



MAZOSIA ¹

Gintaras Kantvilas ²

Mazosia A.Massal., *Geneac. Lich.*: 9 (1854).

Type: *M. rotula* (Mont.) A.Massal.

Thallus crustose, ecorticate, sometimes with hair-like extensions on the upper surface. Photobiont trentepohlioid, with cells subglobose to ellipsoid, 7–17 wide, occurring singly or in short chains, or *Phycopeltis* and the cells rectangular, oblong or rhomboidal, 12–20 × 6–12 µm, arranged in radiating plates. Ascumata apothecia, zeorine, ± roundish, with a 3-layered margin comprising an inner proper exciple and an outer thalline layer, separated by a layer of rhomboid crystals 5–10 µm wide, insoluble in K. Disc greyish black to black, exposed. Proper exciple in section cupulate, composed of red-brown to carbonised, K⁺ olive-green, vertically-orientated hyphae 3–6 µm thick. Hypothecium hyaline to pale brown. Hymenium hyaline, not interspersed, hemiamyloid, KI⁺ pale blue. Asci cylindrical to clavate, 8-spored, approximating the *vulgata*-type: walls and tholus non-amyloid except for a reduced amyloid ring; ocular chamber poorly developed. Paraphysoids richly branched and anastomosed, typically extending well above the height of the asci; apices not swollen or pigmented. Ascospores transversely 3–7-septate, hyaline, ellipsoid to fusiform, non-halonate; locules cylindrical, with one central locule usually distinctly enlarged. Conidiomata pycnidia, immersed to emergent. Conidia of two types: oblong to bacilliform macroconidia and fusiform-ellipsoid microconidia. Chemistry: commonly lacking substances but several species contain the depsidone psoromic acid.

A genus of about 26 species, found mostly on leaves in tropical rainforest. It is considered to be a close relative of *Enterographa*, from which it differs by having roundish, zeorine apothecia and a distinctly 3-layered apothecial margin where the innermost layer (the proper exciple) is at least partly carbonised. The enlarged central locule of the ascospores is also diagnostic. Of the ten species recorded for Australia, only the subcosmopolitan *M. phyllosema* and the endemic *M. corticola* extend into temperate latitudes.

Key references: Lücking (2008); Aptroot *et al.* (2014); Kantvilas (2020).

1 Thallus corticolous; photobiont trentepohlioid
Thallus foliicolous; photobiont *Phycopeltis*

1 *M. corticola*
2 *M. phyllosema*

1 *Mazosia corticola* Kantvilas

Plant Fungal Syst. 65: 261 (2020). Type: Tasmania, Ben Ridge Road, 850 m, on *Atherosperma moschatum* in rainforest, 10 December 1981, G. Kantvilas 1108/81 (holo—HO!; iso—BM!).

Thallus smooth or faintly rimose, pale beige-brown to grey-brown or grey, 30–60 µm thick, forming small continuous patches to 25 mm wide which can coalesce, each delimited by an effuse, black prothallus. Photobiont trentepohlioid. Apothecia 0.2–0.5 mm wide, roundish or irregularly ellipsoid, sunken in the thallus surface or broadly adnate; disc plane, grey-brown to blackish, epruinose; thalline margin whitish, ragged or scabrid, 30–80 µm thick; proper exciple persistent, visible as a thin, black, glossy rim surrounding the disc, in section 20–50 µm thick. Hypothecium 20–50 µm thick, not interspersed. Hymenium (60–)70–90(–

1 This work can be cited as: Kantvilas G (2023). *Mazosia*, 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/mazosia/> (accessed 28 October 2022).

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

100) μm thick; asci cylindrical to narrowly clavate, 55–70(–75) \times 11–15 μm ; paraphysoids 1.5–2 μm thick. Ascospores fusiform, 3-septate, (17–)18.5–22.1–25(–27) \times 4–4.9–5.5(–6.5) μm , with rounded apices; locules \pm cylindrical or roundish, with the uppermost median cell usually slightly but distinctly swollen; wall c. 0.5 μm thick. Pycnidia immersed; macroconidia oblong, 5–6.5 \times 2–2.5 μm .

Chemistry: psoromic acid, detected by TLC; due to the thinness of the thallus, the characteristic P+ yellow spot test is unreliable.

Rare in Tasmania and Victoria where it occurs on the smooth, aromatic bark of *Atherosperma moschatum* in the shaded rainforest understorey. Remarkable as the habitat ecology of the new species is, it displays all the diagnostic characters of *Mazosia*: the combination of psoromic acid, the stratified apothecial margin, the ascus type, the branched and anastomosed paraphyses, and the distinctive ascospores with their enlarged, uppermost median cell.

Little Fisher River, 41°45'S 146°20'E, 820 m, 1982, G. Kantvilas s.n. (HO); Anthony Road, 41°50'S 145°38'E, 600 m, 1991, G. Kantvilas 250/91 (HO).

2 *Mazosia phyllosema* (Nyl.) Zahlbr.

Cat. Lich. Univ. 2: 503 (1923); —*Platygrapha phyllosema* Nyl., *Bull. Soc. Linn. Normandie*, sér. 2, 7: 171 (1873).

Thallus smooth, pale grey-brown or grey, c. 10–15 μm thick, forming small, scattered, circular patches, 1–2.5 mm wide; prothallus lacking. Photobiont *Phycopeltis*. Apothecia rare and immature in Tasmanian material, reported (by Lücking 2008) as rounded, immersed to adnate, 0.3–0.6 mm wide with a grey to black, plane disc, and fusiform, 3-septate ascospores, 15–26 \times 4–5 μm . Pycnidia emergent, conical and perithecia-like; macroconidia oblong, 5–6.5 \times 2 μm .

Chemistry: nil.

Widespread globally in rainforests where it occurs on leaves. In Tasmania, it is uncommon and easily overlooked in the rich mosaics of foliicolous species that are seen on the leaves of *Atherosperma moschatum* and the fronds of the fern *Blechnum watsii* in the shaded understorey.

Bun Hill, Forestier Peninsula, 42°58'S 147°56'E, 320 m, 1997, G. Kantvilas s.n. (HO); track to Mt Mueller, 42°48'S 146°31'E, 640 m, 1998, G. Kantvilas 6/98 (HO); Bermuda Road, Scotts Divide, 43°05'S 146°53'E, 460 m, 1999, G. Kantvilas 49/99A (HO).

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