



## Colobognatha millipedes in the Caucasus (Diplopoda: Polyzoniida, Platydesmida, Siphonocryptida)

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### Abstract

The superorder Colobognatha is represented in the Caucasus by three genera and species, one each in the orders Polyzoniida, Platydesmida and Siphonocryptida. *Hirudisoma roseum* (Victor, 1839) (Hirudisomatidae, Polyzoniida) is especially widespread, ranging from S Russia, Abkhazia, Georgia (with a neotype designated and described from Kakhetia, E Georgia) and NW Azerbaijan to E Turkey, and also including *H. ponticum* (Lohmander, 1939) (junior subjective synonym, syn. nov.). *Fioria hyrcana* Golovatch, 1980 (Andrognathidae, Platydesmida) is endemic to the Hyrcanian parts of the Republic of Azerbaijan and NW Iran along the western and southern coasts of the Caspian Sea. Due to the finding of *Hirudicryptus abchasicus* sp. nov. (Siphonocryptidae, Siphonocryptida), from a single locality in Abkhazia, NW Caucasus, the order Siphonocryptida is new to the fauna of the region. A key to all four species of the trans-Palaeartic genus *Hirudicryptus* is given. All three Caucasian species of Colobognatha are described in due detail and abundantly illustrated, and their distributions mapped.

**Key words:** Polyzoniida, Platydesmida, Siphonocryptida, taxonomy, new species, new synonymy, neotype, key, distribution, map, Russia, Abkhazia, Georgia, Azerbaijan, Turkey, Iran

### Introduction

The diplopod superorder Colobognatha Brandt, 1833 is known to comprise four small orders: Polyzoniida, Platydesmida, Siphonocryptida and Siphonophorida (e.g. Shear 2011). Only the former two orders contain not only tropical or subtropical, but also temperate species. Moreover, one of the species of the boreal genus *Angarozonium* Shelley, 1997 (Polyzoniidae, Polyzoniida) is especially widespread across Siberia and represents perhaps the northernmost range limit for the whole class Diplopoda (Mikhaljova 2004, Shelley and Golovatch 2011).

Only two genera and species of Colobognatha have hitherto been reported from the Caucasus and adjacent parts of NW Iran: *Hirudisoma roseum* (Victor, 1839) (Hirudisomatidae, Polyzoniida) and *Fioria hyrcana* Golovatch, 1980 (Andrognathidae, Platydesmida). The present paper provides their richly illustrated redescrptions and numerous new faunistic records, also summarizing and updating the nomenclatural history and distributions of both these species. In addition, the relict order Siphonocryptida is found in the region for the first time, being represented there by a new species.

### Material and methods

A large material of both *Hirudisoma roseum* and *Fioria hyrcana* has been amassed by the first author, now mostly housed in the Zoological Museum of the Moscow State University (ZMUM), Moscow, Russia. A few additional samples have been accumulated by the second and third authors, now retained in their private collections in Rostov-on-Don and Jena, referred to below as (AE) and (HR), respectively. One sample belongs to the Institute of