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Three new species of myrmecophilous scutacarid mites (Acari: Scutacaridae) from Western Siberia, Russia

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Abstract

Three new species of myrmecophilous mites of the genus *Scutacarus* Gros, 1845 (Acariformes: Pygmephoroidae: Scutacaridae), *S. lasiophilus* sp. nov., *S. myrmicinus* sp. nov., and *S. crinitus* sp. nov. are described from ants and their nests in Tyumen Province, Western Siberia, Russia.

Key words: Acari, Heterostigmata, Pygmephoroidae, *Scutacarus*, systematics, ants, phoresy, Palaearctic

Introduction

The cosmopolitan family Scutacaridae is the largest in the superfamily Pygmephoroidae (Acariformes: Heterostigmata) and includes 24 genera and more than 800 species (Zhang *et al.* 2011). Probably all scutacarid mites are fungivorous (Khaustov 2008). Many scutacarid mites are phoretic on various arthropods: spiders (Ebermann & Goloboff 2002), hooded tickspiders (Ebermann & Palacios-Vargas 1988) and numerous insects, especially various beetles, flies and bees (Ebermann 1988; Khaustov 2008), however, most of them are phoretic on various ants (Ebermann & Moser 2008; Khaustov 2008; Ebermann *et al.* 2013). The genus *Scutacarus* Gros, 1845 is the largest within the family Scutacaridae and includes more than 400 species in the world fauna and about 170 species in the Palaearctic region (Khaustov 2008). Until today 70 species of *Scutacarus* were recorded from Russia (Khaustov 2008), but most of them are known only from its European part.

In this paper, I describe three new species of the genus *Scutacarus* recorded phoretic on ants or found in the ant nests in Western Siberia, Russia.

Material and methods

Ants were collected in vials with 96% alcohol. Thereafter, alcohol sediments from the vials were inspected for phoretic mites. Mites from ant nests were collected using Berlese funnels. All collected mites were mounted in Hoyer's medium. The terminology of idiosoma and legs follows Lindquist (1986); the nomenclature of subcapitular setae and the designation of cheliceral setae follow Grandjean (1944, 1947), respectively. The system of Pygmephoroidae follows Khaustov (2004, 2008). All measurements are given in micrometres (µm) for the holotype and 5 paratypes (in parentheses). For leg setation the number of solenidia is given in parentheses. DIC photos were taken using the Carl Zeiss Axio Imager A2 microscope and digital Camera Hitachi KP-HD20A. The holotypes and most paratypes of new species are deposited in the acarological collection of the Tyumen State University Museum of Zoology, Tyumen, Russia (TUMZ); 2 paratypes of each new species are deposited in the acarological collection of the Zoological Institute of RAS, St. Petersburg, Russia (ZISP).

Systematics

Family Scutacaridae Oudemans, 1916