

***Lyophyllum pseudosinuatum* spec. nova (*Tricholomataceae*), a new blackening species found in Italy and Germany**

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Abstract: The authors propose a new blackening *Lyophyllum* species, viz. *Lyophyllum pseudosinuatum* spec. nova, which has been collected in Italy and Germany. A detailed description and colour photographs of fresh basidiocarps of the Italian and German collections are provided.

Zusammenfassung: Die Autoren stellen eine neue schwärzende Art aus der Gattung *Lyophyllum*, *Lyophyllum pseudosinuatum* spec. nova, mit Beschreibung und Farbfotos von frischen Fruchtkörpern vor. Aufsammlungen der neuen Art liegen bisher von drei Standorten aus Italien und Deutschland vor.

A very distinctive but so far unknown blackening *Lyophyllum* species was collected by the first author during field work near Monterenzio (Bologna, Italy), on the 4th of October 2002, and also in the Berignone-Tatti forests, near Volterra (Siena, Italy), on the 23rd of October 2002.

Subsequently, namely in June 2004, the same species was sent to the second author from Germany by GÜNTER SAAR who had not been able to find a name for his three collections made on the same locality over several years in a broad-leaved forest near Freiburg, in the Rhine valley.

Consequently, the species is described as new below.

***Lyophyllum pseudosinuatum* CONSIGLIO, CONTU & SAAR, spec. nova**

Descriptio latina:

Pileus 50-120 mm, convexus, deinde plano-convexus, humili et lato umbone praeditus, margine inflexa, undulata-laciniata. Cuticula sicca, albidogriseola vel pallide griseo-brunneola, paulum marmorata, saepe omnino albo-pruinosa. Lamellae latae et crassae, adnatae vel emarginato-adnatae, albidae vel griseolae, tactu caerulescentes deinde nigrescentes. Stipes 40-150 × 30-50 mm, valde robustus, obclavatus, basi attenuatus,

subradicans, sordide albidos, fibrillis griseolis exornatus, tactu nigrescens. Caro firma, alba, resecta griseobrunneola, valde nigrescens; odor et sapor farinacei. Sporae 6,0-8,0 (-9) × 5,0-7,5(-8,5) µm, hyalinae, cyanophilae, globosae vel subglobosae, laeves. Basidia tetrapsorigera, elata et robusta. Cellulae marginales dissipatae in acie lamellarum, cylindraceae, subclavatae vel subfusiformes, 4,5-6 µm latae. Pileipellis e hyphis cylindraceis innexis, 3-7,5 µm latis, interdum sine ordine erectis, ad instar trichodermatis, constituta; pigmento praesertim intraparietali. Fibulae numerosae.

Habitatio gregaria, non caespitosa, in nemoribus frondosis, in solo calcareo. Autumno.

Holotypus (hic designatus): Italia, in loco "Ronchi" dicto, prope Monterenzio (Bologna), 650 m alto supra mare, in nemore mixto cum *Quercu cerris*, *Quercu pubescenti* et *Corno mare*, 4. 10. 2002, leg. G. CONSIGLIO et G. SPISNI, in Herbario MCVE sub n. 991 conservatur.

Description:

Pileus: 50-120 mm in diam., very fleshy, convex then plano-convex, with enrolled margin, often with a low and obtuse umbo, dry, whitish, whitish-grey, ash-grey to pale greyish-brown and then resembling *Entoloma sinuatum* (BULL.: FR.) P. KUMM. or *Lyophyllum rhopalopodium* CLÉMENÇON, glabrous but marmorized, sometimes guttate or radially innate with fine, concolorous or slightly darker adnate fibrils, often covered with an abundant white pruina.

Lamellae: moderately crowded, thick, up to 10 mm wide, adnate or uncinate-adnate emarginate to even free, whitish cream to concolorous with the cap, rapidly staining blue-grey or fuliginous when bruised (but the bluish discoloration is not always easy to see), lamellar edges naked, somewhat irregular in some basidiocarps.

Stipe: 40-150 x 30-50 mm, solid and stout, mostly subclavate and radicating at the extreme basis, white but covered with greyish fibrils or squamulae, greying then blackening on handling. Mycelium white.

Context: firm, heavy, white, staining brownish-grey when cut, blackening. Smell sometimes very strong, mealy; taste slightly mealy, not bitterish at all.

Spore-print: white.

Spores: 6-8(-9) × 5-7,5(-8,5) µm, hyaline, cyanophilous, subglobose to broadly ellipsoid, mostly subglobose, smooth, with one or more little oil-drops.

Basidia: 35-45 x 8-10,5 µm, four-spored, clavate, with patent but fine siderophilous grana, with clamp connections; subhymenium ramosa, not gelatinized.

Hymenophoral trama: regular, made up of cylindrical, smooth and hyaline 3,5-16 µm wide hyphae; tromboplerous hyphae not very common, up to 7,5 µm wide.

Cystidia: lacking but lamellar edge with scattered, filamentous, 4,5-6 µm wide marginal cells which are cylindrical, subclavate to subfusiform.

Pileipellis: made up of a thin ixocutis with transition to a (pseudo-)trichoderm of cylindrical, clavate to subfusiform 3-7,5 µm wide hyphae, with mainly intraparietal pigment.

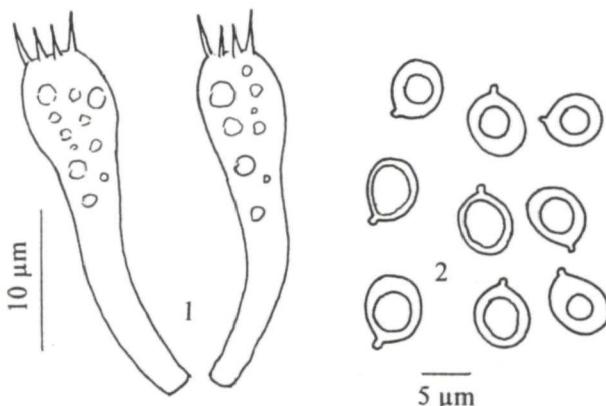


Fig. 1. *Lyophyllum pseudosinuatum* (Type). Basidia and spores. – Bars: spores 5 μm , basidia 10 μm .

Stipitipellis: not gelatinized, composed of a cutis of cylindrical hyphae, with scarce subclavate or cylindrical end-cells.

Clamp connections: present on all septa.

Habitat: gregarious, not caespitose, under hardwoods (*Quercus ilex*, *Fagus sylvatica*), on basic soil. Known from Italy and Germany.

Collections examined (besides type): Italy: Prov. Siena, Berignone-Tatti Forests, Volterra, under *Quercus ilex*, 23. 10. 2002, leg. G. CONSIGLIO, A. COPPOLECCIA, D. ANTONINI and M. ANTONINI (E.C. n. 02342).

Germany: Baden-Württemberg, Freiburg/Ebringen, Schönberg, alt. 400 m s. m., in a mixed broadleaved forest on calcareous soil with *Fagus*, *Carpinus*, *Prunus*, and *Corylus*, 10. 10. 1991, 25. 9. 1998, 22. 9. 2001, leg. G. SAAR (GS 22901-1).

No similar species seem to exist among the blackening subglobose-spored taxa described in the literature both from Europe and overseas (BON 1999; CLÉMENÇON 1982, 1986; CONSIGLIO & CONTU 2002; LUDWIG 2000, 2001).

Lyophyllum coerulescens CLÉMENÇON (CLÉMENÇON 1982, 1986; CLÉMENÇON & SMITH 1983), known from Europe, is sharply different due to the collybioid appearance, very strong and unpleasant smell and taste, shorter basidia, and slightly smaller basidiospores.

Lyophyllum crassipodium MALENÇON & BERTAULT ex CONTU (CONSIGLIO & CONTU 2002), also growing on basic soils, is a mediterranean species differing by the darker tinges especially in the cap, which is never umbonate, the not bluing gills and the caespitose growth; micromorphologically it has a pileipellis made up of a cutis of not suberected hyphae with an often extracellular pigment.

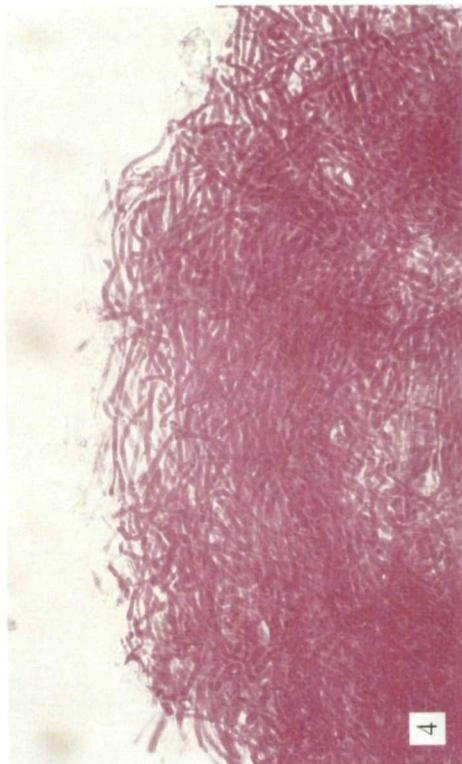
Lyophyllum rhopalopodium CLÉMENÇON (CLÉMENÇON 1985; LUDWIG 2000, 2001) can be confused in the field on account of the similar large size and appearance, but it can be easily distinguished by its peculiar subtriangular spores.

Concerning the extraeuropean taxa, the closest species seems to be *Lyophyllum laticeps* (KAUFFMAN) CLÉMENÇON, known only from North America (KAUFFMAN 1918, as *Tricholoma laticeps*; CLÉMENÇON 1982; CLÉMENÇON & SMITH 1983).

Also this species has a tricholomatoid habit but differs in having darker tinges, especially in the pileus, which is fuscous-black, a very short stem, odourless context, shorter basidia and slightly smaller basidiospores.

References

- BON, M., 1999: Les Collybio-marasmioïdes et ressemblants. – Doc. Mycol. Mém. HS **5**.
- CLÉMENÇON, H., 1982: Type studies and typifications in *Lyophyllum* (*Agaricales*). I. Staining species. – Mycotaxon **15**: 67-94.
- 1986: Schwärzende *Lyophyllum*-Arten Europas. – Z. Mykol. **52**: 61-84.
- SMITH, A. H., 1983: New species of *Lyophyllum* (*Agaricales*) from North America and a key to the known staining species. – Mycotaxon **18**: 379-437.
- CONSIGLIO, G., CONTU, M., 2002: Il genere *Lyophyllum* P. KARST. emend. KÜHNER, in Italia. – Riv. Micol. **45**: 99-181.
- KAUFFMAN, C. H., 1918: The *Agaricaceae* of Michigan. I. – Lansing.
- LUDWIG, E., 2000: Pilzkompendium, Bd. 1 Abbildungen. – Die kleineren Gattungen der Makromyzeten mit lamelligem Hymenophor aus den Ordnungen *Agaricales*, *Boletales* und *Polyporales*. – Eching: IHW.
- 2001: Pilzkompendium, Bd. 1 Beschreibungen. – Die kleineren Gattungen der Makromyzeten mit lamelligem Hymenophor aus den Ordnungen *Agaricales*, *Boletales* und *Polyporales*. – Eching: IHW.



Colour figs. 1-4. *Lyophyllum pseudosimatum*. 1. Type, 2. Italy 23. 10. 2002, 3. Germany, 4. Cutis under microscope.

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