

Fissidens leptocladus Müll.Hal. ex Rodway, *Pap. & Proc. Roy. Soc. Tasmania* 1912: 136 (1913)

Fissidens leptocladus Müll.Hal., *Gen. Musc. Fr.* 59 (1901); *F. rigidiusculus* Broth. var. *leptocladus* (Müll.Hal. ex Rodway) Broth., *Proc. Linn. Soc. New South Wales* 41: 578 (1916). T: Guy Fawkes Rivulet, base of M. Wellington, Tas., 6 Sept. 1890, *W.A.Weymouth* 385; lecto: HO, *vide* I.G.Stone, *J. Bryol.* 16: 262 (1990); isolecto: CANB, L, NY; on face of rock on bank of Guy Fawkes Rivulet, Tas., 1 Jan. 1897, *W.A.Weymouth* 2157; para: HO, on damp bank, 3 Sept. 1906, *W.A.Weymouth* 2281; para: HO.

Fissidens amblyothallioides Broth. & Watts, *Proc. Linn. Soc. New South Wales* 40: 366 (1915). T: gully, south of King's [property], Lord Howe Is., *W.W.Watts* 153; syn: H-BR; *loc. id.*, *W.W.Watts* 145, 157, 163, 178; syn: H-BR, NSW.

Fissidens microblastus Broth., *Proc. Linn. Soc. New South Wales* 24: 632 (1900), *nom. nud.*; *F. montecolli* Watts ex *W.W.Watts* & *T.Whitelegge*, *Proc. Linn. Soc. New South Wales*, Suppl. 26 (1902), *nom. nud.* Based on: Montecollum, Brunswick R., N.S.W., 17 Sept. 1897, *W.W.Watts* 1489; BM, H-BR, NSW.

Fissidens rigidiusculus Broth., *Proc. Linn. Soc. New South Wales* 41: 577 (1916), *nom. illeg.* T: Fitzroy Falls, Moss Vale, N.S.W., *W.Forsyth* 669; iso: NSW(?) *n.v.*

Fissidens pachyneuron Dixon, *Notes Roy. Bot. Gard. Edinburgh* 20: 93 (1950). T: Richmond R., N.S.W., *W.W.Watts* 2949; holotype: BM, iso: NSW.

Fissidens leptocladus var. *cheesemanii* Dixon, *Bull. New Zealand Inst.* 3: 101 (1923). T: locality unknown, New Zealand, 1882, *Cheeseman*; *n.v.*

Illustrations: G.A.M.Scott & I.G.Stone, *Mosses of Southern Australia* 85, pl. 7; 87, pl. 8; 89, pl. 9 (1976); D.G.Catcheside, *Mosses of South Australia* 71, fig. 12 (1980); J.Beever, B.Malcolm & N.Malcolm, *The Moss Genus Fissidens in New Zealand[:] an illustrated key* 38 (2002); H.Streimann, *Mosses of Norfolk Island* 81, fig. 35 (2002).

Dioicous. Plants 5–20 mm tall; axillary nodules small. Leaves usually distant, occasionally imbricate, linear-lanceolate, lanceolate or oblong-ovate, 1.00–1.75 mm long, 0.25–0.45 mm wide, 2–7 times longer than wide; when dry strongly falcate-decurved or secund, often crisped. Limbodium throughout except at apex, rarely confluent with the costa, cartilaginous, unistratose, narrow, usually widening in vaginant laminae; apex acute to narrowly acuminate or broadly obtuse-apiculate; dorsal lamina usually reaching the leaf insertion or short-decurrent, occasionally bistratose at the base. Costa subpercurrent, rarely percurrent, occasionally with a few laminal cells encroaching over the adaxial surface. Vaginant laminae more than half the leaf length, closed. Laminal cells small, firm-walled, convex, dark, quadrate to hexagonal, 5–9 µm wide, juxtacostally hyaline at the leaf base, thick-walled, to 20 µm or more long, c.10 µm wide.

Gametoecia terminal. Perichaetial leaves to 2 mm long; limbodium proximally on vaginant laminae sometimes with an outer row of ±quadrate cells. Setae to 6 mm long. Capsules ±symmetrical, oblong-ovate, c. 0.5 mm long; apophysis swollen. Operculum c. 0.5 mm long; beak erect or inclined. Spores 10–14 µm diam.

Widespread in all States and Territories; grows on damp soil or rock in shaded places, occasionally in basalt or limestone caves. Also in southern South America, Norfolk Island, New Zealand, the Auckland Islands and Campbell Island.

W.A.: Nancys Peak, Porongorup Ra., *D.G.Catcheside* 74.266 (AD, PERTH). N.T.: Mt Riddock, Harts Ra., *J.H.Willis* (MEL 1024239). S.A.: Hindmarsh Valley Falls, *D.G.Catcheside* 54.327 (AD). Qld: Dalrymple Gap, Cardwell, *I.G.Stone* 19127A (MEL); Lake Eacham Natl Park, *I.G.Stone* 25517 (MEL); Hippy Tower, Chillagoe, *M.Godwin* C2487 (AD). N.S.W.: Emigrant Ck., *W.W.Watts* 3612 (NSW); Warrumbungle Mtns, *I.G.Stone* 4135 *p.p.* (MEL). Vic.: Byaduk Caves, *D.G.Catcheside* 77.180 (AD). Tas.: Truganini Track, near Hobart, *I.G.Stone* 25325 (MEL); Julius River Reserve, S of Smithton, *I.G.Stone* 25286, 25287, 25288 (MEL).

This taxon is extremely variable in size and leaf shape which, even on the same plant, can range from narrowly lanceolate to comparatively broad when approaching var. *patulifolius*. Similar to *F. dietrichiae*, but laminal cells of the latter are larger, and the limbodium is

stronger. There are also similarities to the type of *F. schmidii* Müll.Hal., but in that species the limbidium is predominantly bistratose.

[The authors intended to make the new combination *F. leptocladus* var. *patulifolius* (based on *F. patulifolius* Dixon) in their *Flora of Australia* treatment, based on its comparatively broad leaves and obtuse-apiculate leaf apices — Ed.]

Fissidens patulifolius Dixon, *Proc. Roy. Soc. Queensland* 53: 23 (1941)

T: Tully R., above Tully Falls, Qld, *H.Flecker* 6302; holo: BM; iso: CANB.

Dioicous. Plants 5–20 mm tall; axillary nodules small. Leaves broadly oblong-ovate, 1.0–1.3 mm long, 0.5–0.6 mm wide, 2–2.5 times longer than wide; apex obtuse, apiculate. Suture of vaginant laminae usually markedly truncate.

Perichaetial leaves with the limbidium scarcely widened proximally in vaginant laminae. Capsules oval, tapered to the neck, \pm symmetrical, slightly inclined. Operculum conical; rostrum with a thick erect beak 0.3–0.4 mm long.

Endemic to north-eastern and central Qld; uncommon and usually growing close to streams.

Qld: Dalrymple Gap, Cardwell, *I.G.Stone* 19127 (MEL); Moss Garden, Carnarvon Natl Park, *I.G.Stone* 20347 (MEL); Lake Eacham Natl Park, *I.G.Stone* 25517 (MEL).