Fissidens intromarginatulus E.B.Bartram, Rev. Bryol. Lichénol. 23: 242 (1954)

Type: Taunggyi, Shan States, Burma [Myanmar], along trails to crag (4500-5600 ft), Svihla 3348; holo: FH.

Illustrations: H.C.Gangulee, *Mosses of Eastern India* 2: 510, fig. 239 (1971); Z.-H.Li, *Acta Bot. Fennica* 129: 28, fig. 12h-u (1985); Z.Iwatsuki & M.A.Haji Mohamed, J. Hattori Bot. Lab. 62: 346, fig. 11 (1987); A.Eddy, *Handbook of Malesian Mosses* 1: 82, fig. 76 (1988).

Plants small, yellowish green, gregarious. **Stems** simple or with 1 or 2 branches from the base, 3-6 mm long, with small hyaline nodules; in section with a weak central strand. **Leaves** closely set to somewhat distant, in 5–10 or more pairs, oblong-lanceolate to lanceolate, ±uniform but smaller below, 0.80-1.15 mm long, 0.20-0.27 mm wide; **apex** acute; **margins** of apical and dorsal laminae finely crenulate by projecting cell ends; **vaginant laminae** reaching to 1/2 leaf length, ±half open; **limbidium** confined to vaginant laminae, short, intramarginal, of 1–5 rows of thick-walled cells, with 1–4 rows of laminal cells outside; **dorsal lamina** rounded to the base or just decurrent; **laminal cells** ±hexagonal, 6–10 µm wide, ±flat, papillose, the papillae peripheral over the lumen; **costa** percurrent to slightly excurrent.

Autoicous. Perigonia axillary, minute, pale. Perichaetia terminal on main stems and axillary shoots; perichaetial leaves with a limbidium of vaginant laminae often marginal distally, intramarginal proximally. Setae 1.7–3.0 mm long, smooth. Capsules \pm erect, symmetrical; theca 0.5–0.7 mm long; exothecial cells quadrate, thin-walled, with thickened corners. Operculum long-rostrate, c. 0.5 mm long. Peristome teeth c. 30 µm wide at the base. Calyptra campanulate, c. 0.5 mm long, covering the operculum. Spores 10–11 µm diam.

Images

Occurs in north-eastern Qld, on rich volcanic soil, on stream banks in wet-mesophyll forest from near sea level to an altitude of 750 m. Plants are usually coated with algae.

Also known from eastern India, Myanmar (Burma), Malesia and China.

Selected specimens examined: Qld: Wrights Ck, Lake Eacham Natl Park, I.G.Stone 25505 (MEL); Euramo, Kooroomool Ck, near Tully R., I.G.Stone 18810 p.p. (MEL).

Fissidens intromarginatulus is very close to F. ceylonensis (q.v.). Indeed, Iwatsuki & Haji Mohamed (1987) considered it to be a synonym of F. ceylonensis. In Australia, the latter species occurs in northern W.A. and N.T. and in the north-eastern Qld, where it grows on lateritic or sandy soil (occasionally on termite mounds) in gallery monsoonal forest or in woodland at low elevations.

While, the leaves of *F. intromarginatulus* have an intramarginal limbidium, Iwatsuki & Haji Mohamed (1987) also noted this character in *F. ceylonensis*, including plants of the holotype (in L). However, subtle differences in leaf shape and costal features, together with an evident difference in habitat preference, with *F. ceylonensis* apparently growing in much drier situations, lend support to the recognition of two species.

<u>Bibliography</u>