

***HYPHOLOMA MYOSOTIS* (FR.) M. LANGE (BASIDIOMYCOTA, FUNGI) THE
FIRST RECORD IN ROMANIA**

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Abstract. *Hypholoma myosotis* (Fr.) M. Lange is a saprophytic species rarely spread in the oligotrophic peat bogs on the territory of Europe and North America. The species is being signaled for the first time on the territory of Romania in the oligotrophic peat bog at Panaci (Dornelor Depression, Eastern Carpathians). This paper also presents aspects regarding the morphology and ecology of the species.

Key words: *Hypholoma myosotis*, oligotrophic peat bog, Panaci

Introduction

The genus *Hypholoma* belongs to the basidiomycete family Strophariaceae and includes, alongside other lignicolous species, some other representatives found in oligotrophic peat bogs, where they develop as saprophytes on *Sphagnum* remains (*Hypholoma elongatum* (Pers.) Ricken) and on peaty soils (*Hypholoma myosotis* (Fr.) M. Lange, *Hypholoma udum* (Pers.) Kühner).

The Species *Hypholoma elongatum* and *Hypholoma udum* are widely spread, while *Hypholoma myosotis* is quite rare in the oligotrophic peat bogs from Europe and North America [1]

Material and Method

The specimens were collected from peaty substrata. Herbarium samples were prepared in a dryer and included in the Herbarium collection of the Faculty of Biology - „Alexandru Ioan Cuza” University of Iasi [I 129713].

The photographs were taken in the field with a digital photo camera.

The morphological characterization of *Hypholoma myosotis* has been defined through description and measurement of microscopic (basidia, basidiospores, cheilocistidia, pleurocystidia) and macroscopic (cap, gills, stem) structures. Microscopic features are described from material mounted in Amman lactophenol.

Our results were compared with the species description from the specialty literature.

The systematic classification of *Hypholoma myosotis* is specified after Kirk and collaborators [4].

Macroscopic and Microscopic Description

Hypholoma myosotis (Fr.) M. Lange *Meddr Grønland*, Biosc. 148: 64 (1955)

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Synonymy: *Agaricus myosotis* Fr.; *Dryophila myosotis* (Fr.) Kühner & Romagn.; *Flammula myosotis* (Fr.) Singer; *Hemipholiota myosotis* (Fr.) Bon; *Naucoria myosotis* (Fr.) P. Kumm.; *Naucoria myosotis* f. *minor* J.E. Lange; *Nematoloma myosotis* (Fr.) A.H. Sm.; *Nematoloma myosotis* var. *lapponicum* (Fr.) Singer; *Phaeonematoloma myosotis* (Fr.) Bon; *Pholiota myosotis* (Fr.) Singer [5].

The cap has a diameter of 10 – 30 (40) mm, is convex at the margins, then slightly upraised and umbonate at the center. The surface is hydrophane, smooth (slightly striated), viscous on humid weather, brown to reddish – brown with olive reflexes. The cap margin presents fine velum remains (Photo 1).

The gills are adnate emarginated, initially cream – colored, subsequently turning brown to reddish brown, with a whitish and denticulate edge (Photo 2).

The stem has a dimension of 50 – 80 (150) x 2 – 4 mm, is cylindrical, fistulous, with a slightly broadened tip. The surface is brownish, growing darker towards the base. The upper half of the stem displays fine fibrilous velum remains.

The basidiospores are ovoid to ellipsoidal, smooth, ochre – yellowish, having a dimension of 13.6-18.4 x 7.9-10.6 μ , with thickened walls and are provided with a germinative pore. The spore print is brown-reddish.

Basidia are cylindrical, pedunculated, 28 – 35 x 10 – 13 μ , tetrasporic, curled.

Cheilocystides are cylindrical, sinuous, 35 – 55 x 6 – 10 μ . Pleurocystidia (present as chryso-cystidia) are fusiform, ventriculose, 35 – 50 x 8 – 17 μ (Figure 1).

The specimens analyzed by the authors confirm the morphological description in the specialty literature [1, 3].

Discussions

Hypholoma myosotis is a saprophytic species which grows on acid peaty substrata, isolated or in groups in the summer – autumn period, in open oligotrophic peat bogs with birch trees.

In Romania, *Hypholoma myosotis* has been found for the first time, and identified by the authors in October 2005, during field – investigations carried out in the oligotrophic peat bogs from the mountainous area of Suceava County.

The oligotrophic peat bog where the species *Hypholoma myosotis* was identified is located within the locality limits of Panaci (Dornelor Depression, Eastern Carpathians), at the intersection of the 47°14'31" parallel N latitude and the 25°23'12" meridian S longitude, at an altitude of 926 m. The peat bog has a surface of 0.5 hectares, is situated on private property, and is crossed by drainage canals (Photo 3).

P. A. Moreau mentions the fact that this species grows in degraded oligotrophic peat bogs, where the peat layer was perturbed by natural or anthropic causes.

In the Panaci site, *Hypholoma myosotis* forms basidiocarps groups especially on the peat in the drainage canals area (on the walls there or in the neighboring area), where the substrata was rummaged through excavation actions. The existence of these drainage canals constitutes a favorable environment for the development of this species.

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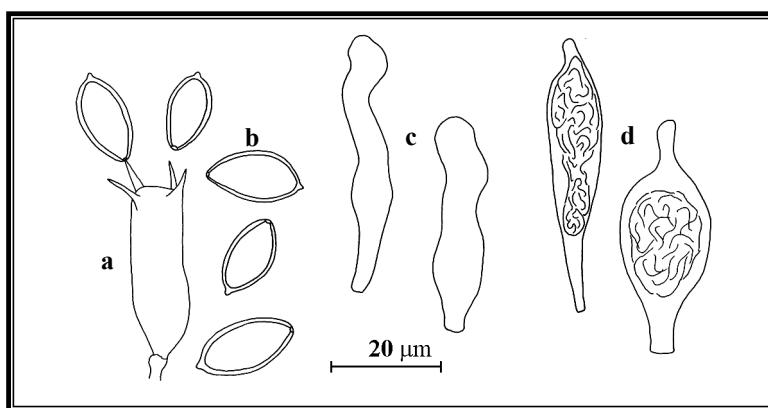


Figure 1 – *Hypholoma myosotis* (Fr.) M. Lange:
a – basidium; b – basidiospores; c – cheilocistidia; d – chrysocystidia



Photo 1 – *Hypholoma myosotis* (Fr.) M. Lange (macroscopic aspect)



Photo 2 – *Hypholoma myosotis* (Fr.) M. Lange (gills detail)



Photo 3 –Habitat of *Hypholoma myosotis* in Panaci peat bog