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

T: North Island, New Zealand, W. Colenso 391, H3750; holo: BM.

Dioicous. Plants persistently pale whitish green to green, or becoming reddish with age, 5–40 mm tall. Stems with or without fascicles of rhizoids between vaginant laminae. Leaves multijugate, linear-lanceolate, 1.5–3.0 mm long, 0.30–0.45 mm wide, little altered when dry except the apex usually circinately revolute; apex acute. Costa narrow, translucent. Vaginant laminae 1/2-2/3 the leaf length, half-closed; dorsal lamina tapered to the base; margin entire to slightly serrulate or denticulate near the apex. Laminal cells translucent, slightly convex, to 9–25 µm diam., with firm walls; marginal cells smaller, $8-10 \times 7-9$ µm; juxtacostal cells of apical lamina unistratose or bistratose.

Peristome *taxifolius*-type, with pitted plates and rather tall trabeculae, the forks slightly nodulose.

Occurs in eastern Australia, Indonesia (Sumatra), Malaysia, Papua New Guinea, New Caledonia, Lord Howe Island and New Zealand. Two varieties are known from Australia.

Plants 5–20 mm tall, persistently pale whitish green to green; laminal cells 9–15 µm diam...... var. **pallidus** Plants 20–40 mm tall, becoming reddish with age; laminal cells 12–25 µm diam..... var. **caniensis**

Fissidens pallidus Hook.f. & Wilson var. pallidus

Fissidens howeanus Broth. ex Whitel., Proc. Linn. Soc. New South Wales 7: 277 (1892). T: behind Nicholl's house, in valley to south, Lord Howe Island, Aug.-Sept. 1887, T.Whitelegge 19; holo: NSW.

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

Fissidens punctatus Hampe, Ber. Thätigk. St. Gallischen Naturwiss. Ges. 1874–775: 123 (1876), nom. nud. Illustrations: J.Beever, B.Malcolm & N.Malcolm, The Moss Genus Fissidens in New Zealand[:] an illustrated key 54 (2002); D.Meagher & B.Fuhrer, A Field Guide to the Mosses and Allied Plants of Southern Australia 43 (2003), both as F. pallidus.

Plants persistently pale whitish green to green, 5-20 mm tall. Stems lacking fascicles of rhizoids between vaginant laminae. Leaf margin entire to slightly serrulate near the apex. Laminal cells 9–15 µm diam.; juxtacostal cells of apical lamina unistratose.

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

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).

Fissidens pallidus Hook.f. & Wilson var. **caniensis** I.G.Stone, *J. Bryol.* 18: 159 (1994) T: Cania Gorge Natl Park, near Monto, Qld, *I.G.Stone* 21070; holo: MEL.

Plants becoming reddish with age, 20–40 mm tall. Stems with fascicles of rhizoids between vaginant laminae. Leaf margin denticulate near the apex. Laminal cells 12–25 μ m diam.; juxtacostal cells of apical lamina bistratose.

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