

Fissidens pseudopallidus I.G.Stone, *Mem. New York Bot. Gard.* 45: 631 (1987)

Type: Mt Haig, Danbulla State Forest, Qld, *I.G.Stone 19744*; holotype: MEL.

Illustrations: I.G.Stone, *op. cit.* 632, figs 39–48; 633, figs 49–61.

Plants pellucid green, occasionally tinged red, loosely gregarious, procumbent on soil in semi-shaded rainforest. **Stems** 5–10 mm tall, simple or branched by repeated subterminal innovations; in section with a central strand. **Leaves** in 16–20 pairs, loosely curled when dry, lanceolate, 2.5–3.5 mm long, 0.5–0.6 mm wide; **apex** acuminate or acute; **margins** of apical and dorsal laminae entire to weakly undulate except at the irregularly denticulate apex, marginal row smaller, in cross-section club-shaped, unistratose with convex highly refractive thick-walled cells forming a broad pale border; **lamina** unistratose, often slightly rugose; **vaginant laminae** reaching to c. 1/2 leaf length, rarely more, slightly unequal, almost closed; **limbidium** in surface view consisting of a band of 4 or 5 cell rows of very thick-walled convex cells, unistratose; **dorsal lamina** of \pm uniform width, ending abruptly at the insertion, sometimes slightly decurrent; **lamina cells** \pm hexagonal, 8–15 μ m wide, thick-walled, convex in the apical lamina, becoming elongated and up to 30 μ m long at base, at the base of the dorsal lamina to 20 μ m long, 12–15 μ m wide; **costa** of *oblongifolius*-type, subpercurrent.

Dioicous. Male plants similar in size to females, often with a succession of 2 or 3 perigonia at the top of an innovation; **perigonial leaves** to 1.8 mm long, apical lamina very constricted at the junction with the greatly broadened vaginant laminae. **Female plants** often growing from old, brown, partly decayed plants; **perichaetia** terminal; **perichaetial leaves** similar to but often slightly smaller than stem leaves. **Setae** to c. 8 mm long, tightly twisted below the capsule. **Capsules** c. 1.2 mm long; **exothecial cells** shortly oblong, 18–25 μ m long, 20–25 μ m wide, lateral walls slightly thicker. **Operculum** conical-rostrate, 0.80–0.85 mm long. **Peristome** of *similiretis*-type, 360–380 μ m long; teeth 50–60 μ m wide at the base. **Calyptra** narrowly conical, smooth, with 2 or 3 short splits at the base. **Spores** green, faintly papillose, 12–15 μ m diam.

[Images](#)

Occurs in north-eastern Qld; on well-drained soil banks in rainforest.

Also in New Caledonia.

Selected specimens examined: Qld: Davies Creek Falls, near Mareeba, *I.G.Stone 12302* (MEL); Main Coast Ra., 18 km NNW of Mount Molloy, *H.Streimann 30339* (AD, CANB).

Fissidens pseudopallidus is similar to *F. sufflatus*, but the two species differ in leaf shape, the length of the vaginant laminae, cell size and, especially, in the margin of the vaginant laminae. In *F. pseudopallidus*, the last character is incrassate for 4–6 rows of cells, but the cells are not usually swollen, producing a pale border in surface view. The margin of the vaginant laminae in *F. sufflatus* is swollen and thickened for 1 or 2 rows of cells. The two species also differ in sporophyte features, mainly the dimensions of the setae, theca and spores.

This is the only Australian species with such swollen marginal cells. *Fissidens nitens* Rehm. ex Salmon, from South Africa, also has a thickened border, but the margins are mostly bistratose. The lamina cells also have a hyaline spot, as noted by Salmon (1899) and others, but not mentioned by Magill (1981). The costal structure is also different.

[Bibliography](#)