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Notes on Early Land Plants Today. 60. Circumscription of Gymnomitriaceae (Marchantiophyta)

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Gymnomitriaceae Klinggräff (1858: 16) was thoroughly treated by Váňa *et al.* (2010). Since the publication, a series of papers have shown that the circumscription of the family and genera within the family must be revised.

Herzogobryum Grolle (1963: 160) and *Nothogymnomitrion* Schuster (1996: 43) was removed from the family by Váňa *et al.* (2013). Already de Roo *et al.* (2007) showed that *Apomarsupella revoluta* (Nees 1836: 419) Schuster (1996: 82) was nested in *Gymnomitrion* Corda (1829: 651) and Cailliau *et al.* (2013) showed that *Apomarsupella rubida* (Mitten 1861: 90) Schuster (1996: 85) also belongs there. Thus the genus *Apomarsupella* Schuster (1996: 79) should be synonymized and the necessary combinations made. The necessary combinations are made elsewhere.

Two invalidly published names in *Marsupella* Dumortier (1822: 114) were used in Váňa *et al.* (2010). The first of these, *Marsupella emarginata* (Ehrhart 1784: 141) Dumortier (1835: 24) var. *tubulosa*, was assumed to have been established as an autonym under subsp. *tubulosa* (Stephani 1897: 99) Kitagawa (1960: 76) via the publication of var. *patens* (Stephani 1901: 162) Kitagawa (1960: 77) or of var. *apertifolia* (Stephani 1901: 162) Kitagawa (1963:89). However, autonyms are only established directly under genera and species (cf. ICN Art. 22.1 & 26.1; McNeill *et al.* 2012) and thus var. *tubulosa* is invalid, which Váňa *et al.* (2010) overlooked. The second name, *Marsupella sparsifolia* (Lindberg 1868: 280) Dumortier (1874: 128) subsp. *childii* Schuster (1996: 61), was invalidly published by Schuster (1996) as he did not indicate the herbarium in which the type specimen was lodged (as required under ICN Art. 40.7; McNeill *et al.* 2012). Váňa *et al.* (2010) explicitly did not validate the subspecies as they had not located the type material. However, with the incorporation of Schuster's herbarium in F, the type material has now been found. Those two names are thus validated here.

Vilnet *et al.* (2010, 2011) showed that *Nardia* Gray (1821: 694) is related to Gymnomitriaceae and not to Solenostomataceae Crandall-Stotler *et al.* (2009: 190), a position also indicated by other studies. As *Nardia* forms a separate lineage sister to the rest of the Gymnomitriaceae, and differs morphologically in several important characters (see bold characters in the description below), it seems appropriate to separate out two subfamilies: Gymnomitrioideae Schuster (1996: 80) and Nardioideae, subfam. nov.

Formal treatment

The format of this note follows that which is outlined in Söderström *et al*. (2012).

Nardioideae Váňa, subfam. nov.

Description:—Leaves succubous, never transverse, undivided or bilobed, not interlocking dorsally (insertions not extending acros**s** the stem midline). Underleaves always present, mostly small, lanceolate. Gametangia on leading axes. Sporophytes enclosed by a shoot calyptra, perianth and perigynium (erect, of *Isotachis*-type or short pendent, of *Nardia geoscyphus*-type) always present. Capsules subsphaeroidal to shortly ellipsoidal, innermost wall cells with semiannular thickenings**.** Gemmae absent.

Type:—*Nardia* Gray.

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***Marsupella emarginata* var. *tubulosa* (Steph.) N.Kitag. ex Váňa et L.Söderstr.,** comb. nov., Basionym:—*Marsupella tubulosa* Steph., *Bull. Herb. Boissier* 5: 99, 1897 (Stephani 1897). ≡ *Marsupella emarginata* var. *tubulosa* N.Kitag., *Mem. Coll. Sci. Kyoto Imp. Univ., Ser. B, Biol.* 27: 77, 1960 (Kitagawa 1960) *nom. inval*. (ICN Art. 41.5; basionym not cited).

***Marsupella sparsifolia* subsp. *childii* R.M.Schust. ex Váňa et L.Söderstr.**, subsp. nov., Based on:—*Marsupella sparsifolia* subsp. *childii* R.M.Schust., *J. Hattori Bot. Lab.* 80: 61, 1996 (Schuster 1996) *nom. inval*. (ICN Art. 40.7; herbarium not indicated). Type:—NEW ZEALAND. Fiordland Nat. Park: Margin of tarn, snow tussock zone, Mt. Burns track, *Schuster 84-142* (F, holotype). Note:—The reference to the description in Schuster (1996: 61) together with the specification of the holotype here validates the name.

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