



ALECTORIA ¹

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Alectoria Ach., in Luyken, *Tent. Hist. Lich. Gen.*: 95 (1809).

Type: *A. sarmentosa* (Ach.) Ach.

Thallus fruticose, erect or decumbent, yellowish to blackened, often mottled, erhizinate, ± unattached to the substratum; branches terete to subterete, becoming compressed, angular or faveolate near the base and at the axils, lacking cilia or lateral spinules; pseudocyphellae always present; soredia rare; cortex composed of short, periclinal, conglutinated hyphae; medulla lax, lacking a chondroid axis. Photobiont trebouxoid. Ascospores apothecia, lecanorine, lateral; proper exciple cupulate. Asci 2–4-spored, of the *Lecanora*-type: broadly clavate, with a well-developed, amyloid tholus, pierced entirely by a narrow, non-amyloid *masse axiale* with ± parallel flanks; ocular chamber poorly developed. Paraphyses rather stout, much-branched and anastomosed; apices not expanded. Ascospores simple, brown, broadly ellipsoid, thick-walled. Conidiomata pycnidia, laminal, immersed; conidia bacilliform. Chemistry: usnic acid (in *Alectoria* s. str.) and/or depsides.

Alectoria was traditionally a large genus of fruticose lichens found mostly in the Northern Hemisphere, but it has been gradually subdivided into more natural units, including *Pseudephebe* and several other genera that do not occur in Tasmania (e.g. *Bryoria* and *Oropogon*). More recently, on the basis of molecular data, Halonen *et al.* (2009) further subdivided *Alectoria*, with the single Tasmanian representative, *A. nigricans*, transferred to the genus *Gowardia*. However, with only one, well-known species present in the entire Australasian region, its traditional name in *Alectoria* is retained here. *Gowardia* can be recognised macroscopically chiefly by lacking the yellowish, cortical pigment, usnic acid, which is present in *Alectoria* s.str.

Key references: Brodo & Hawksworth (1977); Kantvilas (1992); Halonen *et al.* (2009).

1 *Alectoria nigricans* (Ach.) Nyl.

Lich. Scand.: 71 (1861); —*Cornicularia ochroleuca* var. *nigricans* Ach., *Lich. Univ.*: 615 (1810); *Gowardia nigricans* (Ach.) Halonen, Myllys, Velmala & Hyvärinen, *Bryologist* 112: 145 (2009).

Thallus decumbent, straggling over the substratum in extensive mats, intricately branched and entangled, dying at the base, when fresh mostly yellowish and mottled dark bluish grey, especially in the uppermost, exposed parts, becoming pinkish brown with storage; major branches terete to unevenly flattened, 1–1.5 mm wide at the base, tapering to acute apices; pseudocyphellae conspicuous, elongate, fissurine, white, to 0.8 mm long; soredia absent. Apothecia unknown in Tasmania, reported 1.5–4 mm wide, with the ascospores 30–41 × 20–23 µm (Brodo & Hawksworth 1977). Pycnidia not seen.

Chemistry: alectorialic acid; cortex K–, C+ red, KC+ red, P+ yellow, UV–. In storage this substance stains herbarium packets pinkish brown.

A widespread bipolar species, also present on the Australian mainland. It is very localised in Tasmania, growing over small shrubs, peaty soil and rocks in heathland on the highest peaks and plateaux. Significant

1 This work can be cited as: Kantvilas G (2023). *Alectoria*, 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/alectoria/> (accessed 29 September 2022).

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

populations occur on Mawson Plateau and at Cradle Mtn, but elsewhere it is extremely rare. Although superficially resembling a species of *Usnea* (*U. contexta* can occupy an identical habitat), *Alectoria nigricans* is easily distinguished by its finer branches and the absence of a central chondroid axis (seen by pulling the branches when fresh and moist).

Cradle Mtn Plateau near Kitchen Hut, 4000' [1200 m], 1967, G.C. Bratt 67/595 (*Lich. Exsicc. Colo.* 241) (HO); 1.5 km W of Chalice Lake, 41°53'S 146°08'E, 1180 m, 1999, G. Kantvilas 93/99 (HO); Mt Mawson Plateau, 42°41'S 146°35'E, 1280 m, 2007, G. Kantvilas 379/07 (HO).

REFERENCES

- Brodo IM, Hawksworth DL (1977) *Alectoria* and allied genera in North America. *Opera Botanica* **42** 1–64.
- Halonen P, Myllys L, Velmala S, Hyvärinen H (2009) *Gowardia* (Parmeliaceae) — a new alectorioid genus with two species. *Bryologist* **112** 138–146.
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