

The relict millipede *Hirudicryptus abchasicus* Golovatch, Evsyukov et Reip, 2015, represents a species, genus, family and order new to the fauna of Russia (Diplopoda: Siphonocryptida: Siphonocryptidae)

Реликтовая диплопода *Hirudicryptus abchasicus* Golovatch, Evsyukov et Reip, 2015 представляет собой новые для фауны России вид, род, семейство и отряд (Diplopoda: Siphonocryptida: Siphonocryptidae)

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КЛЮЧЕВЫЕ СЛОВА: Diplopoda, *Hirudicryptus abchasicus*, Кавказ, Абхазия, Россия.

ABSTRACT. The species *Hirudicryptus abchasicus*, the genus *Hirudicryptus*, the family Siphonocryptidae, and the order Siphonocryptida are recorded from Russia for the first time, based on fresh samples from the Krasnodar Province and the Republic of Adygea, NW Caucasus. New pictures and a distribution map of this relict species are presented.

РЕЗЮМЕ. Вид *Hirudicryptus abchasicus*, род *Hirudicryptus*, семейство Siphonocryptidae и отряд Siphonocryptida впервые отмечены в России, благодаря свежему материалу из Краснодарского края и Адыгеи (СЗ Кавказ). Приведены новые фотографии этого реликтового вида и карта его распространения.

Introduction

The order Siphonocryptida is presently known to contain only seven species from two genera, *Siphonocryptus* Pocock, 1894 and *Hirudicryptus* Enghoff et Golovatch, 1995, in a single family, Siphonocryptidae [Enghoff, Golovatch, 1995; Golovatch et al., 2015]. The former genus occurs only in Southeast Asia and includes three species: *S. compactus* Pocock, 1894 (the type-species), from Sumatra, Indonesia, *S. latior* Enghoff et Golovatch, 1995, and *S. zigzag* Enghoff, 2010, both from the Malay Peninsula, Western Malaysia [Enghoff, 2010]. The latter genus is trans-Palaearctic and contains four species: *H. canariensis* (Loksa, 1967) (the type-species), from Madeira and the Canaries, *H. taiwanensis* Korsós, Enghoff et Chang, 2008, from Taiwan, *H. quintumelementum* Korsós, Geoffroy et Mauriès, 2009, from Nepal, Himalayas, and *H. abchasicus* Golovatch, Evsyukov et Reip, 2015, from Abkhazia,

NW Caucasus [Golovatch et al., 2015]. Because the distribution of Siphonocryptida is so remarkably disjunct, the order has long been considered relict [e.g. Minelli, 2015]. Yet undescribed representatives of Siphonocryptida have recently been found in Burmese amber, ca 100 Mya [T. Wesener, in litt.].

The status of a relict undoubtedly concerns *H. abchasicus* as well, this species being the sole representative of the genus, family and order in the entire Caucasus, with the single record, and type locality, in the Gumista Nature Reserve, NW Abkhazia [Golovatch et al., 2015]. The present note slightly extends the distri-



Map. The distribution of *Hirudicryptus abchasicus* Golovatch, Evsyukov et Reip, 2015: triangle — type locality; circle — new records.

Карта. Распространение *Hirudicryptus abchasicus* Golovatch, Evsyukov et Reip, 2015: треугольник — типовой локалитет; круг — новые находки.



Fig. 1. Habitat of *Hirudicryptus abchasicus* Golovatch, Evsyukov et Reip, 2015 on Azish-Tau Mt. Ridge.  
Рис. 1. Место обитания *Hirudicryptus abchasicus* Golovatch, Evsyukov et Reip, 2015 на хребте Азиш-Тай.

bution of these taxa to Russia's NW Caucasus (Map). New illustrations are also provided to confirm the species' identity (Figs 2–5).

## Material and methods

The material underlying this paper was collected by the author in 2014 and 2015 in the Republic of Adygea and the Krasnodar Territory (Map). Specimens were taken by hand. The material is shared between the collection of the Zoological Museum of the State University of Moscow, Russia (ZMUM), and the author's private collection (RZ). Pictures were taken with a DCM 500 digital camera, images processed using Adobe Photoshop CS5 software.

## Taxonomic part

### ORDER SIPHONOCRYPTIDA

#### Family Siphonocryptidae

#### *Hirudicryptus abchasicus*

Golovatch, Evsyukov et Reip, 2015

Figs 2–5, Map.

*Hirudicryptus abchasicus* Golovatch, Evsyukov et Reip, 2015: 260, original description.

MATERIAL EXAMINED. 1 ♀ (RZ), Russia, Krasnodar Territory, Apsheronkiy Distr., Azish-Tau Mountain Ridge, near Bolshaya Azishskaya Cave, 1500 m above sea-level, mixed *Abies*, *Acer*, *Fagus*, *Carpinus* forest, under rotting logs, 18.VI.2014; 1 ♂, 1 ♀ (ZMUM ρ3531), same locality, 3.VII.2015; 1 ♂ (ZMUM ρ3532), Republic of Adygea, Maikopskiy Distr., between Dakhovskaya and estuary of Bolshoye Rufabgo River, left bank of Belaya River, 600 m above sea-level, broadleaved *Fagus*, *Carpinus*, *Quercus* forest, under rotting logs, 24.VI.2014, all leg. R.V. Zuev.

REMARKS. *Hirudicryptus abchasicus*, the genus *Hirudicryptus*, the family Siphonocryptidae, and the order Siphonocryptida are herewith reported from Russia for the first time. Above are the first records of these taxa since the species' original description [Golovatch et al., 2015] which was based on two specimens from the Pskhu-Gumista Nature Reserve in Abkhazia [Golovatch et al., 2015]. Our material was collected at altitudes ranging from 600 to 1500 m above sea-level, in broadleaved or mixed forest in wet topsoil under rotting logs (Fig. 1).

New illustrations are provided to document the identity of *H. abchasicus*, including the habitus (Fig. 2), head (Fig. 3), midbody terga (Fig. 4) and telson (Fig. 5).

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Figs 2–5. *Hirudicryptus abchasicus* Golovatch, Evsyukov et Reip, 2015, ♀ from Azish-Tau Mt. Ridge: 2 – habitus, dorsal view; 3 – head and collum, ventral view; 4 – middle part of body, dorsal view; 5 – caudal end of body, dorsal view.

Рис. 2–5. *Hirudicryptus abchasicus* Golovatch, Evsyukov et Reip, 2015, ♀ с хребта Азиш-Тау: 2 – общий вид, сверху; 3 – голова и коллум, снизу; 4 – средняя часть тела, сверху; 5 – задний конец тела, сверху.

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