Marasmiellus celebanticus (Agaricales, Omphalotaceae), a new species of Marasmiellus sect. Candidi collected in the Mediterranean area

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Abstract

Marasmiellus celebanticus, collected in the coastal area of northeast Spain, is illustrated and described as a new species on the basis of morphological features and ITS sequence analysis. According to molecular data it is close to M. candidus in section Candidi, in which it occupies an isolated position due to its brown pileus and clavate cheilocystidia.

Key words: Basidiomycota, Agaricomycetes, marasmioid fungi, taxonomy, Spain

Introduction

The genus Marasmiellus Murrill (Agaricales, Omphalotaceae) traditionally encompasses fungi characterized macroscopically by collybioid or omphalioid basidiomes with white, yellowish, pinkish or brownish pilei and insinititious stipes usually pale at apex and darkening towards the base. Microscopically, members of Marasmiellus form hyaline, smooth, thin-walled and inamyloid spores, cheilocystidia are often present while pleurocystidia, on the contrary, are usually absent, and the pileipellis is a cutis, sometimes with transition to a trichoderm, with or without a well-developed Rameales-structure (elements with diverticulate or finger-like projections). The species so far known are usually gregarious, saprobic, more rarely phytoparasitic, and grow on all kinds of plants, and in some cases they are host-specific (Singer 1973, 1986, Pegler 1977, 1983, 1986, Corner 1996, Desjardin 1985, 1987, 1997, Antónin & Noordeloos 1993, 2010).

Species characterized by tetrahedral spores or with a conspicuous lateral bulge, by cheilocystidia and pileocystidia that are diverticulate and often with a capitata terminus, and a pilepellis of densely diverticulate hyphae, included by Singer (1973) in sect. Nigripedes Singer, were later segregated by Horak (1987) in the new genus Tetrapyrgos E.Horak (= Pterospora Métrod, 1949, nom. ill.). This taxonomic placement was supported by Wilson & Desjardin (2005) based on molecular data (nLSU rDNA sequences).

Marasmiellus includes about 250 species distributed almost worldwide (Kirk et al. 2008), Mata et al. (2004, 2006) and Wilson & Desjardin (2005) have shown its polyphyletic nature. According to Wilson & Desjardin (2005) and Antónin et al. (2010), M. juniperinus Murrill, the type species of Marasmiellus, clusters with species of Gymnopus (Pers.) Roussel sect. Vestipedes (Fr.) Antónin, Halling & Noordel. in the Marasmiellus clade, whereas M. candidus and allied species, form together with Tetrapyrgos (type: T. atrocyanea (Métrod) E.Horak) species, the Tetrapyrgos clade.