

Fissidens altisetus Dixon, in H.N.Dixon & W.Greenwood, *Proc. Linn. Soc. New South Wales* 55: 271 (1930)

Type: Lautoka, Fiji, on mountain track in dense shade, *W.Greenwood 211*; holo: BM.

Illustrations: H.N.Dixon & W.Greenwood, *op. cit.* pl. 8, fig. 6a–d, (1930).

Plants bud-like, 0.5–1.0 mm tall, with persistent protonema. **Stems** very short, 0.1–0.2 mm long. **Leaves** in 2 or 3 pairs (vegetative and perichaetial leaves), narrowly lanceolate, widest proximally, 0.25–1.00 mm long, 0.1–0.8 mm wide; **apex** acuminate; **laminae** unistratose; **margins** entire or bluntly toothed; **vaginant laminae** 1/2–3/4 leaf length, partly to fully open; **dorsal lamina** narrowly tapering, failing above or reaching the insertion; **costa** of *bryoides*-type, 20–30 µm wide, often excurrent in a short cusp to 130 µm long; **laminal cells** oblong to irregularly 5- or 6-sided, 20–40 µm long, 10–12 µm wide, increasing in size from margins to the costa, larger proximally in the vaginant laminae and 25–70 µm long and 10–15 µm wide.

Rhizautoicous. **Perigonia** gemmiform. **Perichaetia** terminal. **Perichaetial leaves** not differentiated. **Setae** 1.8–5.0 mm long. **Capsules** slightly asymmetrical; theca 0.30–0.45 mm long; **exothecial cells** quadrate to rectangular, thin-walled with strongly thickened corners. **Calyptra** campanulate. **Operculum** rostrate, 0.30–0.45 mm tall. **Peristome** of *bryoides*-type, 200–250 µm long, the teeth 20–25 µm wide at base. **Spores** 8–10 µm diam.

[Images](#)

Occurs in north-eastern Qld; grows on crumbling rock in deep shade in lowland rainforest, apparently always mixed with other species and often overlooked.

Also in Fiji and, probably, other Pacific islands.

Selected specimens examined: Qld: Helenvale, 25 km S of Cooktown, *I.G.Stone 19241, 19232* (MEL).

Although it was included in the synonymy of *F. bogoriensis* M.Fleisch. by Iwatsuki & Suzuki (1989), we prefer to consider *F. altisetus* as a distinct species. All plants are fertile, scattered on a persistent, flat protonema, each virtually a minute perichaetium or perigonium, and very similar in general habit to *F. thorsbornei* (I.G.Stone) Brugg.-Nann. In *F. lagunensis* E.B.Bartram, also considered a synonym of *F. bogoriensis* by Iwatsuki (1991), fruiting plants have more than 3 pairs of leaves, and the smallest plants are all sterile.

[Bibliography](#)