



## Notes on Early Land Plants Today. 57. *Cheilolejeunea boliviensis* and *Cheilolejeunea savesiana*, two new synonyms in *Lejeunea* (Marchantiophyta, Lejeuneaceae)

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*Cheilolejeunea boliviensis* Stephani (1916: 266) is a poorly known species from Bolivia. It was listed as a doubtful taxon by Gradstein *et al.* (2003). *Cheilolejeunea savesiana* Stephani (1895: 244) is also a doubtful species and was treated as *Lejeunea* sp. in Reiner-Drehwald & Grolle (2012)'s review of *Rectolejeunea* Evans (1906: 8).

During our examination of some type specimens of *Cheilolejeunea* (Spruce 1884: 79) Stephani (1890: 284) and *Lejeunea* Libert (1820: 372), we found that *C. savesiana* is identical with *L. anisophylla* Montagne (1843: 263), and that *C. boliviensis* is synonymous with *L. deplanata* Nees var. *deplanata* (Gottsche *et al.* 1845: 368).

### Formal treatment

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

***Lejeunea deplanata*** Nees, in Gottsche, Lindenberg & Nees, *Syn. Hepat.* 3: 368, 1845 (Gottsche *et al.* 1845). Type:—Type. Peru. “In cortice peruviano (Hb. N.)” (holotype STR; isotypes STR, G!).

= *Cheilolejeunea boliviensis* Steph., *Biblioth. Bot.* 87: 266, 1916 (Stephani 1916). Type:—Bolivia. Santa Cruz, Prov. Caballero, Nebelwald über Comarapa, 2600 m, 1911, *Herzog 3804* (holotype G; isotype JE!), *syn. nov.*

According to Reiner-Drehwald (2010) *Lejeunea deplanata* consists two varieties: *L. deplanata* var. *deplanata* and *L. deplanata* var. *cuspidata* (Stephani 1914: 605) Reiner-Drehwald (2010: 529). The type specimens of *Cheilolejeunea boliviensis* belong to *L. deplanata* var. *deplanata* owing to the lack of a filiform tooth of the leaf lobule (Fig. 1). *Lejeunea deplanata* is widespread in tropical America and is known from Bolivia, Colombia, Costa Rica, Dominican Republic, Ecuador (including the Galapagos Archipelago), Jamaica, Mexico, Panama, Peru and Venezuela (Reiner-Drehwald 2010).

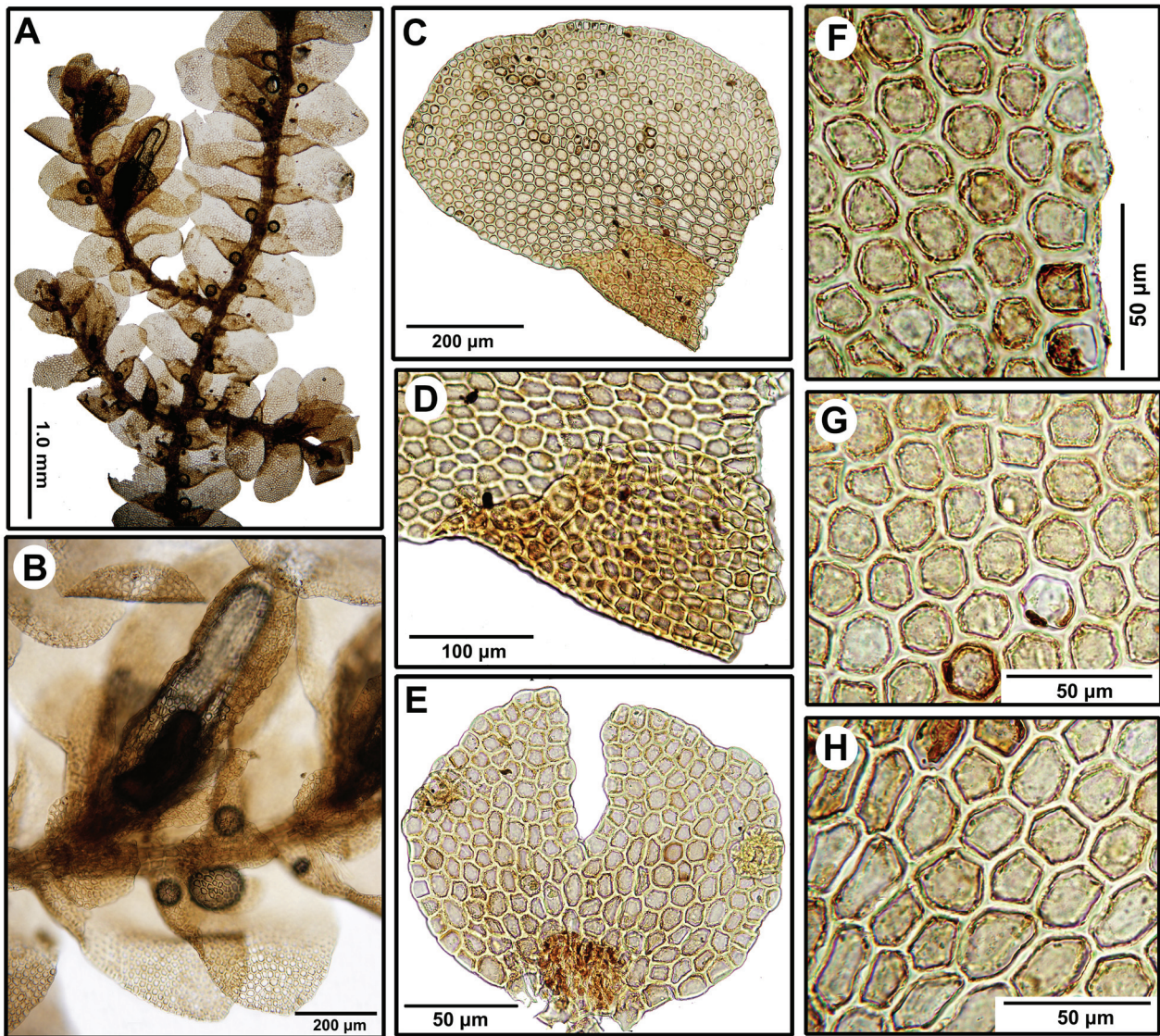
***Lejeunea anisophylla*** Mont., *Ann. Sci. Nat. Bot.* (ser. 2) 19: 263, 1843 (Montagne 1843).

Type:—U.S.A. Hawaii, “ad cortices inter muscos in insulis Sandwich”. *Gaudichaud s.n. & s.d.* (holotype PC!; isotypes BM!, G-18236!).

= *Cheilolejeunea savesiana* Steph., *Hedwigia* 34(5): 244, 1895 (Stephani 1895) ≡ *Rectolejeunea savesiana* (Steph.) Steph., *Sp. Hepat.* 5: 700, 1914 (Stephani 1914). Type:—New Caledonia. Mt. Atso, auf morschem Holz, *T. Savés 49* (holotype G!; isotypes BM, JE!), *syn. nov.*

For further synonyms, see Zhu & So (2001).

*Lejeunea anisophylla* is a common paleotropical liverwort, which exhibits pronounced variations in the underleaf, leaf lobule and trigones of leaf cells (Zhu & So 2001; Lee 2013). The first record of the species in New Caledonia was made by Hürlimann (1993).



**FIGURE 1.** *Lejeunea deplanata* Nees var. *deplanata*. A. Portion of plant with gynoecia, ventral view. B. Gynoecium, ventral view. C. Leaf, ventral view. D. Leaf lobule. E. Underleaf. F. Apical marginal cells of leaf lobe. G. Median cells of leaf lobe. H. Basal cells of leaf lobe. All from *Herzog 3804* (isotype, JE).

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