

**Fissidens strictus** Hook.f. & Wilson, *Fl. Tasman.* 2: 167 (1859)

Type: York Town Rivulet, Tas., *R.Gunn 1610* ; lecto: BM-Wilson, *vide* J.E.Beever, *New Zealand J. Bot.* 33: 291 (1995); isolecto: HO.

Illustrations: J.E.Beever, *New Zealand J. Bot.* 33: 292, fig. 1a–w (1995); J.E.Beever, B.Malcolm & N.Malcolm, *The Moss Genus Fissidens in New Zealand: an illustrated key* 60 (2002).

**Plants** to 20 mm long, blackish green except for the green shoot tips, forming dense smooth mats or erect tufts on rock in flowing water. **Stems** rigid, occasionally branched; in section with a narrow central strand; axillary rhizoids sparse. **Leaves** erecto-patent when dry or wet, imbricate, linear, in up to 40 pairs, overlapping in mid-stem; upper leaves c. 2 mm long, 0.2–0.3 mm wide; **apex** acute to narrowly obtuse; **apical and dorsal laminae** bistratose to multistratose near the costa, unistratose to the margins; **vaginant laminae** uni- to bistratose adjacent to the costa, reaching to c. 1/2 leaf length, half open; **dorsal lamina** reaching the leaf base and shortly decurrent on the stem; **margins** minutely crenulate; **lamina cells** ±rounded, irregular, markedly thick-walled, 12–14 µm diam., smooth or slightly convex, bistratose to multistratose in the dorsal and apical laminae, except for a broad unistratose border, cells of the marginal rows smaller, 6–8 µm diam.; **costa** of modified *bryoides*-type, yellow or reddish, strong, subpercurrent.

**Autoicous. Perigonia** terminal. **Perichaetia** terminal on main stem or axillary branches; **perichaetial leaves** similar to stem leaves. **Setae** stiff, short, to 2 mm long. **Capsules** small, c. 0.6 mm long, rounded-oblong; **exothecial cells** in c. 50 columns around the circumference. **Operculum** conical-rostrate, 0.5–0.6 mm long, as long as the theca. **Peristome** of modified *scariosus*-type, red; teeth 70–150 µm long, 60–90 µm wide at the base, trabeculae in basal part double and forked, the filaments with oblique thickenings and strongly papillose. **Calyptra** smooth, mitrate.

[Images](#)

Occurs in southern Vic. and Tas.; on rock, submerged or in the splash zone in fast-flowing oligotrophic waters.

Also known from New Zealand and the Auckland Islands. There is a doubtful report from Nepal (Pradhan & Joshi, 2006).

*Selected specimens examined:* Vic.: Masons Falls, Kinglake Natl Park, *I.G.Stone 7547* (AD, MEL). Tas.: Hartz Mts, 17 Feb. 1985, *J.E.Beever* (HO); Arve Valley, *I.G.Stone 25300* (MEL).

Beever (1995) provided an account of this species in New Zealand. The modified *scariosus*-type peristome seems anomalous in the revised subgeneric classification of Suzuki & Iwatsuki (2007), where the species is placed in subgenus *Pachyfissidens* section *Pachyfissidens*. Pursell & Bruggeman-Nannenga (2004) included the species in subgenus *Aloma*, based on the *bryoides*-type costa, the modified *scariosus*-type peristome, the smooth lamina cells and unbordered laminae. This, placement is followed here, although the number of columns of exothecial cells (c. 50) differs from the usual number (< 40) for subgenus *Aloma*. However, exceptions to these general rules do occur (Pursell & Bruggeman-Nannenga, 2004).

[Bibliography](#)