



<http://dx.doi.org/10.11646/zootaxa.3857.4.4>

<http://zoobank.org/urn:lsid:zoobank.org:pub:9FA2B99E-B975-457A-B048-517FA2958F6D>

Taxonomic revision of wasp-like richardiids, *Neoidiotypa* Osten-Sacken (Diptera, Tephritoidea, Richardiidae)

LISIANE DILLI WENDT^{1,2} & ROSALY ALE-ROCHA^{1,3}

¹Instituto Nacional de Pesquisas da Amazônia (INPA), Coordenação de Pesquisas em Biodiversidade (CBio), Av. André Araújo, 2936, Petrópolis, CEP 69011–970, Caixa–Postal 478, Manaus, Amazonas, Brasil

²Fellowship CAPES/FAPEAM. E-mail: lisidilli@yahoo.com.br

³Fellowship PQ/CNPq. E-mail: alerocha@inpa.gov.br

Abstract

Previously *Neoidiotypa* was a monotypic genus represented by a peculiar wasp-like richardiid from Cuba – *N. appendiculata* (Loew). In this work, five new species are described in this genus: *N. mexicana* **sp. nov.** from Mexico; *N. alamagna* **sp. nov.**, *N. flaviatra* **sp. nov.**, *N. nigra* **sp. nov.** and *N. sticta* **sp. nov.** from Costa Rica. New diagnostic characters for the genus are included. An identification key and illustrations for all species are provided.

Key words: Central and North America, Richardiinae, Neotropical Region, new species

Introduction

Richardiidae is a relatively small family of flies, with about 190 described species (Steyskal 1968; Wendt & Ale-Rocha *in press*) in 32 genera (Hancock 2010). It is currently divided into two subfamilies: Epiplateinae and Richardiinae (Steyskal 1987). The distribution of the family is mostly Neotropical, though there are no records from Chile and Patagonia (Aczél 1950). Additionally, a few species occur in the Nearctic Region (Steyskal 1987).

Richardiinae is the most diverse of the two subfamilies, encompassing more than 90% of the described species (Steyskal 1968). Even though many morphological differences can be found among the included genera, preliminary phylogenetic analyses indicate that the subfamily is a strongly supported monophyletic group (Wendt & Ale-Rocha, unpublished data). From a taxonomic perspective, however, the subfamily is relatively poorly studied. The boundaries of many genera are not very clear, and the lack of revisions and keys make it difficult to identify species and genera, and new taxa. The majority of taxonomic contributions on Richardiinae, mostly by Hendel (1911a, b) and Hennig (1937, 1938a, b), date back to the first half of the 20th century. Additionally, two catalogues, compiled by Aczél (1950) and Steyskal (1968), were produced. In recent years, however, the taxonomy of Richardiinae has been revived: a key to all genera was provided by Hancock (2010), a genus was redescribed (Wendt & Ale-Rocha 2012) and new taxa have been discovered (Perez-Gelabert & Thompson 2006; Carvalho *et al.* 2011; Alencar *et al.* 2013; Wendt & Ale-Rocha 2014, *in press*; Wendt & Smit, in preparation).

In this contribution we review the richardiid genus *Neoidiotypa*, which has a quite short taxonomic history. In 1873, Loew proposed the name *Idiotypa* for a single, quite peculiar wasp-like species from Cuba: *I. appendiculata*, which he classified in Richardiidae. However, the generic name was preoccupied by Foerster (1856) (Hymenoptera, Diapriidae) and in 1878 Osten-Sacken proposed the name *Neoidiotypa* for it. Later, Hendel (1911b) redescribed the genus and its only species, and provided illustrations of the head, wing and abdomen.

We review the known species of *Neoidiotypa* and describe five new species. The generic limits of the genus are expanded and new diagnostic characters are included. The male and female terminalia are described and illustrated for the first time. An identification key and illustrations of all species are also provided.

Acknowledgments

Our thanks to A.L. Norrbom (USNM), P.D. Perkins (MCZ), M. Zumbado (INBio) and E.G. Hancock (Glasgow University, Hunterian Museum - HMUG) for lending and/or sending specimens. We thank Fundação de Amparo à Pesquisa do Estado do Amazonas (FAPEAM) and Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES) for supporting the Project “Incremento do conhecimento da diversidade, formação e fixação de especialistas em Sistemática de Diptera (Insecta) na Amazônia”. We are also grateful to CAPES, FAPEAM and Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) for the scholarships provided. Automontage equipment (type-species photos) was made available to us through the project "Amazonas: Diversidade de insetos ao longo de suas fronteiras" (PRONEX/FAPEAM Proc. 1437/2007/NT0318/07) headed by Dr. José Albertino Rafael.

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