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MARASMIUS CORBARIENSIS (ROUM.) SINGER (FAMILY MARASMIACEAE ROZE EX KÜHNER) - A NEW FUNGAL SPECIES FOR MALTA

Stephen MIFSUD[1]

ABSTRACT

A population of *Marasmius corbariensis* (Roum.) Singer was found in an olive grove at ix-Xewkija, Gozo. Being a new agaric for the Maltese Islands, details on this population and habitat is given in this communication.

KEYWORDS: *Marasmius corbariensis*, Agaricales, Marasmiaceae, fungi, Malta.

Marasmius Fr. (1838) is a genus of fungi in the family of Marasmiaceae Roze ex Kühner 1980 (Order: Agaricales Underw. 1899) which comprises about 500 species (Kirk *et al.*, 2008). Elias Fries, the author of the genus, classified species which produced white or pale spores, have a stiff and thin stipe, and, most importantly, have the property of marcescence, in this genus (WIKI). A marcescent fungus is one which can dry and remain alive in temporary periods of draught, and gains back its original stature and turgidity when environmental moisture is restored. Nowadays, this biological character is no longer considered a valid criterion for taxonomical classification but, still, many of the *Marasmius* spp. have this property (WIKI).

Needlepin-shaped fungi were observed and collected from Ta' Blankas olive grove situated at ix-Xewkija, Gozo on the 30th January 2011 (Figure 1: left). With the aid of Mr Edwin Lanfranco who identified the genus, the species was identified as *M. corbariensis* (Roum.) Singer (syn. *Agaricus corbariensis* Roum., 1880). This species differs from the closely related *M. androsáceus* Fr. (syn. *Agaricus androsáceus* L.; *Marasmius olivetorum* Thüm. (Andres Cantero, 1975)) by having whitish or pale gills (*vs.* reddish brown in *M. androsáceus*) and by having bicoloured pileus; a central dark brown disk and yellowish/beige margin (Courtecisse & Duhem, 1994, 2000) as illustrated in Figure 1 (centre and right). Interestingly, many authors credit the description of this taxon to Singer, but a few others, such as MYCB puts Saccardo as the author, with Singer being illegitimate.

In the list of fungi, Sommier & Caruana Gatto (1915) list only *M. olivetorum* as a member of this genus, reporting it on fallen leaves of olive trees at San Anton Gardens. Mr Michael Briffa and Mr Edwin Lanfranco, who studied local mycology for long, have not encountered *M. corbariensis*. Therefore, *M. corbariensis* represents a new record for the Maltese Islands, unless the species identified as *M. olivetorum*, by Sommier & Caruana Gatto (ibid.) was the same species.

Figure 1 (left): Specimens on fallen leaves of olive trees, Ta' Blankas, ix-Xewkija, Gozo (7 February 2011); (centre): Cap of *Marasmius corbariensis*. Ta' Blankas, 31 January 2011; (right): Gills of *M. corbariensis*. Ta' Blankas (31-Jan-2011).
Photos: Stephen Mifsud.

[1] Flat 5, Busy Bee, Triq tal-Konti, iz-Zebbug, Gozo. E-Mail: info@maltawildplants.com

M. corbariensis is listed as a parasite of olive trees by Andres Cantèro (1975), but Zervakis *et al.* (2004) specified that *M. corbariensis* grows on dead leaves of *Olea europaea* L. in Greece. In Europe, the species is also found in Italy, including Sicily (Lantieri *et al.*, 2009) and Spain (GBIF). The Maltese station lies within the distributional range of the species, although, based on just one population, it is still questionable if its presence at Ta' Blankas is indigenous or if it was introduced with the plantations of the olive trees in that site, which took place some 40 years ago (Xewkija Local Council, pers. comm.)

Hundreds of specimens were found on several fallen olive leaves (Figure 1 left) in the aforementioned site but not on living foliage. Most of the host leaves were lying either in damp, superficial leaf mould formed by prolonged leaf drop while some were found on moist bare rock, often covered with patches of mosses such as *Ptychostomum* (*Byrum*) *donianum* (Grev.) Holyoak & Pederson. All leaves were in the shade. The author has not searched thoroughly for other metapopulations on the site, and this report is based on one small zone (10m x 10m) of the olive grove. Owing to the fact that *M. corbariensis* is only a saprophytic fungus on dead leaves of olive trees (Lantieri *et al.*, 2009; Zervakis *et al.*, 2004), myrtle and holm oak (Lantieri *et al.*, 2009), it offers no particular threats to such hosts or to the environment; at least no report has been found to state this.

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