

Description of two new species of *Neorhagio* (Diptera, Tabanomorpha, Rhagionidae), and remarks on a controversial female character

CHARLES MORPHY DIAS DOS SANTOS

*Universidade de São Paulo, Faculdade de Filosofia, Ciências e Letras de Ribeirão Preto, Departamento de Biologia, Setor de Ecologia e Evolução, Av. Bandeirantes, 3900, 14040-901, Ribeirão Preto, SP, Brazil.
E-mail: charlesmorphy@pg.ffclrp.usp.br*

Abstract

Neorhagio Lindner was known to date exclusively from its type species, from Chile. The status of the genus among the Rhagionidae is controversial, sometimes confounded with *Atherimorpha* White or *Rhagio* Fabricius. Two new species of *Neorhagio*, *N. caligatus* sp. n. and *N. nagatomii* sp. n., are described and illustrated based on material collected in the Reserva ‘Biosfera’ El Triunfo, Northern Mexico. The differences between *Neorhagio*, *Atherimorpha* and *Rhagio* are considered, and comments are made on the presence of posteroventral cercal lobes in Rhagionidae.

Key words: *Neorhagio*, Rhagionidae, Diptera, Neotropics

Introduction

Rhagionidae is a dipterous family with about 500 described species, placed in 22 extant genera (Nagatomi 1982b, Stuckenberg 1997, Santos 2005). Knowledge on fossil rhagionids is limited, and their early evolution is uncertain. The fossil record of Rhagionidae extends back to 187 million years ago, the oldest fossil assigned to the family being *Palaeobolbomyia* Kovalev, from the Jurassic of northern Buryatiya (Mostovski 2000). Despite recent attempts to solve the cladistic relationships within the family and its related groups (Wiegmann et al. 2000, Stuckenberg 2001, Hibbs 2002, Yeates 2002, Zloty et al. 2005), a robust phylogenetic hypothesis for the Rhagionidae is still wanting and its relationships within the other Tabanomorpha are far from being resolved (Yeates 2002).

Rhagionids are poorly known in the Neotropical realm. As pointed out by Santos (2005), three of the four genera in the region have scarce representation, both in number of species and geographical range. *Atherimorpha* White is known from Argentina, Southern