

Fissidens rigidulus Hook.f. & Wilson, *Fl. Nov.-Zel.* 2: 61 (1854)

Type: Wellington, New Zealand, 1850, *Lyll* 95; lecto: BM, *vide* M.A.Bruggeman-Nannenga, *Proc. Kon. Ned. Akad. Wetensch.*, ser. C, 82: 20 (1979).

Fissidens tortuosus Geh. & Hampe, *Rev. Bryol.* 8: 27 (1881). Type: locality unknown, *O.Beccari* 38; *n.v.*, *vide* M.A.Bruggeman-Nannenga, *op. cit.* 16.

Illustrations: M.A.Bruggeman-Nannenga, *op. cit.* 17, fig. 4a–g; D.G.Catcheside, *Mosses of South Australia* 73, fig. 14 (1980); J.E.Beever & I.G.Stone, *New Zealand J. Bot.* 37: 647, fig. 2a–q (1999), as *F. rigidulus* var. *pseudostriatus*; J.E.Beever, B.Malcolm & N.Malcolm, *The Moss Genus Fissidens in New Zealand: an illustrated key* 58 (2002); R.D.Seppelt, *The Moss Flora of Macquarie Island* 155, fig. 62 (2004).

Plants robust, stiff, elongate, 2–6 cm long, densely gregarious, branched, dark green to blackened. **Stems** stiff, in section with a very narrow central strand. **Leaves** in numerous pairs, rigid, imbricate to distant in part, \pm secund when moist, individually curled and twisted when dry, oblong to lanceolate, 2.5–4.0 mm long, 0.6–0.7 mm wide; **limbidium** broad, cartilaginous, yellow, multistratose, complete except at the apex and base of dorsal lamina; **apex** acute to acuminate; **margins** entire; **lamina** 1–3-stratose; **vaginant laminae** closed, reaching c. 3/5 leaf length; **dorsal lamina** tapered to the base, short-decurrent; **lamina cells** small, obscure, \pm quadrate to hexagonal, 6–9 μ m wide, usually multistratose juxtacostally, occasionally unistratose. **Costa** of *bryoides*-type.

Dioicous. **Perichaetia** terminal; **perichaetial leaves** not differentiated. **Setae** straw-coloured to brown, 4–8 mm long, 1 or 2 per perichaetium. **Capsules** \pm oblong, c. 1 mm long, erect or inclined, slightly asymmetrical; **exothecial cells** quadrate to irregularly rectangular, not thickened at the corners. **Operculum** conical-rostrate, c. 3/4 to equal in length to the theca. **Peristome** of *bryoides*-type; teeth 45–55 μ m wide at the base. **Calyptra** smooth, cucullate. **Spores** 18–25 μ m diam.

[Images](#)

Occurs in S.A., Qld, N.S.W., A.C.T., Vic, Tas. and Macquarie Island; forms dense, dark green mats in aquatic or semi-aquatic habitats, on rocks or earth banks.

Also in Central and South America, the Falkland Islands, New Guinea, New Caledonia, New Zealand, the Auckland Islands and Campbell Island.

Selected specimens examined: S.A.: Ewens Ponds, Port MacDonnell, *M.Forbes MUCV 2652* (MUCV). Qld: Bunya Mountains Natl Park, *I.G.Stone 13365B* (MEL). N.S.W.: Brown Mtn, near Nimmitabel, *D.G.Catcheside 54.88* (AD). A.C.T.: Cascades Trail, Tidbinbilla, *D.G.Catcheside 75.9* (AD). Vic.: Yarra Valley, *I.G.Stone 9980* (MEL). Tas.: Lenas Ck, Wardlaw Pass, near St. Marys, 1881, *W.A.Weymouth* (HO, MEL).

This species exhibits considerable variation in lamina thickness and the extent of the bi- to multistratose laminae. In some collections the laminae are composed almost entirely of a single layer of cells, while in others they can be mostly or completely at least bistratose, although the limbidia are multistratose.

[Bibliography](#)