

Fissidens pallidus Hook.f. & Wilson, *Fl. Nov.-Zel.* 2: 62 (1854)

Type: North Island, New Zealand, *W.Colenso* 391, *H3750*; holo: BM; iso: WELT.

Plants, persistently pale whitish green to green, or becoming reddish with age, forming tufts or gregarious in patches. **Stems** 5–40 mm long; in section with a central strand, with or without fascicles of rhizoids between the vaginant laminae of leaves. **Leaves** in numerous pairs, overlapping in mid-stem, linear-lanceolate, 1.5–3.0 mm long, 0.30–0.45 mm wide, little altered when dry, except the apex usually circinate-revolute; **apex** acute; **margins** entire to slightly serrulate or denticulate near the apex; **laminae** unistratose, **laminal cells** translucent, slightly convex, irregularly rounded-hexagonal, \pm isodiametric, 9–25 μ m diam.; marginal cells smaller, 8–10 \times 7–9 μ m; juxtacostal cells of the apical lamina unistratose or bistratose, smooth, medium- to thick-walled; **vaginant laminae** 1/2–2/3 the leaf length, half closed; **dorsal lamina** tapered to the base, reaching the insertion; **costa** *oblongifolius*-type, narrow, translucent, ending shortly below the apex.

Dioicous. **Perigonia** terminal. **Perichaetia** terminal; **perichaetial leaves** with apical and dorsal laminae narrowed. **Setae** orange-brown, slender, strongly twisted, 3–8 mm long. **Capsules** horizontal, arcuate, 1.00–1.25 mm long. **Operculum** long-rostrate, as long as the theca. **Peristome** modified *similiretis*-type, with irregularly pitted plates on the dorsal lamellae, trabeculae often well-developed throughout the filaments; teeth 50–80 μ m wide at the base. **Calyptra** smooth, mitrate. **Spores** 9–12 μ m diam.

Occurs in eastern Australia and Lord Howe Island; also in Indonesia (Sumatra), Malaysia, Papua New Guinea, New Caledonia and New Zealand.

Two varieties are known from Australia.

Plants 5–20 mm long, persistently pale whitish green to green; lamina cells 9–15 μ m diam. var. **pallidus**

Plants 20–40 mm long, becoming reddish; lamina cells 12–25 μ m diam. var. **caniensis**

Fissidens pallidus Hook.f. & Wilson var. **pallidus**

Fissidens howeanus Broth. ex Whitel., *Proc. Linn. Soc. New South Wales* 7: 277 (1892). Type: behind Nicholl's house, in valley to south, Lord Howe Island, Aug.–Sept. 1887, *T.Whitelegge* 19; holo: NSW, *fide* I.G.Stone, *J. Bryol.* 16: 246 (1990b).

Fissidens whiteleggei Müll.Hal. ex Rodway, *Pap. & Proc. Roy. Soc. Tasmania* 1912: 135 (1913). Type: Mt Bischoff, Tas., *L.Rodway*; holo: HO.

Fissidens punctatus Hampe, *Ber. Thätigk. St. Gallischen Naturwiss. Ges.* 1874–75: 123 (1876), *nom. nud.*, *fide* I.G.Stone, *J. Bryol.* 16: 248 (1990b).

Illustrations: J.Beever, B.Malcolm & N.Malcolm, *The Moss Genus Fissidens in New Zealand: an illustrated key* 52 (2002), as *F. pallidus*; D.Meagher & B.Fuhrer, *A Field Guide to the Mosses and Allied Plants of Southern Australia* 43 (2003), as *F. pallidus*.

Plants persistently pale whitish green to green, 5–20 mm long. **Stems** with basal rhizoids, lacking fascicles of rhizoids between vaginant laminae. **Leaf margins** entire to slightly serrulate near the apex; **lamina cells** irregularly rounded-hexagonal, 9–15 μ m long; juxtacostal cells of apical lamina unistratose.

[Images](#)

Occurs in Qld, N.S.W., Vic., Tas. and Lord Howe Island; common on moist soil banks in rainforest and in hilly and montane areas.

Also in Malesia, New Caledonia and New Zealand.

Selected specimens examined: Qld: Six Mile Ck, near Cooroy, *H.Streimann* 9936 (AD, CANB); Roaring Meg Ck, c. 20 km W of Cape Tribulation, *M.Godwin* C2828 *p.p.* (MEL). N.S.W.: Ku-ring-gai Chase Natl Park, *D.G.Catcheside* 52.116 (AD). Vic.: near Eurobin Falls, Mt Buffalo, *D.G.Catcheside* 69-217 (AD). Tas.: Mt Wellington, 13 Nov. 1911, *W.A.Weymouth* (HO).

Stone (1990b) examined material of *F. whiteleggei* from Mt Bischoff, Tasmania [*L. Rodway s.n.* (HO 73491); *W.A. Weymouth 1018a* (HO 73492)], and agreed with Sainsbury (1955) that the specimens represented “a tall form of *F. pallidus*”.

Key differences from var. *caniensis* are the smaller laminal cells, generally shorter stems, and the upper leaf margins being entire or only slightly crenulate. Juxtacostal cells in the upper lamina are also unistratose.

Fissidens pallidus Hook.f. & Wilson var. **caniensis** I.G.Stone, *J. Bryol.* 18: 159 (1994)

Type: Cania Gorge Natl Park, near Monto, Qld, *I.G. Stone 21070*; holo: MEL.

Plants in thick mats on vertical rocks under dripping water, becoming reddish tan with age. **Stems** 20–40 mm long, occasionally with a radiculose stem with fascicles of rhizoids arising between the vaginant laminae. **Leaf margins** irregularly denticulate near the leaf apex. **Lamina cells** 12–25 µm long; juxtacostal cells of the upper lamina sometimes bistratose.

Images

Known only from the sterile type collection from eastern Qld; grows on vertical rocks under dripping water.

The var. *caniensis* differs from var. *pallidus* in the larger, softer plants, leaves having irregularly denticulate margins near the leaf apex, larger lamina cells, and the juxtacostal cells of the upper lamina being sometimes bistratose.

Bibliography