

Fissidens integerrimus Mitt., in J.D.Hooker, *Fl. Tasman.* 2: 168 (1859)

T: Cheshunt, Tas., *W.Archer*; holo: NY; iso: PC, HO.

Fissidens tasmanicus Broth. & Rodway, *Pap. & Proc. Roy. Soc. Tasmania* 1915: 104 (1915). T: Newmans Ck., Tasman Penin, Tas., *W.A.Weymouth*; n.v. ["Specimen: Tas.: Tasman's Peninsula, Mermaid's Creek, on rocks under water, [*W.A.*] *Weymouth* 2563; 2.ii.1899, n.sp. det. Broth. (HO37459)", *vide* H.P.Ramsay & J.Seur, *Register of Type Specimens of Mosses in Australian Herbaria* 43 (1990).]

Fissidens hunteri J.H.Willis, *Victorian Naturalist* 68: 83 (1951). T: banks of Goonmirk Ck., Delegate R., Vic., alt. c. 1050 m, 6 Apr. 1943, *W.Hunter* 95; holo: MEL; iso: Hb G.O.K.Sainsbury, Hb H.T.Clifford.

Illustrations: J.H.Willis, *op. cit.* 83; J.E.Beever & I.G.Stone, *New Zealand J. Bot.* 30: 237–246, figs 3–5 (1992); J.Beever, B.Malcolm & N.Malcolm, *The Moss Genus Fissidens in New Zealand*[:] *an illustrated key* 36 (2002).

Dioicous or autoicous. Shoots slender, simple or branched, 5–25 mm long; axillary nodules weak. Leaves linear-lanceolate, 1–2 mm long, 0.2–0.4 mm wide, blackish green, multijugate, acute or obtuse, blunt. Costa subpercurrent. Vaginant laminae reaching above mid-leaf, rounded above, half-open to open; limbidium intramarginal; dorsal lamina tapered to the base; margin weakly serrulate. Laminal cells thick-walled, translucent, subquadrate to hexagonal, 10–15 µm diam.; marginal row much smaller, larger towards the costa, basally longer to 20 µm.

Male plants separate to 9-jugate or gemmiform and axillary on the female shoot. Perichaetial leaves to 0.25 mm long. Setae 2–3 mm long, terminal on main or lateral branches. Capsules erect; theca 0.6–0.8 mm long, c. 0.5 mm wide; exothecial cells collenchymatous. Spores 15–20 µm diam.

Occurs in Vic. and Tas.; usually aquatic in rock crevices in waterfalls. Also in New Zealand.

Vic.: Masons Falls, Kinglake, *I.G.Stone* 7546 (MELU); Cora Lynn Falls, Cumberland, near Marysville, *I.G.Stone* 9211 (MEL). Tas.: Guy Fawkes Rivulet, *W.W.Watts Tas.* 259 (NSW).

Fissidens integerrimus is frequently blackish with dark greenish tips and encrusted with diatoms. It has a similar general appearance and habitat preference to *F. strictus*, but the latter lacks all traces of a limbidium and has a bistratose thallus.