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Two new species of the genus *Pediculaster* (Acari: Pygmephoridae) from Western Siberia, Russia

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Abstract

Two new species of the genus *Pediculaster* Vitzthum, 1931 (Acari: Pygmephoridea: Pygmephoridae), *P. ermilovi* sp. nov. and *P. lignarius* sp. nov. are described from rotten logs in Tyumen, Western Siberia, Russia. A key to phoretic females of Palaearctic species of the genus *Pediculaster* is provided.

Key words: Acari, Heterostigmata, systematics, female dimorphism, Palaearctic

Introduction

The mite genus *Pediculaster* Vitzthum, 1931 (Acari: Pygmephoridea) is one of the largest in the family Pygmephoridae and includes about 100 described species in the world fauna (Khaustov 2011, Khaustov *et al.* 2013). Mites of the genus *Pediculaster* inhabit a great variety of habitats, e.g. soil, litter, mosses, dung, nest material, decaying organic material (Camerik & Kheradmand 2010). Some species are considered as pests of mushrooms in commercial mushroom-houses (Cross & Kaliszewski 1988). *Pediculaster* spp. are characterized by the presence of two morphologically different forms of females: non-phoretic or “normal”, and phoretic ones (Camerik *et al.* 2006; Martin 1978). Most species of *Pediculaster* are described based on phoretic females, while non-phoretic females are known only for a few species (Camerik 2001; Camerik *et al.* 2006; Martin 1978). At present 23 species of *Pediculaster* were recorded from Russia: *P. amuriensis* Sevastianov, Chydyrov and Marroch, 1994, *P. athiasae* (Wicht, 1970), *P. calcaratus* (Mahunka, 1965), *P. camerikae* Khaustov, 2008, *P. chistyakovi* Khaustov and Ermilov, 2008, *P. confusus* Khaustov, 2008, *P. ensifer* (Savulkina, 1978), *P. flechtmanni* (Wicht, 1970), *P. giliarovi* Sevastianov, 1988, *P. horricomus* (Savulkina, 1978), *P. jaltensis* Sevastianov, 1974, *P. martyani* Khaustov, 2008, *P. mesembrinae* (Canestrini, 1881), *P. montanus* Khaustov, 2008, *P. muscarius* (Martin, 1978), *P. permagnus* (Rack, 1971), *P. perottii* Camerik and Goetzee, 1998, *P. pfefferianus* Samsinak, 1984, *P. pseudomanicatus* Camerik, 2001, *P. sellnickianus* (Rack, 1964), *P. sterculinicola* Sevastianov, 1981, *P. tauricus* Khaustov, 2008, *P. zachvatkini* (Savulkina, 1978) (Sevastianov 1974, 1978, 1988; Savulkina 1978; Livshits *et al.* 1986; Khaustov 2008b, 2011a; Khaustov & Ermilov 2008). Two new species of the genus *Pediculaster* were found recently in rotten logs of poplar and birch in Tyumen, Western Siberia, Russia. The aim of this paper is to describe phoretic and non-phoretic female forms of *Pediculaster ermilovi* sp. nov. and phoretic form of *P. lignarius* sp. nov., and to provide a key to phoretic females of Palaearctic species of the genus *Pediculaster*.

Material and methods

Mites were collected from rotten wood using Berlese funnels and mounted in Hoyer's medium. The terminology of idiosoma and legs follows that of Lindquist (1986); the nomenclature of subcapitular setae and the designation of cheliceral setae follow that of Grandjean (1944, 1947), respectively. The system of Pygmephoridea follows Khaustov (2004, 2008a). All measurements are given in micrometers (µm). For leg chaetotaxy the number of solenidia is given in parentheses. The type material is deposited in the mite collection of the Tyumen State University Museum of Zoology, Tyumen, Russia.

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