



TREMOLECIA ¹

Gintaras Kantvilas ²

Tremolecia M.Choisy, *Bull. Mens. Soc. Linn. Soc. Bot. Lyon* 22: 177 (1953).

Type: *T. dicksonii* (J.F.Gmel.) M.Choisy [= *T. atrata* (Ach.) Hertel]

Thallus crustose, ecorticate. Photobiont a unicellular green alga with subglobose to globose cells 7–14 × 6–13 µm. Ascomata apothecia, lecideine, immersed and ± aspicilioid, or sessile. Proper exciple in section cupulate, opaque dark brown. Paraphyses sparsely branched and anastomosed; apices not capitate. Asci clavate, 8-spored, of the *Tremolecia*-type: tholus well-developed, very weakly amyloid, with a thin, external amyloid cap and lacking an ocular chamber. Ascospores simple, hyaline, ellipsoid, non-halonate, thin-walled. Conidiomata pycnidia, immersed. Conidia bacilliform. Chemistry: nil.

A monotypic genus, widespread in polar regions and montane habitats.

Key references: Rambold (1989); Fletcher & Hawksworth (2009); Kantvilas (2014).

1 *Tremolecia atrata* (Ach.) Hertel

Ergebn. Forsch. Unternehmens Nepal Himal. 6: 351 (1977); —*Gyalecta atrata* Ach., *Kongl. Vetensk. Akad. Nya Handl.* 29: 229 (1808).

Lecidea dicksonii auct.

Thallus dark orange-red to rusty red-brown, areolate, deeply cracked, to c. 250 µm thick, sometimes with a thin, black marginal prothallus, forming irregular patches to c. 1 cm wide, often coalescing or forming mosaics with other lichens. Apothecia 0.2–0.5 mm wide, round to rather angular or lobate when crowded together; disc black, widely exposed, smooth, persistently concave; proper exciple entire, extending slightly above the level of the disc and thallus, black or in part rusty red and concolorous with the thallus, in section 40–70(–90) µm thick laterally. Hypothecium 10–40 µm thick, hyaline to pale brown. Hymenium 70–90 µm thick, hyaline, typically with a grey-green epithecium c. 10 µm thick, K+ intensifying greenish, N+ crimson; paraphyses 1.5–2 µm thick; asci 42–60 × 11–21 µm. Ascospores (9–)9.5–12.8–15(–16) × (5–)5.5–6.5–7.5(–8) µm. Pycnidia not found in Tasmanian specimens; conidia reported as 3–6 × 1–1.5 µm (Fletcher & Hawksworth 2009).

Restricted mostly to high elevations on the Central Plateau, the Ben Lomond Plateau, Mt Wellington and other high pinnacles. It has only been collected from dolerite, growing on exposed rocks, usually associated with *Rhizocarpon geographicum* (L.) DC. The combination of a rusty red thallus, black, aspicilioid apothecia and the unique *Tremolecia*-type asci with eight, hyaline ascospores makes this species usually easily recognisable, although there are several alpine members of the Porpidiaceae that can have a similarly rusty orange thallus. These are best distinguished from *Tremolecia* by their asci, which have an intensely amyloid ring in the tholus.

1 This work can be cited as: Kantvilas G (2024). *Tremolecia*, 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/tremolecia/>

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

Ben Lomond, northern plateau, 41°36'S 147°40'E, 1972, J. Adams 72/1184 (HO); Mt Wellington, 42°54'S 147°14'E, 1260 m, 1984, G. Kantvilas 301/84b & P. James (BM, HO); Adam Peak, 41°44'S 146°41'E, 1300 m, 2009, G. Kantvilas 8/09 (HO).

REFERENCES

- Fletcher A, Hawksworth DL (2009) *Tremolecia* M. Choisy. (1953). In: *The Lichens of Great Britain and Ireland* (CW Smith, A Aptroot, BJ Coppins, A Fletcher, OL Gilbert, PW James, PA Wolseley, Eds): 910–911. (British Lichen Society: London).
- Kantvilas G (2014) The lichen family Hymeneliaceae in Tasmania, with the description of a new species. *Kanunnah* 7 127–140.
- Rambold G (1989) A monograph of the saxicolous lecideoid lichens of Australia (excl. Tasmania). *Bibliotheca Lichenologica* 34 1–345.

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