

THELOCARPON

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Thelocarpon Nyl., *Ann. Sci. Nat., Bot.*, sér. 3, 20: 318 (1852); from the Greek *thele* (a nipple) and *karpos* (a fruit), in reference to the shape of some thalline warts in the type species.

Type: *T. laureri* (Flot.) Nyl.

Thallus thin and filmy or forming prominent warts, usually lichenised, rarely lichenicolous; some species possibly non-lichenised. Ascomata superficial on the thallus and globose, conical, cylindrical or obconical, or \pm immersed in usually pale thalline warts. Ascomatal wall hyaline or pale, composed of thin-walled elongate periclinal cells. Paraphyses absent or long, thread-like and simple, or branched or sparingly anastomosing. Periphyses absent or simple to furcate. Ascospores simple (Australian species), oblong, ellipsoidal, subglobose or globose, rarely 1-septate. Pycnidia simple, pale, with unbranched conidiophores and simple oblong microconidia (not seen in Australian specimens).

Chemistry: Pulvinic dilactone and pulvinic acid (*T. laureri*).

A predominantly northern-temperate genus of c. 25 species, usually found on soil, but also on bark, wood and rock; rarely lichenicolous. Remarkably, some species are ephemeral, the ascomata and thalline warts appearing on soil or wood following bushfire or other disturbance, and disappearing in weeks or months.

Salisbury (1966) recognised 13 species of *Thelocarpon*, rejecting many other names as being synonyms, representing non-lichenised fungi or being referable to *Acarospora* (Acarosporaceae). Today, the genus is essentially characterised for convenience by its chlorococcoid photobiont, pale fragile ascomata, multispored asci and minute, mostly simple ascospores. However, variation in the presence or absence and nature of the hamathecial filaments and, especially, ascus structure indicates polyphyly and the need for a modern revision of the genus.

G.Salisbury, A monograph of the lichen genus *Thelocarpon*, *Lichenologist* 3: 175–196 (1966).

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| 1 | Ascomata immersed in (0.15–) 0.28 (–0.42) mm wide thalline warts | 2. T. laureri |
| 1: | Ascomata not immersed in thalline warts..... | 2 |
| 2 | Ascomata 0.22–0.36 mm diam.; ascospores globose (1:)..... | 3. T. cf. sphaerosporum |
| 2: | Ascomata 0.08–0.16 mm diam.; ascospores narrowly ellipsoidal to oblong..... | 3 |
| 3 | Paraphyses absent; ascospores 2.0–4.0 (–4.5) μ m long (2:)..... | 1. T. intermediellum |
| 3: | Paraphyses present; ascospores 4–6 (–7) μ m long..... | 4. T. strasseri |