



## New species of New World Opilioacaridae (Acari: Parasitiformes) with the description of a new genus from the Caribbean region.

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### Abstract

Four new species and one new subspecies of Opilioacaridae are described from Mexico, Cuba, and Panama. The classification of Opilioacaridae is updated with recognition of the genus *Neocarus* as separate from *Opilioacarus*, and by recognition of a new genus, *Caribeacarus*, with three species from the greater Antilles and Panama. A key to the North/Central American and Caribbean species of Opilioacaridae is provided.

**Key words:** Opilioacaridae, *Neocarus*, *Caribeacarus*, identification key, Mexico, Caribbean

### Introduction

The family Opilioacaridae includes a number of taxa inhabiting a variety of terrestrial habitats, including litter and sites under rocks and logs (Vázquez & Klompen 2002). In terms of life history, they were assumed to be predators (Grandjean 1936), but recent observations seem more consistent with a life style as scavengers and/or pollen feeders (Klompen 2000; Walter & Proctor 1998). The family exhibits signs of a relict group, combining a geographic distribution that includes the entire tropics and subtropics with a relatively small number of species. For the New World, the first species, *Opilioacarus platensis* Silvestri was described from Uruguay and Argentina. Subsequent species have been described from the United States (2 species) (Chamberlin & Mulaik 1942), Cuba (2) (Juvara-Bals & Baltac 1977), Venezuela (1) (Lehtinen 1980), Mexico (3) and Nicaragua (1) (Vázquez & Klompen 2002).

Van der Hammen (1966) in a detailed study of *Neocarus texanus* Chamberlin & Mulaik, synonymized *N. arizonensis* Chamberlin & Mulaik with *N. texanus*, and synonymized the genus *Neocarus* Chamberlin & Mulaik with the type genus, *Opilioacarus* With. In later studies, the 9 species known from the New World have been assigned to either the genus *Opilioacarus* or to *Neocarus*. Previously (Klompen 2000; Vázquez & Klompen 2002) we have used a conservative approach, listing *Neocarus* as a subgenus of *Opilioacarus*. Additional material from Mexico, Central America, and the Caribbean provided us with a broader taxon sample to evaluate character state variability among New World Opilioacaridae. Based on this expanded sample, previously suggested diagnostic characters are holding up sufficiently well for us to support resurrection of *Neocarus* at the generic level. In this concept, the genus *Opilioacarus* is restricted to the Mediterranean region of Europe and North Africa.

The goal of this study is to describe an additional 4 species and 1 subspecies of New World Opilioacaridae. Two of these, along with one previously described species, are assigned to a new genus.