

PERTUSARIACEAE

A NEW SPECIES OF *PERTUSARIA*

***Pertusaria salax* Brusse, sp. nov.**

Thallus sulphureus, saxicola, usque ad 110 mm diametro, 0,2–1,0 mm crassus, areolatus, areolis 0,2–2,0 mm latis, rimis saepe 0,1–0,2 mm latis, isidiis sorediisque destitutus. *Algae* 5–14 μm diametro, ad *Trebouxiam* pertinentes. *Ascomata* hyalina, perithecioidea, 0,5–0,8 mm diametro, 2–6 in verrucis thallinis apothecioideis immersa, interdum confluentia. *Verrucae* 1,5–3,0 mm diametro, basin versus constrictae (substipitatae). *Parietes peritheciorum* hya-

lini, 13–40 μm crassi, periclinatae prosoplectenchymati. *Hymenium* hyalinum, circa 500 μm altum. *Paraphyses* pernumeratae, graciles, laxae, ramosae et anastomosae, 1,5–2,0 μm crassae. *Gelatinum* copiosum, J–. *Asci* cylindrici, 350–500 \times 80–110 μm , parietibus aequaliter crassis, J+ valde cyaneis. *Ascospores* singulares vel binae, hyalinae, ellipsoideae, pergrandes, 175–250 \times 70–100 μm , halonatae, lumenibus truncatis; paries externus tenuis, 1,0–3,5 μm crassus, pagina interna reticulata undulata; paries internus 17–20 μm crassus, polis non incrassatis.

Pycnidia globosa, immersa, hyalina, circa 200 μm diametro. *Pycnidiosporae* teretes, pertenues, extremitatibus truncatis, hyalinae, rectae, 18–24 \times 1,2–1,3 μm . *Thallus* unum xanthorum et acidum norsticticum continens.

TYPUS.—South West Africa/Namibia, 2715 (Bogenfels): Diamond area no. 1, summit of Buchenberg, c. 90 km N of Oranjemund. On schist on steep E slope (–DD), G. Williamson 2898, 1982.04 (PRE, holo.; LD, iso.). Fig. 17.

Thallus yellow, saxicolous, up to 110 mm in diameter, 0,2–1,0 mm thick, areolate, areoles 0,2–2,0 mm across, fissures often 0,1–0,2 mm wide, isidia and soredia absent. *Algae* 5–14 μm in diameter, *Trebouxia*. *Ascomata* hyaline, perithecioid, 0,5–0,8 mm in diameter, 2–6 immersed in thalline, apothecioid verrucae. *Verrucae* 1,5–3,0 mm in diameter, constricted at the bases (substipitate). *Perithecial walls* hyaline, 13–40 μm thick, periclinally prosoplectenchymatous. *Hymenium* hyaline, about 500 μm high. *Paraphyses* abundant, slender, flaccid, branched and anastomosed, 1,5–2,0 μm thick. *Gel* copious, J–. *Asci* cylindrical, 350–500 \times 80–110 μm , 1- or 2-spored, walls evenly thick, J+ strongly blue. *Ascospores* very large, oval, hyaline, 175–250 \times 70–100 μm , halonate, lumens not truncated; outer wall thin, 1–3,5 μm thick, with the inner surface (junction between the two walls) reticulately rippled; inner wall 17–20 μm thick, poles not thickened. *Pycnidia* globose, immersed, hyaline, about 200 μm in diameter. *Pycnidiospores* hyaline, straight, very narrowly cylindrical with truncate ends, 18–24 \times 1,2–1,3 μm . *Chemistry*: one of the xanthenes and norstictic acid present (TLC).

This genus is fairly well known in Europe (Erichsen 1936; Poelt 1969) and in the United States and Canada (Dibben 1980), but is otherwise rather poorly understood. However, this conspicuous new lichen has very large ascospores and a yellow thallus and is distinct in these two characters alone. The ascospores are so large, that they are visible with the naked eye, and are easily discernible with a lens. Another yellow saxicolous species, *Pertusaria diaziana* Massal., is common in the Cape floral area further south, but has a less coarse thallus habit, smaller perithecioid ascomata and asci, and 4 (6, 8) much smaller ascospores, with truncated lumens, in the asci. The perithecioid ascomata fuse much more rarely than in *Pertusaria salax*, and the ascomatiferous verrucae are rounded and K–, and not apothecioid and K+ red (norstictic acid), as in the latter. Both species are KC+ bright orange due to the presence of lichen xanthenes in the upper zone.

At present this lichen is known only from the type locality, the Buchenberg, some 90 km north of the Orange River mouth.

REFERENCES

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FIG. 17. — *Pertusaria salax* Brusse, G. Williamson 2898, holotype. Scale in mm.