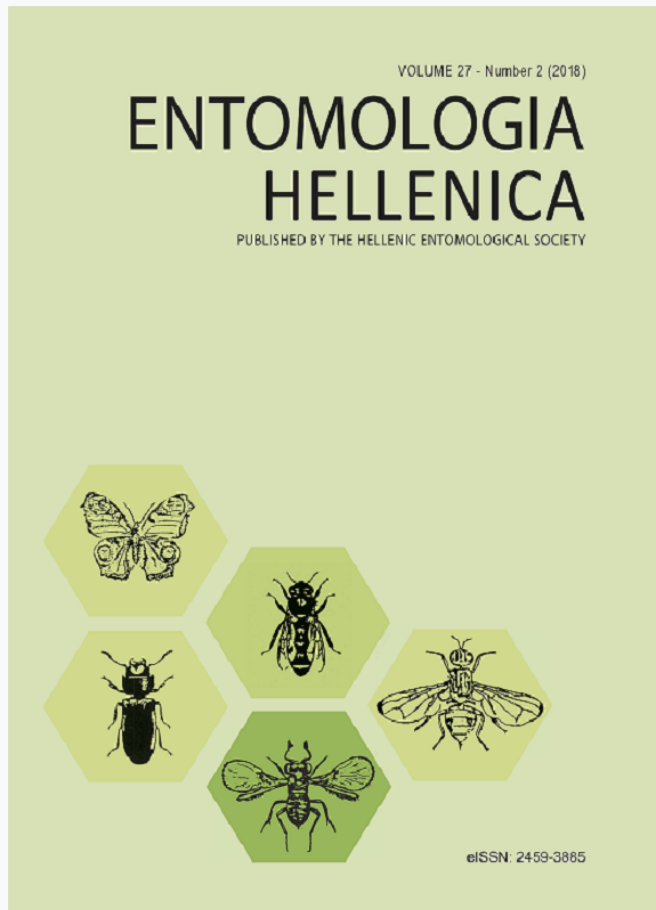


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SHORT COMMUNICATION

Notes on the synonymy of *Myrmecophilus bifasciatus* Fischer von Waldheim, 1846 (Orthoptera: Myrmecophilidae)

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ABSTRACT

Myrmecophilus bifasciatus Fischer von Waldheim, 1846 was originally described based on a single specimen originating from Ukraine. The original description of *M. bifasciatus* was evaluated, and compared with specimens of *M. acervorum* (Panzer, [1799]). The description and the illustration given in the original description do not indicate any difference between nymphs of those two species. Thus, *M. bifasciatus* has been recognised as a junior synonym of *M. acervorum*.

KEY WORDS: ant cricket, Europe, new synonymy, myrmecophily, taxonomy.

Introduction

Ant crickets (genus *Myrmecophilus* Berthold, 1827) are 2–4 mm in length and live as kleptoparasites in the nests of ants where they are known to feed on food resources and induce their hosts to regurgitate liquid food (Schimmer 1909, Hölldobler 1947, Junker 1997, Wetterer and Hugel 2008). Based on today's knowledge some species reproduce parthenogenetically, e.g. *M. acervorum* (Panzer, [1799]), but most species reproduce sexually. The genus *Myrmecophilus* has almost a cosmopolitan distribution. After Cigliano et al. (2018), 61 valid species have been described worldwide till today.

At least seven species of *Myrmecophilus* are known from eastern Europe: *M. acervorum* (Panzer, [1799]) is spread throughout Europe (Stalling and Birrer 2013); *M. balcanicus* Stalling, 2013 is known from the Former Yugoslav Republic of Macedonia (Stalling 2013a); *M. bifasciatus* Fischer von Waldheim, 1846 is

known from Ukraine; *M. hirticaudus* Fischer von Waldheim, 1846 is known from Croatia (Stalling and Birrer 2013), Bulgaria (Fet and Popov 2007), Ukraine (Fischer von Waldheim 1846, Gorochov 1984a) and Armenia (Gorochov 1984b, Stalling 2013b); *M. myrmecophilus* (Savi, 1819) is known from Croatia (Baccetti 1966) and Greece (own obs.); *M. nonveilleri* Ingrisch and Pavicévić, 2008 is known from Serbia (Ingrisch and Pavicévić 2008); *M. ochraceus* Fischer, 1853 is known from Greece (Schimmer 1909, Maran 1959, Baccetti 1966, Harz 1969, Baccetti 1992, Stalling 2010).

This article discusses the taxonomic status of *M. bifasciatus* Fischer von Waldheim, 1846.

Materials and Methods

The original description of *M. bifasciatus* was evaluated, and the description and the illustration were compared with the specimens of *M. acervorum* (Fig. 1) from all

over Europe and the Caucasus, which have been listed by Stalling (2013b) and Stalling and Birrer (2013), and with additional specimens from the collection of the author.

Results and Discussion

Myrmecophilus bifasciatus was originally described by Fischer von Waldheim (1846) based on a single specimen originating from Ukraine. The illustration shows a female with ovipositor, but there is no information about the life stage in the description. However, the fate of the holotype remains unknown (Cigliano et al. 2018).

The original description of *M. bifasciatus* indicates that the described specimen is essentially a female nymph of *M. acervorum*. All the characteristics mentioned and illustrated by Fischer von Waldheim (1846) are also found in the

nymph of *M. acervorum* (own observations on specimens collected from all over Europe): very small in size (approximately 2 mm), brown, prothorax with two transversal yellow stripes (the illustration shows pale, ochreous posterior borders on the pronotum and the mesonotum), antennae shorter than body length and hind legs with extremely swollen femurs and very short tibiae and tarsi. Consequently, the description and the illustration given by Fischer von Waldheim (1846) do not indicate any difference to nymphs of *M. acervorum*. *Myrmecophilus acervorum* was also found at the same finding locality (Fischer von Waldheim 1846).

Thus, *M. bifasciatus* Fischer von Waldheim, 1846 syn. n. has been recognised as a junior synonym of *M. acervorum* (Panzer, [1799]).



FIG. 1. *Myrmecophilus acervorum*, adult female. 13.05.2016, Lagnes (Vaucluse), France.

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Σημειώσεις για τη συνωνυμία *Myrmecophilus bifasciatus* Fischer von Waldheim, 1846 (Orthoptera: Myrmecophilidae)

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ΠΕΡΙΛΗΨΗ

Το *Myrmecophilus bifasciatus* Fischer von Waldheim, 1846 περιγράφηκε αρχικά με βάση ένα μόνο δείγμα/άτομο προερχόμενο από κάποια περιοχή της Ουκρανίας. Η αρχική περιγραφή του *M. bifasciatus* αξιολογήθηκε και συγκρίθηκε με αντίστοιχα δείγματα/άτομα του *M. acervorum* (Panzer, [1799]). Η περιγραφή και η απεικόνιση που δίνονται στην αρχική περιγραφή δεν δείχνουν καμία διαφορά μεταξύ των νυμφών αυτών των δύο ειδών. Έτσι, το *M. bifasciatus* έχει αναγνωριστεί ως νέο συνώνυμο του *M. acervorum*.