Zootaxa 2501: 37–53 (2010)
www.mapress.com/zootaxa/

Article

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

A reappraisal of some basal lineages of the family Macrochelidae, with the description of a new genus (Acarina: Mesostigmata)

ROWAN M. EMBERSON
Dept of Ecology, Faculty of Agriculture and Life Sciences, P. O. Box 84, Lincoln University 7647, Canterbury, New Zealand.
E-mail: embersor@lincoln.ac.nz

Abstract

Macrocheles analis Hyatt & Emberson is redescribed and assigned to a new genus, *Reductholaspis* gen. nov. *Longicheles* Valle is separated from the genus *Geholaspis* Berlese and given generic rank, based on a complex of strongly autapomorphic features and a possible synapomorphy with *Reductholaspis*. The new tribe Geholaspini, including the genera *Dissoloncha* Falconer, *Geholaspis*, *Longicheles*, and *Reductholaspis* is described and a key to the genera is provided. The genus *Macrholaspis* Oudemans and the subgenus *Nothrholaspis* Berlese of *Macrocheles* Latreille are reinstated at the generic level, based on distinctive synapomorphies of the included species. *Sclerithola spis* Mašàn is newly synonymised with *Nothrholaspis*. Lists of included species are provided for each of the genera discussed. Proposed new combinations are: *Longicheles bianchii* (Valle & Mazzoleni), *L. lagrecai* (Valle), *L. ilvana* (Valle & Mazzoleni), *L. longisetosus* (Balogh), *L. longulus* (Berlese), *L. mandibularis* (Berlese), *L. ranzii* (Valle & Mazzoleni), *Reductholaspis analis* (Hyatt & Emberson), *Nothrholaspis banaticus* (Iavorschi), *N. caucasicus* (Bregetova & Koroleva), *N. coenosus* (Takaku), *N. shennongjianensis* (Ma & Liu), *N. subcoenosus* (Takaku), *N. submotus* (Falconer), *Macrholaspis beieri* (Johnston), *M. carpathicus* (Mašán), *M. georgicus* (Bregetova), *M. morikawai* (Ishikawa), *M. recki* (Bregetova & Koroleva), *M. reductus* (Petrova), *M. similiopacus* (Mašán), *M. stammeri* (Krauss), *M. terreus* (Canestrini & Fanzago), *M. tianschanicus* (Bregetova).

Key words: Gamasina, Geholaspini, new tribe, *Geholaspis*, *Longicheles*, *Reductholaspis*, *Macrholaspis*, *Nothrholaspis*, *Macrocheles*, new synonymy, new combinations

Introduction

Geholaspis Berlese has long been regarded as the most basal genus of the gamasine family Macrochelidae Vizthum (Evans, 1956; Krantz, 1962) because of its superficial similarity to members of the putative sister group, the Parholaspididae Evans, particularly the genus *Calholaspis* Berlese (Krantz, 1960). Hyatt & Emberson (1988) showed that *Dissoloncha* Falconer is more closely related to *Geholaspis* than to *Macrocheles* Latreille, and thus should be considered a member of this lineage. The basal position of the *Geholaspis/Dissoloncha* clade was confirmed by Krantz (1998), who published a cladogram depicting the relationships of six genera of macrochelids and 17 selected species of *Macrocheles* based on an ordered matrix of 42 characters. Interestingly, the cladogram suggested that the most basal of all known macrochelids was an undescribed genus, including two species then placed in *Macrocheles*, which are phoretic on isolated genera of geotrupine dung beetles (Krantz & Mellot, 1968). The genus *Geotrupacarus* Krantz has recently been described for these species (Krantz, 2009). Their basal position is supported by several features not found in other phoretic macrochelids, including the lack of a bidentate, hair-grasping tooth on the movable chela, the presence of three pairs of post-epigynal platelets, and a cribrum with well developed para-anal extensions similar to those seen in many litter dwelling species (Krantz & Royce, 1992). *Geotrupacarus* species also have the strongly pleisiomorphic and possibly unique character in the Macrochelidae of four or five pairs of setae in the J series on the opisthonotum instead of the usual two or three. After allowing for the removal of these two species, the cladogram still suggested that *Macrocheles*, as presently constituted, is

Accepted by B. Halliday: 24 Apr. 2010; published: 10 Jun. 2010