

The second European record of *Entoloma exiguum*

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Abstract. Data are presented on the second record in Europe of *Entoloma exiguum*. A full description and illustration of the Ukrainian collection, as well as information about its habitat are provided.

Key words: *Agaricales*, *Entoloma*, subgenus *Claudopus*

Introduction

While investigating the agarics of Luhans'k Nature Reserve (Ukraine, Luhans'k region) in 2004 an interesting representative of the genus *Entoloma* (Fr.) P. Kumm. with pleurotoid basidiocarps was found. It apparently belonged to section *Claudopus* Noordel. of the subgenus *Claudopus* (Gillet) Noordel. (Noordeloos 2004) and its features were very similar to those of *Entoloma exiguum* Esteve-Rav. et M. de la Cruz. Taking into account that so far this species had been known from the type-locality only, it was decided to send the specimen to Anton Hausknecht (Austria) for confirmation. Thus, this locality of *E. exiguum* is the second one in Europe and the first one in East Europe.

Materials and Methods

The microscopic structures were observed in dried material. Sections of lamellae and pileipellis were made at about ½ radius of pileus and examined in 3 % KOH. The spores were studied in water and 3 % KOH separately. Spore size is based on 30 spore measurements per fruit body from one habitat. For basidia and cystidia the mean of the smallest and the largest object per fruit body is given with 10 measurements in each case.

The collection was made by the author and is deposited in the Herbarium of M.G. Kholodny Institute of Botany, National Academy of Sciences of Ukraine, Kiev, Ukraine (KW).

In the descriptions, these abbreviations are used: B = average breadth of the spores in front view; Ls = average length of the spores; L = number of lamellae reaching stipe; l = number of short lamellae (not reaching stipe) between two long ones; n = general number of measured spores; Q = length divided by breadth; av. Q = average Q.

Results and Discussion

When I tried to identify my collection, I was rather discouraged by the fact that previously *E. exiguum* was known only from type locality in Spain and from a very different habitat (Esteve-Raventós & Cruz 1998; Noordeloos 2004). The type-specimen was found among plant detritus under herbaceous plants at the edge of a reservoir on half-flooded calcareous soils, while our one was recorded in flood lands of the river Siverskyj Donets on rotten hardwood (probably *Acer campestre* L.) in the deciduous forest formed by *Fraxinus excelsior* L. mixed with considerable amount of *Acer campestre*. Thus, we can only ascertain that *E. exiguum* prefers rather moist habitats and can occur both on hardwood and on other plant debris. However, a wide ecological range is not an uncommon feature in section *Claudopus* (Noordeloos 2004). In order to obtain more information about ecological preferences of this rare species further studies are necessary. The Ukrainian collection is presented in detail below.

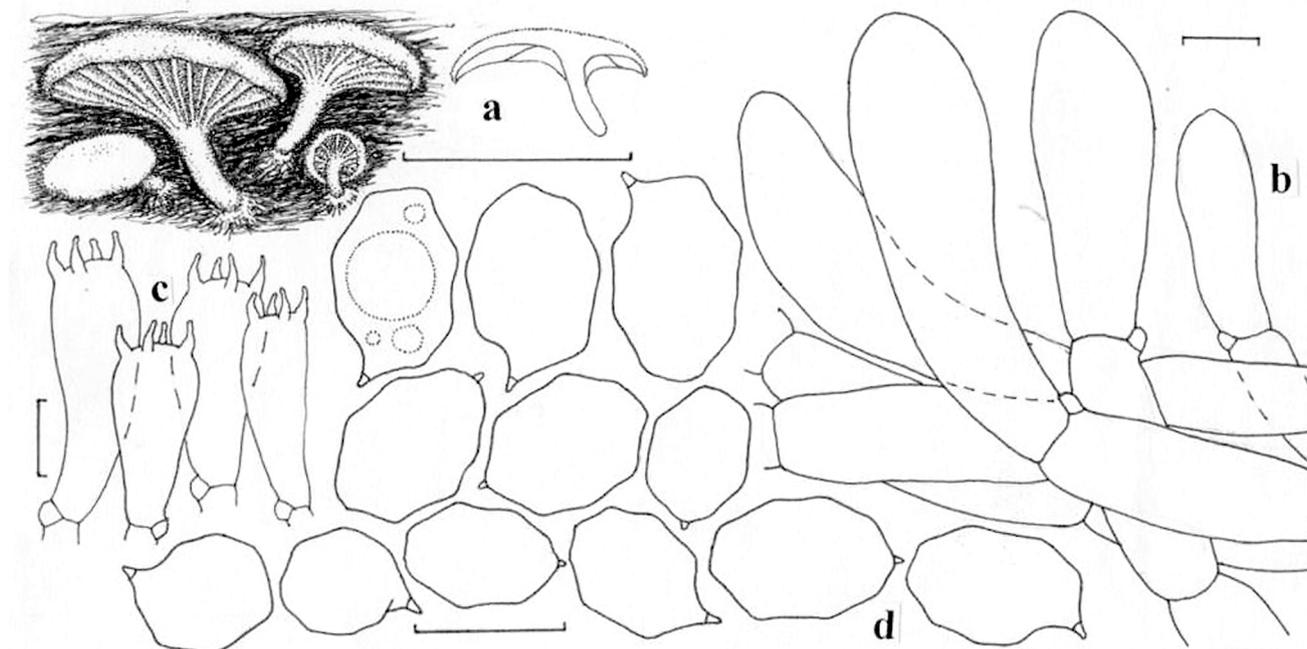


Fig. 1. *Entoloma exiguum* Esteve-Rav. et M. de la Cruz: a – fruit-bodies, b – pileipellis, c – basidia, d – spores. Bars = 1 cm for fruit-bodies and 10 μ m for microstructures

Entoloma exiguum Esteve-Rav. et M. de la Cruz, Persoonia 17: 143, 1998. Fig. 1

Pileus 2-9 mm in diameter, slightly asymmetrical, at first plano-convex, then applanate to somewhat depressed at centre, slightly ribbed at margin when old, white, later pinkish white because of the pink lamellae being visible through the pileus, velvety, glabrescent towards margin. **Lamellae** well-developed, slightly to distinctly decurrent, fairly narrow (up to 0.7 mm), rather distant ($L = 10-17$, $l = 0-1$), white at first, then becoming pale pink with concolorous edge. **Stipe** 2-4 \times 0.3-1.5 (–2) mm, attenuated downwards, rather distinctly eccentric, white, tomentose, later almost glabrous. **Flesh** white. **Taste and smell** indistinct. **Spore print** pink.

Spores (8.5–) 9-12.7 (–13.2) \times 6.5-8.6 μ m ($n = 30$), $L_s = 10.5 \pm 1.27$ μ m; $B = 7.4 \pm 0.56$ μ m; $Q = 1.25-1.78$, av. $Q = 1.4 \pm 0.11$; heterodiametrical, 6-8 angled in side-view, 6-9 angled in frontal view, with rounded angles to almost nodulose. **Basidia** 24-31 \times 8.5-12.5 μ m, 4-spored, clavate, with clamps. **Cheilo-** and **pleurocystidia** absent. **Hymenophoral trama** regular, made up of cylindrical hyphae 6-11 μ m broad. **Pileipellis** a trichoderm, made up of clavate inflated terminal elements, constricted at the septa, 29-60 \times 11-17 μ m. **Pigment** not observed. **Stipitipellis** a trichoderm similar to that of pileus, made up of inflated terminal cells up to 15.5 μ m wide. **Clamp-connections** present in hymenium, more scattered in other parts of carpophores.

Habitat: on rotten hardwood (? *Acer*) in alluvial deciduous forest (*Fraxinus*, *Acer*) that is regularly flooded.

Specimen examined: UKRAINE: Luhans'k region, Luhans'k Nature Reserve (Stanychno-Luhanske plot), 48°44' N, 39°21' E, alt. ca 20 m, 18 Sep 2004, M.P. Prydiuk (KW 32826).

There are only a few white representatives of the section *Claudopus*. *Entoloma albotomentosum* Noordel. et Hauskn. differs by larger, more isodiametrical 4-6 angled spores and absence of clamps, whereas *E. jahnii* Wölfel et Winterh. has the capitate cystidia on pileus and stipe. Also *E. ollare* E. Ludw. et T. Rödiger ex E. Ludw. et T. Rödiger possesses rather pale colored fruit-bodies but it has minutely incrustated hyphae of pileipellis and a farinaceous smell (Noordeloos 2004). The type specimens differ from ours mainly by the slightly smaller spores [(9.5–) 10-12 \times 6.5-8.5 μ m] and shorter tomentose stipe, that is not attenuated downwards (Esteve-Raventós & Cruz 1998).

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