

Fissidens dietrichiae Müll.Hal., *Linnaea* 37: 146 (1872)

Type: Brisbane R., Qld, *A.Dietrich* 444; holo: S (*n.v.*); iso: BM, MEL, NY.

Fissidens undatodecurrans Müll.Hal., *Enum. Bryin. Exot.* 90 (1889). Type: Ashgrove, near Brisbane, Qld, May 1885, *H.Tryon*; iso: MEL.

Fissidens praemollis Broth., *Proc. Linn. Soc. New South Wales* 41: 578 (1916). Type: Skinners Head, Richmond R., N.S.W., 1901, *W.W.Watts* 5371; holo: H-BR; iso: MEL, NSW.

Fissidens densifolius Broth., *Queensland Bot. Bull.* 4: 21 (1891), *nom. nud.* Based on: Mt Perry, Qld, *J.Keys* (?); MEL.

Fissidens sydneyensis Geh., *Proc. Linn. Soc. New South Wales, Suppl.* 27: 29 (1902), *nom. nud.* Based on: Minto, near Sydney, N.S.W., *T.Whitelegge* 263; MEL.

[*Fissidens crassipes* *auct. non* Wilson ex Bruch & Schimp.: G.A.M.Scott & I.G.Stone, *Mosses of Southern Australia* 96 (1976)]

Illustrations: M.A.Bruggeman-Nannenga, *Proc. Kon. Ned. Akad. Wetensch.*, ser. C, 82: 23, fig. 5 (1979); D.G.Catcheside, *Mosses of South Australia* 73, fig. 13 (1980), as *F. crassipes*.

Plants robust, 5–40 mm long, dark green, forming tufts, semi-aquatic or terrestrial. **Stems** simple or branched, with minute axillary nodules; in section with a central strand of small thin-walled cells. **Leaves** in numerous pairs, homomallous, curled when dry, elliptical to obovate, 1.1–2.0 mm long, 0.3–0.7 mm wide; margins \pm smooth or weakly serrulate; **apex** obtuse, apiculate; **limbidium** almost reaching the leaf apex, mostly unistratose, biseriate, up to 5 rows wide in the vaginant laminae, outer cells rectangular to quadrate proximally; **vaginant laminae** reaching 1/2–3/4 leaf length, \pm closed; **dorsal lamina** usually slightly decurrent; **laminal cells** smooth, hexagonal, firm-walled, 11–15 μ m wide, larger juxtacostally and 20–25 \times 10–12 μ m at the base of the vaginant laminae. **Costa** percurrent, modified *bryoides*-type; all cells thin-walled.

Dioicous or **synoicous**. **Perigonia** terminal (not seen). **Perichaetia** terminal; **perichaetial leaves** more acuminate than vegetative leaves, (1.5–) 1.9–3.0 mm long. **Setae** 4–10 mm long. **Capsules** suberect, asymmetrical; theca oblong, 0.8–1.5 mm long, 0.4–0.8 mm wide. **Operculum** 0.3–0.7 mm long, sharply conical. **Peristome** *bryoides*-type; teeth c. 50–90 μ m wide at the base. **Calyptra** not seen. **Spores** 17–26 μ m diam.

[Images](#)

Occurs in N.T., S.A., Qld, N.S.W., A.C.T., Vic. and Lord Howe Island. Semi-aquatic on rocks or terrestrial in damp places.

Also in the Solomon Islands, New Caledonia and the Kermadec Islands.

Selected specimens examined: N.T.: Reedy Rock Hole, George Gill Ra., *A.C.Beauglehole* 20937 (MEL). S.A.: Clarendon, *J.O.Tepper* 587 (NY). Qld: Cania Gorge Natl Park, *I.G.Stone* 20941A (MEL). N.S.W.: Hickeys Falls, S of Coonabarabran, *I.G.Stone* 8408B (MEL); Hanging Rock Ck, Barkers Vale, *H.Streimann* 6141 (CANB). A.C.T.: Uriarra Crossing, Murrumbidgee R., *D.G.Catcheside* 64.82 (AD). Vic.: Yarra R. at Heyington Railway Stn, *J.H.Willis* 154 (BM, MEL).

The record for Norfolk Island (*Streimann* 34805, in CANB) was incorrectly identified and is referable to *F. leptocladus* (J.E.Beever, in *Moss Flora of New Zealand* eFlora; <http://www.nzflora.info/index.html>).

Scott & Stone (1976) and Catcheside (1980) treated *F. dietrichiae* as *F. crassipes* Bruch & Schimp. Bruggeman-Nannenga (1979), who examined many Australian collections of *F. dietrichiae* and related taxa, stated that the two species differed in leaf shape, with *F. dietrichiae* having broader leaves [a length/width ratio of (1.75–) 2.25–4.00:1 vs 3.5–5.5:1 for *F. crassipes*]. The two taxa also differ in the shape of the leaf apex, this being unbordered in *F. crassipes* and almost completely bordered in *F. dietrichiae*. Some aberrant forms are larger in all respects than usual (Bruggeman-Nannenga, 1979).

[Bibliography](#)