

Large shiny cortical cells are a help in distinguishing this species, while the non-flabellate branches and the dark colour distinguish it from *R. nitida*. Calyptras are numerous in the type, presenting as Colenso remarks, a novel appearance being all more or less decurved.

North Island: Coromandel, 4167 S. Berggren; Waikaremoana 7901, 7843, rotting logs in bush remnant, Kiwi Valley, Wairoa, 12957; rotting log, Morere Bush, Wairoa, E.A.H.; Mangaroa, S. Berggren 4172; Wilton's Bush, Wellington, R. Mason 7843. Also from Bay of Islands, V. W. Lindauer, 7715; Little Akatarawa Valley 9866 H. M. Hodgson.

South Island: on deadfall in bush, Glenledi, Otago, 461 G. Simpson.

Stewart Island: in forest, Islet in Sawmiller's Arm, Port Pegasus 496 W.M.

Type from rotten logs, base of high cliffs, R. Mangatawhainui, Norsewood, coll. Colenso, 1884.

Riccardia nitida (Col.) Hodgson comb. nov.

Aneura nitida Col. *Trans. N.Z. Inst.*, 18, 1886; *Steph. Spec. Hep.*, i, 250, 1900.

Plants monoicous, medium, usually pale, somewhat glossy, creeping on bark. Thallus to 2cm, main axis flat, closely adhering to the substratum, not winged, to 2mm wide, pinnae and axis sometimes forked, biconvex, ca. 7 cells thick, cortical cells ca. 45 μ ; branches (pinnae) short and wide, both thallus and branches ending in numerous pinnules to as many as 6, arranged fanwise, sometimes forked, 0.25–0.5mm broad, 2.5mm long or may be longer, gradually tapering to a rounded apex usually decurved, cells clear. ♀ branches lateral on both stems and branches, shortly lacinulate, calyptra 4–5mm, somewhat rough. ♂ branches lateral, may be close alongside the calyptra with 2–6 antheridia, sometimes curved.

This species may be recognized by its usually pale colour and its numerous decurved, linear, flabellate pinnules at the ends of the stems and branches. The fronds may overlap and be hard to disentangle.

North Island: on rotting logs, Lake Waikaremoana, 7044, rotting log, Te Te Tiki Station, Wairoa 7721, E.A.H., also 12959.

South Island: Westland, 7837 H.M.H.; damp log in forest, Scenic Reserve, Invercargill 9750 W.M.

The type was from low wet woods near Norsewood, on rotten logs, forming large yellow patches, Colenso, no. 1412.

Riccardia lobulata (Col.) Hodgs. comb. nov.

Zoopsis lobulata Col. *Trans. Proc. N.Z. Inst.*, 18, 250, 1886.

Plants dioicous, extremely small, brownish, creeping on wood or earth. Thallus irregularly branched, "dichotomous, subbipinnatifid"; pinnae sometimes emarginate ca. 1.7mm long, ca. 0.3mm wide, winged with a row of clear cells. Involucre membranous, crenate calyptra 0.7mm, smooth, surmounted by a cellular "boss or umbo", branches not seen.

Stephani (1892) refers this species to *Aneura perpusilla* Col., but that is bigger with erect branches 3–5-fid, thinly extenuated, and a longer calyptra.

Miss Helen Hewson, of the University of New South Wales, is in agreement that *R. lobulata* and *R. perpusilla* are distinct.