

Fissidens biformis Mitt., *J. Linn. Soc., Bot. (suppl.)* 1: 141 (1859)

T: Matale, Ceylon, [Sri Lanka], *Gardner 626*; holo: NY.

Illustration: H.C.Gangulee, *op. cit.* 484, fig. 223.

Rhizautoicous (?). Plants flabelliform. Stems short, 0.3–1.0 mm long; hyaline axillary nodules weak. Leaves mostly 4–6-jugate, erect, ligulate-lanceolate, 1.3–1.6 mm long, 0.20–0.25 mm wide; limbidium complete, very thick-walled, 2–3-seriate; apex acute; costa narrow, excurrent in a long pointed cell. Vaginant laminae reaching c. mid-leaf, closed. Dorsal lamina tapered to the base; margin entire; laminal cells with a large central papilla, \pm hexagonal, 8–10 μ m wide, broader towards the costa and in vaginant laminae where they are proximally smooth, rectangular, $35\text{--}55 \times 15\text{--}20 \mu\text{m}$.

Setae terminal, 2.0–3.5 mm long, thin. Capsules erect, \pm symmetrical; theca c. 0.5 mm long and 0.25 mm wide.

Occurs in north-eastern Qld from Cooktown south to Hinchinbrook Island near Cardwell, on semi-shaded soil banks in rainforest. Also in India, Sri Lanka and Malaysia.

Qld: Quarantine Bay, near Cooktown, *I.G.Stone 22042B* (MEL); Helenvale, *I.G.Stone 19234 p.p.* (MEL); Hinchinbrook Is., *I.G.Stone 24917 p.p.* (MEL).

Illustrations provided by Gangulee (1971) and others lack papillae, although they are clearly present in the holotype and very obvious in T.S. *Fissidens angustifolius* Sull. (syn. *F. dixonianus* E.B.Bartram) from Oceania is very close to *F. biformis*.