

Clavulinopsis umbrinella (Basidiomycetes, *Clavariaceae*), the first record in the Czech Republic

OLDŘICH JINDŘICH¹ and VLADIMÍR ANTONÍN²

¹Osek 136, CZ-267 62 Komárov, Czech Republic
jindrich@nemhoro.cz

²Moravian Museum, Department of Botany, Zelný trh 6, CZ-659 37 Brno, Czech Republic
vantonin@mzm.cz

Jindřich O. and Antonín V. (2005): *Clavulinopsis umbrinella* (Basidiomycetes, *Clavariaceae*), the first record in the Czech Republic. – *Czech Mycol.* 57: 51–55.

A find of *Clavulinopsis umbrinella* (Sacc.) Corner (= *C. cinereoides* (G.F. Atk.) Corner; Basidiomycetes, *Clavariaceae*) from the Bílé Karpaty Protected Landscape Area near the Czech-Slovakian border is published. It represents the first record in the Czech Republic. A detailed description is given and differences from similar species are discussed.

Key words: Basidiomycetes, *Clavulinopsis*, Czech Republic, Moravia, White Carpathian Mts.

Jindřich O. a Antonín V. (2005): *Clavulinopsis umbrinella* (Basidiomycetes, *Clavariaceae*), první nález v České republice. – *Czech Mycol.* 57: 51–55.

Druh *Clavulinopsis umbrinella* (Sacc.) Corner (= *C. cinereoides* (G.F. Atk.) Corner; Basidiomycetes, *Clavariaceae*) byl nalezen v CHKO Bílé Karpaty poblíž Česko-Slovenské hranice. Jedná se o první nález v České republice. Jsou diskutovány rozdíly oproti podobným a příbuzným druhům.

INTRODUCTION

During a mycological collecting trip to the Bílé Karpaty (White Carpathians) Protected Landscape Area late autumn 2000, the second author found an unusual and rather small *Clavaria*-like fungus distinguished by branched, white or whitish coloured carpophores. Some features agreed with *Clavaria aestivalis* Romagn., however, having well-developed hyphal clamp connections, it belongs to the genus *Clavulinopsis* Overeem and represents the very rare species *Clavulinopsis umbrinella* (Sacc.) Corner.

Microscopic features are described from material mounted in Melzer's reagent, Aniline Blue, Congo Red and about 5 % KOH. For the basidiospores the following factors are used: E (quotient of length and width in any one spore) and Q (mean of E-values). Authors of fungal names are cited according to Kirk and Ansell (1992).

RESULTS AND DISCUSSION

***Clavulinopsis umbrinella* (Sacc.) Corner**
= *Clavulinopsis cinereoides* (G.F. Atk.) Corner

Carpophores up to 25 mm high, with cylindrical to slightly laterally compressed, smooth or slightly rugulose branches, mostly branched almost from the base, apices sometimes 3-4 times branched (bifurcate), conical, acute; white or whitish at base, apex with ochraceous tinge to pale ochraceous coloured, becoming darker when dry.

Basidiospores 4.5-6.7(-7.5) x 4.5-6.7 μm , E = 0.9-1.2, Q = 1.0, globose or rarely subglobose, with an up to 1 μm long apiculus, smooth, with one large guttula or several smaller ones, thin-walled, hyaline, non-dextrinoid, congophobe, acyanophilous. Basidia 45-72 x 5.5-9.0 μm , 4-, rarely 2- or 3-spored, narrowly clavate, with 6.7-8.1 μm long sterigmata, sometimes with granular contents. Subhymenial hyphae cylindrical, \pm thin-walled, 1.8-5.4 μm wide, non-dextrinoid, congophilous, acyanophilous, with 0.5-0.8 μm thick walls, irregularly septate, some septa very close, other rather distant from each other. Clamp connections present in all tissues.

Ecology: Growing on soil among grasses at a wet place in an open stand.

Locality: Czech Republic, Moravia, Bílé Karpaty Protected Landscape Area, Slavkov near Uherský Brod, National Nature Reserve Porážky, buffer zone Přední louky, 26 Oct. 2000 leg. V. Antonín 00.175 (BRNM 652914).

This record of *Clavulinopsis umbrinella* is the first one in the Czech Republic. So far it has been collected in France, Great Britain, Northern Ireland (Jülich 1984), Germany (Krieglsteiner and Schößler 2002, Oertel and Fuchs 2001), Denmark, Sweden (Knudsen 1997) and Norway (Anonymus 2005); it has also been collected in the USA (Leacock 2004). In Sachsen, it is included in the Red List of fungi in the category "extremely rare" (R) (Hardtke and Otto 1999) and in Denmark in the Red List (Anonymus 1997). McHugh et al. (2001) included this species among valuable species for grassland conservation. Jülich (1984) distinguished two species (*C. umbrinella* and *C. cinereoides*), however, already Petersen (1968) reduced *C. cinereoides* to the synonymy of *C. umbrinella*.

Among other white coloured *Clavulinopsis* species, *C. subtilis* (Fr.) Corner has smaller (3.5-4.5 x 3-3.5 μm), \pm subglobose basidiospores with one guttula, and the tops of its branches are simple, not cristate. *Clavulinopsis dichotoma* (Godey) Corner has only slightly smaller (4-6 x 3.5-5 μm), subglobose basidiospores with one guttula and the tops of its branches are darker (like in *C. umbrinella*), but obtuse, never cristate (Corner 1950, 1970).

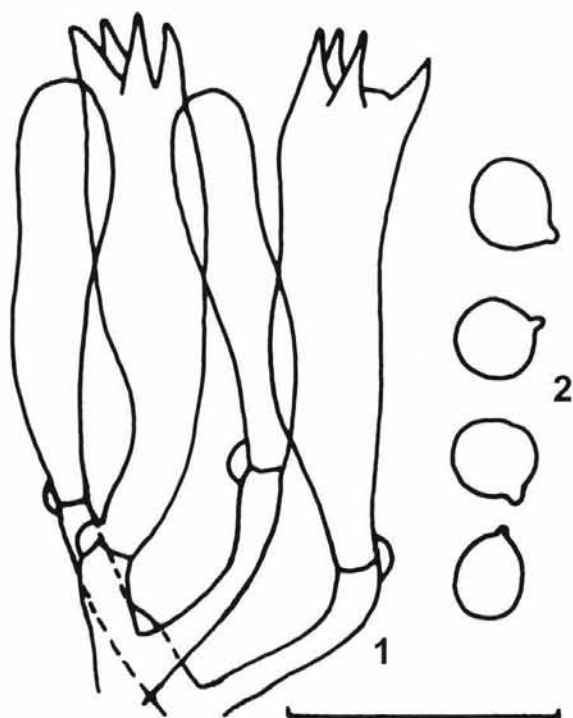


Fig. 1. *Clavulinopsis umbrinella* (Bílé Karpaty, 26 Oct. 2000): 1. Basidia and basidioles, 2. basidiospores. Scale bar = 20 μ m.

Clavulinopsis umbrinella is macroscopically very similar to *Clavulina cristata* (Holmsk.) J. Schröt. var. *cristata*. However, the latter species differs by 2-spored basidia and larger basidiospores (Pilát 1958). *Clavaria aestivalis* Romagn. is also rather similar, both macro- and microscopically. However, it is characterised by the absence of clamp connections (Romagnesi 1969). White coloured species of the genus *Ramariopsis* (Donk) Corner have rough to verruculose basidiospores and the tops of their branches are simple, not cristate (Domański 1984).



Fig. 2. *Clavulinopsis umbrinella* (Bilé Karpaty, 26 Oct. 2000), photo V. Antonín.

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