



Forgotten gods: Zalmoxidae of the Philippines and Borneo (Opiliones: Laniatores)

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Abstract

The limits of zalmoxid distribution in Southeast Asia are poorly understood, but a focus of recent research. Here we describe six new species of litter-inhabiting harvestmen in the genus *Zalmoxis* Sørensen, 1886 (Opiliones: Laniatores: Zalmoxidae) using light microscopy and SEM. Three of these species are from the Philippine Islands (*Zalmoxis gebeleizis* **sp. nov.**, *Zalmoxis derzelas* **sp. nov.**, and *Zalmoxis sabazios* **sp. nov.**) and the other three from Borneo (*Zalmoxis zibelthiurdos* **sp. nov.**, *Zalmoxis bendis* **sp. nov.**, and *Zalmoxis kotys* **sp. nov.**). The collecting localities of these species add to the known range of Zalmoxidae, which have not previously been reported from Borneo. The new species add to known morphological variation of *Zalmoxis*, specifically with respect to sexually dimorphic tarsomeres, body size, and armature of the anal plate.

Key words: Grassatores, *Zalmoxis*, Zalmoxoidea, Southeast Asia

Introduction

“The belief of the Getae in respect of immortality is the following. They think that they do not really die, but that when they depart this life they go to Zalmoxis, who is called also Gebeleizis by some among them. To this god every five years they sacrifice a messenger, who is chosen by lot out of the whole nation, and charge to bear him their several requests [to Zalmoxis].” —Herodotus, *Histories*, Book IV, 94–96.

The opiliofauna of the Philippine Islands is remarkably diverse, harboring lineages with disparate evolutionary histories that are only beginning to be understood. These include an ancient lineage of Cyphophthalmi recently discovered in Mindanao (Clouse *et al.* 2011); the recently described family Petrobunidae, the nominal genus of which is endemic to the Philippines (Sharma & Giribet 2011); the elusive and strictly Southeast Asian family Sandokaniidae, with the genus *Biantoncopus* Martens & Schwendinger endemic to Leyte (Martens & Schwendinger 1998; Schwendinger 2007; Sharma & Giribet 2009); and the curious lineage Zalmoxidae, which is notable for its disjunct, amphi-Pacific distribution (Kury & Pérez-González 2007; Giribet *et al.* 2010; Sharma *et al.* 2011).

Subsequent to an extensive revision of Zalmoxidae—made necessary by a turbulent taxonomic history (Starega 1989; Kury 2003; Sharma *et al.* 2011; Sharma 2012)—the nominal genus *Zalmoxis* Sørensen, 1886 is presently known to occur in the Indian Ocean (Mauritius, the Seychelles Islands), several Pacific island groups (Fiji, Micronesia, New Caledonia, the Solomon Islands), as well as the tropics of Australia, New Guinea, the Molucca Islands, Sulawesi, Java, and the Philippine Islands. The zalmoxids of the Philippines are known from two islands: four species are described from Luzon (*Zalmoxis soerensenii* Simon, 1892, *Zalmoxis mitobatipes* (Roewer, 1926), *Zalmoxis cuspanalis* Roewer, 1927 and *Zalmoxis luzonicus* Roewer, 1949) and two from Mindanao (*Zalmoxis heynemani* Suzuki, 1977 and *Zalmoxis mindanaonicus* Suzuki, 1977). The only reported collections of zal-