On three remarkable millipedes (Diplopoda) from the Crimea, Ukraine

Sergei I. Golovatch

Institute for Problems of Ecology and Evolution, Russian Academy of Sciences, Leninsky pr. 33, Moscow 119071, Russia. E-mail: sgolovatch@yandex.ru

Abstract

An updated review of the diplopod fauna of the Crimea is given. At present the fauna comprises 14 species from 11 genera, seven families and six orders, including *Eurygyrus ochraceus* C.L. Koch, 1847, an apparent introduction, *Trachysphaera costata* (Waga, 1857) (= *T.* rotundata (Lignau, 1911), syn. n.), represented by an obvious trogophilic, bisexual, relict population, and *Amblyiulus kovali* sp. n., likely a troglobitic endemic. Not only these species, but also their respective genera and, in the two former cases, their families and orders are new to the Crimean list.

Key words

Diplopoda, new species, new synonymy, cave, anthropochorism, Crimea

Introduction

The millipede fauna of the Crimea, a prominent peninsula in the Black Sea, has until recently been considered as relatively well-known (Golovatch 1990b). Only 12 species from nine genera, five families and four orders of Diplopoda have hitherto been recorded there, chiefly from the mountains (= iaila, up to 1,545 m a.s.l.) of the southern and central parts of the peninsula. The fauna has also been described as depauperate, yet clearly Mediterranean in composition, containing both a number of presumed palaeo- and neoendemics, as well as a few anthropochores introductions (Golovatch 1990b).

Recently, I have been privileged to receive for study some freshly collected material of diplopods from the Crimea. Among the samples, one species appears to be new while the other two are new to the Crimean fauna. Their discovery, coupled with several recent publications, seems to contradict some of the previous views concerning the Crimean millipede fauna and its genesis.
The material treated here has been shared between the collections of the Zoological Museum of the Moscow State University, Moscow (ZMUM), of the Zoological Institute of the Russian Academy of Sciences, St. Petersburg (ZIN), of the National Museum of Natural History, Sofia (NMNHS), and of the Zoology Department, Vernadsky Taurida National University, Simferopol, Crimea, Ukraine (ZDTU).

**Taxonomic part**

Order Callipodida  
Family Schizopetalidae

*Eurygyrus ochraceus* C.L. Koch, 1847  
Figs 1-10.

**Material:** 8 ♂, 6 ♀ (ZMUM), 2 ♂, 2 ♀ (NMNHS), 2 ♂, 2 ♀ (ZDTU), Crimea, Heraklean Peninsula, right side of Streletskaya Balka (= ravine) above Streletskaya Bay (44°35’ N, 33°28’ E), watershed, mainly under limestone boulders, deteriorated petrophyte steppe with *Rosa*, *Rubus*, *Amygdalus*, *juniperus*, etc., 21.09.2007, leg. O. Kukushkin.

**Remarks:** *Eurygyrus* C.L. Koch, 1847 is a rather large eastern Mediterranean genus currently containing about 20 species or subspecies. Several species groups have been distinguished therein (Hoffman & Lohmander 1964; Hoffman 1973; Glaubrecht & Spelda 1993), among which *E. ochraceus* appears to belong in the recently reviewed *xanthinus*-group, with all of its four constituent species keyed (Stoev 2007). To prove the identity of the Crimean samples, several pictures have been taken from both sexes (Figs 1-10). They show both generic and specific features, as well as differences between the sexes. The strongly flattened frons and enlarged anterior legs are characteristic of the male, whereas the convex frons and inflated segment 2 are typical of the female. The cingulate pattern is species-specific, but the most important specific characters lie in the details of gonopod structure, in particular the equally long main branches (Figs 8-10) (see also Stoev 2007).

At present, *E. ochraceus*, a conspicuously large (adults 75–85 mm long, with 49 body segments, or pleuroterga) and colourful (a clearly cingulate pattern) species, has only been recorded from near Sardes (Sart) and Bergama in western Turkey, and from Euxinograd near Varna, Bulgaria (distribution shown in fig. 48 in Glaubrecht & Spelda 1993). Stoev (2007) believes that the Varna record (in a park) represents an introduction. The same seems to be true of the Crimean population, which appears to be very local and even endangered, being currently confined to the upper, watershed part of the ravine which at present is a construction site. This entire place is known to have already been strongly developed and cultivated under ancient Romans by the mid 4th century B.C., but even before that, under ancient Greeks, there had been a considerable port at the Streletskaya Bay, with a very busy, so-called “Large Khersonesos Road” connecting the port to the nearby Greek town of Khersonesos (now Sevastopol). Since Roman