

Fissidens darwinianus Catches. & I.G.Stone, *J. Adelaide Bot. Gard.* 11: 3 (1988)

T: Rapid Ck, Darwin, N.T., V.Pedersen; holo: MEL 1023242.

Illustrations: D.G.Catcheside & I.G.Stone, *op. cit.* 4, fig. 1; 5, fig. 2.

Dioicous. Plants green, 1.0–2.5 mm tall, c. 1 mm wide; protonemata persistent. Leaves to 5-jugate, to 1.0–1.4 mm long, c. 0.3 mm wide, broadest in the apical lamina; border 1–3 rows of longer thicker-walled cells, outermost cells c. $20 \times 10 \mu\text{m}$, inner cells occasionally bistratose, longer (30–60 μm) and narrower, forming a weak intramarginal limbidium; apex acute; costa percurrent or barely excurrent; margin weakly crenulate. Vaginant laminae reaching c. mid-leaf, closed; laminal cells $\pm$ hexagonal, 16–20 $\times$ 12–15 μm , in proximal part of vaginant laminae, oblong, to $50 \times 18 \mu\text{m}$.

Setae terminal, 4–5 mm long. Capsules inclined, asymmetrical, 0.5–0.6 mm long; exothecial cells quadrate to rectangular, collenchymatous, 25–30 $\times$ 10–20 μm . Peristome teeth 35–40 μm wide at the base.

Apparently endemic to northern N. T. and north-eastern Qld; grows on shaded soil with other minute *Fissidens* spp.

Qld: Kirrama S.F., Cardwell, *I.G.Stone 15001 p.p.* (MEL); Helenvale, 25 km S of Cooktown, *I.G.Stone 19232 p.p.* (MEL).

Fissidens darwinianus is rather similar to *F. bogoriensis* M.Fleisch., which occurs from Java to Japan, but the latter is autoicous. It also has larger laminal cells (30–45 $\times$ 20–25 μm), those at the base of the vaginant laminae reaching 80 μm long.