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A new species of the genus *Paravillersia* (Acari: Prostigmata: Stigmaeidae) from Western Siberia, with supplementary description of *Paravillersia grata* Kuznetsov, 1978

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Abstract

A new species of the genus *Paravillersia* Kuznetsov, 1978 (Acari: Stigmaeidae), *P. jamaliensis* Khaustov **sp. nov.** is described from mosses on fen in Western Siberia, Russia. The supplementary description of *Paravillersia grata* Kuznetsov, 1978 is provided based on the type material.

Key words: Acari, predatory mites, mosses, Raphignathoidea, systematics

Introduction

The predatory mite family Stigmaeidae (Acari: Prostigmata) is the largest in the superfamily Raphignathoidea and includes more than 500 species in 33 valid genera (Zhang *et al.* 2011). Among them, the monotypic genus *Paravillersia* Kuznetsov, 1978 is known only from the European part of Russia where the type species, *P. grata* Kuznetsov, 1978 was collected from forest litter and mosses in Voronezh Province (Kuznetsov 1978; Wainstein & Kuznetsov 1978). Our study of the mites associated with mosses in Western Siberia revealed a new species of the genus *Paravillersia*. The original description of *P. grata* Kuznetsov, 1978 was incomplete. The figures and description of the dorsal and ventral idiosoma were well prepared but the setation of the gnathosoma and legs were poorly illustrated and a supplementary description of this species based on an examination of the type material of *P. grata* is provided.

Material and methods

Mites were collected from mosses using Berlese funnel and mounted in Hoyer's medium. In the description below, the palpal, idiosomal and the leg setations follow Grandjean (1939, 1944, 1946). All measurements are given in micrometres (μm) for the holotype and 5 paratypes (in parentheses). In descriptions of leg setation the number of solenidia is given in parentheses. SEM photos were made with the aid of JEOL –JSM-6510LV SEM microscope.

Systematics

Family Stigmaeidae Oudemans, 1931

Genus *Paravillersia* Kuznetsov, 1978

Type species: *Paravillersia grata* Kuznetsov, 1978, by original designation.

Diagnosis. Prodorsal shield with 3 pairs of setae (*vi*, *ve*, *sci*). Setae *sce* situated on platelets separated by striae from

Remarks. The female holotype is in rather bad condition, especially idiosoma and I provided only supplementary description because some body structures are almost invisible. The dorsal body setae are not so heavily barbed as in the original description. Setae c_2 are situated on the humeral shield instead out of the shield in the original description.

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References

- Berlese, A. (1910) Acari nuovi. Manipulus V. *Redia*, 6, 199–214.
- Grandjean, F. (1939) Les segments postlarvaires de l'hysterosoma chez les oribates (Acariens). *Bulletin Societe Zoology France*, 64, 273–284.
- Grandjean, F. (1944) Observations sur les Acariens de la famille des Stigmaeidae. *Archives des Sciences physiques et naturelles*, 26, 103–131.
- Grandjean, F. (1946) Au sujet de l'organe de Claparède, des eupathides multiples et des taenidies mandibulaires chez les Acariens actinochitineux. *Archives des Sciences physiques et naturelles*, 28, 63–87.
- Kuznetsov, N.N. (1978) New records of raphignathoid mites (Raphignathoidea, Acariformes). *Biologicheskie Nauki*, 12, 49–54. [in Russian]
- Oudemans, A.C. (1927) Acarologische aanteekeningen LXXXVIII. *Entomologische Berichten*, 7, 257–263.
- Oudemans, A.C. (1931) Acarologische aanteekeningen CVIII. *Entomologische Berichten*, 8, 251–263.
- Wainstein, B.A. & Kuznetsov, N.N. (1978) Family Stigmaeidae. In: Ghilarov, M.S. (Ed.), *Opredelitel Pochvoobitayushchikh Kleshchey. Trombidiformes*, Nauka, Moscow, 153–168. [in Russian]
- Zhang, Z.-Q., Fan, Q.-H., Pesic, V., Smit, H., Bochkov, A.V., Khaustov, A.A., Baker, A., Wohltmann, A., Wen, T.-H., Amrine, J.W., Beron, P., Lin, J.-Z., Gabrys, G. & Husband, R. (2011) Order Trombidiformes Reuter, 1909. In: Zhang, Z.-Q. (Ed.), *Animal biodiversity: an outline of higher-level classification and survey of taxonomic richness*. *Zootaxa*, 3148, 129–138.