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Three new Middle-Eastern species of *Foenatopus* Smith (Hymenoptera: Stephanidae) with a new host record and key to species with two spots on the metasoma

ALEXANDRE P. AGUIAR[1] , JOHN T. JENNINGS[2] & GIUSEPPE F. TURRISI[3]

[1]*Universidade Federal do Espírito Santo, Avenida Marechal Campos 1468, Eucalipto, Vitória, ES, 29043–900, Brazil. E-mail: aguiar.2@osu.edu*

[2]*Australian Centre for Evolutionary Biology and Biodiversity, and School of Earth and Environmental Sciences, The University of Adelaide, SA 5005, Australia. E-mail: john.jennings@adelaide.edu.au*

[3]*University of Catania, CUTGANA, Section of Nature Reserve Management, via Terzora 8, I-95027, San Gregorio di Catania, Catania, Italy. E-mail: turrisifabrizio@yahoo.it*

Abstract

Three new species of Middle-Eastern *Foenatopus* Smith, sensu lato, are described and illustrated: *F. hesperophagus* Aguiar, **sp. nov.** from Turkey, and *F. prousti* Aguiar et Turrisi, **sp. nov.** and *F. crispus* Aguiar, **sp. nov.** from Iran. The last two species represent the first records of *Foenatopus* from Iran. A key to females and males of stephanid species with two spots on the metasoma is provided, allowing the recognition of the newly described taxa and of *F. buprestivorus* Benoit and *F. turcomanorum* (Semenov). A redescription, illustrations and taxonomic discussion are also presented for *F. turcomanorum*. A new host record for *Foenatopus* is presented, with *F. hesperophagus* reared from *Hesperophanes griseus* (Fabricius) (Coleoptera, Cerambycidae) attacking branches of *Ficus carica* cv. Calimyrna L.

Key words: *Hesperophanes*, parasitoid, Iran, Turkey

Introduction

Stephanidae is currently known from seven fossil species and 341 extant, valid species (updated from Aguiar 2004), half of which are Oriental. These species are classified in twelve extant and three fossil genera. Although subfamilies have been proposed by several authors, their phylogenetic validity remains untested. A large group of species, comprising about 50% of all Stephanidae, remain lumped together as *Foenatopus* Smith.

Aguiar and Jennings (2010) published the first record of *Foenatopus* for the Arabian Peninsula, and indicated that the closest location with a similar species is Afghanistan, from where *F. turcomanorum* (Semenov 1891) is known. Two other stephanids were previously known from neighbouring territories, *Afromegischus gigas* (Schletterer 1889) from Iran, rediscovered by Masnadi-Yazdinejad and Lotfalizadeh (2009), and *A. tibiator* (Schletterer 1889) from Saudi Arabia, both of which are large wasps, quite distinct from the delicate new taxa treated herein.

Little is known about the biology of stephanids in general (see Aguiar 2006 for a review), but their close relationship with xylophagous insects is clear, confirmed by many records of hosts or putative hosts, especially belonging to Buprestidae and Cerambycidae (Coleoptera). One relevant biological trait is the possible role of vibrational sounds to locate suitable hosts within the wood (see Vilhelmsen *et al.* 2008). For *Foenatopus* species similar to those occurring in the Middle East, Mateu (1972) and Pagliano (1986) reported *F. buprestivorus* Benoit, 1984 and *F. curletti* Pagliano, 1986 emerging from shrubs infested with *Acmaeodera* sp., *Acmaeoderella* sp., *Agrilus* sp., and *Anthaxia* sp., all of which are Buprestidae (Coleoptera).

The objective of this work is to present a comparative study for new stephanid taxa from the Middle East, providing specific taxonomic treatment and discussions useful in future studies or identifications of stephanids from that region.

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