

## HYPOCENOMYCE

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*Hypocenomyce* M.Choisy, *Bull. Mens. Soc. Linn. Soc. Bot. Lyon* 20: 133 (1951); from the Greek *hypo* (below or lower), and *Cladonia* subgen. *Cenomyce*, in reference to the similar squamules, but emphasising the absence of podetia in the former.

Type: *H. scalaris* (Ach.) M.Choisy

Thallus crustose-areolate to squamulose. Squamules and areolae 0.1–2.0 mm wide, dispersed, contiguous or imbricate. Soredia and isidia present or absent; lacinules absent. Upper cortex 10–130 µm thick, containing remnants of algae, consisting of an upper epinecral layer and a lower layer composed of irregularly to anticlinally orientated hyphae. Photobiont cells forming a continuous layer. Medulla white, of intricately interwoven non-amyloid hyphae, frequently containing lichen substances. Apothecia constricted at the base, laminal, marginal or attached to the underside of upturned squamules; disc ±round, plane and marginate or becoming convex and immarginate, brown to black, sometimes with a bluish white pruina, rarely gyrose. Proper exciple colourless to brown in the inner part, brown or green in the rim, sometimes containing crystals of lichen substances. Epithymenium green, pale brown or brown-black. Hymenium colourless, 40–70 µm thick, amyloid. Hypothecium colourless to dark brown, lacking crystals. Paraphyses 2.0–2.5 µm wide, thickened at the apex or not, with or without a pigmented cap. Asci clavate to rhomboidal, with a poorly to well-developed amyloid tholus, with either a deeper amyloid tube, a deeper amyloid flank, a small non-amyloid axial body, or no visible internal structures. Ascospores simple or 1–3-septate, ellipsoidal to fusiform, 7–13 × 1.5–4.5 µm, smooth-walled. Conidiomata pycnidial, sessile, globose to ovate, black; wall brown or brown-green; conidiophores of types I, II or V (*sensu* Vobis, 1980). Conidia bacilliform, ellipsoidal, subglobose or filiform.

*Hypocenomyce* is a temperate genus of c. 12 species, six of which occur in Australia. These lichens are found in forest where they grow primarily on charred bark or wood, but also on decorticated wood, and very rarely on rock or soil.

G.Schneider, Die Flechtengattung *Psora sensu* Zahlbruckner, *Biblioth. Lichenol.* 13: 1–291 (1979); G.Vobis, Bau und Entwicklung der Flechten-Pycnidien und ihrer Conidien, *Biblioth. Lichenol.* 14: 1–141 (1980); E.Timdal, The genus *Hypocenomyce* (Lecanorales, Lecideaceae), with special emphasis on Norwegian and Swedish species, *Nordic J. Bot.* 4: 83–108 (1984); G.Thor & E.Timdal, Additional lichen records from Australia, 25. A further species of *Hypocenomyce* in Australia, *Australas. Lichenol. Newsl.* 37: 30–31 (1995); E.Timdal, *Hypocenomyce oligospora* and *H. sierrae*, two new lichen species, *Mycotaxon* 77: 445–453 (2001); E.Timdal, *Hypocenomyce*, *Lichen Fl. Greater Sonoran Desert Region* 2: 223–228 (2004); J.A.Elix, New species of sterile crustose lichens from Australia, *Mycotaxon* 94: 219–224 ('2005') [2006]; J.A.Elix, Further new crustose lichens (Ascomycota) from Australia, *Australas. Lichenol.* 61: 21–25 (2007).

1	Thallus crustose to subsquamulose, isidiate .....	4. <b>H. isidiosa</b>
1:	Thallus squamulose, not isidiate .....	2
2	Squamules C+ red; lecanoric acid present (1:) .....	3
2:	Squamules C–; lecanoric acid absent .....	5
3	Squamules adnate, esorediate (2) .....	2. <b>H. australis</b>
3:	Squamules adnate or ascending, sorediate .....	4
4	Squamules ascending; apothecia absent (3:) .....	5. <b>H. scalaris</b>
4:	Squamules adnate; apothecia common .....	6. <b>H. tinderryensis</b>
5	Squamules ascending, sorediate, P+ orange-red; fumarprotocetraric acid present (2:) .....	1. <b>H. anthracophila</b>
5:	Squamules adnate, esorediate, P–; 4-O-methylphysodic acid present .....	3. <b>H. foveata</b>