

Fissidens perobtusus Dixon, *Proc. Linn. Soc. New South Wales* 55: 272 (1930)

T: Lautoka, Viti Levu, Fiji, *Greenwood* 34; holo: BM.

Fissidens traversii I.G.Stone, *J. Bryol.* 12: 359 (1983). T: Five Mile Creek, Cardwell, Qld, *I.G.Stone* 16302, *A.G.Stone*, *A.Thorsborne* & *M.Thorsborne*; holo: BRI; iso: BM, MEL.

Illustrations: I.G.Stone, *op. cit.* 361, fig. 1; 362, fig. 2, as *F. traversii*.

Dioicous. Plants 1–2 mm long, simple, or with basal ±deciduous innovations. Leaves 3–14-jugate, closely imbricate, decurved and contorted when dry, ±oblong, c. 0.3–0.8 mm long, 0.15–0.30 mm wide; apex rounded to obtuse. Costa often reddish gold, strong, ending 2–5 cells below the apex, irregularly papillose above. Vaginant laminae almost to the leaf apex, gaping open, elimbate, proximally with a hyaline yellowish marginal strip of ±smooth very thick-walled oblate cells 5–6 µm long and 8–10 µm wide; cells towards costa larger, c. 20 µm long. Dorsal lamina tapered, ending well above the insertion; margin crenulate; laminal cells rounded-hexagonal, 5–9 µm diam., strongly mammillose; papillae few, large, compound.

Male plants small, 3–5-jugate. Calyptra cucullate, c. 0.4 mm tall. Setae 1.5–2.5 mm long. Capsules erect, symmetrical, ±cylindrical, 0.4–0.7 mm long, 0.3–0.5 mm wide; exothecial cells collenchymatous; operculum obliquely rostellate, c. 0.3 mm long. Spores c. 22–30 µm diam.

Widespread in northern W.A. and N.T. and in Qld from Cooktown to Hughenden; grows on sheltered seepage walls at the bases of cliffs, in dry gullies and on skeletal soils and termite mounds mostly in open woodland. Also in New Caledonia and Fiji.

W.A.: Hidden Valley, Kununurra, *I.G.Stone* 23455 (MEL); Erskine Ra., Great Northern Hwy, between Derby and Fitzroy Crossing, *H.Streimann* 39423 (CANB). N.T.: Katherine Gorge, *I.G.Stone* 23325 (MEL). Qld: Wallaman Falls road, W of Ingham, *I.G.Stone* 21209 (MEL).

This species is characterised by the rounded leaf apices, and vaginant laminae occupying almost the entire leaf length and lacking a border of elongated cells.

Fissidens perobtusus appears to be more closely related to other semi-limbate species than to any elimbate taxa, and it could be confused with sterile plants of *F. brassii*.