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Description of a new species of *Neocypholaelaps* (Acari: Ameroseiidae) from Brazil, with a key to the world species

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Abstract

A new species, *Neocypholaelaps geonomae* **n. sp.**, is described based on the morphology of adult females and males collected on *Geonoma* spp. (Arecaceae) in southeastern Brazil. This is the first species of this genus identified from the American continent. A key to the world species of *Neocypholaelaps* is provided.

Key words: Mesostigmata, palm tree, inflorescences, taxonomy

Introduction

Species of Ameroseiidae (Acari: Mesostigmata) have been reported to feed on fungi and pollen (Halliday, 1997). This family consists of eight genera, of which *Ameroseius* Berlese and *Neocypholaelaps* Vitzthum are the largest. Sixteen species of the genera *Ameroseius* Berlese, *Hattena* Domrow and *Sertitympanum* Elsen & Whitaker have been reported from the Americas (De Leon, 1964; Karg, 1976; Elsen & Whitaker, 1985; Flechtmann & Flechtmann, 1985; Karg 1994; Vargas & Polaco, 2001; Villegas-Guzmán *et al*., 2004; Faraji & Cornejo, 2006; Karg & Schorlemmer, 2009).

Twenty species have been reported in the genus *Neocypholaelaps*, from inflorescences, beehives, or phoretically associated with insects. Haq (2001) reported that *Neocypholaelaps stridulans* (Evans) can apparently cause coconut button drop. *Neocypholaelaps* species are known almost exclusively from Africa, Asia and Oceania (Evans, 1963a; Baker & Delfinado-Baker, 1985); the only exception refers to a report of an unidentified species from Brazil (Arruda & Moraes, 2002), which is described in this paper.

Material and methods

The specimens reported by Arruda & Moraes (2002) were collected from *Geonoma brevispatha* Barb. Rodr. and *Geonoma schottiana* Mart. (Arecaceae) sampled in patches of Atlantic Forest at São Pedro (22º33'57"S; 47º57'28"W) and Cananéia (24º53'45"S; 47º50'17"W), State of São Paulo, Brazil. They were mounted in Hoyer's medium for examination under phase contrast microscopy.

Setal nomenclature is based on Lindquist & Evans (1965) and on our examination of larvae, protonymphs and deutonymphs of *N. stridulans*, collected in Salalah, Sultanate of Oman; this species is closely related to the species here described, known only from adults. Measurements of each structure are given in micrometeres, with the averages for the individuals examined followed (in parentheses) by the respective ranges (if measurement varied). Terminology of spermathecal apparatus is based on Athias-Henriot (1968).

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