Zootaxa 3579: 37–66 (2012)
www.mapress.com/zootaxa/

Article

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

urn:lsid:zoobank.org:pub:684212FA-0248-4D60-9303-B56F85BE21FE

Revision of *Nanophareus*, a mysterious harvestman genus from Chile, with descriptions of three new species (Opiliones: Laniatores: Gonyleptidae)

MARCOS RYOTARO HARA[1], RICARDO PINTO-DA-ROCHA[2] & ADRIANO BRILHANTE KURY[3]

[1]*Escola de Artes, Ciências e Humanidades, Universidade de São Paulo, Av. Arlindo Bettio nº 1000, Ermelino Matarazzo, São Paulo, SP, Brazil, 03828-000. E-mail: marcosrh@usp.br*

[2]*Departamento de Zoologia, Instituto de Biociências, Universidade de São Paulo, Caixa Postal 11461, São Paulo, SP, Brazil, 05422-970. E-mail: ricrocha@usp.br*

[3]*Departamento de Invertebrados, Museu Nacional/UFRJ, Quinta da Boa Vista, São Cristóvão, Rio de Janeiro, RJ, Brazil, 20940-040. E-mail: adrianok@gmail.com*

Abstract

The Chilean genus *Nanophareus* Roewer, 1929 is revised and three new species are described: *N. araucanus* **sp. nov.** (type locality: Parque Nacional La Campana, Valparaíso, Chile); *N. bipartitus* **sp. nov.** (type locality: Parque Nacional La Campana, Valparaíso, Chile); *N. bosqenublado* **sp. nov.** (type locality: Parque Nacional Fray Jorge, Coquimbo, Chile). The type species, *N. palpalis* Roewer, 1929, is redescribed and a lectotype is designated. A cladistic analysis was performed using these three new species plus *N. palpalis* and 14 more laniatorid species, and a data matrix of 72 characters: Seven from the ocularium, 22 from the dorsal scutum, one from the venter, one from the chelicera, eight from the pedipalp, 24 from male legs, and nine from male genitalia. Two equally most parsimonious trees were found (L = 210; C.I. = 0.41; R.I. = 0.51). *Nanophareus* was recovered as nested within a paraphyletic subfamily Pachylinae. The genus *Nanophareus* was found to be monophyletic based on the following exclusive synapomorphies: An external row of enlarged tubercles inserted among small ones on lateral margin of the dorsal scutum (innapplicable in *N. bosqenublado*); the ventro-basal margin of pedipalpal tibia curved 90 degrees in lateral view; and retrolateral seta of the pedipalpal tibia with a socket apically bifid (socket and seta longer than pedipalpal tibia length).

Key words: Bosque Nublado, Neotropical fauna, systematics, taxonomy, Grassatores

Introduction

Nanophareus Roewer, 1929 is one of those harvestmen genera which was rarely mentioned in the literature after its description. It was described by Roewer (1929) based on a single species from Chile—*N. palpalis* Roewer—without a precise type locality. The genus was initially placed in Phareinae under Gonyleptidae, and some years later, Mello-Leitão (1940) transferred that subfamily to Stygnidae. A second species was later described by Roewer (1943), *N. minutissimus* Roewer, but then the genus was not mentioned in the literature again until 1997, when Stygnidae was revised by Pinto-da-Rocha. In that revision, (i) Phareinae was synonymized with Stygninae; (ii) *N. minutissimus* was kept in Stygninae as the type species of *Kaapora* Pinto-da-Rocha, 1997; and (iii) *N. palpalis* was formally transferred to Gonyleptidae (following a personal communication of Maury, see Pinto-da-Rocha 1997: 166). Maury´s opinion was followed by Kury (2003), who placed it as "Gonyleptidae *incertae sedis*", although he also mistakenly proposed that it should be transferred to Gonyleptidae: Metasarcinae several pages later (Kury 2003: 259).

In a recent expedition to Chile, the second author, in collaboration with Francisco Javier Cádiz Lorca and Diego Cádiz Lorca, collected three previously unknown species of *Nanophareus*. Independently, the third author also identified specimens—deposited in the Museu Nacional do Rio de Janeiro (MNRJ)—of the same undescribed species of *Nanophareus* as those collected in the expedition to Chile. Considering all the recent findings, the unsatisfactory diagnosis of the genus and its species description according to modern standards, we gather here our findings to propose a new concept of *Nanophareus*. Additionally, we test the monophyly of the genus, describe its richness and provide identification keys.

Accepted by A. Pérez-González: 26 Oct. 2012; published: 11 Dec. 2012