



## PARMELIOPSIS <sup>1</sup>

Gintaras Kantvilas <sup>2</sup>

*Parmeliopsis* (Nyl.) Nyl., *Lich. Lapp. Orient.*: 121 (1866)

Type: *P. ambigua* (Wulfen) Nyl.

Thallus foliose, rosette-forming, with lobes elongate and flattened, dorsiventral, plane; upper surface yellow or grey, emaculate, lacking cortical hairs, cilia and pseudocyphellae, corticate, with a pored epicortex; lower surface pale brown to black, with simple rhizines. Photobiont trebouxoid. Ascomata apothecia, lecanorine, laminal, sessile to shortly pedicellate; disc plane to concave, pale brown; proper exciple cupulate. Paraphyses rather stout, straight, simple; apices slightly swollen. Asci 8-spored, of the *Lecanora*-type: clavate; tholus well-developed, amyloid, pierced entirely by a narrow, non-amyloid *masse axiale* with parallel flanks; ocular chamber not developed. Ascospores simple, hyaline, ellipsoid to reniform. Conidiomata pycnidia, black, laminal, immersed. Conidia filiform. Chemistry: usnic acid or atranorin in the cortex, with divaricatic acid in the medulla.

A genus of three species found mainly in boreal and temperate parts of the Northern Hemisphere. Its occurrence in the Southern Hemisphere is essentially alpine. Superficially, *Parmeliopsis* appears very similar to *Imshaugia*, although DNA data indicate they are not closely related.

Key references: Elix (1994); Kantvilas *et al.* (2002); Ahti *et al.* (2011).

1 Upper cortex yellow (containing usnic acid)  
Upper cortex grey (containing atranorin)

1 *P. ambigua*  
2 *P. hyperopta*

### 1 *Parmeliopsis ambigua* (Wulfen) Nyl.

*Lich. Lapp. Orient.*: 121 (1866); —*Lichen ambiguus* Wulfen in N.J. von Jacquin, *Collectanea* 4: 239 (1791).

Thallus tightly adnate, pale yellow, to c. 4 cm wide, often with several adjacent thalli fusing into larger colonies; lobes plane or undulate, smooth or weakly rugose in older parts, 0.5–1.5 mm wide, discrete at the apices, crowded and imbricate in the thallus centre, sorediate; lower surface brown to black; soredia farinose, concolorous with the thallus, occurring in laminal, roundish or capitate soralia to 1.2 mm wide that become confluent in the centre of the thallus. Apothecia unknown in Tasmania, reported as to 2 mm diam., with narrowly ellipsoid ascospores, 7–11 × 2.5–3 µm (Ahti *et al.* 2011). Pycnidia not seen; conidia reported as 12–18 × 0.5–1 µm (Ahti *et al.* 2011).

Chemistry: usnic, divaricatic and nordivaricatic acids; medulla K–, KC–, C–, P–, UV+ pale bluish.

Widespread on wood and bark, especially in boreal areas; also known from alpine south-eastern Australia. It is very rare in Tasmania (and is listed as such under the *Tasmanian Threatened Species Protection Act 1995*), having been recorded only once, from the bark of *Orites acicularis* in alpine heathland at the margins of *Athrotaxis cupressoides*-dominated woodland.

1 This work can be cited as: Kantvilas G (2024). *Parmeliopsis*, version 2024:1. 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/parmeliopsis/>

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

Walls of Jerusalem, foot of Halls Buttress, 41°49'S 146°18'E, 1330 m, 1987, G. Kantvilas 111/87 (CANB, HO).

## 2 *Parmeliopsis hyperopta* (Ach.) Arnold

*Verh. K. K. Zool.-Bot. Ges. Wien* 30: 117 (1881); —*Parmelia hyperopta* Ach., *Syn. Meth. Lich.*: 208 (1814).

Thallus tightly adnate, whitish grey, sometimes discoloured brownish at the periphery, to c. 2 cm wide; lobes plane or undulate, smooth or weakly rugose in older parts, 0.2–0.5 mm wide, discrete and rather spidery at the apices, crowded and imbricate in the thallus centre, sorediate; lower surface black; soredia farinose to granular, whitish or discoloured grey, initially occurring in laminal, roundish soralia, soon confluent and the centre of the thallus becoming a sorediate mass. Apothecia unknown in Tasmania, reported as to 2 mm diam., with narrowly ellipsoid ascospores, 8–15 × 2–4 µm (Ahti *et al.* 2011). Pycnidia not seen; conidia reported as 16–30 × 1 µm (Ahti *et al.* 2011).

Chemistry: atranorin, chloroatranorin, divaricatic acid and stenoporic acid (trace); medulla K–, KC–, C–, P–, UV+ pale bluish.

Widespread in cool climates in both hemispheres, especially on the wood and bark of old conifers. In Tasmania, it is known only from the western Central Plateau, where it occurs on dead, standing *Athrotaxis cupressoides* trees. It is very rare and, like *P. ambigua*, is listed as such under Tasmanian legislation. This species rather resembles a small species of *Physcia*, although no representatives of this genus are known to occur in such habitats. It is also similar to *Imshaugia aleurites* (Ach.) S.L.F.Mey., which is isidiate and contains thamnolic acid.

Northern shore of Lake Adelaide, 41°50'S 146°16'E, 1055 m, 2002, G. Kantvilas 74/02 (HO); Herods Gate, 41°49'S 146°17'E, 1200 m, 2002, G. Kantvilas 77/02 (HO); Long Tarns, 41°47'S 146°21'E, 1270 m, 2010, G. Kantvilas 38/10 (HO).

## REFERENCES

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