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The first records of *Eoxenos laboulbenei* PEYERIMHOFF 1919 (Strepsiptera, Mengenillidae) from Greece

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A b s t r a c t : The first records of *Eoxenos laboulbenei* PEYERIMHOFF 1919 (Strepsiptera, Mengenillidae) from Greece. Two males of *Eoxenos laboulbenei* PEYERIMHOFF 1919 were collected with a malaisetrap in Greece.

K e y w o r d s : Strepsiptera, *Eoxenos laboulbenei*, Mengenillidae, Greece.

Introduction

Strepsiptera are small insects with a peculiar appearance and an even weirder biology. All species are andoparasites and, with the exception of the family Mengenillidae, only the first instar larvae and the adult males are free-living. The females remain inside their hosts throughout their live, showing neoteny (e.g. with the appearance of a larvae). Only after pupation of the females the sclerotized cephalothorax is extruded and externally visible at its host. All species are rarely encountered in the field due to the fact that the first instar larvae are tiny, most of them being less than one millimeter, and the adult males only live for a few hours. The best way to find them in the field is to look for the hosts. Parasitized hosts can be recognized by the abnormalities on the abdomen caused by the extruded cephalothorax of the female of, even more obvious, by the extruded pupae of the males. Occasionally hosts can be recognized by their immobility, due to the neural intervention of the female Strepsiptera in order to provide the males with a better opportunity for copulation. Only very rarely adult males have been found in malaise-traps: *Elenchus tenuiscornis* (KIRBY 1815) (VAN ZUIJLEN et al. 1996) and the two males of *Eoxenos laboulbenei* PEYERIMHOFF 1919 recorded here. This latter species has also been recorded from light at night (HENDERICKX 1982).

Location

Two male specimens of *Eoxenos laboulbenei* (Strepsiptera, Mengenillidae) were collected during an extensive survey of the Wetland Kerkini national park in Greece. Both specimens were collected with a malaisetrap at the Krousia site, (41°07'19,5"N 23°12'53,3"W), 75 m asl, respectively in the periods 29.viii-4.ix.2004 and 12-18.ix.2004, leg. G. Ramel, col. J.T. Smit. This trap was situated at the edge of a store of cut timber, left to dry during the spring and summer at an altitude of 190 m on the north facing lower

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slopes of the Krousia mountains. The immediate vegetation was *Paliuris spinichristi* and *Carpinus orientalus*. A little further off 20+metres there was a mixed deciduous forest, dominated by Downy Oak (*Quercus pubescens*), there is considerable space within the woodland and the understory vegetation is healthy and diverse.

Identification

The male of *Eoxenos laboulbenei* (fig. 1) is easily identified among Strepsiptera by the following combination of characters (KINZELBACH 1978):

- Tarsi with 5 segments and strong claws
- Antennae only with flabella on the 3rd and 4th segment
- The vertex, frons and clypeus are fused to form a sclerite
- Eyes with 35-45 ommatidia

Biology

The order Strepsiptera is divided into two suborders, Mengenillidia and Stylopidia. The first is generally considered to be the most primitive and consist of only two families, the fossil Mengeidae and the Mengenillidae. So far as known the species within the Mengenillidae parasitize Thysanura and both the males as well as the females are free-living after pupation, the latter however lack wings.

The known host of *Eoxenos laboulbenei* are species of the genus *Lepisma* LINNAEUS 1758 (Zygentoma, Lepismatidae).

An extensive review of the host relations of the Strepsiptera is provided by KATHIRITHAMBY (2009).

Distribution

This species has a mainly Mediterranean distribution, recorded from Algeria, the Canary Islands, France, Italy including Sardinia and Sicily, Libya, Portugal, Spain (KINZELBACH 1978). This is the first record from Greece.

Zusammenfassung

Eoxenos laboulbenei PEYERIMHOFF 1919 (Strepsiptera, Mengenillidae) wurde erstmalig für Griechenland nachgewiesen. Zwei Männchen dieser Art wurden mittels Malaisefallen gefangen.

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Fig. 1: One of the males *Eoxenos laboulbenei* collected at the Wetland Kirkini site, Greece. Photo: J.T. Smit.

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