

First record of a parasitoid tachinid fly (Diptera: Tachinidae) on a dragonfly (Odonata: Calopterygidae)

[Erstnachweis eines Raupenfliegen-Parasitoiden (Diptera: Tachinidae)
in einer Libelle (Odonata: Calopterygidae)]

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Abstract

During a biodiversity survey in the forest of central Guyana, an adult male of the damselfly *Hetaerina caja dominula* HAGEN in SELYS was found parasitized by a tachinid larva. This constitutes the first record of a parasitoid on an adult odonate, and of an odonate as host of a tachinid larva. COI DNA sequencing of the larva placed it closest to the tachinid genera *Actinodoria* TOWNSEND, *Euhaliidaya* WALTON, and *Cryptomeigenia* BRAUER & BERGENSTAMM in the tribe Blondeliini (subfamily Exoristinae). Pictures are provided of the third instar fly larva protruding from the host, of its posterior spiracles, and of the first and second instar cephaloskeletons.

Key words

Tachinidae, Odonata, Neotropical Region, Guyana, first host record, *Hetaerina*, *Actinodoria*, *Cryptomeigenia*, *Euhaliidaya*

Zusammenfassung

Im Rahmen einer Erfassung der Biodiversität in den Wäldern von Zentral-Guyana wurde ein Männchen der Kleinlibelle *Hetaerina caja dominula* HAGEN in SELYS gesammelt, welches von einer Tachiniden-Larve parasitiert war. Dies ist der erste Nachweis sowohl eines Parasitoiden in einer erwachsenen Libelle als auch einer Libelle als Wirt einer Tachiniden-Larve. Die Sequenzierung und der Vergleich der DNA (COI) platzierte die gefundene Larve in die Nähe der Tachinidengattungen *Actinodoria* TOWNSEND, *Euhaliidaya* WALTON und *Cryptomeigenia* BRAUER & BERGENSTAMM aus dem Tribus Blondeliini (Unterfamilie Exoristinae). Die Abbildungen zeigen das dritte Larvenstadium beim Verlassen des Wirtes, die hinteren Stigmenöffnungen sowie die Kopfskelette des ersten und zweiten Larvenstadiums.

Stichwörter

Tachinidae, Odonata, neotropische Region, Guyana, erster Wirtsnachweis, *Hetaerina*, *Actinodoria*, *Cryptomeigenia*, *Euhaliidaya*

Introduction

An adult male of the damselfly *Hetaerina caja dominula* HAGEN in SELYS, 1853 (Odonata: Calopterygidae) was collected during a biodiversity survey in the forest of central Guyana. Later that same day while injecting the specimen with ethanol to preserve it, a fly larva began to crawl out of the ventral side of its thorax (Figs 1, 2). Due to the unusual nature of this occurrence, the damselfly and larva were preserved in situ for further study, the results of which are presented here.

Larval and adult odonates are known to be attacked by endoparasites including gregarine Protozoa, Trematoda, and Cestoda that infest their aquatic larvae but are able to persist in their terrestrial adults, and ectoparasites that