

***Ramaria bataillei* (Basidiomycetes, *Ramariaceae*),
the first finds in the Czech Republic**

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The first records of *Ramaria bataillei* (Maire) Corner in the Czech Republic found in Tesák Nature Reserve and between Čerňava and Skaliska Sochová Nature Reserves in the Hostýnské vrchy Hills (Moravia), are reported. A detailed macro- and microscopic description is given, and differences from similar species are discussed.

Key words: Basidiomycetes, *Ramariaceae*, *Ramaria*, Czech Republic, Moravia, Hostýnské vrchy Hills

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Kuřátka Batailleova (*Ramaria bataillei*) byla poprvé nalezena v České republice v PR Tesák a v území mezi PR Čerňava a Skaliska Sochová v Hostýnských vrších. Je publikován makroskopický i mikroskopický popis podle nalezených plodnic a jsou diskutovány rozdíly oproti podobným druhům.

INTRODUCTION

During his field research of the Hostýnské vrchy Hills, amateur mycologist Jiří Polčák (Přerov) found many carpophores of an unusually coloured *Ramaria* species in Tesák Nature Reserve. The first find was made on 31 August 2005, the second one on 8 September 2005 at the same locality. Later in the same year, he also found this fungus in another three adjacent localities between Čerňava and Skaliska Sochová Nature Reserves, also in the Hostýnské vrchy Hills, where he found some dozens of carpophores. This fungus was identified as *Ramaria bataillei* (Maire) Corner, a species not yet known from the Czech Republic. Pilát (1958) included this species into his key with a note that it had not been collected in the former Czechoslovakia until that time.

METHODS

Microscopic features are described from material mounted in Congo-red, L 4 and Cotton blue. For the basidiospores the following factors are used: X (average of basidiospore size) and Q (mean of quotients of length and width in all spores). Authors of fungal names are cited according to Kirk and Ansell (1992), colour abbreviations to Küppers (1999), and herbarium abbreviations follow Holmgren (2003).

RESULTS AND DISCUSSION

Ramaria bataillei (Maire) Corner, Ann. Bot. Mem., 1: 596, 1950.

Syn. *Clavariella bataillei* Maire, Ann. Mycol. 11: 351. 1913; *Clavaria bataillei* (Maire) Sacc. et Trotter, Syll. fung. 23: 488. 1925.

Description of carpophores collected in Tesák Nature Reserve:

Carpophores 90 × 90 mm, robust. Stem rather wide, white, with typical orange (Küppers S 00: Y 60 × M 30), pink or reddish tinge (Küppers S 00: Y 60 × M 50), especially in transient zone between base and branches, on exposed places pale brown to red-brown when old; with white rhizomorphs at base. Branches dichotomous, up to 20 mm wide at base, narrower towards apex, with acute tops when young, becoming obtusely round when old, with smooth surface, slightly rugulose near stipe; maize yellow, then cream brown (Küppers S 20: Y 40 × M 20), red-brown when old, with tops coloured orange-brown (Küppers S 20: Y 80 × M 40) for a long time, then up to red-brown. Context whitish when young, marbled, quickly becoming brown (Küppers S 80: Y 90 × M 80) after cutting, with indistinct fungous smell and bitter taste.

Basidiospores 10.5–15.6 × 4.2–5.5 µm, X = 12.5 × 4.9 µm, Q = 2.6 [collection from 8 Sept. 2005: 12–15.2 × 4.0–6.0 µm, X = 13.5 × 4.8 µm, Q = 2.8], cylindrical, verrucose with distinct ornamentation of isolated warts, cyanophilous. Basidia 59–70 × 7.0–9.0 µm, conical, tetrasporic, with yellow-brown granular contents and basal clamp-connections. Hyphae cylindrical, thin-walled, hyaline, up to 7.0 µm wide, clamped. Rhizomorph hyphae cylindrical, often broadened near septa, hyaline, clamped, with distinct acicular crystals.

Ecology. Growing on soil in beech forests on typical cambi-soil on uniform geological substrate with dominating flysh rocks of the Rača-unit, partly with sandstone, conglomerate and claystone parts.

Localities. Czech Republic, Moravia, Hostýnské vrchy Hills, Rajnochovice (Vsetín distr.), Tesák Nature Reserve, Abieto-Fagetum, coord. N 49°22'20", E 17°47'22", alt. 600 m, 31 Aug. 2005 leg. J. Polčák, det. O. Jindřich, rev. J. Christian (herb. O. Jindřich and J. Christian). – Ibid., 8 Sept. 2005 leg. J. Polčák, det. O.

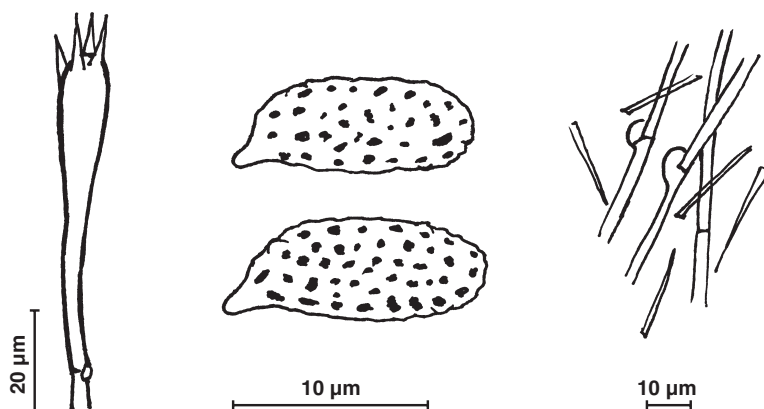


Fig. 1. *Ramaria bataillei*. Basidiospores, basidia and acicular crystals with rhizomorphs.

Jindřich, rev. J. Christan (PRM 857159, herb. O. Jindřich). – Ibid. Rosošný potok valley between Čerňava and Skaliska Sochová nature reserves, herb-rich beech forest, coord. N 49°22' 50", E 17°47' 20", alt. 620–640 m [three micro-localities at about 150–200 m from each other], 3, 8 and 15 Sept. 2005 leg. et det. J. Polčák (without herbarium specimens).

Ramaria bataillei is especially characterised by having typical acicular crystals on its rhizomorphs. The presence of similar crystals is also typical of *Ramaria testaceoflava* (Bres.) Corner, a species not collected in the Czech Republic to this day. However, it has distinctly smaller basidiospores (8–13 × 4–5.8 µm) and lacks any red colours on the stem surface and in the branching zone above the stipe, which is typical of *R. bataillei*. Both species grow in coniferous and mixed forests in montane habitats (Christan 1997). Moreover, *R. bataillei* may be subthermophilic and also grows under broadleaved trees.

Ramaria bataillei can also be confused with *R. fennica* (P. Karst.) Ricken var. *fennica*. However, this species has violet coloured carpophores, an unchangeable context, hyaline basidia and lacks acicular crystals on its rhizomorphs. Schild (1995) mentioned erroneously the presence of such crystals in this species.

Ramaria bataillei is known from many European countries, especially from the Alps in central and western Europe. It has been collected in Switzerland (Breitenbach and Kränzlin 1986), France (Bourdot and Galzin 1928, Corner 1950, 1970), Italy (Cetto 1987, Franchi and Marchetti 2001), Austria (Christan 1997) and Germany (Krieglsteiner 1983). The collections published here represent the first finds in the Czech Republic.



Fig. 2. *Ramaria bataillei*. Tesák Nature Reserve, 31 Aug. 2005, photo J. Polčák.

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