

## *PERTUSARIA LACTESCENS* (LICHENIZED ASCOMYCOTA, PERTUSARIACEAE), A LICHEN SPECIES NEW TO CENTRAL EUROPE

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**Abstract.** The first record of *Pertusaria lactescens* Mudd in Central Europe is reported. The species was found on a basalt outcrop in the Mały Śnieżny Kocioł glacial cirque in the Karkonosze Mts (Sudety Mts, SW Poland).

**Key words:** *Pertusaria lactescens*, lichens, distribution, Karkonosze Mts, Sudety Mts, Poland, Central Europe

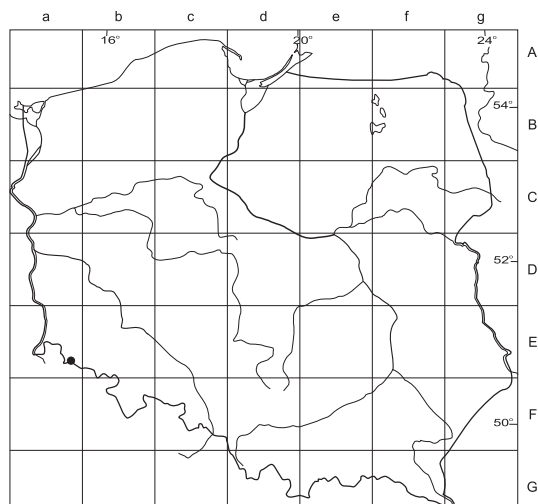
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### INTRODUCTION

During detailed lichenological study of a basalt outcrop in the Mały Śnieżny Kocioł glacial cirque (Karkonosze Mts, SW Poland), a thallus of the rare lichen species *Pertusaria lactescens* Mudd was found. This is the first record of this species in Central Europe. The new locality extends its range far eastwards. Previously, *Pertusaria lactescens* has been known only from the western part of Europe: Spain (Sanchez-Biezma Serrano *et al.* 2001),

Ireland (Seaward 1994), Great Britain (Coppins 2002) and the Netherlands (Aptroot *et al.* 1999).

The collected material was identified according to Purvis *et al.* (1992) and Sipman (2006). The specimen is deposited in the Herbarium of the University of Wrocław (WRSL). The location of the site on the ATPOL grid square map as modified for lichenology (Cieśliński & Fałtynowicz 1993) is presented in Figure 1.



**Fig. 1.** Locality of *Pertusaria lactescens* Mudd in Poland on the ATPOL grid square map.

### SPECIES DESCRIPTION

*Pertusaria lactescens* belongs to the ‘*Melanaria*’ group of species, distinguished within the genus on the basis of its characteristic spores which darken at maturity. Its thallus is usually thin, irregularly cracked, grey or yellowish-grey, and has more or less numerous globose outgrowths (papillae) on the surface. They may be broken off from the thallus, leaving soralium-like scars with greyish granular soredia. The thallus reacts K<sup>+</sup> orange to red (crystals) and Pd<sup>+</sup> orange (norstictic acid).

The apothecia are immersed in a thallus (*Aspicilia*-like) and are deeply divided or consist of several separate discs. The hymenium and hypothecium are colorless; the epithecium reacts K<sup>+</sup> violet. The asci contain 2–4 large spores [80–100(–140) × 55–85 μm], olive-grey or grey-black when mature.

The spore wall is very thick, three-layered and elaborately channelled. After KOH treatment the inner layers of the wall turn purple and characteristic minute pores appear on the spore surface.

The specimen examined is richly fertile and covered with numerous papillae, but it does not produce soralia. The lack of soralia differentiates it from typical forms, but this is likely a feature of specimens rich in apothecia (B. Coppins, personal communication). The size and pigmentation of the spores and the appearance of the apothecia adequately match the description given above.

In the past, another rare species of the genus *Pertusaria*, *P. chiodoctonoides* Bagl. ex Massal., was recorded on basalt rocks in the Mały Śnieżny Kocioł cirque (Eitner 1896; Erichsen 1936). It differs from the described taxon by having a dark grey thallus, distinctly smaller (20–40 × 10–25 µm) and colorless spores, and eight-spored asci. The present occurrence of that species at the investigated locality has not been confirmed. The lack of herbarium material makes it impossible to verify Eitner's identification.

**SPECIMEN EXAMINED.** POLAND. KARKONOSZE MTS, Mały Śnieżny Kocioł glacial cirque, on northern slope of main ridge, between Łabski Szczyt and Wielki Szyszak summits – basalt outcrop in western wall of cirque, ATPOL grid square Ea 78, 50°46'59.6"N/15°33'16.6"E. On basalt rock in upper part of wall, alt. ca 1400 m, associated with other rare lichens including *Buellia ocellata*, *Caloplaca cremularia*, *Lecanora subaurea* and *Miriquidica leucophaea* var. *griseoatra*, 16 Aug. 2006, leg. M. Kossowska & W. Faltynowicz (WRSL).

**ACKNOWLEDGEMENTS.** I thank Professor Bryan Coppins for confirming the species identification and for valuable comments. The study was supported by the Polish Ministry of Science and Higher Education (Grant 2 P04C 013 29).

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Received 11 January 2008