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SHORT COMMUNICATION

First record of the Ant-loving cricket *Myrmecophilus ochraceus* for Zakynthos (Greece) with notes on the synonymy of *Myrmecophilus salomonis* (Orthoptera: Myrmecophilidae)

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ABSTRACT

The first record of *Myrmecophilus ochraceus* Fischer, 1853 (Orthoptera: Myrmecophilidae) for Zakynthos (Greece) is given. Photographs of this species and its habitat are presented for the first time. *Myrmecophilus salomonis* Wasmann, 1890 is recognized as a junior synonym of *Myrmecophilus ochraceus*.

Introduction

Ant-loving Crickets (genus *Myrmecophilus* Berthold, 1827) are 2-4 mm long crickets. Most species are known to live as kleptoparasits in the nests of ants (Schimmer 1909, Hölldobler 1947, Junker 1997, Wetterer and Hugel 2008), few species are known to live with termites (Schimmer 1911a, Maran 1959). They are known to feed on food resources in the ant nest and induce their hosts to regurgitate liquid food (Wetterer and Hugel 2008). Based on today's knowledge some species reproduce parthenogenetically, e. g. *M. acervorum* (Panzer, [1799]), but most species reproduce sexually.

After Eades and Otte (2010) 58 valid species have been described worldwide until now. The genus has almost a cosmopolitan distribution. From Greece the following species are known so far: *M. ochraceus* Fischer, 1853, *M. myrmecophilus* (Savi 1819), *M. termitophilus* Maran, 1959 and *M. salomonis* Wasmann, 1890 (Willemse 1985, Willemse and Willemse 2008). *M. acervorum* was mentioned for Greece by Maran (1959), but after Baccetti (1966) these specimens belong to *M. myrmecophilus*.

There is few published about this genus in Greece. Most published records are widespread in literature and from a long time ago. In this paper, the first record of *M. ochraceus* for Zakynthos is given and the taxonomic status of *M. salomonis* is discussed.

First record of *Myrmecophilus ochraceus* for Zakynthos (Greece)

During an expedition to Zakynthos, Ionian Islands, Greece in 2009, ant nests were checked for Ant-loving Crickets. As a result *M. ochraceus* was recorded from Zakynthos for the first time. On 6 October 2009 12 adult males, 6 adult females and 1 larva, and on 8 October 2009 9 adult males, 3 adult females and 3 larvae were found. Finding locality was north of Karithi, Zakynthos (N 37° 55' 31", E 20° 42' 14", WGS 84), at about 60 m a. s. l. Hosts were ants of the

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genus *Messor*. The habitat was cultivated grassland with olive groves (Fig. 1).

M. ochraceus was so far known from the following localities in Greece: Thessaloniki (Schimmer 1911b), Corfu (Baccetti 1966), Kalamata (Maran 1959), Athens (Baccetti 1966, University of Ulm 2009), Euboea (Baccetti 1966), Syros (Baccetti 1966; one specimen from there is in the collection of the Muséum d' Histoire Naturelle à Geneve, Switzerland, own obs.), Crete (Schimmer 1909; one female collected by Raffael Aye in 1997), Rhodes (Harz 1969), Kos (Baccetti 1992), Tilos (Baccetti 1992) and Chalki (Baccetti 1992).

FIG. 1. Habitat of *Myrmecophilus ochraceus*, female. 8 October 2009, Zakynthos, Greece.

Taxonomic status of *Myrmecophilus salomonis*

Myrmecophilus salomonis Wasmann, 1890 was originally described by Wasmann (1890) from one single male originating from Tunisia. Schimmer (1911b) published a record of two males and one subadult female from Thessaloniki, Greece, combined with a supplementary description. The holotype and also the specimen described from Greece are all missing. All four known specimens of *M. salomonis* were collected by August Forel. In both cases *M. ochraceus* was found at the same finding locality. Wasmann compared the specimens from Greece with the holotype. He confirmed them to be the same species as the holotype of *M. salomonis* (Schimmer 1911b).

Both the original and the supplementary description indicate that the described specimens essentially are larvae of *M. ochraceus.* Both descriptions do not indicate any difference to larvae of *M. ochraceus*. The larva of this species was not known for Wasmann (Wasmann 1890) when he described *M. salomonis*. All typical characteristics mentioned by Wasmann (1890) and Schimmer (1911b) are to be found in larvae of *M. ochraceus* as well (own observations on specimen collected on Zakynthos island, Greece and from Tunisia): very small (1.5 mm), ground colour violet brown, vertex with pale white, angled markings, followed by a pale line on the complete back, antennae and cerci thick, hind femur very large (Fig. 2). They look quite different from adult males and females of *M. ochraceus*. Wasmann (1890) already mentioned that the shape of *M. salomonis* is most similar to *M. ochraceus*. Already Baccetti (1966) was in doubt about the species status of *M. salomonis*. Hereby *M. salomonis* syn. n. is recognized as a junior synonym of *M. ochraceus*.

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FIG. 2. *Myrmecophilus ochraceus*, female. 8 October 2009, Zakynthos, Greece.

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Πρώτη καταγραφή του εντόμου *Myrmecophilus ochraceus* στην Ζάκυνθο, νέο συνώνυμο του *Myrmecophilus salomonis* (Orthoptera: Myrmecophilidae)

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ΠΕΡΙΛΗΨΗ

Στην παρούσα εργασία καταγράφεται για πρώτη φορά στη νήσο Ζάκυνθο το είδος *Myrmecophilus ochraceus* Fischer, 1853 (Orthoptera: Myrmecophilidae) και δίδονται φωτογραφίες του είδους καθώς και του ενδιαιτήματός του. Επίσης το *Myrmecophilus salomonis* Wasmann, 1890, αποτελεί νέο συνώνυμο του *M. ochraceus*.