Phytotaxa 202 (1): 069–072
www.mapress.com/phytotaxa/

Article

ISSN 1179-3155 (print edition)
PHYTOTAXA
ISSN 1179-3163 (online edition)

http://dx.doi.org/10.11646/phytotaxa.202.1.10

Notes on Early Land Plants Today. 68. Miscellaneous notes on Marchantiophyta

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During work with the forthcoming world checklist of hornworts and liverworts (Söderström *et al*., in press) a number of nomenclatural problems have been detected and most have been dealt with in the series "Notes on Early Land Plants Today" published in Phytotaxa. However, some more corrections are needed. They are dealt with here.

Formal treatment

The format of this note follows Söderström *et al*. (2012) except that we are following McNeill *et al.* (2012) for nomenclatural problems.

Bazzania subintegra (Steph.) L.Söderstr. et A.Hagborg, ***comb. nov.*** Basionym:—*Mastigobryum subintegrum* Steph., *Bull. Herb. Boissier (sér. 2)* 8 (10): 775 (*Spec. Hepat.* 3: 459), 1908 (Stephani 1908). Type:—NEW CALEDONIA. 1907, *Lerat, Stephani Herb. no. 22195* (G-00067097, lectotype **here designated**) ≡ *Bazzania subintegra* (Steph.) Herzog, Ark. Bot. (n.ser.) 3 (3): 46, 1953 (Herzog 1953), *nom. inval.* (ICN Art. 41.5; basionym not cited). Note:—Kitagawa annotated the lectotype as type but apparently did not publish it.

Cryptolophocolea explanata (Mitt.) Váňa et Crand.-Stotl., ***comb. nov.***, Basionym:—*Lophocolea explanata* Mitt., *Seemann, Fl. Vit.*: 404, 1871 [1873] (Mitten 1871). Type:—SAMOA. *Powell* (NY-00965738, lectotype **here designated** [or possibly holotype, *cf.* McNeill 2014]). ≡ *Chiloscyphus explanatus* (Mitt.) J.J.Engel et R.M.Schust., *Nova Hedwigia* 39: 414, 1984 [1985] (Engel & Schuster 1984). Note:—The species apparently belongs to *Cryptolophocolea* Söderström *et al.* (2013a: 39), but was overlooked by Söderström *et al.* (2013b).

Marchantia* sect. *Protomarchantia (R.M.Schust.) L.Söderstr., ***comb. et stat. nov.*** Basionym:—*Marchantia* subg. *Protomarchantia* R.M.Schust., *Phytologia* 57 (6): 410, 1985 (Schuster 1985). Type:—*Marchantia geminata* Reinwardt *et al.* (1824 [1825]: 194). ≡ *Marchantia* sect. *Protomarchantia* Bischl., *Bryophyt. Bibl.* 38: 227, 1989 (Bischler 1989), *nom. inval.* (ICN Art. 39.1; no Latin description). Note:—Bischler apparently considered the name a valid autonym of *Marchantia* subg. *Protomarchantia*, but autonyms are only created from genera (ICN Art. 22.1) and species (ICN Art. 26.1).

Metzgeria setigera R.M.Schust. ex Crand.-Stotl. et L.Söderstr., ***sp. nov.*** Based on:—*Metzgeria furcata* var. *setigera* R.M.Schust., *J. Hattori Bot. Lab.* 70: 149, 1991 (Schuster 1991b), *nom. inval.* (ICN Art. 40.7; no herbarium specified). Type:—USA. North Carolina, Swain Co., Clingmans Dome: trail to Andrews Bald, 6000 feet, *R.M. Schuster 36650* (F, holotype). Note:—We base the species on the description in Schuster (1991b: 149) together with the specification of type here. We have chosen to validate this name at the species level as Fuselier *et al.* (2009) showed that within the broadly defined *Metzgeria furcata* (Linnaeus 1753: 1136) Corda (1829: 654), there are two very well-supported lineages, one from eastern North America and the other widespread in Europe and Macaronesia. This species represents the North American clade, while *Metzgeria furcata* represents the European clade. The identity of *Metzgeria furcata* from other areas of its suggested distribution range needs further study.

Accepted by Christine Cargill: 8 Dec. 2014; published: 6 Mar. 2015

Metzgeria leptoneura* var. *polychaeta R.M.Schust. ex L.Söderstr., ***var. nov.*** Based on:—*Metzgeria leptoneura* var. *polychaeta* R.M.Schust., *J. Hattori Bot. Lab.* 70: 150, 1991 (Schuster 1991b), *nom. inval.* (ICN Art. 40.7; no herbarium specified). Type:—USA. Tennessee: Sevier Co., Smoky Mts. Natl. Park: Roaring Fork Nature Trail, on cliff walls along stream, near Gatlinburg, *R.M.Schuster 87-1244* (F, holotype). Note:—We base the new variety on the description in Schuster (1991b: 150) together with the specification of type here. Schuster (1991b) considered *Metzgeria leptoneura* to be a widespread and variable species. This view was questioned by Fuselier *et al.* (2009) although they did not study the species. Three accessions of *Metzgeria leptoneura* were included in the molecular study by Fuselier *et al.* (2011), none of them grouping together in a monophyletic clade. It is likely that further studies using a larger number of accessions from around its supposed distribution range, will show that we are dealing with a species complex. Pending further studies we here validate *Metzgeria leptoneura* var. *polychaeta* instead of elevating it to species rank.

Mylia* subg. *Anomalae (R.M.Schust. ex Potemkin) L.Söderstr., ***comb. et stat. nov.*** Basionym:—*Mylia* sect. *Anomalae* R.M.Schust. ex Potemkin, *Arctoa* 2: 1, 1993 (Potemkin & Kazanovsky 1993). Type:—*Mylia anomala* (Hooker 1813: pl. 34) Gray (1821: 693). ≡ *Mylia* sect. *Anomalae* R.M.Schust., *Amer. Midl. Naturalist* 62 (1): 35, 1959 (Schuster 1959), *nom. inval.* (ICN Art. 39.1; no Latin description). ≡ *Leiomylia* J.J.Engel et Braggins, *Taxon* 54 (3): 671, 2005 (Engel & Braggins 2005). Note:—Molecular studies (e.g. De Roo *et al.* 2007) have shown that *Mylia* forms a monophyletic lineage sister to the rest of the Jungermanniinae and that *Mylia anomala* forms a well supported sister lineage to *Mylia taylorii*, the generitype. It has been controversial at what rank one should separate the two lineages as e.g. Schuster (1959) and Potemkin & Kazanovsky (1993) separated them at the sectional level, while Engel & Braggins (2005) separated them at the generic level. For the forthcoming world checklist of hornworts and liverworts (Söderström *et al.*, in press) we prefer the subgeneric level. Hence the new combination.

Radula aguirrei R.M.Schust. ex M.A.M.Renner, ***sp. nov.*** Based on:—*Radula aguirrei* R.M.Schust., *J. Hattori Bot. Lab.* 70: 56, 1991 (Schuster 1991a), *nom. inval.* (ICN Art. 40.7; no herbarium specified). Type:—COLOMBIA. Isla Gorgona. On trail just below El Mirador, trail to Laguna, southern half of island *Schuster RMS 88-1620a* (F, holotype). Note:—The description in Schuster (1991a:56) together with the current specification of the holotype validates the name.

Radula myriopoda M.A.M.Renner, *Austral. Syst. Bot.* 26 (4): 323, 2013 (Renner *et al.* 2013). Type:—AUSTRALIA. Queensland: Cook, Wooroonooran National Park, *M.A.M. Renner 6532, V.C. Linis & E.A. Brown* (NSW-898867!, holotype; BRI!, F!, isotypes).

= *Radula buccinifera* var. *fusiloba* Steph., *Hedwigia* 28 (4): 272, 1889 (Stephani 1889) ***syn. nov***. Type:—AUSTRALIA. Queensland: Bellenden Ker, *Sayer & Davidson* (MEL-1037806!, lectotype **here designated** [or possibly holotype]).

Riccardia porcina (Hewson) L.Söderstr., ***comb. nov.*** Basionym:—*Riccardia bliklika* var. *porcina* Hewson, *Proc. Linn. Soc. New South Wales (ser. 2)* 95 (1): 84, 1970 (Hewson 1970). Type:—PAPUA NEW GUINEA. Madang: Pig Island, August 1965, *Jacobs 585* (NSW, holotype; LAE, L, SYD, isotypes). Note:—Furuki & Tan (2013) synonymized *Riccardia bliklika* Hewson (1970: 83) with *Riccardia singapurensis* Schiffner (1898: 165) and stated that var. *porcina* does not belong to *Riccardia singapurensis,* but they did not state where it belongs. We here transfer it to the species level pending further studies.

Riccardia subantarctica R.M.Schust. ex Grolle et L.Söderstr., ***nom. nov. pro*** *Riccardia pauciramea* R.M.Schust., *J. Hattori Bot. Lab.* 67: 102, 1989 (Schuster 1989), *nom. illeg.* (ICN Art. 53.1; *hom. illeg.* [non (Steph.) H.A.Mill.]). Type:—PRINCE EDWARDS ISLAND. N and NE of Hoedberg, *R.M.Schuster 88-816* (F, holotype). Blocking name:—*Riccardia pauciramea* (Stephani 1897: 845) Miller (1963: 527). Note:—We base the species on the description in Schuster (1989: 102) together with the current type citation. Schuster (1989) studied the Aneuraceae of Prince Edward Island and described *Riccardia pauciramea*. Unfortunately, this is a later homonym of a species from Hawaii. Grolle (2002) accepted Schuster's species, but did not notice the homonym problem (R. Grolle, pers. comm.).

Acknowledgements

The Early Land Plants Today project (ELPT) has been generously supported in part by the Global Biological Information Facility (GBIF) Seed Money Award No.2007-41, activities facilitated in part by funding from the Biodiversity Synthesis Center of the Encyclopedia of Life (BioSynC), partial funding from the National Science Foundation (Award No's 0749762, 1115002), the Warwick Foundation, and the Negaunee Foundation.

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