

***Porina muluensis*** P. M. McCarthy & Coppins

Typus: Malaysia, Sarawak, Gunong Mulu National Park, 4th Division, Baram District, Bukit Long Pala, alt. 70–100 m, on moderately exposed, more-or-less vertical limestone rocks overlooking river, 17 April 1978, *B. J. Coppins* 5375 (Holotypus: SAR; isotypus: E).

*Thallus* epilithic, pale yellowish fawn to mid-grey to dark smokey grey, becoming greenish when wetted, continuous to sparingly rimose, matt to slightly glossy, smooth, 50–120(–200)  $\mu\text{m}$  thick, K+ dull reddish brown, lightly to heavily impregnated with crystals and other minute rock fragments. *Cortex* pseudoparenchymatous, 10–20  $\mu\text{m}$  thick, consisting of rounded 3–4(–5)  $\mu\text{m}$  diam. cells with comparatively thick hyaline to dark brown walls. *Algae Trentepohlia*, broadly ellipsoid to subglobose, 6–12 x 6–10  $\mu\text{m}$ . Hyphae (3–)4–6(–7) x 3–5  $\mu\text{m}$ , angular and more-or-less vertically-elongate above, 3–4  $\mu\text{m}$ , isodiametric and rounded or angular below. *Prothallus* not apparent.

*Perithecia* immersed in thallus-dominated verrucae. *Verrucae* (0.36–)0.57(–0.76) mm diam., hemispherical or almost superficial and slightly constricted at the base, very numerous, solitary. *Perithecial apex* rounded or somewhat flattened. *Ostirole* inconspicuous, or in a shallow depression, or in a hemispherical, apical papilla. *Involucrellum* apical to dimidiate, or occasionally, extending to excipulum-base level, concolorous with the thallus except for a 0.14–0.3(–0.45) mm wide, 20–40  $\mu\text{m}$  thick, matt black area near the apex, heavily impregnated with rock fragments and/or crystal-like structures, K+ reddish brown. *Excipulum* pale yellowish brown, 20–35  $\mu\text{m}$  thick. *Centrum* globose to depressed-ovate, 0.2–0.3(–0.35) mm wide. *Paraphyses* unbranched, c. 1  $\mu\text{m}$  wide. *Periphyses* absent. *Asci* unitunicate, uniformly thin-walled, elongate-cylindrical, with rounded or truncate apices, 98–120 x 9–12  $\mu\text{m}$ . *Ascospores* mostly 7-septate (c. 5% with 9-septa), fusiform to elongate-fusiform, mostly straight, with pointed ends, irregularly massed in the asci, (24–)34(–41.5) x (3–)4.5(–6)  $\mu\text{m}$  (50 measured); immature ascospores may have a 2  $\mu\text{m}$  thick gelatinous sheath; contents clear.

*Conidiomata* very numerous, semi-immersed to almost entirely immersed in the thallus, dark grey-brown above, hyaline below, 70–120(–150)  $\mu\text{m}$  diam., with a richly convoluted conidiogenous layer. *Conidia* elongate-ellipsoid to fusiform, 2–3 x 0.8  $\mu\text{m}$ .

Known from limestone at the type locality in the lowlands of north-eastern Sarawak, Malaysia.