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A new micropterous species of *Physoderes* from Fiji Islands (Hemiptera: Heteroptera: Reduviidae: Physoderinae)

LEONIDAS ROMANOS DAVRANOGLOU

Department of Life Sciences, Imperial College London, South Kensington Campus, London SW7 2AZ, U.K.

E-mail: lrduvius@yahoo.gr

Abstract

Physoderes manni **sp. nov.** (Hemiptera: Heteroptera: Reduviidae: Physoderinae) is described from Viti Levu, Fiji and represents the first record of microptery in the subfamily. The relationship of *Ph.manni* **sp. nov.** with its congeners, as well as the evolutionary and ecological significance of the micropterous wing condition are discussed.

Key words: Hemiptera, *Physoderes manni*, neoteny, wing reduction, microptery

Introduction

The genus *Physoderes* Westwood, 1846 consists of 37 species and is the largest and most widespread genus of the subfamily Physoderinae, with most species occurring in the Australasian, Oriental and Oceanian zoogeographic regions, only one species reaching the Madagascan region, namely *Physoderes brancsiki* Bergroth, 1906 (Maldonado 1996). Due to their cryptic habits, *Physoderes* species are scarce in entomological collections and their biology remains largely unknown.

The species described herein was found while identifying reduviid material at the Hope Entomological Collections, Oxford University Museum of Natural History. This species is unique as it represents the first instance of microptery not only in the genus *Physoderes* but the subfamily Physoderinae as a whole.

Material and methods

All specimens are deposited in the Hope Entomological Collections, Oxford University Museum of Natural History (OUMNH). As most Physoderinae, the specimens were covered with debris, obscuring the examination of certain morphological characters. The type male and a female paratype were cleaned using an ultrasonic cleaner. The pygophore of a paratype male was removed after a ten minute immersion in boiling water and was then macerated using 10% KOH at 70 C° for 15 minutes. The pygophore and phallus are preserved in 99% glycerol in microvials pinned with the specimen. The morphological terminology of Rédei (2012) and Tsai et al (2011) is followed. All measurements are in millimeters. Images were taken using the Leica M165c with a Leica DFC490 camera, while stacked images were combined using Helicon Focus.

Taxonomy

Physoderes Westwood, 1846

Physoderes Westwood 1846. Type species. *Physoderes notata* Westwood, 1846, by monotypy.

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