



## AUSTROPELTUM<sup>1 2</sup>

Gintaras Kantvilas<sup>3</sup>

*Austropeltum* Henssen, Döring & Kantvilas, *Bot. Acta* 105:458 (1992).

Type: *A. glareosum* Henssen, Döring & Kantvilas

Thallus squamulose to peltate, with a well-developed upper cortex of highly gelatinised, reticulate hyphae, lacking a lower cortex and very tightly attached to the substratum by tufts of rhizoidal hyphae. Photobiont a unicellular green alga with globose cells 4.5–7(–9) µm diam. Ascumata apothecia, black, glossy, immarginate, shortly stipitate, initially globose, later becoming convoluted, divided and forming glomerulate clusters. Proper exciple not developed. Hypothecium massive, dark brown in the upper part. Hymenium hyaline, not interspersed, overlain by a grey-black, K–, N+ red epithelial layer. Asci cylindrical, 8-spored, of the *Neophyllis*-type: outer wall intensely amyloid; tholus well developed, amyloid, penetrated by a darker-staining tube structure, lacking an ocular chamber. Paraphyses robust, mainly simple and with only occasional branches and anastomoses, non-capitate. Ascospores simple, hyaline, non-halonate, thin-walled, narrowly ellipsoid. Conidiomata pycnidia, marginal, immersed; conidia filiform. Chemistry: nil.

A monotypic genus, initially included in the family Stereocaulaceae but now, on the basis of DNA sequence data and the ontogeny of the fruiting body, classified in the family Sphaerophoraceae. Although superficially resembling the genus *Psora*, its closest relatives are the macrolichen genera *Bunodophoron*, *Leifidium* and *Neophyllis*.

Key references: Henssen *et al.* (1992); Wedin & Döring (1999); Döring & Wedin (2000).

### 1 *Austropeltum glareosum* Henssen, Döring & Kantvilas

*Bot. Acta* 105: 458 (1992).

Squamules 2–6(–10) mm wide, dull olive-green to blackish brown, typically rather concave to undulate, often dimpled and/or cracked, discrete and scattered or, more commonly, crowded, imbricate and forming irregular patches or cushions to 10 cm wide. Apothecia typically in conspicuous blackberry-like clusters 1–5 mm wide, marginal, supported by a pseudopodetium to 1.5 mm tall and 1.5 mm wide. Hymenium 50–60 µm thick; asci 30–50 × 8–13 µm; paraphyses 2.5–3.5 µm thick. Ascospores (10–)11–12.5–15 × 3–4.0–5 µm. Pycnidia to c. 0.4 mm wide, rather perithecia-like. Conidia 35–60 × 0.5 µm, thread-like, curved or wavy.

Widely scattered on wet, gravelly or peaty soil in moorland and feldmark on the highly siliceous, typically quartzitic mountains of the west and south-west; a highly localised disjunct population also occurs on the granite pinnacle of Mt Graham on the east coast. It is also present in New Zealand on the Denniston Plateau of the South Island, an area with numerous floristic and ecological similarities to Tasmania's south-west. This species appears to play a role in binding soil between pebbles in the windiest, most exposed sites. It is easily recognised by the shell-like, olive-brown to blackened lobes and black, marginal, globose or convoluted, immarginate apothecia. It has some superficial resemblance to species of the terricolous genera

1 This work can be cited as: Kantvilas G (2023). *Austropeltum*, version 2023:1. In MF de Salas (Ed.) *Flora of Tasmania Online*. 2 pp. (Tasmanian Herbarium, Tasmanian Museum and Art Gallery: Hobart). <https://flora.tmag.tas.gov.au/lichen-genera/austropeltum/>

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3 Tasmanian Herbarium, Tasmanian Museum & Art Gallery, PO Box 5058, UTAS LPO, Sandy Bay, TAS 7005, Australia.

*Psora* or *Endocarpon*, but these are lichens of dry grasslands and are never found in habitats where *Austropeltum* could occur; they also differ in their morphology and anatomy.

Crater Peak, 41°39'S 145°56'E, 1200 m, 1984, G. Kantvilas & P. James 309/84 (BM, HO); Mt Scorpio, 43°10'S 146°21'E, 1000 m, 1984, G. Kantvilas 718/84 (HO, O); Green Head, 43°06'S 146°04'E, 880 m, 1991, G. Kantvilas 57/91 (HO, MB).

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