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Three new species of the genus *Nothrholaspis* (Acari: Macrochelidae) from the Kelkit Valley, Turkey

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Abstract

Three new species of mites of the genus *Nothrholaspis* Berlese, 1918 are described from specimens collected in the Kelkit Valley, Turkey—*Nothrholaspis turcicus* **sp. nov.**, *N. anatolicus* **sp. nov.** and *N. dogani* **sp. nov.** The genus *Nothrholaspis* is recorded from Turkey for the first time. An identification key for the new species and a tabular key for the all known species of the genus are included.

Key words: Acari, Macrochelidae, Nothrholaspis, Kelkit Valley, Turkey

Introduction

The family Macrochelidae Vitzthum (1930) includes about 20 genera and 470 species world wide. Macrochelids are small to medium sized predatory mites that are found in soil and decomposing organic matter (Emberson 2010). Taxonomic study of Macrochelidae began with a series of works by A. Berlese, especially in a paper entitled "Centuria quarta di acari nuovi" (Berlese 1918), in which more than 40 taxa were described. However, modern concepts of the genera and their representatives are of recent origin (Evans 1956; Evans & Browning 1956; Krantz 1962; Bregetova 1977; Hyatt & Emberson 1988; Mašán 2003). In Turkey, there have been no taxonomic studies of the family Macrochelidae, and only eight species have been recorded—*Macrocheles muscaedomesticae* (Scopoli, 1772), *M. vernalis* (Berlese, 1887), *M. punctatissumus* Berlese, 1918, *M. glaber* (Müller, 1860), *Longicheles mandibularis* (Berlese, 1904), *Glyptholaspis americana* (Berlese, 1888), *G. fimicola* (Sellnick, 1931), and *Neopodocinum caputmedusae* (Berlese, 1908) (Göksu & Güler 1968; Evans & Hyatt 1963; Çobanoğlu & Bayram 1998; Çobanoğlu & Kırgız 2001; Ekiz & Urhan 2001).

The genus *Nothrholaspis* was created as a subgenus of *Macrocheles* by Berlese (1918), but is now widely recognised as a genus (Falconer, 1923; Hull, 1925; Vitzthum, 1930; Sellnick, 1931; Willmann, 1939, 1951a, b; Cooreman, 1943). The genus was synonymised with *Macrocheles* by Evans & Browning (1956). Later, Hyatt & Emberson (1988) proposed and defined the *carinatus* species group of *Macrocheles* for part of the species formerly included in *Nothrholaspis*. Mašán (2003) described the new subgenus *Macrocheles* (*Scleritholaspis*), which was accepted by Krantz (2009). More recently, the subgenus *Scleritholaspis* was synonymised with *Nothrholaspis* and the latter was returned to genus rank by Emberson (2010). The genus *Nothrholaspis* includes 13 species with *Nothrholaspis turcicus* **sp. nov.**, *Nothrholaspis anatolicus* **sp. nov.** and *Nothrholaspis dogani* **sp. nov.** described in the present paper.

Nothrholaspis is distinguished from *Macrocheles* by the presence of three pairs of sclerotised post-genital platelets in the membrane between the genital and ventrianal shield. The genus is also further distinguished from *Macrocheles* and *Macrocheles* by the distinctive shape of the epistome, and from *Macrocheles* by the pectinate cheliceral dorsal seta. Both the shape of the epistome and the cheliceral dorsal setae are similar to those of *Geotrupacarus* Krantz, 2009. The large body size, pattern of pilose and aciculate dorsal setae, litter dwelling habit, and regular occurrence of males are other characteristic, though non-defining features of the genus (Emberson, 2010).

Emberson (2010) revised the family Macrochelidae and described the following characters of the genus *Nothrholaspis*: dorsal shield ornamented with reticulate and punctate pattern; shield bearing 28 or 29 pairs of setae;