# Flora of Tasmania



# JAPEWIA 12

#### Gintaras Kantvilas<sup>3</sup>

Japewia Tønsberg, Lichenologist 22: 205 (1990).

Type: J. tornoensis (Nyl.) Tønsberg

Thallus crustose, ecorticate. Photobiont a unicellular green alga with ± globose cells 6–15 µm wide. Ascomata apothecia, biatorine, sessile, immarginate; disc plane to strongly convex, chestnut-brown, glossy, epruinose. Proper exciple very thin and reduced, becoming indistinct and excluded with age, in section ± annular, composed of entangled, branched and anastomosed, gelatinised hyphae 1.5–2 µm thick, similar to the paraphyses. Hymenium amyloid with the reaction confined to the asci. Paraphyses branched and anastomosed, gelatinised, ± identical to the excipular hyphae; apices capitate, pigmented, typically also with a gelatinous sheath. Asci broadly ellipsoid, up to 8-spored, approximating the *Lecidella*-type: tholus well-developed, intensely amyloid, almost but not entirely pierced by a conical to barrel-shaped, weakly amyloid *masse axiale* with a rounded apex; ocular chamber poorly developed. Ascospores simple, hyaline, broadly ellipsoid to ovate, non-halonate, with a thick, clearly 2-layered wall. Conidiomata pycnidia, immersed. Conidia bacilliform. Chemistry: sometimes containing depsidones.

A genus of two species, mainly occurring in cool temperate areas of the Northern Hemisphere. Although of rather uncertain taxonomic affinities, its anatomical similarities to species of the *Mycoblastus dissimulans* group are very striking; these differ mainly by their black apothecia and dark pigments that react with K and N.

Key references: Tønsberg (1990); Kantvilas (2011).

### 1 Japewia subaurifera Muhr & Tønsberg

Lichenologist 22: 206 (1990).

Thallus areolate, dull chestnut-brown, sorediate; areoles 0.15–0.3 mm wide, rather gnarled, dispersed or crowded and fusing together to form an irregular, rather granular, irregularly spreading crust to c. 3 mm wide and 1 mm thick; soredia erumpent, rather coarse, pale yellowish green at first, discoloring brownish with age. Apothecia very infrequent, 0.3–0.6 mm wide. Proper exciple in section poorly differentiated from the hymenium, hyaline within, reddish brown, K+ grubby brown at the outer edge due to the pigmentation of the outermost cells. Hypothecium to c. 75  $\mu$ m thick, hyaline to dilute yellowish brown. Hymenium 60–75  $\mu$ m thick, hyaline to dilute yellowish to reddish brown, overlain by a reddish brown, K+ grubby brown epithecial layer composed of the pigmented apices of the paraphyses; paraphyses 1–1.5  $\mu$ m thick, with apices 3–5  $\mu$ m wide; asci 45–55 × 18–30  $\mu$ m, (1–)2–6(–8)-spored. Ascospores (13–)15–19.0–22(–23) × (10–)12–13.9–17(–18)  $\mu$ m; wall 2–4  $\mu$ m thick. Conidia not seen.

Chemistry: no substances detected, but lobaric acid has been reported occasionally in the Northern Hemisphere.

- 1 This work can be cited as: Kantvilas G (2023). *Japewia*, **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/japewia/**
- 2 This treatment was supported by the Australian Biological Resources Study's National Taxonomy Research Grant Program (grant no. 4-EHINNOL).
- 3 Tasmanian Herbarium, Tasmanian Museum & Art Gallery, PO Box 5058, UTAS LPO, Sandy Bay, TAS 7005, Australia.





Extremely rare and known in Tasmania from a single, tiny collection with just three fruiting bodies on a dead, decorticated, bleached twig, lying on the ground in alpine heathland; also widespread in cool, oceanic parts of the Northern Hemisphere. This minute species is very distinctive due to the brown, granular thallus, pale yellowish soredia, glossy brown apothecia and thick-walled ascospores.

Summit of Wild Dog Tier, 41°47'S 146°35'E, 1390 m, 2001, G. Kantvilas 376/01 (HO).

## **REFERENCES**

Kantvilas G (2011) The lichen genera Japewia and Japewiella in Australia. Muelleria 29 99-103.

Tønsberg, T. (1990) *Japewia subaurifera*, a new lichen genus and species from north-west Europe and western North America. *Lichenologist* **22** 205–212.

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Japewia1	Lecidella1
Japewia subaurifera1	M
Japewia tornoensis1	Mycoblastus dissimulans1