



## ANGIACTIS <sup>12</sup>

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*Angiactis* Aptroot & Sparrius, *Bryologist* 111: 511 (2008).

Type: *A. littoralis* (Kantvilas) Aptroot & Sparrius [= *A. banksiae* (Müll.Arg.) Kantvilas & Stajsic]

Thallus crustose, ecorticate, with a thick, cretaceous medulla; prothallus indistinct. Photobiont trentepohlioid, with cells irregularly roundish, 12–20 µm diam. Ascomata apothecia, irregularly rounded to elongate, lecanorine, immersed, adnate or basally constricted. Disc black, usually white-pruinose. Thalline margin prominent and persistent, entire. Proper exciple in section cupulate, dark brown, with the pigment unchanged in K. Hypothecium hyaline to pale yellowish brown. Hymenium hyaline, not inspersed, hemiamyloid, KI+ pale blue, overlain by a brownish, crystalline epithelial layer mostly unchanged in K. Asci cylindrical, 8-spored, approximating the *grumulosa*-type: walls and tholus non-amyloid except for a highly reduced amyloid ring. Paraphysoids richly branched and anastomosed, slender, remaining conglutinated in water and K; apices not swollen. Ascospores transversely 3–7-septate, hyaline, narrowly ellipsoid to fusiform, with a thin, gelatinous sheath at least when young; locules cylindrical. Conidiomata pycnidia, immersed. Conidia rod-shaped. Chemistry: chiefly gyrophoric acid and related compounds, sometimes with the pigment erythrin.

A genus of three species, each occurring in coastal areas (Bermuda, the Galápagos and Australia) on rocks or twigs. It is most closely related to *Lecanographa*, which also has *grumulosa*-type asci, slender, branched and anastomosed paraphysoids, and ellipsoid to fusiform ascospores with a gelatinous sheath, but differs by the apothecia lacking a thalline margin and the dark-coloured excipular tissues reacting K+ olive.

Key references: Kantvilas (2004); Aptroot *et al.* (2008); Kantvilas *et al.* (2020).

### 1 *Angiactis banksiae* (Müll.Arg.) Kantvilas & Stajsic

*Muelleria* 38: 72 (2020); —*Platygrapha banksiae* Müll.Arg., *Bull. Herb. Boissier* 1: 55 (1893); *Schismatomma banksiae* (Müll.Arg.) Zahlbr., *Cat. Lich. Univ.* 2: 554 (1923) [1924].

*A. littoralis* (Kantvilas) Aptroot & Sparrius, *Bryologist* 111: 513 (2008); —*Lecanographa littoralis* Kantvilas, *Symb. Bot. Upsal.* 34(1): 197 (2004).

Thallus scurfy-crustose to ± byssoid, whitish to pale yellowish cream, 0.1–1 mm thick, forming irregular, sometimes rather discontinuous, bullate-areolate patches to c. 10 cm wide. Apothecia 0.3–1.2 mm wide, scattered and solitary, or in clusters of 2–4; thalline margin 60–100(–150) µm thick; disc plane, undulate to convex, coarsely and thickly white-pruinose; proper exciple in section 6–20 µm thick laterally, 25–40 µm thick basally, extending a 'foot' into the medulla. Hypothecium 30–60 µm thick. Hymenium 70–100 µm thick; asci 60–90 × 10–18 µm; paraphysoids 1–1.5 µm thick. Ascospores (11–)18–20.3–23(–24) × (4–)5–5.5–6.5 µm; wall 0.5–1 µm thick. Conidia 5–8 × 1–1.5 µm.

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

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

Chemistry: gyrophoric acid and lecanoric acid (trace); thallus K-, KC+ reddish, C+ reddish, P-.

Very uncommon in Tasmania on sheltered seashore rocks, and known from single localities on the north coast, where it grows on basalt, and from Flinders Island, where it grows on a sheltered outcrop of soft, weathered Tertiary limestone (calcerenite). *Angiactis banksiae* also occurs on the Australian mainland where it displays a variable ecological distribution: in south-western Western Australia, it grows on twigs in coastal heathland; in Victoria, it has been found as an epiphyte of twigs in a mangrove; on the New South Wales south coast, it occurs on sheltered, siliceous, coastal rocks. This remarkable lichen is easily recognised by its cretaceous, pale thallus, pruinose apothecia with a thalline margin and, anatomically, by the *grumulosa*-type asci and ellipsoid-fusiform, transversely septate ascospores. Thallus chemistry and morphological characters, mainly pertaining to apothecial shape and position, separate it from the other species of the genus.

Flinders Island, Cave Beach, 40°01'S 147°53'E, 2 m, 1997, G. Kantvilas 311/97 (HO); same locality, 2014, G. Kantvilas 226/14 (BR, HO); Stony Head MTA, western end of Maitland Bay, 40°59'S 147°00'E, 1m, 2021, G. Kantvilas 239/21 (HO).

## REFERENCES

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