## Fissidens pallidinervis Mitt., J. Linn. Soc. Bot. 12: 592 (1869)

Type: "Tarapoto, ad rivulum Marono-yacu (2000 ped.), Andes Peruvianae" [Peru], R.Spruce 536; holo: BM; iso: BM, H-BR, NY.

Illustrations: H.A.Crum & L.E.Anderson, *Mosses of Eastern North America* 1: 98, fig. 39A–E (1981), as *F. garberi*; W.R.Buck, *Mem. New York Bot. Gard.* 76: 18, fig. 14A–C (2003); R.A.Pursell, *Fl. Neotrop. Monogr.* 101: 145, fig.73G–P (2007).

Plants usually sordid green, to 9 mm long and 1.5 mm wide with leaves. Stems simple or branched; in section with or without a central strand, the outer 1 or 2 layers of cells thickwalled, pigmented; axillary hyaline nodules present; rhizoids basal and axillary, light brown to reddish. Leaves in up to 30 or more pairs, crispate, ±inrolled from the tips when dry, loosely imbricate, oblong to lanceolate, to 1.2 mm long and 0.4 mm wide; apex broadly acute to obtuse to rounded; margins finely serrulate, limbate and ±entire on proximal 1/3–1/2 of perichaetial leaves and 1 or 2 pairs of subperichaetial leaves, limbidium sometimes partly intramarginal, often indistinct on small plants, unistratose; vaginant laminae of stem leaves to 1/2–2/3 leaf length; apex acute, ±equal, the minor lamina ending near the margin; dorsal lamina rounded or truncate at the insertion, not decurrent; laminal cells obscure, unistratose, firm-walled, multipapillose, rounded-hexagonal, 4.5–8.0 μm wide, in section ±twice as deep as wide; costa of bryoides-type, ending 3–16 cells below the apex, rarely percurrent, often spurred distally.

Monoicous (rhizautoicous, cladautoicous, rarely goniautoicous). Perigonia terminal on stems nearly as long as perichaetial stems, or gemmiferous, axillary. Perichaetia terminal on stems and branches; sporophytes 1 or 2 per perichaetium. Setae yellow, darkening with age, smooth, to 2 mm long. Capsule erect, symmetrical, to 0.8 mm long; exothecial cells quadrate to oblong, lateral walls thinner than longitudinal walls, collenchymatous. Operculum conical, short-rostrate, c. 0.4 mm long. Peristome of *scariosus*-type. Calyptra cucullate, ±prorate, c. 0.4 mm long. Spores smooth, 7–11 μm diam.

**Images** 

Known in Australia from a single, rather scrappy collection from north-eastern Qld by D.H.Norris, identified initially by R.A.Pursell, and from which a number of duplicates were made.

Widespread in Central America, the northern half of South America and the Philippines (as *F. rizalensis* Bartram); grows on tree bark, rotting wood, rock (including limestone), soil, termite nests.

Specimens examined: Qld: Cape Hillsborough Natl Park, NW of Mackay, 15 Apr. 1974, D.H.Norris 39051 (MO 6492018), 39054 (MO 6492019), 39055 (MO 6492020).

This description is based largely on Pursell (2007). The Australian plants are up to 5 mm long and only perichaetia have been seen. The limbidium in the few plants examined is mostly absent or, if present, is incomplete and only on the vaginant laminae.

**Bibliography**