

Fissidens beckettii Mitt., *J. Linn. Soc., Bot.* 13: 325 (1873)

T: Maanagalla, Central Province, Ceylon [Sri Lanka], *Beckett* 9; holo: NY.

Fissidens calodictyon Broth., *Öfvers. Förh. Finska Vetensk.-Soc.* 33: 94 (1891). T: Ashgrove [Brisbane], Qld, May 1888, *C. Wild* 1; holo: H-BR; iso: BRI (n.v.), NSW.

Illustrations: Z.Iwatsuki & T.Suzuki, *J. Hattori Bot. Lab.* 51: 461, fig. 32 (1982); H.Streimann, *Mosses of Norfolk Island* 77, fig. 32 (2002).

Dioicous or rhizautoicous. Plants dimorphic; sterile plants rare; axillary nodules weak. Leaves \pm uniform, distant, to c. 15-jugate, lanceolate, to c. 0.5 mm long, incompletely bordered, often elimbate; apex narrowly acute and usually slightly retrorse. Costa strong, excurrent. Vaginant laminae 1/2–3/4 the leaf length, open; dorsal lamina tapered to the base or failing. Laminal cells rhombic to irregularly hexagonal, 15–30 \times 11–20 μ m, rectangular and up to 40 μ m long basally in vaginant laminae.

Male plants gemmiform, c. 0.85 mm tall. Fertile plants 0.5–2.0 mm tall, c. 1 mm wide. Leaves 3–4-jugate, 0.75–1.20 mm long, 0.23–0.35 mm wide. Limbidium complete in perichaetial leaves, fused with the costa at the apex, uniseriate to biseriate, unistratose to bistratose, much wider in vaginant laminae; margin \pm entire. Calyptra conical, c. 0.5 mm long. Setae 3.5–6.0 mm long. Capsules asymmetrical, inclined; theca 0.4–0.5 mm long, 0.35–0.40 mm wide; exothecial cells irregular in size, oblong to quadrate, thin-walled; operculum rostellate, c. 0.4 mm long. Spores 13–20 μ m diam., spiculose.

Occurs in central and south-east Qld, N.S.W., A.C.T. and Norfolk Island; on disturbed soil and probably overlooked. Also in India, Sri Lanka, Nepal, SE Asia, Indonesia, New Caledonia, China and Japan.

Qld: Coomingleh Forest, near Monto, *I.G.Stone* 21090 *p.p.*, 21123 (MEL); Bunyip Street, Burleigh Heads, *K.Cafarella* (*I.G.Stone* 21728) (MEL).

Fissidens beckettii is probably close to *F. bifrons*, but it differs in having larger laminal cells and perichaetial leaves with a limbidium on all laminae. It could be mistaken for *F. curvatus* var. *curvatus*, but the latter has smaller laminal cells, and the vegetative leaves have their vaginant laminae joining near the margin.