

Verrucaria papillosa Ach.

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T: Helvetia [Switzerland], *J.C.Schleicher* 522, 524; holo: H-ACH.

Illustrations: P.M.McCarthy, *Lichenologist* 20: 250, fig. 4 (1988); O.Breuss, *Lichen Flora of the Greater Sonoran Desert Region* 3: 369, fig. 32 (2007).

Thallus subepilithic to epilithic, continuous to rimose, matt, smooth, greyish green, 30–50 (–70) μm thick. Algae globose, 8–14 μm diam. Prothallus not apparent; basal layer absent. Perithecia semi-immersed to \pm superficial, 0.4–0.65 mm diam., brown-black; apex rounded; ostiole in a shallow depression. Involucrellum extending to exciple base level, 60–100 μm thick. Exciple c. 30 μm thick, brown-black. Centrum 0.28–0.38 mm wide. Periphyses c. $40 \times 2\text{--}3 \mu\text{m}$. Asci 115–140 \times 28–35 μm . Ascospores narrowly to broadly ellipsoidal or subglobose, 23–37 \times 14–21 μm .

Known from exposed limestone in northern Tas. Also in Great Britain, Sweden, Switzerland, the Pyrenees, Italy, southern Siberia and south-western U.S.A. (Arizona and California).

Tas.: near Vale R., Vale of Belvoir, 5 km NE of Mayday Mount, 41°33'S, 146°53'E, *P.M.McCarthy* 701 & *G.Kantvilas* (HO, MEL).

The combination of large perithecia, a thick well-developed involucrellum and very large ascospores is distinctive. European specimens examined have an involucrellum of (0.4–) 0.6 (–1) mm diam. and slightly larger ascospores. This was erroneously listed as a synonym of *V. viridula* (Schrader) Ach. by Orange (*Lichenologist* 36: 445–457, 2004). However, the latter has rather thick, greenish brown areolate thallus and perithecia with a predominantly apical involucrellum.

