



<http://dx.doi.org/10.11646/zootaxa.3741.1.6>

<http://zoobank.org/urn:lsid:zoobank.org:pub:405D8961-9659-4A37-950A-475A580DCDF1>

A new species of *Gamasiphis* Berlese (Acari: Ologamasidae) from Russia (Sakhalin and Kuril Islands) with a key to the Asian species

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Abstract

Gamasiphis ochotensis sp. n. is described based on the morphology of females and males collected from litter and soil in the Sakhalin and Kuril Islands of Far East Russia. A key for the separation of females of 10 recognisable species of *Gamasiphis* distributed in Asia is provided.

Key words: Mesostigmata, edaphic mites, taxonomy

Introduction

The family Ologamasidae Ryke is a large and widely distributed group (45 genera, more than 452 species) of predatory mites that inhabit soil, humus and compost (Lindquist *et al.*, 2009; Castilho *et al.*, 2009; Beaulieu *et al.*, 2011). *Gamasiphis* is one of the most diverse genera of Ologamasidae, with 73 described species (Castilho *et al.*, 2012; Marchenko, 2013). Thirteen species of *Gamasiphis* have been described or reported from Asia: *G. pulchellus* (Berlese, 1887); *G. elegantellus* Berlese, 1910; *G. elongatellus* Berlese, 1910; *G. gamasellus* Berlese, 1913; *G. pilosellus* Berlese, 1913; *G. productellus* Berlese, 1923; *G. bengalensis* Bhattacharyya, 1966; *G. indicus* Bhattacharyya, 1978; *G. lanceolatus* Karg, 1987; *G. novipulchellus* Ma & Yin, 1998; *G. aduncus* Ma, 2004; *G. turgicalcareus* Ma, 2009; *G. angaridis* Marchenko, 2013 (Berlese, 1887, 1910, 1913, 1923; Bregetova, 1977; Bhattacharyya, 1966, 1978; Lee, 1970; Karg, 1987; Ma & Yin, 1998; Ma, 2004, 2009; Ma & Ma, 2000; Kazemi & Rajaei, 2013; Marchenko, 2013). This paper provides description of a new species of *Gamasiphis* from Sakhalin and Kuril Islands of the North Asian part of Russia, as well as a key to the Asian species of this genus.

Material and methods

Samples of soil and litter were collected in southern Sakhalin and southern Kuril Islands (Kunashir and Shikotan) in expeditions organised by the Institute of Systematics and Ecology of Animals (Novosibirsk) in 1989 and 1990. Mites were extracted using a Berlese funnel in the field laboratory. Mesostigmata were mounted in Hoyer's medium for examination under a Zeiss Axioscop 40 microscope in the Institute laboratory (ISEA, Novosibirsk). These mites were identified by considering the world taxonomic literature, leading to the conclusion that a new species of *Gamasiphis* had been collected.

Taxonomically relevant structures were illustrated with the use of photos obtained by a Canon Power Shot G11 camera and measured with the use of a graded ocular. Measurements of each structure are given in micrometres (μm) and as a range representing the variation among all individuals examined. The dorsal and ventral idiosomal nomenclature of setae is based on Lindquist & Evans (1965) as adapted by Silva *et al.* (2007) and Castilho *et al.* (2010) for the Ologamasidae. The idiosomal adenotaxy and poroidotaxy are based on Johnston & Moraza (1991). The identification key to 10 species of *Gamasiphis* of Asia was prepared based on the original descriptions, available redescrptions of the concerned species and on the key to world species of *Gamasiphis* of Castilho *et al.* (2012).

Acknowledgements

I am grateful to Raphael Castilho, Bruce Halliday and Olga Makarova for access to information and their help in my study and to my late teacher Marianna Davydova (1918–1994) for the opportunity to learn soil gamasid mites since my first expeditions in 1989 and 1990 in Sakhalin and Kunashir Islands.

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