

Tricholomopsis osiliensis, a new agaric species from Estonia

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Abstract: The new species *Tricholomopsis osiliensis* from Saaremaa, Estonia, is described and illustrated. This rare species was found in rich mixed forest, growing on a fallen trunk of *Picea abies*.

Kokkuvõte: *Tricholomopsis osiliensis*, uus liik Saaremaalt

Saaremaalt (Eesti) kirjeldatakse uus liik *Tricholomopsis osiliensis*; lisatud on ka illustratsioonid. See haruldane liik leiti segametsast mahalangenud kuuse (*Picea abies*) tüvelt.

INTRODUCTION

The genus *Tricholomopsis* Singer is widespread and cosmopolitan. The species are lignicolous, growing on conifers, and causing white rot. In Europe, two common species, *T. decora* (Fr.: Fr.) Singer and *T. rutilans* (Schaeff.: Fr.) Singer, are recognized (e.g. Boekhout & Noordeloos 1999, Ludwig 2001, Vesterholt 2008). During the XVII Symposium of the Baltic Mycologists and Lichenologists in Saaremaa, Estonia, a strange species of *Tricholomopsis*, characterized by the absence of coloured squamules, was found growing abundant at one site. It is described here as a new species *Tricholomopsis osiliensis*.

MATERIAL AND METHODS

Macroscopical characters were noted and cross section drawn from fresh fruit bodies. Colour codes refer to Küppers (1981). Microscopical characters were measured and drawn from dried material mounted in 10% NH₄OH solution at 1000× magnification. Means are given as italics and bold. The Q value was calculated for each spore. The ITS sequence including 5.8 of rDNA was analysed from the collection of *T. osiliensis*, and one collection of *T. decora* for comparison, by Katri Kokkonen (Herbarium, University of Turku). For the sequence methods used see Vauras & Kokkonen (2009).

Tricholomopsis osiliensis Vauras, sp. nov.

– Figs 1–2

Pileo 3.5–9 cm lato, brunneolo-flavo, sine squamulis conspicuis, aliquantum hygrophaneo.

Lamellis usque ad 7 mm latis, adnatis, flavis. Stipite 4–8 cm longo, 4–12 mm crasso, brunneolo-flavo. Sporis 6.0–8.2 × 4.5–6.0 μm, ellipsoideis. Ad truncum Piceae.

Holotype: Estonia, Saaremaa, Salme commune, Kaugatoma – Lõu Landscape Protection Area, Ca. 650 m SSE of Kaugatoma pank, fairly moist mixed forest on calcareous soil with *Picea abies*, *Betula*, *Alnus glutinosa*, *Corylus avellana* and *Fraxinus excelsior*, on fallen, dead, mossy, trunk of *Picea abies*, bark still attached, alt. ca. 10 m, 18.IX.2008 J. Vauras 26540F (TUR-A; isotypes in H, M, MICH, O, TAA).

Etymology: *osiliensis* (Latin), refers to the Baltic island Saaremaa (in Latin Osilia, in German and Swedish Ösel).

Pileus 3.5–9 cm in diam, plano-convex, umbo low, blunt and broad, margin involute, later deflexed, often with undulating marginal zone when old, pale brownish yellow (S10Y50M10), hygrophanous, in such areas pale beige, often with ochre watery areas, centre slightly tomentose, outwards fibrillose to almost smooth, margin with minute squamules, identical in colour.

Lamellae up to 7 mm broad, crowded, sinuate, adnate, often with a decurrent tooth, pale yellow to yellow (S10Y50M10), with concolorous to pale brownish, often serrulate edge, lamellulae abundant.

Stipe 4–8 cm long, 4–12 mm wide, equal or slightly widening towards the base, finally fistulose, whitish to pale yellow at apex, brownish



Fig. 1. Fruit bodies of *Tricholomopsis osiliensis* in situ. Part of the type collection.

yellow below, with brownish fibrillose covering.

Context yellow-white to brownish yellow.
Smell and *taste* weak.

Spores 6.0–6.9–8.2 × 4.5–5.3–6.0 μm, Q = 1.2–1.33–1.5(–1.6), (n = 30), ellipsoid to broadly ellipsoid, thin-walled, inamyloid. *Basidia* 28–36 × 7–8 μm, narrowly clavate, 4-spored. Lamella edge sterile. *Cheilocystidia* 27–98 × 21–38 μm, ovoid to clavate. *Pleurocystidia* present but very scarce, cylindrical to clavate, e.g. 42 × 9 μm. *Terminal cells of surface hyphae at stipe apex* cylindrical to narrowly clavate, 32–52 × 10–12 μm. *Clamp-connections* abundant.

Notes on ecology

The locality of *Tricholomopsis osiliensis* is rich, adult mixed forest dominated by *Picea abies*. Several fungi typical to rich, calcareous forests were found in the forest. They include *Cortinarius muscivus* (Fr.) Melot, *Gyrodon lividus* (Bull.: Fr.) P. Karst., *Inocybe maculata* Boud., *I. nitidiuscula* (Britzelm.) Sacc., *Hebeloma crustuliniforme* (Bull.) Quél., *Lactarius olivinus* Kytöv.,

L. scrobiculatus (Scop.: Fr.) Fr., *Paxillus filamentosus* (Scop.) Fr., *Russula alnetorum* Romagn., and *R. queletii* Fr.

DISCUSSION

Tricholomopsis osiliensis differs macroscopically clearly from the two well-known species *T. decora* and *T. rutilans*. In Europe, sometimes also the taxa *T. flammula* Métrod and *T. ornata* (Fr.) Singer are recognized (e.g. Horak 2005). However, for example Ludwig (2001) includes the previous name in *T. rutilans*, and the latter in *T. decora*. Testing the ITS sequences of *T. osiliensis* against those of *T. decora* (JV 25057F from Finland, Koillismaa, Kuusamo (TUR-A)) showed differences of 31 base pairs and 13 gaps (length 1–14 bases).

In North America, several species of *Tricholomopsis* have been described (Smith 1960). *T. osiliensis* could be classified to belong to the section *Decoramentum* A.H.Sm. It does not fit exactly to any species in that section, but *T. bella* A.H.Sm. and *T. sulfureoides* (Peck) Singer var.

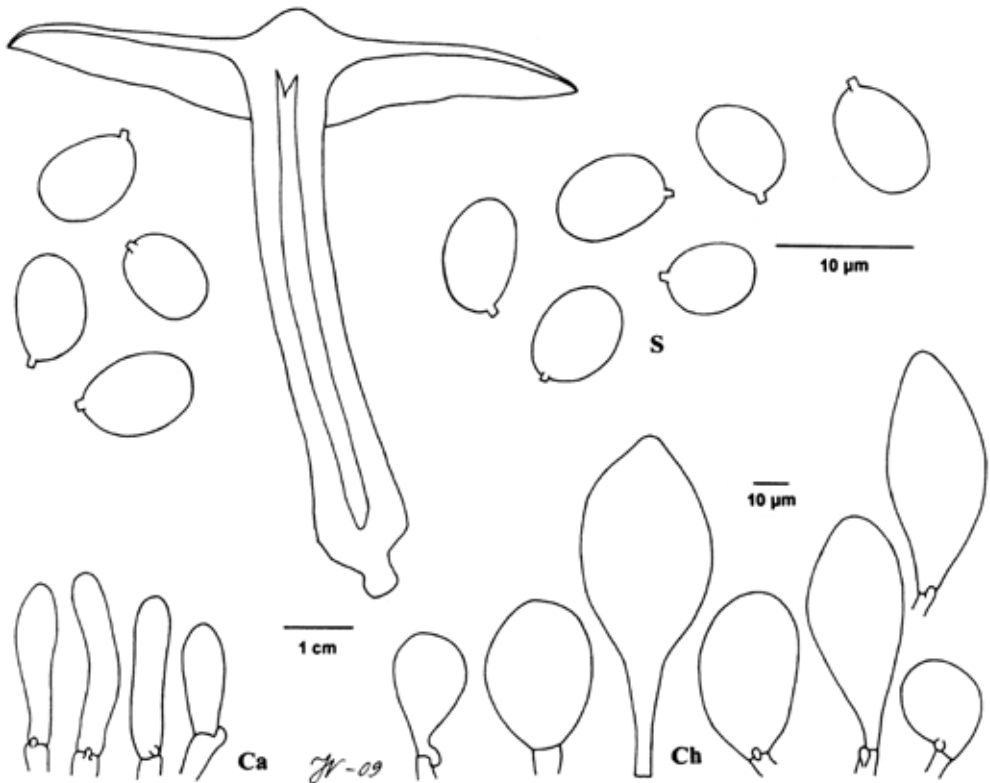


Fig. 2. Cross section of a fruit body and microscopical characters of *Tricholomopsis osiliensis* (holotype). Symbols: Ca = terminal cells of surface hyphae at stipe apex, Ch = cheilocystidia, S = spores.

megaspora A.H.Sm. could be the closest taxons on that continent.

ACKNOWLEDGEMENTS

Kuulo Kalamees and the whole mycology team of the University of Tartu is gratefully thanked for arranging very interesting joint excursions in different areas of Estonia. Katri Kokkonen is acknowledged for her work with the sequences, and Seppo Huhtinen for his review of the manuscript.

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