

***Chalazion helveticum* (Pezizales), a new Species from Graubünden, Switzerland**

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Summary. *Chalazion helveticum* sp. nov. is described and its delimitation from *C. sociabile* DISS. & SIVERT. is discussed.

Description

From August 28, to September 8, 1979, the author had the pleasure to collect fungi in the canton of Graubünden, Switzerland.

The main purpose of this paper is to describe a new *Chalazion* species, which was found in Pradella together with 16 other discomycetes of the order Pezizales, among which the following may deserve mentioning, *Meladina lecithina* (COOKE) SVRČEK, *Peziza micheli* (BOUD.) DENNIS, *P. bubaci* (VEL.) SVRČEK, *Saccobolus beckii* HEIMERL, *Sowerbyella imperialis* (PECK) KORF, *S. radiculata* (SOW. ex FR.) NANNF.

The material is deposited in the herbarium of the Institute für Spezielle Botanik der Eidg. Technischen Hochschule, Zürich (ZT) with duplicates in the Botanical Museum Copenhagen (C).

Chalazion helveticum DISSING sp. nov. — Fig. 1, 2a—b

Carposomata sparsa, superficialia, sessilia, omnino cinereoalbida, 200—300 μm lata, turbinata vel pulvinata, marginibus irregularibus non elevatis, ascis maturis prominentibus. Excipulum exterius 20—30 μm crassum, e seriebus subparallelis cellularum laxae intertextis, unum stratum vel pauca formantibus compositum. Cellulae parietibus tenuibus, cyanophilis, inferiores angulatae vel subglobulares, 10—15 μm diam., mediae tympaniformes 16—20 \times 10—16 μm magnae, superiores elongatae, claviformes, 30—40 \times 8—10 μm magnae. Excipulum medullare ex hyphis dense intertextis compositum, septatis, 2—4 μm crassis, tinctura cotton blue leviter affectis. Subhymenium non manifestum. Hymenium 120—135 μm altum. Ascis 8 spori, non amyloides, clavati, stipitibus brevissimis, tenuibus, manifesto discretis, plus minus pleurorhynchis portati, 130—145 \times 30—36 μm magni, operculis valde conspicuis ad 9.5 μm latis aperti, juvenes tincturam cotton blue avide intra suscipientes. Paraphyses colore nullo, apice plerumque curvae, ad 6—8 μm incrassatae, ad septa constrictae, parietibus cyanophilis. Sporae 23.8—26.0—27.1 \times 12.5—13.8—15.8 μm magnae, in duas series vel irregulariter dispositae, achroae, ellipsoides vel inaequilatae, verrucis valde cyanophilis, hemisphaericis vel irregularibus, 2—4 μm latis et altis, irregulariter sparsis, plerumque singulis, interdum inter se connexis ornatae, juvenes guttulas multas parvas exhibentes, maturae contentu praeter vacuola singula vel una conplura granulati, bullis debaryanis interdum praesentibus.

Holotypus die 29 Augusti anni 1979 cum *Pulvinula constellatione* consociatus ad terram sub *Alno incana* circiter 1170 m supra mare prope vicum Pradella tractus Schulsiани regionis helveticae Graubünden sub numero Sch. 79.23 ab E. HORAK lectus, siccus in herbario Academiae Technicae Turicensis (ZT) depositus.

Fruit bodies scattered, superficial, sessile, greyish white all over, 200—300 μm broad, turbinate to pulvinate, irregular in outline, without margin; asci protruding when mature. Outer excipulum 20—30 μm thick, made up of one to a few layers of thin walled, subparallel rows of cells, which are loosely interwoven; the cell walls

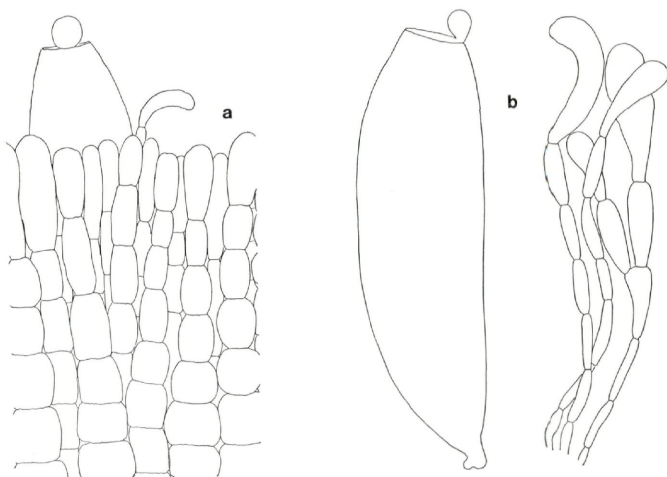


Fig. 2. *Chalazion helveticum*: a. cells in outer excipulum, surface view, above with ascus top and uppermost cell in paraphyse, b. ascus with operculum and paraphyses, from holotype, Sch. 79.23, $\times 500$

are cyanophilic; below the cells are angular to subglobose, 10—15 μm broad, in the middle drum shaped, 16—20 \times 10—16 μm , the uppermost cells are elongated, club shaped, 30—40 \times 8—10 μm . Medullary excipulum of densely interwoven hyphae, which are septate, 2—4 μm thick, weakly staining blue in Cotton Blue. Subhymnium indistinct. Hymenium 120—135 μm thick; asci 8-spored, non-amyloid, clavate, with a very short, narrow, often tap like, \pm pleurorhynchous, stipe, 130—145 \times 30—36 μm , with a prominent operculum, up to 9.5 μm broad; content of young asci heavily staining blue in Cotton Blue. Paraphyses colourless, above mostly curved and enlarged,

6—8 μm broad, with constrictions at the septa; walls cyanophilic. Spores 23.8—26.0—27.1 \times 12.5—13.8—15.8 μm , colourless, biseriata or irregularly disposed, ellipsoid or inequilateral, with strongly cyanophilic, isolated or rarely connected, hemisphaeric or irregular, warts, which are 2—4 μm broad and high; warts irregularly scattered on the surface of the spores; spores when young with many small guttules, when mature with granular content and one to several vacuoles; de Bary bubbles occasionally seen.

Material. — SWITZERLAND: Graubünden, Pradella, Schuls, in *Alnus incana* vegetation, alt. env. 1170 m, on soil together with *Pulvinula constellatio*, 29. viii. 1979, leg. E. HORÁK, Sch. 79.23 (Holotype, ZT).

Chalazion helveticum is clearly congeneric with *C. sociabile* DISS. & SIVERT., which was described from material from Northern Norway (DISSING & SIVERTSEN, 1975). The distinguishing characters may be summarized as in Table 1.

Table 1. Main distinguishing characters between *Chalazion helveticum* and *C. sociabile*

	<i>Chalazion helveticum</i>	<i>Chalazion sociabile</i>
Size of fruit body	200—300 μm	300—600 μm
Colour	greyish white	white
Length of asci	130—145 μm	165—200 μm
Size of spores	23.8—27.1 \times 12.5—15.8 μm	32.3—35.6 \times 14.9—17.5 μm

Discussion

The collection of *C. helveticum* was recognized when studying the soil sample with fruit bodies of *Pulvinula constellatio* under the dissection microscope in the field laboratory. The three known collections of *C. sociabile*, all from the type locality, which were collected together with *Pulparia* sp., *Trichophaea woolhopeia* (cf. DISSING & SIVERTSEN, l. c.) and *Ascobolus viridis* (unpublished, Mo 76.87 (C)) have been recognized under similar conditions.

No collection have so far been recognized in the field. The systematic position of the genus *Chalazion* is still uncertain. According to KORF (1973) it will key out in the family Pyronemataceae, but there it does not fit any subfamily nor tribe.

Acknowledgements

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Literature

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