

LEPTOTREMA

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Leptotrema Mont. & Bosch, in F.A.W.Miquel, *Pl. Junghuhn*. 4: 483 (1855); from the Greek *leptos* (small, thin or delicate) and *trema* (a hole), in reference to the pore-like opening of the ascomata.

Type: *L. zollingeri* Mont. & Bosch

Thallus thick, epiphloeodal, pale greenish grey, with a protocortex. Photobiont trentepohlioid. Prothallus thin to indistinct, pale to rather dark brown. Ascomata \pm rounded, perithecioid or apothecioid, solitary, immersed. Proper exciple non-amyloid, hyaline internally to yellowish or orange-brown marginally. Hymenium non-amyloid, not interspersed, conglutinated; paraphyses with thickened apices, straight to slightly bent, parallel to somewhat interwoven; lateral paraphyses and true columella absent. Epihymenium hyaline, egranulose or granulose. Asci 8-spored, clavate, non-amyloid; ascus apex and walls uniformly thin. Ascospores 1–2-seriate, submuriform to muriform, non-halonate, hyaline to brown, non-amyloid to faintly amyloid. Conidiomata pycnidial, with bacilliform conidia.

Chemistry: β -Orcinol depsidones or anthraquinones present.

Frisch *et al.* (2006) resurrected this genus for the pantropical, corticolous species *L. wightii*. They distinguished it from *Myriotrema*, where it had been placed previously (Hale, 1980), by differences in the structure of the asci and ascospores. While Frisch *et al.* (2006) accepted only *L. wightii*, we also recognise *L. zollingeri* Mont. & Bosch due to its distinctive chemistry (see below).

Leptotrema is accepted here somewhat tentatively, and it requires further evaluation following molecular studies. *Reimnitzia* has similar ascospores, but it also has *Geaster*-like ascomata and asci with a \pm distinct tholus. We cannot confirm differences in exciple morphology between the two genera, since we were unable to find lateral paraphyses in *Reimnitzia*. *Myriotrema* is readily distinguished by its excipular structure with \pm radiating apical hyphae, asci with a \pm distinct tholus and immature ascospores with comparatively thin walls. Unthickened asci and thick-walled, immature ascospores can also be found in species belonging to genera that are otherwise well separated from *Leptotrema*. Thus, for example, *Chapsa lamellifera* has 'Leptotrema-type' asci, and *Ocellularia bahiana* has similar ascospores.

G.Salisbury, *Thelotrema wightii* (T.Tayl.) Nyl., *Portugaliae Acta Biol.*, ser. B, 11: 35–37 (1971); A.Mangold, J.A.Elix & H.T.Lumbsch, The *Myriotrema wightii* group (Ostropales, Ascomycota) in Australia, *Nova Hedwigia* 83: 275–291 (2006); A.Frisch, K.Kalb & M.Grube (eds), Contributions towards a new systematics of the lichen family Thelotremataceae, *Biblioth. Lichenol.* 92: 1–556 (2006).