



## ***Radula multiflora* var. *reflexilobula* is a synonym of *R. decurrens* (Radulaceae, Marchantiophyta)**

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*Radula* Dumortier (1822: 112) is one of the largest genera of the liverworts with about 200 currently accepted species (Frey & Stech 2009), but some of them are poorly known and their status is still unclear. *Radula javanica* Gottsche (in Gottsche *et al.* 1844: 257) is one of the oldest names of *Radula* which is widespread in the tropical and subtropical Asia, the Pacific Islands and Australasia (Yamada 1979, Renner 2014). So (2006) reduced a highly variable species *R. multiflora* Gottsche ex Schiffn. (in Engler 1889: 20) to *R. javanica* Gottsche. However, Renner (2014) suggested that *R. multiflora* might be different from *R. javanica* but similar to *R. reflexa* Nees & Mont. (in Montagne 1843: 255).

Yamada and Grolle described *R. multiflora* var. *reflexilobula* (Yamada 1982: 326) based on a collection made by B.O. van Zanten from New Guinea. This variety differs from the type variety by the large trigones of basal cells of leaf-lobes and the lobule strongly reflexed at the apex. Yamada (1982) also noted that *R. multiflora* var. *reflexilobula* is similar to *R. reflexa* and *R. decurrens* Mitt. (in Seemann 1873: 410) in appearance. However, *R. reflexa* differs from this variety by the medium-size trigones of the leaf-lobe and the arched interior margin of the leaf-lobule that fully covering the ventral stem surface, and *R. decurrens* is distinguished by its densely imbricate and strongly recurved leaf-lobules.

During our examination of the type specimens of *R. decurrens* and *R. multiflora* var. *reflexilobula* in the Herbarium Haussknecht (JE), however, we found that the shape of leaf-lobes of the fertile branch (Fig. 1) of *R. multiflora* var. *reflexilobula* is indistinguishable from *R. decurrens*. Thus, we here propose *R. multiflora* var. *reflexilobula* as new synonym of *R. decurrens*. Unfortunately, we have not seen the type specimens of *R. reflexa*, a putatively closely related species.

### **Formal treatment**

The format of this note follows Söderström *et al.* (2012).

***Radula decurrens*** Mitt. in Seemann, Fl. Vitiensis.: 410. 1873.

Type:—Samoa Island. s.d., *T. Powell s.n.* (holotype: NY; isotype: JE!, NY, YU)

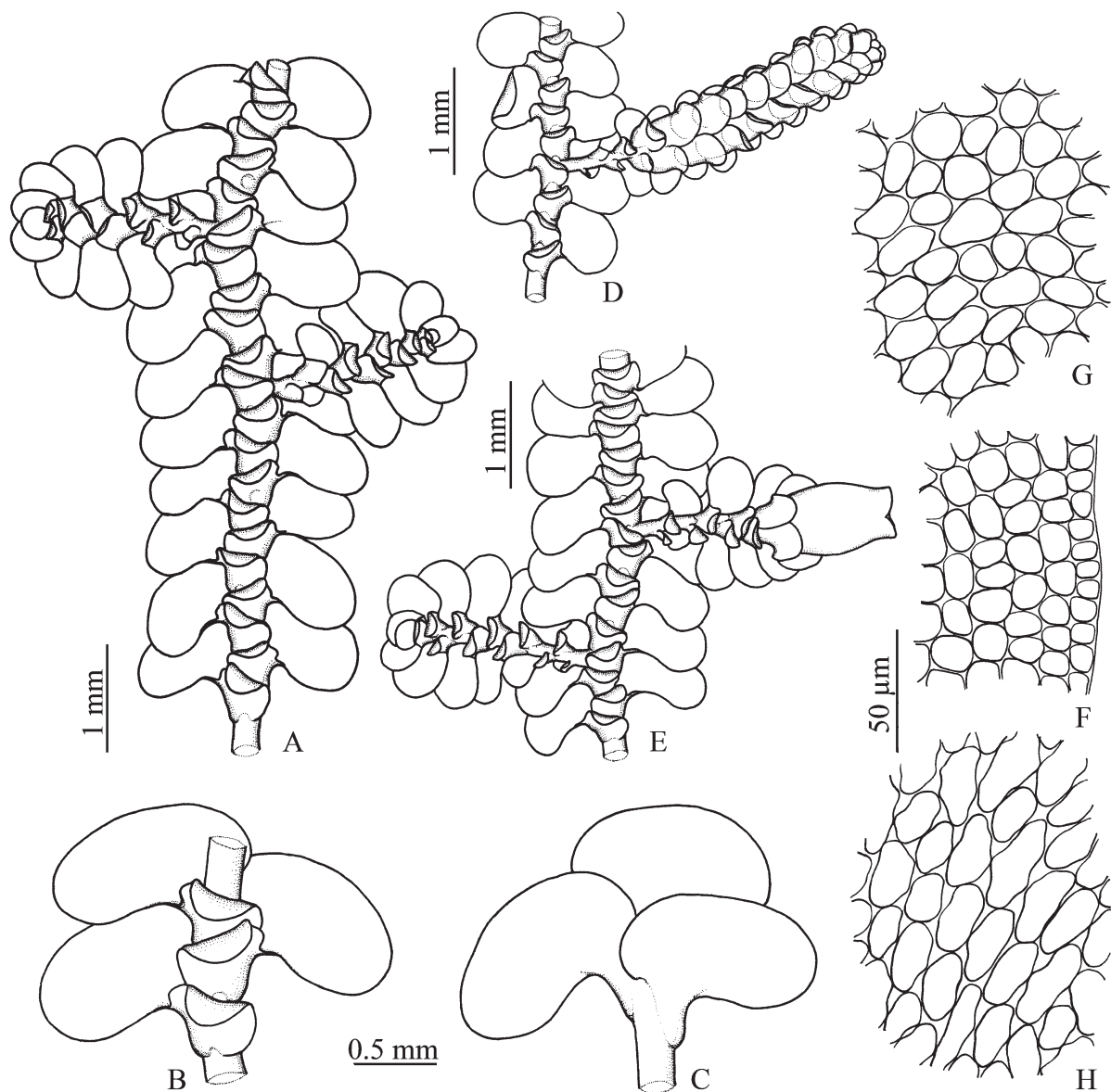
= *Radula multiflora* Gottsche ex Schiffn. var. *reflexilobula* Grolle & Yamada in Yamada, J. Hattori Bot. Lab. 51: 326.

1982. Type:—New Guinea. Eastern Highlands. 1968, *B.O. van Zanten* 68-2953 (holotype NICH; isotypes L, JE!)  
***syn. nov.***

For further synonyms, see So (2006).

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**FIGURE 1.** *Radula decurrens* Mitt.: A–B. Portions of sterile plants, ventral views; C. Portion of sterile plants, dorsal view; D. Portion of plant with androecium; E. Portion of plant with gynoecium; F. Apical cells of leaf lobe; G. Median cells of leaf lobe; H. Basal cells of the leaf lobe. All from B.O. van Zanten 68-2953 (isotype of *Radula multiflora* Gottsche ex Schiffn. var. *reflexilobula* Grolle & Yamada, JE).

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