

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

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

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

Illustrations: H.C.Gangulee, *Mosses of Eastern India and Adjacent Regions* 2: 477, fig. 219 (1971), as *F. curvato-xiphioides*; Z.Iwatsuki & T.Suzuki, *J. Hattori Bot. Lab.* 51: 461, fig. 32 (1982); H.Streimann, *The Mosses of Norfolk Island* 77, fig. 32 (2002).

**Plants** small, bright green, dimorphic; sterile plants rare, with up to 18 pairs of leaves; fertile stems short and unbranched, the leaves in 3–6 pairs. **Stems** 1.4–2.5 mm long, 0.7–1.8 mm wide with leaves; in section central strand weak or lacking. **Leaves** ±uniform, distant, lanceolate, to 0.5 mm long; **apex** narrowly acute and usually slightly retrorse; **margins** entire, weakly serrate near the apex; **limbodium** incomplete in vegetative leaves, leaves sometimes elimbate or the limbodium weakly differentiated, a complete limbodium on all laminae of perichaetial leaves, 2 or 3 cells wide in the apical lamina, 1 or 2 cells thick, to 6 or more cell rows wide proximally in vaginant laminae; **vaginant laminae** reaching 1/2–3/4 leaf length, open; **dorsal lamina** tapering to the base or failing above the insertion. **Lamina cells** smooth, rhomboid to irregularly hexagonal, (12–) 15–30 (–50) µm long, 10–15 (–20) µm wide, rectangular and up to 50 µm long at the base of the vaginant laminae. **Costa** of *bryoides*-type, strong, short-excurrent.

**Dioicous** or **rhizautoicous**. **Perigonia** terminal on gemmiform male plants c. 0.85 mm tall. **Perichaetia** terminal; **perichaetial leaves** larger than stem leaves, with a complete limbodium on all laminae, fused with the costa at the apex, 1 or 2 cells wide and thick, limbodium much wider in perichaetial leaves. **Setae** 3.5–6.0 mm long. **Capsules** asymmetrical, inclined to horizontal, curved; theca 0.4–0.5 mm long, 0.35–0.40 mm wide. **Operculum** rostellate, c. 0.4 mm long. **Peristome** of *bryoides*-type; teeth 250–300 µm long, 30–50 µm wide at the base; **exothecial cells** irregular in size, oblong to quadrate, thin-walled, the corners only slightly thickened. **Calyptra** conical, c. 0.5 mm long. **Spores** 13–22 µm diam., almost smooth to very finely papillose or occasionally spiculose.

[Images](#)

Occurs in central and south-eastern Qld, N.S.W., A.C.T. and Norfolk Is.; grows on disturbed soil; probably overlooked.

Also known from India, Nepal, Sri Lanka, SE Asia, China, Japan, Indonesia and New Caledonia.

*Selected specimens examined:* Qld: Coomanglah Forest, near Monto, *I.G.Stone* 21090 p.p., 21123 (MEL). [\[Add specimen citations from N.S.W. and A.C.T.\]](#)

*Fissidens beckettii* is characterised by its small plants with comparatively long setae, narrow leaves with short-excurrent costae, the distal end of vaginant laminae unequal and usually open and joining at or near the costa, and the curved asymmetrical capsules.

It can be confused with *F. biformis*, which shares a similar leaf shape but differs in its flabellate growth form and vaginant laminae reaching only to mid-leaf or just beyond. It is also similar to *F. angustifolius*, but the latter has the limbodium confluent or nearly so with the costa at the leaf apex and the lamina cells are unipapillose.

Streimann (2002) remarked that *F. beckettii* was similar to *F. tosaensis* Broth., but the latter has much smaller lamina cells (7–14 µm long in the apical lamina), stronger limbodia on the dorsal lamina and comparatively large vaginant laminae (2/3–2/5 leaf length) that join at or near the margin rather than at the costa.

Iwatsuki & Suzuki (1982) noted that Japanese plants are autoicous.

[Bibliography](#)