

Fissidens bifrons Schimp. ex Müll.Hal., *Bot. Zeitung (Berlin)* 17: 198 (1859)

Type: Cape of Good Hope, South Africa, *Breutel*; iso: BM.

Fissidens bryoidiodes Broth., *Proc. Linn. Soc. New South Wales* 41: 576 (1916). Type: *s. loc.*, N.S.W., *W.Forsyth 676*; holo: H-BR; iso: MEL, NSW.

[*Fissidens splachnifolius* auct. non Hornsch.: D.G.Catcheside, *Mosses of South Australia* 76 (1980)]

Illustration: D.G.Catcheside, *Mosses of South Australia* 76, fig. 16. (1980), as *F. splachnifolius*.

Plants small, yellow-green; sterile shoots 2–10 mm long, often growing from the base of a female plant. **Stems** slender, elongate; in section with a narrow central strand of small thin-walled cells; rhizoids basal. **Leaves** distant, in 6–20 or more pairs, cultriform, 0.2–0.5 mm long, 0.1–0.2 mm wide; apex sharply recurved, acute; **laminae** unistratose; **margins** entire to serrulate; **vaginant laminae** reaching to 3/4–4/5 leaf length, partly or fully open, elimbate except on largest leaves, where present, **limbidium** of 3–6 rows of narrow elongate cells; **dorsal lamina** elimbate, failing above the insertion to short-decurrent. **Costa** of *bryoides*-type, percurrent to excurrent. **Lamina cells** smooth, small, irregularly quadrate to polygonal, c. 8–10 µm wide, ±rectangular and up to 20 µm long proximally in the vaginant laminae.

Dioicous. Fertile plants 2–5 mm long, the leaves cultriform or straight, to c. 1 mm long, 0.25–0.30 mm wide. **Perichaetia** terminal; **perichaetial leaves** to 1.5 mm long, the costa percurrent to excurrent; limbidium of vaginant laminae broad below, narrowed above, often just extending into the apical lamina. **Setae** terminal, flexuose, 7–15 mm long. **Capsules** asymmetrical, curved; theca c. 0.6 mm long; **exothecial cells** short-rectangular, thin-walled, the corners not or weakly collenchymatous. **Calyptra** not seen. **Operculum** short-rostrate. **Peristome** of *bryoides*-type. **Spores** 12–17 µm diam.

[Images](#)

Occurs in southern W.A., south-eastern S.A., eastern N.S.W., southern Vic. and on the west coast of Tas.; terrestrial and often growing in weedy places.

Also in South Africa.

Selected specimens examined: W.A.: Hoves Falls, Forrest Natl Park, *I.G.Stone 6202B* (MEL). S.A.: Bellevue Heights, near Adelaide, *D.G.Catcheside 75.78* (AD). N.S.W.: Peshurst, *W.Forsyth 679* (NSW). Vic.: Tallarook, *I.G.Stone 9318* (MEL). Tas.: West Coast, road to Arthur Creek, *I.G.Stone 25275* (MEL).

Fissidens bifrons varies greatly in size, depending on the habitat. It often has delicate flagelliform innovations, consisting of alternating sequences of minute and very distantly set leaves and larger cultriform leaves, arising from within the terminal perigonia, perichaetia or leaf axils.

Magill (1981) regarded *F.bifrons* as a synonym of *F. pygmaeus* Hornsch., but the latter has non-arcuate, ±asymmetrical capsules, short setae (c. 3–5 mm long), larger spores, and small vegetative leaves bordered on the vaginant laminae.

[Bibliography](#)