

Fissidens cucullatus I.G.Stone, *J. Bryol.* 15: 737 (1989)

Type: Bradleys Head, Sydney, N.S.W., Oct. 1913, *T.Whitelegge*; holo: NSW.

Fissidens obtusoacuminatus Müll.Hal., *Gen. Musc. Frond.* 64 (1901), *nom. nud.* Based on: Victoria Park, near Brisbane, Qld, Apr. 1888, *C.Wild s.n.* (MEL 56916).

Illustrations: I.G.Stone, *op. cit.* 739, fig. 1.

Plants minute to small, yellowish green to green, gregarious, growing on sandy soil; shoot apex and leaves curved downwards when moist, more so when dry. **Stems** pale reddish, 3–10 mm long, longer when branched; in section with a narrow central strand; axillary nodules inconspicuous; rhizoids reddish, smooth, at the base and often in leaf axils in lower half of shoots. **Leaves** small, wide-spreading in 5–10 pairs, \pm distant except at top of stems where imbricate, oblong, to 0.5–1.1 mm long, 0.25–0.35 mm wide; **apex** broadly rounded to spatulate, usually cucullate, especially when the costa ends well below the apex; **vaginant laminae** reaching to more than half leaf length, joining mostly half-way between costa and margin; **dorsal lamina** tapered to the insertion, occasionally ending above, sometimes shortly decurrent; **margins** crenulate \pm throughout; **laminal cells** highly mammillose or bipapillose (best observed in section), except in inner surfaces of vaginant laminae, rounded-hexagonal, 6–10 (–12) μ m wide, obscure. **Costa** *bryoides*-type, narrow, 15–30 μ m wide in largest leaves, ending 3–10 cells below the apex, where often bifurcated.

Dioicous. Male plants c. 0.7 mm tall. **Perigonia** terminal. **Perichaetia** with naked archegonia mostly lateral on the stems; **perichaetial leaves** obtuse, rounded; vaginant laminae occasionally with a few rectangular marginal cells. **Setae** 1.5–2.0 mm long. **Capsules** erect; theca 0.4–0.5 mm long, 0.30–0.35 mm wide; **exothecial cells** collenchymatous. **Operculum** 0.40–0.45 mm tall, with a slightly curved beak. **Peristome** of *scariosus*-type. **Spores** 10–18 μ m diam.

[Images](#)

Endemic to south-eastern Qld and in north-eastern and eastern N.S.W. Grows on soil in damp, shaded sandstone gorges and near streams.

Selected specimens examined: Qld: Blacktown Tableland, *I.G.Stone 20208* (MEL); Angiopteris Ravine, Carnarvon Gorge Natl Park, *I.G.Stone 20357* (MEL). N.S.W.: Legume, *G.H.Bell 791* (AD, MEL).

The type specimen (*Whitelegge s.n.*, NSW 13081) is sterile, and only the collection from Angiopteris Ravine (MEL 2249691) has capsules.

Stone (1989) considered *F. cucullatus* to be close to the Fijian *F. perobtusus* Dixon, which Stone (1983a) recognised as being present in Australia, but which she described as *F. traversii*, later synonymised under *F. perobtusus* by Catcheside & Stone (1988). However, *F. perobtusus* has multipapillose lamina cells mostly 5–9 μ m wide, the vaginant laminae ending c. 7/8 or more up the leaf and joining at or very near the top of the costa, and the dorsal lamina is usually very short.

Although mostly elimbate, the largest leaves of *F. cucullatus* can have a short limbidium of oblong cells, a feature is often more pronounced in perichaetial leaves. The leaves of fruiting plants are less rounded at the apex, and the cells are less markedly convex. Archegonia are apparently rare in *F. cucullatus*, solitary, naked and borne laterally on the stem above a leaf axil, as in *F. gymnocarpus* I.G.Stone (Stone, 1983b). *Fissidens cucullatus* also resembles *F. gymnocarpus* in its general habit, the weak axillary nodules, the position of the rhizoids, and the frequent innovations on older plants. These innovations can also be narrow and \pm flabelliform.

Confusion remains as to the correct placement of *Fissidens obtusoacuminatus* Müll.Hal. *nom. nud.*, which was erroneously placed in synonymy with *F. gymnocarpus* by Stone (1990).

[Bibliography](#)