

***Pertusaria flavoexpansa* Kantvilas & Elix, *Sauteria* 15: 253 (2008)**

T: Crater Peak, Tas., 41°39'S 145°56'E, on soil, shrubs and stones in alpine heathland, 1200 m alt., 16 Feb. 1984, *G.Kantvilas* 415/84 & *P.W.James*; holo: HO; iso: BM

Illustration: *G.Kantvilas* & *J.A.Elix*, *op. cit.* 254, fig. 2.

Thallus pale lemon-yellow, occasionally  $\pm$ maculate, usually thick (to 2 mm) and wide-spreading, continuous, smooth to verrucose, papillate or glomerulate. Apothecia scattered, immersed in gall-like verrucae 0.4–1.0 mm wide,  $\pm$ globose, superficial, basally constricted, pale brownish, pale greyish to pale yellowish, splitting by up to 5  $\pm$ radial fissures, becoming coarsely abraded and exposing the 'disc'; disc initially convex and brown, at length eroded and becoming  $\pm$ plane and black, with a thin rather ragged rim of thalline tissue resembling a lecanorine margin. Verrucae in section subtended by a band of dark brown tissue 20–40  $\mu$ m thick, occasionally with flecks or streaks of a purple-black K<sup>+</sup> aeruginose greenish pigment. Ascospores 1 per ascus, broadly ellipsoidal to ovate to oblong, (106–) 130–168 (–220)  $\times$  (40–) 84 (–112)  $\mu$ m, colourless, but sometimes becoming pale brown with age and internally sculptured with transverse strands; wall 5–10  $\mu$ m thick, generally swelling noticeably in KOH. Pycnidia not seen.

*Chemistry*: Thallus K<sup>–</sup>, KC<sup>+</sup> orange-pink, C<sup>+</sup> pink, P<sup>–</sup>, UV<sup>–</sup>; containing usnic acid, 5-*O*-methylhiascic acid (major), two unknowns (minor ; with UV spectra comparable with that of 5-*O*-acetyl-4-*O*-methylhiascic acid) and lecanoric acid (trace).

A widely distributed species endemic to Tas.; grows on soil, pebbles, rocks and low shrubs in mountainous areas.

Tas.: Western Arthur Ra., *G.Kantvilas* 441/06 (HO); Clear Hill, *G.Kantvilas* 105/92 (HO); Reservoir Lakes, *A.M.Buchanan* 2986A (HO); Jubilee Ra., *A.Moscal* 9238 (HO); Elliot Ra., *G.Kantvilas* 23/85 (BM, HO); Mt Bobs, *G.Kantvilas* 59/98 (HO); summit of Snowy North, *G.Kantvilas* 98/93 (CANB, HO); Greystone Bluff, *G.Kantvilas* 106/86 (herb. *A.Vězda*, HO); Mt Mawson, *G.Kantvilas* 771/81 (BM, HO); 4 km N of Precipitous Bluff, *G.Kantvilas* 109/90 (CANB, HO); Weindorfers Forest, *G.Kantvilas* s.n. (CANB, HO).

This conspicuous lichen is characterised by its yellowish, wide-spreading thallus that can form patches of more than 50 cm in extent, the single-spored asci and the presence of usnic and 5-*O*-methylhiascic acids. However, fertile asci and ascospores are not easily observed.