

**Fissidens autoicus** Thér. & Dixon, *J. Linn. Soc. Bot.* 43: 297 (1916)

Type: Sandakan, British North Borneo [Malaysia], 2 Apr. 1913, *C.H.Binstead* 18; holo: F 10745900; iso: JE, PC.

*Fissidens cairnensis* Broth. & Watts, *Proc. Linn. Soc. New South Wales* 43: 549 (1918). Type: near hotel, Babinda, Cairns, Qld, on rotten logs, *W.W.Watts* 332a; holo: H-BR; iso: NSW.

Illustration: A.Eddy, *Handbook of Malesian Mosses* 1: 78, fig. 69 (1988).

**Plants** simple or branched, c. 5 mm tall and 1 mm wide with leaves. **Stems** densely foliate; in section with a narrow and weak central strand. **Leaves** up to 12 pairs, gradually larger distally, homomallous when dry, erecto-patent when moist, ligulate, 1.0–1.5 mm long, 0.3–0.4 mm wide; **apex** broadly acute to obtuse-apiculate; **margins** serrulate. **Vaginant laminae** to mid-leaf, almost closed, open in perichaetial leaves; **limbidium** proximal, with 2–4 rows of pale prosenchymatous cells, the outer row occasionally rectangular; **dorsal lamina** acute or rounded to the base. **Lamina cells** rounded-hexagonal, slightly convex, smooth or obscurely uneven, 7–12 µm wide; marginal cells smaller. **Costa** *bryoides*-type, percurrent, or ending just below the leaf apex.

**Autoicous. Perigonia** numerous in leaf axils of fertile stems. **Perichaetia** often numerous in leaf axils; **perichaetial leaves** similar to stem leaves. **Setae** terminal on main or axillary branches, ±pustulose, geniculate, 1.5–2.0 mm long, occasionally 2 per perichaetium. **Capsules** c. 0.7 mm long, tapered at the base, erect to suberect; **exothecial cells** ±firm-walled. **Operculum** c. 0.5–0.6 mm long, conical-rostrate. **Peristome** *bryoides*-type; teeth 45–50 µm wide at the base. **Spores** 12–15 µm diam., smooth or nearly so.

[Images](#)

Very rare in north-eastern Qld.

Also known from Borneo and New Guinea.

*Specimen examined*: Qld: Russell River, 83 km S of Cairns, *D.Meagher WT094* (MEL).

*Also*: Papua New Guinea: East Sepik Province: Hawain R. area, c. 29 km W of Wewak, *R.G.Robins* 2079 (CANB, as *F. kaernbachii* Broth.).

In the protologue of *F. cairnensis*, the lamina cells were described as being unipapillose. However, papillae appear to be absent or rare, even in transverse section, although the surface can be obscurely uneven (Stone, 1994a). Minute surface papillae, mostly in the corners or along the cell margins, are present on some lamina cells of the Russell River specimen (*Meagher WT094*), collected from aerial roots of *Ficus*. This specimen has capsules and abundant axillary perigonia on the fertile stems.

In Australia, so far only known from the type collection of *F. cairnensis* and one recent north-eastern Queensland collection.

*Fissidens autoicus* and *F. hollianus* are very similar and might well be conspecific. However, until the types can be compared it is appropriate to maintain them as separate taxa.

[Bibliography](#)