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## A remarkable new species of *Paraphamartania* Engel from Portugal (Diptera, Asilidae)

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### Abstract

*Paraphamartania marvaensis* sp. nov. is described based on three male and one female specimens from Marvão, Portugal. The discovery of this new species of *Paraphamartania* is of great significance since it shows the occurrence of a second species of *Paraphamartania* in the western Mediterranean. High resolution pictures of type material of all three species of *Paraphamartania* are provided together with a key to these three species. DNA barcodes of this new species are provided, so future workers are able to study relationships of *Paraphamartania*.

**Key words:** Palearctic, Robber flies, Brachyrhopalinae, DNA barcodes, COI

### Introduction

*Paraphamartania* Engel is a little known genus of asilid flies restricted to the Palearctic Region. So far, only two species have been described: *P. syriaca* (Schiner) known from 35 locations and 52 specimens from Syria, Turkey, Israel, Cyprus, Iran and Kazakhstan; and *P. stukei* Geller-Grimm is known from northwestern Spain and was described based on a single female specimen. Both species are rather small flies (body length up to 8.6 mm) with cell r1 open, a two-segmented palp, a two-segmented antennal style and a specific chaetotaxy of the first leg (the fore tibia bears a small, bristle-like spur and this spur is not situated on a process).

*Paraphamartania* is similar to two Neotropical genera (*Aphamartania* Schiner and *Annamyia* Pritchard) and one mainly Nearctic genus (*Cophura* Osten Sacken) due to similarities of the male genitalia, and especially due to the produced aedeagus (Pritchard, 1941). In fact, *Paraphamartania syriaca* was originally described as *Aphamartania* Schiner until Engel (1930) established *Paraphamartania* for the Palearctic species. *Paraphamartania* can be differentiated from *Aphamartania* by the location of the antennae. In the genus *Paraphamartania*, antennae are located somewhat above the middle of the eyes. Further typical characteristics include the presence of presuteral dorsocentral bristles, the back of the head bare, with only a row of occipital macroseta, and the lack of a heavy, short haired mystacial setae (Engel, 1930).

Engel (1930) gave a detailed morphological account on *Paraphamartania*, but he did not discuss about the ecology of the genus. Similarly, later publications on *Paraphamartania* gave only morphological accounts and included absence/presence data only (Pritchard, 1941; Richter, 1966; Geller-Grimm 1997; Saghaei et al. 2009). In the current paper, ecological and morphological features of *Paraphamartania* are presented to give further insights into the biology of these flies. Very little genetic information of asilids is available. Therefore, comparing our genetic data of this species of *Paraphamartania* with other Asilidae is difficult. Future surveys on DNA barcoding of Asilidae are kindly invited to use the barcodes provided here.

- infuscated cross veins . . . . . *P. syriaca* (Schiner) (male genitalia figs 1a–e, p. 213 in Theodor; 1980. Habitus figure 1: a–c)
- Face with silvery pubescence. Wings hyaline with only posterior and anterior cross veins distinctly infuscated . . . . .
- ..... *P. marvaensis* **sp. nov.**

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