

# Checklist of Hawaiian Anthocerotes and Hepatics

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**Abstract.** A literature-based checklist of Hawaiian hepatics and anthocerotes is presented. Geographic coverage includes the eight main Hawaiian Islands; the northwestern Hawaiian Islands are excluded. The checklist is alphabetically ordered by scientific names; the family is noted for each genus. Synonyms and misapplied names are cross-referenced to the accepted names. A bibliography of supporting references is included.

## Introduction

The Hawaii Biological Survey (HBS) was established as a program of Bishop Museum by the Hawaii State Legislature in 1992, specifically to create and maintain accurate inventories of all species present in the Hawaiian Islands, and to document their presence with voucher specimen collections and bibliographies of relevant scientific literature. In the ensuing fourteen years, comprehensive taxonomic inventories have been compiled for many groups of organisms, both native and alien, that comprise the Hawaiian biota. Vascular plants (Wagner et al. 1999; Palmer 2003) and marine algae (Abbott 1999; Abbott & Huisman 2004) have been the primary focus of botanical inventory efforts; recent research has produced checklists and bibliographies for non-marine algae (Sherwood 2004) and mosses (Staples et al. 2004). Still much needed are similar checklists for Hawaiian Cyanophyta (blue-green algae), fungi, and lichens. This checklist fills one of the gaps in our knowledge of Hawaiian terrestrial plants—the hepatics and anthocerotes. These ongoing inventories will help the Hawaii Biological Survey to fulfill its mission by systematically compiling literature-based inventories for each of these groups of organisms. The products also provide a foundation for undertaking revisionary studies and floristic research. Modern comprehensive floristic accounts that incorporate the latest revisionary studies for all Hawaiian bryophytes are greatly needed.

## Genesis of the current checklist

This checklist of Hawaiian hepatics and anthocerotes began as a list of names and island distributions for Hawaiian taxa extracted from the *Prodromus flora hepaticarum polynesiae* (Miller et al. 1983), which covers much of the Pacific, although the title suggests only Polynesia. Initial data extraction and creation of an electronic checklist were undertaken by HBS staff members with funding from the USDA-PLANTS database project in 1998. We then began making

preliminary updates to the taxonomy and distribution information while simultaneously compiling a bibliography of literature that supports the names in current use. Further USDA funding (2004–2006) allowed much more extensive literature searching that enabled assembly of taxonomic information, revision of nomenclature, addition of new taxa and distributional records, and integration of all this new information into the developing checklist. In the final version of the checklist, taxonomic decisions were made by Staples, with review and critical input from four independent bryological reviewers.

## Coverage

It must be emphasized that this is a literature-based taxonomic checklist, not a specimen-based inventory. It is compiled primarily from literature published during the second half of the twentieth century to the present (2006). The checklist attempts to account for all scientific names in use for Hawaiian hepatics and anthocerotes in the latter decades of the twentieth century; it is not a comprehensive nomenclator for all names that have ever been published for, or applied to, Hawaiian hepatics and anthocerotes. No nomenclatural novelties or taxonomic changes are initiated in this checklist.

Geographically, coverage focuses on the eight main Hawaiian Islands. There are, as yet, no published reports for bryophytes from the uninhabited northwestern Hawaiian Islands, although a few collections were made there.

In the last decades of the twentieth century there was a renaissance of bryological research worldwide, and as a result many revisions, floristic accounts, and several monographs have been published that impact Hawaiian hepatic and anthocerote nomenclature. Noteworthy among these are the recent works of M. L. So (So 2000, 2001a, 2002a, 2002b, 2003a, 2003b, 2004, 2005b), which are systematically overhauling the taxonomy of Hawaiian hepatics and providing a much better understanding of the species and their distribution. These regional and global studies have

resulted in significant taxonomic changes, as well as reporting the discovery of several taxa new to the Islands, either rare natives or newly naturalized alien species. This checklist aims to summarize all this information in a concise format, as follows.

### Format

#### Accepted scientific name

The main body of the checklist is alphabetically organized by genus, species, and infraspecific taxon. Accepted names appear in ***bold italic*** type. Authors are included for the genera, species, and infraspecific epithets. Authors of hepatic and anthocerote genera have been standardized against the classification proposed in *Bryophyte Biology* (Shaw & Goffinet 2000). All author names are abbreviated according to *Authors of Plant Names* style (Brummitt & Powell 1992). References that explain the taxonomic concept or provide geographic distribution data are cited after the accepted taxon name. For nearly all taxa, Miller et al. (1983) is cited. Late in the compilation it was decided to cite selected earlier papers (Miller 1953, 1963, 1967; Miller & Scott 1960; Miller et al 1962) that precede the *Prodromus florae hepaticarum polynesiae* (Miller et al. 1983). This compensates for the absence of voucher specimen data in the *Prodromus* itself, which is an uncritical compilation of names and literature. The earlier papers frequently cite specimens that document taxonomic concepts and island distribution, and their incorporation here enables interested researchers to follow up on information by studying the specimens cited in them. The first mention of a genus includes the family assignment on the same line. Most genera are still placed in the same families recognized by Miller et al. (1983), but a few changes in family placement have been made since then. In such cases, we provide first the family assignment used by Miller et al. (1983), and mention alternative family placements afterward, with a reference to the source. Our principal source for genera assigned to each family were the chapters in *Bryophyte Biology* (Shaw & Goffinet 2000) dealing with hornwort classification (Renzaglia & Vaughn 2000) and hepatic classification (Crandall-Stotler & Stotler 2000).

In a few cases we could not locate generic names in *Bryophyte Biology* and these names were searched in the bryological nomenclator included in the W<sup>3</sup>MOST database of bryophytes (<http://mobot.mobot.org/W3T/Search/most.html>) on the TROPICOS website. Although coverage for hepatics in the latter source proved to be spotty, we were able to verify family assignments for some of the problem genera there.

Synonyms and misapplied names (in *italics*) follow the accepted name in paragraph style, alphabetically ordered. These are limited primarily to names in use for Hawaiian hepatics and anthocerotes in the latter part of the twentieth century, although a few names from other parts of the world that enter into the

nomenclature for particular taxa have been included to enable tracking names through the literature. Basionyms are not distinguished from synonyms and are alphabetized accordingly.

### Status

Following the taxonomy is a column indicating status of the taxon in the Hawaiian flora: **end** indicates an endemic, **ind** indicates indigenous, and **nat** signifies naturalized. A ? following any of these signifies uncertainty about the status of the taxon in the Hawaiian flora. While some research has been devoted to the mode of introduction of pteridophytes and angiosperms to Hawai‘i, resulting in a list of species likely to have been introduced by Polynesian voyagers that settled the archipelago and another (much larger) list of plants that arrived following European contact, little attention has been devoted to bryophytes in this regard. A few hepatics collected for the first time late in the twentieth century are almost certainly alien species that have naturalized or are in the process of doing so. The authors have used their best judgment in cases where the status is not clear and appended a ? to whatever status we assigned, to draw attention to the species and invite investigation from specialists.

### Island distribution

Following the status category is a summary of geographic distribution on the eight main Hawaiian Islands. The island name abbreviations are explained at the beginning of the checklist. An island abbreviation appears in the row to the right of the taxon name to signify that the taxon is reported in the literature from that island. Absence of the island name abbreviation indicates the species is not (yet) known from that island. Given the inadequate state of bryological collecting in the Hawaiian Islands, many new island distribution records are sure to be found in the future. And rare taxa, known only from types or historical specimens, will be recollected and their distributions better understood.

Nearly all the island distributions are abstracted from the literature cited in brackets following the accepted name. In some case, Miller's earlier papers provide more detailed specimen citation than the *Prodromus florae hepaticarum polynesiae* compilation; in such cases, the earlier papers are cited as well. And in a few cases (e.g., *Plagiochila*) specimens determined by specialists subsequent to their published works added new island distribution data; in such cases the relevant voucher is cited in brackets following the accepted name.

### Synonym list

Following the main body of the checklist, an alphabetical list of all synonyms and misapplied names is provided. This list cross-references every synonym or misapplied name to the main entry found under the scientific name accepted in this checklist.

## References

The checklist concludes with a bibliography of the references cited in the checklist; more than 230 bryological titles were consulted in the course of the project, but only those providing taxonomic or distribution data pertinent to this checklist are included here.

## Anomalies and incomplete records

Numerous hepatic and anthocerote names without any island distribution are included, based on (mostly) older literature that reports the species from the Hawaiian (or sometimes Sandwich) Islands without stating on which island the species was found. For example, the names *Lejeunea owaihiensis* Gottsche and *L. hawaiiensis* Gottsche ex Mitt. are both based on Menzies specimens collected in 1793 from the Hawaiian Islands, without locality. Both names are considered synonyms of *Lepidolejeunea involuta* (Gottsche) Grolle in this checklist, another name based on a type specimen reported for the Hawaiian Islands without island locality. Likewise, *Marchesinia mittenii* A. Evans is based on a Hillebrand collection from the Hawaiian Islands, without locality. Until more recent collections are studied, the island distribution of taxa such as these remains unknown.

Particularly problematic in this regard are numerous taxa that Miller et al. (1983) reported from the Hawaiian Islands, without indication of a voucher specimen to support the record. These records have been removed to the end of the main checklist in a section called **Dubious Records**.

A much smaller list of names can definitely be excluded from the Hawaiian flora; these are listed as **Excluded Species**. References supporting these exclusions are cited.

## Numerical summaries

In compiling the following summaries we tabulated the families, genera, species, and infraspecific taxa from the checklists and took into account the status

accorded each species or infraspecific taxon. For simplicity, the taxa with questionable status were tabulated with those of known status in the same category. Thus **nat + nat?** = the number of naturalized species. Dubious taxa have been compiled in a separate column; excluded taxa have not been included in these summaries.

Due to the confusion that would ensue from trying to accommodate all family classifications available for the Anthocerotes, we simply counted all hornworts in one family, Anthocerotaceae.

Although the total number of taxa has declined slightly, the perceived level of endemism has declined more sharply. A number of species that were described as endemic to the Hawaiian Islands were latter found to be synonyms of widespread tropical species. This trend will likely continue as additional revisionary and floristic research further clarifies the status of Hawaiian hepatics.

## The way forward

It is hoped that by bringing together the literature and providing an updated checklist of names in current use, one or more competent bryologists might be inspired to undertake preparation of a hepatic and anthocerote flora for the Hawaiian Islands. Researchers studying anthocerotes and hepatics are invited to request loans from, or visit in person, the Herbarium Pacificum (BISH). There are extensive Hawaiian (and Pacific) collections, including many types, in BISH that are seldom consulted by bryological researchers. One of the goals of publishing this checklist is to encourage bryophyte researchers to make fuller use of the BISH resources. That said, one caveat must be mentioned.

H. A. Miller described a number of Hawaiian hepatic taxa in his papers on Hawaiian bryology (e.g., Miller 1953, 1963, 1967, *inter alia*) and for some of these taxa the holotypes are stated to be in BISH. In fact, no type material has ever been located in BISH for most of Miller's taxa. Recently, Miller's personal

### Hawaiian Anthocerote Flora in Summary

	<b>Endemic</b>	<b>Indigenous</b>	<b>Alien</b>	<b>subtotal</b>	<b>dubious</b>	<b>Total</b>
<b>Families</b>	0	1	–	1	–	1
<b>Genera</b>	0	4	2	6	0	6
<b>Species</b>	1	3	2	6	2	8
<b>Total named taxa*</b>	1	3	2	6	2	8

\* species + infraspecific taxa

### Hawaiian Hepatic Flora in Summary

	<b>Endemic</b>	<b>Indigenous</b>	<b>Alien</b>	<b>subtotal</b>	<b>dubious</b>	<b>Total</b>
<b>Families</b>	0	28	1	29	3	32
<b>Genera</b>	0	63	2	65	6	71
<b>Species</b>	102	72	6	180	30	210
<b>Total named taxa*</b>	103	73	6	182	31	213

herbarium was donated to Miami University, Oxford, Ohio (M. Vincent, pers. comm.), and the ongoing incorporation of this collection raises the possibility that these missing type specimens will be found and deposited in BISH. Researchers wishing to study type material of Miller's Hawaiian hepatics are advised to contact both BISH and MU regarding the whereabouts of any type specimens, which remain missing as this checklist is being finalized.

Until such time as a comprehensive Hawaiian hepatic flora is available, taxonomic coverage for Hawaiian hepatics will remain spotty. While revisionary studies including Hawaiian taxa have been published in recent decades for some genera—*Herbertus*, *Jubula*, *Marchantia*, *Metzgeria*, *Plagiochasma*, *Plagiochila*, *Porella*, *Radula*—and more are in progress for *Aneura*, *Frullania*, and *Megaceros*, among others, there are still many genera for which no modern taxonomic accounts include Hawaiian taxa. By far the majority of articles cited in support of this checklist make only passing mention of Hawaiian taxa. And that provides a direction in which future studies might proceed.

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### References

- Abbott, I. A. 1999.** Marine red algae of the Hawaiian Islands. Bishop MuseuPress, Honolulu.
- Abbott, I. A. & J. M. Huisman. 2004.** Marinegreen and brown algae of the Hawaiian Islands. Bishop Museum PressHonolulu.
- Bharadwaj, D.C. 1975.** Validation of some newcombinations under *Folioceros*Bharadwaj. *Geophytology* 5(2): 227–228.
- Bischler, H. 1979.** *Plagiochasma* Lehm. et Lindenb. III. Les taxa d'Asie et d'Oceanie. *Journal of the Hattori Botanical Laboratory* 45: 25–79.
- Bischler-Causse, H. 1989.** *Marchantia* L., the Asiatic and Oceanic taxa. *Bryophytarum Bibliotheca* 38: 317 pp.
- Brown, E.A. & J.E. Braggins 1989.** A revision of the genus *Riccardia* S.F. Gray in New Zealand with notes on the genus *Aneura*. *Journal of the Hattori Botanical Laboratory* 66: 1–132.
- Brummitt, R.K. & C.E. Powell. 1992.** Authors of plant names. Royal Botanic Gardens, Kew.
- Campbell, E. O. 1989.** Some name changes in New Zealand Hepaticae and Anthocerotae. *New Zealand Journal of Botany* 31: 341–346.
- Cooke, C. M. 1904.** The Hawaiian Hepaticae of the tribe Trigonantheae. *Transactions of the Connecticut Academy of Arts and Sciences* 12: 1–44.
- Crandall-Stotler, B. & R. E. Stotler. 2000.** Morphology and classification of the Marchantiophyta. pp. 21–70 In Shaw, A.J. & B. Goffinet. *Bryophyte Biology*.
- Engel, J.J. & R.M. Schuster 1984.** An overview and evaluation of the genera of Geocalycaceae, subfam. Lophocoleoideae (Hepaticae). *Nova Hedwigia* 39: 385–423.
- Evans, A.W. 1900.** The Hawaiian Hepaticae of the tribe Jubuloideae. *Transactions of the Connecticut Academy of Arts and Sciences* 10: 387–460. + plates.
- Fulford, M. & A.J. Sharp 1990.** The leafy Hepaticae of Mexico one hundred and twenty-seven years after C. M. Gottsche. *Memoirs of the New York Botanical Garden* 63: 1–86.
- Gradstein, S. R. 1994.** Lejeuneaceae: Ptichantheae, Brachiolejeuneae. *Flora Neotropica* 62: 1–216.
- Gradstein, S. R. & J. v. Beek 1985.** A revision of the genus *Symbiezidium* Trevis. *Beiheft zur Nova Hedwigia* 80: 221–248.
- Gradstein, S.R., X.-L. He, S. Piippo, & M. Mizutani. 2002.** Bryophyte Flora of the Huon Peninsula, Papua New Guinea. LXVII. Lejeuneaceae subfamily Ptichanthoideae (Hepaticae). *Acta Botanica Fennica* 174: 1–88.
- Grolle, R. 1988.** *Miscellanea Hepaticologica* 261–270. *Journal of the Hattori Botanical Laboratory* 65: 403–410.
- Grolle, R. 1991.** *Miscellanea Hepaticologica* 281–290. *Journal of the Hattori Botanical Laboratory* 69: 185–194.
- Grolle, R. 1995.** The Hepaticae and Anthocerotae of the East African islands: an annotated catalogue. *Bryophytarum Bibliotheca* 48: 178 pp.
- Grolle, R. 2001.** *Miscellanea Hepaticologica* 291–300. *Haussknechtia* 8: 59–69.
- Grolle, R. & Piippo, S. 1986.** Bryophyte Flora of the Huon Peninsula, Papua New Guinea. XVI. Pallaviciniaceae (Hepaticae). *Acta Botanica Fennica* 133: 59–79.
- Grolle, R. & J. Váňa. 1969.** *Jungermannia subulata* A.Evans aus Hawaii—eine verkannte Sippe der Holarktis. *Österreichisches Botanische Zeitschrift* 117: 305–313.

- Guerke, W.R.** 1978. Monograph of the genus *Jubula*. *Bryophytarum Bibliotheca* 17: 114 pp.
- Hall, J., S. Fukuda, & W.J. Hoe.** 1995. *Riccia fluitans* (Hepaticae, Ricciaceae): first observation in Hawaii. *Fragmenta Floristica et Geobotanica* 40(1): 233–234.
- Hasegawa, J.** 1983. Taxonomical studies on Asian Anthocerotae III. Asian species of *Megaceros*. *Journal of the Hattori Botanical Laboratory* 54: 227–240.
- Hasegawa, J.** 1984. Taxonomical studies on Asian Anthocerotae IV. A revision of the genera *Anthoceros*, *Phaeoceros*, and *Folioceros* in Japan. *Journal of the Hattori Botanical Laboratory* 57: 241–272.
- Hasegawa, J.** 1991. Taxonomy of *Phaeoceros laevis* subsp. *carolinianus* and its allied taxa in Japan and its adjacent region. *Journal of the Hattori Botanical Laboratory* 69: 101–106.
- Hässel de Menéndez, G.G.** 1988. A proposal for a new classification of the genera within the Anthocerotophyta. *Journal of the Hattori Botanical Laboratory* 64: 71–86.
- Hässel de Menéndez, G.G.** 1989. Las especies de *Phaeoceros* (Anthocerotophyta) de América del Norte, Sud y Central; la ornamentación de sus esporas y taxonomía. *Candollea* 44: 715–739.
- Hattori, S.** 1976. A new species of *Porella* (Hepaticae) from Hawaii. *Miscellanea Bryologica et Lichenologica* 7: 85–87.
- Hattori, S.** 1978. Studies on the Asiatic species of the genus *Porella* (Hepaticae). VII. A synopsis of Asiatic Porellaceae. *Journal of the Hattori Botanical Laboratory* 44: 91–120.
- Hattori, S.** 1981. Notes on the Pacific species of Frullaniaceae (Hepaticae), I. *Journal of the Hattori Botanical Laboratory* 49: 359–383.
- Hattori, S. & S. Piippo.** 1986. Bryophyte Flora of the Huon Peninsula, Papua New Guinea. XV. *Frullania* (Frullaniaceae, Hepaticae). *Acta Botanica Fennica* 133: 25–58.
- Hewson, H.J.** 1970. The family Aneuraceae in Australia and New Guinea: II. the genus *Riccardia*. *Proceedings of the Linnean Society of New South Wales* 95(1): 60–121 + 4 plates.
- Hoe, W.J.** 1978. *Riccia sorocarpa* Bisch. in Hawaii. *Miscellanea Bryologica et Lichenologica* 8: 52–53.
- Hong, S.H., B. Deffinbaugh, & B. Sparrow.** 1993. The genus *Herbertus* in western North America. *Lindbergia* 18: 41–45.
- Hürlimann, H.** 1976. Hepaticae aus dem Gebiete des südlichen Pazifik, IV. *Bauhinia* 5: 191–213.
- Hürlimann, H.** 1986. *Riccia hawaiensis* Hürl., species nova. *Phytologia* 61(5): 339–342.
- Hyvönen, J. & S. Piippo.** 1993. Cladistic analysis of the hornworts (Anthocerotophyta). *Journal of the Hattori Botanical Laboratory* 74: 105–119.
- Inoue, H.** 1962. Notes on *Plagiochila eatonii* Austin, a Hawaiian liverwort. *Journal of Japanese Botany* 37(12): 357–360.
- Inoue, H.** 1964. The genus *Plagiochilion*. *Journal of the Hattori Botanical Laboratory* 27: 51–72.
- Inoue, H.** 1974. *Temnoma setigerum* (Lindenb.) Schust. from the Hawaiian Islands. *Bulletin of the National Science Museum, Tokyo* 17(3): 227–231.
- Inoue, H.** 1976. Notes on the Plagiochilaceae, V. studies in the genus *Plagiochila* (Dumort.) Dumort. in the Hawaiian Islands. *Journal of the Hattori Botanical Laboratory* 40: 411–440.
- Inoue, H.** 1982. Speciation and distribution of *Plagiochila* in Australasia and the Pacific. *Journal of the Hattori Botanical Laboratory* 52: 44–56.
- Kitagawa, N.** 1988. Studies on the Hepaticae of Thailand V. the family Calypogeiaeae. *Beiheft zur Nova Hedwigia* 90: 163–170.
- Krayesky, D.M., B. Crandall-Stotler, & R.E. Stotler.** 2005. A revision of the genus *Fossombronia* Raddi in East Asia and Oceania. *Journal of the Hattori Botanical Laboratory* 98: 1–45.
- Kuwahara, Y.** 1960. Genus *Metzgeria* in Pacific Oceania. *Journal of the Hattori Botanical Laboratory* 23: 3–28.
- Long, D.G. & R. Grolle.** 1990. Hepaticae of Bhutan II. *Journal of the Hattori Botanical Laboratory* 68: 381–440.
- Miller, H. A.** 1953. Notes on Hawaiian Hepaticae: Frullaniaceae. *Bryologist* 56: 40–48.
- Miller, H. A.** 1963. Notes on Hawaiian Hepaticae. V. Collections from recent Swedish expeditions. *Arkiv för Botanik* 5(2): 489–531.
- Miller, H. A.** 1967. Oddments of Hawaiian bryology. *Journal of the Hattori Botanical Laboratory* 30: 271–276.
- Miller, H. A., Bonner, C.E.B., & H. Bischler.** 1962. Studies in Lejeuneaceae V. *Microlejeunea* in Pacific Oceania. *Nova Hedwigia* 4: 551–560.
- Miller, H. A. & E. B. Scott.** 1960. On the identity of *Herberta Sakuraii*. *Revue Bryologique et Lichénologique* 29: 26–29.
- Miller, H. A., H. O. Whittier, & B. A. Whittier.** 1983. *Prodromus Florae Hepaticarum Polynesiae*. J. Cramer, Vaduz. 423 pp.
- Mizutani, M.** 1961. A revision of Japanese Lejeuneaceae. *Journal of the Hattori Botanical Laboratory* 24: 115–305.
- Mizutani, M.** 1989. Notes of the Lejeuneaceae. 15. Three species of the genus *Trocholejeunea*. *Journal of the Hattori Botanical Laboratory* 66: 271–281.
- Mizutani, M. & K. C. Chang** 1986. A preliminary study of Chinese Lepidoziaceae flora. *Journal of the Hattori Botanical Laboratory* 60: 419–437.
- Palmer, D. D.** 2003. Hawai'i's ferns and fern allies. Univ. Hawaii Press, Honolulu.
- Piippo, S.** 1985a. Bryophyte Flora of the Huon Peninsula, Papua New Guinea. XII. Geocalycaceae (Hepaticae). *Acta Botanica Fennica* 131: 129–167.
- Piippo, S.** 1985b. Bryophyte Flora of the Huon Peninsula, Papua New Guinea. XIII. *Arachniopsis* and *Kurzia* (Lepidoziaceae, Hepaticae). *Acta Botanica Fennica* 131: 169–179.
- Piippo, S.** 1986. Monograph of the genera *Lepidolejeunea* and *Luteolejeunea*. *Acta Botanica Fennica* 132: 1–69.
- Piippo, S.** 1991. Bryophyte Flora of the Huon Peninsula, Papua New Guinea. XXXIX. *Fossombronia* (Fossombroniaceae) and *Metzgeria* (Metzgeriaceae, Hepaticae). *Acta Botanica Fennica* 143: 1–22.
- Piippo, S.** 1993. Bryophyte Flora of the Huon Peninsula, Papua New Guinea. LIV. Anthocerotophyta. *Acta Botanica Fennica* 148: 27–51.

- Renzaglia, K. S. & K. C. Vaughn.** 2000. Anatomy, development, and classification of hornworts. pp. 1–20 In Shaw, A. J. & B. Goffinet, *Bryophyte Biology*.
- Schljakov, R. N.** 1981. Pechenochnye mkhi severa SSSR. vol. 4. Akademia Nauk SSSR. Leningrad. 221 pp.
- Schuster, R. M.** 1980. The Hepaticae and Anthocerotae of North America, East of the Hundredth Meridian. vol. 4. New York, Columbia Univ. Press.
- Schuster, R. M.** 1981. Studies on Hepaticae, LIX. *Anastrepta* (Lindb.) Schiffln. and *Nothostrepta* Schust. Journal of the Hattori Botanical Laboratory 50: 83–94.
- Schuster, R. M.** 1992a. The Hepaticae and Anthocerotae of North America, East of the Hundredth Meridian, vol. 5. Chicago, Field Museum.
- Schuster, R. M.** 1992b. The Hepaticae and Anthocerotae of North America, East of the Hundredth Meridian, vol. 6. Chicago, Field Museum.
- Schuster, R. M.** 1995. Phylogenetic and taxonomic studies of Jungermanniidae, III. Calypogeiaeae. *Fragmenta Floristica et Geobotanica* 40(2): 825–888.
- Schuster, R. M.** 2000. Austral Hepaticae, part I. Beiheft zur Nova Hedwigia 118: 1–524.
- Scott, E.B. & H.A. Miller.** 1959. Notes on Hawaiian Hepaticae. IV. *Herberta herpocladioides* sp. nov. *Bryologist* 62: 116–117.
- Shaw, A.J. & B. Goffinet (eds.).** 2000. *Bryophyte Biology*. Cambridge University Press, New York, x + 476 pp.
- Sherwood, A. R.** 2004. Bibliographic checklist of the nonmarine algae of the Hawaiian Islands. Bishop Museum Occasional Papers 80: 1–23.
- So, M.-L.** 2000. *Plagiochila* sect. *Contiguae* (Hepaticae) in Australasia and the Pacific, with description of *Plagiochila subjavanica* sp. nov. *Australian Systematic Botany* 13: 803–815.
- So, M.-L.** 2001a. Recognised species of *Plagiochila* in Australasia and some island groups of the Pacific Ocean. *New Zealand Journal of Botany* 39: 395–421.
- So, M.-L.** 2001b. *Plagiochila* (Plagiochilaceae, Hepaticae) in China. *Systematic Botany Monographs* 60: 1–214.
- So, M.-L.** 2002a. The genus *Porella* (Porellaceae, Hepaticae) in Australasia and the South Pacific. *Systematic Botany* 27: 4–13.
- So, M.-L.** 2002b. *Metzgeria* (Hepaticae) in Australasia and the Pacific. *New Zealand Journal of Botany* 40: 603–627.
- So, M.-L.** 2003a. The genus *Herbertus* (Hepaticae) in Australasia and the South Pacific. *Systematic Botany* 28: 12–23.
- So, M.-L.** 2003b. The genus *Metzgeria* (Hepaticae) in Asia. *Journal of the Hattori Botanical Laboratory* 94: 159–177.
- So, M.-L.** 2004. Studies on the type specimens of *Odontoschisma* (Hepaticae) in Asia and the Pacific. *Journal of the Hattori Botanical Laboratory* 95: 249–261.
- So, M.-L.** 2005a. A synopsis of *Radula* (Radulaceae, Marchantiophyta) in New Zealand and Tasmania. *Journal of the Hattori Botanical Laboratory* 98: 149–174.
- So, M.-L.** 2005b. *Radula* (Radulaceae, Marchantiophyta) in Hawaii. *Journal of the Hattori Botanical Laboratory* 98: 175–191.
- Staples, G. W., C. T. Imada, W. J. Hoe, & C. W. Smith.** 2004. A revised checklist of Hawaiian mosses. *Tropical Bryology* 25: 35–69.
- Stephani, F.** 1924. Species hepaticarum. 6: 16–562.
- Thiers, B. M.** 1993. A monograph of *Pleurozia* (Hepaticae; Pleuroziaceae). *Bryologist* 96: 517–554.
- Tixier, P.** 1985. Contribution à la connaissance des Cololejeunoideae. *Bryophytarum Bibliotheca* 27: 439 pp.
- Váňa, J.** 1975. Studien über die *Jungermannioideae* (Hepaticae). 9. *Jungermannia* Subg. *Plectocolea* and Subg. *Solenostoma* in Hawaii. Ergänzungen und Synopsis der Gattung *Jungermannia*. *Folia Geobotanica et Phytotaxonomica, Praha* 10: 357–382.
- Váňa, J., S. Piippo, & T. Koponen.** 2005. Bryophyte flora of Hunan province, China. 6. Jungermanniaceae and Gymnomitriaceae (Hepaticae). *Acta Botanica Fennica* 178: 57–78.
- Wagner, W.L., Jr., D.R. Herbst, & S.H. Sohmer.** 1999. Manual of the Flowering Plants of Hawai'i. 2 vols. Bishop Museum Press and Univ. Hawaii Press. Honolulu.
- Yamada, K.** 1979. A revision of Asian taxa of *Radula*, Hepaticae. *Journal of the Hattori Botanical Laboratory* 45: 201–322.
- Yamada, K.** 1989. The bryophytes of Sabah (North Borneo) with special reference to the BRYOTROP transect of Mount Kinabalu. VIII. *Radula* (Radulaceae, Hepaticopsida). *Willdenowia* 19: 219–236.
- Yoshida, L. & C.W. Smith.** 1976. Two recent thalloid liverworts introduced to Hawaii. *Bulletin of the Pacific Tropical Botanical Garden* 6(1): 18–20.
- Yuzawa, Y.** 1991. Monograph of subgenus *Chonanthelia* of gen. *Frullania* (Hepaticae) of the World. *Journal of the Hattori Botanical Laboratory* 70: 181–291.
- Zhu, R.-L. & S.R. Gradstein.** 2005. Monograph of *Lopholejeunea* (Lejeuneaceae, Hepaticae) in Asia. *Systematic Botany Monographs* 74: 1–98.
- Zhu, R.-L. & M.-J. Lai.** 2005. *Cheilolejeunea decursiva* (Sande Lac.) R.M.Schust. and *Cheilolejeunea ventricosa* (Schiffn.) X.L. He (Lejeuneaceae, Hepaticae), new to Australia. *Journal of the Hattori Botanical Laboratory* 98: 193–203.

## Appendix 1. Anthocerotae of the Hawaiian Islands

Island abbreviations:

**Ni**—Ni‘ihau; **K**—Kaua‘i; **O**—O‘ahu; **Mo**—Moloka‘i; **L**—Läna‘i; **M**—Maui; **Ka**—Kahoolawe; **H**—Hawai‘i.

FullName	STATUS	NI	K	O	MO	L	M	KA	H
<b>ANTHOCEROS</b> L. (Anthocerotaceae)									
<i>Anthoceros spongiosus</i> Steph. [Miller et al. 1983]	end						M		
<b>DENDROCEROS</b> Nees (Anthocerotaceae, or Dendrocerotaceae [Renzaglia & Vaughn 2000*])									
<i>Dendroceros crispus</i> (Sw.) Nees [Miller et al. 1983; Phippo 1993] <i>Dendroceros brevicapsulus</i> Steph. <i>Dendroceros clintoni</i> Austin <i>Dendroceros hawaicus</i> Steph.	nat?		K	O	Mo		M		H
<b>FOLIOCEROS</b> Bharadwaj (Anthocerotaceae, or Foliocerotaceae [Renzaglia & Vaughn 2000*])									
<i>Folioceros fuciformis</i> (Mont.) D.C. Bharadw. [Miller et al. 1983; Bharadwaj 1975] <i>Anthoceros badlwinnii</i> Baldwin <i>Anthoceros fuciformis</i> Mont. <i>Anthoceros kahuensis</i> Steph. <i>Aspiromitus fuciformis</i> (Mont.) Steph.	ind			O			M		H
<b>MEGACEROS</b> Campb. (Anthocerotaceae, or Dendrocerotaceae [Renzaglia & Vaughn 2000*])									
<i>Megaceros flagellaris</i> (Mitt.) Steph. [Hasegawa 1983; Phippo 1993]	ind		K	O					H
<b>NOTOTHYLAS</b> Sull. (Anthocerotaceae, or Notothyladaceae [Renzaglia & Vaughn 2000*])									
<i>Notothylas breutelii</i> (Gottsche) Gottsche [Miller 1967; Miller et al. 1983; Schuster 1992b: 855] <i>Anthoceros breutelii</i> Gottsche	nat?			O					
<b>PHAEOCEROS</b> Prosk. (Anthocerotaceae, or Notothyladaceae [Renzaglia & Vaughn 2000*])									
<i>Phaeoceros carolinianus</i> (Michx.) Prosk. [Miller et al. 1983; Hasegawa 1984; Hasegawa 1991; Campbell 1989; Hässel de Menéndez 1989] <i>Anthoceros communis</i> Steph. <i>Anthoceros havaiensis</i> Reichardt <i>Anthoceros oahuensis</i> Steph. <i>Anthoceros pusillus</i> Steph. <i>Anthoceros validus</i> Steph. <i>Aspiromitus hawaicus</i> (Reichardt) Steph. <i>Phaeoceros laevis</i> (L.) Prosk. subsp. <i>carolinianus</i> (Michx.) Prosk.	ind		K	O			M		H

\* Renzaglia and Vaughn (2000: 16) contrasted four recent classifications for the hornworts in which genera are placed in various families. See there for details.

**Dubious Records**

**Folioceros glandulosus** (Lehm. & Lindenb.) D.C. Bharadw. was listed for the Hawaiian Islands (as *Anthoceros glandulosus* Lehm. & Lindenb.) without island locality, by Miller et al. 1983: 49. Until voucher material is examined the status of this name remains dubious for the Hawaiian hornwort flora.

**Megaceros vincentianus** (Lehm. & Lindenb.) Campb. was reported from 4 islands (Kaua'i, Moloka'i, Maui, Hawai'i) by Miller et al. (1983). According to S. R. Gradstein (pers. comm. 2005) it is unlikely this neotropical hornwort occurs in the Hawaiian Islands. The identity of plants so-called remains to be determined as this checklist is being completed.

**Appendix 2 Hepaticae of the Hawaiian Islands**

FULLNAME	STATUS	NI	K	O	MO	L	M	KA	H
<b>ACROMASTIGUM</b> A.Evans (Lepidoziaceae)									
<i>Acromastigum integrifolium</i> (Austin) A.Evans [Miller et al. 1983; Schuster 2000: 296 (in key) says <i>A. integrifolium</i> may range to New Caledonia] <i>Bazzania ?integrifolia</i> (Austin) A.Evans <i>Herpocladium bidens</i> Mitt., in part <i>Herpocladium tenacifolium</i> misapplied <i>Mastigobryum integrifolium</i> Austin <i>Mastigobryum rudimentare</i> Steph.	ind		K	O	Mo	M			
<b>ANASTREPTA</b> (Lindb.) Schiffn. (Jungermanniaceae)									
<i>Anastrepta orcadensis</i> (Hook.) Schiffn. [Schuster 1981; Miller et al. 1983] <i>Jungermannia orcadensis</i> Hook. <i>Lophozia orcadensis</i> (Hook.) Boulay	ind		K						
<b>ANASTROPHYLLUM</b> (Spruce) Steph. (Jungermanniaceae)									
<i>Anastrophyllum esenbeckii</i> (Mont.) Steph. [Miller et al. 1983] <i>Jungermannia esenbeckii</i> Mont.	end		K		Mo	M			H
<b>ANASTROPHYLLUM</b> <i>fissum</i> Steph. [Miller et al. 1983] <i>Anastrophyllum piligerum</i> misapplied <i>Jungermannia piligera</i> misapplied	end		K			M			
<b>ARCHILEJEUNEA</b> (Spruce) Schiffn. (Lejeuneaceae)									
<i>Archilejeunea planiuscula</i> (Mitt.) Steph. [Miller 1967; Miller et al. 1983; Gradstein et al. 2002] <i>Archilejeunea mariana</i> misapplied <i>Archilejeunea owahuensis</i> Gottsche ex Steph. <sup>1</sup> <i>Spruceanthus marianus</i> misapplied	ind			O					
<b>ASTERELLA</b> P.Beauv. (Aytoniaceae)									
<i>Asterella innovans</i> (Austin) H.A.Mill. [Miller et al. 1983] <i>Fimbriaria innovans</i> (Austin) H.A.Mill. <i>Marchantia innovans</i> Austin	end		K			M			

<sup>1</sup> The status of *A. owahuensis* is unclear. The name was reduced to *S. marianus* by Miller et al. However, Gradstein et al. state that *S. marianus* is misapplied to Pacific plants, which are *Archilejeunea planiuscula*. The type material of *A. owahuensis* has to be studied to decide its true identity.

<i>Asterella parva</i> (Steph.) H.A.Mill. [Miller et al. 1983] <i>Fimbriaria parva</i> Steph.	end			Mo			
<b>BAZZANIA</b> Gray (Lepidoziaceae)							
<i>Bazzania baldwinii</i> Austin ex A.Evans [Miller et al. 1983]  <i>Bazzania deflexa</i> misapplied <i>Mastigobryum baldwinii</i> (Austin ex A.Evans) Steph.	end		K	Mo	M		
<i>Bazzania brighamii</i> (Austin) A.Evans [Miller et al. 1983] <i>Bazzania ligulata</i> (Sande Lac. ex Steph.) Steph. <i>Mastigobryum brighamii</i> Austin <i>Mastigobryum ligulatum</i> Sande Lac. ex Steph. <i>Mastigobryum modestum</i> Steph. <i>Mastigobryum obtusidens</i> Steph.	ind		K O	Mo	M		H
<i>Bazzania cordistipula</i> (Mont.) Trevis. [Miller et al. 1983]  <i>Bazzania falcata</i> A.Evans <i>Herpetium cordistipulum</i> Mont. <i>Mastigobryum cordistipulum</i> (Mont.) Lindenb. <i>Mastigobryum honoluluense</i> Steph. <i>Mastigobryum newellii</i> Steph. <i>Mastigobryum subsandei</i> Steph.	ind		K O	Mo	M		H
<i>Bazzania didericiana</i> (Gottsche ex Steph.) Steph. [Miller et al. 1983]  <i>Bazzania didricksenii</i> (Steph.) W.E.Nicholson <i>Mastigobryum didericiana</i> Gottsche ex Steph. <i>Mastigobryum didricksenii</i> Steph. <i>Pleuroschisma pearsonii</i> (Steph.) Müll.Frib.	end		K O	Mo	M		H
<i>Bazzania emarginata</i> (Steph.) C.M.Cooke [Miller et al. 1983]  <i>Mastigobryum bispinosum</i> Steph. <i>Mastigobryum didericiana</i> Gottsche ex Steph. var. <i>emarginata</i> Steph. <i>Mastigobryum emarginatum</i> (Steph.) Steph. <i>Mastigobryum hawaiiicum</i> Steph. <i>Mastigobryum kalihense</i> Beauverd	end		K O	Mo	M		H
<i>Bazzania inaequabilis</i> Steph. ex C.M.Cooke [Miller et al. 1983]  <i>Mastigobryum inaequabilis</i> (Steph. ex C.M.Cooke) Steph. <i>Mastigobryum pacificum</i> Steph.	ind		K O				
<i>Bazzania minuta</i> (Austin) A.Evans [Miller et al. 1983]  <i>Bazzania vittata</i> misapplied <i>Mastigobryum minutum</i> Austin	end		K	Mo	M		H
<i>Bazzania nuuanensis</i> C.M.Cooke [Miller et al. 1983]  <i>Mastigobryum nuuanense</i> (C.M.Cooke) Steph. <i>Mastigobryum repandifolium</i> Steph.	end		O				H
<i>Bazzania patens</i> (Mont.) Trevis. [Miller et al. 1983]  <i>Bazzania beecheyana</i> Steph. <i>Bazzania erosistipula</i> Steph. <i>Herpetium patens</i> Mont. <i>Mastigobryum beecheyanum</i> (Steph.) Steph. <i>Mastigobryum grossidens</i> Steph. <i>Mastigobryum parvistipulum</i> Austin <i>Mastigobryum patens</i> (Mont.) Gottsche, Lindenb., & Nees <i>Mastigobryum tantulum</i> Steph.	end		K O		M		
<i>Bazzania praerupta</i> (Reinw., Blume & Nees) Trevis. [Miller et al. 1983; Mizutani & Chang 1986; Long &	ind		K O	Mo	M		H

Grolle 1990] <i>Bazzania decurva</i> (Nees) Trevis. <i>Jungermannia praerupta</i> Reinw., Blume & Nees							
<i>Bazzania sandvicensis</i> (Gottsche ex Steph.) Steph. [Miller et al. 1983] <i>Mastigobryum rockii</i> Steph. <i>Mastigobryum sandwicense</i> Gottsche ex Steph.	end	K	O	Mo	M		H
<b>BLEPHAROSTOMA</b> (Dumort.) Dumort. (Blepharostomataceae or Pseudolepicoleaceae [Crandall-Stotler & Stotler 2000])							
<i>Blepharostoma trichophyllum</i> (L.) Dumort. [Miller 1967; Miller et al. 1983] <i>Jungermannia trichophylla</i> L.	ind	K			M		
<b>CALYPOGEIA</b> Raddi (Calypogeiacae)							
<i>Calypogeia aeruginosa</i> Mitt. [Miller et al. 1983] <i>Calypogeia aeruginosa</i> var. <i>waialealeensis</i> H.A.Mill. & Kuwah. <i>Calypogeia waialealeensis</i> (H.A.Mill. & Kuwah.) H.A.Mill.	ind	K					
<i>Calypogeia arguta</i> Nees & Mont. ex Nees [Miller et al. 1983] <i>Calypogeia bifurca</i> Austin <i>Calypogeia pacifica</i> Steph. <i>Kantia arguta</i> (Nees & Mont. ex Nees) Lindb. <i>Kantia bifurca</i> (Austin) A.Evans	ind	K	O		M		H
<i>Calypogeia cuspidata</i> (Steph.) Steph. [Miller et al. 1983] <i>Calypogeia confertifolia</i> Steph. <i>Calypogeia hawaica</i> Steph. <i>Kantia cuspidata</i> Steph.	end	K	O	Mo	M		H
<i>Calypogeia tosana</i> (Steph.) Steph. [Miller et al. 1983] <i>Calypogeia bidentula</i> Austin <i>Kantia bidentula</i> A.Evans <i>Kantia tosana</i> Steph. <i>Kantia trichomanis</i> misapplied	ind	K	O	Mo	M		H
<b>CEPHALOZIA</b> (Dumort.) Dumort. (Cephaloziaceae)							
<i>Cephalozia sandvicensis</i> (Mont.) Spruce [Miller et al. 1983] <i>Blepharostoma sandwicense</i> (Mont.) Trevis. <i>Cephalozia connivens</i> misapplied <i>Cephalozia multiflora</i> misapplied <i>Jungermannia crassifolia</i> Lindenb. & Gottsche <i>Jungermannia sandwicensis</i> Mont.	ind	K	O	Mo	M		H
<b>CEPHALOZIELLA</b> (Spruce) Schiffn. (Cephaloziellaceae)							
<i>Cephaloziella baldwinii</i> (C.M.Cooke) H.A.Mill. [Cooke 1904; Miller et al. 1983] <i>Cephalozia baldwinii</i> C.M.Cooke	end	K		Mo	M		H
<i>Cephaloziella heteroica</i> (C.M.Cooke) Douin [Miller et al. 1983] <i>Cephalozia heteroica</i> C.M.Cooke	end	K		Mo	M		
<i>Cephaloziella kilohanensis</i> (C.M.Cooke) Douin [Miller et al. 1983] <i>Cephalozia kilohanensis</i> C.M.Cooke	end	K			M		

<i>Cephaloziella lilae</i> (C.M.Cooke) Douin [Miller et al. 1983] <i>Cephalozia lilae</i> C.M.Cooke	end		K	O				
<b>CHEILOLEJEUNEA</b> (Spruce) Schiffn. (Lejeuneaceae)								
<i>Cheilolejeunea recursiva</i> (Sande Lac.) R.M.Schust. [Miller et al. 1983; Zhu & Lai 2005: 197] <i>Trachylejeunea oahuensis</i> A.Evans	end?		K	O	Mo	M		
<i>Cheilolejeunea hawaica</i> Steph. [Miller et al. 1983]	ind		K	O	Mo	M		H
<i>Cheilolejeunea intertexta</i> (Lindenb.) Steph. [Miller et al. 1983] <i>Lejeunea intertexta</i> Lindenb.	ind		K	O	Mo	M		H
<i>Cheilolejeunea pyriflora</i> Steph. [Miller 1967; Miller et al. 1983] <i>Cheilolejeunea intertexta</i> misapplied	ind?		O					
<i>Cheilolejeunea stenoschiza</i> (Ångstr.) A.Evans [Miller et al. 1983] <i>Lejeunea stenoschiza</i> Ångstr. <i>Pycnolejeunea stenoschiza</i> (Ångstr.) Steph.	end		K	O	Mo	M		
<b>CHILOSCYPHUS</b> Corda (Geocalycaceae)								
<i>Chiloscyphus autoicus</i> (Steph.) J.J.Engel & R.M.Schust. [Miller et al. 1983; Engel & Schuster 1984] <i>Lophocolea autoica</i> Steph.	ind		O					H
<i>Chiloscyphus baldwinii</i> (Steph.) J.J.Engel & R.M.Schust. [Miller et al. 1983; Engel & Schuster 1984] <i>Lophocolea baldwinii</i> Steph. <i>Lophocolea breutelii</i> misapplied <i>Lophocolea columbica</i> misapplied <i>Lophocolea orbigniana</i> misapplied	end		K	O	Mo	M		H
<i>Chiloscyphus bartlettii</i> (H.A.Mill.) J.J.Engel & R.M.Schust. [Miller et al. 1983; Engel & Schuster 1984] <i>Lophocolea bartlettii</i> H.A.Mill.	end				Mo	M		H
<i>Chiloscyphus bicuspidatus</i> (Steph.) J.J.Engel & R.M.Schust. [Miller et al. 1983; Engel & Schuster 1984] <i>Lophocolea bicuspidata</i> Steph.	end					M		H
<i>Chiloscyphus ciliolatus</i> (Nees) J.J.Engel & R.M.Schust. [Miller et al. 1983; Engel & Schuster 1984; Piippo 1985a] <i>Chiloscyphus beecheyanus</i> (Taylor) J.J.Engel & R. Schust. <i>Chiloscyphus gaudichaudii</i> (Mont.) J.J.Engel & R. Schust. <i>Jungermannia ciliolata</i> Nees <i>Lophocolea beecheyana</i> Taylor <i>Lophocolea bidentata</i> misapplied <i>Lophocolea ciliolata</i> (Nees) Gottsche <i>Lophocolea gaudichaudii</i> Mont. <i>Lophocolea newellana</i> Steph. <i>Lophocolea trispinosa</i> Steph.	ind		K	O	Mo	M		H
<i>Chiloscyphus greenwelliae</i> (H.A.Mill.) H.A.Mill. [Miller et al. 1983] <i>Lophocolea connata</i> misapplied <i>Lophocolea greenwelliae</i> H.A.Mill.	end		K			M		H
<i>Chiloscyphus hawaiiicus</i> (Steph.) J.J.Engel & R.M.Schust. [Miller et al. 1983; Engel & Schuster	end		K		Mo			H

1984] <i>Lophocolea hawaiiica</i> Steph.								
<i>Chiloscyphus kilauensis</i> Steph. [Miller et al. 1983] <i>Lophocolea kilauensis</i> (Steph.) H.A.Mill.	end		O					H
<i>Chiloscyphus laceratus</i> Steph. [Miller 1967; Miller et al. 1983] <i>Chiloscyphus decurrens</i> misapplied <i>Chiloscyphus mitteni</i> misapplied	end			Mo	M			H
<i>Chiloscyphus lambertonii</i> H.A.Mill. [Miller et al. 1983]	end			Mo	M			
<i>Chiloscyphus muricatus</i> (Lehm.) J.J.Engel & R.M.Schust. [Miller et al. 1983; Engel & Schuster 1984] <i>Jungermannia muricata</i> Lehm. <i>Lophocolea muricata</i> (Lehm.) Nees	ind							H
<i>Chiloscyphus skottsbergianus</i> H.A.Mill. [Miller et al. 1983]	end							H
<i>Chiloscyphus spinosus</i> (Gottsche) J.J.Engel & R.M.Schust. [Miller et al. 1983; Engel & Schuster 1984] <i>Lophocolea spinosa</i> Gottsche	end	K	O		M			H
<b>COLOLEJEUNEA</b> (Spruce) Schiffn. (Lejeuneaceae)								
<i>Cololejeunea ceatocarpa</i> (Ångstr.) Steph. [Miller et al. 1983; Tixier 1985] <i>Lejeunea ceatocarpa</i> Ångstr. <i>Leptocolea ceatocarpa</i> (Ångstr.) Steph. <i>Physocolea ceatocarpa</i> (Ångstr.) Steph.	ind	K	O	Mo	M			H
<i>Cololejeunea cookei</i> A.Evans [Miller 1963; Miller et al. 1983] <i>Physocolea cookei</i> (A.Evans) Steph.	end	K						H
<i>Cololejeunea dzumacensis</i> Tixier [Tixier 1985]	ind		O					
<i>Cololejeunea hillebrandii</i> (Austin) Steph. [Miller et al. 1983; Tixier 1985] <i>Lejeunea hillebrandii</i> Austin <i>Lejeunea longifolia</i> Austin <i>Physocolea hillebrandii</i> (Austin) Steph.	ind	K	O	Mo	M			
<i>Cololejeunea hoeana</i> Tixier [Tixier 1985]	end		O					
<i>Cololejeunea lanciloba</i> Steph. [Miller et al. 1983] <i>Leptocolea lanciloba</i> (Steph.) A.Evans <i>Pedinolejeunea lanciloba</i> (Steph.) P.C. Chen & P.C.Wu	ind?	K	O					
<i>Cololejeunea longistyla</i> A.Evans [Miller et al. 1983] <i>Cololejeunea kauaiensis</i> (Steph.) Bischl. <i>Physocolea kauaiensis</i> Steph. <i>Physocolea longistyla</i> (A.Evans) Steph.	end	K	O					
<i>Cololejeunea obcordata</i> (Austin) A.Evans [Miller et al. 1983; Tixier 1985] <i>Lejeunea obcordata</i> Austin <i>Leptocolea mamilliloba</i> Steph. <i>Leptocolea obcordata</i> (Austin) A.Evans <i>Physocolea mamilliloba</i> Steph.	end		O	Mo	M			
<i>Cololejeunea ovalifolia</i> A.Evans [Miller et al. 1983] <i>Leptocolea ovalifolia</i> (A.Evans) A.Evans	end	K	O					
<b>COLURA</b> (Dumort.) Dumort. (Lejeuneaceae)								
<i>Colura tenuicornis</i> (A.Evans) Steph. [Miller et al. 1983] <i>Colura calyptrifolia</i> misapplied	ind	K	O	Mo	M			H

<i>Colura longicornis</i> misapplied <i>Colura tenuis</i> Steph. <i>Colurolejeunea tenuicornis</i> A.Evans <i>Lejeunea calyptrotrifolia</i> misapplied							
<b>DIPLOPHYLLUM</b> (Dumort.) Dumort. (Scapaniaceae)							
<i>Diplophyllum albicans</i> (L.) Dumort. [Miller et al. 1983]	ind				M		
<i>Diplophyllum exiguum</i> Steph. [Miller et al. 1983]	end					H	
<b>DREPANOLEJEUNEA</b> (Spruce) Schiffn. (Lejeuneaceae)							
<i>Drepanolejeunea anderssonii</i> (Ångstr.) A.Evans [Miller et al. 1983] <i>Harpalejeunea anderssonii</i> (Ångstr.) Steph. <i>Lejeunea anderssonii</i> Ångstr.	end	K	O	Mo	M		H
<i>Drepanolejeunea pseudoneura</i> (A.Evans) Grolle [Miller et al. 1983; Grolle 1988] <i>Harpalejeunea falsinervis</i> A.Evans ex Bonner <i>Harpalejeunea pseudoneura</i> A.Evans	end		O		M		H
<i>Drepanolejeunea ungulata</i> (Steph.) Grolle [Miller et al. 1983; Grolle 1991] <i>Drepanolejeunea uncinata</i> misapplied <i>Harpalejeunea ungulata</i> Steph. <i>Lejeunea ungulata</i> Ångstr.	end	K	O	Mo	M		H
<b>DUMORTIERA</b> Nees (Marchantiaceae)							
<i>Dumortiera hirsuta</i> (Sw.) Nees [Miller et al. 1983] <i>Dumortiera trichocephala</i> (Hook.) Nees <i>Marchantia hirsuta</i> Sw. <i>Marchantia trichocephala</i> Hook.	ind		K	O		M	H
<b>FOSSOMBRONIA</b> Raddi (Fossombroniaceae)							
<i>Fossombronia pusilla</i> (L.) Nees [Krayesky et al. 2005]	ind					M	
<b>FRULLANIA</b> Raddi (Frullaniaceae, or Jubulaceae [Crandall-Stotler & Stotler 2000])							
<i>Frullania apiculata</i> (Reinw., Blume & Nees) Nees [Miller 1953; Miller et al. 1983] <i>Frullania crenatiloba</i> Steph. <i>Frullania oceanica</i> Mitt. <i>Jubula vittata</i> Steph. <i>Jungermannia apiculata</i> Reinw., Blume & Nees	ind	K	O	Mo	M		H
<i>Frullania ericoides</i> (Nees) Mont. [Miller 1953; Miller et al. 1983; Hattori & Pipp 1986] <i>Frullania elliptica</i> Steph. <i>Frullania sandvicensis</i> Ångstr., in part? <i>Frullania squarrosa</i> (Reinw., Blume & Nees) Dumort. <i>Jungermannia squarrosa</i> Reinw., Blume & Nees	ind	K	O	Mo	M		H
<i>Frullania hawaiiensis</i> H.A.Mill. [Miller 1953; Miller et al. 1983]	end		O	Mo	M		
<i>Frullania hypoleuca</i> Nees [Miller 1953; Miller et al. 1983; Hattori 1981] <i>Frullania explicata</i> Mont. <i>Frullania gymnotis</i> Nees & Mont. <i>Frullania parvilobula</i> Steph. <i>Frullania papulirostra</i> Steph.	ind	K	O	Mo	M		H

<i>Frullania ptychantha</i> misapplied							
<i>Frullania meyeniana</i> Lindenb. [Miller 1953; Miller et al. 1983] <i>Frullania helleri</i> Steph.	ind		K	O	Mo	M	H
<i>Frullania neurota</i> Taylor [Miller 1953; Miller et al. 1983; Yuzawa 1991] <i>Frullania aongstroemii</i> A.Evans <i>Frullania arietina</i> misapplied <i>Frullania sandvicensis</i> Ångstr.	ind		K	O	Mo	L	H
<i>Frullania oahuensis</i> Hampe [Miller 1953; Miller et al. 1983] <i>Frullania cookei</i> A.Evans ex Steph.	end		K	O	Mo	M	H
<b>FULFORDISTRIA</b> H.A.Mill. (Schistochilaceae)							
<i>Fulfordistrinia cookei</i> H.A.Mill. [Miller et al. 1983] <i>Schistochila cookei</i> (H.A.Mill.) Schust.	end				Mo		
<b>GEOCALYX</b> Nees (Geocalycaceae)							
<i>Geocalyx graveolens</i> (Schrad.) Nees [Miller 1967; Miller et al. 1983] <i>Jungermannia graveolens</i> Schrad.	ind?						H
<b>HERBERTUS</b> Gray (Herbertaceae)							
<i>Herbertus gracilis</i> (Mont.) Steph. [Miller 1963; Miller et al. 1983] <i>Herpocladium bidens</i> Mitt., in part <i>Herpocladium gracile</i> (Mont.) Steph. <i>Mastigobryum biapiculatum</i> Steph. <i>Mastigophora gracilis</i> Mont. <i>Mastigophora parvifolia</i> Steph. <i>Schisma gracilis</i> Mont. <i>Sendtnera gracilis</i> (Mont.) Gottsche, Lindenb. & Nees <i>Sendtnera tristicha</i> Austin	ind		K	O	Mo	M	H
<i>Herbertus hawaiiensis</i> H.A.Mill. [Miller & Scott 1960; Miller 1967; Miller et al. 1983; Hong et al. 1993] <i>Herbertus sakuraii</i> misapplied	ind					M	
<i>Herbertus helleri</i> (Steph.) W.E.Nicholson [Miller et al. 1983; So 2003a] <i>Herbertus longifissus</i> misapplied <i>Herbertus parisii</i> (Steph.) H.A.Mill., in part <i>Herbertus sanguineus</i> Austin <i>Herbertus setigerus</i> (Steph.) H.A.Mill., in part <i>Schisma helleri</i> Steph. <i>Schisma juniperina</i> misapplied <i>Schisma longifissa</i> misapplied <i>Schisma setigera</i> Steph.	end			O		M	H
<i>Herbertus herpocladioides</i> E.B.Scott & H.A.Mill. [Scott & Miller 1959; Miller 1963; Miller et al. 1983]	ind		K		Mo	M	H
<i>Herbertus sanguineus</i> (Mont.) Austin [Miller 1963; Miller et al. 1983] <i>Schisma juniperinum</i> (Sw.) Nees var. <i>sanguineum</i> Austin <i>Schisma sanguineum</i> (Austin) Steph.	ind		K	O	Mo	M	H
<b>HYGROLEJEUNEA</b> (Spruce) Steph. (Lejeuneaceae)							
<i>Hygrolejeunea pacifica</i> Steph. [Miller et al. 1983]	end			O			

<b>JAMESONIELLA</b> (Spruce) Carrington in F. Lees (Jungermanniaceae)							
<i>Jamesoniella labrifolia</i> H.A.Mill. [Miller 1967; Miller et al. 1983]	end			Mo	M		H
<i>Jamesoniella robusta</i> (Austin) Spruce ex Steph. [Miller et al. 1983] <i>Anastrophyllum contractum</i> misapplied <i>Anastrophyllum coriaceum</i> (Austin) Steph. <i>Anastrophyllum macrophyllum</i> (Ångstr.) Steph. <i>Anastrophyllum ? rigidum</i> (Austin) Steph. <i>Crossogyna robusta</i> (Austin) Schljakov <i>Jamesoniella coriacea</i> (Austin) Spruce <i>Jamesoniella macrophylla</i> (Ångstr.) Steph. <i>Jungermannia contracta</i> misapplied <i>Jungermannia coriacea</i> Austin <i>Jungermannia macrophylla</i> Ångstr. <i>Jungermannia rigida</i> Austin <i>Jungermannia robusta</i> Austin	ind	K	O	Mo	M		H
<b>JUBULA</b> Dumort. (Jubulaceae)							
<i>Jubula hutchinsiae</i> (Hook.) Dumort. subsp. <i>javanica</i> (Steph.) Verd. [Miller 1953; Guerke 1978; Miller et al. 1983] <i>Frullania piligera</i> Austin <i>Jubula piligera</i> (Austin) A.Evans <i>Jubula setacea</i> Steph.	ind	K	O	Mo	L	M	H
<b>JUNGERMANNIA</b> L. (Jungermanniaceae)							
<i>Jungermannia hawaiiaca</i> (H.A.Mill.) Váňa [Váňa 1975] <i>Nardia exserta</i> A.Evans <i>Solenostoma exsertum</i> (A.Evans) Steph. <i>Solenostoma hawaiiicum</i> H.A.Mill.	end	K	O	Mo	M		H
<i>Jungermannia micrantha</i> (Mitt.) Steph. [Váňa 1975] <i>Jungermannia baldwinii</i> Steph. <i>Jungermannia callithrix</i> misapplied <i>Jungermannia lurida</i> A.Evans <i>Jungermannia mauii</i> Austin <i>Jungermannia nana</i> misapplied <i>Jungermannia newellana</i> Steph. <i>Jungermannia sexplicata</i> Steph. <i>Mylia taylori</i> misapplied <i>Nardia callithrix</i> misapplied <i>Nardia mauii</i> (Austin) A.Evans <i>Nardia micrantha</i> (Mitt.) Steph. <i>Nardia truncata</i> misapplied <i>Plectocolea mauii</i> (Austin) H.A.Mill. <i>Plectocolea micrantha</i> Mitt. <i>Plectocolea submicrantha</i> H.A.Mill.	ind	K	O	Mo	M		H
<b>KURZIA</b> G.Martens (Lepidoziaceae)							
<i>Kurzia hawaica</i> (C.M.Cooke) Grolle [Miller et al. 1983] <i>Lepidozia hawaica</i> C.M.Cooke <i>Lepidozia minutifolia</i> Steph. <i>Microlepidozia hawaica</i> (C.M.Cooke) H.A.Mill.	end	K	O	Mo	M		H
<i>Kurzia mauiensis</i> (H.A.Mill.) H.A.Mill. [Miller et al. 1983; Piippo 1985b] <i>Microlepidozia mauiensis</i> H.A.Mill.	ind					M	

<i>Kurzia tayloriana</i> (H.A.Mill.) H.A.Mill. [Miller et al. 1983] <i>Microlepidozia tayloriana</i> H.A.Mill.	end		K			M	
<b>LEJEUNEA</b> Lib. (Lejeuneaceae)							
<i>Lejeunea anisophylla</i> Mont. [Miller et al. 1983]	ind?		K	O	Mo	M	H
<i>Lejeunea pacifica</i> Mont. [Miller et al. 1983] <i>Eulejeunea pacifica</i> (Mont.) Steph.	ind		K	O	Mo		H
<b>LEPIDOLEJEUNEA</b> R.M.Schust. (Lejeuneaceae)							
<i>Lepidolejeunea involuta</i> (Gottsche) Grolle [Miller et al. 1983; Piippo 1986—without island locality] <i>Harpalejeunea owaihiensis</i> (Gottsche) Steph. <i>Hygrolejeunea owaihiensis</i> (Gottsche) Steph. <i>Lejeunea hawaiiensis</i> Gottsche ex Mitt. <i>Lejeunea owaihiensis</i> Gottsche <i>Lopholejeunea owaihiensis</i> (Lindenb. in Gottsche) Steph. <i>Strepsilejeunea owaihiensis</i> (Gottsche) Steph.	ind						
<b>LEPIDOZIA</b> (Dumort.) Dumort. (Lepidoziaceae)							
<i>Lepidozia australis</i> (Lehm. & Lindenb.) Mitt. [Miller et al. 1983] <i>Jungermannia australis</i> Lehm. & Lindenb. <i>Lepidozia remyana</i> Steph. <i>Lepidozia reptans</i> misapplied <i>Lepidozia reptans</i> Evans var. <i>australis</i> (Lehm. & Lindenb.) Gottsche, Lindenb. & Nees <i>Lepidozia triceps</i> Taylor <i>Mastigophora triceps</i> (Taylor) Trevis.	end		K			M	
<i>Lepidozia sandvicensis</i> Lindenb. ex Gottsche, Lindenb. & Nees [Miller et al. 1983] <i>Lepidozia filipendula</i> Taylor <i>Lepidozia pusilla</i> Steph. <i>Mastigophora filipendula</i> (Taylor) Trevis. <i>Mastigophora sandvicensis</i> (Lindenb.) Trevis.	ind		K		Mo	M	
<i>Lepidozia sellingiana</i> H.A.Mill. [Miller et al. 1983]	end		K				
<b>LIOCHLAENA</b> Nees (Jungermanniaceae)							
<i>Lioclaena subulata</i> (A.Evans) Schljakov [Grolle & Váňa 1969; Miller et al. 1983; Long & Grolle 1990; Schljakov 1981] <i>Jamesoniella subulata</i> (A.Evans) Steph. <i>Jungermannia subulata</i> A.Evans	ind		K	O	Mo	M	H
<b>LOPHOLEJEUNEA</b> (Spruce) Schiffn. (Lejeuneaceae)							
<i>Lopholejeunea nigricans</i> (Lindenb.) Schiffn. [Miller et al. 1983; Zhu & Gradstein 2005] <i>Lejeunea gibbosa</i> Ångstr. <i>Lejeunea hawaica</i> Steph. <i>Lejeunea mannii</i> Austin <i>Lopholejeunea gibbosa</i> (Ångstr.) Steph. <i>Lopholejeunea hawaica</i> Steph. <i>Lopholejeunea mannii</i> (Austin) Steph. <i>Lopholejeunea owahuensis</i> Gottsche ex Steph. <i>Lopholejeunea subnuda</i> (Mitt.) Steph. <i>Mastigolejeunea honoluluana</i> Steph.	ind		K	O	Mo	M	H

<i>Phragmicomia subnuda</i> Mitt.						
<i>Lopholejeunea proxima</i> Steph. [Miller et al. 1983]	end	K				
<b>LOPHOZIA</b> (Dumort.) Dumort. (Jungermanniaceae)						
<i>Lophozia perssoniana</i> H.A.Mill. [Miller et al. 1983]	end		Mo	M		
<b>LUNULARIA</b> Adans. (Lunulariaceae)						
<i>Lunularia cruciata</i> (L.) Dumort. ex Lindenb. [Miller 1967; Yoshida & Smith 1976] <i>Marchantia cruciata</i> L.	nat	O		M	H	
<b>MARCHANTIA</b> L. (Marchantiaceae)						
<i>Marchantia crenata</i> Austin [Bischler-Causse 1989] <i>Fimbriaria rechingeri</i> Steph. <i>Marchantia chenopoda</i> misapplied <i>Marchantia cuspidisquama</i> Steph. <i>Marchantia disjuncta</i> misapplied <i>Marchantia furciloba</i> Steph. <i>Marchantia punaluana</i> Steph. <i>Marchantia rechingeri</i> (Steph.) H.A.Mill. <i>Marchantia sandvicensis</i> Reichardt	end	K O		M	H	
<i>Marchantia marginata</i> Steph. [Bischler-Causse 1989] <i>Marchantia antiqua</i> Steph. <i>Marchantia disjuncta</i> misapplied <i>Marchantia eatonii</i> Austin ex H.A.Mill. <i>Marchantia nitida</i> misapplied <i>Marchantia paleacea</i> misapplied	end	K O Mo	M			
<b>MARCHESINIA</b> Gray (Lejeuneaceae)						
<i>Marchesinia mittenii</i> A.Evans [Evans 1900; Miller et al. 1983—without island locality]	end					
<b>METACALYPOGEIA</b> (S.Hatt.) Inoue (Calypogeiaeae)						
<i>Metacalypogeia alternifolia</i> (Nees ex Gottsche, Lindenb. & Nees) Grolle [Miller et al. 1983, Long & Grolle 1990] <i>Bazzania alternifolia</i> (Nees) Trevis. <i>Calypogeia alternifolia</i> (Nees ex Gottsche, Lindenb. & Nees) Steph. <i>Calypogeia trichomanis</i> misapplied <i>Kantia alternifolia</i> (Nees ex Gottsche, Lindenb. & Nees) Spruce <i>Kantia rotundistipula</i> Steph. <i>Mastigobryum alternifolium</i> Nees ex Gottsche, Lindenb. & Nees <i>Metacalypogeia montana</i> (Horik.) Inoue var. <i>verruculosa</i> (S.Hatt.) H.A.Mill. <i>Metacalypogeia remotifolia</i> (Herzog) Inoue	ind	K O Mo	M	H		
<b>METAHYGROBIELLA</b> R.M.Schust. (Cephaloziaceae)						
<i>Metahygrobiella lucens</i> (A.Evans) H.A.Mill. [Miller et al. 1983] <i>Cephalozia lucens</i> (A.Evans) Bonner <i>Jungermannia lucens</i> A.Evans	end			M		
<i>Metahygrobiella maxima</i> (Steph.) N.Kitag. [Miller et al. 1983]	end			M		

<i>Cephalozia maxima</i> Steph.						
<b>METALEJEUNEA</b> Grolle (Lejeuneaceae)						
<i>Metalejeunea cucullata</i> (Reinw., Blume, & Nees) Grolle [Miller et al. 1962; Miller et al. 1983; Grolle 1995] <i>Jungermannia cucullata</i> Reinw., Blume, & Nees <i>Microlejeunea albicans</i> (Nees) Steph. <i>Microlejeunea cucullata</i> (Reinw., Blume, & Nees) Steph. <i>Microlejeunea erectifolia</i> misapplied <i>Microlejeunea sundaica</i> W.E.Nicholson	ind	K	O	Mo	M	H
<b>METZGERIA</b> Raddi (Metzgeriaceae)						
<i>Metzgeria furcata</i> (L.) Dumort. [Kuwahara 1960; Miller et al. 1983; Long & Grolle 1990; So 2002b] <i>Metzgeria decipiens</i> (C.Massal.) Schiffn. <i>Metzgeria dichotoma</i> misapplied <i>Metzgeria mauina</i> Steph. <i>Metzgeria molokaiensis</i> Kuwah. <i>Metzgeria quadriseriata</i> A.Evans	ind	K	O	Mo	M	H
<i>Metzgeria leptoneura</i> Spruce [Kuwahara 1960; Miller et al. 1983; Piippo 1991; So 2002b] <i>Metzgeria papulosa</i> Steph.	ind		O			
<i>Metzgeria lindbergii</i> Schiffn. [Kuwahara 1960; Miller et al. 1983; Piippo 1991; So 2002b] <i>Metzgeria oceanica</i> Kuwah. <i>Metzgeria pectinata</i> Steph.	ind	K	O	Mo	M	H
<i>Metzgeria pubescens</i> (Schrank) Raddi [So 2003b– without island loc.]	ind?					
<b>MICROLEJEUNEA</b> Steph. (Lejeuneaceae)						
<i>Microlejeunea lunulatiloba</i> Horik. [Miller et al. 1962; Miller et al. 1983; So 2005b]	ind		O	Mo	M	H
<b>MNIOLOMA</b> Herzog (Calypogeiacae)						
<i>Mnioloma fuscum</i> (Lehm. & Lindenb.) R.M.Schust. [Miller et al. 1983; Kitagawa 1988; Schuster 1995: 848–9] <i>Calypogeia baldwinii</i> Austin <i>Calypogeia fusca</i> (Lehm. & Lindenb.) Steph. <i>Jungermannia fusca</i> Lehm. & Lindenb. <i>Kantia baldwinii</i> (Austin) A.Evans <i>Metacalypogeia fusca</i> (Lehm. & Lindenb.) N. Kitag. <i>Omphalanthus baldwinii</i> nom. nud.	ind				M	
<b>NOTOSCYPHUS</b> Mitt. (Jungermanniaceae)						
<i>Notoscyphus lutescens</i> (Lehm. & Lindenb.) Mitt. [Stephani 1924; Miller et al. 1983; Váňa et al. 2005] <i>Calypogeia minutistipula</i> Steph. <i>Gymnanthe bolanderi</i> Austin <i>Jungermannia bolanderi</i> Austin <i>Jungermannia lutescens</i> Lehm. & Lindenb. <i>Notoscyphus paroicus</i> Schiffn. <i>Saccogyna bolanderi</i> (Austin) A.Evans	ind	K	O		M	H
<b>ODONTOSCHISMA</b> (Dumort.) Dumort.						

(Cephaloziaceae)							
<i>Odontoschisma sandvicense</i> (Ångstr.) A.Evans [Miller et al. 1983; So 2004] <i>Gamoscyphus sandvicense</i> (Ångstr.) Trevis. <i>Odontoschisma gracile</i> (Mitt.) Steph. <i>Odontoschisma grandistipulum</i> Steph. <i>Sphagnoecetis gracilis</i> Mitt. <i>Sphagnoecetis sandvicense</i> Ångstr.	end		K	O	Mo	M	H
<i>Odontoschisma subjulaceum</i> Austin [Miller et al. 1983; So 2004] <i>Jungermannia caudifera</i> Taylor ex Austin	end		K	O	Mo	M	H
PALLAVICINIA Gray (Pallaviciniaceae)							
<i>Pallavicinia lyellii</i> (Hook.) Carruth. [Miller et al. 1983; Grolle & Piippo 1986] <i>Pallavicinia cylindrica</i> (Austin) A.Evans <i>Pallavicinia simplex</i> Steph. <i>Steetzia cylindrica</i> Austin	ind				Mo	M	H
PLAGIOCHASMA Lehm. & Lindenb. (Aytoniaceae)							
<i>Plagiochasma japonicum</i> (Steph.) C.Massal. [Bischler 1979; Long & Grolle 1990] <i>Plagiochasma cordatum</i> misapplied <i>Rupinia cordata</i> misapplied	ind			O			
PLAGIOCHILA (Dumort.) Dumort. (Plagiochilaceae)							
<i>Plagiochila baldwinii</i> Austin ex A.Evans [Inoue 1976; So 2001a] <i>Plagiochila acutiuscula</i> Austin ex A.Evans <i>Plagiochila flava</i> misapplied	end					M	
<i>Plagiochila conduplicata</i> Steph. [Inoue 1976; Miller 1963; Miller et al. 1983; So 2001a]	end		K	O	Mo		H
<i>Plagiochila convoluta</i> Steph. [Inoue 1976; So 2001a]	end		K	O			H
<i>Plagiochila deflexa</i> Mont. & Gottsche [Inoue 1976; Miller et al. 1983; So 2001a] <i>Plagiochila adiantoides</i> misapplied <i>Plagiochila arbuscula</i> misapplied <i>Plagiochila askenasi</i> Steph. <i>Plagiochila belangeriana</i> misapplied <i>Plagiochila caespitosa</i> Steph. <i>Plagiochila nahikuna</i> Steph. <i>Plagiochila patula</i> (Sw.) Nees & Mont. <i>Plagiochila rockii</i> Steph.	end		K	O	Mo	M	H
<i>Plagiochila fissidentoides</i> Taylor [Inoue 1976: 439 excl. Molokai; So 2001a] <i>Plagiochila simplex</i> misapplied <i>Plagiochila subtilis</i> Dugas <i>Plagiochila variegata</i> misapplied	end			O		M	H
<i>Plagiochila gaudichaudii</i> Mont. & Gottsche [Inoue 1976; So 2001a] <i>Plagiochila haleakalensis</i> Steph. <i>Plagiochila manni</i> Steph. <i>Plagiochila tenuis</i> misapplied	end		K	O	Mo	M	H
<i>Plagiochila gracillima</i> Austin ex A.Evans [Inoue 1976; So 2001a]	end				Mo	M	H
<i>Plagiochila grossispina</i> Steph. [Inoue 1976; So 2001a; Hoe 3530.2 from Maui, det. M.L. So 3/2004]	end			O		M	H

<i>Plagiochila modesta</i> Dugas						
<i>Plagiochila hawaica</i> Steph. [Inoue 1976; So 2001a]	end				M	H
<i>Plagiochila hoei</i> Inoue [Inoue 1976; So 2001a] <i>Plagiochila deltoidea</i> misapplied	end				M	
<i>Plagiochila mauiensis</i> Steph. (as "marriensis," an orthogr. error) [Inoue 1976; So 2001a; Cooke 129 from Kaua'i det. M.L. So 3/2004] <i>Plagiochila frondescens</i> misapplied <i>Plagiochila mauiensis</i> Dugas	end	K	O	Mo	M	H
<i>Plagiochila maunakeana</i> Steph. (as "mannakeana," an orthogr. error) [Inoue 1976; So 2001a; Cooke 88 from Kaua'i det. M.L. So 3/2004] <i>Plagiochila biserialis</i> misapplied	end	K		Mo	M	H
<i>Plagiochila remyana</i> Steph. [Inoue 1976; Schuster 1980; So 2001a; Svhla 35-282 from Maui, det. M.L. So 3/2004] <i>Plagiochila mollucensis</i> Steph. <i>Plagiochila owaihiensis</i> misapplied <i>Plagiochila yokogurensis</i> Steph. subsp. <i>remyana</i> (Steph.) R.M.Schust.	end	K	O		M	H
<b>PLAGIOCHILION</b> S.Hatt. (Plagiochilaceae)						
<i>Plagiochilion combinatum</i> (Mitt.) Inoue [Miller 1963; Inoue 1964; Miller et al. 1983; So 2001a] <i>Plagiochila combinata</i> Mitt. <i>Plagiochila oahuna</i> Steph. <i>Plagiochila oppositifolia</i> Austin	end	K	O	Mo	M	H
<b>PLEUROZIA</b> Dumort. (Pleuroziaceae)						
<i>Pleurozia conchifolia</i> (Hook. & Arn.) Austin var. <i>conchifolia</i> [Miller et al. 1983; Thiers 1993] <i>Jungermannia conchaefolia</i> Hook. & Arn. <i>Physiotium conchaefolia</i> (Hook. & Arn.) Nees <i>Pleurozia cochleariformis</i> (Hook. & Arn.) Trevis. <i>Pleurozia purpurea</i> misapplied	ind	K	O	Mo	M	H
<i>Pleurozia gigantea</i> (F.Weber) Lindb. [Miller et al. 1983; Baldwin 18 from Maui det. B. Thiers 3/2006] <i>Jungermannia gigantea</i> F.Weber <i>Physiotium gigantea</i> (F.Weber) Lindb.	ind				M	
<i>Pleurozia subinflata</i> (Austin) Austin [Miller et al. 1983; Thiers 1993] <i>Physiotium evolutum</i> Mitt. <i>Physiotium subinflatum</i> Austin <i>Pleurozia evoluta</i> (Mitt.) Steph.	ind	K	O		M	H
<b>PORELLA</b> L. (Porellaceae)						
<i>Porella acutifolia</i> (Lehm. & Lindenb.) Trevis. [Miller et al. 1983; Hattori 1978; So 2002a] <i>Madotheca acutifolia</i> Lehm. & Lindenb. <i>Madotheca hawaiiensis</i> (A.Evans) Steph. <i>Porella hawaiiaca</i> sphalm. <i>Porella hawaiiensis</i> A.Evans	ind				M	
<i>Porella hoeana</i> S.Hatt. [Hattori 1976; Miller et al. 1983] <i>Porella laevigata</i> misapplied	end				M	
<b>RADULA</b> Dumort. (Radulaceae)						
<i>Radula acutangula</i> Steph. [Miller et al. 1983; So 2005b]	end	K	O	Mo	M	H

<i>Radula pauciramea</i> Steph.							
<i>Radula cavifolia</i> Hampe ex Gottsche, Lindenb., & Nees [So 2005b] <i>Radula aneurismalis</i> misapplied	ind		K			M	H
<i>Radula cordata</i> Mitt. [Yamada 1979; Miller et al. 1983; So 2005b] <i>Radula excisiloba</i> Steph. <i>Radula manni</i> Austin <i>Radula xalapensis</i> misapplied ? ? ?	end?		K	O	Mo	M	H
<i>Radula curvilobula</i> M.L.So [So 2005b]	end					M	
<i>Radula gracilis</i> Mitt. ex Steph. [Miller et al. 1983; So 2005b] <i>Radula lejeuneaformis</i> Steph.	ind		K	O	Mo	M	H
<i>Radula hawaiiica</i> M.L.So [So 2005b]	end		O				
<i>Radula javanica</i> Gottsche [Miller et al. 1983; So 2005b] <i>Radula cordiloba</i> Taylor <i>Radula pallens</i> misapplied <i>Radula perrottetii</i> misapplied	ind		O	Mo	L	M	H
<i>Radula mauiensis</i> M.L.So [So 2005b]	end					M	
<i>Radula reflexa</i> Nees & Mont. [Miller et al. 1983; So 2005b] <i>Radula perrottetii</i> misapplied	ind		K	O		M	
<i>Radula sullivantii</i> Austin [So 2005b] <i>Radula perrottetii</i> misapplied	ind?		K			M	
<b>RICCARDIA</b> Gray (Aneuraceae)							
<i>Riccardia alba</i> (Colenso) E.A.Br. [Hürlimann 1976; Miller et al. 1983; Brown & Bragins 1989—all without island loc.] <i>Aneura alba</i> Colenso <i>Aneura samoana</i> Steph. <i>Riccardia samoana</i> (Steph.) H.A.Mill.	ind						
<i>Riccardia attenuata</i> (Steph.) H.A.Mill. [Miller et al. 1983] <i>Aneura attenuata</i> Steph.	end		O	Mo		M	H
<i>Riccardia baldwinii</i> (Steph.) H.A.Mill. [Miller et al. 1983] <i>Aneura baldwinii</i> Steph. <i>Aneura tamariscina</i> misapplied	end						H
<i>Riccardia brunnea</i> (Steph.) S.Hatt. [Miller et al. 1983] <i>Aneura brunnea</i> Steph.	end			Mo		M	H
<i>Riccardia densiramea</i> (Steph.) S.Hatt. [Miller et al. 1983] <i>Aneura densiramea</i> Steph.	end		K				H
<i>Riccardia flaccida</i> (Steph.) S.Hatt. [Miller et al. 1983] <i>Aneura flaccida</i> Steph. <i>Aneura multifida</i> misapplied <i>Riccardia multifida</i> misapplied	end		K	O	Mo	M	H
<i>Riccardia fleischeri</i> (Steph.) H.A.Mill. [Miller et al. 1983] <i>Aneura fleischeri</i> Steph.	end		O				
<i>Riccardia hamatifolia</i> (Steph.) H.A.Mill. [Miller et al. 1983] <i>Aneura hamatifolia</i> Steph. <i>Aneura hamatiflora</i> sphalm.	end		O				
<i>Riccardia hawaica</i> (Steph.) H.A.Mill. [Miller et al. 1983] <i>Aneura hawaica</i> Steph.	end		K	O	Mo		H

<i>Riccardia multifida</i> (L.) Gray [Miller et al. 1983; Schuster 1992a: 620–621] <i>Jungermannia multifida</i> L.	nat?		O				
<i>Riccardia multisepica</i> (Steph.) S.Hatt. [Miller et al. 1983] <i>Aneura multisepica</i> Steph. <i>Aneura palmata</i> misapplied <i>Riccardia palmata</i> misapplied	end?	K	O				H
<i>Riccardia newellana</i> (Steph.) H.A.Mill. [Miller et al. 1983] <i>Aneura newellana</i> Steph.	end						H
<i>Riccardia nigra</i> (Steph.) H.A.Mill. [Miller et al. 1983] <i>Aneura nigra</i> Steph.	end						H
<i>Riccardia obtusifrons</i> (Steph.) H.A.Mill. [Miller et al. 1983] <i>Aneura obtusifrons</i> Steph. <i>Aneura pinguis</i> misapplied <i>Aneura plana</i> Steph.	end				M		
<i>Riccardia pauciramea</i> (Steph.) H.A.Mill. [Miller et al. 1983] <i>Aneura pauciramea</i> Steph.	end		O		M		H
<i>Riccardia pectinata</i> (Austin) H.A.Mill. [Miller et al. 1983] <i>Aneura pectinata</i> Austin	end	K	O	Mo	M		H
<i>Riccardia punahuina</i> (Steph.) H.A.Mill. [Miller et al. 1983] <i>Aneura punahuina</i> Steph.	end						H
<i>Riccardia rockii</i> (Steph.) H.A.Mill. [Miller et al. 1983] <i>Aneura rockii</i> Steph.	end				M		
<b>RICCIA</b> L. (Ricciaceae)							
<i>Riccia fluitans</i> L. [Hall et al. 1995]	nat?		O				
<i>Riccia hawaiiensis</i> Hürl. [Hürlmann 1986]	end						H
<i>Riccia rechingeri</i> Steph. [Yoshida & Smith 1976; Miller et al. 1983]	nat						H
<i>Riccia sorocarpa</i> Bischl. [Hoe 1978; Miller et al. 1983; Schuster 1992b]	nat				M		
<b>RICCIOPARPUS</b> Corda (Ricciaceae)							
<i>Ricciocarpus natans</i> (L.) Corda [Miller 1967; Miller et al. 1983]	nat?		O				
<b>SCAPANIA</b> (Dumort.) Dumort. (Scapaniaceae)							
<i>Scapania grossidens</i> Steph. [Miller et al. 1983] <i>Scapania dentata</i> Dumort. var. <i>oakesii</i> misapplied <i>Scapania oakesii</i> Austin	end				M		
<i>Scapania hawaica</i> Müll.Frib. [Miller et al. 1983] <i>Scapania nemorosa</i> misapplied	end	K			M		
<i>Scapania mauina</i> Steph. [Miller et al. 1983] <i>Scapania 'manina'</i> sphalm.	end				M		
<i>Scapania ornithopodioides</i> (With.) Waddell [Miller et al. 1983; Long & Grolle 1990] <i>Jungermannia ornithopodioides</i> With. <i>Scapania planifolia</i> (Hook.) Dumort.	ind				M		
<i>Scapania paucidens</i> Steph. [Miller et al. 1983] <i>Scapania undulata</i> misapplied	end		Mo				H

<b>SOUTHBYA</b> Spruce (Arnelliaceae)						
<i>Southbya grollei</i> N.Kitag. [Váňa 1975]	ind?				M	
<b>SPRUCEANTHUS</b> Verd. (Lejeuneaceae)						
<i>Spruceanthus polymorphus</i> (Sande Lac.) Verd. [Mizutani 1961; Miller et al. 1983] <i>Brachiolejeunea aliena</i> (Ångstr.) Steph. <i>Brachiolejeunea apiculata</i> Steph. <i>Brachiolejeunea polymorpha</i> (Sande Lac.) Steph. <i>Dicranolejeunea didericiana</i> Steph. <i>Lejeunea aliena</i> Ångstr. <i>Lejeunea elongata</i> (Austin) Austin <i>Mastigolejeunea apiculata</i> Steph. <i>Phragmicomia elongata</i> Austin <i>Phragmicomia polymorpha</i> Sande Lac. <i>Ptycholejeunea elongata</i> (Austin) Steph. <i>Thysananthus elongatus</i> (Austin) A.Evans <i>Thysananthus paucidens</i> Steph.	ind	K	O			
<b>SYMPHYOGYNA</b> Nees & Mont. (Pallaviciniaceae)						
<i>Symphyogyna semiinvolucrata</i> Austin [Miller et al. 1983; Grolle & Piippo 1986] <i>Pallavicinia baldwinii</i> Austin <i>Streetzia baldwinii</i> Austin <i>Symphyogyna baldwinii</i> (Austin) Steph. <i>Symphyogyna flavescens</i> Steph. <i>Symphyogyna picta</i> Steph.	end	K	O	Mo	M	H
<b>SYZYGIELLA</b> Spruce (Plagiochilaceae, or Jungermanniaceae [Crandall-Stotler & Stotler 2000])						
<i>Syzygiella eatonii</i> (Austin ex A.Evans) Inoue [Inoue 1962; Miller 1963; Miller et al. 1983] <i>Plagiochila eatonii</i> Austin ex A.Evans	end	K			M	
<b>TARGIONIA</b> L. (Targioniaceae)						
<i>Targionia hypophylla</i> L. [ Miller 1967; Miller et al. 1983]	ind	K	O		M	H
<b>TEMNOMA</b> Mitt. (Blepharostomataceae, or Pseudolepicoleaceae [Crandall-Stotler & Stotler 2000])						
<i>Temnoma setigerum</i> (Lindenb.) R.M.Schust. var. <i>hawaiiicum</i> Inoue [Inoue 1974; Miller et al. 1983]	end				M	
<b>TRICHOCOLEA</b> Dumort. (Trichocoleaceae)						
<i>Trichocolea gracillima</i> Austin [Miller et al. 1983] <i>Trichocolea tomentosa</i> misapplied	end				M	
<b>TROCHOLEJEUNEA</b> Schiffn. (Lejeuneaceae)						
<i>Trocholejeunea sandvicensis</i> (Gottsche) Mizut. [Miller et al. 1983; Mizutani 1989] <i>Acrolejeunea sandvicensis</i> (Gottsche) Steph. <i>Brachiolejeunea sandvicensis</i> (Gottsche) A.Evans <i>Brachiolejeunea sexplicata</i> Steph. <i>Cheilolejeunea sandvicensis</i> Steph. <i>Lejeunea cancellata</i> Nees & Mont. <i>Lejeunea sandvicensis</i> (Gottsche) A.Evans	ind		O			H

<i>Lejeunea sandvicensis</i> (Steph.) Steph. <i>Lejeunea subligulata</i> A.Evans <i>Lejeunea subsquarrosa</i> (Austin) Austin <i>Mastigolejeunea sandvicensis</i> (Gottsche) Steph. <i>Phragmicomia bicolor</i> Mont. <i>Phragmicomia polygona</i> Mitt. <i>Phragmicomia sandvicensis</i> Gottsche <i>Phragmicomia subsquarrosa</i> Austin								
<b>TYLIMANTHUS</b> Mitt. (Acrobolbaceae)								
<i>Tylimanthus integrifolius</i> A.Evans [Miller 1967; Miller et al. 1983]	end			Mo	M			
<b>WIESNERELLA</b> Schiffn. (Marchantiaceae, or Wiesnerellaceae [Crandall-Stotler & Stotler 2000])								
<i>Wiesnerella denudata</i> (Mitt.) Steph. [Miller et al. 1983] <i>Dumontiera denudata</i> Mitt.	ind	K	O	Mo	M		H	

### Dubious Records

Thirtyone hepatic taxa (30 species and 1 variety) were reported for the Hawaiian Islands by Miller et al. (1983), most without citing an island locality or a voucher specimen. We list these taxa here alphabetically, citing the page where Miller et al. reported the Hawaiian Islands as part of the distribution and, where applicable, cite any additional relevant literature.

**Bazzania javanica** (Sande Lac.) Schiffn. was listed without island locality by Miller et al. (1983: 60).

**Bazzania mauiensis** C.M.Cooke in W.E.Nicholson was listed for Hawai‘i island and tentatively from Maui by Miller et al. (1983: 61).

**Bazzania stolonifera** (Sw.) Trevis. was listed without island locality by Miller et al. (1983: 64).

**Ceratolejeunea oculata** (Gottsche) Steph. was listed without island locality by Miller et al. (1983: 78).

**Chiloscyphus coadunatus** (Sw.) J.J.Engel & R.M.Schust. was listed (as *Lophocolea coadunata*) without island locality by Miller et al. (1983: 199). According to Gradstein (pers. comm. 2005) the occurrence of this heretofore exclusively neotropical hepatic in the Pacific is doubtful.

**Chiloscyphus pusillus** (Steph.) J.J.Engel & R.M.Schust. was listed (as *Lophocolea pusilla*) without island locality by Miller et al. (1983: 202).

**Cololejeunea hirta** (Steph.) S.Hatt. was listed for the island of Maui by Miller et al. (1983: 94). However, Tixier (1985: 290–291) did not cite any Hawaiian specimens for this tropical Asian and South Pacific species in his monograph of the Cololejeuneoideae.

**Cololejeunea planissima** (Mitt.) Abeyw. was listed for the island of Kaua‘i by Miller et al. (1983: 98). However, Tixier (1985: 94–95) did not cite any Hawaiian specimens for this tropical Asian species in his monograph of the Cololejeuneoideae.

**Cyathodium aureonitens** (Griff.) Schiffn. was listed without island locality by Miller et al. (1983: 104).

**Denotarisia linguifolia** (De Not.) Grolle was listed without island locality by Miller et al. (1983: 108).

**Dumontiera hirsuta** (Sw.) Nees var. *latrix* Gottsche, Lindenb., & Nees was listed without island locality by Miller et al. (1983: 114).

**Frullania glomerata** (Lehm. & Lindenb.) Nees & Mont. was listed without island locality by Miller et al. (1983: 127).

**Frullania intermedia** (Reinw., Blume & Nees) Dumort. was listed without island locality by Miller et al. (1983: 130).

**Frullania stellatitexta** Steph. was listed without island locality by Miller et al. (1983: 139). According to Miller (1953) the type specimen is from Fiji.

**Heteroscyphus argutus** (Reinw., Blume & Nees) Schiffn. was listed without island locality by Miller et al. (1983: 149) and Piippo (1985a: 138).

**Lejeunea fissistipula** (Steph.) Steph. was listed without island locality by Miller et al. (1983: 176).

**Lejeunea gibbiloba** (Steph.) H.A.Mill. was listed without island locality by Miller et al. (1983: 177).

**Lepidozia holophriza** (Nees) Nees was listed without island locality by Miller et al. (1983: 190).

**Mastigophora diclados** (Brid. ex F.Weber) Nees was listed without island locality by Miller et al. (1983: 225).

**Metzgeria comata** Steph. was listed without island locality by Miller et al. (1983: 229). According to Kuwahara (1960) and So (2003c) this species is Melanesian (New Caledonia); its occurrence in Hawai‘i is dubious.

**Metzgeria scobina** Mitt. was listed without island locality by Miller et al. (1983: 232). According to So (2003c) this species is distributed in SE Asia and Australasia; its occurrence in Hawai‘i is dubious.

**Monosolenium tenerum** Griff. was listed without island locality by Miller et al. (1983: 236).

**Radula boryana** (F.Weber) Nees ex Mont. was listed without island locality by Miller et al. (1983: 288). According to Grolle (2001) and Yamada (1979) the Asian reports of *R. boryana* are erroneous. The species' presence in the Hawaiian Islands is doubtful.

**Radula complanata** (L.) Dumort. was listed without island locality by Miller et al. (1983: 289). Yamada (1979) pointed out that it is unlikely this temperate species occurs in Hawai'i.

**Radula decurrens** Mitt. was listed without island locality by Yamada (1979: 314) and Miller et al. (1983: 289). The species was not accounted for in the most recent revision of Hawaiian *Radula* (So 2005b).

**Radula retroflexa** Taylor was listed without island locality by Miller et al. (1983: 294), Yamada (1989: 230) and So (2005a). However the species was not included in the recent revision of Hawaiian *Radula* (So 2005b).

**Riccardia bipinnatifida** (Colenso) Hewson was listed without island locality by Miller et al. (1983: 298). The occurrence of this New Guinea/Australia species (Hewson 1970) in the Hawaiian Islands is dubious.

**Riccardia grandiflora** (Steph.) H.A.Mill. was listed (as *Aneura grandiflora* Steph.) without island locality by Miller et al. (1983: 300).

**Riccardia liliiena** (Steph.) H.A.Mill. was listed (as *Aneura liliiena* Steph.) without island locality by Miller et al. (1983: 301).

**Riccardia lorianae** (Steph.) H.A.Mill. was listed without island locality by Miller et al. (1983: 301). The occurrence of this New Guinea/Australia species (Hewson 1970) in the Hawaiian Islands is dubious.

**Symphyogyna subsimplex** Mitt. was listed without island locality by Miller et al. (1983: 323).

#### Excluded Records

Eight hepaticas listed by Miller et al. (1983) from the Hawaiian Islands have been excluded from the flora based on reasonably conclusive evidence that they do not occur there. Relevant literature to support the exclusions is cited.

**Frullania astrolabea** Steph. was described from a specimen collected during the voyage of the *Astrolabe* that purportedly came from the Hawaiian

Islands. However, Miller (1953) and Hattori (1981) excluded the species from the Hawaiian flora because 1) the *Astrolabe* did not visit the Hawaiian Islands; 2) the species is otherwise unknown in Hawaii. Hattori (1981) suggested that the type material may have actually originated from New Zealand and it appears to be conspecific with *F. scandens*.

**Plagiochila gracilis** Lindenb. & Gottsche was listed for the Hawaiian Islands without island locality by Miller et al. (1983: 260). According to So (2001b) this Asian species does not occur in Hawai'i.

**Plagiochila owaihiensis** Nees & Lindenb. was described from "oceani australis insula Owaihi." According to Inoue (1976) and So (2000) this species is probably endemic to Tahiti; the type specimen was mislabeled as coming from "Owaihi." Inoue definitely rejected this species from the Hawaiian flora; So tentatively did so.

**Plagiochila spathulifolia** Mitt. was listed for Maui by Miller et al. 1983. According to Inoue (1982) and So (2001b) this Asian species does not occur in the Hawaiian Islands.

**Plagiochila tingens** Steph. was listed without island locality by Miller et al. (1983: 270). Stephani's protologue states the type came from the Hawaiian Islands, but no specimen has been located. So (2000) provisionally considered *P. tingens* a synonym of *P. owaihiensis* (q.v.) until such time as type material can be located for comparison.

**Prionolejeunea microdonta** (Gottsche) Steph. was listed without island locality by Miller et al. (1983: 278). The species is excluded from the Hawaiian flora because Fulford & Sharp (1990: 70) do not mention Hawai'i for the distribution of this neotropical species and it is unlikely to occur here.

**Stictolejeunea squamata** (Willd. ex F.Weber) Schiffn. var. **willdenoviana** Gottsche was listed without island locality by Miller et al. (1983: 321). The neotropical *S. squamata* is not known to occur in Hawai'i (Gradstein 1994).

**Symbizidium transversale** (Sw.) Trevis. (syn. *S. bacciferum* (Taylor) Steph., *S. cryptocarpum* (Mitt.) Steph.) was reported for the Hawaiian Islands based on a Menzies collection made in 1793. Gradstein and Van Beek (1985: 235–236) believe the label data are erroneous and have excluded this otherwise neotropical species from the Hawaiian flora.

## CROSS-REFERENCED LIST OF SYNONYMS AND MISAPPLIED NAMES

*Acrolejeunea sandvicensis* *See* *Trocholejeunea sandvicensis*  
*Anastrophyllum contractum* misapplied *See* *Jamesoniella robusta*  
*Anastrophyllum coriaceum* *See* *Jamesoniella robusta*  
*Anastrophyllum macrophyllum* *See* *Jamesoniella robusta*  
*Anastrophyllum piligerum* misapplied *See* *Anastrophyllum fissum*  
*Anastrophyllum ?rigidum* *See* *Jamesoniella robusta*  
*Aneura alba* *See* *Riccardia alba*  
*Aneura attenuata* *See* *Riccardia attenuata*  
*Aneura baldwinii* *See* *Riccardia baldwinii*  
*Aneura brunnea* *See* *Riccardia brunnea*  
*Aneura densiramea* *See* *Riccardia densiramea*  
*Aneura flaccida* *See* *Riccardia flaccida*  
*Aneura fleischeri* *See* *Riccardia fleischeri*  
*Aneura hamatiflora sphalm.* *See* *Riccardia hamatifolia*  
*Aneura hamatifolia* *See* *Riccardia hamatifolia*  
*Aneura hawaica* *See* *Riccardia hawaica*  
*Aneura multifida* misapplied *See* *Riccardia flaccida*  
*Aneura multispica* *See* *Riccardia multispica*  
*Aneura newellana* *See* *Riccardia newellana*  
*Aneura nigra* *See* *Riccardia nigra*  
*Aneura obtusifrons* *See* *Riccardia obtusifrons*  
*Aneura palmata* misapplied *See* *Riccardia multispica*  
*Aneura pauciramea* *See* *Riccardia pauciramea*  
*Aneura pectinata* *See* *Riccardia pectinata*  
*Aneura pinguis* misapplied *See* *Riccardia obtusifrons*  
*Aneura plana* *See* *Riccardia obtusifrons*  
*Aneura punahuina* *See* *Riccardia punahuina*  
*Aneura rockii* *See* *Riccardia rockii*  
*Aneura samoana* *See* *Riccardia alba*  
*Aneura tamariscina* misapplied *See* *Riccardia baldwinii*  
*Anthoceros baldwinii* *See* *Folioceros fuciformis*  
*Anthoceros breutelii* *See* *Notothylas breutelii*  
*Anthoceros communis* *See* *Phaeoceros carolinianus*  
*Anthoceros fuciformis* *See* *Folioceros fuciformis*  
*Anthoceros havaiensis* *See* *Phaeoceros carolinianus*  
*Anthoceros kaluensis* *See* *Folioceros fuciformis*  
*Anthoceros oahuensis* *See* *Phaeoceros carolinianus*  
*Anthoceros pusillus* *See* *Phaeoceros carolinianus*  
*Anthoceros validus* *See* *Phaeoceros carolinianus*  
*Archilejeunea mariana* misapplied *See* *Archilejeunea planiuscula*  
*Archilejeunea owahuensis* *See* *Archilejeunea planiuscula*  
*Aspiromitus hawaicus* *See* *Phaeoceros carolinianus*  
*Bazzania alternifolia* *See* *Metacalyptogea alternifolia*  
*Bazzania becheyana* *See* *Bazzania patens*  
*Bazzania decurva* *See* *Bazzania praerupta*  
*Bazzania deflexa* misapplied *See* *Bazzania baldwinii*  
*Bazzania didricksenii* *See* *Bazzania didericiana*  
*Bazzania erosistipula* *See* *Bazzania patens*  
*Bazzania falcata* *See* *Bazzania cordistipula*  
*Bazzania ?integrifolia* *See* *Acromastigum integrifolium*  
*Bazzania ligulata* *See* *Bazzania brighamii*  
*Bazzania vittata* misapplied *See* *Bazzania minuta*  
*Blepharostoma sandwicense* *See* *Cephalozia sandvicensis*  
*Brachiolejeunea aliena* *See* *Spruceanthus polymorphus*  
*Brachiolejeunea apiculata* *See* *Spruceanthus polymorphus*  
*Brachiolejeunea polymorpha* *See* *Spruceanthus polymorphus*  
*Brachiolejeunea sandvicensis* *See* *Trocholejeunea sandvicensis*  
*Brachiolejeunea sexplicata* *See* *Trocholejeunea sandvicensis*

*Calypogeia aeruginosa* var. *waialealeensis* *See* *Calypogeia aeruginosa*  
*Calypogeia alternifolia* *See* *Metacalypogeia alternifolia*  
*Calypogeia baldwinii* *See* *Mnioloma fuscum*  
*Calypogeia bidentula* *See* *Calypogeia tosana*  
*Calypogeia bifurca* *See* *Calypogeia arguta*  
*Calypogeia confertifolia* *See* *Calypogeia cuspidata*  
*Calypogeia fusca* *See* *Mnioloma fuscum*  
*Calypogeia hawaica* *See* *Calypogeia cuspidata*  
*Calypogeia minutistipula* *See* *Notoscyphus paroicus*  
*Calypogeia pacifica* *See* *Calypogeia arguta*  
*Calypogeia trichomanis* misapplied *See* *Metacalypogeia alternifolia*  
*Calypogeia waialealeensis* *See* *Calypogeia aeruginosa*  
*Cephalozia baldwinii* *See* *Cephaloziella baldwinii*  
*Cephalozia connivens* misapplied *See* *Cephalozia sandvicensis*  
*Cephalozia heteroica* *See* *Cephaloziella heteroica*  
*Cephalozia kilohanensis* *See* *Cephaloziella kilohanensis*  
*Cephalozia lilae* *See* *Cephaloziella lilae*  
*Cephalozia lucens* *See* *Metahygrobiella lucens*  
*Cephalozia maxima* *See* *Metahygrobiella maxima*  
*Cephalozia multiflora* misapplied *See* *Cephalozia sandvicensis*  
*Cheilolejeunea intertexta* misapplied *See* *Cheilolejeunea pyriflora*  
*Cheilolejeunea sandvicensis* *See* *Trocholejeunea sandvicensis*  
*Chiloscyphus beecheyanus* *See* *Chiloscyphus ciliolatus*  
*Chiloscyphus decurrens* misapplied *See* *Chiloscyphus laceratus*  
*Chiloscyphus gaudichaudii* *See* *Chiloscyphus ciliolatus*  
*Chiloscyphus mitteni* misapplied *See* *Chiloscyphus laceratus*  
*Cololejeunea kauaiensis* *See* *Cololejeunea longistyla*  
*Colura calyptrifolia* misapplied *See* *Colura tenuicornis*  
*Colura longicornis* misapplied *See* *Colura tenuicornis*  
*Colura tenuis* *See* *Colura tenuicornis*  
*Colurolejeunea tenuicornis* *See* *Colura tenuicornis*  
*Crossogyna robusta* *See* *Jamesoniella robusta*  
*Dendroceros brevicapsulus* *See* *Dendroceros crispus*  
*Dendroceros clintoni* *See* *Dendroceros crispus*  
*Dendroceros hawaicus* *See* *Dendroceros crispus*  
*Dicranolejeunea didericiana* *See* *Spruceanthus polymorphus*  
*Drepanolejeunea uncinata* misapplied *See* *Drepanolejeunea ungulata*  
*Dumontiera denudata* *See* *Wiesnerella denudata*  
*Dumontiera trichocephala* *See* *Dumontiera hirsuta*  
*Eulejeunea pacifica* *See* *Lejeunea pacifica*  
*Fimbriaria innovans* *See* *Asterella innovans*  
*Fimbriaria parva* *See* *Asterella parva*  
*Fimbriaria rechingeri* *See* *Marchantia crenata*  
*Frullania aongstroemii* *See* *Frullania neurota*  
*Frullania arietina* misapplied *See* *Frullania neurota*  
*Frullania cookei* *See* *Frullania oahuensis*  
*Frullania crenatiloba* *See* *Frullania apiculata*  
*Frullania elliptica* *See* *Frullania ericoides*  
*Frullania explicata* *See* *Frullania hypoleuca*  
*Frullania gymnotis* *See* *Frullania hypoleuca*  
*Frullania helleri* *See* *Frullania meyeniana*  
*Frullania oceanica* *See* *Frullania apiculata*  
*Frullania papulirostra* *See* *Frullania hypoleuca*  
*Frullania parvilobula* *See* *Frullania hypoleuca*  
*Frullania piligera* *See* *Jubula hutchinsiae* subsp. *javanica*  
*Frullania ptychantha* misapplied *See* *Frullania hypoleuca*  
*Frullania sandvicensis* in part? *See* *Frullania ericoides*  
*Frullania sandvicensis* *See* *Frullania neurota*  
*Frullania squarrosa* *See* *Frullania ericoides*  
*Gamoscyphus sandvicense* *See* *Odontoschisma sandvicense*

*Gymnanthe bolanderi* See *Notoscyphus lutescens*  
*Harpalejeunea anderssonii* See *Drepanolejeunea anderssonii*  
*Harpalejeunea falsinervis* See *Drepanolejeunea pseudoneura*  
*Harpalejeunea owaihiensis* See *Lepidolejeunea involuta*  
*Harpalejeunea pseudoneura* See *Drepanolejeunea pseudoneura*  
*Harpalejeunea unguilata* See *Drepanolejeunea unguilata*  
*Herbertus longifissus* misapplied See *Herbertus helleri*  
*Herbertus parisi*, in part See *Herbertus helleri*  
*Herbertus sakuraii* misapplied See *Herbertus hawaiiensis*  
*Herbertus sanguineus* See *Herbertus helleri*  
*Herbertus setigerus*, in part See *Herbertus helleri*  
*Herpetium cordistipulum* See *Bazzania cordistipula*  
*Herpetium patens* See *Bazzania patens*  
*Herpocladium bidens*, in part See *Acromastigum integrifolium*, *Herbertus gracilis*  
*Herpocladium gracile* See *Herbertus gracilis*  
*Herpocladium tenacifolium* misapplied See *Acromastigum integrifolium*  
*Hygrolejeunea owaihiensis* See *Lepidolejeunea involuta*  
*Jamesoniella coriacea* See *Jamesoniella robusta*  
*Jamesoniella macrophylla* See *Jamesoniella robusta*  
*Jamesoniella subulata* See *Liochlaena subulata*  
*Jubula piligera* See *Jubula hutchinsiae* subsp. *javanica*  
*Jubula setacea* See *Jubula hutchinsiae* subsp. *javanica*  
*Jubula vittata* See *Frullania apiculata*  
*Jungermannia apiculata* See *Frullania apiculata*  
*Jungermannia australis* See *Lepidozia australis*  
*Jungermannia baldwinii* See *Jungermannia micrantha*  
*Jungermannia bolanderi* See *Notoscyphus lutescens*  
*Jungermannia callithrix* misapplied See *Jungermannia micrantha*  
*Jungermannia caudifera* See *Odontoschisma subjulaceum*  
*Jungermannia ciliolata* See *Chiloscyphus ciliolatus*  
*Jungermannia conchaeifolia* See *Pleurozia conchifolia* var. *conchifolia*  
*Jungermannia contracta* misapplied See *Jamesoniella robusta*  
*Jungermannia coriacea* See *Jamesoniella robusta*  
*Jungermannia crassifolia* See *Cephalozia sandvicensis*  
*Jungermannia cucullata* See *Metalejeunea cucullata*  
*Jungermannia esenbeckii* See *Anastrophyllum esenbeckii*  
*Jungermannia fusca* See *Mnioloma fuscum*  
*Jungermannia gigantea* See *Pleurozia gigantea*  
*Jungermannia graveolens* See *Geocalyx graveolens*  
*Jungermannia lucens* See *Metahygrobiella lucens*  
*Jungermannia lurida* See *Jungermannia micrantha*  
*Jungermannia lutescens* See *Notoscyphus lutescens*  
*Jungermannia macrophylla* See *Jamesoniella robusta*  
*Jungermannia mauii* See *Jungermannia micrantha*  
*Jungermannia multifida* See *Riccardia multifida*  
*Jungermannia muricata* See *Chiloscyphus muricatus*  
*Jungermannia nana* misapplied See *Jungermannia micrantha*  
*Jungermannia newellana* See *Jungermannia micrantha*  
*Jungermannia orcadensis* See *Anastrepta orcadensis*  
*Jungermannia ornithopodioides* See *Scapania ornithopodioides*  
*Jungermannia piligera* misapplied See *Anastrophyllum fissum*  
*Jungermannia praerupta* See *Bazzania praerupta*  
*Jungermannia rigida* See *Jamesoniella robusta*  
*Jungermannia robusta* See *Jamesoniella robusta*  
*Jungermannia sandwicensis* See *Cephalozia sandvicensis*  
*Jungermannia sexplicata* See *Jungermannia micrantha*  
*Jungermannia squarrosa* See *Frullania ericoides*  
*Jungermannia subulata* See *Liochlaena subulata*  
*Jungermannia trichophylla* See *Blepharostoma trichophyllum*  
*Kantia alternifolia* See *Metacalypogeia alternifolia*

*Kantia arguta* See *Calypogeia arguta*  
*Kantia baldwinii* See *Mnioloma fuscum*  
*Kantia bidentula* See *Calypogeia tosana*  
*Kantia bifurca* See *Calypogeia arguta*  
*Kantia cuspidata* See *Calypogeia cuspidata*  
*Kantia rotundistipula* See *Metacalypteia alternifolia*  
*Kantia tosana* See *Calypogeia tosana*  
*Kantia trichomanis* misapplied See *Calypogeia tosana*  
*Lejeunea aliena* See *Spruceanthus polymorphus*  
*Lejeunea anderssonii* See *Drepanolejeunea anderssonii*  
*Lejeunea calyptifolia* misapplied See *Colura tenuicornis*  
*Lejeunea cancellata* See *Trocholejeunea sandvicensis*  
*Lejeunea ceatocarpa* See *Cololejeunea ceatocarpa*  
*Lejeunea elongata* See *Spruceanthus polymorphus*  
*Lejeunea gibbosa* See *Lopholejeunea nigricans*  
*Lejeunea hawaica* See *Lopholejeunea nigricans*  
*Lejeunea hawaiiensis* See *Lepidolejeunea involuta*  
*Lejeunea hillebrandii* See *Cololejeunea hillebrandii*  
*Lejeunea intertexta* See *Cheilolejeunea intertexta*  
*Lejeunea longifolia* See *Cololejeunea hillebrandii*  
*Lejeunea manpii* See *Lopholejeunea nigricans*  
*Lejeunea obcordata* See *Cololejeunea obcordata*  
*Lejeunea owaihiensis* See *Lepidolejeunea involuta*  
*Lejeunea sandvicensis* See *Trocholejeunea sandvicensis*  
*Lejeunea stenoschiza* See *Cheilolejeunea stenoschiza*  
*Lejeunea subligulata* See *Trocholejeunea sandvicensis*  
*Lejeunea subsquarrosa* See *Trocholejeunea sandvicensis*  
*Lejeunea unguulata* See *Drepanolejeunea unguulata*  
*Lepidozia filipendula* See *Lepidozia sandvicensis*  
*Lepidozia hawaica* See *Kurzia hawaica*  
*Lepidozia minutifolia* See *Kurzia hawaica*  
*Lepidozia pusilla* See *Lepidozia sandvicensis*  
*Lepidozia remyana* See *Lepidozia australis*  
*Lepidozia reptans* misapplied See *Lepidozia australis*  
*Lepidozia reptans* var. *australis* See *Lepidozia australis*  
*Lepidozia triceps* See *Lepidozia australis*  
*Leptocolea ceatocarpa* See *Cololejeunea ceatocarpa*  
*Leptocolea mamilliloba* See *Cololejeunea obcordata*  
*Leptocolea obcordata* See *Cololejeunea obcordata*  
*Leptocolea ovalifolia* See *Cololejeunea ovalifolia*  
*Leptocolea lanciloba* See *Cololejeunea lanciloba*  
*Lophocolea autoica* See *Chiloscyphus autoicus*  
*Lophocolea baldwinii* See *Chiloscyphus baldwinii*  
*Lophocolea bartlettii* See *Chiloscyphus bartlettii*  
*Lophocolea beecheyana* See *Chiloscyphus ciliolatus*  
*Lophocolea bicuspidata* See *Chiloscyphus bicuspidatus*  
*Lophocolea bidentata* misapplied See *Chiloscyphus ciliolatus*  
*Lophocolea breutelii* misapplied See *Chiloscyphus baldwinii*  
*Lophocolea ciliolata* See *Chiloscyphus ciliolatus*  
*Lophocolea columbica* misapplied See *Chiloscyphus baldwinii*  
*Lophocolea connata* misapplied See *Chiloscyphus greenwelliae*  
*Lophocolea gaudichaudii* See *Chiloscyphus ciliolatus*  
*Lophocolea greenwelliae* See *Chiloscyphus greenwelliae*  
*Lophocolea hawaiica* See *Chiloscyphus hawaiicus*  
*Lophocolea kilauensis* See *Chiloscyphus kilauensis*  
*Lophocolea muricata* See *Chiloscyphus muricatus*  
*Lophocolea newellana* See *Chiloscyphus ciliolatus*  
*Lophocolea orbigniana* misapplied See *Chiloscyphus baldwinii*  
*Lophocolea spinosa* See *Chiloscyphus spinosus*  
*Lophocolea trispinosa* See *Chiloscyphus ciliolatus*

*Lopholejeunea gibbosa* See *Lopholejeunea nigricans*  
*Lopholejeunea hawaica* See *Lopholejeunea nigricans*  
*Lopholejeunea mannii* See *Lopholejeunea nigricans*  
*Lopholejeunea owahuensis* See *Lopholejeunea nigricans*  
*Lopholejeunea owaihiensis* See *Lepidolejeunea involuta*  
*Lopholejeunea subnuda* See *Lopholejeunea nigricans*  
*Lophozia orcadensis* See *Anastrepta orcadensis*  
*Madotheca acutifolia* See *Porella acutifolia*  
*Madotheca hawaiensis* See *Porella acutifolia*  
*Marchantia antiqua* See *Marchantia marginata*  
*Marchantia chenopoda* misapplied See *Marchantia crenata*  
*Marchantia cruciata* See *Lunularia cruciata*  
*Marchantia cuspidisquama* See *Marchantia crenata*  
*Marchantia disjuncta* misapplied See *Marchantia crenata*, *Marchantia marginata*  
*Marchantia eatonii* See *Marchantia marginata*  
*Marchantia furciloba* See *Marchantia crenata*  
*Marchantia hirsuta* See *Dumontiera hirsuta*  
*Marchantia innovans* See *Asterella innovans*  
*Marchantia nitida* misapplied See *Marchantia marginata*  
*Marchantia paleacea* misapplied See *Marchantia marginata*  
*Marchantia punaluana* See *Marchantia crenata*  
*Marchantia rechingeri* See *Marchantia crenata*  
*Marchantia sandvicensis* See *Marchantia crenata*  
*Marchantia trichocephala* See *Dumontiera hirsuta*  
*Mastigobryum alternifolium* See *Metacalypogeia alternifolia*  
*Mastigobryum baldwinii* See *Bazzania baldwinii*  
*Mastigobryum beecheyanum* See *Bazzania patens*  
*Mastigobryum biapiculatum* See *Herbertus gracilis*  
*Mastigobryum bispinosum* See *Bazzania emarginata*  
*Mastigobryum brighami* See *Bazzania brighamii*  
*Mastigobryum cordistipulum* See *Bazzania cordistipula*  
*Mastigobryum didericiana* See *Bazzania didericiana*  
*Mastigobryum didericiana* var. *emarginata* See *Bazzania emarginata*  
*Mastigobryum didricksenii* See *Bazzania didericiana*  
*Mastigobryum emarginatum* See *Bazzania emarginata*  
*Mastigobryum grossidens* See *Bazzania patens*  
*Mastigobryum hawaiicum* See *Bazzania emarginata*  
*Mastigobryum honoluluense* See *Bazzania cordistipula*  
*Mastigobryum inaequabilis* See *Bazzania inaequabilis*  
*Mastigobryum integrifolium* See *Acromastigum integrifolium*  
*Mastigobryum kalihense* See *Bazzania emarginata*  
*Mastigobryum ligulatum* See *Bazzania brighamii*  
*Mastigobryum minutum* See *Bazzania minuta*  
*Mastigobryum modestum* See *Bazzania brighamii*  
*Mastigobryum newellii* See *Bazzania cordistipula*  
*Mastigobryum nuuanuense* See *Bazzania nuuanensis*  
*Mastigobryum obtusidens* See *Bazzania brighamii*  
*Mastigobryum pacificum* See *Bazzania inaequabilis*  
*Mastigobryum parvistipulum* See *Bazzania patens*  
*Mastigobryum patens* See *Bazzania patens*  
*Mastigobryum repandifolium* See *Bazzania nuuanensis*  
*Mastigobryum rockii* See *Bazzania sandvicensis*  
*Mastigobryum rudimentare* See *Acromastigum integrifolium*  
*Mastigobryum sandwicense* See *Bazzania sandvicensis*  
*Mastigobryum subsandei* See *Bazzania cordistipula*  
*Mastigobryum tantulum* See *Bazzania patens*  
*Mastigolejeunea apiculata* See *Spruceanthus polymorphus*  
*Mastigolejeunea honoluluana* See *Lopholejeunea nigricans*  
*Mastigolejeunea sandvicensis* See *Trocholejeunea sandvicensis*  
*Mastigophora filipendula* See *Lepidozia sandvicensis*

*Mastigophora gracilis* *See Herbertus gracilis*  
*Mastigophora parvifolia* *See Herbertus gracilis*  
*Mastigophora sandvicensis* *See Lepidozia sandvicensis*  
*Mastigophora triceps* *See Lepidozia australis*  
*Metacalypogeia fusca* *See Mnioloma fuscum*  
*Metacalypogeia montana* var. *verruculosa* *See Metacalypogeia alternifolia*  
*Metacalypogeia remotifolia* *See Metacalypogeia alternifolia*  
*Metzgeria decipiens* *See Metzgeria furcata*  
*Metzgeria dichotoma* misapplied *See Metzgeria furcata*  
*Metzgeria mauina* *See Metzgeria furcata*  
*Metzgeria molokaiensis* *See Metzgeria furcata*  
*Metzgeria oceanica* *See Metzgeria lindbergii*  
*Metzgeria papulosa* *See Metzgeria leptoneura*  
*Metzgeria pectinata* *See Metzgeria lindbergii*  
*Metzgeria quadriseriata* *See Metzgeria furcata*  
*Microlejeunea albicans* *See Metalejeunea cucullata*  
*Microlejeunea cucullata* *See Metalejeunea cucullata*  
*Microlejeunea erectifolia* misapplied *See Metalejeunea cucullata*  
*Microlejeunea sundaica* *See Metalejeunea cucullata*  
*Microlepidozia hawaica* *See Kurzia hawaica*  
*Microlepidozia mauiensis* *See Kurzia mauiensis*  
*Microlepidozia tayloriana* *See Kurzia tayloriana*  
*Mylia taylori* misapplied *See Jungermannia micrantha*  
*Nardia callithrix* misapplied *See Jungermannia micrantha*  
*Nardia exserta* *See Jungermannia hawaiica*  
*Nardia mauii* *See Jungermannia micrantha*  
*Nardia micrantha* *See Jungermannia micrantha*  
*Nardia truncata* misapplied *See Jungermannia micrantha*  
*Notoscyphus paroicus* *See Notoscyphus lutescens*  
*Odontoschisma gracile* *See Odontoschisma sandvicense*  
*Odontoschisma grandistipulum* *See Odontoschisma sandvicense*  
*Omphalanthus baldwinii* *See Mnioloma fuscum*  
*Pallavicinia baldwinii* *See Symphyogyna semiinvolucrata*  
*Pallavicinia cylindrica* *See Pallavicinia lyellii*  
*Pallavicinia simplex* *See Pallavicinia lyellii*  
*Pedinolejeunea lanciloba* *See Cololejeunea lanciloba*  
*Phaeoceros laevis* subsp. *carolinianus* *See Phaeoceros carolinianus*  
*Phragmicomia bicolor* *See Trocholejeunea sandvicensis*  
*Phragmicomia elongata* *See Spruceanthus polymorphus*  
*Phragmicomia polygona* *See Trocholejeunea sandvicensis*  
*Phragmicomia polymorpha* *See Spruceanthus polymorphus*  
*Phragmicomia sandvicensis* *See Trocholejeunea sandvicensis*  
*Phragmicomia subnuda* *See Lopholejeunea nigricans*  
*Phragmicomia subsquarrosa* *See Trocholejeunea sandvicensis*  
*Physiotium conchaefolia* *See Pleurozia conchifolia* var. *conchifolia*  
*Physiotium evolutum* *See Pleurozia subinflata*  
*Physiotium gigantea* *See Pleurozia gigantea*  
*Physiotium subinflatum* *See Pleurozia subinflata*  
*Physocolea ceatocarpa* *See Cololejeunea ceatocarpa*  
*Physocolea cookei* *See Cololejeunea cookei*  
*Physocolea hillebrandii* *See Cololejeunea hillebrandii*  
*Physocolea kauaiensis* *See Cololejeunea longistyla*  
*Physocolea longistyla* *See Cololejeunea longistyla*  
*Physocolea mamilliloba* *See Cololejeunea obcordata*  
*Plagiochasma cordatum* misapplied *See Plagiochasma japonicum*  
*Plagiochila acutiuscula* *See Plagiochila baldwinii*  
*Plagiochila adiantoides* misapplied *See Plagiochila deflexa*  
*Plagiochila arbuscula* misapplied *See Plagiochila deflexa*  
*Plagiochila askenasi* *See Plagiochila deflexa*  
*Plagiochila belangeriana* misapplied *See Plagiochila deflexa*

- Plagiochila biserialis* misapplied *See Plagiochila maunakeana*  
*Plagiochila caespitosa* *See Plagiochila deflexa*  
*Plagiochila combinata* *See Plagiochilion combinatum*  
*Plagiochila deltoidea* misapplied *See Plagiochila hoi Inoue*  
*Plagiochila eatonii* *See Syzygiella eatonii*  
*Plagiochila flava* misapplied *See Plagiochila baldwinii*  
*Plagiochila frondescens* misapplied *See Plagiochila mauiensis*  
*Plagiochila haleakalensis* *See Plagiochila gaudichaudii*  
*Plagiochila mannakeana* *See Plagiochila maunakeana*  
*Plagiochila mannii* *See Plagiochila gaudichaudii*  
*Plagiochila marriensis* *See Plagiochila mauiensis*  
*Plagiochila modesta* *See Plagiochila grossispina*  
*Plagiochila mollucensis* *See Plagiochila remyana*  
*Plagiochila nahikuna* *See Plagiochila deflexa*  
*Plagiochila oahuna* *See Plagiochilion combinatum*  
*Plagiochila oppositifolia* *See Plagiochilion combinatum*  
*Plagiochila owaihiensis* misapplied *See Plagiochila remyana*  
*Plagiochila patula* *See Plagiochila deflexa*  
*Plagiochila rockii* *See Plagiochila deflexa*  
*Plagiochila simplex* misapplied *See Plagiochila fissidentoides*  
*Plagiochila subtilis* *See Plagiochila fissidentoides*  
*Plagiochila tenuis* misapplied *See Plagiochila gaudichaudii*  
*Plagiochila variegata* misapplied *See Plagiochila fissidentoides*  
*Plagiochila yokogurensis* subsp. *remiana* *See Plagiochila remyana*  
*Plectocolea mauii* *See Jungermannia micrantha*  
*Plectocolea micrantha* *See Jungermannia micrantha*  
*Plectocolea submicrantha* *See Jungermannia micrantha*  
*Pleuroschisma pearsonii* *See Bazzania didericiana*  
*Pleurozia cochleariformis* *See Pleurozia conchifolia* var. *conchifolia*  
*Pleurozia evoluta* *See Pleurozia subinflata*  
*Pleurozia purpurea* misapplied *See Pleurozia conchifolia* var. *conchifolia*  
*Porella hawaiica* sphalm. *See Porella acutifolia*  
*Porella hawaiensis* *See Porella acutifolia*  
*Porella laevigata* misapplied *See Porella hoeana*  
*Ptycholejeunea elongata* *See Spruceanthus polymorphus*  
*Pycnolejeunea stenoschiza* *See Cheilolejeunea stenoschiza*  
*Radula aneurismalis* misapplied *See Radula cavifolia*  
*Radula cordiloba* *See Radula javanica*  
*Radula excisiloba* *See Radula cordata*  
*Radula lejeuneaformis* *See Radula gracilis*  
*Radula mannii* *See Radula cordata*  
*Radula pallens* misapplied *See Radula javanica*  
*Radula pauciramea* *See Radula acutangula*  
*Radula perrottetii* misapplied *See Radula javanica*, *Radula reflexa*, *Radula sullivantii*  
*Radula xalapensis* misapplied? *See Radula cordata*  
*Riccardia multifida* misapplied *See Riccardia flaccida*  
*Riccardia palmata* misapplied *See Riccardia multispica*  
*Riccardia samoana* *See Riccardia alba*  
*Rupinia cordata* misapplied *See Plagiochasma japonicum*  
*Saccogyna bolanderi* *See Notoscyphus lutescens*  
*Scapania 'manina'* sphalm. *See Scapania mauina*  
*Scapania dentata* var. *oakesii* misapplied *See Scapania grossidens*  
*Scapania nemorosa* misapplied *See Scapania hawaica*  
*Scapania oakesii* *See Scapania grossidens*  
*Scapania planifolia* *See Scapania ornithopodioides*  
*Scapania undulata* misapplied *See Scapania paucidens*  
*Schisma gracilis* *See Herbertus gracilis*  
*Schisma helleri* *See Herbertus helleri*  
*Schisma juniperina* misapplied *See Herbertus helleri*  
*Schisma juniperinum* var. *sanguineum* *See Herbertus sanguineus*

*Schisma longifissa* misapplied *See* *Herbertus helleri*  
*Schisma sanguineum* *See* *Herbertus sanguineus*  
*Schisma setigera* *See* *Herbertus helleri*  
*Schistochila cookei* *See* *Fulfordistria cookei*  
*Sendtnera gracilis* *See* *Herbertus gracilis*  
*Sendtnera tristicha* *See* *Herbertus gracilis*  
*Solenostoma exsertum* *See* *Jungermannia hawaiica*  
*Solenostoma hawaiicum* *See* *Jungermannia hawaiica*  
*Sphagnoecetis gracilis* *See* *Odontoschisma sandvicense*  
*Sphagnoecetis sandvicense* *See* *Odontoschisma sandvicense*  
*Spruceanthus marianus* misapplied *See* *Archilejeunea planiuscula*  
*Steetzia baldwinii* *See* *Symphyogyna semiinvolucrata*  
*Steetzia cylindrica* *See* *Pallavicinia lyellii*  
*Strepsilejeunea owaiensis* *See* *Lepidolejeunea involuta*  
*Symphyogyna baldwini* *See* *Symphyogyna semiinvolucrata*  
*Symphyogyna flavescens* *See* *Symphyogyna semiinvolucrata*  
*Symphyogyna picta* *See* *Symphyogyna semiinvolucrata*  
*Thysananthus elongatus* *See* *Spruceanthus polymorphus*  
*Thysananthus paucidens* *See* *Spruceanthus polymorphus*  
*Trachylejeunea oahuensis* *See* *Cheilolejeunea decursiva*  
*Trichocolea tomentosa* misapplied *See* *Trichocolea gracillima*