

LEAD ARTICLE

Liverworts and Hornworts of Sri Lanka: a revised checklist

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ABSTRACT

A revised checklist of liverworts and hornworts of Sri Lanka is presented based on an extensive review of published literature sources and incorporating synonymy from numerous floristic reports and taxonomic revisions. A number of erroneous records and doubtfully recorded taxa have been excluded. In total 82 genera and 327 species of liverworts and 4 genera and 5 species of hornworts are accepted. For each species literature sources are listed. For synonyms the source of the synonymy is given. Further, names whose type specimens originated from Sri Lanka are indicated. Two new formal taxonomic changes are proposed: *Bazzania obtusa* D.G.Long & Rubasinghe, *nom. nov.* and *Heteroscyphus fleischeri* (Steph.) D.G.Long & Rubasinghe, *comb. nov.* An index to all accepted names and synonyms is appended.

Keywords: Anthocerotopsida, bryophyte, Ceylon, hornwort, liverwort, Marchantiopsida.

INTRODUCTION

Bryophytes which comprise mosses (Class Bryopsida), liverworts (Marchantiopsida) and hornworts (Anthocerotopsida) have long been recognised as very important components of almost all the earth's major ecosystems. Although they are a much smaller group compared to Angiosperms in terms of species numbers, the significance of their dominance and biomass in many ecosystems such as wet forests and peatlands, is now becoming more widely recognised, particularly in aspects such as water retention and as a vitally important carbon sink (Vanderpoorten & Goffinet, 2009).

Yet, in many countries, especially in the tropics, knowledge of bryophytes is decades behind that of their Angiosperm cousins. As a consequence, their protection, conservation and utilisation are often largely ignored or overlooked because of this lack of knowledge, and the scarcity of means to identify them. Without taxonomic knowledge and identification manuals, we cannot apply names and communicate about the plants. As stressed in the recent historical review of bryology in Sri Lanka (Rubasinghe & Long, 2014) "the biggest impediment to progress in documenting the bryophytes of Sri Lanka is lack of a modern Bryophyte Flora, and this should be regarded as a priority for the future".

As a first step towards producing a Bryophyte Flora, a checklist is a very useful way of gathering together existing knowledge about the group and working out the scale of the task. Abeywickrama & Jensen (1978a, b) compiled the first checklists for Sri Lanka of liverworts and mosses. Although excellent at the time, these are now out-of-date in many ways and require updating. In the case of the mosses, this was done by O'Shea (2002) who provided an excellent moss list incorporating much new data. However, this has not been done for liverworts and hornworts until now. Abeywickrama & Jensen (1978a) gleaned their liverwort data from only 22 publications. Since then, there have been four significant developments: i, there has been much more field collecting of liverworts in Sri Lanka by a range of bryologists, notably J. Eggers, A. Jayasuriya, C. Ruinard, A. Schäfer-Verwimp and P. Tixier (Rubasinghe & Long, 2014); ii, there have been numerous floristic papers published in several international journals enumerating the results of these collectors' fieldwork (*e.g.* Eggers & Schäfer-Verwimp, 1987; Jayasuriya, 1984; Hattori, 1979; Onraedt, 1978, 1979a, b, 1981, 1983, 1985; Tixier, 1977); iii, there are important recent published studies on liverworts of adjacent regions, such as India (Asthana & Srivastava, 2003; Dey & Singh, 2012; Sharma & Srivastava, 1993; Srivastava & Srivastava, 2002), China (Zhu & So, 2001) and Papua New Guinea (Piippo, 1984 a,b; 1985a,b, etc.) which are highly relevant to species in Sri Lanka;

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and iv, the publication of new monographic studies at both regional and global levels for particular groups found in Sri Lanka, such as *Cololejeunea* (Tixier, 1985), *Frullania* (Hattori, 1979), *Marchantia* (Bischler, 1989), *Metzgeria* (So, 2003b), *Plagiochila* (Inoue, 1984), *Pleurozia* (Thiers, 1993), *Radula* (Yamada, 1979a), and *Schistochila* (So 2003a).

The present list is also a compilation, largely based on published literature, but it attempts several refinements over earlier work, including adopting new taxonomic placements of genera and species resulting from DNA-based studies, new synonymy from regional and global taxonomic revisions and monographs, a wider trawl of literature old and new and a critical reassessment of some doubtful records based on probable misidentifications.

LIVERWORTS

Acrobolbaceae

1.1 *Marsupidium knightii* Mitt. [37, 64]

Adelanthaceae

2.1 *Cuspidatula flexicaulis* (Nees) Váňa & L.Söderstr.

Jungermannia flexicaulis Nees [148]

Jamesoniella flexicaulis (Nees) Schiffn. [55, 169]

(*Jungermannia colorata* Lehm. var. *ceylanica* Gottsche *nom. nud.* [44] may belong here).

3.1 *Denotarisia linguiifolia* (De Not.) Grolle [55, 169]

Jamesoniella ovifolia (Schiffn.) Schiffn. [1, 2, 110, 227]; syn. fide Grolle (1971).

(*Syzygiella elongella* (Taylor) K. Feldberg, Váňa, Hentschel & J. Heinrichs

Jamesoniella elongella (Taylor) Steph. [1, 2, 227]. Excluded from Sri Lanka, reports refer to *Cuspidatula flexicaulis*, fide Grolle (1971)).

4.1 *Syzygiella securifolia* (Nees ex Lindenb.) Inoue [118, 213]

Plagiochila securifolia Nees ex Lindenb. [1, 2, 45, 148, 227]; type from Sri Lanka

Plagiochila variegata Lindenb. [148]; syn. fide Inoue (1984)

Syzygiella variegata (Lindenb.) Schiffn. [1, 2, 114, 200]; syn. fide Inoue (1979)

4.2 *Syzygiella subintegerrima* (Nees) Spruce [2, 115]

Anastrophyllaceae

5.1 *Anastrophyllum imbricatum* (Wilson ex Gottsche, Lindenb. & Nees) Steph.

Jungermannia imbricata Wilson ex Gottsche, Lindenb. & Nees [45, 148]

5.2 *Anastrophyllum piligerum* (Reinw., Blume & Nees) Steph. [1, 2, 200, 227]

Jungermannia piligera Reinw., Blume & Nees [148]

6.1 *Plicanthus birmensis* (Steph.) R.M.Schust.

Chandonanthus birmensis Steph. [37]

6.2 *Plicanthus hirtellus* (F.Weber) R.M.Schust.

Chandonanthus hirtellus (F.Weber) Mitt. [1, 2, 98, 110, 169, 227, 240]

7.1 *Schizophyllopsis bidens* (Reinw., Blume & Nees) Váňa & L. Söderstr.

Anastrophyllum bidens (Reinw., Blume & Nees) Steph. [169]

Aneuraceae

8.1 *Aneura pinguis* (L.) Dumort.

Riccardia pinguis (L.) Gray [1, 2]

9.1 *Riccardia canaliculata* (Nees) Schiffn. [41, 42]

9.2 *Riccardia multifida* (L.) Gray [1, 2, 128]

The list is arranged alphabetically by family, genus and species, and accepted genera and species are numbered. Families follow Crandall-Stotler *et al.* (2009) with some recent refinements such as segregation of Anastrophyllaceae from Lophoziaceae. Synonyms, where relevant to Sri Lanka, are given under the currently accepted name, and the source of synonymy is cited. Where names are based on Sri Lankan type specimens this is indicated. Sources of records are indicated by numbered references in square brackets and listed in the bibliography. Two new formal taxonomic changes are proposed in Appendix I. Accepted names and synonyms are listed in Appendix II with a reference to accepted name for each synonym.

Aytoniaceae

- 10.1 *Plagiochasma rupestre* (G.Forst.) Steph. [19, 199]
Plagiochasma nepalense (Lehm. & Bisch.) Steph. [1, 2, 80, 128]; syn. fide Bischler (1979).
11.1 *Reboulia hemisphaerica* (L.) Raddi [1, 2, 169, 199]

Blasiaceae

- 12.1 *Blasia pusilla* L. [80]

Calypogeiaceae

- 13.1 *Calypogeia apiculata* (Steph.) Steph. [1, 2, 136, 169, 227]
13.2 *Calypogeia arguta* Nees & Mont. [169]
13.3 *Calypogeia ceylanica* S.Hatt. & Mizut. [80, 169]; type from Sri Lanka.
13.4 *Calypogeia fissa* (L.) Raddi [169, 205]
13.5 *Calypogeia fragilis* (Steph.) Inoue & H.A.Miller [2]
14.1 *Metacalypogeia alternifolia* (Nees) Grolle
Calypogeia alternifolia (Nees) Steph. [1, 2]
15.1 *Mnioloma fuscum* (Lehm.) R.M.Schust.
Calypogeia fusca (Lehm.) Steph. [58, 169]
Calypogeia baldwinii Aust. [52, 53, 134]; syn. fide Grolle (1977b)

Cephaloziaceae

- 16.1 *Nowellia curvifolia* (Dicks.) Mitt. [169]

Cephaloziellaceae

- (*Cephaloziella capillaris* (Steph.) Douin [2, 121]; Kitagawa (1969) rejected these reports which may refer to *Cylindrocolea kiaeri*)
17.1 *Cylindrocolea kiaeri* (Austin) Váňa
Cephaloziella kiaeri (Austin) Pearson [169];
Cephalozia willisana Steph. [1, 2, 227]; type from Sri Lanka; syn. fide Váňa et al. (2013)
Cephaloziella willisana (Steph.) N.Kitag. [131]
18.1 *Gottschelia schizopleura* (Spruce) Grolle [54, 55, 169]
Jamesoniella microphylla Schiffn. [1, 2, 195, 227]; syn. fide Onraedt (1981).
Jungermannia ceylanica Steph. [1, 2]; type from Sri Lanka; syn. fide Grolle (1971)
(*Jungermannia ceylanica* Gottsche nom. nud. [44]; may belong here).

Note: *Gottschelia* was formerly placed in Lophozziaceae but Feldberg et al. (2009) showed that was incorrect; it is provisionally placed in Cephaloziellaceae.

Cyathodiaceae

- 19.1 *Cyathodium cavernarum* Kunze [221]
(*Cyathodium foetidissimum* Schiffn. [199]. Note: not reported from Sri Lanka or India by Srivastava & Dixit (1996); record considered doubtful).
19.2 *Cyathodium smaragdinum* Schiffn. ex Keissl. [1, 2, 199, 221]

Dumontieraceae

- 20.1 *Dumortiera hirsuta* (Sw.) Nees. sens. lat. [1, 2, 80, 110, 148, 169, 199]

Exormothecaceae

- 21.1 *Exormotheca ceylonensis* Meijer [1, 2, 4, 80, 128, 144, 199]

Fossombroniaceae

- (*Fossombronia wondraczekii* (Corda) Dumort. [2, 80, 121, 169]. Excluded from East Asia by Krayesky et al. (2005) though no Sri Lankan specimens were studied; may refer to an Asiatic species).

Frullaniaceae

- 22.1 *Frullania acutiloba* Mitt. [1, 2, 85, 93, 169, 206, 227, 249]
Frullania hampeana Nees var. *acutiloba* (Mitt.) S.Hatt. [87]; reinstated as a distinct species by Hattori (1980a).

- 22.2 *Frullania alstonii* Verd. [1, 2, 91, 169, 191, 249, 251]; type from Sri Lanka
Frullania perocellata Onr. [166, 169]; type from Sri Lanka; syn. fide Hattori (1985)
- 22.3 *Frullania apiculata* (Reinw., Blume & Nees) Dumort. [1, 2, 93, 148, 169, 249]
- 22.3a *Frullania apiculata* (Reinw., Blume & Nees) Dumort. var. *goebelii* Schiffn. [249]
- 22.4 *Frullania arecae* (Spreng.) Gott. [259]
Frullania wallichiana Mitt. [83, 93, 169]; syn. fide Yuzawa (1991)
- 22.5 *Frullania brotheri* Steph. [87, 91, 95]
- 22.6 *Frullania campanulata* Sande Lac. [169]
- 22.7 *Frullania capilliformis* Steph. [227]; type from Sri Lanka.
- 22.8 *Frullania claviloba* Steph. [169]
- 22.9 *Frullania ericoides* (Nees) Mont. [37, 88, 93, 94, 169]
Frullania squarrosa (Reinw., Blume & Nees) Nees [1, 2, 44, 148, 248]; syn. fide Piippo (1990).
Frullania laciniosa Lehm. [148]; syn. fide Hattori (1975b).
- 22.10 *Frullania gaudichaudii* (Nees & Mont.) Nees & Mont. var. *ceylanica* (Nees) S.Hatt. [83, 94, 169]
Frullania ceylanica Nees [1, 2, 45, 83, 123, 148, 249]; type from Sri Lanka
Frullania nietneri Gottsche ex Steph. [44, 227]; type from Sri Lanka; syn. fide Verdoorn (1930).
- 22.11 *Frullania gracilis* (Reinw., Blume & Nees) Dumort. [1, 2, 87, 91, 169, 249]
- 22.12 *Frullania grandistipula* Lindenb. [1, 2, 86, 87, 91, 93, 97, 169, 206, 227, 249]
Frullania rugosa Mitt. [1, 2, 148, 227]; syntype and lectotype from Sri Lanka; syn. fide Hattori (1986)
Frullania grandistipula Lindenb. var. *rugosa* (Mitt.) S.Hatt. [88]
- 22.13 *Frullania hottana* S.Hatt. [97, 169]
- 22.14 *Frullania hypoleuca* Nees [169]
- 22.15 *Frullania intermedia* (Reinw., Blume & Nees) Dumort. [1, 2, 95, 123, 249]
Frullania explanata Mitt. [148]; type from Sri Lanka; syn. fide Hattori (1975b)
- 22.16 *Frullania meyeniana* Lindenb. [88, 93, 169]
- 22.17 *Frullania microauriculata* Verd. [1, 2, 169]
- 22.17a *Frullania microauriculata* Verd. var. *rotundior* Verd. [87, 249]; syntype from Sri Lanka
- 22.18 *Frullania moniliata* (Reinw., Blume & Nees) Mont. [110, 195, 227, 234]
Frullania tamarisci (L.) Dumort. subsp. *moniliata* (Reinw., Blume & Nees) Kamimura [129]
- 22.18a *Frullania moniliata* (Reinw., Blume & Nees) Mont. subsp. *breviramea* (Steph.) Verd. [1, 2, 249]
Frullania tamarisci (L.) Dumort. subsp. *obscura* (Verd.) S.Hatt. var. *breviramea* (Steph.) S.Hatt. [169]
- 22.18b *Frullania moniliata* (Reinw., Blume & Nees) Mont. subsp. *obscura* Verd. [1, 2, 234, 249]
Frullania tamarisci (L.) Dumort. subsp. *obscura* (Verd.) S.Hatt. [82, 88, 93]
- 22.19 *Frullania monocera* (Taylor) Taylor
Frullania hampeana Nees [1, 2, 94, 249]; syn. fide Hattori (1985)
- 22.19a *Frullania monocera* (Taylor) Taylor var. *schiffneri* (Verd.) S.Hatt.
Frullania acutiloba Mitt. var. *schiffneri* Verd. [86]
- 22.20 *Frullania neurota* Taylor [1, 2, 83, 93, 169, 206, 229, 249, 259]
Frullania aperta Gottsche [44]; nom. nud.; syn. fide Verdoorn (1930)
- 22.21 *Frullania nodulosa* (Reinw., Blume & Nees) Nees [1, 2, 169, 249]
Frullania thuillieri Nees [45, 148]; syntype from Sri Lanka; syn. fide Kamimura (1961)
- 22.22 *Frullania orientalis* Sande Lac. [87, 91, 99]
(*Frullania pallida* Gottsche nom. nud. [44]; identity unknown)
- 22.23 *Frullania polyptera* Taylor [93, 94, 96]
- 22.23a *Frullania polyptera* Taylor var. *angustata* (Mitt.) S.Hatt. [88, 169]
Frullania angustata Mitt. [148, 227]; syntypes from Sri Lanka. Onraedt (1981) wrongly gave this as a synonym of *Frullania campanulata*.
(*Frullania poondeloyae* Gottsche nom. nud. [44]; identity unknown)
- 22.24 *Frullania ramuligera* (Nees) Mont. [83, 93, 96, 169]
- 22.25 *Frullania riojaneirensis* (Raddi) Spruce [1, 99, 96, 229]
Frullania galeata (Reinw., Blume & Nees) Dumort. [87, 249]; syn. fide Svhla (19566).
- 22.26 *Frullania serrata* Gottsche [84, 93, 169, 206, 249]
Frullania latistipula Steph. [227]; syntype from Sri Lanka; syn fide Verdoorn (1930)
- 22.26a *Frullania serrata* Gottsche forma *crispulodentata* Verd. [1, 2, 91, 99, 248]
(*Frullania tamarisci* (L.) Dumort. [148, 206]; records from Asia mostly refer to *F. moniliata* (L. Söderström, pers. comm.)

22.27 *Frullania ternatensis* Gottsche [1, 2, 84, 93, 169, 249]

Frullania pendula Mitt. [148]; type from Sri Lanka; syn. fide Hattori (1975b)

Note: Stephani (1898–1925) treated *F. pendula* twice, as a distinct species and as a synonym of *Frullania ceylanica*.

22.28 *Frullania trichodes* Mitt.

Frullania vethii Sande Lac. [169]; syn. fide Hattori & Piippo (1986)

Herbertaceae

23.1 *Herbertus ceylanicus* (Steph.) H.A.Miller [1, 2, 80, 127, 146, 169]

Schisma ceylanicum Steph. [227]; type from Sri Lanka.

23.2 *Herbertus dicranus* (Taylor ex Gottsche, Lindenb. & Nees) Trevis. [126, 127]

Sendtnera dicrana Taylor ex Gottsche, Lindenb. & Nees [148]

Herbertus perrottetii (Steph.) Abeyw. [1, 2, 146]

Schisma perrottetii Steph. [227]; type from Sri Lanka; synonymised by Juslén (2006)

Schisma wichurae Steph. [1, 2, 169, 227]; type from Sri Lanka; synonymised by Juslén (2006); according to Reimers (1931) the Wichura type specimen was wrongly cited by Stephani as from China and is from Sri Lanka.

(*Herbertus fragilis* (Steph.) H.A.Miller [169]. According to Juslén (2006) this is a synonym of *H. aduncus* (Dicks.) Gray which is not reported from Sri Lanka; Juslén states that many specimens labelled *H. fragilis* belong to *H. dicranus*).

23.3 *Herbertus ramosus* (Steph.) H.A.Mill. [127]

Jackiellaceae

24.1 *Jackiella ceylanica* Schiffn. ex Steph. [1, 2, 169, 227]; type from Sri Lanka.

24.2 *Jackiella javanica* Schiffn. [1, 2, 169, 178]

Jubulaceae

25.1 *Jubula hutchinsiae* (Hook.) Dumort. subsp. *javanica* (Steph.) Verdoorn [37]

Lejeuneaceae

26.1 *Acanthocoleus gilvus* (Gottsche) Kruijt [33, 138]

Dicranolejeunea gilva (Gottsche) Steph. [171]

27.1 *Acrolejeunea emergens* (Mitt.) Steph. [48, 61, 169, 171].

(*Acrolejeunea fertilis* (Reinw., Blume & Nees) Schiffn. [46, 76, 138, 158]

Lejeunea fertilis (Reinw., Blume & Nees) Mitt., hom. illeg. [148];

Ptychocoleus ustulatus (Taylor) Steph. [1, 2, 110]; all records from Sri Lanka are doubtful and may refer to *A. emergens* (Gradstein & Inoue, 1980)

27.2 *Acrolejeunea planiuscula* (Mitt.) Steph. [76]

27.3 *Acrolejeunea pycnoclada* (Taylor) Schiffn. [46, 48, 169, 171]

Ptychocoleus pycnocladus (Taylor) Steph. [1, 2, 227, 251]

Lejeunea pycnoclada (Taylor) Mitt. [148]

28.1 *Caudalejeunea cristiloba* (Steph.) Gradst. [47, 169, 171, 267]

28.2 *Caudalejeunea reniloba* (Gottsche) Steph. [37, 48, 123, 145, 169, 171, 235]

Caudalejeunea lessonii Steph. [169, 171]; syn. fide Zhu & So (2001).

29.1 *Cheilolejeunea ceylanica* (Gottsche) R.M.Schust. & Kachroo [37, 63, 157, 159, 169, 193, 232, 267, 268]

Cheilolejeunea trapezia (Nees) Mizut. var. *ceylonica* (Gottsche) A.E.D.Daniels & Kariyappa [32]

Pycnolejeunea ceylanica (Gottsche) Schiffn. [1, 2, 109, 110, 227, 228]

Lejeunea ceylanica Gottsche [45, 148]; type from Sri Lanka.

29.2 *Cheilolejeunea decurrens* (Sande Lac.) X.-L.He [169]

29.3 *Cheilolejeunea decursiva* (Sande Lac.) R.M.Schust. [57, 59, 263]

29.4 *Cheilolejeunea gardneri* (Mitt.) Mizut. [150]

Pycnolejeunea gardneri (Mitt.) Steph. [1, 2, 109, 227, 232]

Lejeunea gardneri Mitt. [148]; type from Sri Lanka.

29.5 *Cheilolejeunea imbricata* (Nees) S.Hatt. [123, 169]

29.6 *Cheilolejeunea intertexta* (Lindenb.) Steph. [2, 10, 63, 80, 153, 156, 159, 169]

Cheilolejeunea kurzii Steph. [169]; syn. fide Kitagawa (1981).

29.7 *Cheilolejeunea krakakammae* (Lindenb.) R.M.Schust. [261]

- 29.8 *Cheilolejeunea lindenbergii* (Gottsche) Mizut. [169, 190, 193]
Hygrolejeunea lindenbergii (Gottsche) Steph. [1, 2, 227]
Lejeunea lindenbergii Gottsche [45, 228]; syntype from Sri Lanka.
- 29.9 *Cheilolejeunea longiloba* (Steph. ex G.Hoffm.) J.J Engel & B.C.Tan [169, 267]
- 29.10 *Cheilolejeunea nietneri* (Steph.) Mizut. [68, 169]
Harpalejeunea nietneri Steph. [1, 2, 227]; type from Sri Lanka.
Cheilolejeunea orientalis (Gottsche) Mizut.
Euosmolejeunea orientalis (Gottsche) Steph. [1, 2, 227]; these reports are based on a Nietner specimen redetermined by Mizutani (1972) as *C. trifaria*
- 29.11 *Cheilolejeunea serpentina* (Mitt.) Mizut. [10, 63, 150, 169, 231]
Euosmolejeunea serpentina (Mitt.) Steph. [1, 2, 227]
Lejeunea serpentina Mitt. [148]; type from Sri Lanka.
- 29.12 *Cheilolejeunea streimannii* Pócs & Ninh [191]
- 29.13 *Cheilolejeunea subopaca* (Mitt.) Mizut. [169, 267, 268]
- 29.14 *Cheilolejeunea trapezia* (Nees) Mizut. [33]
Pycnolejeunea trapezia (Nees) Steph. [1, 2]
- 29.15 *Cheilolejeunea trifaria* (Reinw., Blume & Nees) Mizut. [80, 156, 159]
Euosmolejeunea trifaria (Reinw., Blume & Nees) Spruce [1, 2]
Cheilolejeunea turgida (Mitt.) W. Ye & R.L. Zhu
Lejeunea turgida Mitt. [148]; syntype from Sri Lanka; this record is erroneous (Grolle & Piippo, 1990)
- 29.16 *Cheilolejeunea vittata* (Steph. ex G.Hoffm.) R.M.Schust. & Kachroo [169, 268]
- 30.1 *Cololejeunea amoena* Benedix [169]
- 30.2 *Cololejeunea appressa* (A.Evans) Benedix [169]
- 30.3 *Cololejeunea ceratilobula* (P.C.Chen) R.M.Schust. [9, 33, 267]
- 30.4 *Cololejeunea ceylanica* Onr. [9, 33, 37, 168, 169, 264, 267]; type from Sri Lanka.
- 30.5 *Cololejeunea cordiflora* Steph. [190]
- 30.6 *Cololejeunea desciscens* Steph. [37, 192, 267]
Cololejeunea formosana Mizut. [169]; syn. fide Pócs & Piippo (2011)
- 30.7 *Cololejeunea falcata* (Horik.) Benedix [192, 193, 235, 260, 267]
Cololejeunea falcatooides Benedix [145, 169, 234]; syn. fide Zhu & So (2001)]
- 30.8 *Cololejeunea fissilobula* Herz. [169 'aff']
- 30.9 *Cololejeunea floccosa* (Lehm. & Lindenb.) Steph. [9, 33, 37, 169, 235, 267]
- 30.9a *Cololejeunea floccosa* (Lehm. & Lindenb.) Steph. var. *aurita* Benedix [192, 235, 236]
- 30.9b *Cololejeunea floccosa* (Lehm. & Lindenb.) Steph. var. *trivitata* Tixier [236]
- 30.10 *Cololejeunea fredericii* Onr. [166, 169, 238]; type from Sri Lanka
- 30.11 *Cololejeunea gottschei* (Steph.) Mizut. [1, 2, 9, 151, 169, 267]
Physocolea gottschei Steph. [227]; syntype from Sri Lanka
- Note: this was synonymised under *C. longifolia* by Tixier (1984, 1985) but maintained by Zhu & So (2001) and Asthana & Srivastava (2003).
- 30.12 *Cololejeunea gynophthalma* Benedix [234]
- 30.13 *Cololejeunea haskarliana* (Lehm. & Lindenb.) Steph. [9, 33, 169, 267]
Lejeunea haskarliana Lehm. & Lindenb. [45]
Schiffnerolejeunea haskarliana (Lehm. & Lindenb.) Gradst. [169]
- 30.14 *Cololejeunea hinidumae* Onr. [142, 169]; type from Sri Lanka.
- 30.15 *Cololejeunea inflata* Steph. [169, 267]
Cololejeunea oshimensis (Horik.) Benedix [235]; syn. fide Zhu & So (2001).
- 30.16 *Cololejeunea inflectens* (Mitt.) Benedix ("inflectidens") [1, 2, 12, 169, 193, 260, 267]
Campylolejeunea inflectens (Mitt.) Mizut. [150]
Lejeunea inflectens Mitt. [148]; type from Sri Lanka
Physocolea inflectens (Mitt.) Steph. [227]
- 30.17 *Cololejeunea lanciloba* Steph. [33, 37, 169, 267]
Cololejeunea bolombensis (Steph.) Vanden Berghe [169]; syn. fide Zhu & So (2001).
- 30.18 *Cololejeunea leonidens* Benedix var. *saccata* Benedix [169]
Note: *C. leonidens* was given as a synonym of *C. ocelloides* (Horik.) S.Hatt. by Zhu & So (2001).
- 30.19 *Cololejeunea longifolia* (Mitt.) Benedix ex Mizut. [9, 23, 237]
- 30.20 *Cololejeunea metzgeriopsis* (K.I.Goebel) Gradst., R.Wilson, Ilkiu-Borges & J. Heinrichs [36]
- 30.21 *Cololejeunea minutissima* (Sm.) Schiffn. [169]

- 30.22 *Cololejeunea obliqua* (Nees & Mont.) Schiffn.
Cololejeunea scabrifolia Schiffn., nom. inval. [169]; syn. fide Grolle (1995) and Zhu & So (2001).
30.23 *Cololejeunea peraffinis* (Schiffn.) Schiffn. [169, 267]
30.24 *Cololejeunea perakensis* Tixier [235, 238]
Note: not validly published until Tixier (1985).
30.25 *Cololejeunea planissima* (Mitt.) Abeyw. [1, 2, 9, 33, 149, 160, 169, 192, 238, 267]
Lejeunea planissima Mitt. [148]; type from Sri Lanka
Physcocolea planissima (Mitt.) Steph. [227]
30.26 *Cololejeunea pluripunctata* Benedix [169]
30.27 *Cololejeunea pretiosa* Benedix [37]
Note: Tixier (1985) treats this as a synonym of *C. hispidissima* (Steph.) Pandé, but this is a synonym of *C. haskariana* (Zhu & So, 2001).
30.28 *Cololejeunea pseudofloccosa* (Horik.) Benedix [33, 169, 192, 234, 267]
Taeniolejeunea pseudofloccosa (Horik.) S.Hatt. [1, 2, 173]
30.29 *Cololejeunea schmidii* Steph. [193, 237, 260, 267]
30.30 *Cololejeunea serrata* (Steph.) Benedix [1, 2, 12, 16, 169, 192, 267]
Physcocolea serrata Steph. [227]; type from Sri Lanka.
30.31 *Cololejeunea taprobanea* Tixier [238]; type from Sri Lanka
30.32 *Cololejeunea tenella* Benedix [37, 169, 192, 264, 267]
30.33 *Cololejeunea triapiculata* (Herzog) Tixier [169, 192, 234, 235, 238]
30.34 *Cololejeunea trichomanis* (Gottsche) Steph. subsp. *cordiflora* (Steph.) Pócs [192]
30.35 *Cololejeunea vesicaria* (Sande Lac.) Benedix [169]
30.36 *Cololejeunea vidaliana* Tixier [235, 238, 267]
31.1 *Colura acroloba* (Mont. ex Steph.) Ast [1, 2, 37, 124, 167, 169, 234, 235, 267]
31.2 *Colura ari* (Steph.) Steph. [1, 2, 52, 167, 169, 267]
31.3 *Colura brevistyla* Herzog [103, 124, 167, 169, 193]; type from Sri Lanka
31.4 *Colura calyptrifolia* (Hook.) Dumort. [167, 267]
31.5 *Colura conica* (Sande Lac.) K.I.Goebel [167, 169]
Colura acutifolia Ast.; syn. fide Zhu & So (2001).
31.6 *Colura corynephora* (Gottsche, Lindenb. & Nees) Trevis. [167, 169, 267]
31.7 *Colura greig-smithii* Ast [167]
31.8 *Colura javanica* Steph. [103]
31.9 *Colura meijeri* Ast [37]
31.10 *Colura ornata* K.I.Goebel [167, 169]
31.11 *Colura tenuicornis* (A.Evans) Steph.
Colura calyptrifolia (Hook.) Dumort. subsp. *tenuicornis* (A.Evans) Vanden Berghen [169]
31.12 *Colura verdoornii* Herzog & Ast [37]
(*Dicranolejeunea ceylanica* Steph. nom. nud. [24]; original material from Sri Lanka; this belongs to
Acrolejeunea but species uncertain (Mizutani, 1980a)).
32.1 *Diplasiolejeunea cavifolia* Steph. [37]
32.2 *Diplasiolejeunea onraedtii* Grolle [60, 169]; type from Sri Lanka.
32.3 *Diplasiolejeunea rudolphiana* Steph. [169, 267]
33.1 *Drepanolejeunea angustifolia* (Mitt.) Grolle [33, 34, 169, 267]
33.2 *Drepanolejeunea fissicornua* Steph. [104]
33.3 *Drepanolejeunea fleischeri* (Steph.) Grolle & R.L.Zhu [8, 33, 34, 75, 267]
Leptolejeunea fleischeri Steph. [1, 2, 227]; type from Sri Lanka
Rhaphidolejeunea fleischeri (Steph.) Herzog [17, 18, 108].
33.4 *Drepanolejeunea macrodonta* (Mitt.) Steph. [1, 2, 227]
Lejeunea macrodonta Mitt. [148]; type from Sri Lanka.
33.5 *Drepanolejeunea pentadactyla* (Mont.) Steph.
Drepanolejeunea micholitzii Steph. [169]; syn. fide Piippo (1990).
Drepanolejeunea micholitzii Steph. var. *dactylophoroides* Herzog [235]
33.6 *Drepanolejeunea tenera* K.I.Goebel [169]
33.7 *Drepanolejeunea ternatensis* (Gottsche) Schiffn. [34, 169, 267]
33.8 *Drepanolejeunea teysmannii* Steph. [37]
33.9 *Drepanolejeunea thwaitesiana* (Mitt.) Steph. [1, 2, 104, 105, 123, 145, 164, 169, 227, 235]
Lejeunea thwaitesiana Mitt. [148]; type from Sri Lanka
Ceratolejeunea thwaitesiana (Mitt.) Steph. [1, 2, 169, 227, 235]

- Note: *Lejeunea thwaitesiana* Mitt. was treated twice by Stephani (1898–1925) under both *Drepanolejeunea* and *Ceratolejeunea*.
- 33.9a *Drepanolejeunea thwaitesiana* (Mitt.) Steph. var. *zhengii* R.L.Zhu [267]
- 33.10 *Drepanolejeunea vesiculosa* (Mitt.) Steph. [1, 2, 34, 106, 169, 227, 267]
Lejeunea vesiculosa Mitt. [148]; type from Sri Lanka
- 34.1 *Harpalejeunea filicuspis* (Steph.) Mizut. [62, 68, 169]
- 35.1 *Lejeunea anisophylla* Mont. [33, 191, 267]
Lejeunea borneensis Steph. [169]; syn. fide Zhu & So (2001).
- 35.2 *Lejeunea apiculata* Sande Lac [33, 193]
Stenolejeunea apiculata (Sande Lac.) R.M.Schust. [169, 267]
Taxilejeunea apiculata (Sande Lac.) Eifrig nom. illeg. [169]
- 35.3 *Lejeunea cocoes* Mitt. [1, 2, 16, 143, 148, 150, 193, 217, 227, 267]; type from Sri Lanka.
- 35.4 *Lejeunea dipterota* Eifrig [234]
- 35.5 *Lejeunea discreta* Lindenb. [33, 155, 169, 267]
Hygrolejeunea discreta (Lindenb.) Steph. [1, 2, 38, 234]
- 35.6 *Lejeunea flava* (Sw.) Nees [33, 169]
- 35.7 *Lejeunea flavidula* Mitt. [148, 169]; type from Sri Lanka
Pycnolejeunea flavidula (Mitt.) Steph. [1, 2, 109, 150, 227].
(Lejeunea grandiloba Gottsche, nom. nud. [44]; identity unknown)
- 35.8 *Lejeunea herzogii* Mizut. [169]
- 35.9 *Lejeunea lowriana* Steph. [169]
- 35.10 *Lejeunea micholitzii* Mizut. [193, 235]
- 35.11 *Lejeunea neelgherriana* Gottsche [37, 265, 267]
Harpalejeunea indica Steph. [234]; syn. fide Grolle & Reiner-Drehwald (1999).
- 35.12 *Lejeunea nietneri* (Steph.) Steph [1, 2, 17]
Eulejeunea nietneri Steph. [226]; type from Sri Lanka
? *Lejeunea nietneri* Gottsche nom. nud. [44]; original material from Sri Lanka.
- 35.13 *Lejeunea obfusca* Mitt. [1, 2, 148, 150, 169, 227, 267]; type from Sri Lanka.
- 35.14 *Lejeunea obscura* Mitt. [33, 169, 267]
- 35.15 *Lejeunea papilionacea* Steph. [33]
- 35.16 *Lejeunea riparia* Mitt. [148, 150, 196]; type from Sri Lanka
Cheilolejeunea riparia (Mitt.) M.E.Reiner
Rectolejeunea riparia (Mitt.) Steph. [1, 2, 227]
- 35.17 *Lejeunea subacuta* Mitt. [33, 150, 155]
- 35.18 *Lejeunea tuberculosa* Steph. [143]
- 35.19 *Lejeunea utricularia* (Steph.) Mizut.
Pycnolejeunea utricularia Steph. [1, 2, 227]
- 35.20 *Lejeunea wightii* Lindenb. [80]
- 36.1 *Lepidolejeunea bidentula* (J.B.Jack & Steph.) R.M.Schust. [267]
Pycnolejeunea badia Steph. [169]; syn. fide Zhu & So (2001)
- 37.1 *Leptolejeunea elliptica* (Lehm. & Lindenb.) Schiffn. [33, 169]
Leptolejeunea subacuta Steph. [235]; syn. fide Zhu & So (2001)
- 37.2 *Leptolejeunea epiphylla* (Mitt.) Steph. [1, 2, 107, 123, 169, 227, 234, 235, 267]
Lejeunea epiphylla Mitt. [148]; type from Sri Lanka
- 37.3 *Leptolejeunea maculata* (Mitt.) Schiffn. [1, 2, 37, 56, 107, 123, 169, 227, 267]
Lejeunea maculata Mitt. [148]; type from Sri Lanka.
- 37.4 *Leptolejeunea massartiana* Schiffn. ex Herzog [235]
- 37.5 *Leptolejeunea rhombifolia* Steph. [235]
- 37.6 *Leptolejeunea vitrea* (Nees) Schiffn. [169, 190, 234, 235]
- 38.1 *Leucolejeunea xanthocarpa* (Lehm. & Lindenb.) A.Evans [1, 2, 149, 169, 171, 195, 251]
Lejeunea xanthocarpa (Lehm. & Lindenb.) Lehm. & Lindenb. [44]
- 39.1 *Lopholejeunea applanata* (Reinw., Blume & Nees) Schiffn. [76, 262]
Lejeunea applanata (Reinw., Blume & Nees) Nees [148] 'adplanata'.
- 39.2 *Lopholejeunea nigricans* (Lindenb.) Steph.
Lopholejeunea arbortiva (Mitt.) Steph. [171]; syn. fide Zhu & Gradstein (2005).
- 39.3 *Lopholejeunea ceylanica* Steph. [1, 2, 37, 48, 76, 161, 169, 171, 227, 230, 251, 262]; syntype and lectotype from Sri Lanka.
Lopholejeunea longiloba Steph. [227] [251]; type from Sri Lanka; syn. fide Zhu & Gradstein

- (2005)
? *Phragmicomia ceylanica* Gottsche nom. nud. [44]
- 39.4 *Lopholejeunea eulopha* (Taylor) Schiffn. [76, 262]
39.5 *Lopholejeunea javanica* (Nees) Schiffn. [161, 266]
39.6 *Lopholejeunea subfusca* (Nees) Schiffn. [1, 2, 48, 52, 76, 80, 149, 169, 171, 227, 234, 250, 251, 262]
Lejeunea subfusca (Nees) Nees & Mont. [148]
39.7 *Lopholejeunea zollingeri* (Steph.) Schiffn. [76, 262]
Lopholejeunea nipponica Horik. [169, 171]; syn. fide Zhu & Gradstein (2005)
- 40.1 *Mastigolejeunea auriculata* (Wilson) Schiffn. [48]
40.2 *Mastigolejeunea humilis* (Gottsche) Schiffn. [1, 2, 48, 98, 169, 171, 250, 251]
40.2a *Mastigolejeunea humilis* (Gottsche) Schiffn. var. *ciliata* Awasthi & Udar [11]
40.3 *Mastigolejeunea repleta* (Taylor) A.Evans [2, 48, 98, 133]
Lejeunea repleta Taylor [148]
Mastigolejeunea atypos (Schiffn.) Steph. [1, 227]; syn. fide Gradstein & Inoue (1980).
- 40.4 *Mastigolejeunea virens* (Ångstr.) Steph. [76, 162]
41.1 *Metalejeunea cucullata* (Reinw., Blume & Nees) Grolle
Microlejeunea cucullata (Reinw., Blume & Nees) J.B.Jack & Steph. [169, 235]
(*Microlejeunea lunulatilobula* Horik. was reported by Miller et al. (1983) but no source was given for the record)
- 42.1 *Microlejeunea punctiformis* (Taylor) Spruce [1, 2, 33, 110, 191, 227]
Lejeunea punctiformis Taylor [80, 98, 149, 150, 267]
Lejeunea gracillima Mitt. [148]; type from Sri Lanka; syn. fide Mizutani (1963)
Microlejeunea gracillima (Mitt.) Carringt. & Pearson [1, 2, 21, 227]
- 43.1 *Ptychanthus striatus* (Lehm. & Lindenb.) Nees [2, 33, 48, 76, 169, 251]
Ptychanthus striatus (Lehm. & Lindenb.) Nees var. *retusus* (Reinw., Blume & Nees) Verd. [1, 2];
syn. fide Haerida et al. (2010)
Ptychanthus birmensis Steph. [1, 2]; syn. fide Verdoorn (1934)
Ptychanthus effusus Steph. [1, 2, 227]; syntype from Sri Lanka; syn. fide Verdoorn (1934)
Ptychanthus nietneri (Steph.) Schiffn. [1, 2, 227]; type from Sri Lanka; syn. fide Verdoorn (1934)
Ptycholejeunea nietneri Steph. [226]; type from Sri Lanka; syn. fide Verdoorn (1934)
? *Phragmicomia nietneri* Gottsche nom. nud. [44] is probably a synonym.
- 44.1 *Pycnolejeunea grandiocellata* Steph. [100, 169]
45.1 *Schiffneriolejeunea polycarpa* (Nees) Gradst. [48, 169, 171]
45.2 *Schiffneriolejeunea pulopenangensis* (Gottsche) Gradst. [48, 169, 171]
Ptychocoleus pulopenangensis (Gottsche) Trevis. [1, 2, 250, 251]
45.3 *Schiffneriolejeunea tumida* (Nees) Gradst. [48, 49, 169, 171, 230]
Ptychocoleus peradeniensis (Mitt.) Steph. [1, 2, 227, 250, 251]; syn. fide Gradstein & Inoue (1980)
Lejeunea peradeniensis Mitt. [148]; type from Sri Lanka
Ptychocoleus cumingianus auct. non (Mont.) Trevis. [1, 2]; syn. fide Gradstein & Inoue (1980)
45.3a *Schiffneriolejeunea tumida* (Nees) Gradst. var. *hasskarliana* (Gottsche) Gradst. & Terken [49, 171]
Schiffneriolejeunea hasskarliana (Gottsche) Gradst. [169]
- 46.1 *Spruceanthus marianus* (Gottsche) Mizut. [48, 169, 171]
Archilejeunea mariana (Gottsche) Steph. [1, 2]
46.2 *Spruceanthus semirepandus* (Nees) Verd. [1, 2, 48, 76, 169, 171, 251]
Lejeunea semirepanda (Nees) Nees & Mont. [148]
- 47.1 *Taxilejeunea compressiuscula* Lindenb. ex Steph. [169]
48.1 *Thysananthus convolutus* Lindenb. [37]
48.2 *Thysananthus spathulistipus* (Reinw., Blume & Nees) Lindenb. [1, 2, 48, 169, 171, 251]
Lejeunea spathulistipa (Reinw., Blume & Nees) Mitt. [148]
- 49.1 *Trocholejeunea infuscata* (Mitt.) Verd. [1, 2, 33, 48, 163, 251]
49.2 *Trocholejenea sandvicensis* (Gottsche) Mizut. [33, 48, 169, 171]
Brachiolejeunea sandvicensis (Gottsche) A.Evans [1, 2]
- 50.1 *Xenolejeunea longiloba* (Steph. ex G.Hoffm.) Kachroo & R.M.Schust. [235]

Lepicoleaceae

- (*Lepicolea ochroleuca* (Spreng.) Spruce [1, 2]
Sendtnera ochroleuca (Spreng.) Nees [148]; records from Sri Lanka are based on misidentifications
of *L. yakusimensis* fide Scott (1960)).

(*Lepicolea scolopendra* (Hook.) Dumort. [1, 2]; records from Sri Lanka are based on misidentifications of *L. yakusimensis* fide Scott (1960)).

51.1 *Lepicolea yakusimensis* (S.Hatt.) S.Hatt. [80, 102, 117, 134, 169, 204].

Lepidoziaceae

52.1 *Bazzania callida* (Steph.) Abeyw. [1, 130, 134, 169]

Mastigobryum callidum Steph. [2, 224, 227]

Mastigobryum intermedium Mitt. hom. illeg. [148, 227]; original material from Sri Lanka; syn. fide Stephani (1885).

52.2 *Bazzania ceylanica* (Mitt.) W.E.Nicholson [1, 2, 123, 152, 169]

Mastigobryum ceylanicum Mitt. [148, 227]; type from Sri Lanka

Bazzania grandistipula (Steph.) Abeyw. [1, 2]

Mastigobryum grandistipulum Steph. [227]; type from Sri Lanka; syn. fide Mizutani (1967a).

Bazzania lacerostipula (Steph.) Abeyw. [1, 2]

Mastigobryum lacerostipulum Steph. [227]; type from Sri Lanka; syn. fide Mizutani (1967a)

Bazzania stricta (Steph.) Abeyw. [1, 2]

Mastigobryum strictum Steph. [225, 227]; syn. fide Mizutani (1967a)

52.3 *Bazzania erosa* (Nees) Trevis. [134]

52.4 *Bazzania fleischeri* (Steph.) Abeyw. [1, 2, 152, 169]

Mastigobryum fleischeri Steph. [227]; syntype from Sri Lanka.

52.5 *Bazzania gaudichaudii* (Gottsche ex Steph.) Schiffn. [1, 2]

Mastigobryum gaudichaudii Gotsche ex Steph. [227]

52.6 *Bazzania japonica* (Sande Lac.) Lindb. [169]

52.7 *Bazzania obtusa* D.G.Long & Rubasinghe, *nom. nov.*

Mastigobryum obtusatum Mitt. [148, 227]; type from Sri Lanka

Bazzania obtusata (Mitt.) Abeyw., hom. illeg. non *Bazzania obtusata* (Taylor) Kuntze [1, 2, 80, 169]; see Appendix I for formal treatment.

52.8 *Bazzania oshimensis* (Steph.) Horik. [165, 169, 205]

52.9 *Bazzania ovistipula* (Steph.) Abeyw. [1, 2, 132, 134, 152, 165, 169, 205]

Mastigobryum ovistipulum Steph. [227]; type from Sri Lanka.

52.10 *Bazzania pearsonii* Steph. [152, 165, 205]

Bazzania rotundistipula (Steph.) Abeyw. [1, 2, 130]

Mastigobryum rotundistipulum Steph. [227]; syntype from Sri Lanka; syn. fide Mizutani (1967a)

Mastigobryum wichurae Steph. [227]; type from Sri Lanka; syn. fide Mizutani (1967a).

Pleuroschisma wichurae (Steph.) Reimers [195]; according to Reimers (1931) the Wichura type specimen, wrongly cited by Stephani from China, is from Sri Lanka.

52.11 *Bazzania praerupta* (Reinw., Blume & Nees) Trevis. [2, 130, 152, 165, 169, 189, 205]

Mastigobryum praeruptum Reinw., Blume & Nees [148]

Bazzania decurva (Nees) Kuntze [1, 2]; syn. fide Onraedt (1981).

Mastigobryum decurvum Nees [45, 148, 227]; syntype from Sri Lanka.

Bazzania sandei (Steph.) Abeyw. [1, 2]

Mastigobryum sandei Steph. [227]; syn. fide Onraedt (1981).

52.12 *Bazzania rabenhorstii* (Steph.) Abeyw. [1, 2]

Mastigobryum rabenhorstii Steph. [227]; type from Sri Lanka.

52.13 *Bazzania spiralis* (Reinw., Blume & Nees) Meijer [169]

52.14 *Bazzania tridens* (Reinw., Blume & Nees) Trevis. [80, 152, 169, 189, 205]

Bazzania oblonga (Mitt.) Schiffn. [1, 2]; syn. fide Onraedt (1981).

52.15 *Bazzania vittata* (Gottsche) Trevis. [1, 2, 169]

Mastigobryum vittatum Gotsche [148, 227]

53.1 *Hygrolepidium boschianum* (Sande Lac.) R.M.Schust. [2, 121, 169, 184, 203]

54.1 *Lepidozia plumula* Herz. [103]; type from Sri Lanka.

54.2 *Lepidozia subintegra* Lindenb. [154]

55.1 *Neolepidozia wallichiana* (Gottsche) Fulford & J.Taylor

Telaranea wallichiana (Gottsche) R.M.Schust. [39]

Lepidozia wallichiana Gotsche [1, 2, 37, 148, 169, 177, 205]

56.1 *Telaranea major* (Herz.) J.J.Engel & G.L.Merr. [39]

Arachniopsis major Herz. [37, 180]

- 57.1 *Tricholepidozia neesii* (Lindenb.) E.D.Cooper
Lepidozia neesii Lindenb. [1, 2, 227]
57.2 *Tricholepidozia semperiana* (Steph.) E.D.Cooper
Telaranea semperiana (Steph.) Del Ros. [39, 169]
Lepidozia semperiana Steph. [1, 2, 227]; syntype from Sri Lanka.

Lophocoleaceae

- 58.1 *Cryptolophocolea ciliolata* (Nees) L.Söderstr., Crand.-Stotl., Stotler & Váňa
Lophocolea ciliolata (Nees) Gottsche [1, 2, 148, 169, 179, 200, 227]
Chiloscyphus ciliolatus (Nees) J.J.Engel & R.M.Schust. [102]
58.2 *Cryptolophocolea fleischeri* (Steph.) L.Söderstr. [218]
Lophocolea fleischeri Steph. [1, 2, 227]; type from Sri Lanka
Chiloscyphus ceylonensis J.J.Engel, nom. nov. for *Lophocolea fleischeri*; type from Sri Lanka
59.1 *Heteroscyphus argutus* (Reinw., Blume & Nees) Schiffn. [169, 179, 186]
Chiloscyphus argutus (Reinw., Blume & Nees) Nees [80]
59.2 *Heteroscyphus fleischeri* (Steph.) D.G.Long & Rubasinghe, comb. nov.
Chiloscyphus fleischeri Steph. [1, 2, 227]; type from Sri Lanka; see Appendix I for formal treatment.
59.3 *Heteroscyphus perfoliatus* (Mont.) Schiffn.
Chiloscyphus perfoliatus (Mont.) Nees [148, 169]
(Heteroscyphus splendens (Lehm. & Lindenb.) Grolle
Chiloscyphus decurrens (Reinw., Blume & Nees) Nees [1, 2, 123]; syn. fide Piippo (1990); the cited source of this report (Stephani, 1898–1925) does not contain any record from Sri Lanka.)
59.4 *Heteroscyphus tener* (Steph.) Schiffn. [51, 187, 219]
59.5 *Heteroscyphus tridentatus* (Sande Lac.) Grolle [37]
60.1 *Lophocolea bidentata* (L.) Dumort. sens.lat. [50]
Lophocolea cuspidata (Nees) Limpr. [169]; syn. fide Paton (1999)
60.2 *Lophocolea javanica* Schiffn. [169, 179]
60.3 *Lophocolea kurzii* Sande Lac. [1, 2, 133, 169]
Chiloscyphus kurzii (Sande Lac.) J.J.Engel & R.M.Schust. [186]
Lophocolea peradeniensis Steph. [1, 227]; type from Sri Lanka; syn. fide Kitagawa (1973).
60.4 *Lophocolea muricata* (Lehm.) Nees [169]
(Saccogyna viticulosa (Sm.) Dumort. [1]; a north temperate species known from Europe and Macaronesia (Paton, 1999); this report is considered to be erroneous.)

Lophoziaceae s.str.

- 61.1 *Andrewsianthus puniceus* (Nees) R.M. Schust. ex Grolle [2, 121, 132, 134, 169]

Lunulariaceae

- 62.1 *Lunularia cruciata* (L.) Dumort. [1, 2, 169, 199]

Marchantiaceae

- 63.1 *Marchantia acaulis* Steph. [20]
63.2 *Marchantia emarginata* Reinw., Blume & Nees subsp. *emarginata* [20, 22]
Marchantia amboinensis Nees & Mont. [1, 2, 169, 199]; syn. fide Bischler (1989)
Marchantia palmata Nees [1, 2, 80, 169, 199]; syn. fide Bischler (1989)
(*Marchantia geminata* Reinw., Blume & Nees [1, 2, 128]; records probably refer to *M. acaulis* fide Bischler (1989))
(*Marchantia linearis* Lehm. & Lindenb. [1, 2, 128, 148]; records from Sri Lanka are considered to be *M. papillata* subsp. *grossibarba* by Bischler (1989))
63.3 *Marchantia paleacea* Bertol. [199]; not confirmed from Sri Lanka by Bischler (1989).
63.4 *Marchantia papillata* Raddi subsp. *grossibarba* (Steph.) Bischl. [20]
63.5 *Marchantia pappeana* Lehm. subsp. *robusta* (Steph.) Bischl. [20]
Marchantia robusta Steph. [23]; type from Sri Lanka (Bischler, 1989)], though type locality erroneously reported as Java by Stephani in Bonner (1953).
63.6 *Marchantia polymorpha* L. [1, 2, 128]; not confirmed from Sri Lanka by Bischler (1989) and records not assigned to subspecies.

Mastigophoraceae

- 64.1 *Mastigophora aequifolia* Steph. [1, 2, 227]; type from Sri Lanka.
 64.2 *Mastigophora diclados* (Brid. ex F.Weber) Nees [1, 2, 37, 98, 169]
Sendtnera diclados (Brid. ex F.Weber) Gottsche, Lindenb. & Nees [148]

Mesoptychiaceae

- 65.1 *Liochlaena subulata* (A. Evans) Schljakov
Jungermannia subulata A. Evans [74, 134, 169, 242]
Jungermannia leiantha Grolle subsp. *stephanii* (Amak.) S.Hatt. [80]; syn. fide Váňa (1973).

Metzgeriaceae

- (*Metzgeria albinea* Spruce [140, 182]; reports of this neotropical species probably refer to *M. foliicola* (So, 2002)).
- 66.1 *Metzgeria ciliata* Raddi [30]
Metzgeria decipiens (C.Massal.) Schiffn. & Gottsche [2, 140, 142, 169, 182]; syn. fide Costa (2008).
- 66.2 *Metzgeria conjugata* Lindb. [30]
Metzgeria lindbergii Schiffn. [33, 142, 169, 210]; syn. fide Costa (2008).
- 66.3 *Metzgeria consanguinea* Schiffn. [30, 33, 139, 141, 142, 182]
- 66.4 *Metzgeria crassipilis* (Lindb.) A.Evans [210];
- 66.5 *Metzgeria foliicola* Schiffn. [142, 169]; syn. fide Kuwahara (1984a).
- (*Metzgeria furcata* (L.) Dumort. [33, 142, 169, 199]; records from Sri Lanka probably refer to *M. ciliata* (Costa, 2008)).
- 66.6 *Metzgeria latifrons* Steph. [1, 2, 128, 227]; syntype from Sri Lanka
- 66.7 *Metzgeria lechleri* Steph. [30]
Metzgeria vivipara A.Evans [142, 169]; syn. fide Costa (2008).
- 66.8 *Metzgeria leptoneura* Spruce [210]
Metzgeria borneensis Kuwah. [141]; syn. fide So (2003b).
Metzgeria subhamata S.Hatt. [2, 121, 145]; syn. fide So (2003b).
Metzgeria luzonensis Kuwah. [142, 169]; syn. fide So (2003b).
Metzgeria papulosa Steph. [1, 2]; syn. fide So (2003b).

Notoscyphaceae

- 67.1 *Notoscyphus lutescens* (Lehm. & Lindenb.) Mitt. [80]
Gymnanthe lutescens (Lehm. & Lindenb.) Mitt. [148]
Notoscyphus paroicus Schiffn. [1, 2, 169, 227, 239]; syn. fide Váňa & Long (2009).

Pallaviciniaceae

- 68.1 *Jensenia decipiens* (Mitt.) Grolle [66, 128]
Pallavicinia decipiens (Mitt.) Steph. [1, 2, 227]
Steetzia decipiens Mitt. [148]; type from Sri Lanka.
- 69.1 *Pallavicinia indica* Schiffn. [2, 128]
- 69.2 *Pallavicinia lyellii* (Hook.) Gray [1, 2, 128, 169, 199]
Steetzia lyellii (Hook.) Lehm. [148]

Plagiochilaceae

- (*Plagiochila acuta* Steph. [1, 2, 227]; these records are based on a misidentification of the Sri Lankan syntype collected by Nietner which is *P. microdonta* (Inoue, 1979)).
- 70.1 *Plagiochila arbuscula* (Lehm. & Lindenb.) Lindenb
Plagiochila belangeriana Lindenb. [80]; syn. fide Inoue (1984).
- 70.2 *Plagiochila bantamensis* (Reinw., Blume & Nees) Mont. [71, 120, 207]
Plagiochila lobulata Schiffn. [80, 118, 169]; syn. fide Inoue (1984)
Plagiochila onraedtii Inoue [118, 169]; type from Sri Lanka; syn. fide So & Grolle (2000a)
- 70.3 *Plagiochila ceylanica* Mitt. [1, 2, 118, 148, 169, 227]; syntypes and lectotype (Inoue, 1979) from Sri Lanka.
Plagiochila macrantha Steph. [1, 2, 227]; type from Sri Lanka; syn. fide Inoue (1979)
Plagiochila neutiana Steph. [1, 2, 116, 227]; type from Sri Lanka; syn. fide Inoue (1979).
- 70.4 *Plagiochila devexa* Steph. [194, 207, 215]

- (*Plagiochila elegans* Mitt. [194]; this report cites a specimen from Sri Lanka in Mitten's herbarium (NY) but Mitten (1860–1861) did not mention any such specimen; a Sino-Himalayan species.)
- 70.5 *Plagiochila exigua* (Taylor) Taylor [207]
- 70.6 *Plagiochila flexuosa* Mitt. [72, 80, 118, 120, 169, 194, 207]
Plagiochila rufa Steph. [1, 2, 227]; type from Sri Lanka; syn. fide Inoue (1979).
- 70.7 *Plagiochila frondescens* (Nees) Lindenb. [1, 2, 118, 120, 181, 227]
- 70.8 *Plagiochila ghatiensis* Steph. [207]
Plagiochila acutiloba Inoue [118, 169]; syn. fide Grolle & So (1998).
Tylinanthus indicus Steph.; syn. fide Inoue (1979).
- 70.9 *Plagiochila gracilis* Lindenb. & Gottsche [80, 120, 194, 207]
Plagiochila firma Mitt. [118, 169]; syn. fide Inoue (1984)
- 70.10 *Plagiochila gymnoclada* Sande Lac. [118, 120, 181]
- 70.11 *Plagiochila integrilobula* Inoue [118, 120, 169, 191]
(*Plagiochila javanica* (Sw.) Nees & Mont. [1, 2, 227]; records should be referred to *P. neutiana* (Inoue, 1969) which is a synonym of *P. ceylanica*)
- 70.12 *Plagiochila khasiana* Mitt. [73, 148, 194, 207]; syntype from Sri Lanka
- 70.13 *Plagiochila kurzii* Steph. [207]
Plagiochila meijeri Inoue [118]; type from Sri Lanka; syn. fide So (2001).
(*Plagiochila liebmanniana* Lehm. & Lindenb. [1, 35, 227]; these reports were rejected as misidentifications by Inoue (1979), specimens are *P. flexuosa*)
- 70.14 *Plagiochila microdonta* Mitt. [1, 2, 118, 148, 169, 214, 227]; syntype from Sri Lanka.
Plagiochila aciculifera Steph. [1, 2, 227]; type from Sri Lanka; syn. fide Inoue (1979)
(*Plagiochila microphylla* Steph. Inoue (1981) gave *P. wichurae* as a synonym of *P. microphylla* but it belongs to *P. renitens*).
(*Plagiochila monticola* Gottsche nom. nud. non Schiffn. [44]; identity unknown)
(*Plagiochila nobilis* Gottsche [1, 2, 227]; record doubtful fide Inoue (1979) and not recorded from Sri Lanka by Inoue (1984).)
- 70.15 *Plagiochila parvifolia* Lindenb. [194]
Plagiochila ventricosa Steph. [1, 120, 207, 227]; syntype from Sri Lanka (Inoue, 1979); syn. fide So & Grolle (2000)
Plagiochila pseudoventricosa Inoue [2, 113, 118, 169]; type from Sri Lanka; syn. fide Inoue (1984).]
- 70.16 *Plagiochila peradenyensis* Schiffn. [1, 2, 70, 73, 118, 201, 216, 227]; type from Sri Lanka.
Plagiochila ramenticaulis Steph. [1, 2, 227]; type from Sri Lanka; syn. fide Inoue (1979)
- 70.17 *Plagiochila renitens* (Nees) Lindenb. [181, 212]
Plagiochila aequalis Mitt. [1, 35, 118, 148, 169, 227]; type from Sri Lanka; syn. fide Inoue (1984)
Plagiochila wichurae Steph. [119]; type from Sri Lanka (Reimers, 1931) though wrongly cited by Stephani as China; syn. fide So & Grolle (2000a).
- 70.18 *Plagiochila sciophila* Nees ex Lindenb. [207, 212]
Plagiochila acanthophylla Gottsche [118, 169]; syn. fide Inoue (1984)
Plagiochila cadens Inoue [118, 120, 169]; type from Sri Lanka; syn. fide So & Grolle (1999, 2000a).
(*Plagiochila semidecurrens* Lehm. & Lindenb. [1, 2, 227, 194]; this Sino-Himalayan species was recorded from Sri Lanka as var. *major* Lindenb.; the specimen may have originated from Hooker (Gottsche et al., 1844; Inoue, 1965a); records are considered doubtful (Inoue, 1979) as it has not been re-collected in Sri Lanka. Inoue (1968) placed *P. aequalis* as a synonym of *P. semidecurrens* but later (Inoue, 1984) transferred it to *P. renitens*).
- 70.19 *Plagiochila sisparensis* Steph. [72]
Plagiochila parvidentata Inoue [37, 118, 169]; type from Sri Lanka; syn. fide Grolle & So (1999b)
(*Plagiochila spinulosa* (Dicks.) Dumort. [199]; a European and Macaronesian species not known in Asia (So & Grolle, 2000a); identification considered erroneous)
(*Plagiochila wightii* Lindenb. [148]; record rejected by So & Grolle (2001))
- 71.1 *Plagiochilion braunianum* (Nees) S.Hatt. [2, 111, 118, 169, 181]
Plagiochila brauniana Nees [1, 110, 148, 200, 227]
- 71.2 *Plagiochilion oppositum* (Reinw., Blume & Nees) S.Hatt. [2, 80, 111, 118, 169, 181, 193]
Plagiochila opposita (Reinw., Blume & Nees) Lindenb. [1, 35, 44, 110, 148, 195, 227];
Plagiochila zygophylla Taylor [45]; syn. fide So & Grolle (2000a)

Note: a Wichura specimen from Sri Lanka was erroneously given as China by Stephani (1898–1925).

Pleuroziaceae

- 72.1 *Pleurozia acinosa* (Mitt.) Steph. [1, 2, 195, 227, 233]
Physiotium acinosum Mitt. [122, 148]; syntypes and lectotype from Sri Lanka (Thiers, 1993).
- 72.2 *Pleurozia gigantea* (F.Weber) Lindb. [1, 2, 52, 98, 169, 176, 195, 233]; the Wichura specimen from Sri Lanka was erroneously given as China by Stephani (1898–1925) according to Reimers (1931).
Physotium giganteum F.Weber [122]
Physotium sphagnoides A.Rich. ex Nees, *nom. illeg.* [148]
- 72.3 *Pleurozia subinflata* (Austin) Austin [233]
Pleurozia microcarpa (J.B.Jack) Steph. [1, 2, 227]
Physotium microcarpum J.B.Jack [122]; type from Sri Lanka; syn. fide Thiers (1993).

Porellaceae

- 73.1 *Porella acutifolia* (Lehm. & Lindenb.) Trevis. [81, 92, 169, 176, 188]
Madotheca acutifolia Lehm. & Lindenb. [1, 2, 148, 195, 227]
- 73.2a *Porella caespitans* Steph. subsp. *latior* (S.Hatt.) S.Hatt. [90]
Porella acutifolia (Lehm. & Lindenb.) Trevis. subsp. *latior* S.Hatt. [81, 92]; type from Sri Lanka
- 73.2b *Porella caespitans* (Steph.) S.Hatt. subsp. *latior* (S.Hatt.) S.Hatt. var. *intermedia* (S.Hatt.) S.Hatt. [169]
Porella acutifolia (Lehm. & Lindenb.) Trevis. subsp. *latior* S.Hatt. var. *intermedia* S.Hatt. [81, 92]
- 73.3 *Porella japonica* (Sande Lac.) Mitt. [169].
- 73.4 *Porella madagascariensis* (Nees & Mont.) Trevis. [79, 81, 92, 169, 188]
Madotheca nilgheriensis Mont. [1, 2]; syn. fide Hattori (1967)
- 73.5 *Porella perrottetiana* (Mont.) Trevis. [92, 169, 188]
Madotheca perrottetiana Mont. [1, 2, 110, 227]
Madotheca ciliaris Nees [148]; syn. fide Stephani (1898–1925).

Radulaceae

- 74.1 *Radula acuminata* Steph. [33, 37, 169, 170, 193, 234]
- 74.2 *Radula amentulosa* Mitt. [169, 170, 252, 255, 257, 258]
- 74.3 *Radula assamica* Steph. [33, 170, 191, 252, 255, 267]
- 74.4 *Radula ceylanica* K.Yamada [169, 170, 252, 255]; type from Sri Lanka.
- 74.5 *Radula cordata* Mitt. [37, 227]; earlier reports of this species [1, 2, 252] were based on a specimen of *R. kurzii* fide Yamada (1979a).
- 74.6 *Radula formosa* (Meissn.) Nees [1, 2, 26, 29, 148, 169, 170, 227, 252, 255, 257, 258]
- 74.7 *Radula javanica* Gottsche [1, 2, 37, 45, 148, 169, 170, 197, 211, 252, 255, 258]; syntype from Sri Lanka
Radula nietneri Steph. [1, 2, 227]; type from Sri Lanka; syn. fide Yamada (1979a)
Radula colliculosa Mitt. [29, 148]; syntypes from Sri Lanka; syn. fide Onraedt (1983).
- 74.8 *Radula kurzii* Steph. [28, 29, 37, 123, 169, 170, 252, 255]
Radula speciosa Gottsche ex Steph. [1, 2, 44, 223, 227, 252a]; type from Sri Lanka; syn. fide Verdoorn (1934).
- 74.9 *Radula madagascariensis* Gottsche [169, 170, 252, 255, 258]
- 74.10 *Radula nymanii* Steph. [169, 170]
- 74.11 *Radula obscura* Mitt. [33, 170, 252, 255]
- 74.12 *Radula onraedtii* K.Yamada [169, 170, 256]; type from Sri Lanka.
- 74.13 *Radula retroflexa* Taylor [169, 170, 252, 255, 258]
- 74.14 *Radula sandei* Steph. [29, 252b]
- 74.15 *Radula subpallens* Steph. [1, 2, 27, 29, 170, 227, 255, 258]; syntype from Sri Lanka.
- 74.16 *Radula tabularis* Steph. [170]
- 74.17 *Radula tjibodensis* K.I.Goebel [33, 169, 170]
- 74.18 *Radula ventricosa* Steph. [27, 29, 170, 255, 258]
- 74.19 *Radula yangii* K.Yamada [169, 170, 255, 257]
Radula pinnulata Yang *nom. illeg.* fide Yamada (1979a).

Ricciaceae

- 75.1 *Riccia attenuata* Pandé [2, 128]
- 75.2 *Riccia billardieri* Mont. & Nees [1, 2, 125, 128, 174]
- 75.3 *Riccia crispatula* Mitt. [1, 2, 128, 148, 174, 220, 227]; type from Sri Lanka.

75.4 *Riccia discolor* Lehm. & Lindenb. [2, 128, 169]

75.5 *Riccia huebeneriana* Lindenb. [37]

75.6 *Riccia sorocarpa* Bisch. [169]

Scapaniaceae

76.1 *Diplophyllum nanum* Herzog [169, 178, 222]

77.1 *Scapania lepida* Mitt. [1, 2, 148, 169, 227]; type from Sri Lanka.

Schistochilaceae

78.1 *Schistochila aligera* (Nees & Blume) J.B.Jack & Steph. [1, 2, 110, 123, 169, 176, 209, 227]

Gottschea aligera Nees & Blume [43, 148]

Schistochila commutata Steph. [227]; syntype from Sri Lanka; syn. fide So (2003a)

Schistochila fleischeri Steph. [1, 2, 227]; type from Sri Lanka; syn. fide So (2003a)

Schistochila philippinensis (Mont.) J.B.Jack & Steph. [1, 2, 25, 101, 169, 176]; syn. fide So (2003a)

Gottschea philippinensis Mont. [43]

Note: *S. aligera* and *S. philippinensis* are sometimes kept separate (Gao & Wu, 2004).

(*Schistochila neesii* (Mont.) Trevis. [1, 2, 25]; reports from Sri Lanka are based on specimens of *S. aligera* fide So (2003a))

78.2 *Schistochila sciurea* (Nees) Schiffn. [1, 2, 25, 80, 134, 169, 209]

Schistochila thwaitesii (Mitt.) Steph. [1, 2, 37, 227]

Gottschea thwaitesii Mitt. [148]; type from Sri Lanka; syn. fide So (2003a).

Solenostomataceae

79.1 *Solenostoma appressifolium* (Mitt.) Váňa & D. G. Long

Jungermannia appressifolia Mitt. [6, 169, 241, 245]

79.2 *Solenostoma ariadne* (Taylor ex Lehm.) R. M. Schust ex Váňa & D. G. Long

Jungermannia ariadne Taylor ex Lehm. [169]

79.3 *Solenostoma borneense* (Amakawa) Váňa, Hentschel & J. Heinrichs

Jungermannia borneensis Amakawa [169]

(*Solenostoma comatum* (Nees) C.Gao

Jungermannia comata Nees [1, 2, 227]; Váňa (1972) rejected all records of this species from Sri Lanka)

79.4 *Solenostoma hasskarlianum* (Nees) R.M.Schust. ex Váňa & D.G.Long

Jungermannia hasskarliana (Nees) Steph. [1, 2, 6, 199, 241, 245]

79.5 *Solenostoma javanicum* (Schiffn.) Steph.

Jungermannia herzogiana Váňa [169, 245]; syn. fide Váňa & Piippo (1989).

(*Solenostoma obovatum* (Nees) R.M.Schust.

Jungermannia obovata Nees [199]. A north temperate species not known in tropical Asia (Paton, 1999); report considered erroneous.)

79.6 *Solenostoma polyrhizoides* (Grolle ex Amakawa) Váňa & D. G. Long

Jungermannia polyrhizoides Grolle ex Amakawa [169]

79.7 *Solenostoma strictum* (Schiffn.) Váňa, Hentschel & J.Heinrichs

Jungermannia stricta (Schiffn.) Steph. [245]

79.8 *Solenostoma tetragonum* (Lindenb.) R. M. Schust. ex Váňa & D. G. Long

Jungermannia tetragona Lindenb. [6, 169, 241, 245]

79.9 *Solenostoma truncatum* (Nees) R. M. Schust. ex Váňa & D. G. Long

Jungermannia truncata Nees [5, 134, 245]

Jungermannia polyrhiza Hook. ex Lehm. & Lindenb. [80, 148, 169]; syn. fide Amakawa (1972).

Southbyaceae

80.1 *Southbya organensis* Herzog [243]

Southbya grollei N.Kitag. [169, 178]; syn. fide Váňa et al. (2012)

Targioniaceae

81.1 *Targionia hypophylla* L. [1, 2]

Trichocoleaceae

82.1 *Trichocolea pluma* (Reinw., Blume & Nees) Mont. [1, 2, 123, 169]

HORNWORTS

Anthocerotaceae

83.1 *Anthoceros agrestis* Paton

Aspiromitus punctatus (L.) Schljakov subsp. *agrestis* (Paton) R.M.Schust. [202]

83.2 *Anthoceros erectus* Kashyap [1, 2, 128]

84.1 *Folioceros amboinensis* (Schiffn.) Piippo [185]

Anthoceros amboinensis Schiffn. [1, 2, 128]

Folioceros spinisporus (Steph.) D.C. Bharadwaj [7]; syn. fide Piippo (1993a)

Folioceros mamillisporus (D.C.Bharadwaj) D.C.Bharadwaj; syn. fide Bharadwaj (1973)

Anthoceros mamillisporus (D.C.Bharadwaj) D.C.Bharadwaj [2, 128]

Aspiromitus mamillisporus D.C.Bharadwaj [13, 14]; type from Sri Lanka.

85.1 *Phaeoceros carolinianus* (Michx.) Prosk.

Phaeoceros laevis (L.) Prosk. subsp. *carolinianus* (Michx.) Prosk. [128, 169]

Anthoceros communis Steph. [1, 2]; syn. fide Hasegawa (1984).

(*Phaeoceros laevis* (L.) Prosk. [1, 2]; records probably refer to *P. carolinianus*.)

Dendrocerotaceae

86.1 *Dendroceros borbonicus* Steph. [77]

CONCLUSIONS

Abeywickrama & Jansen (1978a) published the only previous checklist of liverworts and hornworts of Sri Lanka. They reported 66 genera and 183 species of liverworts and 3 genera and 5 species of hornworts. The present list has increased these totals to 82 genera and 327 species of liverworts and 4 genera and 5 species of hornworts. The main reason for these changes is the numerous publications resulting from new field investigations over the past 36 years by many bryologists, mostly from other countries. These activities have been summarized by Rubasinghe & Long (2014). However, a number of early reports were not available to Abeywickrama & Jansen (1978a) and these have now been incorporated. Also, a number of species accepted by Abeywickrama & Jansen (1978a) have since been relegated to synonymy (e.g. the synonyms of *Folioceros amboinensis*) and others are considered doubtful, such as *Saccogyna viticulosa*.

The largest family of liverworts by far is the Lejeuneaceae with 25 genera and 138 species, including the largest genus *Cololejeunea* with 36 species. Outside the Lejeuneaceae the largest genera are *Frullania* with 28 species and *Plagiochila* with 19 accepted species. Complex thalloid liverworts are poorly represented with 10 genera and 20 species of which the largest are *Marchantia* and *Riccia*, both with 6 species. Why

the simple thalloid genus *Riccardia* (with only two species) is so poorly represented is puzzling, and surely others have been overlooked. These totals clearly indicate that the most important habitats in

Sri Lanka for liverworts are the wet evergreen forests with numerous small species, particularly epiphyllous Lejeuneaceae. However, further work in other habitats will surely reveal more species of hornworts and complex thalloid liverworts.

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APPENDIX I – FORMAL TAXONOMIC CHANGES

Bazzania obtusa D.G.Long & Rubasinghe, *nom. nov.* for *Mastigobryum obtusatum* Mitt., Journal of the Proceedings of the Linnean Society 5: 106. 1860.

Syn.: *Bazzania obtusata* (Mitt.) Abeyw., Ceylon Journal of Science, Biological Sciences 2: 45. 1959, *hom. illeg. non Bazzania obtusata* (Taylor) Kuntze, Revisio Generum Plantarum 833. 1891.

The plant described by Mitten (1960–1861) as *Mastigobryum obtusatum* Mitt. belongs to the genus *Bazzania*, and the combination *Bazzania obtusata* was made by Abeywickrama and Jansen (1978a). However this is illegitimate due to the existence of the earlier *Bazzania obtusata* (Taylor) Kuntze. The substitute name *Bazzania obtusa* is therefore proposed.

Heteroscyphus fleischeri (Steph.) D.G.Long & Rubasinghe, *comb. nov.*

Basionym: *Chiloscyphus fleischeri* Steph., Species Hepaticarum 6: 306. 1922. Type citation: ‘Insula Ceylon (Fleischer legit)’.

The genus *Chiloscyphus* Corda has been subdivided in various ways in the past, but the segregate genus *Heteroscyphus* Schiffn. is now widely accepted as one of these, with four other species recognised in Sri Lanka. From Stephani’s description (Stephani 1898–1925) *Chiloscyphus fleischeri* belongs to *Heteroscyphus* and is therefore formally transferred to that genus.

APPENDIX II – INDEX OF ACCEPTED NAMES AND SYNONYMS

Accepted names are given in bold italics; synonyms in italics.

- Acanthocoleus gilvus* (Gottsche) Kruijt 26.1
- Acrolejeunea emergens* (Mitt.) Steph. 27.1
- Acrolejeunea planiuscula* (Mitt.) Steph. 27.2
- Acrolejeunea pycnoclada* (Taylor) Schiffn. 27.3
- Anastrophyllum bidens* (Reinw, Blume & Nees) Steph. = 7.1
- Anastrophyllum imbricatum* (Wilson ex Gottsche, Lindenb. & Nees) Steph. 5.1
- Anastrophyllum piligerum* (Reinw., Blume & Nees) Steph. 5.2
- Andrewsianthus puniceus* (Nees) R.M. Schust. ex Grolle 61.1
- Aneura pinguis* (L.) Dumort. 8.1
- Anthoceros agrestis* Paton 83.1
- Anthoceros amboinensis* Schiffn. = 84.1
- Anthoceros communis* Steph. = 85.1
- Anthoceros erectus* Kashyap 83.2
- Anthoceros mamillisorporus* (D.C.Bharadwaj) D.C.Bharadwaj = 84.1
- Arachniopsis major* Herz. = 56.1
- Archilejeunea mariana* (Gottsche) Steph. = 46.1
- Aspiromitus mamillisorporus* D.C.Bharadwaj = 84.1
- Aspiromitus punctatus* (L.) Schljakov subsp. *agrestis* (Paton) R.M.Schust. = 83.1
- Bazzania callida* (Steph.) Abeyw. 52.1
- Bazzania ceylanica* (Mitt.) W.E.Nicholson 52.2
- Bazzania decurva* (Nees) Kuntze = 52.11
- Bazzania erosa* (Nees) Trevis. 52.3
- Bazzania fleischeri* (Steph.) Abeyw. 52.4
- Bazzania gaudichaudii* (Gottsche ex Steph.) Schiffn. 52.5
- Bazzania grandistipula* (Steph.) Abeyw. = 52.2
- Bazzania japonica* (Sande Lac.) Lindb. 52.6
- Bazzania lacerostipula* (Steph.) Abeyw. = 52.2
- Bazzania oblonga* (Mitt.) Schiffn. = 52.14
- Bazzania obtusa* D.G.Long & Rubasinghe 52.7
- Bazzania obtusata* (Mitt.) Abeyw. = 52.7
- Bazzania oshimensis* (Steph.) Horik. 52.8
- Bazzania ovistipula* (Steph.) Abeyw. 52.9
- Bazzania pearsonii* Steph. 52.10
- Bazzania praeerupta* (Reinw., Blume & Nees) Trevis. 52.11
- Bazzania rabenhorstii* (Steph.) Abeyw. 52.12
- Bazzania rotundistipula* (Steph.) Abeyw. = 52.10
- Bazzania sandei* (Steph.) Abeyw. = 52.11

- Bazzania spiralis*** (Reinw., Blume & Nees) Meijer 52.13
Bazzania stricta (Steph.) Abeyw. = 52.2
Bazzania tridens (Reinw., Blume & Nees) Trevis. 52.14
Bazzania vittata (Gottsche) Trevis. 52.15
Blasia pusilla L. 12.1
Brachiolejeunea sandvicensis (Gottsche) A.Evans = 49.2
Calypogeia alternifolia (Nees) Steph. = 14.1
Calypogeia apiculata (Steph.) Steph. 13.1
Calypogeia arguta Nees & Mont. 13.2
Calypogeia baldwinii Aust. = 15.1
Calypogeia ceylanica S.Hatt. & Mizut. 13.3
Calypogeia fissa (L.) Raddi 13.4
Calypogeia fragilis (Steph.) Inoue & H.A.Miller 13.5
Calypogeia fusca (Lehm.) Steph. = 15.1
Campylolejeunea inflectens (Mitt.) Mizut. = 30.16
Caudalejeunea cristiloba (Steph.) Gradst. 28.1
Caudalejeunea lessonii Steph. = 28.2
Caudalejeunea reniloba (Gottsche) Steph. 28.2
Cephalozia willisana Steph. = 17.1
Cephaloziella kiaeri (Austin) Pearson = 17.1
Cephaloziella willisana (Steph.) N.Kitag. = 17.1
Ceratolejeunea thwaitesiana (Mitt.) Steph. = 33.9
Chandonanthus birmensis Steph. = 6.1
Chandonanthus hirtellus (F.Weber) Mitt. = 6.2
Cheilolejeunea ceylanica (Gottsche) R.M.Schust. & Kachroo 29.1
Cheilolejeunea decurrents (Sande Lac.) X.-L. He 29.2
Cheilolejeunea recursiva (Sande Lac.) R.M.Schust. 29.3
Cheilolejeunea gardneri (Mitt.) Mizut. 29.4
Cheilolejeunea imbricata (Nees) S.Hatt. 29.5
Cheilolejeunea intertexta (Lindenb.) Steph. 29.6
Cheilolejeunea krakakammae (Lindenb.) R.M.Schust. 29.7
Cheilolejeunea kurzii Steph. = 29.6
Cheilolejeunea lindenbergii (Gottsche) Mizut. 29.8
Cheilolejeunea longiloba (Steph. ex G.Hoffm.) J.J Engel & B.C.Tan 29.9
Cheilolejeunea nietneri (Steph.) Mizut. 29.10
Cheilolejeunea riparia (Mitt.) M.E.Reiner 35.16
Cheilolejeunea serpentina (Mitt.) Mizut. 29.11
Cheilolejeunea streimannii Pócs & Ninh 29.12
Cheilolejeunea subopaca (Mitt.) Mizut. 29.13
Cheilolejeunea trapezia (Nees) Mizut. 29.14
Cheilolejeunea trapezia (Nees) Mizut. var. *ceylanica* (Gottsche) A.E.D.Daniels & Kariyappa = 29.1
Cheilolejeunea trifaria (Reinw., Blume & Nees) Mizut. 29.15
Cheilolejeunea vittata (Steph. ex G.Hoffm.) R.M.Schust. & Kachroo 29.16
Chiloscyphus argutus (Reinw., Blume & Nees) Nees = 59.1
Chiloscyphus ceylonensis J.J.Engel = 58.2
Chiloscyphus ciliolatus (Nees) J.J.Engel & R.M.Schust. = 58.1
Chiloscyphus fleischeri Steph. = 59.2
Chiloscyphus kurzii (Sande Lac.) J.J.Engel & R.M.Schust. = 60.3
Chiloscyphus perfoliatus (Mont.) Nees = 59.3
Cololejeunea vesicaria (Sande Lac.) Benedix 30.35
Cololejeunea amoena Benedix 30.1
Cololejeunea appressa (A.Evans) Benedix 30.2
Cololejeunea bolombensis (Steph.) Vanden Berghen = 30.17
Cololejeunea ceratilobula (P.C.Chen) R.M.Schust. 30.3
Cololejeunea ceylanica Onr. 30.4
Cololejeunea cordiflora Steph. 30.5
Cololejeunea desciscens Steph. 30.6
Cololejeunea falcata (Horik.) Benedix 30.7

- Cololejeunea falcatooides* Benedix = 30.7
Cololejeunea fissilobula Herz. 30.8
Cololejeunea floccosa (Lehm. & Lindenb.) Steph. 30.9
Cololejeunea floccosa (Lehm. & Lindenb.) Steph. var. *aurita* Benedix 30.9a
Cololejeunea floccosa (Lehm. & Lindenb.) Steph. var. *trivitata* Tixier 30.9b
Cololejeunea formosana Mizut. = 30.6
Cololejeunea fredericii Onr. 30.10
Cololejeunea gottschei (Steph.) Mizut. 30.11
Cololejeunea gynophthalma Benedix 30.12
Cololejeunea haskarliana (Lehm. & Lindenb.) Steph. 30.13
Cololejeunea hinidumae Onr. 30.14
Cololejeunea inflata Steph. 30.15
Cololejeunea inflectens (Mitt.) Benedix 30.16
Cololejeunea lanciloba Steph. 30.17
Cololejeunea leonidens Benedix var. *saccata* Benedix 30.18
Cololejeunea longifolia (Mitt.) Benedix ex Mizut. 30.19
Cololejeunea metzgeriopsis (K.I.Goebel) Gradst., R.Wilson, Ilkuu-Borges & J. Heinrichs 30.20
Cololejeunea minutissima (Sm.) Schiffn. 30.21
Cololejeunea obliqua (Nees & Mont.) Schiffn. 30.22
Cololejeunea oshimensis (Horik.) Benedix = 30.15
Cololejeunea peraffinis (Schiffn.) Schiffn. 30.23
Cololejeunea perakensis Tixier 30.24
Cololejeunea planissima (Mitt.) Abeyw. 30.25
Cololejeunea pluripunctata Benedix 30.26
Cololejeunea pretiosa Benedix 30.27
Cololejeunea pseudofloccosa (Horik.) Benedix 30.28
Cololejeunea scabrifolia Schiffn., nom. inval. = 30.22
Cololejeunea schmidii Steph. 30.29
Cololejeunea serrata (Steph.) Benedix 30.30
Cololejeunea taprobanea Tixier 30.31
Cololejeunea tenella Benedix 30.32
Cololejeunea triapiculata (Herzog) Tixier 30.33
Cololejeunea trichomanis (Gott sche) Steph. subsp. *cordiflora* (Steph.) Pócs 30.34
Cololejeunea vidaliana Tixier 30.36
Colura acroloba (Mont. ex Steph.) Ast 31.1
Colura acutifolia Ast. = 31.5
Colura ari (Steph.) Steph. 31.2
Colura brevistyla Herzog 31.3
Colura calyptrifolia (Hook.) Dumort. 31.4
Colura calyptrifolia (Hook.) Dumort. subsp. *tenuicornis* (A.Evans) Vanden Berghen = 31.11
Colura conica (Sande Lac) K.I.Goebel 31.5
Colura corynephora (Gott sche, Lindenb. & Nees) Trevis. 31.6
Colura greig-smithii Ast 31.7
Colura javanica Steph. 31.8
Colura meijeri Ast 31.9
Colura ornata K.I.Goebel 31.10
Colura tenuicornis (A.Evans) Steph. 31.11
Colura verdoornii Herzog & Ast 31.12
Cryptolophocolea ciliolata (Nees) L.Söderstr., Crand.-Stotl., Stotler & Váňa 58.1
Cryptolophocolea fleischeri (Steph.) L.Söderstr. 58.2
Cuspidatula flexicaulis (Nees) Váňa & L.Söderstr. 2.1
Cyathodium cavernarum Kunze 19.1
Cyathodium smaragdinum Schiffn. ex Keissl. 19.2
Cylindrocolea kiaeri (Austin) Váňa 17.1
Dendroceros borbonicus Steph. 86.1
Denotarisia linguifolia (De Not.) Grolle 3.1
Dicranolejeunea gilva (Gott sche) Steph. = 26.1
Diplasiolejeunea cavifolia Steph. 32.1

- Diplasiolejeunea onraeditii* Grolle 32.2
Diplasiolejeunea rudolphiana Steph. 32.3
Diplophyllum nanum Herzog 76.1
Drepanolejeunea angustifolia (Mitt.) Grolle 33.1
Drepanolejeunea fissicornua Steph. 33.2
Drepanolejeunea fleischeri (Steph.) Grolle & R.L.Zhu 33.3
Drepanolejeunea macrodonta (Mitt.) Steph. 33.4
Drepanolejeunea micholitzii Steph. = 33.5
Drepanolejeunea micholitzii Steph. var. *dactylophoroides* Herzog = 33.5
Drepanolejeunea pentadactyla (Mont.) Steph. 33.5
Drepanolejeunea tenera K.I.Goebel 33.6
Drepanolejeunea ternatensis (Gott sche) Schiffn. 33.7
Drepanolejeunea teysmannii Steph. 33.8
Drepanolejeunea thwaitesiana (Mitt.) Steph. 33.9
Drepanolejeunea thwaitesiana (Mitt.) Steph. var. *zhengii* R.L.Zhu 33.9a
Drepanolejeunea vesiculosa (Mitt.) Steph. 33.10
Dumortiera hirsuta (Sw.) Nees. s.l. 20.1
Eulejeunea nietneri Steph. = 35.12
Euosmolejeunea serpentina (Mitt.) Steph. = 29.11
Euosmolejeunea trifaria (Reinw, Blume & Nees) Spruce = 29.15
Exormotheca ceylonensis Meijer 21.1
Folioceros amboinensis (Schiffn.) Piippo 84.1
Folioceros mamillisporus (D.C.Bharadwaj) D.C.Bharadwaj = 84.1
Folioceros spinisporus (Steph.) D.C. Bharadwaj = 84.1
Frullania acutiloba Mitt. 22.1
Frullania acutiloba Mitt. var. *schiffneri* Verd. = 22.19a
Frullania alstonii Verd. 22.2
Frullania angustata Mitt. = 22.23a
Frullania aperta Gott sche = 22.20
Frullania apiculata (Reinw., Blume & Nees) Dumort. 22.3
Frullania apiculata (Reinw., Blume & Nees) Dumort. var. *goebelii* Schiffn. 22.3a
Frullania arecae (Spreng.) Gott. 22.4
Frullania brotheri Steph. 22.5
Frullania campanulata Sande Lac. 22.6
Frullania capilliformis Steph. 22.7
Frullania ceylanica Nees = 22.10
Frullania claviloba Steph. 22.8
Frullania ericoides (Nees) Mont. 22.9
Frullania explanata Mitt. = 22.15
Frullania galeata (Reinw., Blume & Nees) Dumort. = 22.25
Frullania gaudichaudii (Nees & Mont.) Nees & Mont. var. *ceylanica* (Nees) S.Hatt. 22.10
Frullania gracilis (Reinw., Blume & Nees) Dumort. 22.11
Frullania grandistipula Lindenb. 22.12
Frullania grandistipula Lindenb. var. *rugosa* (Mitt.) S.Hatt. = 22.12
Frullania hampeana Nees = 22.19
Frullania hampeana Nees var. *acutiloba* (Mitt.) S.Hatt. = 22.1
Frullania hottana S.Hatt. 22.13
Frullania hypoleuca Nees 22.14
Frullania intermedia (Reinw., Blume & Nees) Dumort. 22.15
Frullania laciniosa Lehm. = 22.9
Frullania latistipula Steph. = 22.26
Frullania meyeniana Lindenb. 22.16
Frullania microauriculata Verd. 22.17
Frullania microauriculata Verd. var. *rotundior* Verd. 22.17a
Frullania moniliata (Reinw., Blume & Nees) Mont. 22.18
Frullania moniliata (Reinw., Blume & Nees) Mont. subsp. *breviramea* (Steph.) Verd. 22.18a
Frullania moniliata (Reinw., Blume & Nees) Mont. subsp. *obscura* Verd. 22.18b
Frullania monocera (Taylor) Taylor 22.19

- Frullania monocera* (Taylor) Taylor var. *schiffneri* (Verd.) S.Hatt. 22.19a
Frullania neurota Taylor 22.20
Frullania nietneri Gottsche ex Steph. = 22.10
Frullania nodulosa (Reinw., Blume & Nees) Nees 22.21
Frullania orientalis Sande Lac. 22.22
Frullania pendula Mitt. = 22.27
Frullania perocellata Onr. = 22.2
Frullania polyptera Taylor 22.23
Frullania polyptera Taylor var. *angustata* (Mitt.) S.Hatt. 22.23a
Frullania ramuligera (Nees) Mont. 22.24
Frullania riojaneirensis (Raddi) Spruce 22.25
Frullania rugosa Mitt. = 22.12
Frullania serrata Gottsche 22.26
Frullania serrata Gottsche forma *crispulodentata* Verd. 22.26a
Frullania squarrosa (Reinw., Blume & Nees) Nees = 22.9
Frullania tamarisci (L.) Dumort. subsp. *moniliata* (Reinw., Blume & Nees) Kamimura = 22.18
Frullania tamarisci (L.) Dumort. subsp. *obscura* (Verd.) S.Hatt. = 22.18b
Frullania tamarisci (L.) Dumort. subsp. *obscura* (Verd.) S.Hatt. var. *breviramea* (Steph.) S.Hatt. = 22.18a
Frullania ternatensis Gottsche 22.27
Frullania thuillieri Nees = 22.21
Frullania trichodes Mitt. 22.28
Frullania vethii Sande Lac. = 22.28
Frullania wallichiana Mitt. = 22.4
Gottschea aligera Nees & Blume = 78.1
Gottschea philippinensis Mont. = 78.1
Gottschea thwaitesii Mitt. = 78.2
Gottschelia schizopleura (Spruce) Grolle 18.1
Gymnanthe lutescens (Lehm. & Lindenb.) Mitt. = 67.1
Harpalejeunea filicispis (Steph.) Mizut. 34.1
Harpalejeunea indica Steph. = 35.11
Harpalejeunea nietneri Steph. = 29.10
Herbertus ceylanicus (Steph.) H.A.Miller 23.1
Herbertus dicranus (Taylor ex Gottsche, Lindenb. & Nees) Trevis. 23.2
Herbertus perrottetii (Steph.) Abeyw. = 23.2
Herbertus ramosus (Steph.) H.A.Mill. 23.3
Heteroscyphus argutus (Reinw., Blume & Nees) Schiffn. 59.1
Heteroscyphus fleischeri (Steph.) D.G.Long & Rubasinghe 59.2
Heteroscyphus perfoliatus (Mont.) Schiffn. 59.3
Heteroscyphus tener (Steph.) Schiffn. 59.4
Heteroscyphus tridentatus (Sande Lac.) Grolle 59.5
Hygrolejeunea discreta (Lindenb.) Steph. = 35.5
Hygrolejeunea lindenbergii (Gottsche) Steph. = 29.8
Hygrolepidium boschianum (Sande Lac.) R.M.Schust. 53.1
Jackiella ceylanica Schiffn. ex Steph. 24.1
Jackiella javanica Schiffn. 24.2
Jamesoniella flexicaulis (Nees) Schiffn. = 2.1
Jamesoniella microphylla Schiffn. = 18.1
Jamesoniella ovifolia (Schiffn.) Schiffn. = 3.1
Jensenia decipiens (Mitt.) Grolle 68.1
Jubula hutchinsiae (Hook.) Dumort. subsp. *javanica* (Steph.) Verdoorn 25.1
Jungermannia appressifolia Mitt. = 79.1
Jungermannia ariadne Taylor ex Lehm. = 79.2
Jungermannia borneensis Amakawa = 79.3
Jungermannia ceylanica Gottsche nom. nud. ? = 18.1
Jungermannia ceylanica Steph. = 18.1
Jungermannia colorata Lehm. var. *ceylanica* Gottsche nom. nud. ? = 2.1
Jungermannia flexicaulis Nees = 2.1
Jungermannia hasskarliana (Nees) Steph. = 79.4

- Jungermannia herzogiana* Váňa = 79.5
Jungermannia imbricata Wilson ex Gottsche, Lindenb. & Nees = 5.1
Jungermannia leiantha Grolle subsp. *stephanii* (Amak.) S.Hatt. = 65.1
Jungermannia piligera Reinw., Blume & Nees = 5.2
Jungermannia polyrhiza Hook. ex Lehm. & Lindenb. = 79.9
Jungermannia polyrhizoides Grolle ex Amakawa = 79.6
Jungermannia stricta (Schiffn.) Steph. = 79.7
Jungermannia subulata A. Evans = 65.1
Jungermannia tetragona Lindenb. = 79.8
Jungermannia truncata Nees = 79.9
Lejeunea anisophylla Mont. 35.1
Lejeunea apiculata Sande Lac 35.2
Lejeunea applanata (Reinw., Blume & Nees) Nees = 39.1
Lejeunea borneensis Steph. = 35.1
Lejeunea ceylanica Gottsche = 29.1
Lejeunea cocoes Mitt. 35.3
Lejeunea dipterota Eifrig 35.4
Lejeunea discreta Lindenb. 35.5
Lejeunea epiphylla Mitt. = 37.2
Lejeunea flava (Sw.) Nees 35.6
Lejeunea flavida Mitt. 35.7
Lejeunea gardneri Mitt. = 29.4
Lejeunea gracillima Mitt. = 42.1
Lejeunea haskarliana Lehm. & Lindenb. = 30.13
Lejeunea herzogii Mizut. 35.8
Lejeunea inflectens Mitt. = 30.16
Lejeunea lindenbergii Gottsche = 29.8
Lejeunea lowriana Steph. 35.9
Lejeunea macrodonta Mitt. = 33.4
Lejeunea maculata Mitt. = 37.3
Lejeunea micholitzii Mizut. 35.10
Lejeunea neelgherriana Gottsche 35.11
Lejeunea nietneri (Steph.) Steph 35.12
Lejeunea nietneri Gottsche *nom. nud.* ? = 35.12
Lejeunea obfusca Mitt. 35.13
Lejeunea obscura Mitt. 35.14
Lejeunea papilionacea Steph. 35.15
Lejeunea peradeniensis Mitt. = 45.3
Lejeunea planissima Mitt. = 30.25
Lejeunea punctiformis Taylor = 42.1
Lejeunea pycnoclada (Taylor) Mitt. = 27.3
Lejeunea repleta Taylor = 40.3
Lejeunea riparia Mitt. = 35.16
Lejeunea semirepanda (Nees) Nees & Mont. = 46.2
Lejeunea serpentina Mitt. = 29.11
Lejeunea spathulistipa (Reinw., Blume & Nees) Mitt. = 48.2
Lejeunea subacuta Mitt. 35.17
Lejeunea subfuscata (Nees) Nees & Mont. = 39.6
Lejeunea thwaitesiana Mitt. = 33.9
Lejeunea tuberculosa Steph. 35.18
Lejeunea utriculata (Steph.) Mizut. 35.19
Lejeunea vesiculosata Mitt. = 33.10
Lejeunea wightii Lindenb. 35.20
Lejeunea xanthocarpa (Lehm. & Lindenb.) Lehm. & Lindenb. = 38.1
Lepicolea yakusimensis (S.Hatt.) S.Hatt. 51.1
Lepidolejeunea bidentula (J.B.Jack & Steph.) R.M.Schust. 36.1
Lepidozia neesii Lindenb. = 57.1
Lepidozia plumula Herz. 54.1

- Lepidozia semperiana* Steph. = 57.2
Lepidozia subintegra Lindenb. 54.2
Lepidozia wallichiana Gottsche = 55.1
Leptolejeunea elliptica (Lehm. & Lindenb.) Schiffn. 37.1
Leptolejeunea epiphylla (Mitt.) Steph. 37.2
Leptolejeunea fleischeri Steph. = 33.3
Leptolejeunea maculata (Mitt.) Schiffn. 37.3
Leptolejeunea massartiana Schiffn. ex Herzog 37.4
Leptolejeunea rhombifolia Steph. 37.5
Leptolejeunea subacuta Steph. = 37.1
Leptolejeunea vitrea (Nees) Schiffn. 37.6
Leucolejeunea xanthocarpa (Lehm. & Lindenb.) A.Evans 38.1
Lioclhaena subulata (A. Evans) Schljakov 65.1
Lophocolea bidentata (L.) Dumort. 60.1
Lophocolea ciliolata (Nees) Gottsche = 58.1
Lophocolea cuspidata (Nees) Limpr. = 60.1
Lophocolea fleischeri Steph. = 58.2
Lophocolea javanica Schiffn. 60.2
Lophocolea kurzii Sande Lac. 60.3
Lophocolea muricata (Lehm.) Nees 60.4
Lophocolea peradeniensis Steph. = 60.3
Lopholejeunea applanata (Reinw., Blume & Nees) Schiffn. 39.1
Lopholejeunea abortiva (Mitt.) Steph. = 39.2
Lopholejeunea ceylanica Steph. 39.3
Lopholejeunea eulopha (Taylor) Schiffn. 39.4
Lopholejeunea javanica (Nees) Schiffn. 39.5
Lopholejeunea longiloba Steph. = 39.3
Lopholejeunea nigricans (Lindenb.) Steph. 39.2
Lopholejeunea nipponica Horik. = 39.7
Lopholejeunea subfuscata (Nees) Schiffn. 39.6
Lopholejeunea zollingeri (Steph.) Schiffn. 39.7
Lunularia cruciata (L.) Dumort. 62.1
Madotheca acutifolia Lehm. & Lindenb. = 73.1
Madotheca ciliaris Nees = 73.5
Madotheca nilgheriensis Mont. = 73.4
Madotheca perrottetiana Mont. = 73.5
Marchantia acaulis Steph. 63.1
Marchantia amboinensis Nees & Mont. = 63.2
Marchantia emarginata Reinw., Blume & Nees subsp. *emarginata* 63.2
Marchantia paleacea Bertol. 63.3
Marchantia palmata Nees = 63.2
Marchantia papillata Raddi subsp. *grossibarba* (Steph.) Bischl. 63.4
Marchantia pappeana Lehm. subsp. *robusta* (Steph.) Bischl. 63.5
Marchantia polymorpha L. 63.6
Marchantia robusta Steph. = 63.5
Marsupidium knightii Mitt. 1.1
Mastigobryum callidum Steph. = 52.1
Mastigobryum ceylanicum Mitt. = 52.2
Mastigobryum decurvum Nees = 52.11
Mastigobryum fleischeri Steph. = 52.4
Mastigobryum gaudichaudii Gottsche ex Steph. = 52.5
Mastigobryum grandistipulum Steph. = 52.2
Mastigobryum intermedium Mitt. hom. illeg. = 52.1
Mastigobryum lacerostipulum Steph. = 52.2
Mastigobryum obtusatum Mitt. = 52.7
Mastigobryum ovistipulum Steph. = 52.9
Mastigobryum praeruptum Reinw., Blume & Nees = 52.11
Mastigobryum rabenhorstii Steph. = 52.12

- Mastigobryum rotundistipulum* Steph. = 52.10
Mastigobryum sandei Steph. = 52.11
Mastigobryum strictum Steph. = 52.2
Mastigobryum vittatum Gottsche = 52.15
Mastigobryum wichurae Steph. = 52.10
Mastigolejeunea atypos (Schiffn.) Steph. = 40.3
Mastigolejeunea auriculata (Wilson) Schiffn. 40.1
Mastigolejeunea humilis (Gottsche) Schiffn. 40.2
Mastigolejeunea humilis (Gottsche) Schiffn. var. *ciliata* Awasthi & Udar 40.2a
Mastigolejeunea repleta (Taylor) A.Evans 40.3
Mastigolejeunea virens (Ångstr.) Steph. 40.4
Mastigophora aequifolia Steph. 64.1
Mastigophora diclados (Brid. ex F.Weber) Nees 64.2
Metacalypogea alternifolia (Nees) Grolle 14.1
Metalejeunea cucullata (Reinw., Blume & Nees) Grolle 41.1
Metzgeria borneensis Kuwah. = 66.8
Metzgeria ciliata Raddi 66.1
Metzgeria conjugata Lindb. 66.2
Metzgeria consanguinea Schiffn. 66.3
Metzgeria crassipilus (Lindb.) A.Evans 66.4
Metzgeria decipiens (C.Massal.) Schiffn. & Gottsche = 66.1
Metzgeria foliicola Schiffn. 66.5
Metzgeria latifrons Steph. 66.6
Metzgeria lechleri Steph. 66.7
Metzgeria leptoneura Spruce 66.8
Metzgeria lindbergii Schiffn. = 66.2
Metzgeria luzonensis Kuwah. = 66.8
Metzgeria papulosa Steph. = 66.8
Metzgeria subhamata S.Hatt. = 66.8
Metzgeria vivipara A.Evans = 66.7
Microlejeunea cucullata (Reinw., Blume & Nees) J.B.Jack & Steph. = 41.1
Microlejeunea gracillima (Mitt.) Carringt. & Pearson = 42.1
Microlejeunea punctiformis (Taylor) Spruce = 42.1
Mnioloma fuscum (Lehm.) R.M.Schust. 15.1
Neolepidozia wallichiana (Gottsche) Fulford & J.Taylor 55.1
Notoscyphus lutescens (Lehm. & Lindenb.) Mitt. 67.1
Notoscyphus paroicus Schiffn. = 67.1
Nowellia curvifolia (Dicks.) Mitt. 16.1
Pallavicinia decipiens (Mitt.) Steph. = 68.1
Pallavicinia indica Schiffn. 69.1
Pallavicinia lyelli (Hook.) Gray 69.2
Phaeoceros carolinianus (Michx.) Prosk. 85.1
Phaeoceros laevis (L.) Prosk. subsp. *carolinianus* (Michx.) Prosk. = 85.1
Phragmicoma ceylanica Gottsche nom. nud. ? = 39.3
Phragmicoma nietneri Gottsche nom. nud. ? = 43.1
Physcocolea planissima (Mitt.) Steph. = 30.25
Physcocolea serrata Steph. = 30.30
Physiotium acinosum Mitt. = 72.1
Physocolea gottschei Steph. = 30.11
Physocolea inflectens (Mitt.) Steph. = 30.16
Physotium giganteum F.Weber = 72.2
Physotium microcarpum J.B.Jack = 72.3
Physotium sphagnoides A.Rich. ex Nees, nom. illeg. = 72.2
Plagiochasma nepalense (Lehm. & Bisch.) Steph. = 10.1
Plagiochasma rupestre (G.Forst.) Steph. 10.1
Plagiochila acanthophylla Gottsche = 70.18
Plagiochila aciculifera Steph. = 70.14
Plagiochila acutiloba Inoue = 70.8

- Plagiochila aequalis* Mitt. = 70.17
Plagiochila arbuscula (Lehm. & Lindenb.) Lindenb. 70.1
Plagiochila bantamensis (Reinw., Blume & Nees) Mont. 70.2
Plagiochila belangeriana Lindenb. = 70.1
Plagiochila brauniana Nees = 71.1
Plagiochila cadens Inoue = 70.18
Plagiochila ceylanica Mitt. 70.3
Plagiochila devexa Steph. 70.4
Plagiochila exigua (Taylor) Taylor 70.5
Plagiochila firma Mitt. = 70.9
Plagiochila flexuosa Mitt. 70.6
Plagiochila frondescens (Nees) Lindenb. 70.7
Plagiochila ghatiensis Steph. 70.8
Plagiochila gracilis Lindenb. & Gottsche 70.9
Plagiochila gymnoclada Sande Lac. 70.10
Plagiochila integrilobula Inoue 70.11
Plagiochila khasiana Mitt. 70.12
Plagiochila kurzii Steph. 70.13
Plagiochila lobulata Schiffn. = 70.2
Plagiochila macrantha Steph. = 70.3
Plagiochila meijeri Inoue = 70.13
Plagiochila microdonta Mitt. 70.14
Plagiochila neutiana Steph. = 70.3
Plagiochila onraedtii Inoue = 70.2
Plagiochila opposita (Reinw., Blume & Nees) Lindenb. = 71.2
Plagiochila parvidentata Inoue = 70.19
Plagiochila parvifolia Lindenb. 70.15
Plagiochila peradenyensis Schiffn. 70.16
Plagiochila pseudoventricosa Inoue = 70.15
Plagiochila ramenticaulis Steph. = 70.16
Plagiochila renitens (Nees) Lindenb. 70.17
Plagiochila rufa Steph. = 70.6
Plagiochila sciophila Nees ex Lindenb. 70.18
Plagiochila securifolia Nees ex Lindenb. = 4.1
Plagiochila sisparensis Steph. 70.19
Plagiochila variegata Lindenb. = 4.1
Plagiochila ventricosa Steph. = 70.15
Plagiochila wichurae Steph. = 70.17
Plagiochila zygophylla Taylor = 71.2
Plagiochilion braunianum (Nees) S.Hatt. 71.1
Plagiochilion oppositum (Reinw., Blume & Nees) S.Hatt. 71.2
Pleuroschisma wichurae (Steph.) Reimers = 52.10
Pleurozia acinosa (Mitt.) Steph. 72.1
Pleurozia gigantea (F.Weber) Lindb. 72.2
Pleurozia microcarpa (J.B.Jack) Steph. = 72.3
Pleurozia subinflata (Austin) Austin 72.3
Plicanthus birmensis (Steph.) R.M.Schust. 6.1
Plicanthus hirtellus (F.Weber) R.M.Schust. 6.2
Porella acutifolia (Lehm. & Lindenb.) Trevis. 73.1
Porella acutifolia (Lehm. & Lindenb.) Trevis. subsp. *latior* S.Hatt. = 73.2a
Porella acutifolia (Lehm. & Lindenb.) Trevis. subsp. *latior* S.Hatt. var. *intermedia* S.Hatt. 73.2b
Porella caespitans (Steph.) S.Hatt. subsp. *latior* (S.Hatt.) S.Hatt. var. *intermedia* (S.Hatt.) S.Hatt. 73.2b
Porella caespitans Steph. subsp. *latior* (S.Hatt.) S.Hatt. 73.2a
Porella japonica (Sande Lac.) Mitt. 73.3
Porella madgascariensis (Nees & Mont.) Trevis. 73.4
Porella perrottetiana (Mont.) Trevis. 73.5
Ptychanthus birmensis Steph. = 43.1
Ptychanthus effusus Steph. = 43.1

- Ptychanthus nietneri* (Steph.) Schiffn. = 43.1
Ptychanthus striatus (Lehm. & Lindenb.) Nees 43.1
Ptychanthus striatus (Lehm. & Lindenb.) Nees var. *retusus* (Reinw., Blume & Nees) Verd. = 43.1
Ptychocoleus cumingianus auct. non (Mont.) Trevis. = 45.3
Ptychocoleus peradeniensis (Mitt.) Steph. = 45.3
Ptychocoleus pulopenangensis (Gottsche) Trevis. = 45.2
Ptychocoleus pycnocladus (Taylor) Steph. = 27.3
Ptycholejeunea nietneri Steph. = 43.1
Pycnolejeunea badia Steph. = 36.1
Pycnolejeunea ceylanica (Gottsche) Schiffn. = 29.1
Pycnolejeunea flavidula (Mitt.) Steph. = 35.7
Pycnolejeunea gardneri (Mitt.) Steph. = 29.4
Pycnolejeunea grandiocellata Steph. 44.1
Pycnolejeunea trapezia (Nees) Steph. = 29.14
Pycnolejeunea utriculata Steph. = 35.19
Radula acuminata Steph. 74.1
Radula amentulosa Mitt. 74.2
Radula assamica Steph. 74.3
Radula ceylanica K.Yamada 74.4
Radula colliculosa Mitt. = 74.7
Radula cordata Mitt. 74.5
Radula formosa (Meissn.) Nees 74.6
Radula javanica Gotsche 74.7
Radula kurzii Steph. 74.8
Radula madagascariensis Gotsche 74.9
Radula nietneri Steph. = 74.7
Radula nymanii Steph. 74.10
Radula obscura Mitt. 74.11
Radula onraedtii K.Yamada 74.12
Radula pinnulata Yang nom. illeg. = 74.19
Radula retroflexa Taylor 74.13
Radula sandei Steph. 74.14
Radula speciosa Gotsche ex Steph. = 74.8
Radula subpallens Steph. 74.15
Radula tabularis Steph. 74.16
Radula tibiodensis K.I.Goebel 74.17
Radula ventricosa Steph. 74.18
Radula yangii K.Yamada 74.19
Reboulia hemisphaerica (L.) Raddi 11.1
Rectolejeunea riparia (Mitt.) Steph. = 35.16
Rhaphidolejeunea fleischeri (Steph.) Herzog = 33.3
Riccardia canaliculata (Nees) Schiffn. 9.1
Riccardia multifida (L.) Gray 9.2
Riccardia pinguis (L.) Gray = 8.1
Riccia attenuata Pandé 75.1
Riccia billardieri Mont. & Nees 75.2
Riccia crispatula Mitt. 75.3
Riccia discolor Lehm. & Lindenb. 75.4
Riccia huebeneriana Lindenb. 75.5
Riccia sorocarpa Bisch. 75.6
Scapania lepida Mitt. 77.1
Schiffneriolejeunea haskarliana (Lehm. & Lindenb.) Gradst. = 30.13
Schiffneriolejeunea hasskarliana (Gottsche) Gradst. = 45.3a
Schiffneriolejeunea polycarpa (Nees) Gradst. 45.1
Schiffneriolejeunea pulopenangensis (Gottsche) Gradst. 45.2
Schiffneriolejeunea tumida (Nees) Gradst. 45.3
Schiffneriolejeunea tumida (Nees) Gradst. var. *hasskarliana* (Gottsche) Gradst. & Terken 45.3a
Schisma ceylanicum Steph. = 23.1

- Schisma perrottetii* Steph. = 23.2
Schisma wichurae Steph. = 23.2
Schistochila aligera (Nees & Blume) Jack & Steph. 78.1
Schistochila commutata Steph. = 78.1
Schistochila fleischeri Steph. = 78.1
Schistochila philippinensis (Mont.) J.B.Jack & Steph. = 78.1
Schistochila sciurea (Nees) Schiffn. 78.2
Schistochila thwaitesii (Mitt.) Steph. = 78.2
Schizophyllopsis bidens (Reinw., Blume & Nees) Váňa & L. Söderstr. 7.1
Sendtnera diclados (Brid. ex F.Weber) Gottsche, Lindenb. & Nees = 64.2
Sendtnera dicrana Taylor ex Gottsche, Lindenb. & Nees = 23.2
Solenostoma appressifolium (Mitt.) Váňa & D. G. Long 79.1
Solenostoma ariadne (Taylor ex Lehm.) R. M. Schust ex Váňa & D. G. Long 79.2
Solenostoma borneense (Amakawa) Váňa, Hentschel & J. Heinrichs 79.3
Solenostoma hasskarlianum (Nees) R.M.Schust. ex Váňa & D.G.Long 79.4
Solenostoma javanicum (Schiffn.) Steph. 79.5
Solenostoma polyrhizoides (Grolle ex Amakawa) Váňa & D. G. Long 79.6
Solenostoma strictum (Schiffn.) Váňa, Hentschel & J.Heinrichs 79.7
Solenostoma tetragonum (Lindenb.) R. M. Schust. ex Váňa & D. G. Long 79.8
Solenostoma truncatum (Nees) R. M. Schust. ex Váňa & D. G. Long 79.9
Southbya grollei N.Kitag. = 80.1
Southbya organensis Herzog 80.1
Spruceanthus marianus (Gottsche) Mizut. 46.1
Spruceanthus semirepandus (Nees) Verd. 46.2
Steetzia decipiens Mitt. = 68.1
Steetzia lyellii (Hook.) Lehm. = 69.2
Stenolejeunea apiculata (Sande Lac.) R.M.Schust. = 35.2
Syzygiella securifolia (Nees ex Lindenb.) Inoue 4.1
Syzygiella subintegerima (Nees) Spruce 4.2
Syzygiella variegata (Lindenb.) Schiffn. = 4.1
Taeniolejeunea pseudofloccosa (Horik.) S.Hatt. = 30.28
Targionia hypophylla L. 81.1
Taxilejeunea apiculata (Sande Lac.) Eifrig nom. illeg. = 35.2
Taxilejeunea compressiuscula Lindenb. ex Steph. 47.1
Telaranea major (Herz.) J.J.Engel & G.L.Merr. 56.1
Telaranea semperiana (Steph.) Del Ros. = 57.2
Telaranea wallichiana (Gottsche) R.M.Schust. = 55.1
Thysananthus convolutus Lindenb. 48.1
Thysananthus spathulifolius (Reinw., Blume & Nees) Lindenb. 48.2
Trichocolea pluma (Reinw., Blume & Nees) Mont. 82.1
Tricholepidozia neesii (Lindenb.) E.D.Cooper 57.1
Tricholepidozia semperiana (Steph.) E.D.Cooper 57.2
Trocholejeunea sandvicensis (Gottsche) Mizut. 49.2
Trocholejeunea infuscata (Mitt.) Verd. 49.1
Tylimanthus indicus Steph. = 70.8
Xenolejeunea longiloba (Steph. ex G.Hoffm.) Kachroo & R.M.Schust. 50.1

