

Liverworts and hornworts of Thailand: an updated checklist and bryofloristic accounts

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An updated checklist of liverworts (Marchantiophyta) and hornworts (Anthocerotophyta) of Thailand is presented. The checklist is based on published literature and some recent collections. The liverwort and hornwort flora of Thailand consists of 386 species belonging to 90 genera in 37 families. The largest family is Lejeuneaceae (123 spp., 25 genera). The genera with over ten species are *Cololejeunea* (38 spp.), *Plagiochila* (37 spp.), *Frullania* (37 spp.), *Bazzania* (34 spp.), and *Radula* (21 spp.). Sixteen species are known only from Thailand, but no genera are endemic to the country. A new name (*Cololejeunea gradsteinii* M.J. Lai & R.L. Zhu, *nom. nov.*) and a new combination (*Heteroscyphus inflatus* (Steph.) S.C. Srivast. & A. Srivast. var. *fragilissimus* (N. Kitag.) M.J. Lai & R.L. Zhu, *comb. nova*) are proposed. Eleven species are reported for Thailand for the first time. Vegetation and bryofloristic accounts of Thailand are also discussed.

Key words: Anthocerotae, *Cololejeunea*, *Heteroscyphus*, Hepaticae, Marchantiophyta

Introduction

Thailand, formerly Siam, is located in continental Southeast Asia at 6–20°N latitude and 98–105°E longitude, and has an area of 513 115 km², which is comparable to that of France. The country is about 1620 km long and 780 km wide. The population is estimated to be around 63 million.

The elevation ranges from sea level to 2565 m (Doi Intanon, the highest peak in Thailand). There are six mountains that are over 2000 m in height, all in the north, including Doi Chiang

Dao, a limestone mountain, rising to 2150 m. Most mountains that are over 1000 m high are in the north with the exception of Khao Khiao (1200 m) in the central area, Khao Soi Dao in the southeast (1556 m), and Khao Luang (1800 m) in the peninsula.

Climate

Thailand has a tropical monsoonal (seasonal) climate with a dry plus hot season lasting for 4–6

weeks in the Peninsula and for 3–4 months in the north and north-east. The hottest and driest months are in April–May, while most of the rain comes in August. Frost often occurs in the northern mountains from December to February.

The NE monsoon (dry) is from October–November to February–March and the SW monsoon (wet) lasts from April–May to October.

Northern Thailand has three distinct seasons, *viz.* rainy (May to October), cool-dry (November–February), and hot-dry (March–April). The other regions normally have only two seasons, *viz.* wet and dry.

In general, the most rainfall (3000–4500 mm/year) and shortest dry period (3–8 weeks) is found in the far south, Ranong Province, and SE. The amount of rainfall decreases (1000–2000 mm/year) and dry period increases (3–5 months) towards the north and NE (cf. Maxwell 2004).

The annual mean temperature is normally between 25.8 to 29 °C in Thailand. March–April is the hottest period with afternoon temperatures often rising to over 40 °C. November to February, especially in the north, is the coolest season with frost often occurring in the northern mountains.

Vegetation types

At present, it is estimated that 25.28% of the land is under forest cover, including forest plantations (rubber plantations and orchards excluded).

It is estimated from recent publications that there are about 11 000 species of vascular plants in the country. Of those, 10 200 are flowering plants and the rest are ferns/fern allies and gymnosperms, with 2500 tree species and 1100 native orchid species. Endemic species are supposed to form ca. 7%–10% of the total flora.

There are basically two types of forests in Thailand, *viz.* evergreen and deciduous and also other seven subtypes of forest vegetation (Chen 1994): tropical rain forest, hill evergreen forest, semi-evergreen forest, coniferous forest, mangrove forest, dry dipterocarp forest and mixed deciduous forest.

IUCN (International Union for Conservation of Nature and Natural Resources) (1986) placed the vegetation types in Thailand into the follow-

ing categories: (1) Tropical lowland evergreen rain forest once covered much of central and southern Thailand, but is now reduced to fragments in the peninsular Thailand, ca. 30 000 km²; (2) Seasonal rain forest or dry evergreen forest or semi-evergreen forest dominated by Dipterocarpaceae in central and northern Thailand below 1000 m; (3) Lower montane forest or hill evergreen forest with oak species above 700 m, much disturbed by shifting cultivation; (4) Deciduous dry dipterocarp forest and mixed deciduous forest with teak and non-teak are the most extensive forest types, covering 39 000 km²; (5) Lower montane pine forest in the north and northeast; (6) Mangrove and beach forests extensive on the west coast and Chao Phraya delta; and (7) Fresh water swamp forest is rather sporadic in the central northeastern and southern regions.

Bryoflora

The mosses of Thailand have been collected extensively by many bryologists and the moss flora has 621 species in 191 genera of 52 families (He 1998). However, the liverworts and hornworts of the country have not been extensively investigated, and reports on the hepatic flora are relatively few. Early collections of Thai hepatics were made by J. Schmidt in 1889–1990. His collections were kept in G, and some of them were described as new species by F. Stephani in Schmidt's "Flora of Koh Chang" (Stephani 1902) and Stephani's "Species Hepaticarum" (Stephani 1900–1924), e.g., *Archilejeunea hossei*, *Ceratolejeunea emarginata*, *Cololejeunea schmidtii*, *C. siamensis*, *Frullania hosseana*, *Mastigobryum siamense*, *Physocolea fusca*, *Plagiochila siamensis* and *Pycnolejeunea grandiocellata*. However, a number of contributions on Thai liverworts and hornworts were based on the collections of N. Kitagawa (1965–1966, 1967, 1979), P. Tixier (1965), A. Touw and K. Larsen (1966), C. F. van Beusekom (1968, 1969), A. Schäfer-Verwimp and Verwimp (1994, 2004), M.-J. Lai (2000, 2005), and some local bryologists. Sornsamran and Thaithong (1995) presented a synopsis of bryophytes in Thailand, which contains a preliminary checklist of Thai liverworts and horn-

worts. Since then, many hepatics were added to the Thai flora. At the same time a number of taxa were reduced to synonyms. Taxonomic revisions from other regions have also resulted in many nomenclatural changes among Thai hepatics. It is thus necessary to present an updated checklist of Thai liverworts and hornworts for recognition and conservation of bryophyte diversity in Thailand.

Phytogeographical aspects and bryofloristic affinities

Thailand lies within two major biogeographical regions, *viz.* the Indo-Himalayan-Chinese region (including the eastern Himalaya, Myanmar, south China, Indo-China), and the Malesian region (Smitinand 1989).

Based on the known 621 moss species in 191 genera of 52 families, He (1998) analyzed the floristic composition and phytogeographical connections of Thai mosses, and reached the conclusion that Thailand is a transitional region forming a bridge between the Malesian and Sino-Himalayan floras.

The present checklist of Thai liverworts and hornworts contains 386 species of 90 genera in 37 families. The largest family, with 123 species in 25 genera, is Lejeuneaceae, accounting for 32% of the total number of species. The genera with over ten species are *Cololejeunea* (38 spp.), *Plagiochila* (37 spp.), *Frullania* (37 spp.), *Bazzania* (34 spp.), and *Radula* (21 spp.). Sixteen species are known only from Thailand, accounting for 4.2% of the total flora. Out of the 16 species (*Cephaloziella crispata*, *Cheilolejeunea larsenii*, *Cololejeunea chamlongiana*, *C. fusca*, *C. gresicola*, *C. khiavensis*, *C. koratensis*, *C. ranongensis*, *C. smitinandii*, *Frullania gemmulosa*, *F. siamensis*, *F. warnckeana*, *Kurzia touwii*, *Lejeunea monilitata*, *Lepidozia parvula*, and *Notothylas depressispora*) possibly endemic to Thailand, nine species belong to Lejeuneaceae.

The Kroeber's percentage of generic similarity of Thailand and China is 75.6%, which is slightly higher than the 72.7% for Borneo, and the 72.5% for Japan. The absence of genera endemic to Thailand, lower endemics of species, and similar Kroeber's percentage of generic sim-

ilarity of Thailand and the three areas mentioned above reveal that Thailand is also a transitional region between the Malesian and Sino-Japanese floras of liverworts and hornworts. This conclusion will possibly be further consolidated after a detailed investigation of the liverwort flora because some common genera in south China and Malesia, e.g., *Blepharostoma*, *Harpalejeunea*, *Isotachis*, *Otolejeunea*, *Tuyamaella*, *Zoopsis*, etc., have not yet been recorded.

Updated checklist of liverworts and hornworts of Thailand

The checklist below is based on published literature and some recent collections made mainly by S. Chantanaorrapint and the late Dr. M.-J. Lai. It is arranged in alphabetical order with references or collection numbers cited. The voucher specimens of those recent unpublished collections are kept mainly in CMU, HSNU, PSU and YUNG.

- Acanthocoleus gilvus* (Gottsche) Kruijt — present paper (*Chantanaorrapint* 908).
- Acrobolbus ciliatus* (Mitt.) Schiffn. — Kitagawa (1979), Sornsamran and Thaitong (1995).
- Acrolejeunea fertilis* (Reinw. *et al.*) Schiffn. — Thaitong (1984), Manachit (2006), present paper (*Chantanaorrapint* 1354, *Monlong* 1, 3, 4, 5, 6, 11).
- Acrolejeunea parvula* (Mizut.) Gradst. — Hattori and Mizutani (1969 as *Ptychocoleus parvulus*), Gradstein (1975), Thaitong (1984), Sornsamran and Thaitong (1995 as *P. parvulus*), Wilson *et al.* (2007).
- Acrolejeunea pycnoclada* (Tayler) Schiffn. var. *pycnoclada* — Gradstein (1975), Mizutani (1978a as *A. pycnoclada*), Miller *et al.* (1983 as *A. pycnoclada*).
- Acrolejeunea recurvata* Gradst. — Gradstein (1975), Sornsamran (1988), Zhu and So (1999a), Zhu and Long (2003), Wilson *et al.* (2007).
- Acromastigum curtilobum* A. Evans — Kitagawa (1978, 1979), Sornsamran and Thaitong (1995).
- Anastrophyllum bidens* (Nees) Steph. — Kitagawa (1978, 1981), Miller *et al.* (1983), Váňa and Piippo (1989a), Váňa (1991a), Sornsamran and Thaitong (1995), Schill and Long (2003).
- Anastrophyllum piligerum* (Nees) Steph. — Kitagawa (1978, 1981), Váňa (1991a), Chantanaorrapint *et al.* (2004b).
- Andrewsianthus puniceus* (Nees) R.M. Schust. — Kitagawa (1973a, 1978, 1981), Miller *et al.* (1983), Váňa and Piippo (1989a), Váňa (1991a), Sornsamran and Thaitong (1995).
- Aneura pinguis* (L.) Dumort. — present paper (*QSBG* 6).
- Anthoceros fusiformis* Austin — Chantanaorrapint (2007).
- Anthoceros subtilis* Steph. — Manachit (2006), Chantanaor-

- rapint (2007).
- Archilejeunea planiuscula* (Mitt.) Steph. — Stephani (1902 as *A. caramuensis*, 1900–1924 as *A. caramuensis*), Verdoorn (1934 as *A. mariana*), Tixier (1972 as *A. mariana*), Mizutani (1978a as *Spruceanthus marianus*, 1978b as *S. marianus*), Miller et al. (1983 as *S. marianus*), Sornsamran and Thaithong (1995 as *A. caramuensis*), Wilson et al. (2007), present paper (*Chantanaorrapint 1381*).
- Asterella blumeana* (Nees) Kachroo — Giesy and Richards (1959), Sornsamran and Thaithong (1995), Kornochalert (2006), present paper (*Monlong 38, 50, 67*).
- Asterella wallichiana* (Lehm. & Lindenb.) Grolle — Long (2006).
- Asterella khasyana* (Griff.) Pandé et al. — Long (2006).
- Bazzania angustistipula* N. Kitag. — Kitagawa (1967b, 1978), Pócs (1969).
- Bazzania appendiculata* (Mitt.) S. Hatt. — Mizutani (1967), Kitagawa (1967b, 1978), Hattori and Mizutani (1969), Mizutani and Chang (1986), Long and Grolle (1990), Sornsamran and Thaithong (1995), Gao and Cao (2000), Gao (2003), Chantanaorrapint et al. (2004b).
- Bazzania asperima* Steph. — Kitagawa (1967b as *B. semiopaca*, 1978), Hattori and Mizutani (1969), Sornsamran and Thaithong (1995, 1995 as *B. semiopaca*).
- Bazzania assamica* (Steph.) S. Hatt. — Tixier (1970b), Pócs (1969 as *B. tridens* var. *assamica*).
- Bazzania australis* (Lindenb.) Trevis. — Hattori and Mizutani (1969), Kitagawa (1978), Sornsamran and Thaithong (1995).
- Bazzania bilobata* N. Kitag. — Kitagawa (1967b), Mizutani and Chang (1986), Sornsamran and Thaithong (1995), Gao (2003).
- Bazzania callida* (Sande Lac. ex Steph.) Abeyw. — Stephani (1906–1909 as *Mastigobryum callidum*), Kitagawa (1967b, 1978), Sornsamran and Thaithong (1995).
- Bazzania cincinnata* (De Not.) Trevis. — Kitagawa (1967b), Sornsamran and Thaithong (1995).
- Bazzania cuspidata* (Steph.) Pócs — Tixier (1973a), Long and Grolle (1990).
- Bazzania debilis* N. Kitag. — Kitagawa (1967b), Gao and Cao (2000), Gao (2003).
- Bazzania desciscens* (Steph.) Robinson — Reed and Robinson (1967), Sornsamran and Thaithong (1995).
- Bazzania distans* (Nees) Trevis. — Kitagawa (1967b, 1978, 1980), Miller et al. (1983), Sornsamran and Thaithong (1995).
- Bazzania erosa* (Reinw. et al.) Trevis. — Kitagawa (1967b, 1978), Sornsamran and Thaithong (1995).
- Bazzania himalayana* (Mitt.) Schiffn. — Kitagawa (1978), Mizutani and Chang (1986), Long and Grolle (1990), Sornsamran and Thaithong (1995).
- Bazzania horridula* Schiffn. — Kitagawa (1967b), Sornsamran and Thaithong (1995).
- Bazzania indica* (Gottsche & Lindenb.) Trevis. — Kitagawa (1967b), Sornsamran and Thaithong (1995).
- Bazzania inaequitexta* Steph. — Stephani (1902 as *Mastigobryum inaequitextum*).
- Bazzania japonica* (Sande Lac.) Lindb. — Kitagawa (1967b, 1969d, 1978), Pócs (1969), Miller et al. (1983), Mizutani and Chang (1986), Sornsamran and Thaithong (1995).
- Bazzania javanica* (Sande Lac.) Schiffn. — Kitagawa (1967b), Miller et al. (1983), Sornsamran and Thaithong (1995).
- Bazzania loricata* (Nees) Trevis. — Kitagawa (1967b, 1978, 1979, 1980), Miller et al. (1983), Sornsamran and Thaithong (1995).
- Bazzania ovistipula* (Steph.) Abeyw. — Mizutani (1967), Kitagawa (1978), Mizutani and Chang (1986), Long and Grolle (1990), Sornsamran and Thaithong (1995).
- Bazzania paradoxa* (Sande Lac.) Steph. — Kitagawa (1967b), Miller et al. (1983), Sornsamran and Thaithong (1995).
- Bazzania pearsonii* — Stephani (1906–1909 as *Mastigobryum siamense* Steph.), Hattori and Mizutani (1969), Kitagawa (1967a, 1967b, 1969d, 1978), Mizutani and Chang (1986), Sornsamran and Thaithong (1995), Gao (2003).
- Bazzania pectinata* (Lindenb. & Gottsche) Schiffn. — Kitagawa (1967b, 1978), Sornsamran and Thaithong (1995).
- Bazzania praerupta* (Nees et al.) Trevis. — Kitagawa (1967b, 1978, 1979), Mizutani (1967), Pócs (1969), Miller et al. (1983), Mizutani and Chang (1986), Sornsamran and Thaithong (1995).
- Bazzania recurvata* (Mont.) Trevis. — Kitagawa (1978), Sornsamran and Thaithong (1995).
- Bazzania recurvolimbata* (Steph.) N. Kitag. — Stephani (1906–1909 as *Mastigobryum recurvolimbatum*), Kitagawa (1967b), Hattori and Mizutani (1969), Pócs (1969), Sornsamran and Thaithong (1995).
- Bazzania revoluta* (Steph.) N. Kitag. — Kitagawa (1973a, 1978), Mizutani and Chang (1986), Sornsamran and Thaithong (1995), present paper (*Monlong 49*).
- Bazzania sikkimensis* (Steph.) Herzog — Kitagawa (1978), Mizutani and Chang (1986).
- Bazzania spiralis* (Nees) Meijer — Kitagawa (1967b, 1978), Reed and Robinson (1967), Tixier (1971), Miller et al. (1983), Sornsamran and Thaithong (1995), Gao (2003).
- Bazzania sumbavensis* (Gottsche ex Steph.) Steph. — Miller et al. (1983).
- Bazzania tridens* (Reinw. et al.) Trevis. — Stephani (1902 as *Mastigobryum oblongum*), Kitagawa (1967b, 1967b as *B. oshimensis*, 1969d as *B. oshimensis*, 1973 as *B. oshimensis*, 1978, 1978 as *B. oshimensis*), Mizutani (1967), Hattori and Mizutani (1969 as *B. oshimensis*, 1969 as *B. oblonga*), Miller et al. (1983), Mizutani and Chang (1986 as *B. oshimensis*), Sornsamran (1988), Sornsamran and Thaithong (1995, 1995 as *B. oshimensis*, 1995 as *B. oblonga*), Gao (2003 as *B. oshimensis*), Chantanaorrapint et al. (2004b), Manachit (2006).
- Bazzania uncigera* (Nees) Trevis. — Kitagawa (1967b, 1978), Miller et al. (1983), Sornsamran and Thaithong (1995), Chantanaorrapint et al. (2004b).
- Bazzania vittata* (Gottsche) Trevis. — Kitagawa (1967b, 1978), Miller et al. (1983), Sornsamran and Thaithong (1995).
- Calycularia crispula* Mitt. — Kitagawa (1969b, 1969d), Sornsamran and Thaithong (1995).
- Calypogeia arguta* Nees & Mont. — Kitagawa (1973d, 1978, 1988), Miller et al. (1983), Sornsamran and Thaithong (1995).
- Calypogeia goebelii* (Schiffn.) Steph. — Kitagawa (1978,

- 1988), Sornsamran and Thaithong (1995), Zhang and Wu (2006).
- Calypogeia goebelii* (Schiffn.) Steph. var. *siamensis* N. Kitag. — Kitagawa (1988).
- Calypogeia lunata* Mitt. — Kitagawa (1988).
- Caudalejeunea cristiloba* (Steph.) Gradst. — Hattori and Mizutani (1969 as *Ptychocoleus cristilobus*), Miller *et al.* (1983), Thaithong (1984), Mizutani (1988), Sornsamran and Thaithong (1995 as *P. cristilobus*), Gradstein *et al.* (2002), present paper (*Chantanaorrapint 1395*).
- Caudalejeunea recurvistipula* (Gottsche) Schiffn. — Stephani (1902 as *C. stephanii*), Tixier (1970a as *C. reniloba* “*renilyba*”, 1970a as *C. stephanii*, 1970b as *C. reniloba*, 1973a as *C. stephanii*), Mizutani (1978a as *C. reniloba*, 1988), Miller *et al.* (1983 as *C. reniloba*), Sornsamran (1988 as *C. stephanii* and *Lopholejeunea* sp.), Sornsamran and Thaithong (1995 as *C. reniloba*).
- Cephalozia gollanii* Steph. — Kitagawa (1969b, 1979), Sornsamran and Thaithong (1995), Gao (2003), Koponen *et al.* (2004), Long (2005), present paper (*Monlong 34, 36*).
- Cephalozia nipponica* S. Hatt. — Kitagawa (1969a, 1969d, 1979), Sornsamran and Thaithong (1995).
- Cephalozia hamatiloba* Steph. — Kitagawa (1969b as *C. siamensis*, 1979 as *C. siamensis*), Váňa (1988, 1993), Long (2005), Manachit (2006 as *C. hamatiloba* subsp. *siamensis*).
- Cephalozia capillaris* (Steph.) Douin — Kitagawa (1969b, 1979), Sornsamran and Thaithong (1995).
- Cephalozia crispata* N. Kitag. — Kitagawa (1969b), Sornsamran and Thaithong (1995).
- Cephalozia kiaeeri* (Austin) Douin — Kitagawa (1969b as *C. willisana*, 1979 as *C. willisana*), Miller *et al.* (1983), Váňa and Piippo (1989a), Long and Grolle (1990), Piippo and Tan (1992), Sornsamran and Thaithong (1995 as *C. willisana*), Koponen *et al.* (2004).
- Cephalozia microphylla* (Steph.) Douin — Kitagawa (1969b), Long and Grolle (1990), Sornsamran and Thaithong (1995), Gao (2003), Koponen *et al.* (2004).
- Cephalozia stephanii* Schiffn. ex Douin — Kitagawa (1969b), Sornsamran and Thaithong (1995), Gao (2003), Manachit (2006), present paper (*Monlong 35*).
- Cephalozia subdentata* Warnst. — Kitagawa (1969b, 1979), Sornsamran and Thaithong (1995), present paper (*Monlong 37, 53*).
- Ceratolejeunea belangeriana* (Gottsche) Steph. — Stephani (1902 and 1912–1917 as *C. emarginata*), Tixier (1979a as *C. emarginata*), Miller *et al.* (1983 as *C. oceanica*), Mizutani (1981 as *C. oceanica*), Sornsamran and Thaithong (1995 as *C. emarginata*).
- Cheilolejeunea birmensis* (Steph.) Mizut. — Sornsamran (1988).
- Cheilolejeunea ceylanica* (Gottsche) R.M. Schust. and Kachroo — Tixier (1973a), Mizutani (1980, 1982), Miller *et al.* (1983), Thiers (1992), Sornsamran and Thaithong (1995), Zhu and So (2001).
- Cheilolejeunea clavata* Mizut. — Mizutani (1979b, 1980), Sornsamran and Thaithong (1995).
- Cheilolejeunea eximia* (Ast & Tixier) R.L. Zhu & M.L. So — present paper (*Chantanaorrapint 1441*).
- Cheilolejeunea intertexta* (Lindenb.) Steph. — Thaithong (1984), Manachit (2006).
- Cheilolejeunea larsenii* Mizut. — Hattori and Mizutani (1969), Sornsamran and Thaithong (1995).
- Cheilolejeunea meyeniana* (Nees *et al.*) R.M. Schust. & Kachroo — Tixier (1970a, 1973a), Sornsamran and Thaithong (1995).
- Cheilolejeunea serpentina* (Mitt.) Mizut. — Grolle (1979), Miller *et al.* (1983), Thaithong (1984).
- Cheilolejeunea trapezia* (Nees) Kachroo & R.M. Schust. — Hattori and Mizutani (1969 as *C. imbricata*), Mizutani (1980 as *C. imbricata*, 1982 as *C. imbricata*), Sornsamran (1988 as *C. longiloba*), Sornsamran and Thaithong (1995 as *C. imbricata*, 1995 as *C. longiloba* “*lonilobba*”), Zhu and Lai (2003 as *C. imbricata*), present paper (*Chantanaorrapint 1418*).
- Cheilolejeunea trifaria* (Reinw. *et al.*) Mizut. — Mizutani (1972, 1978a, 1982), Miller *et al.* (1983), present paper (*Chantanaorrapint 1318, Monlong 14, 15, 16*).
- Cheilolejeunea vittata* (Steph. ex G. Hoffm.) R.M. Schust. & Kachroo — present paper (*Chantanaorrapint 1440, 1442*).
- Chiloscyphus japonicus* (Steph.) J.J. Engel & R.M. Schust. — present paper (*Monlong 52*).
- Chiloscyphus stephanii* N. Kitag. — Kitagawa (1973d, 1979), Sornsamran and Thaithong (1995).
- Chondriolejeunea shimizui* (N. Kitag.) Kis & Pócs — Kitagawa (1969c as *Cololejeunea shimizui*), Bonner (1977 as *Cololejeunea shimizui*), So and Zhu (1999 as *Cololejeunea shimizui*).
- Chondriolejeunea shimizui* var. *phangngana* (N. Kitag.) Kis & Pócs — Kitagawa (1969c as *Cololejeunea shimizui* var. *phangngana*), Bonner (1977 as *Cololejeunea shimizui* var. *phangngana*), So and Zhu (1999 as *Cololejeunea shimizui* var. *phangngana*).
- Cololejeunea amoena* Benedix — Tixier (1970a, 1970b, 1973a), Mizutani (1975), Sornsamran and Thaithong (1995).
- Cololejeunea appressa* (A. Evans) Benedix — Tixier (1970a), Sornsamran and Thaithong (1995), Zhu and Lai (2003).
- Cololejeunea ceratilobula* (P.C. Chen) R.M. Schust. — Tixier (1970a), Sornsamran and Thaithong (1995 as *C. formosana*).
- Cololejeunea chamlongiana* Tixier — Tixier (1970d, 1985).
- Cololejeunea desciscens* Steph. — Tixier (1967, 1968, 1973a, 1985), Zhu and So (1999a, 2001), Zhu and Lai (2002, 2003), present paper (*Chantanaorrapint 1321*).
- Cololejeunea falcata* (Horik.) Benedix — Tixier (1968, 1970a, and 1971 as *C. falcatoides*), Mizutani (1978a as *C. falcatoides*), Sornsamran and Thaithong (1995 as *C. falcatoides*), Zhu and So (2001).
- Cololejeunea floccosa* (Lehm. & Lindenb.) Schiffn. — Tixier (1970a, 1971, 1972, 1978), Miller *et al.* (1983), Sornsamran and Thaithong (1995), present paper (*Chantanaorrapint 1324*).
- Cololejeunea floccosa* (Lehm. & Lindenb.) Schiffn. var. *aurita* Benedix — Tixier (1968, 1970b, 1973a, 1978, 1979a, 1981).
- Cololejeunea fructu-marginata* Tixier — Tixier (1985).
- Cololejeunea fusca* (Steph.) Mizut. — Stephani (1912–1917),

- Tixier (1985 as *C. fusca* (Steph.) Tixier., nom. superfl.).
Cololejeunea gottschei (Steph.) Mizut. — Zhu and Lai (2003), present paper (*Chantanaorrapint 1110*).
Cololejeunea gradsteinii M.J. Lai & R.L. Zhu — Tixier (1970a as *C. pusilla* Tixier).
Cololejeunea gresicola Tixier — Tixier (1970c, 1973a), Bonner (1977).
Cololejeunea gynophthalma Benedix — Tixier (1968, 1979a), Mizutani (1975, 1978a), Miller et al. (1983).
Cololejeunea inflata Steph. — Reed and Robinson (1967 as *C. oshimensis*), Mizutani (1970 as *C. oshimensis*, 1975 as *C. oshimensis*, 1978b as *C. oshimensis*), Tixier (1971 and 1973a as *C. oshimensis*, 1978), Miller et al. (1983), Sornsamran and Thaithong (1995 as *C. oshimensis*), Zhu (1995), Zhu and So (2001).
Cololejeunea khiavensis Tixier — Tixier (1970c, 1973a).
Cololejeunea koratensis Tixier — Tixier (1970c, 1973a), Bonner (1977).
Cololejeunea lanciloba Steph. — Tixier (1967, 1968, 1970b as *C. aff. lanciloba*, 1973a as *C. aff. lanciloba*, 1980 as *C. cf. lanciloba*, 1985, 1985 as *C. bolombensis*), Miller et al. (1983), Mizutani (1984b), Sornsamran (1988), Zhu and So (2001), Kornochalert (2006), Manachit (2006), present paper (*Chantanaorrapint 1320, Monlong 13, QSBG 1*).
Cololejeunea longifolia (Mitt.) Benedix ex Mizut.— Tixier (1968 as *C. minuta*).
Cololejeunea mariitima Tixier — Tixier (1979b, 1985), Miller et al. (1983).
Cololejeunea minutissima (Sm.) Schiffn. — Thaithong (1984).
Cololejeunea obliqua (Nees & Mont.) Schiffn. — Tixier (1970a as *C. pseudonymanii*, 1973a as *C. cf. nymanii*, 1985 as *C. scabrifolia*, 1985 as *C. scabriflora*), Sornsamran and Thaithong (1995 as *C. pseudonymanii*).
Cololejeunea ocellata (Horik.) Benedix — Mizutani (1984a), Zhu (1995), Zhu and So (2001), Zhu and Long (2003).
Cololejeunea ocelloides (Horik.) Mizut. — Mizutani (1984a), Zhu and So (2001).
Cololejeunea ombrophila Tixier — Tixier (1970a, 1980, 1985).
Cololejeunea plagiophylla Benedix — Tixier (1968 as *C. cf. plagiophylla*, 1970a, 1985), Sornsamran and Thaithong (1995).
Cololejeunea planissima (Mitt.) Abeyw. — Tixier (1968, 1973a), Zhu and Lai (2003).
Cololejeunea ranogensis Tixier — Tixier (1970a), Sornsamran and Thaithong (1995).
Cololejeunea schmidtii Steph. — Stephani (1902, 1900–1924 as *Physocolea schmidtii*), Mizutani (1975), Tixier (1973a, 1975, 1977, 1985), Pócs et al. (1994), Sornsamran and Thaithong (1995), Zhu (1995), Zhu and So (2001).
Cololejeunea siamensis Steph. — Stephani (1902, 1900–1924 as *Physocolea siamensis*), Tixier (1968, 1978), Sornsamran and Thaithong (1995).
Cololejeunea sigmoidea Ast & Tixier — Tixier (1970a, 1971), Mizutani (1978b), Sornsamran and Thaithong (1995).
Cololejeunea smitinandii Tixier — Tixier (1973a, 1973b, 1985), Bonner (1977).
Cololejeunea spinosa (Horik.) Pandé & Misra — Sornsamran (1988), Kornochalert (2006).
Cololejeunea stylosa (Steph.) A. Evans — Zhu and Lai (2003).
Cololejeunea taprobanea Tixier — Tixier (1985).
Cololejeunea tenella Benedix — Tixier (1970a, 1973a, 1995), Sornsamran and Thaithong (1995), Zhu and So (2001), Zhu and Long (2003).
Cololejeunea thailandensis Tixier “*thailandense*” — Tixier (1973a, Tixier 1973b, 1985).
Cololejeunea trichomanis (Gottsche) Steph. — Tixier (1973a as *C. goebelii*, 1985 as *C. goebelii*), Mizutani (1975 as *C. goebelii*), Miller et al. (1983 as *C. goebelii*), Zhu and Lai (2003), Zhu and Long (2003).
Cololejeunea wightii Steph. — Tixier (1971, 1973a, 1985), Zhu and So (1999c).
Colura acroloba (Mont. ex Steph.) Ast — Reed and Robinson (1967), Tixier (1973a), Mizutani (1975), Miller et al. (1983), Sornsamran and Thaithong (1995), Eggers et al. (1998), Zhu and So (2001).
Colura conica (Sande Lac.) K.I. Goebel — Tixier (1973a as *C. acutifolia*), Mizutani (1975), Miller et al. (1983), Zhu and So (2001).
Colura corynephora (Nees et al.) Trevis. — Tixier (1970a), Sornsamran and Thaithong (1995), Zhu and So (1999a), Zhu and So (2001).
Colura siamensis Ast — Jovet-Ast (1968), Tixier (1973a), Grolle and Zhu (2002).
Colura superba (Mont.) Steph. — Tixier (1973a).
Colura tixieri Ast — Tixier (1967, 1970a, 1973a), Sornsamran and Thaithong (1995), Grolle and Zhu (2002).
Conoscyphus trapezioides (Sande Lac.) Schiffn.— Kitagawa (1979), Sornsamran and Thaithong (1995).
Cyathodium aureonitens (Griff.) Mitt. — Miller et al. (1983).
Cylindrocolea tagawae (N. Kitag.) R.M. Schust.— Kitagawa (1969b as *Cephaloziella tagawae*), Sornsamran and Thaithong (1995 as *Cephaloziella tagawae*), Zhu and So (1996), Manachit (2006).
Delavayella serrata Steph. — Kitagawa (1978), Sornsamran and Thaithong (1995).
Dendroceros subplanus Steph. — Chantanaorrapint (2007).
Dendrolejeunea fruticosa (Lindb. & Gottsche) Lacout. — Reed and Robinson (1968 as *Caudalejeunea fruticosa*), Mizutani (1987b as *Thysananthus fruticosa*), Sornsamran and Thaithong (1995 as *C. fruticosa*).
Denotarisia linguifolia (De Not.) Grolle — Grolle (1971), Kitagawa (1981), Miller et al. (1983), Vána and Piipo (1989b), Vána (1991a), Schuster (2002).
Diplastolejeunea cavifolia Steph. — Tixier (1970b and 1973a as *D. brachyclada*), Mizutani (1978a), Miller et al. (1983).
Diplastolejeunea cobrensis Gottsche ex Steph. — Tixier (1973a as *D. incurvata*).
Drepanolejeunea angustifolia (Mitt.) Grolle — Tixier (1973a as *D. tenuis*), Miller et al. (1983), Zhu and So (2001), Zhu and Long (2003).
Drepanolejeunea dactylophora (Nees et al.) Schiffn. — Chantanaorrapint et al. (2004b), present paper (*Chantana-*

- aorrapint* 1428).
- Drepanolejeunea levicornua* Steph. — Tixier (1970a as *D. laevicornua*), Sornsamran and Thaithong (1995), present paper (*Chantanaorrapint* 1429).
- Drepanolejeunea longicuris* (Steph.) Grolle & R.L. Zhu — Grolle and Zhu (2000).
- Drepanolejeunea pentadactyla* (Mont.) Steph. — Tixier (1970a as *D. micholitzii*), Sornsamran and Thaithong (1995 as *D. micholitzii*), Zhu and So (1999a), present paper (*Chantanaorrapint* 1371).
- Drepanolejeunea siamensis* (Bischl.) Grolle & R.L. Zhu — Tixier (1973a as *Rhaphidolejeunea siamensis*), Bischler (1969 as *R. siamensis*), Grolle and Zhu (2000).
- Drepanolejeunea spicata* (Steph.) Grolle & R.L. Zhu — Grolle and Zhu (2000), present paper (*Chantanaorrapint* 1427).
- Drepanolejeunea teysmanii* Steph. — Tixier (1973a).
- Drepanolejeunea thwaitesiana* (Mitt.) Steph. var. *thwaitesiana* — Tixier (1971 and 1973a as *D. thwaitesiana*, Mizutani (1990 as *D. thwaitesiana*), Zhu and So (2001 as *D. thwaitesiana*).
- Drepanolejeunea thwaitesiana* (Mitt.) Steph. var. *zhengii* R.L. Zhu — Zhu and So (2001).
- Dumortiera hirsuta* (Sw.) Nees — Hattori and Mizutani (1969 as *D. nepalensis*), Sornsamran and Thaithong (1995 as *D. nepalensis*), Chantanaorrapint *et al.* (2004b as *D. nepalensis*), Kornochalert (2006), Manachit (2006), present paper (*QSBG* 8, 9).
- Eocalypogeia quelpaertensis* (S. Hatt. & Inoue) R.M. Schust. — Kitagawa (1988 as *Metacalypogeia quelpaertensis*), Schuster and Konstantinova (1996).
- Folioceros amboinensis* (Schiffn.) Piippo — Giesy and Richards (1959 as *Anthoceros amboinensis*), Sornsamran and Thaithong (1995 as *A. amboinensis*).
- Folioceros assamicus* D.C. Bharadwaj — Chantanaorrapint (2007).
- Folioceros udarii* A.K. Asthana & S.C. Srivast. — Chantanaorrapint (2007).
- Fossombromia pusilla* (L.) Nees — present paper (*Monlong* 61, 68).
- Fossombromia cristula* Austin — Manachit (2006).
- Frullania alstonii* Verd. var. *alstonii* — Hattori *et al.* (1977), Hattori and Thaithong (1978), Sornsamran and Thaithong (1995).
- Frullania apiculata* (Reinw. *et al.*) Nees — Miller *et al.* (1983), Hattori *et al.* (1977), Sornsamran and Thaithong (1995), Chantanaorrapint *et al.* (2004b).
- Frullania arecae* (Spreng.) Gottsche var. *arecae* — Stephani (1900–1924 as *F. hosseana*), Hattori (1974b as *F. wallichiana*), Hattori *et al.* (1977 as *F. wallichiana*), Chantanaorrapint *et al.* (2004b as *F. wallichiana*).
- Frullania berthoumieui* Steph. — Hattori (1974a), Hattori *et al.* (1977), Thaithong (1984), Sornsamran (1988), Sornsamran and Thaithong (1995), Chantanaorrapint *et al.* (2004b).
- Frullania brotheri* Steph. — Hattori (1976b, 1980), Hattori *et al.* (1977), Sornsamran and Thaithong (1995).
- Frullania claviloba* Steph. — Hattori *et al.* (1977), Sornsamran and Thaithong (1995).
- Frullania ericoides* (Nees) Mont. — Reed and Robinson (1967 as *F. squarrosa*), Miller *et al.* (1983, 1983 as *F. squarrosa*), Hattori *et al.* (1977, 1977 as *F. squarrosa*), Thaithong (1984), Sornsamran and Thaithong (1995, 1995 as *F. squarrosa*), Chantanaorrapint *et al.* (2004b), Manachit (2006), present paper (*Monlong* 28, 40, 41, 5556, 57, 58).
- Frullania gaudichaudii* (Nees & Mont.) Nees & Mont. — Hattori *et al.* (1977), Miller *et al.* (1983), Sornsamran and Thaithong (1995), Chantanaorrapint *et al.* (2004b).
- Frullania gemmulosa* S. Hatt. & Thaithong — Hattori *et al.* (1977), Hattori and Thaithong (1978), Sornsamran and Thaithong (1995), Kornochalert (2006).
- Frullania gracilis* (Reinw. *et al.*) Dumort. — Hattori *et al.* (1977), Miller *et al.* (1983), Sornsamran and Thaithong (1995).
- Frullania hamatiloba* Steph. — Tixier (1973a as *F. hamatilobula*).
- Frullania intermedia* (Reinw. *et al.*) Dumort. — Hattori *et al.* (1977), Miller *et al.* (1983), Sornsamran and Thaithong (1995).
- Frullania junghuhniana* var. *minutissima* subvar. *monoica* (S. Hatt.) S. Hatt. — Hattori *et al.* (1977), Sornsamran and Thaithong (1995).
- Frullania meyeniana* Lindenb. — Tixier (1968, 1970b, 1971, 1973a), Hattori *et al.* (1977), Miller *et al.* (1983), Thaithong (1984), Sornsamran and Thaithong (1995), Manachit (2006).
- Frullania moniliata* (Reinw. *et al.*) Mont. — Hattori *et al.* (1977 as *F. tamarisci* subsp. *obscura* var. *breviramea*, 1977 as *F. tamarisci* subsp. *obscura* var. *balansae*).
- Frullania monocera* (Taylor) Taylor — Hattori *et al.* (1977 as *F. hampeana* var. *acutiloba*), Sornsamran and Thaithong (1995 as *F. hampeana* var. *acutiloba*).
- Frullania muscicola* Steph. — Hattori *et al.* (1977), Yuzawa and Koike (1994), Sornsamran and Thaithong (1995), Kornochalert (2006), present paper (*Monlong* 27).
- Frullania muscicola* Steph. var. *inuena* (Steph.) Kamim. — Tixier (1973a).
- Frullania nepalensis* (Spreng) Lehm. & Lindenb. — Stephani (1900–1924), Hattori (1974b), Verdoorn (1930), Hattori *et al.* (1977), Sornsamran and Thaithong (1995).
- Frullania neurota* Taylor — Hattori *et al.* (1977), Miller *et al.* (1983), Yuzawa (1991), Sornsamran and Thaithong (1995), present paper (*Monlong* 45).
- Frullania nigricaulis* (Nees) Nees — Hattori *et al.* (1977), Sornsamran and Thaithong (1995).
- Frullania nodulosa* (Reinw. *et al.*) Nees — Tixier (1970a), Tixier (1973a), Hattori *et al.* (1977), Miller *et al.* (1983), Sornsamran and Thaithong (1995).
- Frullania ornithocephala* (Reinw. *et al.*) Nees — Hattori *et al.* (1977), Sornsamran and Thaithong (1995).
- Frullania pallide-virens* Steph. — Hattori *et al.* (1977), Hattori and Thaithong (1978), Sornsamran and Thaithong (1995).
- Frullania parvistipula* Steph. — Hattori *et al.* (1977), Hattori and Lin (1985), Sornsamran and Thaithong (1995).
- Frullania polyptera* Taylor — Hattori *et al.* (1977), Hattori and Lin (1985), Sornsamran and Thaithong (1995).
- Frullania retusa* Mitt. var. *retusa* — Hattori *et al.* (1977), Sornsamran (1988), Sornsamran and Thaithong (1995).

- Frullania riojaneirensis* (Raddi) Angstr. — Hattori et al. (1977 as *F. galeata*), Hattori (1982 as *F. galeata*), Miller et al. (1983 as *F. galeata*), Hattori and Lin (1985), Hattori and Piippo (1986), Sornsamran and Thaithong (1995 as *F. galeata*), Kornochalart (2006 as *F. galeata*), present paper (*Monlong* 46).
- Frullania sackawana* Steph. — Hattori et al. (1977), Hattori and Lin (1985), Sornsamran and Thaithong (1995).
- Frullania schensiana* C. Massal. — Hattori et al. (1977), Hattori and Lin (1985), Sornsamran and Thaithong (1995).
- Frullania serrata* Gottsche — Hattori et al. (1977), Miller et al. (1983), Sornsamran and Thaithong (1995).
- Frullania shanensis* Svihla — Hattori et al. (1977), Sornsamran (1988), Sornsamran and Thaithong (1995).
- Frullania siamensis* N. Kitag. et al. — Hattori et al. (1977), Sornsamran and Thaithong (1995).
- Frullania siamensis* N. Kitag. et al. fo. *retusa* Thaithong et al. — Hattori et al. (1977), Sornsamran and Thaithong (1995), present paper (*Monlong* 30, 31, 32).
- Frullania tagawana* (S. Hatt. & Thaithong) S. Hatt. — Hattori et al. (1977 as *F. evoluta* var. *tagawana*), Hattori and Thaithong (1978 as *F. evoluta* var. *tagawana*), Sornsamran and Thaithong (1995 as *F. evoluta* var. *tagawana*), present paper (*Monlong* 9).
- Frullania tamarisci* (L.) Dumort. — Reed and Robinson (1967), Tixier (1973a), Hattori et al. (1977), Sornsamran and Thaithong (1995).
- Frullania trichodes* Mitt. — Reed and Robinson (1967 as *F. tenuicaulis*), Tixier (1973a as *F. tenuicaulis*), Hattori et al. (1977 as *F. vethii*), Sornsamran and Thaithong (1995 as *F. vethii*, 1995 as *F. tenuicaulis*).
- Frullania warnckeana* S. Hatt. — Hattori (1974a), Hattori et al. (1977), Sornsamran and Thaithong (1995).
- Frullania yuennanensis* Steph. — Hattori and Lin (1985).
- Haplomitrium mnioides* (Lindb.) R.M. Schust. — Kitagawa (1978), Sornsamran and Thaithong (1995), Shi and Zhu (2006).
- Herbertus armitanus* (Steph.) H.A. Mill. — Juslén (2006).
- Herbertus dicranus* (Taylor ex Gottsche et al.) Trevis. — Kitagawa (1978, 1978 as *H. chinensis*, 1978 as *H. giraldianus*), Long & Grolle (1990, 1990 as *H. giraldianus*), Sornsamran and Thaithong (1995, 1995 as *H. giraldianus*, 1995 as *H. chinensis*), Chantanaorrapint et al. (2004b), Juslén (2004, 2006), Feldberg and Heinrichs (2005), present paper (*Monlong* 42).
- Herbertus ramosus* (Steph.) H.A. Mill. — Tixier (1973a, 1973a as *H. javanicus*), Kitagawa (1978, 1978 as *H. javanicus*), Sornsamran and Thaithong (1995, 1995 as *H. javanicus*), So (2003c), Juslén (2006).
- Heteroscyphus argutus* (Reinw. et al.) Schiffn. — Reed and Robinson (1967 as *Chiloscyphus argutus*), Hattori and Mizutani (1969 as *C. argutus*), Tixier (1970a as *C. argutus*, 1973a as *C. argutus*), Kitagawa (1979 as *C. argutus*), Miller et al. (1983), Piippo (1985a), Sornsamran (1988 as *C. argutus*), Sornsamran and Thaithong (1995 as *C. argutus*), Chantanaorrapint et al. (2004b), Kornochalart (2006), Manachit (2006).
- Heteroscyphus aselliformis* (Reinw. et al.) Schiffn. — Kitagawa (1978 as *Chiloscyphus aselliformis*, 1979 as *C. aselliformis*), Sornsamran and Thaithong (1995 as *C. aselliformis*).
- Heteroscyphus coalitus* (Hook.) Schiffn. — Hattori and Mizutani (1969 as *Chiloscyphus communis*), Tixier (1973a *C. communis*), Kitagawa (1979 as *C. communis*), Miller et al. (1983), Piippo (1985a), Sornsamran (1988 as *C. communis*), Sornsamran and Thaithong (1995 as *C. communis*), Chantanaorrapint et al. (2004b), Manachit (2006).
- Heteroscyphus inflatus* (Steph.) S.C. Srivast. & A. Srivast. var. *fragilissimus* (N. Kitag.) M.J. Lai & R.L. Zhu — Kitagawa (1979 as *Chiloscyphus inflatus* var. *fragilissimus*), Sornsamran and Thaithong (1995 as *C. inflatus* var. *fragilissimus*).
- Heteroscyphus splendens* (Lehm. & Lindenb.) Grolle — Hattori and Mizutani (1969 as *Chiloscyphus decurrens*), Kitagawa (1979 as *C. decurrens*), Sornsamran and Thaithong (1995 as *C. decurrens*), Chantanaorrapint et al. (2004b).
- Heteroscyphus zollingeri* (Gottsche) Schiffn. — Kornochalart (2006), Manachit (2006).
- Iwatsukia jishibae* (Steph.) N. Kitag. — Kitagawa (1979), Sornsamran and Thaithong (1995).
- Jackiella javanica* Schiffn. — Kitagawa (1979 as *J. javanica* var. *cavifolia*), Miller et al. (1983), Piippo (1985b), Sornsamran and Thaithong (1995 as *J. javanica* var. *cavifolia*), Zhang and Wu (2006).
- Jamesoniella contracta* (Reinw. et al.) N. Kitag. — Kitagawa (1970 as *Cuspidatula contracta*), Kitagawa (1981), Miller et al. (1983 as *C. contracta*), Sornsamran and Thaithong (1995 as *C. contracta*).
- Jamesoniella flexicaulis* (Nees) Schiffn. — Kitagawa (1978), Kitagawa (1981), Miller et al. (1983), Vána (1991a), Sornsamran and Thaithong (1995).
- Jungermannia comata* Nees — Hattori and Mizutani (1969), Amakawa (1970), Vána (1973), Kitagawa (1978, 1979), Miller et al. (1983), Vána and Piippo (1989b), Sornsamran and Thaithong (1995), Gao and Bai (2001), Vána et al. (2005).
- Jungermannia subulata* A. Evans — Kitagawa (1978), Long and Grolle (1990), Sornsamran and Thaithong (1995).
- Jungermannia tetragona* Lindenb. — Miller et al. (1983), Vána and Piippo (1989b), Vána (1991b), Vána et al. (2005).
- Jungermannia truncata* Nees — Kitagawa (1978), Vána and Piippo (1989b), Vána (1991b), Sornsamran and Thaithong (1995), Gao and Bai (2001), Vána et al. (2005), Manachit (2006), present paper (*QSBG* 7).
- Kurzia gonyotricha* (Sande Lac.) Grolle — Mizutani (1974), Kitagawa (1978), Miller et al. (1983), Sornsamran and Thaithong (1995).
- Kurzia lineariloba* Mizut. — Kitagawa (1978), Sornsamran and Thaithong (1995).
- Kurzia touwii* N. Kitag. — Kitagawa (1978).
- Kurzia trichoclados* (Müll. Frib.) Grolle — Kitagawa (1978), Sornsamran and Thaithong (1995).
- Lejeunea anisophylla* Mont. — Miller et al. (1983 as *L. borneensis*), Zhu and Lai (2003), present paper (*Chantanaorrapint* 1110, 1323, 1326, *Inuthai* 40).
- Lejeunea discreta* Lindenb. — Chantanaorrapint et al. (2004b).

- Lejeunea flava* (Sw.) Nees — Miller *et al.* (1983), Kornochalert (2006).
- Lejeunea moniliata* Mizut. — Mizutani (1979b), Sornsamran and Thaithong (1995).
- Lejeunea punctiformis* Taylor — Hattori and Mizutani (1969), Long and Grolle (1990), Sornsamran and Thaithong (1995), Zhu and So (2001), Piippo *et al.* (2002), Manachit (2006).
- Lejeunea riparia* Mitt. — Reed and Robinson (1967), Sornsamran and Thaithong (1995).
- Lejeunea sordida* (Nees) Nees — Thaithong (1984 as *Lejeunea "sordida"*), Zhu and So (2001), Chantanaorrapint *et al.* (2004b).
- Lejeunea tuberculosa* Steph. — present paper (*Chantanaorrapint 1383, Monlong 9, 21, 22, 23, 24*).
- Lejeunea ulicina* (Taylor) Gottsche *et al.* — present paper (*Chantanaorrapint 1325*).
- Lejeunea wightii* Lindenb. — Hattori and Mizutani (1969), Miller *et al.* (1983), Sornsamran and Thaithong (1995), Chantanaorrapint *et al.* (2004b).
- Lepicolea loriana* Steph. — Kitagawa (1973b, 1978), Sornsamran and Thaithong (1995).
- Lepicolea yakushimensis* (S. Hatt.) S. Hatt. — Kitagawa (1969d, 1973b, 1978), Sornsamran and Thaithong (1995), Gao (2003).
- Lepidolejeunea bidentula* (Steph.) R.M. Schust. — Tixier (1970a as *Pycnolejeunea bidentula*), Thaithong (1984 as *P. bidentula*), Piippo (1986), Sornsamran (1988 as *P. bidentata*), Sornsamran and Thaithong (1995 as *P. bidentula*).
- Lepidozia flexuosa* Mitt. — Kitagawa (1978), Sornsamran and Thaithong (1995), Long (2005).
- Lepidozia himalayensis* Steph. — Kitagawa (1978), Sornsamran and Thaithong (1995).
- Lepidozia holorhiza* (Reinw. *et al.*) Gottsche *et al.* — Kitagawa (1978), Sornsamran and Thaithong (1995).
- Lepidozia papulosa* Steph. — Kitagawa (1973d, 1978), Miller *et al.* (1983), Sornsamran and Thaithong (1995).
- Lepidozia parvula* N. Kitag. — Kitagawa (1978), Sornsamran and Thaithong (1995).
- Lepidozia trichodes* (Reinw. *et al.*) Nees — Kitagawa (1978), Miller *et al.* (1983), Sornsamran and Thaithong (1995), Gao (2003).
- Leptolejeunea balansae* Steph. — Stephani (1902, 1900–1924), Tixier (1970b), Sornsamran and Thaithong (1995), Zhu and So (2001).
- Leptolejeunea elliptica* (Lehm. & Lindenb.) Schiffn. — Tixier (1970a as *Leptolejeunea subacuta*), Zhu and Lai (2003), Kornochalert (2006).
- Leptolejeunea follicola* Steph. — Tixier (1973a).
- Leptolejeunea epiphylla* (Mitt.) Steph. — Tixier (1968, 1970a, 1973a), Mizutani (1975), Miller *et al.* (1983), Sornsamran (1988), Sornsamran and Thaithong (1995), Zhu and Lai (2003), Chantanaorrapint *et al.* (2004b), present paper (*Chantanaorrapint 1309*).
- Leptolejeunea latifolia* Herzog — Zhu and Lai (2003).
- Leptolejeunea maculata* (Mitt.) Schiffn. — Tixier (1973a as *L. radiata*).
- Leptolejeunea vitrea* (Nees) Steph. — Herzog (1942), Tixier (1970a), Sornsamran and Thaithong (1995).
- Leucolejeunea paroica* N. Kitag. — Kitagawa (1968, 1969d), Grolle and Piippo (1990), Sornsamran and Thaithong (1995), Zhu and So (1999b).
- Leucolejeunea turgida* (Mitt.) Verd. — Stephani (1900–1924 as *Archilejeunea hossei*), Kitagawa (1968), Grolle and Piippo (1990), Sornsamran and Thaithong (1995), Zhu and So (1999b), Zhu and Long (2003).
- Leucolejeunea xanthocarpa* (Lehm. & Lindenb.) A. Evans — Kitagawa (1968), Sornsamran and Thaithong (1995).
- Lophocolea ciliolata* (Nees) Gottsche — Kitagawa (1979), Sornsamran and Thaithong (1995).
- Lophocolea kurzii* Sande Lac. — Kornochalert (2006 as *L. morobeana*), Manachit (2006 as as *L. morobeana*), present paper (*Monlong 43*).
- Lophocolea kurzii* Sande Lac. var. *siamensis* N. Kitag. — Kitagawa (1979 as *Lophocolea kurzii* var. *siamensis*), Sornsamran and Thaithong (1995 as *Lophocolea kurzii*).
- Lophocolea minor* Nees — Manachit (2006).
- Lophocolea muricata* (Lehm.) Nees — Kitagawa (1979), Sornsamran and Thaithong (1995).
- Lophocolea sikkimensis* (Steph.) Herzog & Grolle — Kitagawa (1974, 1979), Sornsamran and Thaithong (1995).
- Lopholejeunea applanata* (Reinw. *et al.*) Schiffn. — Hattori and Mizutani (1969), Mizutani (1979a), Sornsamran and Thaithong (1995), Zhu and Gradstein (2005).
- Lopholejeunea ceylanica* Steph. — Zhu and Gradstein (2005).
- Lopholejeunea eulopha* (Taylor) Schiffn. — Stephani (1902 as *L. sundaica*), Tixier (1970a), Mizutani (1979a, 1985 as *L. nicobarica*), Sornsamran and Thaithong (1995), Sornsamran and Thaithong (1995 as *L. sundaica*), Zhu and Gradstein (2005).
- Lopholejeunea horticola* Schiffn. — Zhu and Gradstein (2005).
- Lopholejeunea nigricans* (Lindenb.) Schiffn. — Mizutani (1985 as *L. javanica*), Zhu and So (2000 as *L. javanica*), Zhu and Gradstein (2005).
- Lopholejeunea subfusca* (Nees) Schiffn. — Tixier (1967, 1970a, 1973a), Mizutani (1978a, 1979a), Thaithong (1984), Sornsamran (1988), Sornsamran and Thaithong (1995), Chantanaorrapint *et al.* (2004b), Zhu and Gradstein (2005).
- Marchantia emarginata* Reinw. *et al.* subsp. *tosana* (Steph.) Bischl. — Bischler-Causse (1989).
- Marchantia papillata* Raddi subsp. *grossibarba* (Steph.) Bischl. — Bischler-Causse (1989), present paper (*Monlong 39*).
- Mastigolejeunea auriculata* (Wils.) Schiffn. — Stephani (1902 as *M. humilis*), Hattori and Mizutani (1969 as *M. humilis*), Tixier (1970a as *M. humilis*, 1970b as *M. humilis*, 1973a as *M. humilis*), Mizutani (1978a as *M. humilis*, 1987a as *M. humilis*), Miller *et al.* (1983 as *M. humilis*), Thaithong (1984 as *M. humilis*), Sornsamran and Thaithong (1995 as *M. humilis*).
- Mastigolejeunea indica* Steph. — Mizutani (1987a), Gradstein *et al.* (2002), Chantanaorrapint *et al.* (2004b), Manachit (2006), present paper (*Monlong 2*).
- Mastigolejeunea ligulata* (Lehm. & Lindenb.) Schiffn. — Mizutani (1987a), Wilson *et al.* (2007).
- Mastigolejeunea repleta* (Talyor) Steph. — Stephani (1900–

- 1924 as *M. atypos*), Hattori and Mizutani (1969), Kitagawa (1973d), Miller et al. (1983, 1983 as *M. atypos*), Mizutani (1987a), Sornsamran and Thaithong (1995), Chantanaorrapint et al. (2004b), present paper (*Chantanaorrapint 1392, Monlong 7, 10*).
- Mastigolejeunea virens* (Aongstr.) Steph. — Mizutani (1987a).
- Mastigophora diclados* (Brid.) Nees — Hattori and Mizutani (1969), Tixier (1973a), Kitagawa (1978), Miller et al. (1983), Sornsamran and Thaithong (1995).
- Megaceros flagellaris* (Mitt.) Steph. — Hasegawa (1983), Piippo (1993), Chantanaorrapint et al. (2004b), Manachit (2006), Wu et al. (2006), Zhang and Wu (2006).
- Metalejeunea cucullata* (Reinw. et al.) Grolle — Tixier (1970a as *Microlejeunea cucullata*, 1973a as *M. cucullata*), Sornsamran and Thaithong (1995 as *M. cucullata*), present paper (*Chantanaorrapint 1419B*).
- Metzgeria furcata* (L.) Dumort. — Tixier (1973a), Miller et al. (1983 as *M. decipiens*), Piippo (1991 as *M. decipiens*), So (2003b).
- Metzgeria leptoneura* Spruce — Miller et al. (1983), So (2003b).
- Metzgeria lindbergii* Schifff. — present paper (*Chantanaorrapint 1455, 1593*).
- Metzgeria pubescens* (Schrank) Raddi — Kitagawa (1969d as *Apometzgeria pubescens*), Sornsamran and Thaithong (1995 as *A. pubescens*).
- Mnioloma fuscum* (Lehm.) R.M. Schust. — Kitagawa (1978 as *Calypogeia baldwinii*), Miller et al. (1983 as *C. fusca*), Kitagawa (1988 as *Metacalypogeia fusca*), Sornsamran and Thaithong (1995 as *C. baldwinii*), Gao et al. (2002), Engel (2006).
- Monosolenium tenerum* Griff. — Miller et al. (1983).
- Notoscaphus lutescens* (Lehm. & Lindenb.) Mitt. — Kitagawa (1969a as *N. paroicus*, 1969d as *N. paroicus*, 1978 as *N. paroicus*, 1979 as *N. paroicus*), Miller et al. (1983 as *N. paroicus*), Sornsamran and Thaithong (1995 as *N. paroicus*), Chantanaorrapint et al. (2004b as *N. paroicus*).
- Notothylas depressispora* J. Hasegawa — Hasegawa (1979).
- Notothylas javanica* (Sande Lac.) Gottsche — Manachit (2006), Chantanaorrapint (2007).
- Notothylas levieri* Schifff. — Chantanaorrapint (2007).
- Notothylas orbicularis* (Schwein.) Sull. ex A. Gray — Manachit (2006), Chantanaorrapint (2007).
- Nowellia curvifolia* (Dicks.) Mitt. — Kitagawa (1979), Sornsamran and Thaithong (1995), Koponen et al. (2004).
- Odontoschisma denudatum* (Mart.) Dumort. — Gao (2003).
- Odontoschisma grosseverrucosum* Steph. — Kitagawa (1969d, 1979), Sornsamran and Thaithong (1995), So (2004).
- Pallavicinia ambigua* (Mitt.) Steph. — Grolle and Piippo (1986).
- Pallavicinia lyellii* (Hook.) Carruth. — Hattori and Mizutani (1969 as *P. indica*), Sornsamran and Thaithong (1995 as *P. indica*), Manachit (2006).
- Pellia endiviifolia* (Dicks.) Dumort. — present paper (*Monlong 59*).
- Phaeoceros carolinianus* (Michx.) Prosk. — Miller et al. (1983 as *P. laevis* subsp. *carolinianus*), Kornochalert (2006 as *P. laevis*), Chantanaorrapint (2007 as *P. laevis* subsp. *carolinianus*).
- Plagiochila arbuscula* (Brid. ex Lehm. & Lindenb.) Lindenb. — Inoue (1974, 1984), Miller et al. (1983), Sornsamran and Thaithong (1995), So (2001a).
- Plagiochila assamica* Steph. — Inoue (1974), Sornsamran and Thaithong (1995), So (2001a).
- Plagiochila bantamensis* (Reinw. et al.) Mont. — Stephani (1900–1924 as *P. siamensis*), Inoue (1974 as *P. aequitexta*, 1974 as *P. renistipula*), Sornsamran (1988), Sornsamran and Thaithong (1995 as *P. aequitexta*), So (2001a).
- Plagiochila beddomei* Steph. — Stephani (1900–1924 as *P. humicola*), Inoue (1974), Sornsamran and Thaithong (1995), So (2001a).
- Plagiochila blepharophora* (Nees) Lindenb. — Inoue (1974, 1984), Miller et al. (1983), Piippo (1989b), Sornsamran and Thaithong (1995).
- Plagiochila chinensis* Steph. — Inoue (1974), Sornsamran and Thaithong (1995), So and Grolle (2000), So (2001a).
- Plagiochila cuspidata* Steph. — Inoue (1974, 1974 as *P. neorupicola*), Sornsamran and Thaithong (1995, 1995 as *P. neorupicola*), So (2001a).
- Plagiochila denticulata* Mitt. — Inoue (1974), Sornsamran and Thaithong (1995), So (2001a).
- Plagiochila durelii* Schifff. subsp. *durelii* — Inoue (1974 as *P. ferruginea*, 1974 as *P. unialata*, 1974 as *P. vietnamica*), Sornsamran and Thaithong (1995 as *P. ferruginea*), So (2001a).
- Plagiochila flexuosa* Mitt. — Inoue (1960, 1974, 1979), Sornsamran and Thaithong (1995), So (2001a).
- Plagiochila fordiana* Steph. — Inoue (1974), Sornsamran and Thaithong (1995), Grolle and So (1999a), So (2001a), Zhu and So (2001a).
- Plagiochila fruticosa* Mitt. — Inoue (1958, 1974), Sornsamran and Thaithong (1995), So (2001a).
- Plagiochila gracilis* Lindenb. & Gottsche — Inoue (1974 as *P. firma*), Sornsamran and Thaithong (1995 as *P. firma*), So (2001a).
- Plagiochila indica* Mitt. ex Steph. — Inoue (1974), Sornsamran and Thaithong (1995), So and Grolle (2001).
- Plagiochila integrilobula* Schifff. — Inoue (1974, 1979), Sornsamran and Thaithong (1995).
- Plagiochila javanica* (Sw.) Nees & Mont. — Chantanaorrapint et al. (2004b).
- Plagiochila junghuhniana* Sande Lac. — Inoue (1974, 1974 as *P. massalongoana*), Miller et al. (1983 as *P. massalongoana*), Sornsamran and Thaithong (1995 as *P. massalongoana*), So and Grolle (1999), So (2001a).
- Plagiochila khasiana* Mitt. — Inoue (1974), Sornsamran and Thaithong (1995), So (2001a).
- Plagiochila microdonta* Mitt. — Chantanaorrapint et al. (2004b).
- Plagiochila mundaliensis* Steph. — Inoue (1974 as *P. mundariensis*), Sornsamran and Thaithong (1995 as *P. mundariensis*), So and Grolle (2000).
- Plagiochila nepalensis* Lindenb. — Inoue (1974 as *P. gollanii*), Sornsamran and Thaithong (1995 as *P. gollanii*), Grolle and So (1999b), So (2001a), Zhu and So (2001).

- Plagiochila oblonga* Inoue — Inoue (1974), Sornsamran and Thaithong (1995).
- Plagiochila parvifolia* Lindenb. — Inoue (1974 as *P. consociata*, *P. didyma* and *P. ventricosa*), Sornsamran and Thaithong (1995 as *P. consociata*, *P. didyma* and *P. ventricosa*), So and Grolle (1999), So (2001a), Chantanaorrapint *et al.* (2004b as *P. yokogurensis*), Kornochalert (2006), present paper (*Monlong* 25, 26).
- Plagiochila peculiaris* Schiffn. — Inoue (1974, 1974 as *P. crassitexta*), Inoue (1984), Sornsamran and Thaithong (1995 as *P. crassitexta*), So (2001a).
- Plagiochila ptychanthoidea* Steph. — Inoue (1974 as *P. ptychanthoides*).
- Plagiochila pulcherrima* Horik. — So (2001a).
- Plagiochila salacensis* Gottsche — Inoue (1984), Sornsamran (1988), So (2001a).
- Plagiochila sciophylla* Nees *ex* Lindenb. — Inoue (1974, 1974 as *P. acanthophylla*, 1974 as *P. orientalis*, 1979 as *P. acanthophylla*, 1984), Miller *et al.* (1983 as *P. acanthophylla*), Inoue (1984), Sornsamran and Thaithong (1995 as *P. acanthophylla*), So (2001a), Chantanaorrapint *et al.* (2004b as *P. acanthophylla*, 2004b as *P. acanthophylla* subsp. *japonica*), Kornochalert (2006).
- Plagiochila secretifolia* Mitt. — Inoue (1974), So and Grolle (2000b), So (2001a).
- Plagiochila semidecurrens* (Lehm. & Lindenb.) Lindenb. — Inoue (1974), So and Grolle (1999), So (2001a), Zhang and Wu (2006).
- Plagiochila singularis* Schiffn. — Stephani (1902), Inoue (1974 as *P. stenophylla*).
- Plagiochila spatulifolia* Mitt. — Inoue (1974 as *P. spatulaefolia*, 1984).
- Plagiochila subtropica* Steph. — Inoue (1974 as *P. deterrmii* and *P. kitagawae*), Sornsamran and Thaithong (1995 as *P. kitagawae* and *P. deterrmii*), So (2001a).
- Plagiochila tagawae* Inoue — Inoue (1974), So (2001a).
- Plagiochila teysmannii* Sande Lac. — Inoue (1974 as *P. fraseri* and *P. gottschei*), Sornsamran and Thaithong (1995 as *P. fraseri* and *P. gottschei*), So and Grolle (1999).
- Plagiochila trabeculata* Steph. — Inoue (1974, 1974 as *P. pocsi*), Grolle and So (1998), So (2001a), So (2001b), Zhu and So (2001).
- Plagiochila ungarangana* Sande Lac. — Inoue (1974 as *P. tridens*).
- Plagiochila uniformis* Mitt. — Inoue (1974 as *P. mittenii*), Sornsamran and Thaithong (1995 as *P. mittenii*), So and Grolle (2000b).
- Plagiochila vittensis* Mitt. — Inoue (1974), Sornsamran and Thaithong (1995).
- Plagiochilion oppositum* (Reinw. *et al.*) S. Hatt. — Chantanaorrapint *et al.* (2004a as *P. oppositum*).
- Plagiochilion theriotanum* (Steph.) Inoue — present paper (*Chantanaorrapint* 1258).
- Pleurozia acinosa* (Mitt.) Trevis. — Tixier (1973a), Kitagawa (1979), Thiers (1993), Sornsamran and Thaithong (1995).
- Pleurozia gigantea* (F. Weber) Lindb. — Hattori and Mizutani (1969), Kitagawa (1979), Miller *et al.* (1983), Thiers (1993), Sornsamran and Thaithong (1995), Chantanaorrapint *et al.* (2004b).
- Pleurozia subinflata* (Austin) Austin — Hattori and Mizutani (1969 as *P. gigateoides*), Kitagawa (1979 as *P. gigateoides*), Thiers (1993), Sornsamran and Thaithong (1995 as *P. gigateoides*).
- Plicanthus birmensis* (Steph.) R.M. Schust. — Kitagawa (1978 as *Chandonanthus birmensis*), Sornsamran and Thaithong (1995 as *C. birmensis*), Chantanaorrapint *et al.* (2004b as *C. birmensis*), present paper (*Monlong* 47).
- Plicanthus hirtellus* (F. Weber) R.M. Schust. — Hattori and Mizutani (1969 as *Chandonanthus hirtellus*), Kitagawa (1978 as *C. hirtellus*), Miller *et al.* (1983 as *C. hirtellus*), Sornsamran and Thaithong (1995 as *C. hirtellus*).
- Podomitrium malaccense* (Steph.) D.H. Campb. — Stephani (1902 as *Hymenophyllum malaccense*), Miller *et al.* (1983), Grolle and Piippo (1986).
- Porella acutifolia* (Lehm. & Lindenb.) Trevis. var. *acutifolia* — Hattori (1976a as *P. acutifolia* var. *lancifolia*).
- Porella acutifolia* (Lehm. & Lindenb.) var. *birmanica* S. Hatt. — Hattori and Mizutani (1969), Hattori (1976a), Kitagawa (1979), Sornsamran and Thaithong (1995).
- Porella acutifolia* (Lehm. & Lindenb.) Trevis. subsp. *tosana* S. Hatt. — Manachit (2006).
- Porella caespitans* (Steph.) S. Hatt. var. *cordifolia* (Steph.) S. Hatt. — Hattori (1976a as *P. caespitans* var. *setigera*).
- Porella caespitans* (Steph.) S. Hatt. subsp. *laticor* (S. Hatt.) S. Hatt. — Kornochalert (2006 as *Porella acutifolia* subsp. *laticor*), Manachit (2006 as *P. acutifolia* subsp. *laticor*).
- Porella campylophylla* (Lehm. & Lindenb.) Trevis. — Hattori and Mizutani (1969 as *P. gollanii*), Hattori (1976a), Kitagawa (1979), Sornsamran and Thaithong (1995).
- Porella campylophylla* (Lehm. & Lindenb.) Trevis. var. *ligulifera* (Tayler) S. Hatt. — Hattori (1976a, 1978), Koponen *et al.* (2004).
- Porella campylophylla* (Lehm. & Lindenb.) Trevis. var. *tixieri* (Pócs) S. Hatt. — Hattori (1976a, 1978).
- Porella densifolia* (Steph.) S. Hatt. subsp. *appendiculata* (Steph.) S. Hatt. — Kitagawa (1979), Sornsamran and Thaithong (1995).
- Porella plumosa* (Mitt.) Inoue — Kitagawa (1979), Sornsamran and Thaithong (1995).
- Porella setigera* (Steph.) S. Hatt. var. *birmanica* S. Hatt. — Tixier (1970b).
- Porella ulophylla* (Steph.) S. Hatt. — Kitagawa (1969d as *Macvicaria ulophylla*, 1979 as *M. ulophylla*), Sornsamran and Thaithong (1995 as *M. ulophylla*).
- Ptychanthus striatus* (Lehm. & Lindenb.) Nees — Verdoorn (1934), Kitagawa (1969a, 1969d), Mizutani (1978a), Miller *et al.* (1983), Sornsamran and Thaithong (1995), Chantanaorrapint *et al.* (2004b), Kornochalert (2006), present paper (*Monlong* 8).
- Pycnolejeunea grandiocellata* Steph. — Stephani (1902, 1900–1924), Sornsamran and Thaithong (1995), He (1999).
- Radula acuminata* Steph. — Tixier (1970a), Kitagawa (1979), Yamada (1979a, 1989), Yamada and Piippo (1989), Sornsamran and Thaithong (1995), Zhu and So (2001).
- Radula acuta* Mitt. — Kitagawa (1973d and 1979 as *R. apiculata*), Yamada (1979a as *R. apiculata*), Miller *et*

- al.* (1983 as *R. apiculata*), Sornsamran (1988 as *R. apiculata*), Yamada and Piippo (1989 as *R. apiculata*), Sornsamran and Thaithong (1995 as *R. apiculata*).
- Radula anceps* Sande Lac. — Sornsamran (1988).
- Radula assamica* Steph. — Yamada (1979a), Sornsamran and Thaithong (1995), Zhu and So (2001).
- Radula borneensis* Steph. — Tixier (1970a, 1973a), Sornsamran and Thaithong (1995).
- Radula caduca* Yamada — Yamada (1979a), Yamada and Piippo (1989), Sornsamran and Thaithong (1995), Chantanaorrapint *et al.* (2004b).
- Radula campanigera* Mont. — Kitagawa (1979), Yamada (1979a), Miller *et al.* (1983), Sornsamran and Thaithong (1995).
- Radula cavifolia* Hampe ex Gottsche *et al.* — Kitagawa (1979), Miller *et al.* (1983), Sornsamran and Thaithong (1995).
- Radula formosa* (Meissn.) Nees — Kitagawa (1979, 1979 as 1979 as *R. formosa* var. *pynolejeuneoides*), Yamada (1979a), Miller *et al.* (1983), Yamada and Piippo (1989), Sornsamran and Thaithong (1995), Yamada (1999).
- Radula gedena* Gottsche ex Steph. — Yamada (1979a, 1989), Sornsamran and Thaithong (1995), Zhu and So (2001).
- Radula grandifolia* Steph. — Yamada (1979a), Sornsamran and Thaithong (1995).
- Radula javanica* Gottsche — Kitagawa (1979), Yamada (1979a), Miller *et al.* (1983), Sornsamran and Thaithong (1995).
- Radula lacerata* Steph. — Kitagawa (1979), Yamada (1979a), Miller *et al.* (1983), Yamada and Piippo (1989), Sornsamran and Thaithong (1995).
- Radula meyeri* Steph. — Yamada (1979a), Sornsamran and Thaithong (1995).
- Radula obscura* Mitt. — Kitagawa (1979), Yamada (1979a), Sornsamran and Thaithong (1995).
- Radula perrottetii* Gottsche ex Steph. — Hattori and Mizutani (1969 as *R. valida*), Kitagawa (1979), Yamada (1979a), Sornsamran and Thaithong (1995), Zhu and So (2001), Chantanaorrapint *et al.* (2004b).
- Radula retroflexa* Taylor — Kitagawa (1979), Yamada (1979a as *R. retroflexa* var. *fauciloba*), Miller *et al.* (1983), Yamada and Piippo (1989 as *R. retroflexa* var. *fauciloba*), Sornsamran and Thaithong (1995, 1995 as *R. retroflexa* var. *fauciloba*).
- Radula sumatrana* Steph. — Yamada (1979a), Sornsamran and Thaithong (1995).
- Radula tjobodensis* K.I. Goebel. — Yamada (1979a, 1979b), Miller *et al.* (1983), Yamada and Piippo (1989), Sornsamran and Thaithong (1995), Zhu and So (2001).
- Radula vrieseana* Sande Lac. — Yamada (1979a), Yamada and Piippo (1989), Sornsamran and Thaithong (1995).
- Radula yangii* Yamada — Yamada (1979a, 1999), Sornsamran and Thaithong (1995).
- Riccia billardieri* Nees & Mont. — Giesy and Richards (1959), Sornsamran and Thaithong (1995).
- Riccia fluitans* L. — Kitagawa (1969d), Sornsamran and Thaithong (1995).
- Riccardia multifidoides* Schiffn. — Stephani (1902 as *Aneura multifidoides*), Sornsamran and Thaithong (1995 as *A. multifidoides*).
- Riccardia bipinnatifida* (Colenso) Hewson — Manachit (2006).
- Riccardia graeffei* (Steph.) Hewson — Manachit (2006).
- Ricciocarpos natans* (L.) Corda — Kitagawa (1969d), Miller *et al.* (1983), Sornsamran and Thaithong (1995).
- Saccogynidium muricellum* (De Not.) Grolle — Kitagawa (1978, 1979), Miller *et al.* (1983), Piippo (1985a), Sornsamran and Thaithong (1995).
- Scapania ligulata* Steph. — Kitagawa (1978), Sornsamran and Thaithong (1995).
- Schiffneria hyalina* Steph. — Kitagawa (1969d, 1973d), Grolle and Piippo (1984b), Gao (2003), Koponen *et al.* (2004).
- Schiffneriolejeunea cumingiana* (Mont.) Gradst. — Tixier (1968 as *Ptychocoleus cumingianus*, 1973a as *P. cumingianus*).
- Schiffneriolejeunea pulopenangensis* (Gottsche) Gradst. — Thaithong (1984).
- Schiffneriolejeunea tumida* (Nees) Gradst. var. *tumida* — present paper (*Chantanaorrapint 1269, 1291; Inuthai 56*).
- Schistochila aligera* (Nees & Blume) Jack & Steph. — Tixier (1972, 1973a), Kitagawa (1978, 1978 as *S. philippinensis*), Miller *et al.* (1983 as *S. philippinensis*), Sornsamran and Thaithong (1995, 1995 as *S. philippinensis*), So (2003a), Chantanaorrapint *et al.* (2004b as *S. philippinensis*), Gao and Wu (2004 as *Gottschea aligera*).
- Schistochila blumei* (Nees) Trevis. — Kitagawa (1978), Sornsamran and Thaithong (1995), So (2003a), Gao and Wu (2004).
- Schistochila sciurea* (Nees) Schiffn. — Kitagawa (1978), Miller *et al.* (1983), Sornsamran and Thaithong (1995), So (2003a).
- Schistochila yakushimensis* Ohnishi & Deguchi — Ohnishi and Deguchi (2003).
- Southbya grollei* N. Kitag. — Kitagawa (1973c), Piippo (1985b), Sornsamran and Thaithong (1995).
- Spruceanthus polymorphus* (Sande Lac.) Verd. — Hattori and Mizutani (1969), Mizutani (1978a, 1978b), Miller *et al.* (1983), Sornsamran (1988), Chantanaorrapint *et al.* (2004b), Kornochalart (2006).
- Spruceanthus semirepandus* (Nees) Verd. — Zhu and Lai (2003), present paper (*Monlong 9*).
- Symphogynopsis filicum* (Nadeaud) Grolle — Chantanaorrapint *et al.* (2004b).
- Targionia hypophylla* L. — Hattori and Mizutani (1969), Sornsamran and Thaithong (1995), Kornochalart (2006), present paper (*Monlong 51, 68, 69*).
- Telaranea neesii* (Lindenb.) (Lindenb.) Fulford — Kitagawa (1978, 1979), Sornsamran and Thaithong (1995).
- Thysananthus aculeatus* Herzog — Reed and Robinson (1967), Sornsamran and Thaithong (1995).
- Thysananthus comosus* Lindenb. — Thaithong (1984).
- Thysananthus convolutus* Lindenb. — Tixier (1973a).
- Thysananthus retusus* (Reinw. *et al.*) B. Thiers & Gradst. — Mizutani (1987b as *T. planus*), Chantanaorrapint *et al.* (2004b as *T. planus*).
- Thysananthus spathulistipus* (Reinw. *et al.*) Lindenb. — Stephani (1902 as *Thysanolejeunea spathulistipa*), Tixier (1970a, 1973a), Kitagawa (1973d), Miller *et al.* (1983),

Thaithong (1984), Sornsamran and Thaithong (1995).
Trichocolea merillana Steph. — Kitagawa (1973d, 1978), Sornsamran and Thaithong (1995), Gao (2003).
Trichocolea tomentella (Ehrh.) Dumort. — Tixier (1973a, 1973a as *T. pluma*), Kitagawa (1978 as *T. pluma*), Miller *et al.* (1983 as *T. pluma*), Sornsamran and Thaithong (1995 as *T. pluma*).
Trocholejeunea infuscata (Mitt.) Verd. — Mizutani (1989).
Trocholejeunea sandvicensis (Gottsche) Mizut. — Reed and Robinson (1967), Kitagawa (1968, 1969a), Hattori and Mizutani (1969), Tixier (1970b), Tixier (1973a), Hattori *et al.* (1977), Miller *et al.* (1983).
Tuzibeanthus chinensis (Steph.) Mizut. — Kitagawa (1969d).

Doubtful, undetermined or excluded taxa

Acrolejeunea aulacophora (Mont.) Steph. — The collection from Thailand (Stephani 1902) might belong to *Acrolejeunea pycnoclada* or *A. fertilis* (cf. Verdoorn 1934, Gradstein 1975).

Acrolejeunea sp. — Thaithong (1984).

Archilejeunea mariana (Gottsche) Steph. — The records in Thailand (Verdoorn 1934, Tixier 1972) belong to *Archilejeunea planiuscula* (Mitt.) Steph.

Bazzania ceylanica (Mitt.) Nichols. — This species is known only from Sri Lanka (Mizutani 1967), and the report from Thailand (Stephani 1902 as *Mastigobryum ceylanicum*) might be based on erroneous identifications (cf. Mizutani 1967: p. 89).

Ceratolejeunea diversifolia Steph. — Tixier (1973a) reported it in Thailand. Apparently his “*Ceratolejeunea diversifolia* Steph.” refers to *Ceratolejeunea diversiloba* Steph. According to Dauphin (2003), *Ceratolejeunea diversiloba* is a synonym of *Ceratolejeunea cornuta* (Lindenb.) Steph. which seems to be a neotropical species.

Cololejeunea sp. — Thaithong (1984).

Lejeunea sp. — Tixier (1970a as *Eulejeunea* sp.).

Frullania sp. — Chantanaorrapint *et al.* (2004b).

Lejeunea sp. — Thaithong (1984).

Leptolejeunea sp. — Thaithong (1984).

Metzgeria sp. — Chantanaorrapint *et al.* (2004b).

Pallavicinia sp. — Tixier (1970a).

Phaeoceros sp. — Chantanaorrapint (2007).

Plagiochila sp. — Tixier (1970a).

Plagiochila sp. — Chantanaorrapint *et al.* (2004b).

Riccardia sp. — Chantanaorrapint *et al.* (2004b).

Synonyms

Aneura multifidoides (Schiffn.) Steph. ≡ *Riccardia multifidoides* Schiffn. (cf. Furuki 2006).

Anthoceros amboinensis Schiffn. = *Folioceros amboinensis* (Schiffn.) Piippo (Piippo 1993).

Archilejeunea caramuensis Steph. = *Archilejeunea planius-*

cula (Mitt.) Steph. (Gradstein *et al.* 2002).

Apometzgeria pubescens (Schrank) Kuwah. ≡ *Metzgeria pubescens* (Schrank) Raddi (So 2003b).

Archilejeunea hossei Steph. ≡ *Leucolejeunea hossei* (Steph.) Verd. = *Leucolejeunea turgida* (Mitt.) Verd. (Mizutani 1976).

Bazzania oblonga (Mitt.) Schiffn. = *B. tridens* (Reinw. *et al.*) Trevis. (Kitagawa 1967b).

Bazzania oshimensis (Steph.) Horik. = *B. tridens* (Reinw. *et al.*) Trevis. (cf. Piippo 1990).

Bazzania semiopaca N. Kitag. = *B. asperrima* Steph. (Kitagawa 1978).

Bazzania tridens var. *assamica* (Steph.) Pócs ≡ *B. assamica* (Steph.) S. Hatt. (cf. Long & Grolle 1990).

Calypogeia baldwinii Austin = *Mnioloma fuscum* (Lehm.) R.M. Schust. (Engel 2006).

Calypogeia fusca (Lehm.) Steph. ≡ *Mnioloma fuscum* (Lehm.) R.M. Schust. (Schuster 1995).

Caudalejeunea circinata Steph. = *C. cristiloba* (Steph.) Gradst. (Gradstein 1974).

Caudalejeunea fruticosa (Lindenb. & Gottsche) Steph. ≡ *Dendrolejeunea fruticosa* (Lindeb. & Gottsche) Lacout. (Gradstein *et al.* 2002).

Caudalejeunea reniloba (Gottsche) Steph. = *C. recurvistipula* (Gottsche) Schiffn. (Zhu & So 2001).

Caudalejeunea stephanii (Spruce) Steph. = *C. recurvistipula* (Gottsche) Schiffn. (cf. Zhu & So 2001).

Cephalozia capillaris Steph. ≡ *Cephalozia capillaris* (Steph.) Douin (Kitagawa 1969b).

Cephalozia hamatiloba Steph. subsp. *siamensis* (N. Kitag.) Vána = *C. hamatiloba* Steph. (Long 2005).

Cephalozia media Lindb. var. *nipponica* (S. Hatt.) Amakawa ≡ *C. nipponica* S. Hatt. (Kitagawa 1969b).

Cephalozia microphylla Steph. ≡ *Cephalozia microphylla* (Steph.) Douin (*vide* Kitagawa 1969b).

Cephalozia siamensis N. Kitag. = *C. hamatiloba* Steph. (Long 2005).

Cephalozia tagawae N. Kitag. = *Cylindrocolea tagawae* (N. Kitag.) R.M. Schust. (Schuster 1971).

Cephalozia willisiana (Steph.) N. Kitag. = *C. kiaeri* (Austin) Douin (cf. Piippo 1990).

Ceratolejeunea emarginata Steph. = *C. oceanica* (Mitt.) Steph. (Mizutani 1981).

Ceratolejeunea oceanica (Mitt.) Steph. = *C. belangeriana* (Gottsche) Steph. (Grolle & Piippo 1984a).

Chandonanthus birmensis Steph. ≡ *Plicanthus birmensis* (Steph.) R.M. Schust. (Schuster 2002).

Chandonanthus hirtellus (F. Weber) Mitt. ≡ *Plicanthus hirtellus* (F. Weber) R.M. Schust. (Schuster 2002).

Cheilolejeunea imbricata (Nees) S. Hatt. = *C. trapezia* (Nees) Kachroo & R.M. Schust. (Zhu & Grolle 2004).

Cheilolejeunea longiloba (Steph. ex G. Hoffm.) J.J. Engel & B.C. Tan = *C. trapezia* (Nees) Kachroo & R.M. Schust. (Zhu *et al.* 2002, Zhu & Grolle 2004).

Chiloscyphus aselliformis (Reinw. *et al.*) Nees ≡ *Heteroscyphus aselliformis* (Reinw. *et al.*) Schiffn. (cf. Piippo 1990).

Chiloscyphus communis Steph. = *Heteroscyphus coalitus* (Hook.) Schiffn. (Grolle & Piippo 1984a).

Chiloscyphus decurrens (Reinw. *et al.*) Nees = *Heteroscyphus*

- decurrens* (Reinw. et al.) Schiffn. (cf. Grolle 1980).
- Chiloscyphus inflatus* Steph. var. *fragilissimus* N. Kitag. = *Heteroscyphus inflatus* (Steph.) S.C. Srivast. & A. Srivast. var. *fragilissimus* (N. Kitag.) M.J. Lai & R.L. Zhu, *comb. nov.*, basionym: *Chiloscyphus inflatus* Steph. var. *fragilissimus* N. Kitag., Acta Phytotax. Geobot. 30: 32. f. 7. 1979.
- Cololejeunea benedixii* Tixier. *nom. inval.* = *C. schmidtii* Steph. (Benedix 1953, Pócs et al. 1994).
- Cololejeunea bolombensis* (Steph.) Vanden Berghen = *C. lanciloba* Steph. (cf. Zhu & So 2001).
- Cololejeunea falcatooides* Bendix = *Cololejeunea falcata* (Horik.) Benedix (cf. Zhu & So 2001).
- Cololejeunea formosana* Mizut. = *C. ceratilobula* (P.C.Chen) R.M. Schust. (Zhu & So 1998).
- Cololejeunea goebelii* (Gottsche ex Schiffn.) Schiffn. = *Cololejeunea trichomanis* (Gottsche) Steph. (cf. Zhu & Lai 2003).
- Cololejeunea nymanii* (Steph.) Benedix = *C. obliqua* (Nees & Mont.) Schiffn. (cf. Zhu & So 2001).
- Cololejeunea oshimensis* (Horik.) S. Hatt. = *C. inflata* Steph. (cf. Zhu & So 2001).
- Cololejeunea pseudonymanii* Tixier = *C. obliqua* (Nees & Mont.) Schiffn. (Tixier 1985).
- Cololejeunea pusilla* Tixier, Nat. Hist. Bull. Siam. Soc. 23: 548. 1970 = *Cololejeunea gradsteinii* M.J. Lai & R.L. Zhu, *nom. nov.*, basionym: *Cololejeunea pusilla* Tixier, Nat. Hist. Bull. Siam. Soc. 23: 548. 1970. (*non Cololejeunea pusilla* Steph., Hedwigia 34: 251. 1895).
- Cololejeunea scabriflora* Gottsche ex Steph. = *C. obliqua* (cf. Long & Grolle 1990).
- Cololejeunea shimizui* N. Kitag. = *Chondriolejeunea shimizui* (N. Kitag.) Kis & Pócs (*fide* Kis & Pócs 2001).
- Cololejeunea shimizui* var. *phangngana* N. Kitag. = *Chondriolejeunea shimizui* var. *phangngana* (N. Kitag.) Kis & Pócs (Kis & Pócs 2001).
- Colura acutifolia* Ast = *C. conica* (Sande Lac.) K.I. Goebel (cf. Zhu & So 2001).
- Cuspidatula contracta* (Reinw. et al.) Trevis. = *Jamesoniella contracta* (Reinw. et al.) N. Kitag. (Kitagawa 1981).
- Diplasiolejeunea brachyclada* A. Evans = *D. cavifolia* Steph. (Grolle 1966).
- Drepanolejeunea micholitzii* Steph. = *Drepanolejeunea pentadactyla* (Mont.) Steph. (cf. Piippo 1990).
- Drepanolejeunea tenuis* (Reinw. et al.) Schiffn. = *D. angustifolia* (Mitt.) Grolle (Grolle 1965).
- Dumortiera nepalensis* (Taylor) Nees = *D. hirsuta* subsp. *nepalensis* (Taylor) R.M. Schust. = *D. hirsuta* (Sw.) Nees (present paper).
- Frullania evoluta* Mitt. var. *tagawana* S. Hatt. & Thaithong = *F. tagawana* (S. Hatt. & Thaithong) S. Hatt. (Hattori & Lin 1985).
- Frullania galeata* (Reinw. et al.) Dumort. = *F. riojaneirensis* (Raddi) Angstr. (Svihla 1956, Hattori & Lin 1985).
- Frullania hampeana* Nees var. *acutiloba* (Mitt.) S. Hatt. = *F. monocera* (Taylor) Taylor (cf. Piippo 1990).
- Frullania hosseana* Steph. = *F. arecae* (Spreng.) Gottsche var. *arecae* (Yuzawa 1991).
- Frullania squarrosa* (Reinw. et al.) Dumort. = *F. ericoides* (Nees) Mont. (cf. Piippo 1990).
- Frullania tamarisci* (L.) Dumort. subsp. *obscura* var. *breviramea* = *F. moniliata* (Reinw. et al.) Mont. (cf. Piippo 1990).
- Frullania tamarisci* (L.) Dumort. subsp. *obscura* var. *balansae* (Steph.) S. Hatt. = *F. moniliata* (Reinw. et al.) Mont. (cf. Piippo 1990).
- Frullania tenuicaulis* Mitt. = *F. chichodes* Mitt. (cf. Piippo 1990).
- Frullania vethii* Sande Lac. = *F. trichodes* Mitt. (Hattori & Piippo 1986).
- Frullania wallichiana* Mitt. = *F. arecae* (Spreng.) Gottsche var. *arecae* (Yuzawa 1991).
- Gottschea aligera* (Nees & Blume) Nees = *Schistochila aligera* (Nees & Blume) Jack & Steph. (cf. So 2003a).
- Herbertus chinensis* Steph. = *H. dicranus* (Taylor ex Gottsche et al.) Trevis. (Juslén 2006).
- Herbertus giraladianus* (Steph.) W.E. Nicholson = *H. dicranus* (Taylor ex Gottsche et al.) Trevis. (cf. Feldberg & Heinrichs 2005).
- Herbertus javanicus* (Steph.) H.A. Mill. = *H. ramosus* (Steph.) H.A. Mill. (So 2003c).
- Heteroscyphus communis* (Steph.) Schiffn. = *H. coalitus* (Hook.) Schiffn. (Grolle & Piippo 1984a).
- Heteroscyphus decurrens* (Reinw. et al.) Schiffn. = *H. splendens* (Lehm. & Lindenb.) Grolle (cf. Grolle & Piippo 1984a).
- Hymenophyton* "Hymenophyton" *malaccense* = *Podomitrium malaccense* (Steph.) D.H. Campbell. (Campbell 1915).
- Jungermannia fusca* Lehm. = *Mnioloma fuscum* (Lehm.) R.M. Schust. (Engel 2006).
- Jungermannia ligulata* Lehm. & Lindenb. = *Mastigolejeunea ligulata* (Lehm. & Lindenb.) Schiffn. (Schiffner 1898).
- Lejeunea borneensis* Steph. = *L. anisophylla* Mont. (cf. Zhu & So 2001).
- Leptolejeunea cyclops* (Sande Lac.) Steph. = *Drepanolejeunea cyclops* (Sande Lac.) Grolle & R.L. Zhu (Grolle & Zhu 2000).
- Leptolejeunea radiata* (Mitt.) Steph. = *L. maculata* (Mitt.) Schiffn. (Grolle 1976).
- Lophocolea morobeana* Piippo = *L. kurzii* Sande Lac. (Piippo 1989a).
- Lopholejeunea javanica* (Nees) Schiffn. = *L. nigricans* (Lindenb.) Schiffn. (cf. Zhu & Gradstein 2005).
- Lopholejeunea nicobarica* Steph. = *L. eulopha* (Taylor) Schiffn. (cf. Zhu & Gradstein 2005).
- Lopholejeunea sundaica* Steph. = *L. eulopha* (Taylor) Schiffn. (cf. Zhu & Gradstein 2005).
- Macvicaria ulophylla* (Steph.) S. Hatt. = *Porella ulophylla* (Steph.) S. Hatt. (Hentschel et al. 2007).
- Mastigobryum ceylanicum* Mitt. = *Bazzania ceylanica* (Mitt.) Nichols. (Nicholson 1930).
- Mastigobryum callidum* Sande Lac. ex Steph. = *Bazzania callida* (Sande Lac. ex Steph.) Abeyw. (Abeywickrama 1959).
- Mastigobryum inaequitextum* (Steph.) Steph. = *Bazzania inaequitexta* Steph. (cf. Menzel 1988).
- Mastigobryum oblongum* Mitt. = *Bazzania tridens* (Reinw. et al.) Trevis. (Kitagawa 1967b).
- Mastigobryum siamense* Steph. = *Bazzania pearsonii* Steph.

- (Kitagawa 1967b).
- Mastigolejeunea atypus* Schiffn. ex Steph. = *M. repleta* (Taylor) Steph. (Kitagawa 1973b).
- Mastigolejeunea humilis* (Gottsche) Schiffn. = *M. auriculata* (Wils.) Schiffn. (Thiers & Gradstein 1989).
- Metacalypogeia fusca* (Lehm.) N. Kitag. ≡ *Mnioloma fuscum* (Lehm.) R.M. Schust. (Engel 2006).
- Metacalypogeia quelpaertensis* S. Hatt. & Inoue ≡ *Eocalypogeia quelpaertensis* (S. Hatt. & Inoue) R.M. Schust. (Schuster & Konstantinova (1996).
- Metzgeria decipiens* (C. Massal.) Schiffn. & Gottsche = *M. furcata* (L.) Dumort. (So 2003b).
- Notoscyphus parvicus* Schiffn. = *N. lutescens* (Lehm. & Lindenb.) Mitt. (cf. Piippo 1990).
- Pallavicinia indica* Schiffn. = *P. lyellii* (Hook.) Carruth. (Grolle & Piippo 1986).
- Phaeoceros laevis* (L.) Prosk. subsp. *carolinianus* (Michaux) Prosk. = *P. carolinianus* (Michx.) Prosk. (fide Hasegawa 1991).
- Physocolea fusca* Steph. ≡ *Cololejeunea fusca* (Steph.) Mizut. (Tixier 1985).
- Physocolea schmidtii* (Steph.) Steph. ≡ *Cololejeunea schmidtii* Steph. (cf. Zhu & So 2001).
- Physocolea siamensis* (Steph.) Steph. ≡ *Cololejeunea siamensis* Steph. (cf. Benedix 1953). *Plagiochila aequitexta* Steph. = *P. bantamensis* (Reinw. et al.) Mont. (Inoue 1984).
- Plagiochila consociata* Steph. = *P. parvifolia* Lindenb. (So 2001a).
- Plagiochila crassitexta* Steph. = *P. peculiaris* Schiffn. (So 2001a).
- Plagiochila determii* Steph. = *P. subtropica* Steph. (So 2001a).
- Plagiochila didyma* Inoue = *P. parvifolia* Lindenb. (So & Grolle 1999).
- Plagiochila ferruginea* Steph. = *P. dorelii* Schiffn. (So 2001a).
- Plagiochila firma* Mitt. = *P. gracilis* Lindenb. & Gottsche (cf. So 2001a).
- Plagiochila fraseri* Steph. = *P. teysmannii* Sande Lac. (So & Grolle 1999).
- Plagiochila gollanii* Steph. = *P. nepalensis* Lindenb. (Grolle & So 1999b).
- Plagiochila gottschei* Schiffn. = *P. teysmannii* Sande Lac. (Inoue 1984).
- Plagiochila humicola* Steph. = *P. beddomei* Steph. (So 2001a).
- Plagiochila kitagawae* Inoue = *P. subtropica* Steph. (Grolle & So 1999a, So 2001a).
- Plagiochila massalongoana* Schiffn. = *P. junghuhniana* Sande Lac. (So 2001a).
- Plagiochila mitternii* Steph. = *P. uniformis* Mitt. (So & Grolle 2000).
- Plagiochila neorupicola* Inoue = *P. cuspidata* Steph. (So 2001a).
- Plagiochila orientalis* Taylor = *P. sciophila* Nees ex Lindenb. (So & Grolle 1999, So 2001a).
- Plagiochila pocsii* Inoue = *P. trabeculata* Steph. (Grolle & So 1998, So 2001a).
- Plagiochila renistipula* Steph. = *P. bantamensis* (Reinw. et al.) Mont. (Inoue 1984).
- Plagiochila siamensis* Steph. = *P. bantamensis* (Reinw. et al.) Mont. (So 2001a).
- Plagiochila stenophylla* Schiffn. = *P. singularis* Schiffn. (cf. So 2001a).
- Plagiochila tridens* Steph. = *P. ungarangana* Sande Lac. (Inoue 1984).
- Plagiochila unialata* Inoue = *P. dorelii* Schiffn. subsp. *dorelii* (cf. So 2001a).
- Plagiochila ventricosa* Steph. = *P. parvifolia* Lindenb. (Inoue 1984a, So 2001a).
- Plagiochila vietnamica* Inoue = *P. dorelii* Schiffn. subsp. *dorelii* (cf. So 2001a).
- Plagiochila yokogurensis* Steph. = *P. parvifolia* Lindenb. (So 2001a).
- Porella acutifolia* (Lehm. & Lindenb.) Trevis. var. *lancifolia* (Steph.) S. Hatt. = *P. acutifolia* (Lehm. & Lindenb.) Trevis. var. *acutifolia* (Hattori 1978).
- Porella acutifolia* (Lehm. & Lindenb.) Trevis. subsp. *latior* S. Hatt. ≡ *P. caespitans* (Steph.) S. Hatt. subsp. *latior* (S. Hatt.) S. Hatt. (Hattori 1976a).
- Porella gollanii* (Steph.) S. Hatt. & Mizut. = *P. campylophylla* (Lehm. & Lindenb.) Trevis. (Hattori 1969).
- Prionolobus microphyllus* (Steph.) S. Hatt. ≡ *Cephalozia microphylla* Steph. ≡ *Cephalozia microphylla* (Steph.) Douin (cf. Kitagawa 1969b).
- Ptychocoleus cristilobus* (Steph.) Steph. ≡ *Caudalejeunea cristiloba* (Steph.) Gradst. (Gradstein 1974).
- Ptychocoleus cumingianus* (Mont.) Trevis. ≡ *Schiffneriolejeunea cumingiana* (Mont.) Gradst. (Gradstein et al. 2002).
- Ptychocoleus parvulus* Mizut. ≡ *Acrolejeunea parvula* (Mizut.) Gradst. (Gradstein 1975).
- Pycnolejeunea bidentula* Steph. ≡ *Lepidolejeunea bidentula* (Steph.) R.M. Schust. (Schuster 1980).
- Radula apiculata* Sande Lac. = *R. acuta* Mitt. (So 2006).
- Radula retroflexa* var. *fauciloba* (Steph.) Yamada = *R. retroflexa* Taylor (Yamada 1988).
- Radula valida* Steph. = *R. perrottetii* Gottsche ex Steph. (Yamada 1975, 1979a).
- Rhaphidolejeunea siamensis* Bischl. ≡ *Drepanolejeunea siamensis* (Bischl.) Grolle & R.L. Zhu (Grolle & Zhu 2000).
- Schistochila philippinensis* (Mont.) Steph. = *Schistochila aligera* (Nees & Blume) Jack & Steph. (So 2003a).
- Spruceanthus marianus* (Gottsche) Mizut. auct. = *Archilejeunea planiuscula* (Mitt.) Steph. (Thiers & Gradstein 1989).
- Thysanolejeunea spathulistipa* (Reinw. et al.) Steph. ≡ *Thysananthus spathulistipus* (Reinw. et al.) Lindenb. (cf. Thiers & Gradstein 1989, Geissler & Bischler 1990).
- Thysananthus fruticosus* (Lindenb. & Gottsche) Schiffn. ≡ *Dendrolejeunea fruticosa* (Lindb. & Gottsche) Lacout. (Gradstein et al. 2002).
- Thysananthus planus* Sande Lac. = *T. retusus* (Reinw. et al.) B. Thiers & Gradst. (Thiers & Gradstein 1989).
- Trichocolea pluma* Mont. = *T. tomentella* (Ehrh.) Dumort. (Piippo 1984a).

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