

NOTOTHAMIA – A NEW GENUS OF THE SELIGERiaceae FROM TASMANIA

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In his moss treatment in *Flora of Tasmania*, Wilson (1859) described, on the basis of a single specimen collected by William Archer in western Tasmania, a new species of the then catch-all genus *Dicranum* Hedw., namely *D. ferrugineum*. This species is still poorly known but it has a quite chequered taxonomic history, being shifted from genus to genus of the dicranoid mosses. Also, the authorship of this name has been a source of confusion. Paris (1895, 1904) ascribed the name *Dicranum ferrugineum* to 'Hook. f. et Wilson', but Joseph D. Hooker was not involved in the description of this species. The treatment of the Musci in *Flora of Tasmania* is authored by W. Wilson alone, who in some cases clearly stated his joint co-authorship of a new species name with J. D. Hooker, for example in *Weissia microcarpa* Hook. f. & Wilson and *Fissidens vittatus* Hook. f. & Wilson. On the other hand, the compilers of *Index Muscorum* (Wijk *et al.* 1962) ascribed *Dicranum ferrugineum* to Wilson, and this usage has subsequently been adopted in the Australian bryological literature (e.g., Streimann & Curnow 1989; Dalton *et al.* 1991; Streimann & Klazenga 2002).

A perusal of the protologue of *Dicranum ferrugineum* leaves no doubt that the authorship of this name should be ascribed to William Mitten, because Wilson (1859) cited verbatim the relevant entry with the description and discussion of this new species from Mitten's (1859) paper then in press. The only difference is that Wilson (1859) placed this species in *Dicranum*, whereas Mitten

(1859) positioned it in *Leptotrichum* Hampe, the later name being indicated by Wilson (1859) as an unranked subdivision of the then all-encompassing genus *Dicranum*. Such an interpretation of the authorship of *Dicranum ferrugineum* was accepted by Brotherus (1903, 1924) and Rodway (1914), among others.

Dicranum ferrugineum remained a poorly studied species which had become firmly established as a member of *Blindia* Bruch & Schimp. after Brotherus (1903) transferred it to this genus in his world treatment of the Musci in *Die Natürlichen Pflanzenfamilien*. However, Bartlett and Vitt (1986) suggested that 'it is perhaps best placed in *Dicranoweisia*' on account of 'the porose lower leaf cells; oblique basal border of hyaline cells; crisped leaves; and papillose peristome teeth'. Although careful examination of the type material and many non-type specimens of *D. ferrugineum* has not confirmed the presence of papillose peristome teeth and a hyaline basal border, the species would still be a discordant element in *Dicranoweisia* Milde as well.

Dicranoweisia is currently split into two genera, *Dicranoweisia* s.str. and *Hymenoloma* Dusén (Ochyra in Ochyra *et al.* 2003), but *Dicranum ferrugineum* does not fit either of them. It is immediately seen to be distinct from them in the anatomy of the costa, which is undifferentiated in *D. ferrugineum*, whereas those of both *Dicranoweisia* and *Hymenoloma* possess distinct rows of enlarged guide cells. The latter genus additionally has psudo-

papillose laminal cells because of the longitudinal cuticular ridges which densely cover the abaxial and adaxial surfaces of the cell walls, giving the cells a papillose appearance in transverse section. Although the peristome resembles that of *Blindia*, *Dicranum ferrugineum* is distinct from that genus in the leaf areolation of oblong and porose lower laminal cells and crispate leaves, as well as in costal anatomy, although the seligerioid peristome structure clearly suggests the placement of both taxa in the Seligeriaceae.

Because *Dicranum ferrugineum* cannot be accommodated within any known genus in that family, *Notothamia* is proposed as a monotypic genus for it. The generic name alludes to the dense compact tufts formed by this species and is derived from the Greek *θαμειος* (*thameios*) meaning dense or compressed and *νότος* (*nótos*) meaning southern, pertaining to the occurrence of this new genus in the austral region.

Notothamia Ochyra & Seppelt, **gen. nov.** Seligeriacearum

Plantae perennes dense aggregatae pulvinato-caespitantes, caulibus simplicis vel parce divisis, radiculis ferrugineis dense intertextis, in sectione transversali since filo centrali. Folia siccitate crispata, laevissima, e basi ovali-oblonga erecta semiamplexicaule flexuoso-subulata sensim attenuata, acutiuscula, subulis canaliculatis patentibusque, marginibus integerrimis, planis erectisque, unistratosi vel ad extremum subulae bistratosi, costa unica, brunnea, tenui, apicem attingente instructa, e cellulis elongatis porosisque constructa, in parte proximali deplanata bistratosave, in subula semitereti, in sectione transversali tristratosa, cellulis pellucidis, laevibus, luteis, superne rotundato-quadratis, basi oblongis, parietibus sat crassis basi porosis, ad baseos angulos non differentis. Folia perichaetialia maiora, e basi oblonga semivaginate abrupte subulata, cellulis basalibus valde porosis. Flores monoici, terminales. Capsula in pedicello elongato, stricto, erecto, pallido-rubro minuta, globoso-ovoidea, pachydermata, cellulis exothecii oblongis parietibus sat crassis, stomatibus nullis, operculo e basi conico-convexo in

rostellum longum, obliquum producto, annulo lato, persistenti. Peristomium simplex, dentibus 16 aequidistantibus, rigidulis, siccitate minus reflexis, intense brunneo-rubris, breviusculis, lanceolatis, acutiusculis, integerrimis vel hic illic pertusis, omnino laevibus, sine linea divisurali, transverse articulatis, e lamellis dorsalibus prominentibus praeditis. Sporae maximae, verrucosae.

GENERITYPE: *Notothamia ferruginea* (Mitt.) Ochyra & Seppelt, **comb. nov.** BASIONYM: *Dicranum ferrugineum* Mitt. in Wilson in Hook. f., Fl. Tasman. 2: 171, pl. clxxii, f. 1. 1859 (15 Feb.) ≡ *Leptotrichum ferrugineum* (Mitt.) Mitt., J. Proc. Linn. Soc. Bot. 4: 67. 1859 (Oct.) ≡ *Dichodontium ferrugineum* (Mitt.) A. Jaeger., Ber. Thätigk. St. Gallischen Naturwiss. Ges. 1877–1878: 371. 1880 ≡ *Anisothecium ferrugineum* (Mitt.) Mitt., Trans. Proc. Roy. Soc. Victoria 19: 51. 1882 ≡ *Ditrichum ferrugineum* (Mitt.) Paris, Index Bryol.: 392. 1895 ≡ *Blindia ferruginea* (Mitt.) Broth. in Engl. & Prantl, Nat. Pflanzenfam. 1(3): 307. 1901. TYPE CITATION: [Tasmania] On the ground: plain near Cumming's Head, Western Mountains, Archer. LECTOTYPE (*selected here*): '*Leptotrichum ferrugineum* asm. on ground, plain behind Cumming's Head Western Mountains Tasmania M^r Archer' – NY-Mitten!; ISOTYPES: BM-Hooker (2 specimens)!, NY-Mitten (3 specimens)!

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