

Helvella leucopus Pers. in Czechoslovakia. (Discomycetes, Helvellaceae)

Helvella leucopus Pers. v Československu

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The sand-dwelling Discomycete *Helvella leucopus* Pers. is reported for the first time from Czechoslovakia. Three new remarkable collections in Southern Slovakia and Southern Moravia and also one previous but unpublished collection realised 28 years ago are presented.

Pískomilný diskomycet *Helvella leucopus* Pers. je poprvé uveden z Československa podle 3 nových nálezů z jižního Slovenska a jižní Moravy a jednoho dosud nepublikovaného nálezu uskutečněného před 28 lety.

Results of the mycological research of steppe localities of the Southern and Eastern Slovakia in the spring 1978 proved to be very interesting especially with regards to Operculate Discomycetes which had been collected only rarely in preceding years in spite of a regular research. The very rich and conspicuous fructification of Operculate Discomycetes appeared at the all controlled steppe localities in the spring 1978 owing to extremely humid weather of precedent months. The very rich fructification of various species of Operculate Discomycetes was found especially in the State Nature Reserve "Čenkovská step" on the left bank of Danube river near a village Čenkov, district of Štúrovo, Southern Slovakia. It is a last, small part of a surviving steppe, originally formed of low windblown sand dunes which are flat nowadays and are fixed with scattered, chiefly steppe and thermophilic vegetation. The locality represents the single Czechoslovak habitat for *Ephedra distachya* and is well known also as an outstanding entomological locality. The steppe is surrounded by deciduous wood and a few trees of *Robinia pseudoacacia* and *Populus alba* are scattered on the border of the steppe. In the south of the steppe is a plantation of coniferous samplings (*Pinus silvestris*). The detailed list of plants of the locality was given by Kotlaba and Pouzar (1963).

The most remarkable finding undoubtedly was the collection of *Helvella leucopus* Pers. which has not yet been published from Czechoslovakia in spite of the regular mycological research and its conspicuous features. Dissing (1966b) who examined Czechoslovak material of the genus *Helvella* did not comprise any Czechoslovak locality of the species. The first collection of *H. leucopus* I realised on the 1st of May, 1978 on sandy soil among a moss *Tortula intermedia* and a scarce vegetation under the tree of *Populus alba* near the border of the steppe in association of *Sepultaria* sp. and *Tulostoma brumale*. A few fruitbodies were scattered in the open steppe too. With regards to other discomycetes, at the same time I found an extremely rich fructification of *Helvella leucomelaena* (Pers.) Nannf. in the south part of the steppe near the coniferous bush, and three apothecia of *Sarcosphaera dargelasii* (Gachet) Nannf. It is interesting that I collected the latter fungus there in preceding years too, but I never found *Peziza ammophila* Dur. et Mont. there, although this typical sand-dwelling discomycete was reported from the locality by Kotlaba et Pouzar (1963). Of course, *H. leucomelaena* and *S. dargelasii* are not typical steppe fungi and their secondary fructification corresponds with the coniferous habitat.

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After one week the fructification of *H. leucopus* was richer in this locality but I was highly surprised when I found this species in another locality at the same day on the 27th of May, 1978. The second locality—State Nature Reserve “Chotínské piesky” near a village Chotín, district of Komárno, Southern Slovakia, lies in the Danube lowland at a distance about 50 km from the former locality Čenkov. It represents quite a different steppe formed of gravelly sand dunes with thermophilic sand-dwelling vegetation. On small area of the southern part of the reserve I found an exceptionally abundant fructification of *H. leucopus* at various stages of the development of fruitbodies. Hundreds of the fruitbodies fructificated on the open steppe and on paths, but especially in a forest of *Populus alba* under the old trees as well as in a bush. Moreover, the size of the fruitbodies was abnormal for the species and even unusual for the genus and the robust fruitbodies rather resembled genus *Gyromitra* than *Helvella*. Unfortunately, the biggest fruitbodies were at the last stage of their development and soaked with water and therefore disabled to be kept and transported in order to take photographs. Apart from a few collections of a species of *Sepultaria* I had found no single fruitbodies of *H. leucopus* during the preceding years, so I considered this conspicuous fructification as a very interesting event. It is also remarkable that no fructification of *H. leucopus* has been found in steppes of southern areas of East Slovakia near the Hungarian border.

H. leucopus belongs to the section *Elasticae* Dissing and is easily recognizable not only for its features but also for its early fructification and sand-dwelling ecology. Similar *Helvella albella* Quél. is a much smaller species having slightly smaller ascospores and quite different ecology and later fructification, but the two species were confused by a some authors. Synonyms were discussed by Dissing (1966 a). We can only note that *Helvella monachella* Scop. ex Fr. is considered to be probably a species of *Gyromitra* but we may take into consideration the extreme size of the fruitbodies of our collection.

The fruitbodies of *H. leucopus* from the Slovakian localities were of the typical shape having saddle-shaped pileus with two or three, mostly irregular lobes with dark brown to black coloured hymenium and white to gray, smooth outer surface. Stipe was conspicuously strong, terete, hollow, smooth and mostly irregularly depressed especially near base and often with a few grooves. The size of the fruitbodies of the collection from Čenkov was within the ordinary size of the species, up to 7 cm high, while the fruitbodies from Chotín extremely exceeded the regular size: their pileus was up to 9 cm wide and stipe up to 3 cm thick and one fruitbody even has the stipe 5 cm thick. The fruitbodies resembling a *Gyromitra* sp. were up to 15 cm high. The micro-features were typical for the species and within the ascospore size given by Dissing (1966 b).

The photograph shows the fruitbodies from Čenkov only.

The other locality of *H. leucopus* was announced to me by Mr. A. Vágner who received specimens of the species from Čejkovice, Southern Moravia, collected on sandy soil in a cultivated vineyard in May 1978.

In spite of the fact that this species (known under the former synonyms as *Helvella monachella* Scop. ex. Fr. sensu Quél., Boud., and *Helvella albipes* Fuck.) has not been published from our country till the time, the mentioned three collections actually don't represent the first collections in Czechoslovakia. Dr. M. Svrček informed me (personal communication) that he found in the

herbarium of the National Museum in Prague (PRM) a specimen identical with *H. leucopus*, labelled by Dr. F. Šmarda as "*Helvella slovenica* sp. nov.?, Čenkov near Stúrovo, on cultivated soil of a ploughed field on the fringe of a deciduous wood, 6. V. 1950, leg. Milada Součková".

Thus, the actually first collection of *H. leucopus* in Czechoslovakia was made near the formerly mentioned locality 28 years before my collection in Čenkov.

This thermophilic sand-dwelling species was collected on numerous localities in the Mediterranean, especially in France and Italy, while in other countries is very rare and is missing in British Isles and in Scandinavia (Dissing 1966 b). Single localities are investigated from Austria, Holland, Roumania, Portugal and two from Germany and Hungary. Besides Europe, only solitary localities of the rare species are known in Algeria, USSR (Kirgizia) and USA.

If we take into consideration the intense mycological research in Czechoslovakia and the well-known mycological tradition in our country, we can consider the occurrence of *H. leucopus* in Southern Slovakia at least as surprising, especially with regards to the fructification in Čenkov after the 28 years.

References

- DISSING H. (1966a): A revision of collections of the genus *Helvella* L. ex Fr. emend. Nannf. in the Boudier herbarium. *Rev. Mycol. (NS)* 31: 189–224.
 DISSING H. (1966b): The genus *Helvella* in Europe with special emphasis on the species found in Norden. *Dansk Bot. Arkiv, Copenhagen*, 25/1: 1–172.
 KOTLABA F. et POUZAR Z. (1963): Dvě vzácné pískomilné houby v Československu: křehutka písečná – *Psathyrella ammophila* (Dur. et Lév.) P. D. Orton a baňka písečná – *Sarcosphaera ammophila* (Dur. et Mont.) Moesz. *Čes. Mykol.* 17: 71–75.

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