Verrucaria solicola P.M.McCarthy

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T: Johnnies Plain, Kosciuszko Natl Park, N.S.W., 2 Dec.1992, *G.Kantvilas 435/92* & *J.A.Elix*; holo: HO.

Illustration: P.M.McCarthy, *op. cit.* 476, fig. 1.

Thallus terricolous, grey-green, rimose to areolate, matt, smooth to minutely uneven, 30–70 (–120) µm thick, ecorticate; areolae 0.1–0.25 (–0.4) mm wide. Algae globose, (4–) 6–10 (–15) µm diam. Prothallus and basal layer not apparent. Perithecia one-third to three-quarters immersed, 0.11–0.25 mm diam., black; apex usually rounded, occasionally slightly flattened; ostiole inconspicuous or in a shallow 20 µm wide depression. Involucrellum absent. Exciple black and 35–60 µm thick near the apex, grey-brown to dark olive-brown and 15–25 µm thick at the base. Centrum 0.08–0.2 mm wide. Periphyses 20–30 × 1.5–2.5 µm. Asci 48–60 × 14–18 µm. Ascospores elongate-ellipsoidal, often slightly broader towards the distal end, 11–20 × 4.5–7.5 µm.

Known from the type locality at an altitude of 1750 m in alpine N.S.W. where it grows on moist soil in alpine bog/grassland; also on basalt soil in grassland-herbfield in southern Tas. and on boggy soil on a mountain-top in central Tas.

Tas.: Pontville Small Arms Range Complex, 42°41'S, 147°17'E, *G.Kantvilas 154/03* (HO); summit of Ironstone Mtn, Central Plateau, 41°43'S, 146°28'E, *G.Kantvilas 331/05* (HO).

Comparing this lichen with the handful of terricolous species known from the Northern Hemisphere, the perithecia of *V. solicola* are discontinuously smaller than those of the boreal *V. geophila* Zahlbr. and *V. sibirica* Zahlbr. Furthermore, the ascospores are larger than the subglobose structures of *V. bernaicensis* Malbr. and *V. terrigena* Zschacke, but are smaller than those of *V. bryoctona* (Th.Fr.) Orange. The morphology and dimensions of the perithecia and their contents are very similar to those of the cool-temperate to boreal European species *V. xyloxena* Norman. However, the latter has a granular-verrucose thallus composed of brown-pigmented goniocysts, i.e. clusters of algae enclosed by ±isodiametric fungal cells.