LEUCODECTON

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Leucodecton A.Massal., *Atti Reale Ist. Veneto Sci. Lett. Arti*, ser. 3, 5: 325 (1860); derived from the Greek *leukos* (white), and *dekta* (the same); in reference to the whitish thallus of the type species.

Type: *L. compunctum* (Ach.) A.Massal.

Enterostigma Müll.Arg., *Flora* 68: 254 (1885), *nom. superfl. pro Leucodecton* A.Massal.; *Chiodecton* subg. *Enterostigma* (Müll.Arg.) Vain., *Étud. Class. Lich. Brésil* 2: 138 (1890); *Enterostigmatomyces* Cif. & Tomas., *Atti Ist. Bot. Lab. Crittog. Univ. Pavia*, ser. 5, 10: 73 (1953). T: *E. compunctum* (Ach.) Müll.Arg. [= *L. compunctum* (Ach.) A.Massal.]

Thallus endophloeodal to epiphloeodal, usually pale, with shades of grey or green and olive, yellowish or whitish tones, sometimes with a grainy-speckled surface pattern, ecorticate, or with a protocortex, very rarely with true cortex. Photobiont trentepohlioid. Prothallus thin to indistinct, brown. Ascomata ±rounded to slightly irregular, sometimes distinctly irregular or angular, apothecioid or perithecioid, solitary to marginally fused, sometimes also distinctly fused and clustered and forming stroma-like structures. Proper exciple completely free, rarely fused, non-amyloid, rarely faintly amyloid basally, hyaline to pale yellowish, rarely pale brownish internally, yellowish or brownish, rarely greyish marginally, apically sometimes rather dark brown to slightly carbonised. Hymenium non-amyloid, not inspersed, conglutinated; paraphyses straight to ±bent, distinctly interwoven, sparingly branched towards the margins, the tips thickened; lateral paraphyses and true columella absent, but columella-like structures sometimes present in fused ascomata. Epihymenium hyaline, with greyish to brownish granules, often with small crystals. Asci (1–) 8-spored, clavate, non-amyloid. Ascospores 1–2-seriate, submuriform to muriform or transversely septate, hyaline or brown, non-amyloid to amyloid. Conidiomata pycnidial, with obovate to fusiform or bacilliform conidia.

Chemistry: Containing the stictic acid or norstictic acid chemosyndrome, rarely lacking secondary metabolites.

This neglected genus was recently resurrected for species with apothecioid ascomata and a ±free proper exciple of distinctly paraplectenchymatous hyphae without a parallel (basally) or radiating (apically) orientation and no distinct carbonisation (*Leucodecton*-type), markedly interwoven, often sparingly branched paraphyses, and the absence of lateral paraphyses (Frisch *et al.*, 2006). Moreover, most species have ±distinctly muriform, brown, non-amyloid to faintly amyloid ascospores, and they contain stictic or norstictic acid. Similar genera include *Leptotrema* and *Myriotrema*. The former differs in having apically thickened asci and different ascospores. *Myriotrema* is mainly distinguished by an exciple with parallel hyphae and radiating tips (*Ocellularia*-type). However, *Myriotrema* species with brown ascospores and the stictic acid chemosyndrome are difficult to separate from *Leucodecton*. The genus forms a well-supported clade in the molecular analysis of Frisch *et al.* (2006), and its separation from *Myriotrema* is supported.

A pantropical genus of c. 14 species; five species are known from Australia, most in tropical and subtropical forest.

A.Frisch, K.Kalb & M.Grube (eds), Contributions towards a new systematics of the lichen family Thelotremataceae, *Biblioth. Lichenol.* 92: 1–556 (2006).

1 Ascospores transversely septate ..... **1. L. albidulum**
1: Ascospores submuriform to muriform 2

2 Asci 1–4-spored; ascospores > 40 µm long *(1:)* ..... **2. L. compunctellum**
2: Asci 8-spored; ascospores mostly < 40 µm long 3

3 Thallus epiphloeodal, to 1 mm thick, bulging; ascospores 7–17 × 5–9 µm, with 4–6 × 1–3 locules *(2:)* .... **3. L. glaucescens**
3: Thallus endophloeodal to epiphloeodal, to 0.5 mm thick, adnate; ascospores 10–50 × 7–20 µm, usually with 6–10 × 1–6 locules 4

4 Thallus ecorticate or with an indistinct protocortex, containing norstictic acid *(3:)* ..... **4. L. occultum**
4: Thallus becoming corticate or with a distinct protocortex in older stages, containing the stictic acid chemosyndrome ..... **5. L. subcompunctum**