*Zootaxa* 2972: 37–58 (2011)
www.mapress.com/zootaxa/


**Article**

ISSN 1175-5326 (print edition)
**ZOOTAXA**
ISSN 1175-5334 (online edition)

# Zalmoxidae (Arachnida: Opiliones: Laniatores) of the Paleotropics: a catalogue of Southeast Asian and Indo-Pacific species

PRASHANT P. SHARMA[1,3], ADRIANO B. KURY[2] & GONZALO GIRIBET[1]

[1]*Department of Organismic & Evolutionary Biology and Museum of Comparative Zoology, Harvard University, 16 Divinity Avenue, Cambridge, MA 02138, USA. E-mail: ggiribet@oeb.harvard.edu*

[2]*Museu Nacional, Quinta da Boa Vista s/n, São Cristóvão, 20.940-040, Rio de Janeiro, RJ, Brazil. E-mail: adrianok@gmail.com*

[3]*Corresponding author. E-mail: psharma@fas.harvard.edu*

## Abstract

A revised catalogue of the Paleotropical Zalmoxidae including images of selected available type specimens is presented. Distribution data are provided to the best of our knowledge. The genera *Acrozalmoxis* Roewer, 1915, *Camanastus* Roewer, 1949, *Papuastus* Roewer, 1949, *Savoa* Roewer, 1949, and *Zalmoxomma* Roewer, 1949 are newly synonymized with the type genus *Zalmoxis* Sørensen, 1886. The following new combinations are established: *Zalmoxis australis*, *Zalmoxis bonka*, *Zalmoxis insularis*, *Zalmoxis maculosus*, *Zalmoxis occidentalis*, and *Zalmoxis ponapeus*. *Bogania* Forster, 1955 and *Bunofagea* Lawrence, 1959 are removed from Zalmoxidae and transferred to Phalangodidae. *Gjellerupia* Roewer, 1913 and *Spalicus* Roewer, 1949 are considered Grassatores *incertae sedis*. The incidence of preoccupied taxon names is redressed by designation of new specific epithets as follows: *Zalmoxis neoguinensis* (Roewer, 1915) is renamed *Zalmoxis thorelli*; *Zalmoxis neoguinensis* (Müller, 1917) is renamed *Zalmoxis muelleri*; *Zalmoxis neoguinensis* (Roewer, 1949) is renamed *Zalmoxis mutus*; and *Zalmoxis minima* (Roewer, 1915) is restored to *Gjellerupia minima*. *Zalmoxis pallicolor* Strand, 1910 is synonymized with *Zalmoxis armatipes* Strand, 1910. Diagnoses of genera are provided. Species richness and familial level relationships of Zalmoxidae are discussed.

**Key words:** Grassatores, Phalangodidae, Zalmoxoidea, *Zalmoxis*

## Introduction

Of the 27 described families of Laniatores (Giribet *et al.* 2010), only two are known to occur throughout Southeast Asia, the Southwest Pacific, and the Mascarene Islands: Podoctidae Roewer, 1912 and Zalmoxidae Sørensen, 1886. A recent investigation of opilionid interfamilial relationships based on sequence data from five molecular markers supported monophyly of Zalmoxidae and its sister relationship to Fissiphalliidae Martens, 1988 (Giribet *et al.* 2010). These results accord with relationships proposed by morphological studies (Kury & Pérez-González 2002). Although interfamilial relationships of Laniatores are not conclusively resolved, there is sufficient morphological and molecular sequence data to support a distant relationship of Podoctidae and Zalmoxidae (Giribet *et al.* 2010; Sharma & Giribet 2009a), suggesting independent colonizations of Southwest Pacific islands by Opiliones.

Comprising approximately 200 species in 70 genera, Zalmoxidae are small (1.5–5 mm) Laniatores that dwell in leaf-litter or caves (Kury & Pérez-González 2007). Originally described on the basis of two species from Fiji, Zalmoxidae are presently known in the Paleotropics from the Indo-Malay Archipelago, the Philippines, New Guinea, Australia, New Caledonia, Fiji, and Micronesia (Staręga 1989). They have also been described from Madagascar and the Seychelles, although it is disputed whether these species belong in Zalmoxidae (Kury & Pérez-González 2007).

The taxonomic history of Zalmoxidae and its constituent genera is replete with labyrinthine synonymies and resurrections. Some time after the description of the first "Zalmoxioidae" (Sørensen, 1886), Roewer (1912, 1923) collapsed the family into the system Phalangodidae, which has transiently harbored species of nearly all of the derived Laniatores (the infraorder Grassatores, *sensu* Kury 2003) families at some point or another. In addition,

*Accepted by A. Perez-Gonzalez: 29 Jun. 2011; published: 21 Jul. 2011*