

Lichens of Great Britain & Ireland edn 3

Draft genus account version 1.1, February 2018

Prepared by Paul Cannon, based on the LGBI2 account of *Thelotrema* by James & Hawksworth (2009)

LEUCODECTON A. Massal. (1860)

Thallus crustose, superficial, colour usually shades of cream or fawn; cortex usually weakly developed, smooth or nodulose, sometimes with large irregularly disposed or rarely columnar internal crystals; prothallus absent. **Soredia** and **isidia** occasionally present. **Photobiont** *Trentepohlia*. **Ascomata** apothecia, urceolate to perithecioid, immersed, solitary to aggregated, often in raised warts; disc concave to flat, black, sometimes pruinose. **Thalline exciple** distinct, sometimes with a double margin and/or opening through irregular splits. **True exciple** usually free from the thalline exciple and distinct as an internal ring when viewed from above, colourless or brown above, smooth, composed of \pm densely conglutinated, irregular intertwined hyphae. **Epithecium** colourless to brown or black. **Hymenium** colourless, I-. **Hypothecium** colourless. **Hamathecium** of filamentous, unbranched, rarely septate paraphyses; periphysoids lacking. **Asci** subcylindrical, with a single functional wall layer, abruptly thickened at the apex, sometimes with a minute internal apical beak, K/I-, 1- to 8- spored. **Ascospores** narrowly ellipsoid to broadly fusiform, septate or submuriform, hyaline or becoming brown, thin-walled when young, the walls often thick and laminated with the cells \pm lenticular, smooth, lacking a distinct perispore, I- or I+ weakly purple. **Conidiomata** unknown. **Chemistry**: most species with stictic (or norstictic) acid. **Ecology**: on bark, wood, or rarely rocks. **Distribution**: c. 25 species, mostly in humid tropical ecosystems.

Leucodecton differs from *Thelotrema* in lacking periphysoids, but in common with that genus has an excipulum composed of irregular intertwined hyphae and a weakly developed or absent thallus cortex. Apothecial anatomy is varied, ranging from broadly exposed through irregular splits to \pm poroid. A key to this and related lichens from our region can be found under *Thelotrema*.

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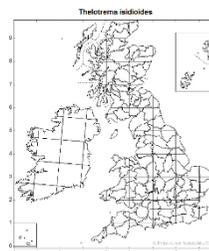
Leucodecton isidioides (Borrer) Lücking & Breuss (2012)

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Thelotrema isidioides (Borrer) R. Sant. (1980)

Thallus forming small patches amongst mosses and other lichens, rarely wide-spreading, then up to 5 cm wide, usually thin, rather rugose, matt, with single or frequently coalescing verrucae forming a \pm continuous, thick, coarsely nodulose, abundantly fertile, inner crust which is \pm coarsely rimose, especially around individual groups

of verrucae, pale grey-brown to yellow-fawn, often with a faint pink to red tinge when fresh; cortex composed of a layer 5-10 μm thick of dead, collapsed, unpigmented cells; medulla and photobiont zone interspersed with numerous, minute crystals. Apothecia 0.2-0.3 mm diam., \pm perithecioid, half to almost completely immersed, one per areole, only the black mouth of the ostiole visible and \pm protuberant; true exciple colourless to pale red-brown, becoming deeper brown-red, opaque towards the ostiole, containing crystals (K+ dissolving); hymenium 100-160 μm tall, colourless, without crystals. Asci usually 8-spored. Ascospores (27-) 34-40 (-45) \times 13-18 μm , ellipsoid, muriform, colourless, only tardily becoming greyish brown and then often shrivelled, with 7-9 (-11) transverse and 1-3 longitudinal septa. Thallus C-, K+ orange, KC+ orange, Pd+ orange, UV- (stictic, hypostictic, hypoconstictic acids). **BLS 1409.**



On hard, siliceous rocks; apparently extinct in the British Isles, only known from the original collection made in the 19th century. S.W. Ireland (W. Cork, Glengariff). Azores, where it is mainly associated with very leached, acid bark or wood and branches of *Juniperus azorica* in relict woodland; there it is only very rarely recorded on basalt.