

**Fissidens oblatulus** I.G.Stone & Catches., *J. Bryol.* 17: 621 (1993)

Type: Grassy Hill, Cooktown, Qld, *I.G.Stone 19196*; holo: MEL; iso: MEL.

Illustrations: I.G.Stone & D.G.Catcheside, *op. cit.* 622, fig. 1; 623, fig. 2 (1993).

**Plants** pale green, simple or with innovations, often several growing from buried stems. **Stems** to 5 mm long, comose, often homomallus; rhizoids strong, ruby-red to reddish brown,  $\pm$ smooth, basal on stems or in the axils of lower leaves; in section with a small central strand. **Leaves** in numerous pairs, distant, minute and scale-like below, abruptly much larger above, erecto-patent, circinate-coiled when dry, deflexed and difficult to flatten when moist,  $\pm$ oblong, to 1 mm long and 0.2 mm wide; **apex** obtuse to acute; **vaginant laminae** reaching to 2/3 leaf length, half closed, joining c. mid-way to the costa, gaping,  $\pm$ open in perichaetial leaves, **limbidium** cartilaginous, c. 2/3 length of vaginant laminae, 1–4 cells wide, unistratose, the margin undulate and distinctly denticulate, the cells usually elongate below, rhomboid above; **dorsal lamina** tapering to 1 row of cells, failing above or reaching the leaf base; **margins** regularly crenulate to serrulate, sinuose where bordered; **lamina cells** convex, unipapillose or bipapillose, rounded-hexagonal,  $\pm$ isodiametric, 6–10  $\mu$ m wide, larger towards the costa and in the base, to slightly oblate towards the margins where c. 8  $\mu$ m long and 8–11  $\mu$ m wide and especially in a broad intramarginal zone in vaginant laminae where very thick-walled, 7–8  $\mu$ m long and c. 13  $\mu$ m wide; **costa** of *bryoides*-typ, subpercurrent by 1 or 2 cells.

**Autoicous.** Male plants short, basal or axillary at the base of female shoots, with 3 or 4 pairs of leaves. **Perichaetia** terminal; **perichaetial leaves** to c. 1.2 mm long, usually incurved around the seta; margins of apical and dorsal laminae wavy and often very incurled, vaginant laminae joining at the costa, archegonia few. **Setae** 2–3 mm long, smooth or weakly pustulose, rarely 2 to a perichaetium. **Capsules**  $\pm$ erect; theca 0.35–0.50 mm long, 0.3–0.4 mm wide; **exothecial cells** slightly collenchymatous with thicker longitudinal walls, sometimes bulging. **Operculum** conical-rostellate, c. 0.35 mm long. **Peristome** of *scariosus*-type; teeth 35–45  $\mu$ m wide at the base. **Calyptra** cucullate, smooth. **Spores** chlorophyllose, c. 15  $\mu$ m diam., minutely papillose.

[Images](#)

Endemic to north-eastern Qld; grows on accumulated humus, on rock and road banks in partial shade.

*Selected specimens examined:* Qld: Quarantine Bay, near Cooktown, *I.G.Stone 1922A* (MEL); Freshwater Ck, near Crystal Cascades, Cairns, *I.G.Stone 18853, 18855* (MEL); Mount Elizabeth Ck, near Irvinebank, W of Herberton, 10 Oct. 1940, *J.Devanny (Hb. Cairns 7016)* (AD, BM, CANB); bank of Mount Elizabeth Ck, 19 Oct. 1940, *J.Devanny* (AD, BM, CANB).

Usually grows mixed with other species, but it is easily separated in the dry state by the distinctive glossy submarginal strips of oblate hyaline cells and by the cartilaginous limbidium of the gaping vaginant laminae of larger leaves. Fertile innovations and, occasionally, a rhizome-like leafless stem with meristematic areas are produced from lower leaf axils.

*Fissidens oblatulus* differs from *F. cucullatus* in the apiculate leaf apex, the vaginant laminae with a cartilaginous limbidium outside an intramarginal zone of thick-walled oblate cells, and the majority of the lamina cells being bipapillose (mostly unipapillose in *F. cucullatus*).

[Bibliography](#)