Trematodon* Michx.

29. *T. assamensis* Broth.  
 A.—Charchuar (Dix., 37-773);  
 Assam.
30. *T. conformis* Mitt.  
 A.—Pasihgat, Kobo (Dix., 14-61);  
 Sikkim.
31. *T. longicollis* Michx.  
 A.—Assam (Mitt., 59-12);  
 B.—Chittagong, Kaptai (Tix., 67-2);  
 C.—Moulmein (Bart., 54-243);  
 E.—Pyinmana, Kuaukthanba (Bart., 43-172);  
 North America, Italy, South-East Asia.

VI. *Microdus* Schimp.

32. *M. assamicus* Dix. (J. Bombay Nat. Sc. Soc., XXXIX, 1937, 773)  
 A.—Abor Hills, Tankim La;  
 Endemic.
33. *M. brasilensis* (Duby) Thér.  
 D.—South Shan States, Taunggyi (Bart., 54-243; Tix); May-  
 myo (Bart., 43-343);  
 Brazil, India, Java, Cambodia, Vietnam, Luzon.



- VII. **Campylopodium** (C. Muell.) Par.
34. *C. euphorocladum* (C. Muell.) Besch.  
D.—South Shan States, Kalaw Reservoir (Bart., 54-243);  
Eastern Africa, South-East Asia, Pacific to Hawaii.
- VIII. **Dicranella** Schimp.
35. *D. coarctata* (C. Muell.) Bosch & Lac.  
B.—Chittagong, Cox's Bazar (Tix., 67-2);  
Ceylon, Pegu, Java, Luzon, Formosa.
36. *D. heteromalla* (Hedw.) Schimp.  
A.—Aka Hills, Mt. Piri, 2,900-3,000 m (Dix., 37-774);  
Europe, Caucasus, Himalaya, Japan, North America, Bolivia,  
Venezuela.
37. *D. leptoneura* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937,  
774);  
A.—Balipara Frontier Tract 100-300 m;  
Endemic.
- IX. **Campylopus** Brid.
38. *C. gracilis* (Mitt.) Jaeg.  
D.—Loinwe, Kengtung State, 2,100 m; Nataung, Kareni State,  
1700 m (Bart., 43-172); South Shan States, Kalaw Reservoir  
(Bart., 54-243);  
Sikkim.
39. *C. introflexus* (Hedw.) Brid.  
A.—Assam (sub nom. *C. ericetorum* Mitt.)  
Southern Europe, North Africa, Atlantic Islands, Pacific.
40. *C. laetus* (Mitt.) Jaeg.  
E.—Mt. Popa, 900 m (Bart., 43-172);  
Khasia Hills.
41. *C. richardii* Brid.  
A.—Sin Lum Kaba, 2,000 m (Bart., 43-172);  
Tropical America, South-East Asia, Pacific.
42. *C. subluteus* (Mitt.) Jaeg. (Moss. East. Ind., 1859, 19)  
C.—Moulmein (Mitt., 59-19);  
Endemic.
- X. **Dicranodontium** B.S.G.
43. *D. asperulum* (Mitt.) Broth.  
A.—Naga Hills (Dix., 37-773);  
Cosmopolitan.

44. *D. decipiens* (Mitt.) Mitt. ex Broth.  
A.—Naga Hills, Chesweruma, 2,300 m (Dix., 37-775);  
Sikkim, Khasia.
45. *D. dimorphum* Mitt.  
A.—Aka Hills, Mt. Piri, 3,000 m (Dix., 37-775);  
Sikkim, Bhotan.
46. *D. uncinatum* (Hary.) Jaeg.  
B.—Chin Hills, Saw Chaung, 2,000 m;  
D.—Manglon State, Pan Yang, 1,500 m (Bart., 43-173);  
India, Indochina, Java, Moluccas, Philippines.
- XI. **Brothera** C. Muell.
47. *B. capillifolia* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937,  
774)  
A.—Aka Hills, Mt. Piri, 2,900–3,000 m  
Endemic.
48. *B. leana* (Sull.) C. Muell.  
D.—South Shan States, Taunggyi (Bart., 54-243);  
North America, Japan, Manchuria, Himalaya, Southern  
Indochina, Luzon.
- XII. **Oreoweissia** (B.S.G.) De Not.
49. *O. laxifolia* (Hook. f.) Kindb.  
A.—Aka Hills, Mt. Piri, 2,900-3,000 m (Dix., 37-774);  
Himalaya, Yunnan, Western Ghats, Nilghiri.
- XIII. **Symblepharis** Mont.
50. *S. reinwardtii* (Doz. & Molk.) Mitt.  
A.—Abor Hills, Pankim La; Aka Hills, Mt. Piri; Naga Hills,  
Jawpo (Dix., 37-774);  
Sikkim, Burma, Java, Borneo.
51. *S. vaginata* (Hook.) Wjick & Marg.  
A.—Abor Hills (sub. nom. *Symblepharis helictophylla* Mont.)  
(Dix., 37-774);  
Central America, Himalaya, China.
- XIV. **Holomitrium** Brid. Bryol. Univ.
52. *H. griffithianum* Mitt.  
D.—Manglon State, Pang Yang, 1,500 m (Bart., 43-173);  
South Shan States, Taunggyi (Bart., 54-243);  
Bhotan, Assam, Thailand, Laos, Vietnam, Formosa.



XV. *Dicranum* Hedw.

53. *D. assamicum* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 774)  
A.—Naga Hills, Jawpo, 2,750-3,000 m;  
Endemic.
54. *D. gymnostomum* Mitt.  
A.—Sino-Burmese Frontier, Adung Valley, 4,000 m (Bart., 43-173);  
Himalaya, Yunnan.
55. *D. kashmirensis* Broth.  
A.—Abor Hills, Pankim La (Dix., 37-774);  
Himalaya.
56. *D. lorifolium* Mitt.  
A.—Naga Hills, Jawpo, 2,750-3,000 m (Dix., 37-774);  
Himalaya.

XVI. *Dicranoloma* Ren.

57. *D. fragile* Broth.  
D.—Manglon State, Loi Se, Pang Yang; Kentung State, Mong Pawk (Bart., 43-173); South Shan States, Taunggyi (Bart., 54-243);  
Himalaya, Indochina, Malesia, New Guinea, Louisiade, d'Entrecasteaux Islands, New Hebrides, New Caledonia, Tahiti.
58. *D. reflexifolium* (C. Muell.) Broth.  
A.—Abor Hills (Dix., 14-62);  
Java, Sumatra, Assam.

XVII. *Leucoloma* Brid.

59. *L. birmense* (C. Muell.) P. Tix.  
C.—Mt. Moolegit (Lev., 86-601);  
Thailand.
60. *L. taylorii* (Schaegr.) Mitt.  
E.—Rangoon (Mitt., 59-13);  
Nepal, Thailand, Vietnam.
61. *L. tenerum* Mitt.  
C.—Moulmein (Mitt., 59-13);  
Endemic,

## LEUCOBRYACEAE

XVIII. *Ochrobryum* Mitt.

62. *O. kurzianum* (Hpe.) Besch.  
C.—Moulmein, Martaban;  
E.—Pegu Yoma (Besch., 97-145);  
Thailand.
63. *O. parishii* Besch. (J. Bot., XI, 1897, 142);  
C.—Moulmein;  
Endemic.
64. *O. subulatum* (Hpe.) Besch. (J. Bot., XI, 1897, 150)  
C.—Plumadue, 1,100 m;  
Endemic.

XIX. *Leucobryum* Brid.

65. *L. bowringii* Mitt. var. *sericeum* (Geh.) Dix.  
A.—Aka Hills, Mt. Piri, 1,200 m (Dix., 37-775);  
From Ceylon to Japan.
66. *L. javense* (Brid.) Mitt.  
A.—Abor Hills (Dix., 14-60); Naga Hills, Kanjura, 2,000 m  
(Dix., 37-775);  
South-East Asia.
67. *L. neilgherrense* C. Muell.  
B.—Chin Hills, Aka, 1,600 m (Bart., 43-173);  
D.—Kentung State, Loinwe; Sin Lum Kaba (Bart., 43-173);  
South-East Asia, Japan, China, Korea.
68. *L. scalare* C. Muell.  
C.—Tavoy, 300 m;  
D.—Kentung State, Mong Pawk; Manglon State, Pang Yang,  
1,500 m; Kareni State, Nataung (Bart., 43-173); Taung-  
gyi (Bart., 54-244);  
Nepal, South-East Asia, Fiji.
69. *L. teysmanianum* Doz. & Molk.  
B.—Chittagong, Kaptai (Tix., 67-2);  
Java, Borneo, Australia, Pacific.

XX. *Leucophanes* Card.

70. *L. octoblepharoides* Brid.  
A.—Balipara Frontier Tract (Dix., 37-775);  
C.—Mergui (Bart., 54-244);  
From Nepal to Pacific Islands,



XXI. *Octoblepharum* Hedw.

71. *O. albidum* Hedw.  
 A.—Charduar (Dix., 37-775); Kobo (Dix., 14-60);  
 B.—Chittagong, Kaptai, Sitakund (Tix., 67-2);  
 D.—Bhamo (Lev., 91-601); Taunggyi (Tix.);  
 E.—Rangoon (Bart., 43-173);  
 Cosmopolitan.

XXII. *Exodictyon* Card.

72. *E. blumei* (C. Muell.) Fleisch.  
 A.—Aka Hills, Mt. Piri, 3,000-3,500 m (Dix., 37-775);  
 Indochina, Malesia, Pacific.

## CALYMPERACEAE

XXIII. *Syrrophodon* Schwaegr.

73. *S. chittagongense* P. Tix. (Dacca Univ. Stu., XV, 1967, 3);  
 B.—Chittagong, Kaptai.  
 Endemic.
74. *S. larminatii* Broth. & Par.  
 B.—Chittagong, Kaptai (Tix., 67-3);  
 Japan, North Vietnam, Thailand, Malaya.

XXIV. *Calymperopsis* (C. Muell.) Fleisch.

75. *C. semi-liber* (Mitt.) Fleisch.  
 B.—Kaptai (Tix., 67-3);  
 C.—Tavoy (Mitt., 59-41);  
 Indochina.

XXV. *Thyridium* Mitt.

76. *T. cardotii* Fleisch.  
 C.—Mergui, Pahtaw Islands; Tenasserim, Thawbawleik  
 Mines (Bart., 54-244);  
 Cambodia, Vietnam, Java.
77. *T. cuspidatum* Fleisch.  
 C.—Chittagong, Cox's Bazar (Tix., 67-3);  
 Indochina, Java.
78. *T. pilulifer* (Dix.) P. Tix. *nov. comb.* (*Syrrophodon pilulifer* Dix.  
 in J. Bombay Nat. Hist. Soc., XXXIX, 1937, 775);  
 A.—Balipara Frontier Tract, 100-300 m;  
 Endemic.

XXVI. *Calymperes* Schwaegr.

79. *C. brachycaulon* Broth.  
C.—Mergui, Pahtaw Islands; Moulmein (Bart., 54-244);  
Thailand.
80. *C. burmense* (Hpe.) Besch.  
A.—Aka Hills, Mt. Piri, 3,000-3,300 m (Dix., 37-776);  
C.—Moulmein (Besch., 95-279);  
Burma.
81. *C. delessertii* Besch.  
A.—Assam, Naziranga (Tix., 67-3);  
Andaman, Malaya.
82. *C. hampei* Doz. & Molk.  
A.—Charduar (Dix., 37-776);  
E.—Taungoo (Bart., 43-174);  
Malesia.
83. *C. nietnerii* Mitt.  
C.—Moulmein (Besch., 95-306, sub nom. *C. varium* Mitt.)  
Ceylon, Java.
84. *C. peguense* Besch.  
B.—Chittagong, Sitakund (Tix., 67-3);  
E.—Pegu Yoma (Besch., 95-299); Rangoon (Bart., 43-173);  
Burma.
85. *C. prionotum* Besch.  
D.—Mt. Nattaung, 2,300 m (Besch., 95-300);  
Endemic.
86. *C. robustiusculum* Broth.  
C.—Mergui;  
E.—Rangoon (Bart., 54-244);  
Thailand, Cambodia.
87. *C. subacuminatum* Bart. (Rev. Bryol. Lichénol., XXIII, 1954,  
244)  
C.—Mergui, Pahtaw Islands; Tenasserim, Thawbawleik  
Mines;  
Endemic.
88. *C. subintegrum* Broth.  
C.—Mergui, Pahtaw Islands (Bart., 54-243);  
Thailand.



89. *C. subtenerum* Bart. (Rev. Bryol. Lichénol., XXIII, 1954, 244)  
C.—Mergui, Pahtaw Islands; Tenasserim, Thawbawleik Mines;  
Endemic.
90. *C. svihlae* Bart. (Rev. Bryol. Lichénol., XXIII, 1954, 244)  
C.—Tenasserim, Thawbawleik Mines;  
Endemic.
91. *C. tenerum* C. Muell.  
B.—Chittagong, Sitakund; Cox's Bazar (Tix., 67-3);  
From Bengal to Pacific Islands.

## POTTIACEAE

XXVII. *Molendoa* Lindb.

92. *M. burmensis* Bart. (Farlowia, I, 1943, 174)  
D.—Goteik, Haipan, 900 m;  
Endemic.

XXVIII. *Anoetangium* (Hedw.) B.S.G.

93. *A. birmense* C. Muell. *nom. nud.*  
D.—Bhamo (Lev., 91-600);  
Endemic.

94. *A. stracheyanum* Mitt.  
D.—Taunggyi, 1400 m (Bart., 43-174);  
Himalaya.

XXIX. *Gymnostomum* Nees & Hornsch.

95. *G. aeruginosum* Sm.  
D.—South Shan States, Taunggyi (Bart., 54-245);  
Cosmopolitan.

XXX. *Hymenostylium* Brid.

96. *H. recurvirostre* (Hedw.) Dix.  
D.—South Shan States, Maymyo;  
E.—Mandalay (Bart., 54-245);  
Cosmopolitan.

XXXI. *Oxystegus* (Limpr.) Hilp.

97. *O. cylindricus* (Brid.) Hilp.  
A.—Naga Hills, Jawpo, Pulebudze, 2500 m (Dix., 37-776);  
Cosmopolitan.

XXXII. *Trichostomum* Hedw.

98. *T. burmense* Bart. (Rev. Bryol. Lichénol., XXIII, 1954, 245)  
D.—Maymyo;  
Endemic.
99. *T. svihlae* Bart. (Rev. Bryol. Lichénol., XXIII, 1954, 245)  
D.—South Shan States, Maymyo;  
Endemic.

XXXIII. *Pseudosymblepharis* Broth.

100. *P. angustata* (Mitt.) Hilp.  
D.—Taunggyi (Bart., 43-174; Tix.);  
India, Ceylon, Indochina, Malesia, Southern China.
101. *P. pallidens* (Mitt.) Hilp.  
A.—Naga Hills, Jawpo;  
Endemic.
102. *P. subduriuscula* (C. Muell.) Chen.  
D.—Kentung State, Pang Wai, 2,000 m (Bart., 43-174, sub  
nom. *P. pervaginata*);  
Philippines.

XXXIV. *Timmiella* (De Not.) Limpr.

103. *T. anomala* (B.S.G.) Limpr.  
D.—South Shan States, Taunggyi, 1,500 m (Bart., 43-174);  
Europe, North America, Himalaya.

XXXV. *Tortella* (C. Muell.) Limpr.

104. *T. cyrtobasis* Dix.  
D.—South Shan States, Taunggyi, 1,500 m (Bart., 43-174);  
Thailand.

XXXVI. *Hyophila* Brid.

105. *H. acuminata* Bart. *nom. illeg.* (Rev. Bryol. Lichénol., XXIII,  
1954, 245)  
D.—South Shan States, Taunggyi;  
Endemic.
106. *H. involuta* (Hook.) Jaeg.  
A.—Aka Hills, Mt. Piri (Dix., 37-776);  
B.—Chittagong, Sitakund (Tix., 67-3);  
D.—Taunggyi (Bart., 43-174; Tix.);  
E.—Rangoon (Bart., 43-174);  
South-East Asia.



107. *H. javanica* (Hook.) Jaeg.  
A.—Assam, Naziranga;  
B.—Chittagong, Sitakund (Tix., 67-3, sub nom. *H. dittei*);  
Java.
108. *H. pygmaea* C. Muell. *nom. nud.*  
D.—Bhamo (Lev., 91-601);  
Endemic.
- XXXVII. **Barbula** Hedw.
109. *B. altipapillosa* Bart. (Rev. Bryol. Lichénol., XXIII, 1954, 246)  
E.—Mandalay, Maymyo Road, 1,000 m;  
Endemic.
110. *B. constricta* Mitt.  
Common and largely distributed (Bart., 43-175; 54-246);  
Himalaya, Philippines.
111. *B. fusco-virens* Bart. (Rev. Bryol. Lichénol., XXIII, 1954, 246)  
D.—South Shan States, Taunggyi;  
Endemic.
112. *B. gregaria* (Mitt.) Jaeg.  
A.—Aka Hills, Mt. Piri, 3,000–3,500 m (Dix., 37-776);  
Himalaya.
113. *B. obscuretis* Dix.  
D.—Taunggyi (Tix.);  
Thailand, Luzon.
114. *B. scleromitra* Besch.  
B.—Chittagong, Sitakund; idem Cox's Bazar (Tix., 67-3);  
North Vietnam.
115. *B. svihlae* Bart. (Rev. Bryol. Lichénol., XXIII, 1954, 246)  
D.—Maymyo;  
Endemic.
116. *B. vinealis* Brid.  
D.—Taunggyi (P.Tix.);  
Cosmopolitan.
- XXXVIII. **Hydrogonium** (C. Muell.) Jaeg.
117. *H. arcuatum* (Griff.) Wjick & Marg.  
A.—Abor Hills, Janakmukh (Dix., 14-61);  
D.—South Shan States, Lashio (Bart., 54-247, sub nom.  
*Barbula comosa* Doz. & Molk.);  
Nepal, Sikkim, Khasia, Malesia, Ambon, Java, Oceania,  
New Caledonia.

118. *H. consanguineum* (Thw. & Mitt.) Hilp.  
D.—South Shan States, Taunggyi;  
E.—Rangoon (Bart., 43-175);  
Ceylon, Singapore, Vietnam, Philippines.
119. *H. javanicum* (Doz. & Molk.) Hilp.  
D.—Chittagong, Kaptai (Tix., 67-3);  
Nepal, Himalaya, Ceylon, Sumatra, Java, Celebes.
120. *H. pseudoehrenbergii* (Fleisch.) Chen.  
D.—South Shan States: Lashio, Gok Teik Gorge; Taunggyi (Bart., 54-246);  
Cambodia, Java.
121. *H. soboliferum* (Fleisch.) Hilp.  
D.—Maymyo, Botanical Garden (Bart., 54-247);  
Java.
122. *H. sordidum* (Besch.) Hilp.  
D.—Taunggyi (Tix.);  
North Vietnam.
- XXXIX. **Semibarbula** Herz. ex Hilp.
123. *S. orientalis* (Web.) Wijk & Marg.  
A.—Assam, in lower region (Dix., 37-776);  
E.—Rangoon (Bart., 43-174);  
Tropical Africa, South-East Asia.
- XL. **Desmatodon** Brid.
124. *D. involutus* Bart. (Farlowia, I, 1943, 175) *nom. illeg.*  
D.—Taunggyi (Bart., 43-175; 54-247);  
Endemic.

## GRIMMIACEAE

XLI. **RACOMITRIUM** Brid.

125. *R. crispulum* (Hook. f. & Wils.) Hook. f. & Wils.  
A.—Naga Hills, Jawpo (Dix., 37-773, sub nom. *R. javanicum*);  
Java, Borneo, Himalaya.



## EPHEMERACEAE

XLII. *Nanomitriella* Bart. (Rev. Bryol. lichénol., XXIII, 1954, 247)126. *N. ciliata* Bart.

C.—Moulmein;

Endemic.

## FUNARIACEAE

XLIII. *Physcomitrium* (Brid.) Fuernr.127. *P. japonicum* (Hedw.) Mitt.A.—Assam, Suddya (Mitt., 59-54 sub nom. *P. pulchellum*);

Abor Hills, Rotung (Dix., 14-61);

Japan, Assam, Sikkim.

128. *P. repandum* (Griff.) Mitt. (Musc. Ind. Ori., 1859, 54)

A.—Assam, Suddya; Abor Hills, junction of Yambung and

Dehong (Dix., 14-61);

Endemic.

XLIV. *Funaria* Schreb.129. *F. dozyana* (C. Muell.) Broth.

D.—South Shan States, Taunggyi, Kalaw (Bart., 54-248);

Java.

130. *F. hygrometrica* Hedw.

A.—Assam, many collections (Dix., 37-778);

D.—South Shan States: Taunggyi, Hopone (Tix.);

Cosmopolitan.

131. *F. hygrometrica* Hedw. var. *calvescens* (Scwaegr.) Kindb.

B.—Chin Hills, 1900 m (Bart., 43-175);

C.—Dawna Range, Mt. Moolegit (Lev., 91-601 sub  
nom. *F. nepallensis*); Tavoy, Mt. Nwalabo (Bart., 43-  
175);

D.—Karen State, Nataung (Bart., 43-175);

Cosmopolitan.

132. *F. wichurae* (Fleisch.) Broth.D.—Karen State, 1,500 m; Taunggyi, 1,500 m (Bart., 43-  
175); Java

## SPLACHNACEAE

XLV. *Gymnostomiella* Fleisch.

133. *G. burmensis* Bart. (Rev. Bryol. Lichénol., XXIII, 1954, 247)  
E.—Mandalay, 1,000 m;  
Endemic.
134. *G. vernicosa* (Hook.) Fleisch.  
D.—Bhamo (Lev., 91-601 sub nom. *G. byssoides* C. Muell.);  
E.—Mandalay (Bart., 54-247);  
Singapore, Ambon, Philippines.

XLVI. *Splachnobryum* C. Muell.

135. *S. assamicum* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 778)  
A.—Charduar;  
Endemic.
136. *S. indicum* Hpe. & C. Muell.  
D.—Maymyo Road (Bart., 54-247);  
Bengal.
137. *S. luzonense* Broth.  
D.—Maymyo, Gok Teik Gorge;  
E.—Rangoon (Bart., 54-247);  
Luzon.

XLVII. *Tayloria* Hook.

138. *T. indica* Mitt.  
A.—Aka Hills, Piri Camp, 2,300 m; Naga Hills (Dix., 37-778);  
B.—Chin Hills, Haka, 1,700-2,300 m (Bart., 43-175);  
D.—South Shan States, Taunggyi (Bart., 54-248);  
Himalaya, Philippines.
139. *T. subglabra* (Griff.) Mitt.  
A.—Naga Hills (Dix., 37-778);  
Himalaya, Indochina.
140. *T. subglabra* (Griff.) Mitt. var. *spinosa* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 778)  
A.—Naga Hills, Takua 1,700 m;  
Endemic.



## BRYACEAE

XLVIII. *Mielichhoferia* Nees & Hornsch.

141. *M. assamica* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 778);

A.—Aka Hills, Bharelli River;  
Endemic.

XLIX. *Webera* Hedw.

142. *W. humicola* Dix. & Varde

A.—Naga Hills, Lozaphobemi, 1,220 m (Dix., 37-779);  
India.

L. *Pohlia* Hedw.

143. *P. cruda* (Hedw.) Lindb.

A.—Aka Hills, Mt. Piri, 3,300 m (Dix., 37-779);  
Cosmopolitan.

144. *P. elongata* Hedw.

A.—Aka Hills, Mt. Piri, 2,900 m—3,000 m (Dix., 37-779);  
Naga Hills (idem);  
D.—Taunggyi, 1,500 m (Bart., 54-251);  
Cosmopolitan.

145. *P. flexuosa* Hook.

A.—Aka Hills, Mt. Piri, 2,900-3,000 m (Dix., 37-779);  
Himalaya.

LI. *Pseudopohlia* Williams

146. *P. bulbifera* Williams

D.—South Shan States, Taunggyi (Bart., 54-248);  
Philippines.

LII. *Brachymenium* Schwaegr.

147. *B. acuminatum* Harv.

D.—Taunggyi (Bart., 43-176); 17 collections of SVIHILA  
(Bart., 54-248);  
South East Asia.

148. *B. exile* (Doz. & Molk.) Bosch & Lac.

A.—Naga Hills, Zehwara, 1,800 m (Dix., 37-779);  
D.—South Shan States (Bart., 54-248);  
Ceylon, Vietnam, Malesia.

149. *B. leptostomoides* (C. Muell.) Jaeg.  
D.—South Shan States: Kalaw; Taunggyi (Bart., 54-248);  
South-East Asia.
150. *B. nepalense* Hook. in Schwaegr.  
A.—Naga Hills, Zhwara, 2,100 m (Dix., 37-779);  
D.—South Shan States: Kareni State, Nataung; Manglon  
State, Pang Yang; Hopong State, Hopong (Bart., 43-  
176); Taunggyi (Bart., 54-248, Tix.);  
India, Ceylon, Indochina, Malesia.
- LIII. *Anomobryum* Schimp.
151. *A. cymbifolium* (Lindl.) Broth.  
A.—Naga Hills, 1,700 m (Dix., 37-779);  
D.—South Shan States, Taunggyi (Bart., 43-176);  
Himalaya, Southern India, Khasia, Java, Philippines,  
Ambon.
152. *A. gemmiferum* Broth.  
D.—Taunggyi (Bart., 43-176);  
Philippines.
- LIV. *Bryum* Hedw.
153. *B. ambiguum* Duby  
B.—Chittagong, Kaptai (Tix., 67-4);  
D.—Inle Lake (Tix.);  
South-East Asia.
154. *B. argenteum* Hedw. var. *lanatum* (P. Beauv.) Hamp.  
A.—Assam (Dix., 37-779);  
D.—South Shan States: Taunggyi (Bart., 43-176); Maymyo  
(Bart., 54-249);  
Cosmopolitan.
155. *B. capillare* L. ex Hedw.  
D.—South Shan States: Taunggyi; Maymyo;  
Cosmopolitan.
156. *B. cellulare* Hook.  
A.—Bhalukpung, Bhorelli River, 300 m (Dix., 37-779);  
B.—Chittagong, Kaptai (Tix., 67-4, sub nom. *Bryum spla-*  
*chnoides*)  
Himalaya, Yunnan, Lebanon, Japan.



157. *B. coronatum* Schwaegr.  
 C.—SVIHLA, 14 collections in Southern Burma (Bart., 54-248);  
 D.—South Shan States, Taunggyi, 1,500 m (Bart., 43-176) (Tix.);  
 E.—Rangoon (Bart., 43-176);  
 Pantropical.
158. *B. nitense* Hook.  
 C.—Mergui (Bart., 54-248);  
 D.—South Shan States : Taunggyi;  
 E.—Mandalay (Bart., 54-248);  
 Nepal, Ceylon, Java.
159. *B. porphyroneuron* C. Muell.  
 D.—South Shan States : Taunggyi (Bart., 43-156; 54-248);  
 Kalaw (Bart., 54-248);  
 India, Ceylon, Sumatra, Java, Malaya.
160. *B. ramosum* (Hook.) Mitt.  
 B.—Thandaung, 1,100 m (Bart., 43-176);  
 D.—Kendung State, 2,000 m (Bart., 43-176); South Shan States, Taunggyi (Bart., 54-249);  
 Nepal, Nilghiris, Ceylon, Java, Thailand, Formosa, Luzon, North Vietnam.
161. *B. svihlae* Bart. (Rev. Bryol. Lichéhol., XXIII, 1954, 248)  
 D.—Taunggyi;  
 Endemic.
- LV. *Rhodobryum* (Schimp.) Hamp.
162. *R. giganteum* (Schwaegr.) Par.  
 A.—Aka Hills, Mt. Piri, 2,750 m (Dix., 37-779);  
 D.—Kantung State, Mong Yang; Webula; Taungteik (Falam); South Shan States, Taunggyi; Kareni State, Nataung (Bart., 43-177);  
 South-East Asia, China, Japan, Hawaii.

## MNIACEAE

LVI. *Orthomnium* Wils.

163. *O. bryoides* (Griff.) Wijk & Marg.  
 A.—Assam, Him Parbat, 2,000 m, Tako Senyak, 1,200 m  
 (Dix., 37-780)  
 D.—Karen State, Nataung, 2,100 m (Bart., 43-177); South  
 Shan States, Kalaw (Bart., 54-249;  
 Sikkim, Khasia.
164. *O. japonica* Broth.  
 A.—Aka Hills, Mt. Piri, 1,375 m (Dix., 37-780);  
 Japan, New Guinea, North Vietnam.

LVII. *Mnium* Hedw.

165. *M. burmense* Bart. (Rev. Bryol. Lichénol., XXIII, 1954, 249)  
 D.—Maymyo;  
 Endemic.
166. *M. heterophyllum* (Hook.) Schwaegr.  
 A.—Abor Hills, Pankim La (Dix. 37-779);  
 Caucasus, Himalaya, Nepal.
167. *M. laevinerve* Card.  
 A.—Aka Hills, Mt. Piri, 2,700-3,300 m (Dix., 37-779);  
 Japan.
168. *M. lycopodioides* Schwaegr.  
 A.—Aka Hills, Mt. Piri, 2,500-3,300 m (Dix., 37-779);  
 From Western Europe to Central Asia.
169. *M. punctatum* Schrad. ex. Hedw.  
 A.—Aka Hills, 2,700-3,300 m (Dix., 37-779);  
 From the Alps to Japan.
170. *M. rostratum* Schrad.  
 A.—Common in the Abor Hills (Dix., 14-62);  
 B.—Chin Hills, Haka, 2,100 m (Bart., 43-177);  
 D.—Webula, 1,200 m; Kengtung State : Peng Yai, Loinwe;  
 Manglon State, Pang Wai (Bart., 43-177);  
 Cosmopolitan.



171. *M. succulentum* Mitt.  
A.—Aka Hills, Mt. Piri, 3,000 m (Dix., 37-779); Abor Hills  
(Dix., 14-62); Assam (Mitt., 59-143);  
Nepal, Khasia, Assam.
172. *M. thomsomi* Schimp.  
A.—Aka Hills, Mt. Piri, 3,000 m (Dix., 37-779); Sino-Bur-  
mese frontier (Bart., 43-177);  
Sikkim, Yunnan, Japan.

## RHIZOGONIACEAE

LVIII. *Rhizogonium* Brid.

173. *R. spiniforme* (Hedw.) Bruch.  
A.—Abor Hills : Renning Camp, Lalik Valley (Dix., 37-  
780); Assam (Mitt., 59-142; Dix., 37-780);  
Pantropical.

## BARTRAMIACEAE

LVIX. *Bartramia* Hedw.

174. *B. halleriana* Hedw.  
A.—Abor Hills; Aka Hills; Naga Hills (Dix., 37-780);  
B.—Chin Hills, Wunba Taung (Bart. (Bart., 43-177);  
Cosmopolitan.
175. *B. leptodonta* Mitt.  
A.—Aka Hills, Mt. Piri, 3,000 m (Dix., 37-780);  
Himalaya.

LX. *Bartramidula* B.S.G.

176. *B. bartramioides* (Griff.) Wjick & Marg.  
A.—Aka Hills, Mt. Piri, 1,700 m (Dix., 37-780);  
B.—Chittagong : Kaptai, Cox's Bazar (Tix., 67-4);  
Himalaya, Khasia, Luzon.

LXI. *Philonotis* Brid.

177. *P. angusta* Mitt.  
A.—Charduar, Aka Hills, 700 m, Mt. Piri (Dix., 37-780);  
Ceylon.
178. *P. aristifolia* Bart. (Farlowia, I, 1943, 177)  
C.—Tavoy, Mt. Nwabalo, 1,500 m;  
D.—Rangoon; South Shan States, Taunggyi (Bart., 54-249);  
Endemic.

179. *P. falcata* (Hook.) Mitt.  
B.—Chin Hills, Falam (Taungteik), 1,500 m (Bart., 43-178);  
North India, China, Japan, Philippines, Hawaii.
180. *P. hastata* (Duby) Wijk & Marg.  
A.—Assam (Mitt., 59-61);  
D.—Taunggyi, Bhamo (Bart., 43-178; 54-249);  
Ceylon, Indochina, Hong Kong, Philippines, Tahiti.
181. *P. minutifolia* Bart. (Rev. Bryol. Lichénol., XXIII, 1954, 249)  
D.—Maymyo-Lashio Road;  
Endemic.
182. *P. mollis* (Doz. & Molk.) Mitt.  
D.—Taunggyi (Tix.);  
South India, Sumatra, Java, Andamans, North Vietnam.
183. *P. pergracilis* Broth. *ms.*  
B.—Chittagong: Kaptai, Rangamati (Tix., 67-4);  
Himalaya.
184. *P. perlaxifolia* Dix.  
E.—Rangoon (Bart., 43-179);  
Thailand.
185. *P. secunda* (Doz. & Molk.) Bosch & Lac.  
C.—Mergui, Tenasserim (Thawbawleik Mines);  
D.—Maymyo-Lashio Road; Kalaw (Bart., 54-250);  
Java.
186. *P. speciosa* (Griff.) Mitt.  
A.—Abor Hills (Dix., 14-63);  
D (?)—Ytagong, 1,300 m (Bart., 43-178);  
Nepal, Khasia, Philippines.
187. *P. turneriana* (Schwaegr.) Mitt.  
D.—Thibaw State, Naungkhio, 800 m; Taungteik, 1,500 m  
(Bart., 43-178); Maymyo—Lashio Road (Bart., 54-250);  
Himalaya, Khasia, Java, Japan, China, Hawaii.

## LXII. *Fleischerobryum* Loeske

188. *F. longicollis* (Hpe.) Loeske  
A.—Sino-Burmese confines (Bart., 43-178);  
Himalaya, Java.



## ERPODIACEAE

LXIII. *Erpodium* (Brid.) C. Muell.

189. *E. mangiferae* C. Muell.  
A.—Charduar (Dix., 37-780);  
India.

## PTYCHOMITRIACEAE

LXIV. *Ptychomitrium* Fuernr.

190. *P. fauriei*, Besch.  
A.—Naga Hills, Jawpo, 2,700-3,000 m (Dix., 37-776, sub  
nom *P. rhacomitrioides* Dix.);  
China.

## ORTHOTRICHACEAE

LXV. *Zygodon* Hook. & Tayl.

191. *Z. brevisetus* Wils.  
A.—Naga Hills, Chingku, 2,500 m (Dix., 37-777);  
Sikkim.

LXVI. *Macromitrium* Brid.

192. *M. calypermoides* Mitt. (Musc. Ind. Or., 1859, 50)  
A.—Balipara Frontier Tract, 300 m; Charduar, common  
in plains (Dix., 37-777);  
C.—Tavoy (Mitt., 59-50);  
Western Indochina.
193. *M. dickasonii* Bart. (Farlowia, 1943, I, 179)  
D.—Mogok;  
Endemic.
194. *M. hamatum* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937,  
777)  
A.—Naga Hills, Pedi, 1,680 m;  
Endemic.
195. *M. moorcroftii* Schwaegr.  
D.—Bhamo (Lev., 91-601);  
Nepal, Sikkim, Khasia, Yunnan.

196. *M. nepalense* (Hook. & Grev.) Schwaegr.  
 A.—Abor Hills, Janakmukh, Yambung Stream (Dix., 14-61); Assam, Ngorvara; Naga Hills, 900 m (Dix., 37-777); Assam sup. ; Negrogam et Mittack [Mitt., 59-50 sub nom. *M. assamicum* (Griff.) Mitt.];  
 C.—Tavoy (Mitt., 59-50);  
 D.—Manglong State, Pang Yang; Kengtung State, Mong Pawk (Bart., 43-178); S<sup>VIHLA</sup>, 17 coll. (Bart., 54-250); Taunggyi (Tix.);  
 Nepal, Sikkim, Indochina, Malaya, Philippines, China.
197. *M. ramentosum* Mitt.  
 A.—Daffa Hills, Tako Senyak, 1,200 m (Dix., 37-778);  
 Ceylon.
198. *M. rigbyanum* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 779)  
 A.—Abor Hills, Pankim La, 300-2,900 m; Naga Hills, Dzulake, 1,850 m;  
 Himalaya.
199. *M. sulcatum* (Hook.) Brid.  
 A.—Naga Hills, Jawpo, 2,750-3,000 m (Dix., 37-778);  
 B.—Haka, 2,000 m;  
 D.—Manglon State, Pang Yang; Kareni State, 2,000 m (Bart., 43-179); South Shan States. Taunggyi (Bart., 54-250);  
 Eastern India, Ceylon, Malaya, Borneo, Philippines.
200. *M. turgidum* Dix., var. *laeve* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 778)  
 A.—Daffa Hills, 1,200 m; Tako Senyak, 1,200 m, Naga Hills, Paroa, 2,150 m for the variety, the species at Jawpo, Naga Hills;  
 India.
- LXVII. *Groutiella* (Doz. & Molk.) Wijk & Marg.
201. *G. goniorrhyncha* (Doz. & Molk.) Wjik & Marg.  
 B.—Chittagong, Sitakund (Tix., 67-4);  
 C.—Tenasserim, Thawbawleik Mines (Bart., 54-250);  
 D.—Kalaw (Bart., 43-179);  
 From Himalaya to Malesia.



LXVIII. *Racopilum* P. Beauv.202. *R. schmidii* (C. Muell.) Mitt.

D.—Hopong State, Hopong; South Shan State, 1,500 m;  
Kengtung State, Mong Yang (Bart., 43-179); South  
Shan States, SVIHLA, 10 coll. (Bart., 54-250); Taunggyi  
(Tix.);  
South India, Indochina.

## HEDWIGIACEAE

LXIX. *Cleistostoma* Brid.203. *C. ambigua* (Hook.) Brid.

A.—Aka Hills, Mt. Piri (Dix., 37-780);  
D.—Sinlumkaha, 2,000 m, South Shan States, Taunggyi;  
Karen State, Nataung, 1,700 m; Manglon State, Pang  
Yang, 1,800 m (Bart., 43-179); South Shan States (Bart.,  
54-250); Taunggyi (Tix.);  
From Himalaya to South China and North Vietnam.

## CRYPHAEACEAE

LXX. *Acrocryphaea* B.S.G.204. *A. concavifolia* Bosch & Lac.

B.—Chittagong, Kaptai (Tix., 67-4);  
D.—Maymyo, Lashio (Bart., 54-250);  
From Himalaya to Luzon and Celebes.

LXXI. *Pilotrichopsis* Besch.205. *P. dentata* (Mitt.) Besch.

A.—Aka Hills, Mt. Piri, 2,700-3,300 m (Dix., 37-780);  
Japan, Formosa, China.

## LEUCODONTACEAE

LXXII. *Leucodon* Schwaegr.206. *L. secundus* (Harv.) Mitt.

A.—Abor Hills, Pankim La (Dix., 37-780);  
Himalaya, Yunnan, Japan, North Vietnam,

## TRACHYPODACEAE

LXXIII. *Diaphonodon* Ren. & Card.

207. *D. blandus* (Harv.) Ren. & Card. var. *blandus*  
 A.—Aka Hills, Mt. Piri, 3,000 m (Dix., 37-780);  
 D.—Taunggyi, Hopone (Tix.);  
 India, Nepal, Ceylon, Philippines, Indochina.

208. *D. thuidioides* Ren. & Card.

- A.—Abor Hills, Pankim La (Dix., 37-780);  
 B.—Chin Hills, Mt. Victoria, 300 m (Bart., 43-179);  
 Sikkim.

LXXIV. *Trachypus* Reinw. & Hornsch.209. *T. bicolor* Reinw. & Hornsch.

- A.—Assam (Dix., 37-780);  
 B.—Chin Hills, 3,300 m;  
 D.—Manglon State, Pang Yang; Kengtung State, Pang Wai,  
 2,000 m; Kareni State, Nataung (Bart., 43-179); South  
 Shan State, Taunggyi (Bart., 54-250);  
 Himalaya, India, Indochina, Malesia, China, Japan,  
 Formosa.

LXXV. *Trachypodopsis* Fleisch.210. *T. serrulata* (P. Beauv.) Fleisch. var. *crispulata* (Hook.) Zant.

- A.—Aka Hills, Mt. Piri, 2,700-3,000 m; many collections in  
 high altitude (Dix., 37-781); Abor Hills, summit of  
 Bapu, 2,700 m (Dix., 14-64);  
 B.—Chin Hills, Haka, 2,800 m, Mt. Victoria, 3,300 m;  
 C.—Mt. Moolegit, 1,400 m (Lev., 91-601 sub nom. *Trachy-*  
*pus feae* C. Muell. nom. nud.); Tavoy. Mt. Nwalabo,  
 1,500 m (Bart., 43-180);  
 D.—Falam, Taungteik, 1,500 m; Namkhok State, Loi Maing;  
 Kengtung State, Pang Wai; Manglon State, Pang Yang,  
 1,500 m (Bart., 43-180);  
 From Himalaya and South India to China and Moluccas.



## MYURIACEAE

LXXVI. *Myurium* Schimp.

211. *M. rufescens* (Reinw. & Hornsch.) Fleisch.  
 D.—Manglon State, Pang Yang, 2,000 m; Kareni State,  
 Nataung, 2,000 m (Bart., 43-180);  
 Khasia, Ceylon, Indochina, Malesia, Australia, New  
 Caledonia.

## PTEROBRYACEAE

LXXVII. *Penziella* Fleisch.

212. *P. cordata* (Harv.) Fleisch.  
 B.—Chin Hills, Haka, 2,500 m;  
 D.—Manglon State, Pang Yang, 1,500 m (Bart., 43-180);  
 Sikkim, Nepal, Khasia, Thailand.

LXXVIII. *Garovaglia* Endl.

213. *G. densifolia* Mitt.  
 D.—Kareni State, Nataung (Bart., 43-180, sub nom. *Endotrichella rigida* Dix.);  
 Ceylon, Thailand.

LXXIX. *Endotrichella* C. Muell.

214. *E. elegans* (Doz. & Molk.) Fleisch.  
 A.—Dafta Hills, 1,375 m (Dix., 37-781);  
 Formosa, Malesia, Vietnam, Luzon.

LXXX. *Pterobryopsis* Fleisch.

215. *P. auriculata* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937,  
 782)  
 A.—Charduar, 100 m;  
 South India.
216. *P. acuminata* (Hook.) Fleisch.  
 D.—Sinlumbaka (Bart., 43-181);  
 Sikkim, Nepal, Khasia, Nilghiri.
217. *P. burmensis* Bart. (Rev. Bryol. Lhénon., XXIII, 1954, 251)  
 D.—South Shan States, 1,500 m;  
 Endemic.

218. *P. caudata* Bart. (Farlowia, I, 1943, 180)  
 C.—Tavoy, Mt. Nwalabo, 1,500 m;  
 D.—Manglon State, Pang Yang, 1,600 m; Kareni State,  
 2,000 m;  
 Endemic.
219. *P. dicranoblata* (C. Muell.) Thér. in Sched.  
 D.—Taunggyi, Hopone (Tix.);  
 Endemic.
220. *P. flexipes* (Mitt.) Fleisch.  
 D.—Nataung, Kareni State, 2,000 m (Bart., 43-181);  
 Nilghiri, Ceylon.
221. *P. nematosa* (C. Muell.) Dix.  
 C.—Tenasserim, Thawbawleik Mines (Bart., 54-251);  
 Pegu.
222. *P. orientalis* (C. Muell.) Fleisch.  
 B.—Chin Hills, Haka, 2,100 m;  
 D.—South Shan States, Taunggyi, 1,500 m; Manglon State,  
 Pang Yang;  
 E.—Mt. Popa, 1,000 m (Bart., 43-181);  
 Himalaya, Nilghiri, Indochina.
223. *P. undato-pilifera* (C. Muell.) Fleisch. *nom. nud.*  
 D.—Bhamo (Lev., 91-600 sub nom. *Garovaglia undato-pili-*  
*fera* C. Muell.);  
 Endemic.
- LXXXI. *Symphysodontella* Fleisch.
224. *S. borii* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 782)  
 A.—Dafra Hills, Tako Senyak, 1,400 m;  
 Endemic.
225. *S. pilifolia* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 782)  
 A.—Abor Hills, Pankim La;  
 Endemic.
226. *S. subulata* Broth.  
 A.—Tako Senyak, 1,400 m;  
 Philippines.



227. *S. tortifolia* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 782)  
 A.—Naga Hills, Jawpo, 2,900 m;  
 Endemic.

#### METEORIACEAE

#### LXXXII. *Papillaria* (C. Muell.) C. Muell.

228. *P. auriculata* Bart. *nom. illeg.* (Rev. Bryol. Lichénol., XXIII, 1954, 251)  
 D.—Taunggyi;  
 Endemic.
229. *P. feae* C. Muell. *nom. nud.*  
 D.—Bhamo (Lev., 91-600);  
 Sikkim, Ceylon.
230. *P. fuscescens* (Hook.) Jaeg.  
 A.—Some localities (Dix., 37-783);  
 B.—Chin Hills, Haka, 2,000-2,500 m;  
 D.—Thandaung, Taungoo, 1,300 m; Kareni State, Nataung,  
 1,600-2,400 m (Bart., 43-181);  
 Himalaya, Ceylon, China, Indochina, Malesia.
231. *P. lanosa* Bart. (Farlowia, 1943, I, 181)  
 D.—Manglon State, Pang Yang;  
 Endemic.
232. *P. semi-torta* (C. Muell.) Jaeg.  
 A.—Abor Hills, Pankim La (sub nom. *Trachypus pendulus*  
 Dix. 37-780);  
 Himalaya, Ceylon, Vietnam, Malesia.

#### LXXXIII. *Meteorium* Doz. & Molk.

233. *M. buchanani* (Brid.) Fleisch.  
 A.—Naga Hills, Chingka (Dix., 37-783);  
 Himalaya, Nilghiri, Ceylon, Yunnan.
234. *M. squarulosum* C. Muell.  
 D.—Bhamo (Lev., 91-600);  
 India (?).

LXXXIV. **Aerobryopsis** Fleisch.

235. *A. denticulata* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 783)  
 A.—Naga Hills, Satoi, 2,130 m;  
 Endemic.
236. *A. longissima* (Doz. & Molk.) Fleisch.  
 D.—Kengtung State, Mong Yang, 1,200 m (Bart., 43-181);  
 India, Ceylon, Indochina, China, Malesia, Hawaii, Carolines, New Caledonia.
237. *A. membranacea* (Mitt.) Broth.  
 A.—Mt. Negrogam (Mitt., Moss. East Ind., 1859, 88); Abor Hills, Rotung (Dix., 14-64);  
 Assam.

LXXXV. **Aerobryidium** Fleisch.

238. *A. aureonitens* (Hook.) Broth.  
 B.—Chin Hills, Mt. Victoria, 3,500 m;  
 D.—Kengtung State, Pang Wai, 2,000 m; Manglon State, Pang Yang; Nam Khan, 1,000 m; Sinlumkaba;  
 E.—Mt. Popa, 1,200 m (Bart., 43-182);  
 Himalaya, Khasia, Nilghiri.
239. *A. filamentosum* (Hook.) Fleisch.  
 D.—Taunggyi, 1,400 m (Tix.);  
 From India to Western Malesia.

LXXXVI. **Lindigia** Hampe.

240. *L. asiatica* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 783)  
 A.—Him Parbat, 2,000 m;  
 Endemic.

LXXXVII. **Barbella** (C. Muell.) Fleisch.

241. *B. burmensis* Bart. (Farlowia, I, 1943, 182)  
 B.—Chin Hills, Haka, 2,500 m.  
 Endemic.
242. *B. enervis* (Thw. & Mitt.) Fleisch.  
 D.—Kengtung State, Mong Yang, 1,200 m (Bart., 43-182);  
 Himalaya, Ceylon, Philippines, Australia, Lord Howe Island, New Caledonia.



243. *B. pendula* (Sull.) Fleisch.  
D.—Kengtung State, Mong Yang (Bart., 43-182);  
Ceylon, Malesia, China, Japan, Southern U.S.A.
244. *B. stevensii* (Ren. & Card.) Fleisch.  
D.—Sinlumkaba (Bart., 43-182);  
Sikkim.
- LXXXVIII. **Floribundaria** C. Muell.
245. *F. aurea* (Mitt.) Broth.  
A.—Sino-Burmese confines, Tamai River, Adung River  
(Bart., 43-182)  
Himalaya, Bhotan, Java, Celebes, Ceram, Japan.
246. *F. floribunda* (Doz. & Molk.) Fleisch.  
B.—Chin Hills, Haka, 2,700 m;  
D.—Manglon State, Pang Yang, 1,200 m; Sinbukaba,  
2,200 m (Bart., 43-182);  
Africa, Malesia, Indochina, India, Japan and to Hawaii  
and New Hebrides.
- LXXXIX. **Chrysocladium** Fleisch.
247. *C. horridum* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937,  
783)  
A.—Naga Hills, Jawpo;  
Endemic.
- XC. **Meteoriella** Okam.
248. *M. soluta* (Mitt.) Okam.  
A.—Abor Hills, Pankim La (Dix., 37-781 sub nom. *Jae-  
gerinopsis integrifolia*);  
Sikkim, Japan.
- XCI. **Meteoriopsis** Fleisch.
249. *M. ancistrodes* (Ren. & Card.) Broth.  
E.—Mt. Popa, 1,200 m (Bart., 43-183);  
Himalaya, Formosa.
250. *M. reclinata* (C. Muell.) Fleisch.  
A.—Some collections in Assam (Dix., 37-784);  
D.—South Shan States, Taunggyi, 1,500 m; Manglon State,  
1,500 m; Kengtung State, Mong Yang, 1,100 m;  
Nilghiri, Ceylon, Java, Celebes, Philippines, Vietnam,  
Formosa,

251. *M. squarrosa* (Hook.) Fleisch.  
 A.—Rotung, Abor Hills (Dix., 14-64);  
 D.—South Shan States, Taunggyi, 1,100 m (Bart., 54-250);  
 Manglon State, Pang Yang, 1,500 m; Nam Kaham  
 (Bart., 43-183); Taunggyi Hopone (Tix.);  
 Himalaya, Ceylon, Malaya and Western Malesia, Thai-  
 land, Java, Vietnam, Philippines.

XCII. *Aerobryum* Doz. & Molk.

252. *A. speciosum* (Doz. & Molk.) Doz. & Molk.  
 A.—Aka Hills, Mt. Piri, Pestiferous Camp, 1,100 m (Dix.,  
 37-784)  
 Himalaya, Ceylon, Malesia, China.

NECKERACEAE

XCIII. *Calyptothecium* Mitt.

253. *C. burmense* Bart. (Farlowia, I, 1943, 183)  
 D.—Manglon State, Pang Yang, 1,500 m;  
 Endemic.
254. *C. himantocladoides* Bart.  
 C.—Tavoy, Mt. Nwalabo, 1,500 m (Bart., 43-183);  
 Philippines.
255. *C. cf. mysorensis* (Broth.) Dix. *nom. nud.*  
 A.—Charduar, Assam (Dix., 37-784);  
 India (?).
256. *C. urvilleanum* (C. Muell.) Broth.  
 A.—Him Parbat, 2,000 m; Aka Hills, Bompur La, 1,800 m  
 (Dix., 37-784); Sino-Burmese confines, valley of Tamai  
 River;  
 B.—Chin Hills, Haka, 2,500 m (Bart., 43-183);  
 India, Malesia, Fijii, Carolines, Samoa, Tahiti, Ceylon,  
 Vietnam, China.
257. *C. wightii* Mitt. (Mos. East Ind., 1859, 85)  
 B.—Chittagong, Kaptai (Tix., 67-4);  
 E.—Rangoon (Mitt., 59-85);  
 Thailand, Laos, Vietnam,



XCIV. *Neckera* Hedw.258. *N. crenulata* Harv.

B.—Falam, Taungteik, 1,500 m;

D.—Manglon State, Pang Yang (Bart., 43-183);  
Himalaya, Khasia.259. *N. himalayana* Mitt.

A.—Naga Hills, Japwo, 2,400 m (Dix., 37-784);

B.—Haka, 2,000 m (Bart., 43-183);

Sikkim, Thailand, North Vietnam, Luzon.

XCV. *Neckeropsis* Reichdt.260. *N. acutata* Fleisch.A.—Abor Hills, Egar, 1,300 m (Dix., 14-64);  
South-East Asia.261. *N. crinita* (Griff.) Fleisch.A.—Abor Hills, between Yambung and Sissim, 300 m  
(Dix., 14-64);Ceylon, Himalaya, Assam, North Vietnam, Philippines,  
Thailand.262. *N. gracilentata* (Bosch & Lac.) Fleisch.

A.—Assam, Naziranga (Tix., 67-4);

Thailand, Malesia, New Guinea, Samoa.

263. *N. parishania* (Mitt.) Fleisch.

C.—Moulmein (Mitt., 59-121);

Endemic.

XCVI. *Himantocladium* (Mitt.) Fleisch.264. *H. cyclophyllum* (C. Muell.) Fleisch.

A.—Assam, Naziranga (Tix., 67-5);

Malesia, New Guinea, Tahiti.

265. *H. plumula* (Nees) Fleisch.

A.—Assam, Him Parbat, 1,800 m (Dix., 37-785);

B.—Chittagong, Kaptai (Tix., 67-5);

C.—Tenasserim, Thawbawleik Mines (Bart., 54-251);

Indochina, Malesia, New Caledonia.

266. *H. scabrisetum* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 785)  
 A.—Naga Hills;  
 Endemic.
267. *H. urocladum* (Mitt.) Fleisch.  
 E.—Rangoon (Mitt., Moss. East Ind., 1859, 122);  
 Endemic.

**XCVII. Homaliodendron Fleisch.**

268. *H. exiguum* (Bosch & Lac.) Fleisch.  
 D.—Manglon State, Pang Yang, 1,500 m;  
 Himalaya, Ceylon, Malesia, Indochina, New Guinea,  
 Australia.
269. *H. flabellatum* (Sm.) Fleisch.  
 A.—Abor Hills, Egar (Dix., 14-64); Daffa Hills, Tako  
 Senyak, 1,200 m (Dix., 37-785);  
 B.—Haka, 2,300 m;  
 D.—Nam Khok State, Lok Naing Sampu, 2,200 m; Sinlum-  
 kaba, 2,200 m (Bart., 43-184);  
 India, Ceylon, Malesia, Japan, Pacific islands.
270. *H. longisetum* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937,  
 785)  
 A.—Aka Hills, Mt. Piri, 2,900-3,000 m;  
 Endemic.
271. *H. microdendron* (Mont.) Fleisch.  
 A.—Abor Hills, between Yambung and Sissim, 300 m (Dix.,  
 14-64);  
 B.—Chin Hills, Haka, 2,300 m (Bart., 43-184);  
 D.—South Shan States (Bart., 54-251);  
 Sikkim, Khasia, Bhotan, Yunnan, Indochina, Philippines,  
 Formosa.
272. *H. montagneum* (C. Muell.) Fleisch.  
 A.—Assam, Him Parbat, 1,800 m (Dix., 37-785),  
 Nilghiri, Assam, Szechwan.
273. *H. scalpellifolium* (Mitt.) Fleisch.  
 A.—Abor Hills, Pankim La; Aka Hills, Mt. Piri, 2,730 m;  
 Naga Hills, Jawpo, 2,300 m (Dix., 37-785);  
 Ceylon, Indochina, Malesia, China, Japan.



XCVIII. *Handeliobryum* Broth.

274. *H. assamicum* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 785)  
A.—Aka Hills, Mt. Piri, 2,700 m;  
Endemic.

XCIX. *Pinnatella* (Mitt.) Fleisch.

275. *P. alopecuroides* (Hook.) Fleisch.  
D.—Gok Teik Gorge (Bart., 54-251); Between Taunggyi and Hopone, 1,000 m (Tix.);  
Sikkim, North Vietnam, Thailand, Ceylon, Sumbawa, Luzon.
276. *P. kurziana* (Hpe.) Fleisch.  
B.—Chittagong, Sitakund (Tix., 67-5);  
Sikkim, North Vietnam, Thailand.

C. *Thamnum* B.S.G.

277. *T. subseriatum* (Hook.) Mitt.  
B.—Chin Hills, Haka, 2,300 m (Bart., 43-184);  
Himalaya, Ceylon, Philippines.

## HOOKERIACEAE

CI. *Daltonia* Hook. & Tayl.

278. *D. gemmipara* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 786)  
A.—Naga Hills, Pulebudze, 1,850 m;  
Endemic.
279. *D. marginata* Griff.  
A.—Aka Hills, Mt. Piri, 2,600 m;  
Khasia.
280. *D. perlaxiretis* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 786)  
A.—Aka Hills, Mt. Piri, 2,300 m;  
Endemic.

CII. *Distichophyllum* Doz. & Molk.

281. *D. griffithii* (Mitt.) Par.  
A —Abor Hills, Egar (Dix., 14-66);  
Himalaya.

CIII. *Hookeria* Sm.282. *H. acutifolia* Hook.

A.—Aka Hills, Mt. Piri, 2,700-3,300 m (Dix., 37-786);  
Himalaya, Indochina, Guadeloupe, South America.

CIV. *Chaetomitrium* Doz. & Molk.283. *C. philippinense* (Mont.) Doz. & Molk.

B.—Chittagong, Kaptai (Tix., 67-4);  
Java, Ceram, Mindanao, Southern Indochina.

CV. *Chaetomitriopsis* Fleisch.284. *C. glaucocarpa* (Schwaegr.) Fleisch.

A.—Abor Hills, Janak Stream (Dix., 14-70); Pankim La  
(Dix., 37-786);  
Sikkim, Java, Formosa, Celebes, Luzon, Mindanao,  
Thailand, Laos, Vietnam.

## SYMPHYODONTACEAE

CVI. *Symphyodon* Mont.285. *S. complanatus* Dix. (Rec. Bot. Surv. India, VI, 1914, 3, 65)

A.—Abor Hills, Egar and Serpo;  
Endemic.

286. *S. orientalis* (Mitt.) Par.

A.—Assam sup. (Mitt., 59-110);  
Endemic.

287. *S. scabrisetus* Dix. (Rec. Bot. Surv. India, VI, 1914, 3, 66)

A.—Abor Hills, Lalik Valley, 900 m (Dix., 14-66); Aka  
Hills, Mt. Piri, 2,700-3,000 m; Dafa Hills, Tako Sen-  
yak, 1,400 m;  
Assam, Thailand.

## HYOPTERYGIACEAE

CVII. *Hypopterygium* Brid.288. *H. flavo-limbatum* C. Muell.

A.—Abor Hills, Serpo River, Rotung between 900 and  
1,000 m (Dix., 14-68);  
Himalaya.



CVIII. *Cyathophorella* (Broth.) Fleisch.

289. *C. adiantum* (Griff.) Fleisch.  
B.—Lushai Hills (Fisher 35-161);  
Himalaya, Khasia, Luzon.
290. *C. burkillii* (Dix.) Broth. (Rec. Bot. Surv. India, VI, 1914,  
3, 67)  
A.—Abor Hills, Rebang, 900 m (Dix., 14-67);  
Endemic.
291. *C. intermedia* (Mitt.) Broth.  
A.—Balipara Frontier Tract, foot of the Aka Hills, 300 m  
(Dix., 37-786);  
Himalaya.

CIX. *Dendrocyclophorum* Dix.

292. *D. paradoxum* (Broth.) Dix.  
A.—Assam, Him Parbat (Dix., 37-786);  
China.

## THELIACEAE

CX. *Myurella* B.S.G.

293. *M. julacea* (Schwaegr.) B.S.G.  
D.—Bhamo (Lev., 91-601);  
From Western Europe to China.

## LESKEACEAE

CXI. *Regmatodon* Brid.

294. *R. feanus* C. Muell. *nom. sol.* (Bull. Soc. Bot. Ital., XXIII,  
1891, 601)  
D.—Bhamo (Lev., 91-601);  
Endemic.
295. *R. declinatus* (Hook.) Brid.  
D.—Taunggyi (Bart., 54-251);  
Nepal, Khasia.
296. *R. polycarpus* (Griff.) Mitt.  
A.—Assam (Mitt., 59-127);  
N.W. Himalaya, Sikkim, Khasia.

297. *R. orthostegius* (Griff.) Mitt.  
A.—Assam (Mitt., 59-127);  
Nilghiri, Ceylon.

CXII. *Leskea* Hedw.

298. *L. perstricta* Dix. (Rec. Bot. Surv. India, VI, 1914, 3, 67)  
A.—Abor Hills, Rotung (Dix., 14-69);  
Endemic.

CXIII. *Pseudoleskeopsis* Broth.

299. *P. decurvata* (Mitt.) Broth.  
A.—Somma, 100 m (Dix., 37-787);  
China, Japan.

THUIDIACEAE

CXIV. *Anomodon* Hook. & Tayl.

300. *A. minor* (Hedw.) Fuernr. var. *integerrimus* (Mitt.) Iwat.  
D.—South Shan States, Taunggyi, 1,400 m (Bart., 54-252;  
Tix.);  
Himalaya, China, Sovietic Far East, Korea, Japan.

CXV. *Claopodium* (Lesq. & James) Ren. & Card.

301. *C. assurgens* (Sull. & Lesq.) Card.  
A.—Abor Hills, Kobo (Dix., 14-69); Dulungmukh (Dix.,  
37-787);  
D.—Hopone Road, 1,000 m (Tix.);  
Himalaya, Java, Cambodia, China, Formosa, Japan,  
Korea.
302. *C. nervosum* (Harv.) Fleisch.  
A.—Balipara Frontier Tract, foot of the Aka Hills (Dix.,  
37-787)  
D.—South Shan States, Taunggyi, 1,500 m (Bart., 43-184;  
54-252);  
E.—Mt. Popa, 1,000 m (Bart., 43-184);  
Himalaya, Ceylon, Malesia, China, Korea, Japan.

CXVI. *Haplocladium* (C. Muell.) C. Muell.

303. *H. angustifolium* (C. Muell. & Hamp.) Broth.  
A.—Naga Hills (Dix., 37-787);  
Khasia, South Africa.



304. *H. microphyllum* (Hedw.) Broth.  
A.—Assam, Naziranga (Tix., 67-5);  
Cosmopolitan.
305. *H. microphyllum* (Hedw.) Broth. spp. *capillatum* Mitt.  
A.—Assam (Mitten sub nom. *Leskea obscuriula*, 59-131);  
Cosmopolitan.
306. *H. stratosum* (Mitt.) Dix.  
A.—Upper Assam, Suddya (Mitt., 59-131);  
Endemic.

CXVII. *Pelekium* Mitt.

307. *P. tenue* Fleisch.  
A.—Aka Hills, 300 m (Dix., 37-787);  
Celebes.
308. *P. velatum* Mitt.  
A.—Abor Hills: Kobo, Puak, 200 m; Serpo River 600 m  
(Dix., 14-69);  
D.—Taunggyi, 1,400 m, Hopone, 1,000 m (Tix.);  
Indochina, Malesia, Pacific to New Hebrides and Samoa.

CXVIII. *Thuidium* B.S.G.

309. *T. asperulisetum* Ren. & Card.  
A.—Balipara Frontier Tract, foot of Aka Hills, 300 m;  
Naga Hills, Pulebudze, 600 m (Dix., 37-787);  
Sikkim.
310. *T. brotherii* Salm.  
A.—Abor Hills, Pankim La (Dix., 37-787);  
South India.
311. *T. burmense* Bart. (Rev. Bryol. Lichénol., XXIII, 1964, 252)  
D.—South Shan States, Taunggyi, 1,500 m;  
Endemic.
312. *T. cygnisetum* Jaeg. nom. nud.  
D.—Leingo (Lev., 91-601);  
Endemic.

313. *T. cymbifolium* (Doz. & Molk.) Doz. & Molk.  
 A.—Some collections (Dix., 37-787); Rotung, 1,100 m (Dix., 14-64); Sino-Burmese confines (Bart., 43-185);  
 B.—Chin Hills, Haka, 2,300 m;  
 D.—Manglon State, Pang Yang, 1,500 m; Falam, Taungteik, 1,500 m; Kengtung State, Pang Wai, 2,000 m; Sinlunkaba;  
 E.—Mt. Popa, 1,100 m (Bart., 43-185);  
 From Himalaya to Manchuria and from Ceylon to Philippines.
314. *T. glaucinum* (Mitt.) Bosch & Lac.  
 A.—Assam;  
 India, China, Japan, Formosa, Ceylon, Indochina, Malasia.
315. *T. glaucinoides* Broth.  
 D.—Kengtung State, Mong Yang, 1,100 m (Bart., 43-184);  
 Indochina, China, Japan, Formosa, Malasia, New Guinea, New Hebrides, New Caledonia, Fiji, Samoa, Carolines.
316. *T. investe* (Mitt.) Jaeg.  
 C.—Moulmein (Mitt. 59-135);  
 C.—Lawk-Sawk State : Ai-Shai-Myin, Ah-Naught-Myin (Bart., 43-184); Maymyo (Bart., 54-252);  
 Philippines.
317. *T. meyenianum* (Hpe.) Doz. & Molk.  
 A.—Charduar, 1934 (Dix., 37-787);  
 B.—Chittagong; Kaptai, Cox's Bazar (Tix., 67-5);  
 D.—Gotiek; Naungkhio, Hsipau, 900 m; Manglon State, Pang Yang, 1,400 m (Bart., 43-184);  
 Himalaya, Ceylon, Vietnam, Philippines, Sumatra, Java, New Guinea, Solomon islands, New Hebrides, New Caledonia.
318. *T. orientale* Mitt.  
 A.—Aka Hills, Bhalukpong, 300 m (Dix., 37-787);  
 Penang.



319. *T. subpellucens* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 787)  
 A.—Aka Hills, Mt. Piri, 2,750 m;  
 Endemic.
320. *T. striinerve* C. Muell. *nom. sol.*  
 C.—Dawna Range, near Mt. Moolegit (Lev., 91-601);  
 Endemic.
321. *T. tamariscellum* (C. Muell.) Bosch & Lac.  
 D.—South Shan State, Taunggyi, 1,300 m (Bart., 43-183;  
 54-252);  
 Nilghiri, Vietnam, Thailand, Java, Philippines.
322. *T. trachyaron* (C. Muell.) Par. *nom. sol.*  
 D.—Bhamo (Rev., 91-601);  
 Himalaya.

CXIX. *Actinothuidium* (Besch.) Broth.

323. *A. hookerii* (Mitt.) Broth.  
 A.—Naga Hills, Japwo, 2,750-3,000 m (Dix., 37-787);  
 Himalaya, Yunnan, Khasia.

AMBLYSTEGIACEAE

CXX. *Ortholimnobia* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 789)

324. *O. borii* Dix.  
 A.—Aka Hills, Mt. Piri, 2,300 m (Dix., 37-788);  
 Endemic.

CXXI. *Amblystegium* B.S.G.

325. *A. sparsile* (Mitt.) Jaeg.  
 A.—Assam (Mitt., 59-82);  
 Endemic.

CXXII. *Platyhypnidium* Fleisch.

326. *P. muellerii* (Jaeg.) Fleisch.  
 A.—Aka Hills, Mt. Piri, 3,000-3,500 m (Dix., 37-788);  
 D.—South Shan States : Taunggyi, Hopone (Tix.);  
 Sumatra, Java, Luzon, Thailand.
327. *P. muellerii* (Jaeg.) Fleisch. *var. minus* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 788)  
 A.—Aka Hills, Mt. Piri, 2,900 m (Dix., 37-788);  
 Endemic.

## BRACHYTHECIACEAE

CXXIII. *Homalothecium* B.S.G.

328. *H. incompletum* (Griff.) Jaeg.  
A.—Assam (Mitt., 59-77);  
Endemic.

CXXIV. *Palamocladium* (C. Muell.) Britt.

329. *P. leskoides* (Hook.) Britt.  
A.—Assam (Mitt., 59-77);  
Central and South America (?).

CXXV. *Brachythecium* B.S.G.

330. *B. buchanani* (Hook.) Jaeg.  
A.—Assam (Mitt., 59-78); Naga Hills, Kanyang, 1,700 m  
(Dix., 37-778);  
B.—Haka, Sin Khoa, 1,100 m;  
D.—South Shan States, Taunggyi, 1,400 m (Bart., 43-185;  
54-252); Kengtung State, Pang Wai, 1,800 m; Kareni  
State, Nataung;  
E.—Mt. Popa, Myin Gyan, 1,000 m (Bart.)  
Himalaya, Assam, Philippines, Vietnam, China, Japan,  
Philippines, New Guinea, Java.
331. *B. longicuspidatum* (Mitt.) Jaeg.  
B.—Haka, Zokhua, 1,300 m (Bart., 43-185);  
D.—South Shan States, Kalaw (Bart., 54-252);  
Sikkim.

CXXVI. *Rhynchostegium* B.S.G.

332. *R. celebicum* (Lac.) Jaeg.  
D.—South Shan States, Kalaw (Bart., 54-252);  
Indochina and Malesia.
333. *R. duthieii* (C. Muell.) Dix.  
A.—Aka Hills, Mt. Piri, 2,900-3,300 m (Dix., 37-789);  
Himalaya.
334. *R. herbaceum* (Mitt.) Jaeg.  
A.—Abor Hills : Kolo, Egar, 1,000 m, between Yambung  
and Sissim (Dix., 14-75); Balipara Frontier Tract, foot  
of Aka Hills; Aka Hills, Mt. Piri, 1,700 m; Naga Hills,  
Wokka Hills, 1,850 m, Khuvu Bu, 1,500 m;  
Sikkim, Ceylon, Thailand.



335. *R. hookerii* Jaeg.  
A.—Aka Hills, Mt. Piri, Pestiferous Camp (Dix., 37-789);  
Sikkim, Ceylon.
336. *R. pellucidum* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937,  
789)  
A.—Naga Hills, Pulebudze;  
Endemic.
- CXXVII. **Rhynchostegiella** (B.S.G.) Limpr.
337. *R. assamica* Card. & Dix. (Rec. Bot. Surv. India, VI, 1914, 3,  
72)  
A.—Abor Hills : Kekir Monnying, 250 m, Yambung Gorge  
(Dix., 14-72); Charduar, 200 m (Dix., 37-788);  
Endemic.
338. *R. complanata* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937,  
788)  
A.—Aka Hills, Mt. Piri, 200 m;  
Endemic.
339. *R. menadensis* (Lac.) Bart.  
D.—Hopone, on rocks (Tix.);  
Indochina, Malesia, New Hebrides.
340. *R. scabriseta* (Schwaegr.) Broth.  
A.—Abor Hills, Pankim La (Dix., 37-788);  
Endemic.
- CXXVIII. **Eurhynchium** B.S.G.
341. *E. dumosum* (Mitt.) Jaeg.  
A.—Aka Hills, Mt. Piri, 2,900-3,300 m (Dix., 37-788);  
Sikkim.

## ENTODONACEAE

- CXXIX. **Erythrodonium** Hampe.
342. *E. julaceum* (Schwaegr.) Par.  
A.—Assam (Mitt., 59-92) Many collections in Assam  
(Dix., 37-788); Naziranga (Tix., 67-5);  
C.—Moulmein (Mitt., 67-5);  
D.—Namkhok, 1,000 m; Taunggyi, 1,500 m (Bart., 43-185);  
37 collections (Bart., 54-252); Taunggyi (Tix.);  
India, Ceylon, Yunnan, Indochina, Malesia.

CXXX. *Trachyphyllum* Gepp.343. *T. inflexum* (Harv.) Gepp.

B.—Chittagong, Kaptai (Tix., 67-5);

D.—Hsipaw State, Naung Khio, 900 m (Bart., 43-185);  
Maymyo-Lashi Road and Mandalay-Maymyo, Bhamo  
Road (Bart., 54-252); Taunggyi (Tix.);  
India, Indochina, Philippines, New Caledonia.344. *T. hoponense* P. Tix. *nom. sol.*D.—Hopone Road (Tix.);  
Endemic.CXXXI. *Campylodontium* Doz. & Molk.345. *C. flavescens* (Hook.) Bosch & Lac.

A.—Assam, Him Parbat, 2,000 m (Dix., 37-790);

D.—Bhamo (Lev., 91-601); Manglon State, Pang Yang,  
1,500m (Bart., 43-185); nine collections (Bart., 54-252);  
Taunggyi (Tix.);  
India, Ceylon, Indochina, Malesia, Australia.CXXXII. *Hondaella* (Dix. & Sak.).346. *H. cf. caperata* (Mitt.) AndoD.—Taunggyi-Hopone Road (Tix.);  
Thailand, Laos.CXXXIII. *Rozea* Besch.347. *R. pterogonoides* (Hook.) Jaeg.B.—Chin Hills, Mt. Victoria, 3,000 m (Bart., 43-185);  
Yunnan, Himalaya, Luzon.CXXXIV. *Entodon* C. Muell.348. *E. flavescens* (Hook.) Jaeg.A.—Assam (Mitt., 59-108, sub nom. *Stereodon rubicundus*);  
Naga Hills, Chingku, 2,600 m (Dix., 37-789);D.—South Shan States, Taunggyi, 1,500 m (Bart., 43-186;  
54-253; Tix.);  
Nepal.349. *E. griffithii* (Mitt.) Jaeg.A.—Upper Assam (Mitt., 59-108);  
Endemic.



350. *E. luridus* (Griff.) Jaeg.  
A.—Abor Hills, Pankim La (Dix., 37-789);  
Himalaya (?).
351. *E. ovicarpus* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 789)  
A.—Abor Hills, Pankim La, 300-2,900 m (Dix., 37-789);  
Endemic.
352. *E. plicatus* C. Muell.  
A.—Assam (Mitt., 59-106); Newly, 300 m, Daffa Hills (Dix., 37-789);  
B.—Haka, Zokhua, 1,400 m;  
D.—Manglon State, Pang Yang, 1,400-1,800 m; Kengtung State, Mong Yang, 1,000 m; Hopong State, Hopong; Thibaw State, Naung khio, 900 m (Bart., 43-186); South Shan State, Taunggyi (Bart., 43-186 & 54-253);  
India, Ceylon, Vietnam, Philippines, Celebes.
353. *E. prorepens* (Mitt.) Jaeg.  
A.—Assam (Mitt., 59-107);  
D.—South Shan States: Taunggyi, Kalaw (Bart., 54-253);  
Himalaya, Assam.

## PLAGIOTHECIACEAE

CXXXV. *Stereophyllum* Mitt.

354. *S. anceps* (Bosch & Lac.) Broth.  
A.—Charduar (Dix., 37-790);  
B.—Chittakong, Sitakund, Kaptai (Tix., 67-5);  
C.—Mergui (Bart., 54-253);  
D.—Maymyo-Lashio Road (Bart., 54-253);  
Java, Luzon, Vietnam, Thailand.
355. *S. ligulatum* C. Muell.  
D.—Taunggyi-Hopone Road (Tix.);  
South India, Laos, Luzon.
356. *S. tavoyense* (Hook.) Jaeg.  
C.—Tavoy (Mitt., 59-82); twelve collections (Bart., 54-253);  
E.—Mt. Popa, 1,100 m (Bart., 43-186);  
India, Thailand.

357. *S. wightii* (Mitt.) Jaeg.  
C.—Moulmein (Mitt., 59-82);  
Himalaya, Khasia, South India, Ceylon.
- CXXXVI. *Plagiothecium* B.S.G.
358. *P. neckeroideum* B.S.G.  
A.—Naga Hills, Jawpo, 2,750 m (Dix., 37-793);  
From the Alps to Sikkim and Japan.
359. *P. svihlae* Bart. (Rev. Bryol. Lichénol., XXIII, 1954, 253)  
D.—Kalaw;  
Endemic.

## SEMATOPHYLLACEAE

- CXXXVII. *Aptychella* Herz.
360. *A. borii* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 790)  
A.—Naga Hills, Pulebudze, 1,850 m;  
Endemic.
361. *A. planula* (Mitt.) Fleisch.  
A.—Naga Hills, Chingku, 2,500 m (Dix., 37-790);  
Himalaya, Philippines, Java, Japan, Hawaii.
- CXXXVIII. *Clastobryum* Doz. & Molk.
362. *C. dickasonii* Bart. (Farlowia, I, 1943, 186)  
B.—Chin Hills, Saw Chaung, 1,800 m;  
Endemic.
363. *C. indicum* Doz. & Molk.  
D.—Taunggyi-Hopone Road, 1,000 m (Tix.);  
Thailand, Java, Formosa, Japan.
364. *C. subplanulum* Broth.  
A.—Aka Hills, Mt. Piri, 2,500-3,000 m (Dix., 37-790);  
Himalaya.
- CXXXIX. *Hageniella* Broth.
365. *H. isopterygoides* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 791)  
A.—Naga Hills, Chungku, 2,650 m;  
Endemic.



366. *H. assamica* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 790)

A.—Naga Hills, Jawpo, 2,750 m;  
Endemic.

CXL. *Pylaisiopsis* Broth.

367. *P. speciosa* (Wils.) Broth.

A.—Naga Hills (Dix., 37-790);  
Sikkim, South India (?).

CXLI. *Acanthocladium* Broth.

368. *A. baculiferum* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 791)

A.—Naga Hills, Jawpo, 2,730 m (Dix., 37-791);

D.—Karen State, Nataung, 1,500 m; Manglon State, 1,600 m; Kengtung State, Mong Pawk, 1,100 m; South Shan States (Bart., 43-186 & 54-234);

Assam, Thailand, Vietnam.

369. *A. benguetense* Broth. var. *latifolium* Bart. (Farlowia, I, 1943, 187)

D.—Karen State, Nataung, 1,600 m;  
Endemic. Luzon for species.

370. *A. penicillatum* (Mitt.) Broth.

A.—Abor Hills, Pankim La; Aka Hills, Mt. Piri, 2,700-3,300 m, idem Bompur La, 1,800 m; Naga Hills, Jawpo, 2,700 m (Dix., 37-791);

Sikkim, Bhotan.

371. *A. tanytrichum* (Mont.) Broth.

A.—Aka Hills, Mt. Piri; Bompur, 18,00 m (Dix., 37-791);  
Sikkim, Sumatra, Java.

CXLII. *Trismegistia* (C. Muell.) Broth.

372. *T. grossi-serrata* (C. Muell.) Fleisch. *nom. nud.*

C.—Dawna range, near Mt. Moolegit (Lev., 91-601);  
Endemic.

CXLIII. *Meiothecium* Mitt.

373. *M. microcarpum* (Hook.) Mitt.  
A.—Charduar (Dix., 37-792);  
Nepal, Ceylon, Indochina, Malesia, New Guinea, New  
Caledonia.
374. *M. turgidellum* Fleisch.  
C.—Tenasserim, Thawbawleik Mines (Bart., 54-253);  
Java.

CXLIV. *Meiotheciopsis* Broth.

375. *M. burmensis* P. Tix. *nom. sol.*  
D.—Taunggyi-Hopone Road, 1,000 m (Tix.);  
Endemic.

CXLV. *Brotherella* Loeske ex Fleisch.

376. *B. amblystegia* (Mitt.) Broth.  
A.—Aka Hills, Mt. Piri, 2,700-3,300 m; Naga Hills, Jawpo,  
2,750-3,300 m (Dix., 37-792);  
Sikkim.
377. *B. erythrocaulis* (Mitt.) Fleisch.  
A.—Abor Hills, Pankim La (Dix., 37-792); Sino-Burmese  
Confines, Adung Valley (Bart., 43-187);  
Sikkim, Bhotan, Yunnan.
378. *B. filiformis* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937,  
792)  
A.—Naga Hills, Japwo, 2,750 m, Purobami, 2,300 m;  
Endemic.
379. *B. falcata* (Doz. & Molk.) Fleisch.  
A.—Aka Hills, Mt. Piri, 3,000 m (Dix., 37-792);  
Malesia, Vietnam, Formosa, New Guinea.

CXLVI. *Raphidorhynchium* Besch.

380. *R. confertissimum* (Mitt.) Besch.  
A.—Assam (Mitt. Moss. East Ind., 1859, 102);  
Endemic.

CXLVII. *Sematophyllum* Mitt.

381. *S. microcladiellum* Fleisch.  
C.—Tenasserim, Thawbawleik Mines (Bart., 54-253);  
Thailand, Borneo, Celebes, New Guinea.



382. *S. subconnivens* (Broth.) Bart.  
D.—South Shan States, Taunggyi (Bart., 54-253);  
Thailand.
383. *S. subhumile* (C. Muell.) Fleisch.  
C.—Mergui, Pahtaw Islands (Bart., 54-253);  
D.—Manglon State, Pang Yang, 1,500 m (Bart., 43-187);  
Kalaw, Maymyo (Bart., 54-243); Taunggyi (Tix.);  
India, Ceylon, Indochina, Java, Sumatra, Fukien.
384. *S. tristiculum* (Mitt.) Fleisch.  
A.—Upper Assam (Mitt., Moss. East Ind., 1859, 102);  
D.—Manglon State, Pang Yang, 1,500 m (Bart., 43-187);  
Taunggyi (Bart., 54-253; Tix.);  
Khasia, Assam, Ceylon, Thailand, Java, Vietnam, Phi-  
lippines.
- CXLVIII. *Raphidostichum* Fleisch.
385. *R. glauco-virens* (Mitt.) Broth.  
A.—Upper Assam, Gowong (Mitt., Moss. East Ind., 1859,  
103);  
Assam.
- CXLIX. *Trichosteleum* (Mitt.) Jaeg.
386. *T. boschii* (Doz. & Molk.) Jaeg.  
A.—Assam, Dharibati, 100 m (Dix., 37-792);  
Thailand, Indochina, Malesia.
387. *T. hamatum* (Doz. & Molk.) Jaeg.  
A.—Aka Hills, Bompur La, 1,850 m (Dix., 37-792);  
South-East Asia to New Guinea, Samoa Islands and  
New Caledonia.
- CL. *Taxithelium* Spruc.
388. *T. instratum* (Brid.) Broth.  
C.—Mergui, Pahtaw Islands; Tenasserim, Thawbawleik  
Mines (Bart., 54-254);  
Thailand, Cambodia, Vietnam, Malesia, New Guinea.
389. *T. kerianum* (Broth.) Broth.  
A.—Balipara Frontier Tract, foot of Aka Hills (Dix., 37-  
254);  
Thailand, Vietnam, Cambodia, Malaya, Java, Philippines;  
New Guinea, Queensland.

390. *T. laeviusculum* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 793);  
 A.—Him Parbat, 2,000 m;  
 Endemic.
391. *T. nepalense* (Schwaegr.) Broth.  
 B.—Chittagong; Sitakund, Kaptai (Tix., 67-5);  
 E.—Rangoon (Bart., 43-187 and 54-254);  
 India, Ceylon, Indochina, Malesia.
392. *T. vernieri* (Duby) Besch.  
 B.—Chittagong, Kaptai (Tix., 67-5);  
 South Indochina, Malesia, New Guinea.

#### HYPNACEAE

##### CLI. *Foreauella* Dix. & Varde

393. *F. orthothecia* (Schwaegr.) Dix.  
 A.—Satai, 200 m (Dix. 37-792);  
 D.—Thibaw State, Naungkhio, 800 m; Kengtung State,  
 Mong Yang, 1,100 m; South Shan States, Taunggyi,  
 900 m (Bart., 43-188; 54-255; Tix.);  
 Thailand, Luzon.

##### CLII. *Platygyrium* B.S.G.

394. *P. caudatum* Bart. (Rev. Bryol. Lichénol., XXIII, 1954, 254)  
 D.—South Shan States, Taunggyi;  
 Burma, Thailand.

##### CLIII. *Hypnum* Hedw.

395. *H. binervosum* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 793)  
 A.—Naga Hills, Jawpo, 2,750-3,300 m;  
 Endemic.
396. *H. plumaeforme* Wils.  
 D.—Kengtung State, Mong Yang, 1,000 m; Manglon State,  
 Pang Yang (Bart., 43-187);  
 Japan, Korea, China, Formosa, Tonkin,



CLIV. *Ectropothecium* Mitt.

397. *E. buitenzorgii* (Bel.) Mitt.  
A.—Dafra Hills, Tako Senyak, 1,400 m (Dix., 37-793);  
South-East Asia.
398. *E. burmense* Bart. (Rev. Bryol. Lichénol., XXIII, 1954, 254)  
D.—South Shan State, Taunggyi (Bart., 54-254);  
Endemic.
399. *E. compressifolium* (Mitt.) Jaeg.  
C.—Moulmein (Mitt., 59-99);  
Khasia.
400. *E. cyperoides* (Hook.) Jaeg.  
A.—Abor Hills, Janakmukh, Janak Stream (Dix., 14-70);  
Nepal, Assam, Ceylon, Malesia, Carolines.
401. *E. dealbatum* (Reinw. & Hornsch.) Jaeg.  
A.—Balipara Frontier Tract, foot of Aka Hills (Dix., 37-793);  
D.—South Shan States, Taunggyi (Bart., 23-187 & 54-254);  
Maymyo, Bhamo (Bart., 54-254);  
Sumatra, Java, Borneo, Philippines.
402. *E. ichnotocladum* (C. Muell.) Jaeg.  
D.—South Shan States, Kalaw (Bart., 54-254); Taunggyi  
(Tix.);  
Malesia, Indochina
403. *E. monumentorum* (Duby) Jaeg.  
A.—Assam, Naziranga (Tix., 67-6);  
C.—Tenasserim, Thawbawleik Mines (Bart., 54-254);  
Thailand, Malesia, Carolines.
404. *E. penangense* Fleisch.  
D.—Gok Teil Gorge (Bart., 54-254);  
Malaya.
405. *E. ramuligerum* Dix. (J. Bombay Nat. Hist. Soc., XXXIX,  
1937, 793)

A.—Balipara Frontier Tract, foot of Aka Hills, 100-300 m;  
Endemic.

406. *E. perscabrum* P. Tx.

B.—Chittagong: Kaptai, Sitakund, Cox's Bazar (Tix., 67-6);  
North Vietnam.

CLV. *Isopterygium* Mitt.

407. *I. albescens* (Hook.) Jaeg.

A.—Aka Hills, Mt. Piri, 1,700-3,300 m (Dix., 37-793);  
Naziranga (Tix., 67-6);

C.—Tavoy (Bart., 43-188);

South-East Asia to Hawaii and New Caledonia.

408. *I. assamicum* (Mitt.) Jaeg. (Mitt., Moss. East Ind., 1859, 104);

A.—Assam;

Endemic.

409. *I. lignicola* (Mitt.) Jaeg. (Mitt., Moss. East Ind., 1859, 104);

A.—Assam;

South India, Ceylon, Pegu, Thailand.

410. *I. minutirameum* (C. muell.) Jaeg.

A.—Abor Hills, Janakmukh (Dix., 14-72);

D.—Bhamo (Bart., 54-254);

South-East Asia.

411. *I. pallidulum* (Mitt.) Jaeg.

A.—Charduar (Dix., 37-793);

Assam.

412. *I. pohliaecarpum* (Sull. & Lesq.) Iwat.

A.—Aka Hills, Mt. Piri, 1,700-3,300 m (Dix., 37-793);

B.—Chin Hills, Wunba Taung (Bart., 43-188);

D.—Hopone, 1,000 m (Tix.);

South-East Asia, Pacific, North America.

413. *I. trichocaula* (C. Muell.) Par. *nom. nud.*

D.—Leinzo (Lashio?) (Lev., 91-601);

Endemic.



CLVI. *Taxiphyllum* Fleisch.

414. *T. taxirameum* (Mitt.) Fleisch (Mitt., Moss. East Ind., 1859, 104)
- A.—Upper Assam (Mitt., 59-104);  
 B.—Chittagong : Sitakund, Kaptai, Cox's Bazar (Tix., 67-6);  
 C.—Taunggyi, 1,400 m (Tix.);  
 D.—Tenasserim, Thawbawleik Mines, 30 m (Bart., 54-255);  
 Himalaya, Indochina, Malesia, Formosa, Japan.

CLVII. *Vesicularia* (C. Muell.) C. Muell.

415. *V. montagnei* (Bel.) Broth.
- A.—Abor Hills, Kobo (Dix., 14-71);  
 B.—Cox's Bazar, Chittagong (Tix., 67-6);  
 D.—Bhamo (Bart., 54-255);  
 Himalaya, Malesia.
416. *V. reticulata* (Doz. & Molk.) Broth.
- A.—Aka Hills, Mt. Piri, 2,700-3,300, Satai; Naga Hills, Khuvubhu, 1,300 m (Dix., 67-6);  
 D.—South Shan States, Lake Inle, 1,000 m (Bart., 54-255);  
 Nepal, Sikkim, Khasia, Singapore, Sumatra, Java, Celebes, Philippines.
417. *V. succosa* (Mitt.) Broth.
- A.—Abor Hills : Rotung, 300 m, Kobo (Dix., 14-71);  
 Nepal, Sikkim.

CLVIII. *Ctenidium* (Schimp.) Mitt.

418. *C. lychnites* (Mitt.) Broth.
- A.—Naga Hills, Jawpo, 2,750 m (Dix., 37-754);  
 Khasia, Nilghiri, Ceylon.

CLIX. *Leiodontium* Broth.

419. *L. complanatum* Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 794)
- A.—Naga Hills, Jawpo, 2,400 m, Chingku, 2,450 m.  
 Endemic.

CLX. *Ptilium* De Not.

420. *P. crista-castrensis* (Hedw.) De Not.  
 A.—Sino Burmese confines, Adung valley, 3,600 m (Bart., 43-188);  
 Europe, North America, Japan, Yunnan, Sikkim, Caucasus.

## HYLOCOMIACEAE

CLXI. *Microthamniella* Fleisch.

421. *M. pilosula* (Mitt.) Fleisch. (Mitt., Moss. East Ind., 1859, 113)  
 A.—Upper Assam;  
 Khasia, Sikkim.

CLXII. *Leptohymenium* Swaegr.

422. *L. dentatum* Swaegr.  
 A.—Assam (Mitt., 59-119, sub nom. *Neckera dentata* Griff.);  
 Endemic.

423. *L. crenulatifolium* (C. Muell.) Par. nom. nud.  
 C.—Mt. Moolegit, 1,400 to 1,500 m (Lev., Bull. Soc. Bot. Ital., XXII 1891, sub nom. *Stenothecium retusifolium* C. Muell.);  
 D.—East of Bhamo (Lev., idem, sub nom. *Stenothecium crenulatifolium*);  
 Endemic.

424. *L. tenue* (Hook.) Swaegr.  
 A.—Naga Hills, Jawpo, 2,700-3,300 m (Dix., 37-794);  
 B.—Haka Hills, Falam, 1,500, idem, 2,300m (Bart., 343-188);  
 D.—Karen State, Nadaung, 1,800-2,000 m; Manglon State, Pang Yang, 1,500 m (Bart., 43-188); South Shan States (Bart., 54-255);  
 North India, Khasia, Philippines.

CLXIII. *Macrothamnium* Fleisch.

425. *M. macrocarpum* (Reinw. & Hornsch.) Fleisch.  
 A.—Assam (Mitt., 59-119); Abor Hills, Bapu, 1,100 m (Dix., 14-70); Assam, some collections (Dix., 37-794);



B.—Chin Hills, Mt. Victoria; Falam, Taungteik, 1,500 m;  
Haka, 1,900 m;

D.—Sawk State: Ah Shai Hymnin, Ah Naught, Hymin  
Lawk, 2,100 m (Bart., 43-188); Manglon State, Pang  
Yang, 1,500 m; South Shan State, Taunggyi, 1,500 m  
(Bart., 43-188); idem (Bart., 54-255);

Eastern India, Ceylon, Sumatra, Java, Borneo, Vietnam,  
Philippines, Hawaii.

426. *M. submacrocarpum* (Ren. & Card.) Fleisch.

A.—Assam, some collections (Dix., 37-794);

B.—Haka, 2,200 m (Bart., 43-188);

D.—Taunggyi (Bart., 54-254);

Khasia, Himalaya.

#### POLYTRICHACEAE

#### CLXIV. *Atrichum* P. Beauv.

427. *A. flavisetum* Mitt.

D.—South Shan States, Taunggyi (Bart., 43-189 & 54-255;  
Tix.);

Himalaya, Japan.

428. *A. obtusulum* (C. Muell.) Jaeg.

A.—Naga Hills, Paona, 2,150 m, Jawpo, 2,450 m (Dix.,  
37-794);

Himalaya, Central China.

429. *A. pallidum* Ren. & Card.

A.—Aka Hills, Mt. Piri, 2,700-3,300 m (Dix., 37-795);  
Sikkim.

430. *A. undulatum* (Hedw.) P. Beauv.

D.—South Shan States, Taunggyi, 1,500 m (Bart., 43-189  
and 54-255);

Cosmopolitan,

CLXV. *Polytrichum* Hedw.

- 431.
- P. feae*
- (C. Muell.) C. Muell.

C.—Mt. Mootlegit, 1,000 m (Lev., Nuev. Gio. Bot. Ital.,  
XXIII, 1891, 601);

Endemic.

- 432.
- P. xanthophyllum*
- Wils.

A.—Sino-Burmese Confines, Adung Valley, 3,600 m (Bart.,  
43-189);

Sikkim.

CLXVI. *Pogonatum* P. Beauv.

- 433.
- P. contortum*
- (Brid.) Lesq. var.
- robustum*
- Dix. (J. Bombay Nat. Hist. Soc., XXXIX, 1937, 795)

A.—Aka Hills, Mt. Piri, 2,700-3,000 m;

Endemic for variety, for the species Japan and North  
America.

- 434.
- P. gymnophyllum*
- Mitt.

B.—Haka, 2,300 m (Bart., 43-189);

D.—Taunggyi, 1,450 m (Tix.);

Himalaya, China, North Vietnam, Formosa, Philippines,  
Celebes.

- 435.
- P. inflexum*
- (Lindb.) Lac.

B.—Chin Hills, Mt. Victoria, 1,500 m; Falam, Taungteik,  
1,500 m; Haka, Zokhua, 1,400 m;

D.—Thandaung, Taunggoo, 1,300 m; Manglon State, Pang  
Yang, 1,500 m (Bart., 43-189);

Japan, Formosa, China, Thailand.

- 436.
- P. junghuhnianum*
- (Doz. & Molk.) Doz. & Molk.

B.—Chittagong, Rangamati (Tix., 67-6);

D.—Karen State, Nataung, 1500 m; South Shan States,  
Taunggyi, 1,300 m (Bart., 43-189); Taunggyi (Bart.,  
54-255);

Sikkim, Indochina, Malesia.



437. *P. macrophyllum* Doz. & Molk.  
A.—Assam (Mitt., 59-152);  
Assam, Malesia, Vietnam, Cambodia.
438. *P. microstomum* (Schwaegr.) Brid.  
A.—Naga Hills, Chingku, 2,600 m (Dix., 37-795);  
B.—Chin Hills, Wunba Taung, 2,400 m; Falam, Taungteik  
(Bart., 43-189);  
Himalaya, Khasia, Nilghiri, Ceylon, Western China,  
Philippines.
439. *P. papillosulum* Card. & Dix.  
A.—Naga Hills, Chingku, 2,600 m (Dix., 37-795);  
Assam.
440. *P. proliferum* (Griff.) Mitt.  
A.—Charduar (Dix., 37-795);  
Sikkim, Khasia.

## LITERATURE

- BARTRAM, E.B. 1943. Burma Mosses. *Farlowia*, **1** (2) : 171-189.
- „ 1954. Burma Mosses. *Rev. Bryol. Lichénol.* **23** : 243-255.
- BESCHERELLE, E. 1895. Essai sur le genre *Calymperes*. *Ann. Sci. Nat.* p. 247-308.
- „ 1897. Revision du genre *Ochrobryum*. *J. Bot.*, **11** : 8-9.
- DIXON, H.N. 1914. Report on the mosses of Abor Expedition, 1911-1912. *Rec. Bot. Surv. India*, **6** : 57-75.
- „ 1937. Mosses collected in Assam. *J. Bombay Nat. Hist. Soc.*, **39** : 769-793.
- FISCHER, C.E.C. 1935. Flora of Lushai Hills. *Rec. Bot. Surv. India*, **12** : 2
- LEVIER, E. 1891. Crittogame della alla Birmania (Bhamo, Leinzo, monti Mootlegit) raccolte dal Sig. Leonardo Fea. *Nuov. Giorn. Bot. Italia*, **23** : 600-603.
- MITTEN, W. 1859. Musci Indiae Orientalis : an enumeration of the Mosses of East Indies. *Proc. Lin. Soc. suppl. Bot.*, **I**.
- TIXIER, P. 1967. Bryophytæ indosinicae. A preliminary contribution to the knowledge of bryophytes of Western Indochina. *Dacca Univ. St.* **15**, B. 1-14.
- „ 1970. Bryophytæ indosinicae. Bryophytes of Thai Tenasserim. *Bull. Nat. Hist. Siam Soc.*, **23** (4 & 5) : 541-560.



## LIST OF GENERA

CXLI	Acanthocladium	131	XL	Desmatodon	98
LXX	Acrocryphaea	109	LXXIII	Diaphonodon	110
CXIX	Actinothuidium	125	VIII	Dicranella	89
LXXXV	Aerobryidium	114	X	Dicranodontium	89
LXXXIV	Aerobryopsis	114	XVI	Dicranoloma	91
XCII	Aerobryum	116	XV	Dicranum	91
CXXI	Amblystegium	125	CII	Distichophyllum	119
XXVIII	Anoectangium	95	IV	Ditrichum	88
LIII	Anomobryum	102			
CXIV	Anomodon	122	CLIV	Ectropothecium	135
CXXXVII	Aptychella	130	LXXIX	Endotrichella	111
CLXIV	Atrichum	139	CXXXIV	Entodon	128
			LXIII	Erpodium	107
LXXXVII	Barbella	114	CXXIX	Erythrodonium	127
XXXVII	Barbula	97	CXXXVIII	Eurhynchium	127
LIX	Bartramia	105	XXII	Exodictyon	93
LX	Bartramidula	105			
LII	Brachymerium	101	II	Fissidens	85
CXXV	Brachythecium	126	LXII	Fleischerobryum	106
XI	Brothera	90	LXXXVIII	Floribundaria	115
CXLV	Brotherella	131	CLI	Foreauella	134
LIV	Bryum	102	XLIV	Funaria	99
XXVI	Calymperes	94	III	Garckea	88
XXIV	Calymperopsis	93	LXXXVIII	Garovaglia	111
XCIII	Calyptothecium	116	LXVII	Groutiella	108
CXXXI	Campylodontium	128	XLV	Gymnostomiella	100
VII	Campylopodium	89	XXIX	Gymnostomum	95
IX	Campylopus	89			
CV	Chaetomitriopsis	120	CXXXIX	Hageniella	130
CIV	Chaetomitrium	120	XCVIII	Handeliobryum	119
LXXXIX	Chrysocladium	115	CXVI	Haplocladium	122
CXV	Claopodium	122	XCVI	Himantocladium	117
CXXXVIII	Clastobryum	130	XIV	Holomitrium	90
LXIX	Cleistostoma	109	XCVII	Homaliodendron	118
CLVIII	Ctenidium	137	CXXIII	Homalothecium	126
CVIII	Cyathophorella	121	CXXXII	Hondaella	128
CI	Daltonia	119	CIII	Hookeria	120
CIX	Dendrocyclophorum	121	XXXVIII	Hydrogonium	97



XXX	Hymenostylium	95	LXI	Philonotis	105
XXXVI	Hyophila	96	XLIII	Physcomitrium	99
CVII	Hypopterygium	120	LXXI	Pilotrichopsis	109
CLIII	Hypnum	134	XCIX	Pinnatella	119
			CXXXVI	Plagiothecium	130
CLV	Isopterygium	136	CLII	Platygyrium	134
			CXXII	Platyhypnidium	125
CLIX	Leiodontium	137	L	Pohlia	101
CLXII	Leptohymenium	138	CLVI	Pogonatum	140
CXII	Leskea	122	CLXV	Polytrichum	139
LXXXVI	Lindigia	114	CXIII	Pseudoleskeopsis	122
XIX	Leucobryum	92	LI	Pseudopohlia	101
LXXII	Leucodon	109	XXXIII	Pseudosymblepharis	96
XVII	Leucoloma	91	LXXX	Pterobryopsis	111
XX	Leucophanes	92	LXIV	Ptychomitrium	107
			CLX	Ptilium	137
			CXL	Pylaisiopsis	131
LXVI	Macromitrium	107			
CLXIII	Macrothamnium	138	XLI	Racomitrium	98
CXLIV	Meiotheciopsis	132	LXVIII	Racopilum	109
CXLIII	Meiothecium	132	CXLVI	Raphidorrhynchium	132
XC	Meteoriella	115	CXLVIII	Raphidostichium	133
XCI	Meteoriopsis	115	CXI	Regmatodon	121
LXXXIII	Meteorium	113	LVIII	Rhizogonium	105
VI	Microdus	88	LV	Rhodobryum	103
CLXI	Microthamniella	138	CXXVII	Rhynchostegiella	127
XLVIII	Mielichhoferia	101	CXXVI	Rhynchostegium	126
LVII	Mnium	104	CXXXIII	Rozea	128
XXVII	Molendoa	95			
CX	Myurella	121	CXLVII	Sematophyllum	132
LXXVI	Myurium	111	XXXIX	Semibarbula	98
			XLVI	Splachnobryum	100
XLII	Nanomitriella	99	I	Sphagnum	85
XCIV	Neckera	117	CXXXV	Stereophyllum	129
XCVI	Neckeropsis	117	XIII	Symblepharis	90
			CVI	Symphyodon	120
XVIII	Ochrobryum	92	LXXXI	Symphysodontella	112
XXI	Octoblepharum	93	XXIII	Syrhopodon	93
XII	Oreoweissia	90			
CXX	Ortholimnobia	125	CLVI	Taxiphyllum	136
LVI	Orthomnium	104	CL	Taxithelium	133
XXXI	Oxystegus	95	XLVII	Tayloria	100
			C	Thamnium	119
CXXIV	Palamocladium	126	CXVIII	Thuidium	123
LXXXII	Papillaria	113	XXV	Thyridium	93
LXXXVII	Penzigiella	111	XXXIV	Timmiella	96
CXVII	Pelekium	123			



XXXV	Tortella	96	CXLII	Trismegistia	113
CXXX	Trachyphyllum	128			
LXXV	Trachypodopsis	111	CLVII	Vesicularia	137
LXXIV	Trachypus	111			
V	Trematodon	88	XLIX	Webera	101
CXLIX	Trichosteleum	133			
XXXII	Trichostomum	96	LXV	Zygodon	107