



CRYPTODISCUS¹²

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Cryptodiscus Corda, *Icon. Fung.* 2: 37 (1838).

Type: *C. pallidus* (Pers.) Corda

= *Bryophagus* Nitschke ex Arnold, *Flora* 45: 58 (1862); type: *B. gloeocapsa* Nitschke ex Arnold

Either a non-lichenised mycelium immersed in the substratum or lichenised and forming an effuse, crustose, inconspicuous thallus that is often ± gelatinous when wet. Photobiont *Gloeocystis*, with cells ± globose, mostly 2–5 µm wide, grouped within a thick, gelatinous sheath. Ascumata apothecia, immersed at first, then emergent and urceolate. Disc concave, pale orange-pink to brown, ± translucent when wet. Proper exciple cupulate, persistent, composed of radiating, anastomosing hyphae to c. 1 µm thick at the outer edge, becoming short-celled, to 3 µm wide and rather cellular within. Hypothecium hyaline. Hymenium hyaline, I–, weakly KI+ blue. Asci cylindrical-clavate, 8-spored, only slightly thickened at the apex, with walls and tholus weakly KI+ blue. Paraphyses simple, straight, coherent in K, with apices sometimes expanded. Ascospores bacilliform to fusiform, transversely septate, hyaline, non-halonate. Conidiomata pycnidia, immersed; conidia bacilliform. Chemistry: nil.

A widely scattered genus that includes three lichenised species previously classified in *Bryophagus*. These overgrow bryophytes, often in moist disturbed sites. *Cryptodiscus* is one of several superficially similar genera with tiny gyalectoid (urceolate with a pale disc) apothecia. It is most likely to be confused with *Absconditella*, which differs in having a chlorococcoid photobiont, non-amyloid asci with a distinctly thickened tholus, and capitate paraphyses. The inclusion of both *Absconditella* and *Cryptodiscus* in the family Stictidaceae, which mainly includes non-lichenised genera, is supported by DNA sequence data.

Key references: Vězda (1973), Kantvilas (2002), Baloch *et al.* (2009); Fletcher *et al.* (2009).

1 *Cryptodiscus minutissimus* (Vězda) Baloch

Fungal Diversity 38: 61 (2009); —*Gloeolecta minutissima* Vězda, *Folia Geobot. Phytotax.* 8: 312 (1973); *Bryophagus minutissimus* (Vězda) D. Hawks., in D.E. Shaw, *Microorganisms in Papua New Guinea*: 248 (1984).

Thallus evident only as necrotic patches over the bryophyte substratum. Apothecia 0.1–0.3 mm wide, basally constricted, adnate or slightly embedded in the substratum; disc markedly concave, partly obscured by the incurved proper exciple when young, becoming gaping and excavate when old; proper exciple hyaline, c. 20 µm thick. Hymenium 30–40 µm thick; asci 26–35 × 4–4.5 µm; paraphyses 0.5–0.8 µm thick, not capitate. Ascospores bacilliform, 3-septate, 8–13 × 1 µm. Pycnidia not known.

A very small and extremely inconspicuous species, easily overlooked because the thallus is ± absent and the tiny apothecia are difficult to detect even with a lens. The best clue to its presence is provided by the death in small circular patches of its bryophyte host. The smaller apothecia and shorter and narrower ascospores

1 This work can be cited as: Kantvilas G (2023). *Cryptodiscus*, version 2023:1. In MF de Salas (Ed.) *Flora of Tasmania Online*. 2 pp. (Tasmanian Herbarium, Tasmanian Museum and Art Gallery: Hobart). <https://flora.tmag.tas.gov.au/lichens/genera/cryptodiscus/> (accessed 14 September 2022).

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3 Tasmanian Herbarium, Tasmanian Museum & Art Gallery, PO Box 5058, UTAS LPO, Sandy Bay, TAS 7005, Australia.

distinguish it from other members of the genus. At first sight it is most readily confused with species of *Absconditella*. In Tasmania, this species has been recorded only once, growing on a mat of hepatics on disturbed, sandy soil in an abandoned copper-mining area, a habitat not dissimilar to that of the Northern Hemisphere species of the genus, and suggestive of an opportunistic and ephemeral habitat ecology. It was first described from the New Guinea highlands.

Queenstown, opposite old Mt Lyell Mine Office, 42°05'S 145°33'E, 200 m, 1984, G. Kantvilas 191/84 & P.W. James (BM, HO, PRA-V).

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