

A CHECKLIST OF THE LICHENS OF TAIWAN⁽¹⁾

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Abstract: In this study, an attempt has been made to summarize our present knowledge of the lichen flora of Taiwan. The 396 species in 90 genera, 7 subspecies, 56 varieties and 38 forms which have been reported are listed, together with new additions made by the present authors.

INTRODUCTION

Located between latitude 21°53'48" and 25°18'15"N. and longitude 120°3'13" and 121°58'10"E., the island of Formosa is situated in the western Pacific and on the Tropic of Cancer. Owing to her geographical position as well as her fundamental topographical features, and also due to her wide range of temperature and abundance of rainfall, this island is provided with a great diversity of environments and substrata that make for a luxuriant vegetation. More than four thousand vascular plants and about one thousand bryophytes have been named for the flora of Taiwan.

Although not entirely neglected, the lichens have still remained unexplored for decades in the many parts of this island, even in the most easily accessible areas. An abundant lichen flora has been noted by investigators during the past years but up until now no comprehensive study concerning the lichen flora of Taiwan has been available. Therefore Formosa may be considered as a very superficially explored area with respect to her lichen flora, especially as compared with her vascular flora. It is quite likely that many a further discovery may be anticipated in years ahead.

The preparation of a checklist of Formosan lichens is indispensable and will be of great service to investigators for the purposes of taxonomical, phytochemical and symbiotical studies and for the comparison of phytogeographical affinities between the lichen flora of this island with that of her neighbouring districts. The list presented below is planned first of all to include the rather large number of taxa added to the Formosan lichen flora, that has been discovered since the appearance of Zahlbrückner's work (1933). It is also necessary to present a list in which the taxa are listed under names in accordance with the International Code of Botanical Nomenclature. Reports concerning Formosan lichens published during the past fifty years are very fragmentary and widely scattered. An intimate knowledge of the literature of lichenology is needed for the important task of the compilation of a checklist based on the published records as well as for checking the original source of each name. There is good reasons to believe that amendments will need to be made to this checklist due to the addition of species overlooked and to the elimination of undetected synonyms or due to taxonomic revisions resulting from further research. It is uncertain to what extent we have been successful, but

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to attain accuracy, any additions or corrections, criticisms and suggestions will be sincerely appreciated by the authors.

In the following list, genera and the species within each genus are arranged alphabetically. A synopsis of the known genera by families chiefly follows Hale & Culberson (1970), which is a more natural system, in the light of recent research, than that of Zahlbruckner.

To conserve space, publication sources are not given, as most of these may be obtained from Zahlbruckner (1921-34; 1938-40) and Lamb (1963); detailed synonymy is not intended to repeat here, only the synonyms or cases of misidentification that had been referred to a Formosan species are given. In this provisional list, annotations concerning literature and specimens citations are omitted.

HISTORY OF LICHENOLOGICAL EXPLORATION

Our knowledge of the lichen flora of Taiwan has been accumulating over the past 50 years with the first report of fifteen taxa being made by Sasaoka (1919), and further reports being made by Yasuda (1925) and Asahina (1926-33; 1931) of a few lichens from Taiwan. In 1933, A. Zahlbruckner published "Flechten der Insel Formosa" based on the collections of Y. Asahina and U. Faurie in Taiwan, 260 species of lichens were enumerated by him, with almost half of them described as new to science. This may be deemed as the dawn for the study of the lichen flora of this island, and the richness of the lichen flora of Taiwan was first noticed at that time. Later, M. Sato (1936-38) made a series of studies of the lichens of Taiwan based on his own collections and those of Y. Asahina. In 1939 Asahina's "Nippon Inkwasyokubutu Dukan" many Formosan lichens were included. Fragmental reports were added to the Formosan lichen flora in the following years by V. Räsänen and the Japanese lichenologists Y. Asahina, M. Sato and S. Inumaru up until the termination of World War II.

Dr. Satoshi Nakanishi of Kobe University, Japan visited the island of Formosa in the course of the Kobe University Scientific Expedition to Taiwan in March 1963. He made fairly extensive collections in the areas surrounding Mt. Morrison during his three weeks' visit. His collections were largely confined to bryophytes and lichens, and the result of his exploration were published by him (Nakanishi 1963; 1964 a, b, c.). His collections were also studied and cited in the works of Oshio (1968) and Yoshimura (1972).

Dr. Syo Kurokawa, an outstanding and active Japanese lichenologist at Department of Botany, National Science Museum, Tokyo, Japan made a lichenological excursion to the island of Formosa in December 1963 and collected in various parts of the island. On this occasion he visited Mt. Morrison, Mt. Nanhtasan, Mt. Ali, Piyanan, Chitou, Hengchung, Kueifu, Sun-Moon Lake and the northern part of Taiwan. In January 1965, he revisited the island. His field work was very extensive and of great importance to the study of the lichen flora of Taiwan. Based on his own collections, he is intending to study the lichens of Taiwan, especially the *Parmelia* group. Some duplicates of his *Parmelia* collections were generously donated to the Herbarium of Department of Botany, National Taiwan University. "Lichenes Rariores et Critici Exsiccati" (1966-) published by the National Science Museum, Tokyo, and edited by him include the materials of his collections in Taiwan. He also published several excellent research works dealing chiefly with *Anaptychia* and *Parmelia* as well as *Anzia*, *Pilophoron*, *Physciaceae* and *Peltigera* in which he included reports of Formosan species.

In October 1970, Dr. Timo Koponen, a prominent bryologist and curator of cryptogams at the Department of Botany, University of Helsinki, Finland visited the island of Formosa. The junior author spent several delightful days in his company collecting at various localities in the northern part of Taiwan, as well as Mt. Ali and Chitou. Rather large collections of bryophytes and some lichens were made during his visit. The whole bulk of his collections are deposited in the Herbarium of University of Helsinki, Finland and a complete duplicate set of his collections was donated by him to the Herbarium of Department of Botany, National Taiwan University. He was also kind enough to send us many Finnish specimens for exchange.

In the Herbarium of Department of Botany, National Taiwan University are deposited a fairly large number of cryptogamic specimens collected before World War II chiefly by T. Suzuki, T. Nakamura, and Y. Shimada which were left unstudied for a very long time until the present authors undertook the task of their investigation. Other lichen specimens in our herbarium were collected by C. C. Chuang (莊清潭), M. T. Kao (高木村) and K. S. Hsu (徐國士).

Recently, a very extensive cryptogamic survey throughout the island of Formosa has been undertaken by us. Large collections of lichen as well as bryophytes are engaging the attention of the present authors. The field work of the present authors has resulted in addition of nine thousand collections. In September 1972, the junior author made an excursion to Botel Tobago (Orchid Island)—a comparatively unexplored region of Taiwan, from the standpoint of lichens, where he stayed for twelve days collecting throughout that island.

SYSTEMATIC SYNOPSIS OF THE GENERA IN TAIWAN

CLASS ASCOMYCETES SUBCLASS ASCOMYCETIDAE

Order Lecanorales

COLLEMATACEAE

- Collema*
- Leptogium*
- Physma*

PLACYNTHIACEAE

- Psoroma*

COCCOCARPIACEAE

- Coccocarpia*

PANNARIACEAE

- Pannaria*
- Parmeliella*

PELTIGERACEAE

- Peltigera*
- Solorina*

NEPHROMATACEAE

- Nephroma*

STICTACEAE

- Sticta*

GYALECTACEAE

- Coenogonium*

STEREOCAULACEAE

- Pilophoron*
- Stereocaulon*

BAEOMYCETACEAE

- Baeomyces*
- Pseudobaeomyces*

CLADONIACEAE

- Cladonia*
- Glossodium*
- Gymnomerma*

UMBILICARIACEAE

- Lasallia*
- Umbilicaria*

PERTUSARIACEAE

- Perforaria*
- Pertusaria*

ACAROSPORACEAE

- Biatocella*

LECANORACEAE

- Haematomma*
- Icmadophila*
- Ionaspis*
- Lecanora*

LECIDIACEAE

- Bacidia*
Bombylospora
Catillaria
Lecidea
Lopadium
Megalospora
Mycoblastus
Phyllospora
Rhizocarpon
- RAMALINACEAE**
- Ramalina*
- BUELLIAEAE**
- Buellia*
Rinodina
- PHYSCIACEAE**
- Anaptychia*

PARMELIACEAE

- Cetraria*
Parmelia

ANZIACEAE

- Anzia*

USNEACEAE

- Alectoria*
Oropogon
Thamnolia
Usnea

*Physcia**Pyxine*

TELOSCHISTACEAE

- Caleoplaca*
Protoblastenia
Teloschistes

Order Ostropales

DIPLOSCHISTACEAE

- Diploschistes*

THELOTREMATACEAE

- Leptotrema*
Ocellularia
Thelotrema

GRAPHIDACEAE

- Glyphis*
Graphina
Graphis
Gyrostomum
Phaeographina
Phaeographis
Sarcographa

Order Sphaeriales

PYRENULACEAE

- Microthelia*
Pyrenula

STRIGULACEAE

- Porina*

Strigula

VERRUCARIACEAE

- Endocarpas*
Staurothelia
Verrucaria

Order Caliciales

CYPHELIAEAE

- Tylophoron*

SPHAEROPHORACEAE

- Sphaerophorus*

SUBCLASS LOCULOASCOMYCETIDAE

Order Myrangiales

ARTHONIACEAE

- Arthonia*

MYRANGIACEAE

- Mycoporellum*

Order Pleosporales

ARTHOPYRENIACEAE

- Anthracothecium*
Melanotheca
Pleurothecopsis

- Polyblastiopsis*
Pseudopyrenula
Tryptothelium

Order Hysteriales

LECANACTIDACEAE

- Catinaria*
- Lecanactis*
- Schismatoma*

OPEGRAPHACEAE

- Chiodescon*
- Opegrapha*
- Sclerophyton*

CLASS BASIDIOMYCETES

Order Agaricales

DICTYONEMATACEAE

- Dictyonema*

CLASS FUNGI IMPERFECTI

- Crocynia*

AN ALPHABETICAL LIST OF KNOWN GENERA AND SPECIES

Alectoria Ach.

- acanthodes* Hue
- asiatica* Dr.
- bicolor* Nyl.
- jubata* Ach. var. *lanestris* Ach.
- sulcata* (Lév.) Nyl.
- virens* Tayl.

Anaptychia Körb.

- comosa* (Eschw.) Mass.
- dendritica* (Pers.) Vain. var. *propagulifera* (Vain.) Kurok.
- dendritica* (Pers.) Vain. form. *esorediosa* Kurok.
- dissecta* Kurok. var. *koyana* Kurok.
- esorediata* (Vain.) DR. et Lyngé form. *condensata* Kurok.
- fulvescens* (Vain.) Kurok. var. *rottboellii* (Vain.) Kurok. ("*A. heterochroa* Vain. var. *fulvescens* Sato" in J. Jap. Bot. 12:429, 1936, *excl. basionym*; = *A. dendritica* (Pers.) Vain. var. *colorata* Zahlbr. form. *hypoflavescens* Kurok.)

heterochroa Vain. (= *A. dendritica* Vain. var. *colorata* (Zahlbr.) Kurok.; = *A. hypoleuca* (Mühlbrg.) Mass. var. *colorata* Zahlbr.)

hypoleuca (Mühlbrg.) Mass.

isidiophora (Nyl.) Vain.

japonica (Sato) Kurok. (= *A. dendritica* (Pers.) Vain. var. *japonica* Sato)

lutescens Kurok. ("*A. leucomelaena* (L.) Vain. var. *angustifolia* (Mey. et Fl.) Müll. Arg." *sensu* Sato in J. Jap. Bot. 12:429, 1936, *pro part.*)

neoleucomelaena Kurok. var. **neoleucomelaena** ("*A. leucomelaena* (L.) Vain. var. *multifida* (Mey. et Fl.) Müll. Arg." *sensu* Zahlbr. in Fedde, Repert. 33:68, 1933; "*A. leucomelaena* (L.) Vain. var. *angustifolia* (Mey. et Fl.) Müll. Arg." *sensu* Sato in J. Jap. Bot. 12:429, 1936, *pro part.*)

neoleucomelaena Kurok. var. **squarrosa** (Vain.) Kurok. ("*A. leucomelaena* (L.) Vain. var. *angustifolia* (Mey. et Fl.) Müll. Arg." *sensu* Sato in J. Jap. Bot. 12:429, 1936, *pro part.*)

obscurata (Nyl.) Vain.

ophioglossa (Tayl.) Kurok.

podocarpa (Bél.) Mass. var. **hypothraea** (Vain.) Sato (= *A. hypothraea* Vain.)

podocarpa (Bél.) Mass. var. **podocarpa**

pseudospeciosa Kurok. ("*A. corallophora* Vain." *sensu* Zahlbr. in Fedde, Repert. 33:68, 1933; Sato in J. Jap. Bot. 12:429, 1936)

- sanguineus* Asah. *salicinum* Zahlbr. *Platycladus*
subheterothecia Kurok. *angulatum* Zahlbr. var. *majus* Zahlbr. *RAEONIOTICARIA*
Anthraeotheicum Hanape ex Mass. *angulatum* Zahlbr. var. *angulatum* *ANTRAEOTICARIA*
cristulata (Ach.) Stzbgr. *formosana* Asahina *SITOTOMOCARIA*
hypoleucoleoides Müll. Arg. *japonica* (Tuck.) Müll. Arg. *solitaria* A. Nels.
opuntiella Müll. Arg. *ornata* (Zahlbr.) Asahina (*-A. japonica* Müll. Arg. var. *ornata* Zahlbr.) *SITOTOMOCARIA*
semiteres (Mont. et v. d. Bosch) Stzbgr. *stipitatus* Vain. *STIPOTOMOCARIA*
Arthonia Ach.
cinnabarina Wallr. var. *anerythraea* Nyl. *ochropallens* Zahlbr.
Bacidia De Not.
impura Zahlbr.
morosa Zahlbr. *BAKIA* ANNEKE KWOK TO TELF JADETHANGIA KA
Baeomyces Pers.
absolutus Tuck. var. *stipitatus* Vain. *BAEOMYCETACEA* *BAEOMYCETACEA*
botryophorus Zahlbr. *brevis* Zahlbr. *BAEOMYCETACEA* *BAEOMYCETACEA*
fungoides Ach. *placophyllus* Ach. *BAEOMYCETACEA* *BAEOMYCETACEA*
roseus Pers.
Biatorella De Not.
pruinosa Mudd. form. *nuda* (Krph.) Oliv.
Bombyliospora De Not.
buelliacea Zahlbr.
domingensis (Pers.) Zahlbr. var. *glaucoarpa* (Nyl.) Vain. (*=B. domingensis* (Pers.) Zahlbr.)
var. *brevinervis* Asah.
tuberculosa (Fée) Mass.
Buellia De Not.
pulchella (Schrad.) Tuck.
stellulata (Tayl.) Mudd. var. *macrior* Zahlbr.
subdisciformis (Leight.) Vain.
zahlbruckneri Stnr. var. *erubescens* Stnr.
Caleplaca Th. Fr.
aurantiaca (Lightf.) Th. Fr.
flavovirescens (Wulf.) Dalla Torre et Sarnth.
Catillaria (Ach.) Th. Fr.
arisana Zahlbr.
limosescens Zahlbr.
rengechima Zahlbr.
Catinaria Vain.
kelungana Zahlbr.
Cetraria Ach.
asahinae Sato
chrysanthia Tuck. form. *cinerascens* Asah.
ciliaris Ach. (*=Nephromopsis ciliaris* (Ach.) Hue)
collata (Nyl.) Müll. Arg. form. *nuda* (Hue) Zahlbr.
crispa (Ach.) Nyl. var. *japonica* Asah.
daiyuensis Räs.

<i>delavayi</i> (Hus) Sato (= <i>Nephromopsis delavayi</i> Hus)	200-250 (200-250) <i>subtilis</i>
<i>formosana</i> Zahlbr. var. <i>formosana</i>	200-250 <i>subtilis</i>
<i>formosana</i> Zahlbr. var. <i>isidiata</i> Zahlbr.	200-250 <i>subtilis</i>
<i>islandica</i> (L.) Ach. var. <i>orientalis</i> Asah. form. <i>angustifolia</i> Asah.	200-250 (200-250) <i>subtilis</i>
<i>lacunosa</i> Ach.	200-250 (200-250) <i>subtilis</i>
<i>laxa</i> (Zahlbr.) Sato (= <i>Nephromopsis laxa</i> (Zahlbr.) Sato; = <i>N. ciliaris</i> (Ach.) Hue var. <i>laxa</i> Zahlbr.)	200-250 (200-250) <i>subtilis</i>
<i>pallescens</i> Schaer.	200-250 <i>subtilis</i>
<i>pseudo-complicata</i> Asah.	200-250 <i>subtilis</i>
<i>sanguinea</i> Schaer. ex Moritz. form. <i>Isidiata</i> Asah. ex Sato	200-250 <i>subtilis</i>
<i>stracheyi</i> Bab. form. <i>ectocarpisma</i> (Hus) Sato (= <i>Nephromopsis stracheyi</i> (Bab.) Müll. Arg. form. <i>ectocarpisma</i> Hue)	200-250 <i>subtilis</i>
<i>straminea</i> Vain. (= <i>C. laeteflava</i> Zahlbr.)	200-250 <i>subtilis</i>
<i>togashii</i> Asah.	200-250 <i>subtilis</i>
<i>wallichiana</i> (Tayl.) Müll. Arg.	200-250 <i>subtilis</i>
Chiadecton Ach.	
<i>butyraceum</i> Zahlbr.	
Cladonia Wigg.	
<i>aggregata</i> (Sw.) Ach.	200-250 <i>subtilis</i>
<i>bacillaris</i> Nyl. var. <i>pacifica</i> Asah.	200-250 <i>subtilis</i>
<i>calycantha</i> (Del.) Nyl. var. <i>calycantha</i>	200-250 <i>subtilis</i>
<i>calycantha</i> (Del.) Nyl. var. <i>gracilior</i> Asah.	200-250 <i>subtilis</i>
<i>chondrotypa</i> Vain.	200-250 <i>subtilis</i>
<i>cornuta</i> (L.) Schaer.	200-250 <i>subtilis</i>
<i>crispata</i> (Ach.) Flot.	200-250 <i>subtilis</i>
<i>factylota</i> Tuck.	200-250 <i>subtilis</i>
<i>didyma</i> (Fée) Vain. var. <i>didyma</i>	200-250 <i>subtilis</i>
<i>didyma</i> (Fée) Vain. var. <i>vulcanica</i> (Zoll.) Vain.	200-250 <i>subtilis</i>
<i>florkeana</i> (Fr.) Sommerf. var. <i>suboceania</i> Asah.	200-250 <i>subtilis</i>
<i>furcata</i> (Huds.) Schrad. var. <i>pinnata</i> (Flk.) Vain.	200-250 <i>subtilis</i>
<i>furcata</i> (Huds.) Schrad. form. <i>semipellucida</i> Sandst.	200-250 <i>subtilis</i>
<i>gymnopoda</i> Vain.	200-250 <i>subtilis</i>
<i>krempehuberi</i> Vain.	200-250 <i>subtilis</i>
<i>metalecta</i> Nyl.	200-250 <i>subtilis</i>
<i>mitis</i> Sandst.	200-250 <i>subtilis</i>
<i>nemoxyna</i> (Ach.) Sandst.	200-250 <i>subtilis</i>
<i>ochrochlora</i> Flk. (= <i>C. fimbriata</i> (L.) Fr. var. <i>ochrochlora</i> (Flk.) Vain.)	200-250 <i>subtilis</i>
<i>perfossa</i> Nuno	200-250 <i>subtilis</i>
<i>polydactyla</i> (Flk.) Nyl. var. <i>thelophila</i> (Asah.) Asah. (= <i>C. macilenta</i> Hoffm. ssp. <i>thelophila</i> Asah.; = <i>C. flabelliformis</i> (Flk.) Vain. var. <i>polydactyla</i> (Flk.) Vain.)	200-250 <i>subtilis</i>
<i>pseudodidyma</i> Asah.	200-250 <i>subtilis</i>
<i>pseudogymnopoda</i> Asah. ssp. <i>recurvans</i> (Asah.) Asah. (= <i>C. calycantha</i> (Del.) Nyl. form. <i>recurvans</i> Asah.)	200-250 <i>subtilis</i>
<i>pityrea</i> (Flk.) Fr. var. <i>adspersa</i> (Mont. et v.d. Bosch) Vain. (= <i>C. adspersa</i> Mont. et v.d. Bosch)	200-250 <i>subtilis</i>
<i>pityrea</i> (Flk.) Fr. var. <i>pityrea</i>	200-250 <i>subtilis</i>
<i>rangiferina</i> (L.) Ach.	200-250 <i>subtilis</i>
<i>squamosa</i> (Scop.) Hoffm.	200-250 <i>subtilis</i>
<i>subconistea</i> Asah.	200-250 <i>subtilis</i>
<i>submultiformis</i> Asah. form. <i>fellosa</i> Asah.	200-250 <i>subtilis</i>
<i>submultiformis</i> Asah. form. <i>submultiformis</i>	200-250 <i>subtilis</i>
<i>subpityrea</i> Sandst. (= <i>C. formosana</i> Asah.; = <i>C. formosana</i> Asah. form. <i>sublaevigata</i> Asah.)	200-250 <i>subtilis</i>
<i>sylvatica</i> (L.) Hoffm.	200-250 <i>subtilis</i>
<i>tenuis</i> (Flk.) Harm.	200-250 <i>subtilis</i>

- verticillata* (Hoffm.) Scherzer.
vulcanica Zoll.
Coccocarpia Pers.
cronia (Tuck.) Vain. var. *primaria* Vain.
pellita (Ach.) Müll. Arg. var. *incisa* Müll. Arg.
pellita (Ach.) Müll. Arg. var. *parmelioides* (Hook.) Müll. Arg.
pellita (Ach.) Müll. Arg. *smaragdina* (Pers.) Müll. Arg.
Coenogonium Ehrenb.
interplexum Nyl.
linkii Ehrenb. (= *C. boninense* Sato; "*C. subvirescens* (Nyl.) Nyl." sensu Zahlbr. in Feede, Repert. 33:26, 1933.)
Collema Wigg.
complanatum Hue
idzuense Zahlbr. ssp. *raishanum* (Zahlbr.) Asah. (= *C. raishanum* Zahlbr.)
japonicum (Müll. Arg.) Hue
egotae Zahlbr.
vespertilio (Lightf.) Vain. (Tai-tung Co.: Botel Tobago Is., leg. J.R. Wang et M.J. Lai no. 6613 (TAI), new to lichen flora of Taiwan!)
Crocynia Mass.
faurieana B. de Leed.
gossypina (Sw.) Mass.
Dictyonema Ag.
thelephora Zahlbr. (= *D. sericeum* Johow)
Diploschistes Norm.
anactinus (Nyl.) Zahlbr. form. *cinerata* Zahlbr.
scruposus (Nyl.) Stnr.
Endocarpon Hedw.
desquamescens Zahlbr.
Glossodium Nyl.
japonicum Zahlbr.
Glyphis Ach.
cicatrica Ach.
Graphina Müll. Agr.
filiformis Zahlbr.
haloniata Zahlbr.
japonica Müll. Arg. var. *major* Zahlbr.
olivascens Zahlbr. form. *olivascens*
olivascens Zahlbr. form. *obscurata* Zahlbr.
oxyphora Zahlbr.
petrophila Zahlbr.
pulumbicolor Zahlbr.
soozana Zahlbr.
subpublicaris Zahlbr.
Graphis Adans.
cervinonigra Zahlbr.
desquamescens (Fée) Hale et Wirth
dupaxana Vain.
endoxantha Nyl.
epiphloea Zahlbr.
flabellans Zahlbr.
formosana Zahlbr.
helungana Zahlbr.
latibasa Zahlbr.
ocellata Zahlbr.

- scripta* (L.) Ach. *lindneri* *microsporae* *varia* *varia* *lindneri* *microsporae*
Gymnoderma Nyl. *lindneri* *varia* *lindneri* *varia* *lindneri* *varia*
coccocarpum Nyl. *lindneri* *varia* *lindneri* *varia* *lindneri* *varia*
Gyrostomum Fr. *lindneri* *varia* *lindneri* *varia* *lindneri* *varia*
scyphuliferum (Ach.) Nyl. *lindneri* (Engel.) *varia* *lindneri* *varia* *lindneri*
Haematomma Mass. *lindneri* *varia* *lindneri* *varia*
punicum (Sm. ex Ach.) Mass. *lindneri* *varia* *lindneri* *varia*
Icmadophila Trev. *lindneri* *varia* *lindneri* *varia*
erectum (L.) Zahlbr. *lindneri* *varia* *lindneri* *varia* *lindneri*
Ionaspis Th. Fr. *lindneri* *varia* *lindneri* *varia*
odorata (Ach. ex Schaer.) Th. Fr. *lindneri* *varia* *lindneri*
Lasallia Mér. *lindneri* *varia* *lindneri* *varia* *lindneri*
asiae-orientalis Asah.
mayebareae (Sato) Asah. (= *Umbilicaria mayebareae* Sato; "*Umbilicaria pusulata*" Hoffm." sensu Asahina in J. Jap. Bot. 7:106, 1931.)
Lecanactis Eschw.
limosescens Zahlbr. *lindneri* *varia* *lindneri* *varia*
macrocarpoides Zahlbr. *lindneri* *varia* *lindneri* *varia* *lindneri*
submorosa Zahlbr. var. *laetior* Zahlbr. *lindneri* *varia* *lindneri* *varia*
submorosa Zahlbr. var. *submorosa* *lindneri* *varia* *lindneri* *varia*
Lecanora Ach.
americana Zahlbr. *lindneri* *varia* *lindneri* *varia*
atra (Huds.) Ach. *lindneri* *varia* *lindneri* *varia* *lindneri*
atrynea (Ach.) Röhl. *lindneri* *varia* *lindneri* *varia* *lindneri*
gelida (L.) Ach.
kelungensis Zahlbr. *lindneri* *varia* *lindneri* *varia*
leprosa Fée *lindneri* *varia* *lindneri*
pachirana Zahlbr. *lindneri* *varia* *lindneri*
pallida Rabh. *lindneri* *varia* *lindneri*
subimmersa Vain. ssp. *subimmersa* *lindneri* *varia* *lindneri*
subimmersa Vain. ssp. *umbrinastens* Zahlbr. *lindneri* *varia* *lindneri*
torreyensis Zahlbr. *lindneri* *varia* *lindneri*
Lecidea Ach.
albocoeruleostrigata (Wulf.) Ach. *lindneri* *varia* *lindneri*
cacaotina Zahlbr. *lindneri* *varia* *lindneri*
fermosae Zahlbr. *lindneri* *varia* *lindneri*
granifera (Ach.) Vain. *lindneri* *varia* *lindneri* *varia*
kelungana Zahlbr. *lindneri* *varia* *lindneri*
lentigerella Zahlbr. *lindneri* *varia* *lindneri*
obsessa Zahlbr. *lindneri* *varia* *lindneri*
ochrolechioides Zahlbr. *lindneri* *varia* *lindneri*
ochroleprosa Zahlbr. *lindneri* *varia* *lindneri*
piperina Zahlbr. *lindneri* *varia* *lindneri*
rivulosa Ach. Var. *suborientalis* Zahlbr. *lindneri* *varia* *lindneri*
Leptogium S. Gray *lindneri* *varia* *lindneri* *varia* *lindneri*
arisanense Asah. ("*L. delavayi* Hue" sensu Zahlbr. in Feede, Report. 33:28, 1933) *lindneri* *varia*
caesium (Ach.) Vain. *lindneri* *varia* *lindneri*
chloromelum Nyl. *lindneri* *varia* *lindneri*
delavayi Hue form. *fuliginosum* Zahlbr. *lindneri* *varia* *lindneri*
moluccanum (Pers.) Vain. var. *moluccanum* *lindneri* *varia* *lindneri*
moluccanum (Pers.) Vain. var. *myriophyllum* (Müll. Arg.) Asah. *lindneri* *varia* *lindneri*
pichneum (Ach.) Nyl. *lindneri* *varia* *lindneri*
splendens Asah. *lindneri* *varia* *lindneri*
tremelloides S. Gray *lindneri* *varia* *lindneri*

<i>nodakensis</i> Asah.	100% adnatae
<i>pertusa</i> (Schrank) Schaefer.	100% adnatae
<i>physodes</i> (L.) Ach.	100% adnatae
<i>praesorediosa</i> Nyl.	100% adnatae
<i>proboscidea</i> Tayl.	100% adnatae
<i>pseudoformosana</i> Asah.	100% adnatae
<i>pseudophysodes</i> Asah.	100% adnatae
<i>pseudosaxatilis</i> Asah. (= <i>P. marmoriza</i> Nyl. var. <i>physcioides</i> Zahlbr.)	100% adnatae
<i>rampoddensis</i> Nyl.	100% adnatae
<i>reticulata</i> Tayl.	100% adnatae
<i>ruderata</i> Vain.	100% adnatae
<i>saccatiloba</i> Tayl.	100% adnatae
<i>sacti-angeli</i> Lyngé	100% adnatae
<i>saxatilis</i> (L.) Ach. var. <i>divaricata</i> Del.	100% adnatae
<i>saxatilis</i> (L.) Ach. var. <i>saxatilis</i>	100% adnatae
<i>schizospatha</i> Kurok. ex Hale et Kurok.	100% adnatae
<i>shinanoana</i> Zahlbr. form. <i>calvescens</i> Zahlbr.	100% adnatae
<i>sinuosa</i> (Sm.) Ach.	100% adnatae
<i>spectabilis</i> Asah.	100% adnatae
<i>subabstrusa</i> Gyeln.	100% adnatae
<i>subaurulenta</i> Nyl.	100% adnatae
<i>subcorallina</i> Hale	100% adnatae
<i>subdivaricata</i> Asah.	100% adnatae
<i>submutata</i> Hue	100% adnatae
<i>subscortea</i> Asah.	100% adnatae
<i>subtinctior</i> Zahlbr.	100% adnatae
<i>subturgida</i> Kurok.	100% adnatae
<i>tinctorum</i> Del. ex Nyl. var. <i>inactiva</i> Zahlbr.	100% adnatae
<i>tinctorum</i> Del. ex Nyl. var. <i>tinctorum</i>	100% adnatae
<i>trichotera</i> Hue	100% adnatae
<i>vexans</i> Zahlbr.	100% adnatae
<i>vittata</i> (Ach.) Nyl. form. <i>stricta</i> (Hillm.) Asah.	100% adnatae
<i>vittata</i> (Ach.) Nyl. form. <i>vittata</i>	100% adnatae
<i>wallichiana</i> Tayl. (= <i>P. mimandaiana</i> Zahlbr.)	100% adnatae
<i>zollingeri</i> Hepp	100% adnatae
<i>Parmeliella</i> Müll. Arg.	100% adnatae
<i>microphylla</i> (Sw.) Müll. Arg.	100% adnatae
<i>Peltigera</i> Willd.	100% adnatae
<i>aphthosa</i> (L.) Willd. var. <i>variolosa</i> (Mass.) Thomson (= <i>P. variolosa</i> (Mass.) Gyeln.)	100% adnatae
<i>canina</i> (L.) Willd. var. <i>spongiosa</i> Tuck.	100% adnatae
<i>dolichorrhiza</i> Nyl. form. <i>dolichorrhiza</i>	100% adnatae
<i>dolichorrhiza</i> Nyl. form. <i>subincisa</i> Gyeln.	100% adnatae
<i>horizontalis</i> (Huds.) Baumg.	100% adnatae
<i>meridiana</i> Gyeln. form. <i>crispoides</i> Gyeln.	100% adnatae
<i>nigripunctata</i> Bitt.	100% adnatae
<i>polydactyla</i> (Neck.) Hoffm. var. <i>crasseoides</i> Gyeln.	100% adnatae
<i>polydactyla</i> (Neck.) Hoffm. form. <i>lophyra</i> (Ach.) Nyl.	100% adnatae
<i>polydactyla</i> (Neck.) Hoffm. form. <i>polydactyla</i>	100% adnatae
<i>praetextata</i> Vain. form. <i>subglabra</i> Gyeln.	100% adnatae
<i>pruinosa</i> (Gyeln.) Inum. var. <i>congesta</i> Inum.	100% adnatae
<i>pruinosa</i> (Gyeln.) Inum. var. <i>pruinosa</i>	100% adnatae
<i>pruinosa</i> (Gyeln.) Inum. var. <i>spongiosa</i> Inum.	100% adnatae
<i>pruinosa</i> (Gyeln.) Inum. form. <i>crispata</i> Inum.	100% adnatae
<i>rufescens</i> (Weiss) Humb.	100% adnatae

<i>spuria</i> (Ach.) DC.	200. 1930 (1931) excurrent
<i>subincusa</i> (Gyeln.) Inum.	(2) 200. 1930 (1931) excurrent
<i>Perforaria</i> Müll. Arg.	(3) 200. 1930 (1931) excurrent
<i>cucurbitula</i> (Mont.) Müll. Arg.	(4) 200. 1930 (1931) excurrent
<i>Pertusaria</i> DC.	(5) 200. 1930 (1931) excurrent
<i>commutata</i> Müll. Arg.	(6) 200. 1930 (1931) excurrent
<i>composita</i> Zahlbr.	(7) 200. 1930 (1931) excurrent
<i>haematommoides</i> Zahlbr.	(8) 200. 1930 (1931) excurrent
<i>macrospora</i> Oshio	(9) 200. 1930 (1931) excurrent
<i>multipuncta</i> (Turn.) Nyl.	(10) 200. 1930 (1931) excurrent
<i>pertusa</i> (L.) Tuck.	(11) 200. 1930 (1931) excurrent
<i>platycarpiza</i> Zahlbr.	(12) 200. 1930 (1931) excurrent
<i>sphaerophora</i> Oshio	(13) 200. 1930 (1931) excurrent
<i>subcomposita</i> Oshio	(14) 200. 1930 (1931) excurrent
<i>subobductans</i> Nyl.	(15) 200. 1930 (1931) excurrent
<i>tetrathalamia</i> Nyl. var. <i>octaspera</i> Müll. Arg.	(16) 200. 1930 (1931) excurrent
<i>tetrathalamia</i> Nyl. var. <i>tetrathalamia</i>	(17) 200. 1930 (1931) excurrent
<i>velata</i> (Turn.) Nyl.	(18) 200. 1930 (1931) excurrent
<i>violacea</i> Oshio	(19) 200. 1930 (1931) excurrent
<i>Phaeographina</i> Müll. Arg.	(20) 200. 1930 (1931) excurrent
<i>callospora</i> Zahlbr.	(21) 200. 1930 (1931) excurrent
<i>lecanographa</i> Müll. Agr. var. <i>pleiospora</i> Zahlbr.	(22) 200. 1930 (1931) excurrent
<i>micromma</i> Zahlbr.	(23) 200. 1930 (1931) excurrent
<i>macrospora</i> (Zahlbr.) Nakanishi (= <i>P. montagnei</i> (v. d. Bosch) Müll. Arg. form. <i>macrospora</i> Zahlbr.)	(24) 200. 1930 (1931) excurrent
<i>montagnei</i> (v. d. Bosch) Müll. Arg.	(25) 200. 1930 (1931) excurrent
<i>pyrrhocroas</i> (Mont. et v. d. Bosch) Zahlbr.	(26) 200. 1930 (1931) excurrent
<i>quassinecola</i> (Fée) Müll. Arg.	(27) 200. 1930 (1931) excurrent
<i>valida</i> Zahlbr.	(28) 200. 1930 (1931) excurrent
<i>Phaeographis</i> Müll. Arg.	(29) 200. 1930 (1931) excurrent
<i>gracilenta</i> Zahlbr.	(30) 200. 1930 (1931) excurrent
<i>Phyllospora</i> Müll. Arg.	(31) 200. 1930 (1931) excurrent
<i>formosana</i> Zahlbr.	(32) 200. 1930 (1931) excurrent
<i>stenosperma</i> Zahlbr.	(33) 200. 1930 (1931) excurrent
<i>Physcia</i> (Schreb.) DC.	(34) 200. 1930 (1931) excurrent
<i>segitiliata</i> (Ach.) Nyl.	(35) 200. 1930 (1931) excurrent
<i>endococcina</i> (Körb.) Nyl.	(36) 200. 1930 (1931) excurrent
<i>imbricata</i> Vain.	(37) 200. 1930 (1931) excurrent
<i>integrata</i> Nyl. var. <i>obsessa</i> (Mont.) Vain.	(38) 200. 1930 (1931) excurrent
<i>picta</i> (Sw.) Nyl.	(39) 200. 1930 (1931) excurrent
<i>tentaculata</i> Zahlbr.	(40) 200. 1930 (1931) excurrent
<i>Physma</i> Mass.	(41) 200. 1930 (1931) excurrent
<i>byrsinum</i> (Ach.) Müll. Arg.	(42) 200. 1930 (1931) excurrent
<i>callicarpum</i> Hue	(43) 200. 1930 (1931) excurrent
<i>radians</i> Vain.	(44) 200. 1930 (1931) excurrent
<i>Pilophoron</i> (Tuck.) Th. Fr.	(45) 200. 1930 (1931) excurrent
<i>hallii</i> (Tuck.) Vain. (= <i>P. japonicum</i> Zahlbr.)	(46) 200. 1930 (1931) excurrent
<i>Pleurotheliopsis</i> Zahlbr.	(47) 200. 1930 (1931) excurrent
<i>asahiniae</i> Zahlbr.	(48) 200. 1930 (1931) excurrent
<i>Polyblastiopsis</i> Zahlbr.	(49) 200. 1930 (1931) excurrent
<i>pertusarina</i> Zahlbr.	(50) 200. 1930 (1931) excurrent
<i>Porina</i> Müll. Arg.	(51) 200. 1930 (1931) excurrent
<i>formosana</i> Zahlbr.	(52) 200. 1930 (1931) excurrent
<i>nucula</i> Ach.	(53) 200. 1930 (1931) excurrent

- tetracerae** (Afx.) Müll. Arg.
- Protoblastenia** (Zahlbr.) J. Stein. (?)
- formosana Zahlbr.
- Pseudobaeomyces** Sato
- pachycarpus (Müll. Arg.) Sato var. *stipitatus* Sato (= *Pseudobaeomyces insignis* (Zahlbr.) Sato; = *Baeomyces insignis* Zahlbr.)
- Pseudopyrenula** Müll. Arg.
- bicincta Zahlbr.
- Psoroma** (Ach.) Ach. ex Michx.
- sphinctrinum (Mont.) Nyl.
- Pyrenula** Ach.
- albidopunctata Zahlbr.
- aspista Ach.
- kelungana Zahlbr.
- kunthii Fée
- mamillana (Ach.) Trev.
- Pyxine** Fr.
- cocoës (Sw.) Nyl.
- endochrysina Nyl.
- margaritacea Zahlbr.
- patellaris Kurok.
- Ramalina** Ach.
- asahiniana Zahlbr.
- calicaris (L.) Röhl. var. *calicaris* (L.) Röhl. (= *R. calicaris* (L.) Röhl. (var. *calicaris*) Zahlbr.)
- calicaris (L.) Röhl. var. *japonica* Hue
- farinacea Ach. var. *pendulina* Ach.
- geniculata Hook. f. et Tayl.
- intermediella Vain. (= *R. farinacea* Ach. var. *multifida* Ach.)
- pumila Mont.
- subgeniculata Nyl. (= *R. geniculata* Hook. f. et Tayl. var. *olivacea* Müll. Arg.)
- Rhizocarpon** Ram.
- geographicum (L.) DC.
- Rinodina** (Ach.) S. Gray
- imitatrix Zahlbr.
- varians Zahlbr.
- Sarcographa** Fée
- albo-maculans Zahlbr.
- melanotarpa Zahlbr.
- Schismatomma** Mass.
- margaritaceum Zahlbr.
- Sclerophyton** Eschев.
- actinoboloides Zahlbr.
- Solorina** Ach.
- simensis Hochst.
- Sphaerophorus** Pers.
- diplotypus Vain.
- formosanus (Zahlbr.) Asah. (= *S. melanocarpus* (Sw.) DC. esp. *formosanus* Zahlbr.)
- melanocarpus (Sw.) DC.
- Staurothele** Norm.
- fauriel B. d. Lesd.
- Stereocaulon** Hoffm.
- albicans Th. Fr. (= *S. tenellum* Tuck.)
- arbuscula Nyl.
- armatum Zahlbr.

- condensatum** (Ach.) Hoffm.
denudatum Flk.
japonicum Th. Fr.
massartianum Hue var. **massartianum** (= *S. nesaeum* Auctt.)
massartianum Hue var. **chlorocarpooides** (Zahlbr.) Lamb (= *S. chlorocarpooides* Zahlbr.)
piluliferum Th. Fr.
pomiferum Duvign.
sasakii Zahlbr.
sorediiferum Hue
tomentosum Fr.
verruculigerum Hue var. **formosanum** Asah. (*S. formosanum* Asah. in sched.)
- Sticta** Schreb.
- argyracea** Del.
 - aurata** (Hoffm.) Ach.
 - cinnamomea** Rich. (= *Cyanisticta dissimilis* (Nyl.) Räs.)
 - duplicolimbata** (Hue) Vain.
 - flabelliformis** Zahlbr.
 - formosana** Zahlbr.
 - fuliginosa** (Dick.) Ach.
 - gracilis** (Müll. Arg.) Zahlbr. (= *S. stenoloba* (Nyl.) Vain.)
 - intricata** Del. (= *Cyanisticta intricata* (Del.) Räs.)
 - mougeotiana** Del.
 - neocaledonia** (Müll. Arg.) Hue
 - nylanderiana** Zahlbr. (= *S. platyphylla* Nyl.)
 - pulvinata** (Mey. et Flot.) Vain.
 - sinuosa** Pers.
 - submarginifera** Zahlbr.
 - weigelii** Isert var. **enteroxanthella** Zahlbr.
 - wrightii** Tuck. (= *S. miyoshiana* Müll. Arg.)
- Strigula** Fr.
- elegans** Müll. Arg. var. **nematora** Müll. Arg.
- Thamnolia** Ach. ex Schaefer.
- subuliformis** (Ehrh.) Culb. (= *T. subvermicularis* Asah.)
- Theloschistes** Norm.
- flavicans** (Sw.) Norm.
- Thelotrema** Ach.
- formosanum** Zahlbr.
 - microstomum** Müll. Arg. var. **formosanum** Zahlbr.
 - murinum** Zahlbr.
- Trypethelium** Spreng.
- caterarium** (Fée) Tuck.
 - cluteriae** Sprgl. var. **conglobatum** (Ach.) Zahlbr.
 - cluteriae** Sprgl. var. **eluteriae**
 - formosanum** Zahlbr.
- Tylophoron** Nyl.
- moderatum** Nyl.
- Umbilicaria** Hoffm.
- formosana** Frey (= *Gyrophora formosana* (Frey) Sato; *Omphalodiscus formosanus* Schol.)
 - polyphylla** (L.) Baumg.
 - pustulata** (L.) Hoffm.
- Usnea** P. Br. ex Adans.
- alisani** Asah. form. **condensata** Asah.
 - alisani** Asah. form. **alisani**

baileyi (Stirt.) Zahlbr. ssp. baileyi (= <i>U. implicata</i> (Stirt.) Zahlbr.; = <i>U. baileyi</i> Zahlbr. form. <i>eudocrocea</i> (<i>endorosea</i>) Zahlbr.)	alluvial soil
baileyi (Stirt.) Zahlbr. ssp. <i>septentrionalis</i> Asah.	alluvial soil
ceratina Ach.	alluvial soil
comosa (Ach.) Röhl.	alluvial soil
confusa Asah. ssp. confusa	alluvial soil
confusa Asah. ssp. <i>pygmaeoides</i> Asah.	alluvial soil
confusa Asah. ssp. <i>subconfusa</i> Asah.	alluvial soil
diffracta Vain.	alluvial soil
eumitrioides Mot.	alluvial soil
flexilis Stirt.	alluvial soil
florida (L.) Wigg	alluvial soil
galbinifera Asah.	alluvial soil
japonica Vain.	alluvial soil
leucospilodes Nyl.	alluvial soil
longissima (L.) Ach.	alluvial soil
maculata Stirt. (= <i>U. rubiginea</i> (Michx.) Mass.)	alluvial soil
masudana Asah.	alluvial soil
neoguineensis Asah. var. <i>gracilior</i> Asah.	alluvial soil
neoguineensis Asah. var. <i>neoguineensis</i>	alluvial soil
nipparensis Asah.	alluvial soil
ogatai Asah.	alluvial soil
orientalis Mot. form. <i>esorediosa</i> Asah.	alluvial soil
orientalis Mot. form. <i>orientalis</i>	alluvial soil
pangiana Stirt.	alluvial soil
pectinata Tayl. (= <i>U. hossei</i> Vain.)	alluvial soil
pseudogatai Asah.	alluvial soil
pseudomontis-fuji Asah.	alluvial soil
pseudororientalis Asah.	alluvial soil
pseudorubescens Asah. (= <i>U. rubescens</i> Stirt. ssp. <i>aberrans</i> Asah.)	alluvial soil
roseola Vain.	alluvial soil
rubescens Stirt. (= <i>U. ceratinella</i> Vain.; = <i>U. rubicunda</i> Stirt. var. <i>ceratinella</i> (Vain.) Mot.)	alluvial soil
rubicunda Stirt. var. <i>primaria</i> Mot.	alluvial soil
schadenbergiana Goepert et Stein	alluvial soil
schimadai Asah.	alluvial soil
undulata Stirt. form. <i>fruticans</i> Asah.	alluvial soil
undulata Stirt. form. <i>perspinigera</i> Asah.	alluvial soil
Verrucaria Schrad.	alluvial soil
arisana Zahlbr.	alluvial soil
teroyensis Zahlbr.	alluvial soil

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- trichophorum** Müll. Arg. form. **microsporum** Zahlbr.
Leptotrema Mont. & Bosch.
bahianum Müll. Arg. var. **asiaticum** Zahlbr.
Lobaria Schreb.
adscripturiens (Nyl.) Hue ("*L. laetevirens* (Lightf.) Zahlbr." *sensu* Zahlbr. in Fedde, Repert. 33:30, 1933.)
chinensis Yoshim.
crassior Vain. (=*L. buiensis* Räs.)
discolor (Bory in Del.) Hue form. **subadscripta** Yoshim. ("*L. adscripta* (Hue) Zahlbr." *sensu* Zahlbr. in Fedde, Repert. 33:30, 1933.)
gyrophorica Yoshim.
isidiophora Yoshim. (*L. meridionalis* Vain. var. *minor* Räs. (1949); *non L. minor* (Nyl.) Vain. (1926).)
isidiosa (Müll. Arg.) Vain.
japonica (Zahlbr.) Asah. form. **exsecta** (Nyl.) Yoshim.
kurokawai Yoshim.
lobulata Yoshim. form. **lobulata**
lobulata Yoshim. form. **reagens** Yoshim.
meridionalis Vain. (=*L. pulmonaria* (L.) Hoffm. var. *meridionalis* (Vain.) Zahlbr.)
orientalis (Asah.) Yoshim. (=*L. pulmonaria* (L.) Hoffm. var. *orientalis* Asah.)
pseudopulmonaria Gyeln. (=*L. subreticulata* Inum.)
reticulata (Bory) Trev.
spathulata (Inum.) Yoshim. (=*L. meridionalis* Vain. var. *spathulata* Inum.; =*L. pulmonaria* (L.) Hoffm. form. *microphyllina* Inum.; =*L. pulmonaria* (L.) Hoffm. var. *spathulata* (Inum.) Asah.)
sublaevis (Nyl.) Yoshim. (=*L. ochracea* Inum.)
subscrubrulata Vain. (=*L. ochrotopa* Zahlbr.)
Lopadium Körb.
leucoxanthum (Sprgl.) Zahlbr.
Megalospora Mey.
sulphurata Mey. et Fw.
Melanothera Fée
rubromaculata (Vain.) Zahlbr.
Microthelia Körb.
ambigua Zahlbr.
Mycoblastus Norm.
sanguinarius Norm. var. **enderhodus** Stein
Mycoporellum Müll. Agr.
Ieuocapillum Zahlbr.
Nephroma Ach.
helveticum Ach. from. **griseum** Inum.
javanicum Gyeln.
moesii Gyeln.
tropicum (Müll. Arg.) Zahlbr. var. **mixtoides** Gyeln.
tropicum (Müll. Arg.) Zahlbr. form. **livido-griseum** Gyeln.
tropicum (Müll. Arg.) Zahlbr. form. **tropicum** (=*N. esahiae* Zahlbr.; =*N. tomentellum* Inum.)
Ocellularia Mey.
alba (Fée) Müll. Arg.
Opegrapha Ach.
prosodes Ach. var. **sclerocarpa** Vain.
Oropogon Th. Fr.
formosanus Asah. ("*O. loxensis* (Fée) Th. Fr." *sensu* Ashina in J. Jap. Bot. 12: 696, 1936; *sensu* Sato in J. Jap. Bot. 13: 596, 1937.)
Pannaria Del.

<i>leucoxicta</i> Tuck.	Junc. <i>leucoxicta</i>
<i>lurida</i> (Mont.) Nyl.	Junc. <i>lurida</i>
<i>coerulebadia</i> Mass. (= <i>P. rubiginosa</i> (Thunb.) Del. var. <i>Ianuginosa</i> Zahlbr.)	Junc. <i>coerulebadia</i>
<i>marianna</i> (E. Fr.) Müll. Arg.	Junc. <i>marianna</i>
<i>stylophora</i> Vain. var. <i>perconfluens</i> Vain.	Junc. <i>stylophora</i>
<i>Parmelin</i> Ach.	Junc. <i>Parmelin</i>
<i>abstrusa</i> Vain.	Junc. <i>abstrusa</i>
<i>arisani</i> Zahlbr.	Junc. <i>arisani</i>
<i>arnoldii</i> Du Rietz	Junc. <i>arnoldii</i>
<i>asahinae</i> Yasuda form. <i>asahinae</i>	Junc. <i>asahinae</i>
<i>asahinae</i> Yasuda form. <i>subimpertusa</i> Asah.	Junc. <i>asahinae</i>
<i>aurulenta</i> Tuck.	Junc. <i>aurulenta</i>
<i>caperata</i> (L.) Ach.	Junc. <i>caperata</i>
<i>cetrariooides</i> Del.	Junc. <i>cetrariooides</i>
<i>cetrata</i> Ach. form. <i>cetrata</i> (= <i>P. cetrata</i> Ach. form. <i>ciliosa</i> V. Gr. Mar.)	Junc. <i>cetrata</i>
<i>cetrata</i> Ach. form. <i>granularis</i> Asah.	Junc. <i>granularis</i>
<i>cirrhata</i> Fr. form. <i>americana</i> (Vain.) Asah.	Junc. <i>americana</i>
<i>cirrhata</i> Fr. form. <i>confusa</i> (Du Rietz) Asah.	Junc. <i>confusa</i>
<i>cirrhata</i> Fr. form. <i>granulosa</i> (Vain.) Asah.	Junc. <i>granulosa</i>
<i>cirrhata</i> Fr. form. <i>vermicularis</i> (Vain.) Asah.	Junc. <i>vermicularis</i>
<i>clavulifera</i> Räs.	Junc. <i>clavulifera</i>
<i>conspersa</i> Ach. var. <i>subconspersa</i> (Nyl.) Stein	Junc. <i>subconspersa</i>
<i>conspersula</i> Nyl.	Junc. <i>conspersula</i>
<i>crenata</i> Kurok.	Junc. <i>crenata</i>
<i>crinita</i> Ach.	Junc. <i>crinita</i>
<i>cristifera</i> Tayl. form. <i>cinerata</i> Zahlbr.	Junc. <i>cinerata</i>
<i>cristifera</i> Tayl. form. <i>cristifera</i>	Junc. <i>cristifera</i>
<i>eciliata</i> (Nyl.) Nyl.	Junc. <i>eciliata</i>
<i>endochlora</i> Leight.	Junc. <i>endochlora</i>
<i>enteromorpha</i> Ach. form. <i>enteromorpha</i>	Junc. <i>enteromorpha</i>
<i>enteromorpha</i> Ach. form. <i>inactiva</i> Asah.	Junc. <i>inactiva</i>
<i>entotheiochroa</i> Hue	Junc. <i>entotheiochroa</i>
<i>erumpens</i> Kurok.	Junc. <i>erumpens</i>
<i>expallida</i> Kurok.	Junc. <i>expallida</i>
<i>exsecta</i> Tayl.	Junc. <i>exsecta</i>
<i>flexilis</i> Kurok.	Junc. <i>flexilis</i>
<i>formosana</i> Zahlbr.	Junc. <i>formosana</i>
<i>hypotropa</i> Nyl.	Junc. <i>hypotropa</i>
<i>hypotrypella</i> Asah. (" <i>P. hypotropa</i> Nyl." sensu Zahlbr. in Fedde, Report. 33:54, 1933.)	Junc. <i>hypotrypella</i>
<i>infirma</i> Kurok.	Junc. <i>infirma</i>
<i>isidiza</i> Nyl.	Junc. <i>isidiza</i>
<i>keitaensis</i> Asah.	Junc. <i>keitaensis</i>
<i>koyaensis</i> Asah.	Junc. <i>koyaensis</i>
<i>laevigata</i> Ach. ssp. <i>extremi-orientalis</i> Asah. (= <i>P. laevigata</i> Ach. form. <i>esorediata</i> Zahlbr.)	Junc. <i>laevigata</i>
<i>laevior</i> Nyl.	Junc. <i>laevior</i>
<i>limbata</i> Laur.	Junc. <i>limbata</i>
<i>malesiana</i> Hale	Junc. <i>malesiana</i>
<i>manillensis</i> Kurok.	Junc. <i>manillensis</i>
<i>marmorata</i> Nyl.	Junc. <i>marmorata</i>
<i>mellissii</i> Dodge	Junc. <i>mellissii</i>
<i>neglecta</i> Asah. (" <i>P. perlata</i> Ach." sensu Zahlbr. in Fedde, Report. 33:58, 1933.)	Junc. <i>neglecta</i>
<i>nepalensis</i> Tayl.	Junc. <i>nepalensis</i>
<i>nitakana</i> Asah.	Junc. <i>nitakana</i>
<i>nilgherrensis</i> Nyl.	Junc. <i>nilgherrensis</i>

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