



# Australasian Lichenology

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The Australasian *Pseudocyphellaria rubella* is widespread in New Zealand, and is known also from New South Wales, southern Victoria, and Tasmania in southeast Australia. Its most distinctive trait is a silky pubescent upper surface dotted with granular yellow soralia. Its thallus chemistry is a rich mixture of pulvinic acid, pulvinic dilactone, calycin, and 20 lupane triterpenoids.

5 mm 

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*Strigula rhodinula* comb. nov. (Strigulaceae,  
Ascomycota) from Marlborough, New Zealand

Patrick M. McCarthy  
64 Broadsmith St, Scullin, A.C.T. 2614, Australia  
e-mail: pmcc2614@hotmail.com

**Abstract:** *Strigula affinis* (A.Massal.) R.C.Harris was reported from limestone in Marlborough, New Zealand, by McCarthy (1993) based on material collected in 1934 by J. Scott Thompson and misplaced in *Porina*, as *P. rhodinula* Zahlbr., by Zahlbruckner (1941). However, the now widely accepted circumscription of the exclusively corticolous *S. affinis* (Roux & Sérusiaux, 2004) and a reassessment of Zahlbruckner's lichen necessitate the new combination *Strigula rhodinula* (Zahlbr.) P.M.McCarthy. The species is described and illustrated here.

***Strigula rhodinula*** (Zahlbr.) P.M.McCarthy, comb. nov.  
MycoBank No.: **MB815476**

Fig. 1

Basionym: *Porina rhodinula* Zahlbr., *Denkschr. Akad. Wiss. Wien math.-naturwiss. Kl.* 104: 254 (1941).

Type: New Zealand, South Island, Marlborough, Chalk Range, on limestone, *J.S. Thompson 1530*, iii.1934 (holotype – W; isotypes – CHR 374647! OTA 029090!). Note: The selection by Galloway (1985) of CHR 374647 as the lectotype was not appropriate because Zahlbruckner's description was based on the only known specimen, *J.S. Thompson 1530*. This typification error was perpetuated by McCarthy (1993) and Galloway (2007).

*Thallus* crustose, subepilithic, effuse to determinate, rimose to areolate, greenish white to grey-green or with a faint reddish tint, matt, smooth to minutely and irregularly uneven, partially scabrid-farinose, ecorticate, to 70  $\mu\text{m}$  thick; areoles 0.2–0.6 mm wide, angular to rounded, slightly concave to plane. *Algae Trentepohlia*; the cells broadly ellipsoid to globose, 7–15  $\times$  7–10  $\mu\text{m}$ ; interstitial hyphae 2–4  $\mu\text{m}$  wide. *Prothallus* not apparent. *Perithecia* numerous, semi-immersed to 2/3 immersed, usually solitary, occasionally paired. *Perithecial apex* rather flattened to convex; ostiole inconspicuous or in a shallow depression. *Involucrellum* black in surface view, greenish black in thin section, extending to midway between the apex and the base of the excipulum, (0.29–) 0.33(–0.38) mm diam. ( $n = 40$ ), 40–70  $\mu\text{m}$  thick, K–. *Centrum* globose to depressed-ovate, 0.22–0.32 mm diam. *Excipulum* hyaline to dark brown, darkest towards the apex, 15–22  $\mu\text{m}$  thick. *Paraphyses* simple to sparingly branched, not anastomosing, 1–1.5  $\mu\text{m}$  thick. *Periphyses* absent. *Asci* fissitunicate, 8-spored, cylindrical to cylindro-clavate, 67–87  $\times$  10–14  $\mu\text{m}$ ; lateral walls c. 1.5  $\mu\text{m}$  thick; apical dome 3–5  $\mu\text{m}$  thick, with a hemispherical to conical ocular chamber 2.5–3.5  $\mu\text{m}$  wide and 1–2  $\mu\text{m}$  tall; walls and apex IKI–; ascoplasma IKI+ red-brown. *Ascospores* hyaline, fusiform, oblong or elongate-clavate, (1–)3(–5)-septate, often with a 1–2  $\mu\text{m}$  thick perispore, irregularly biseriate in the asci, frequently constricted at least at the primary septum, (15.5–) 20(–26.5)  $\times$  (4.5–)6(–8.5)  $\mu\text{m}$  ( $n = 50$ ); contents finely to coarsely guttulate. *Conidiomata* semi-immersed to almost entirely immersed, black above, medium brown to black below, of two types: (1) 100–160  $\mu\text{m}$  diam. and producing 3-septate, bacilliform macroconidia, 12–21  $\times$  2.5–3.5  $\mu\text{m}$ , mostly with subglobose to acuminate, gelatinous appendages at the apices, growing obliquely from the tips of short, unbranched conidiophores; (2) 80–100  $\mu\text{m}$  diam. and producing fusiform microconidia 2.5–3.5  $\times$  0.6–0.8  $\mu\text{m}$ .

## Remarks

*Strigula rhodinula*, known only from its type locality, is characterized by the rather robust, rimose to areolate thallus, moderately prominent perithecia with a blackish involucrellum of 0.29–0.38 mm diam. and comparatively large, mainly 3-septate ascospores. This lichen is correctly placed in *Strigula*, rather than *Porina*, due to its fissitunicate asci, each with a well-defined tholus and ocular chamber. Its erroneous inclusion in *S. affinis* can now be corrected, the latter having a paler, brownish involucrellum and smaller ascospores (15–22 × 4.5–6 μm; Harris 1995, Roux & Sérusiaux 2004). *Strigula affinis* is exclusively corticolous and is found mainly in central and southern Europe (McCarthy 2013).

## Acknowledgements

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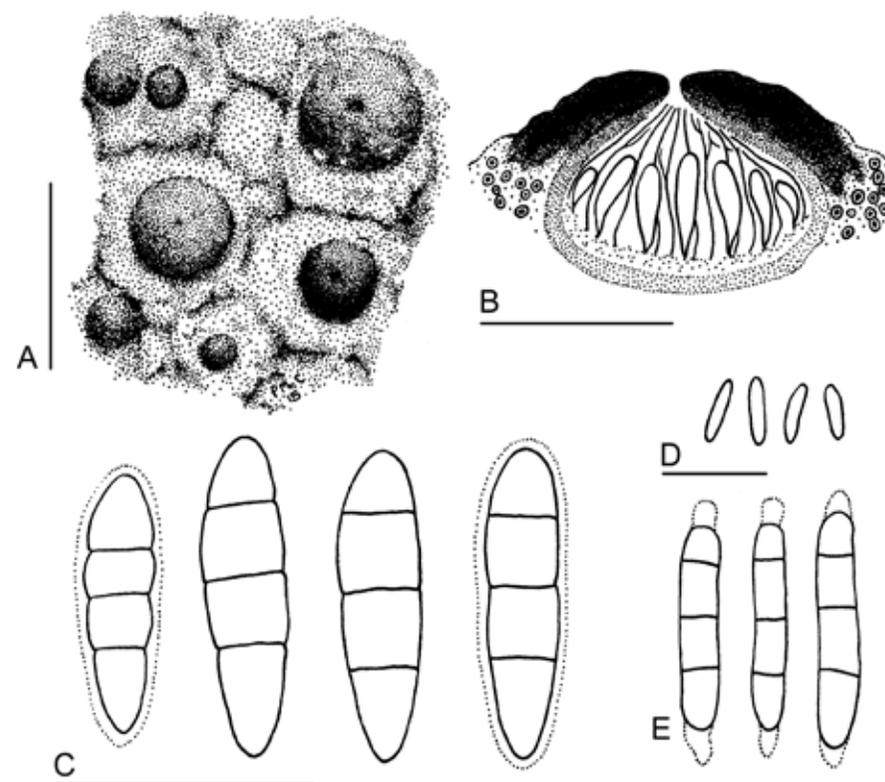


Figure 1. *Strigula rhodinula* (isotype – OTA). A, Thallus with perithecia and pycnidia. B, Section of perithecium and adjacent thallus (semi-schematic). C, Ascospores. D, Microconidia. E, Macroconidia. Scales: A = 0.5 mm; B = 0.2 mm; C = 20 μm; D, E = 5 μm.