

ASTROTHELIUM

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Astrothelium Eschw., *Syst. Lich.* 18 (1824); from the Greek *aster* (a star) and *thele* (a nipple), in reference to the star-like arrangement and shape of the ascomata.

Type: *A. conicum* Eschw. [= *A. cinnamomeum* (Eschw.) Müll.Arg.]

Thallus corticate, green to grey or yellowish, smooth to somewhat bullate. Ascomata pyriform, immersed in the substratum, at least the sides covered by the thallus, with fused ostioles and fused walls, black, with pseudostromatic tissues. Hamathecium colourless, occasionally interspersed with oil droplets. Ascospores 8 per ascus, IKI–, irregularly biseriate, colourless, fusiform with subacute ends, symmetrically 3–5-septate (extra-Australian species with ascospores to 23-septate), not constricted at the septa, surrounded by a gelatinous sheath; lumina diamond-shaped. Conidiomata rather rare.

Chemistry: Thallus and/or pseudostromata often with lichexanthone or anthraquinone.

A genus of c. 25 species, mostly tropical epiphytes; six species are known from northern Australia.

1	Pseudostromata with a yellow or orange K+ purple and UV+ red pigment	2
1:	Pseudostromata lacking yellow or orange pigments	3
2	Thallus UV+ yellow, containing lichexanthone (1)	4. A. galbineum
2:	Thallus UV–, not containing lichexanthone	1. A. cinnamomeum
3	Ascospores 5-septate, 50–60 µm long (1:)	5. A. subclandestinum
3:	Ascospores 3 (–5)-septate, < 40 µm long	4
4	Ascospores 3–5-septate; pseudostromata UV+ yellow, containing lichexanthone; thallus UV–, lacking lichexanthone (3:)	3. A. eustomum
4:	Ascospores 3-septate; thallus either uniformly UV+ yellow or UV–	5
5	Thallus UV+ yellow, containing lichexanthone (4:)	6. A. variolosum
5:	Thallus UV–, not containing lichexanthone	2. A. confusum