Article

New species of the family Julidae Leach 1814 from Altai, Russia (Diplopoda, Julida)

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Abstract

Three new species of the millipede family Julidae Leach 1814 are described from the Republic of Altai, Siberia, Russia: *Julus azarovae* **sp. n.**, *Julus insolitus* **sp.n.** and *Sibiriulus rectangulus* **sp.n.**

Key words: Diplopoda, julids, new species, descriptions, Siberia

Introduction

This paper continues research on the Altai millipede fauna, particularly on the material of Diplopoda from the unexplored places of Altai housed in the collections of the Perm State University, Perm, Russia. The material appears to be particularly important, for it contains species new to science. The present contribution describes three of these new species, all in the family Julidae. A historical account of research on the Altai diplopod fauna was recently provided by Mikhaljova *et al*. (2008).

Material and methods

Materials treated here are deposited in Russia in the collections of the Perm State University (PSU), Perm, the Institute of Biology and Soil Science of the Far Eastern Branch of the Russian Academy of Sciences (IBSS), Vladivostok, and the Zoological Museum of the State University of Moscow (ZMUM), Moscow, as indicated under the descriptions.

In the process of studying the new species, gonopods and other parts were dissected from a limited number of males and mounted in glycerin as temporary micropreparations. SEM micrographs were prepared in the Centre for collective use of the Institute of Biology and Soil Science of the Far Eastern Branch of the Russian Academy of Sciences (IBSS), Vladivostok, using a ZEISS EVO 40 scanning electron microscope. Mounts for SEM were made by airdrying after transfer to acetone via 96% alcohol, mounting on stubs, and coating with gold. After examination, SEM material was removed from stubs and returned to alcohol, all such samples being kept at IBSS.

A "body segment formula" indicates the number of podous and apodous segments in an individual. This formula are x(-y) where x = sum of podous and apodous body segments excluding telson, y = number of apodous body segments.