

First data on centipedes (Myriapoda: Chilopoda) of the Chechen Republic, northern Caucasus, Russia

Первые данные о губоногих многоножках (Myriapoda: Chilopoda) Чеченской Республики (Северный Кавказ, Россия)

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КЛЮЧЕВЫЕ СЛОВА: разнообразие, фауна, распространение, таксономия, карта, Предкавказье.

ABSTRACT. No special studies on the centipede fauna of the Chechen Republic have hitherto been performed. The only species of Chilopoda known from this territory was *Scolopendra cingulata* Latreille, 1829. In the course of our work, we have discovered 17 species from 11 genera, seven families and three orders. All records are mapped, some species are supplied with morphological illustrations.

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РЕЗЮМЕ. До настоящего времени не было исследований фауны Chilopoda Чеченской Республики. Единственным известным видом губоногих многоножек с данной территории была *Scolopendra cingulata* Latreille, 1829. В ходе нашей работы удалось обнаружить 17 видов из 11 родов, семи семейств и трех отрядов. Все находки отображены на карте, некоторые виды снабжены морфологическими иллюстрациями.

Introduction

The history of studying the Chilopoda of the Caucasus dates back to almost 200 years [Eichwald, 1830]. In the recent years, surveys have appeared devoted to the faunas of individual regions: Georgia, Azerbaijan, and Russia's part of the Caucasus (Stavropol Province and

Dagestan) [Zuev, 2016; Dyachkov *et al.*, 2022; Kiriya *et al.*, 2023; Dyachkov, 2024a]. However, until now, the fauna of Chilopoda of the Chechen Republic has been considered a lacuna. The only representative of centipedes known from the territory of the republic was *Scolopendra cingulata* Latreille, 1829, recorded without specific locality [Zalesskaja, Schileyko, 1991]. At the same time, the environmental conditions in the republic are characterized by great diversity: from semi-deserts in the north to alpine meadows and the nival belt in the south. This makes it possible to predict a rich centipede fauna over the territory. The present paper provides the first data on the Chilopoda diversity of the Chechen Republic.

Material and methods

The material for this study was collected in various areas of the Chechen Republic (Fig. 1) using the following methods: manual collection under stones and logs, sifting the leaf litter, and using eclectors. The distribution map was created using Google Earth Pro (ver. 7.3.4.8248) and Adobe Photoshop CS6 (ver. 13.0.1.3). All collecting localities (Table 1) in and under the faunistic sections are referred to as the respective numbers on the map (Fig. 1) put in square brackets ([]).

The fresh material underlying the present contribution is shared between the following collections: Complex Research Institute, Russian Academy of Sciences, Laboratory of the Ecological and Genetic Monitoring of Living Systems, Grozny (CI RAS) and Zoological Museum of the North Caucasian Federal University, Stavropol (ZMS).

Material was examined with a LOMO MBS-10 stereo microscope and a LOMO Micmed-5 light microscope (JSC

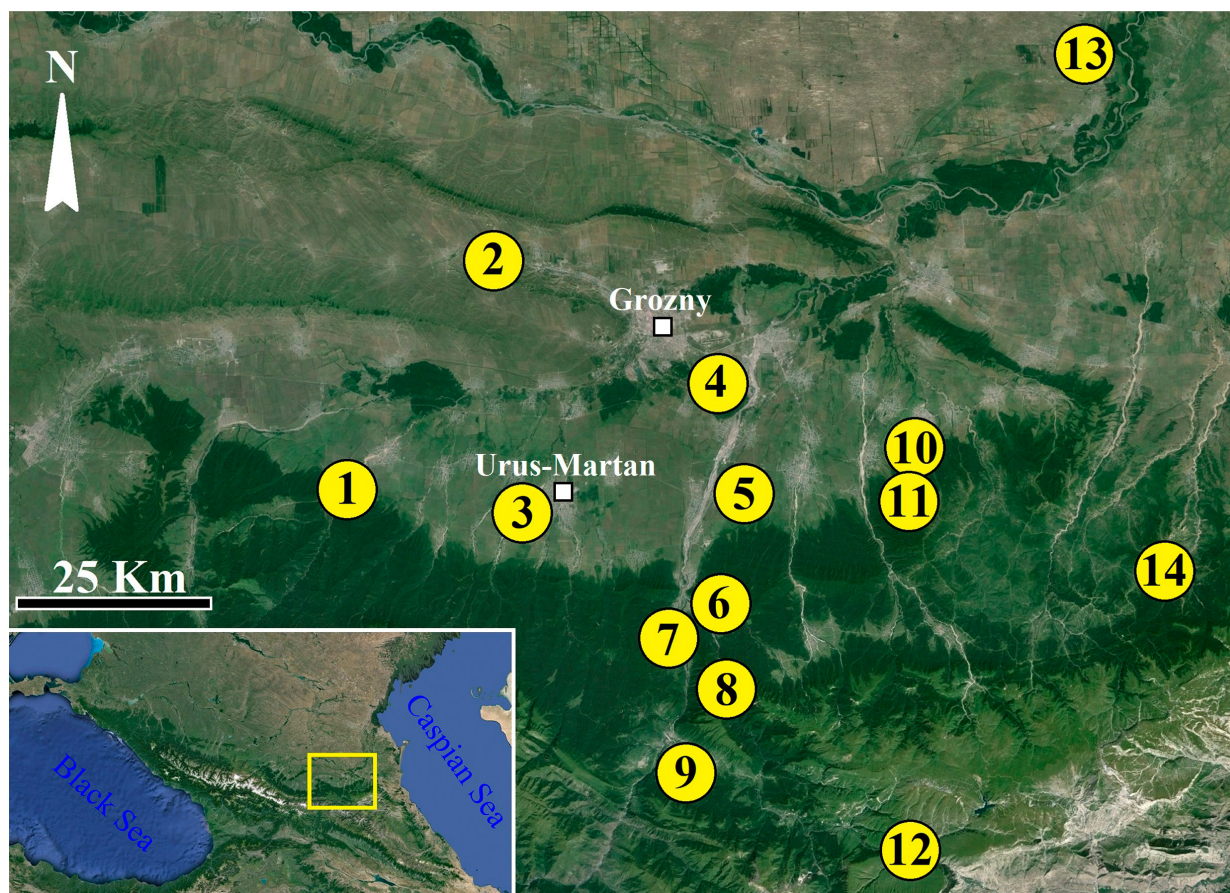


Fig. 1. Relief map of the Chechen Republic, Russia with the collecting localities from west to east (for localities numbering, see Table 1).

Рис. 1. Рельефная карта Чеченской Республики, Россия с точками сбора, показанными с запада на восток (нумерацию точек см. в Табл. 1).

LOMO, Russia). Slides were made using Fora-Berlese liquid. Photographs were taken using a Levenhuk D800T digital camera (Levenhuk LLC, USA). The final images were stacked from multiple layers using Helicon Focus (ver. 8.3.0) and Adobe Photoshop (ver. CC 2018).

Taxonomy

Class Chilopoda Latreille, 1817
Order Lithobiomorpha Pocock, 1895
Family Lithobiidae Newport, 1844
Genus *Harpolithobius* Verhoeff, 1904
Harpolithobius cf. *anodus* (Latzel, 1880)

Fig. 2.

MATERIAL. 4 ♂♂, 6 ♀♀, 3 juv. (ZMS), [8], 17.IV.2024.

REMARKS. A Western Palearctic species [Ion, Murariu, 2021]. In the Caucasus, it has been known from the Krasnodar Province, Russia and Georgia [Lignau, 1903; Muralewicz, 1926]. Differs from European specimens by a shorter groove on the tibia of the 15th pair of males (Fig. 2E). This probably concerns a new, still undescribed species.

Genus *Lithobius* Leach, 1814
Lithobius (s.l.) *liber* Lignau, 1903

MATERIAL. 2 ♂♂, 1 ♀ (ZMS), [8], 16.IV.2024; 2 ♀♀ (ZMS), [12], 12.IV.2024; 1 juv. (ZMS), [12], 14.04.2024.

REMARKS. A Caucasian species. Known from Georgia and the Russian part of the Caucasus (Adygea, Dagestan, Krasnodar and Stavropol provinces) [Lignau, 1903; Muralewicz, 1929; Zuev, 2016; Dyachkov *et al.*, 2022; Kiria *et al.*, 2023]. There is also information about the presence of this species in caves of Crimea, the populations of which are genetically very different from the Caucasian ones and possibly belong to a different species [Turbanov *et al.*, 2016]. Prefers forest habitats, but several individuals have been found in the subalpine belt among rocks.

Lithobius (s.l.) *rufus* Muralewicz, 1926

MATERIAL. 1 ♂ (ZMS), [8], 16.IV.2024; 1 ♀, 2 juv. (ZMS), [8], 17.IV.2024.

REMARKS. A Caucasian species known only from the Russian part of the Caucasus (Stavropol Province and Dagestan) [Muralewicz, 1929; Zuev, 2016; Dyachkov *et al.*, 2022].

Lithobius (*Lithobius*) *forficatus* (Linnaeus, 1758)

MATERIAL. 1 ♂ (CI RAS), [14], 18.VII.2023.

REMARKS. An anthropochorous species of European origin, introduced to North and South America, the Far East, and North Africa [Zapparoli, 2002]. In the Caucasus, it is known from Georgia and the Russian part of the Caucasus (Adygea, Krasnodar and Stavropol provinces) [Zalesskaya, 1978; Muralewicz, 1929; Zuev, 2016; Korobushkin *et al.*, 2016; Kiria *et al.*, 2023]. It is a eurybiont, but in the Caucasus it prefers steppe and anthropogenic habitats [Zuev, 2016].

Table 1. Chilopoda collecting localities in Chechen Republic, Russia.
Таблица 1. Места сбора Chilopoda в Чеченской Республике, Россия.

No.	Localities	Coordinates	Collectors
1	Sernovodsk Distr., 0.5 km E of Bamut, western slope of Mount Nokhchi-Kort, ~360 m a.s.l., <i>Fraxinus</i> , <i>Carpinus</i> and <i>Quercus</i> forest, leaf litter	43°09'26.3"N 45°12'23.4"E	I.S. Turbanov, R.V. Zuev
2	Groznensky Distr., Pobedinskoye, 180 m a.s.l., mixed-grass steppe	43°23'55.57"N 45°27'23.83"E	L.M. Saparbayeva
3	Urus-Martan Distr., 1.7 km W of Urus-Martan, Urus-Martan Nature Reserve, valley of Roshnya River, ~250 m a.s.l., <i>Crataegus</i> , <i>Acer</i> and <i>Populus</i> forest, leaf litter	43°07'25.7"N 45°29'10.3"E	I.S. Turbanov, R.V. Zuev
4	Groznensky Distr., near Prigorodnoye, ~280 m a.s.l., mixed <i>Quercus</i> and <i>Ulmus</i> forest,	43°15'06.05"N 45°46'36.58"E	L.M. Saparbayeva
5	Urus-Martan Distr., near Stari Atagi, 265 m a.s.l., forb meadow near agrocoenosis	43°06'16.46"N 45°47'18.06"E	L.M. Saparbayeva
6	Shatoy Distr., near Dachu-Borzoi, 505 m a.s.l., mixed <i>Fagus</i> and <i>Quercus</i> forest	42°59'43.31"N 45°45'43.15"E	L.M. Saparbayeva
7	Shatoy Distr., Yarysh-Mardy, ~410 m a.s.l., mixed <i>Quercus</i> and <i>Fagus</i> forest	42°58'29.80"N 45°42'39.20"E	L.M. Saparbayeva
8	Shatoy Distr., 7.0 km S of Ulus-Kert, right bank of Sharo-Argun River, ~500 m a.s.l., <i>Fagus</i> , <i>Carpinus</i> and <i>Alnus</i> forest, leaf litter	42°55'10.8"N 45°46'34.5"E	I.S. Turbanov, R.V. Zuev
9	Nozhai-Yurt Distr., near Benoy, ~950 m a.s.l., mixed <i>Fagus</i> , <i>Quercus</i> and <i>Carpinus</i> forest	42°49'27.01"N 45°42'00.30"E	L.M. Saparbayeva
10	Shali Distr., near Avtura, 311 m a.s.l., <i>Carpinus</i> and <i>Ulmus</i> forest,	43°09'32.65"N 46°03'36.64"E	L.M. Saparbayeva
11	Kurchaloy Distr., near Niki-Khita, 525 m a.s.l., mixed <i>Fagus</i> and <i>Carpinus</i> forest	43°07'14.56"N, 46°03'53.72"E	L.M. Saparbayeva
12	Vedeno Distr., 1.5 km SW of Makazhoy, Ansalta River Canyon, ~1350 m a.s.l., <i>Corylus</i> , <i>Betula</i> , <i>Salix</i> and <i>Alnus</i> forest, leaf litter	42°44'00.6"N 46°02'52.8"E	I.S. Turbanov, R.V. Zuev
13	Shelkovskoy Distr., near Shelkovskaya Railway Station, near Lake Stepnaya Zhemchuzhina, 15 m a.s.l., mixed-grass steppe	43°35'42.0"N 46°21'43.0"E	L.M. Saparbayeva
14	Nozhai-Yurt Distr., near Chechchel-Khi, 905 m a.s.l., mixed grassland on slope	43°00'54.96"N 46°25'35.67"E	L.M. Saparbayeva

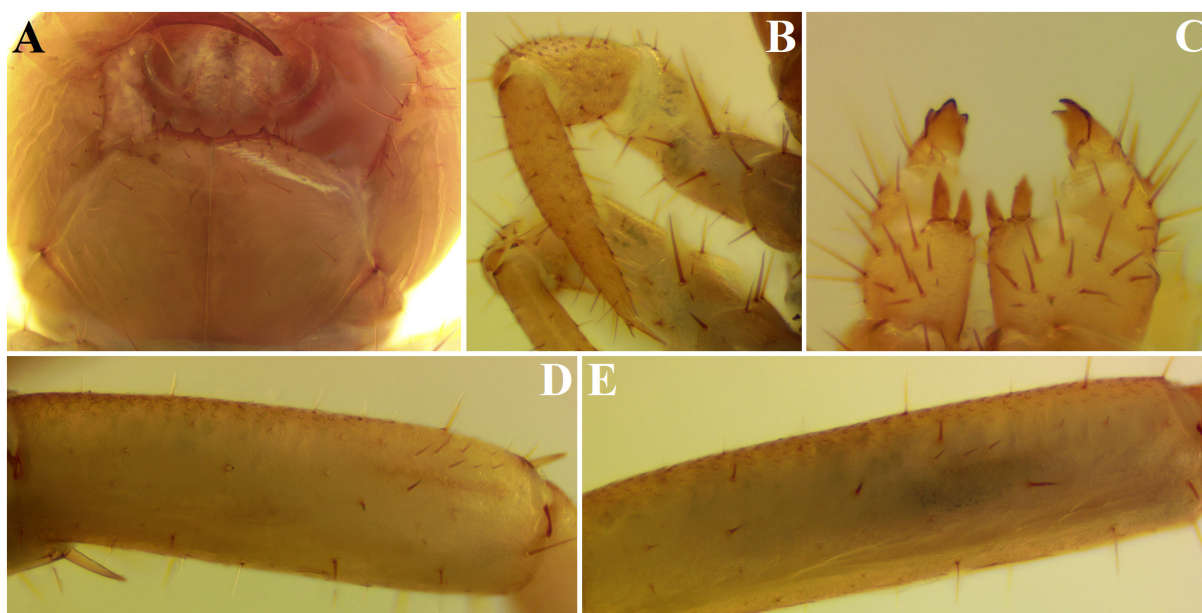


Fig. 2. *Harpolithobius* cf. *anodus* (Latzel, 1880): A — coxosternite of forcipular segment, female, ventral view; B — leg 1, female, ventral view; C — gonopods, female, ventral view; D — left tibia 14, male, dorsal view; E — left tibia 15, male, dorsal view. All pictures no scale.

Рис. 2. *Harpolithobius* cf. *anodus* (Latzel, 1880): А — кокостернит ногочелюсти, самка, вид снизу; В — нога 1, самка, вид снизу; С — гоноподы, самка, вид снизу; D — левая голень 14 пары ног, самец, вид сверху; Е — левая голень 15-й пары ног, самец, вид сверху. Все фотографии без масштаба.

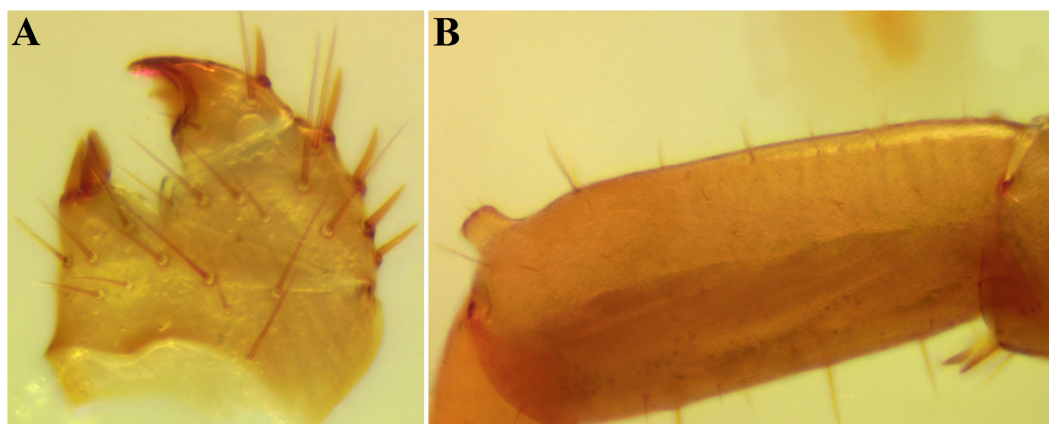


Fig. 3. *Lithobius (Monotarsobius) sp. ferganensis*-group: A — right gonopod, female, lateral view; B — right tibia 15, male, lateral view. All pictures no scale.

Рис. 3. *Lithobius (Monotarsobius) sp. ferganensis*-group: A — правый гонопод, самка, вид сбоку; B — правая 15-я голень, самец, вид сбоку. Все фотографии без масштаба.

Lithobius (Lithobius) mutabilis L. Koch, 1862

MATERIAL. 4 ♂♂, 5 ♀♀, 12 juv. (ZMS), [1], 16.IV.2024; 6 ♂♂, 6 ♀♀, 16 juv. (ZMS), [3], 15.IV.2024; 1 ♀, 5 juv. (ZMS), [3], 16.IV.2024; 2 ♀♀, 4 juv. (ZMS), [8], 16.IV.2024; 7 ♂♂, 2 ♀♀, 5 juv. (ZMS), [8], 17.IV.2024; 1 juv. (CI RAS), [10], 16.IX.2022; 1 ♀, 1 juv. (CI RAS), [11], 24.VIII.2022; 2 ♂♂, 2 ♀♀, 1 juv. (ZMS), [12], 12.IV.2024; 1 ♂, 1 ♀, 8 juv. (ZMS), [12], 13.IV.2024; 1 ♀ (CI RAS), [14], 25.V.2023.

REMARKS. A Euro-Mediterranean species widespread in the Caucasus [Sseliwanoff, 1881; Muralewicz, 1929; Zuev, 2016; Korobushkin *et al.*, 2016; Kiria *et al.*, 2023]. It prefers forest habitats [Zalesskaja, 1978].

Lithobius (Lithobius) viriatus Sseliwanoff, 1878

MATERIAL. 1 ♂ (ZMS), [1], 16.IV.2024; 2 ♂♂, 1 juv. (ZMS), [8], 17.IV.2024.

REMARKS. An Eastern Mediterranean species [Zalesskaja, 1978; Stoev, 2000, 2001]. It is widespread in Transcaucasia; in Russia, it is known from Dagestan and Crimea [Sseliwanoff, 1881; Muralewicz, 1929; Zalesskaja, 1978; Dyachkov *et al.*, 2022; Kiria *et al.*, 2023]. The records of this species from the Caucasus, in particular, Teberda, Kislovodsk and Zheleznovodsk, as well as the Black Sea coast, actually refer to *L. peregrinus* Latzel, 1880, a closely related species [Zapparoli, 1992; Zuev, 2016].

Lithobius (Monotarsobius) curtipes C.L. Koch, 1847

MATERIAL. 4 ♂♂, 4 ♀♀ (ZMS), [8], 16.IV.2024; 5 ♂♂, 3 ♀♀ (ZMS), [8], 17.IV.2024; 1 ♂ (CI RAS), [11], 28.IV.2022; 1 ♂ (CI RAS), [11], 24.VIII.2022; 11 ♂♂, 8 ♀♀, 1 juv. (ZMS), [12], 12.IV.2024; 12 ♂♂, 14 ♀♀ (ZMS), [12], 13.IV.2024; 1 ♀ (CI RAS), [14], 18.VII.2023.

REMARKS. A Euro-Siberian eurytopic species [Farzalieva, Esyunin, 2008], widespread in the Caucasus [Zalesskaja, 1978; Zuev, 2016; Korobushkin *et al.*, 2016; Kiria *et al.*, 2023].

Lithobius (Monotarsobius) sp. ferganensis-group

Fig. 3.

MATERIAL. 1 ♂, 5 ♀♀ (ZMS), [1], 16.IV.2024; 7 ♂♂, 8 ♀♀ (ZMS), [3], 15.IV.2024; 3 ♂♂, 2 ♀♀ (ZMS), [3], 16.IV.2024; 1 ♂, 1 ♀ (CI RAS), [5], 28.V.2023; 1 ♂, 1 ♀ (CI RAS), [6], 28.V.2023; 10 ♂♂,

11 ♀♀ (ZMS), [8], 16.IV.2024; 8 ♂♂, 7 ♀♀ (ZMS), [8], 17.IV.2024; 2 ♂♂, 5 ♀♀, 2 juv. (CI RAS), [10], 28.IV.2022; 4 ♂♂, 11 juv. (CI RAS), [11], 24.VIII.2022; 13 ♂♂, 16 ♀♀, 2 juv. (ZMS), [12], 12.IV.2024; 13 ♂♂, 10 ♀♀ (ZMS), [12], 13.IV.2024; 4 ♂♂, 7 ♀♀, 4 juv. (ZMS), [12], 14.04.2024; 2 ♂♂, 4 ♀♀, 2 juv. (CI RAS), [14], 18.VII.2023.

REMARKS. The most widespread and abundant species of Chilopoda in the Chechen Republic. A representative of the *ferganensis*-group widespread in the Caucasus. It is characterized by the presence of a dorsodistal wart on the tibia of males [Zalesskaja, 1978; Zuev, 2017]. Eason [1997] believes that all representatives of this group belong to one morphologically extremely variable species, *Lithobius (Monotarsobius) ferganensis* (Trotzina, 1894), but his opinion is disputed by Farzalieva [2006]. Based on the structure of spines on the 1st segment of the female gonopod and the presence of one large spine on the 3rd segment (Fig. 3A), the individuals found differ from those known from the North Caucasus: *L. (M.) sseliwanoffi* (Trotzina, 1894) and *L. (M.) evsyukovi* Zuev, 2017. And the presence in male tibia 15 of a small wart without crater, but with bristles on top (Fig. 3B), makes them distinguished from *L. (M.) turkestanicus* Attems, 1904 as well. Thus, the individuals we found may belong to a new, previously undescribed species.

Order Geophilomorpha Pocock, 1896

Family Dignathodontidae Cook, 1896

Genus *Dignathodon* Meinert, 1870

Dignathodon microcephalus (Lucas, 1846)

Fig. 4.

MATERIAL. 4 ♂♂, 1 ♀ (ZMS), [3], 15.IV.2024.

REMARKS. Mainly a Mediterranean species [Chipman *et al.*, 2013; Cabanillas *et al.*, 2021; Dyachkov, 2024b]. In the Caucasus, it has previously been known only from Dagestan, Russia [Dyachkov *et al.*, 2022].

Genus *Henia* C.L. Koch, 1847

Henia bicarinata Meinert, 1870

Fig. 5.

MATERIAL. 1 ♀ (ZMS), [1], 16.IV.2024; 1 ♂, 1 ♀ (ZMS), [3], 15.IV.2024; 1 ♂, 2 ♀♀ (CI RAS), [5], 28.V.2023; 1 ♂ (CI RAS), [6], 28.V.2023; 2 ♂♂ (CI RAS), [7], 28.V.2023; 3 ♀♀ (ZMS), [8], 16.IV.2024; 1 juv. (ZMS), [8], 17.IV.2024; 1 ♂, 3 ♀♀ (CI RAS), [10], 28.IV.2022; 1 ♂, 1 juv. (CI RAS), [11], 28.IV.2022; 1 ♂, 1 ♀ (CI RAS),

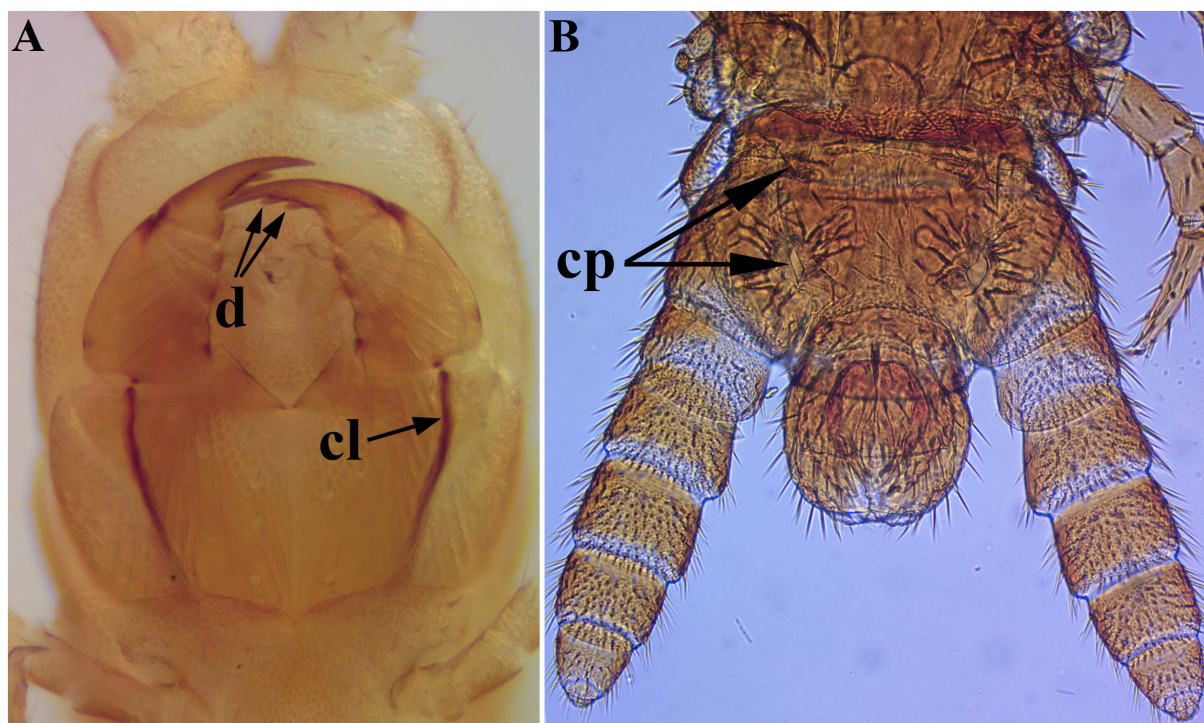


Fig. 4. *Dignathodon microcephalus* (Lucas, 1846), male: A — head, ventral view; B — terminal part of body, ventral view. All pictures no scale. Abbreviations: cl — chitin-line; d — denticles on tarsungulum; cp — coxopleural pores.

Рис. 4. *Dignathodon microcephalus* (Lucas, 1846), самец: А — голова, вид снизу; В — задний конец тела, вид снизу. Все фотографии без масштаба. Сокращения: cl — хитиновая линия; d — зубцы на тарзунгуломе; cp — коксальные поры.

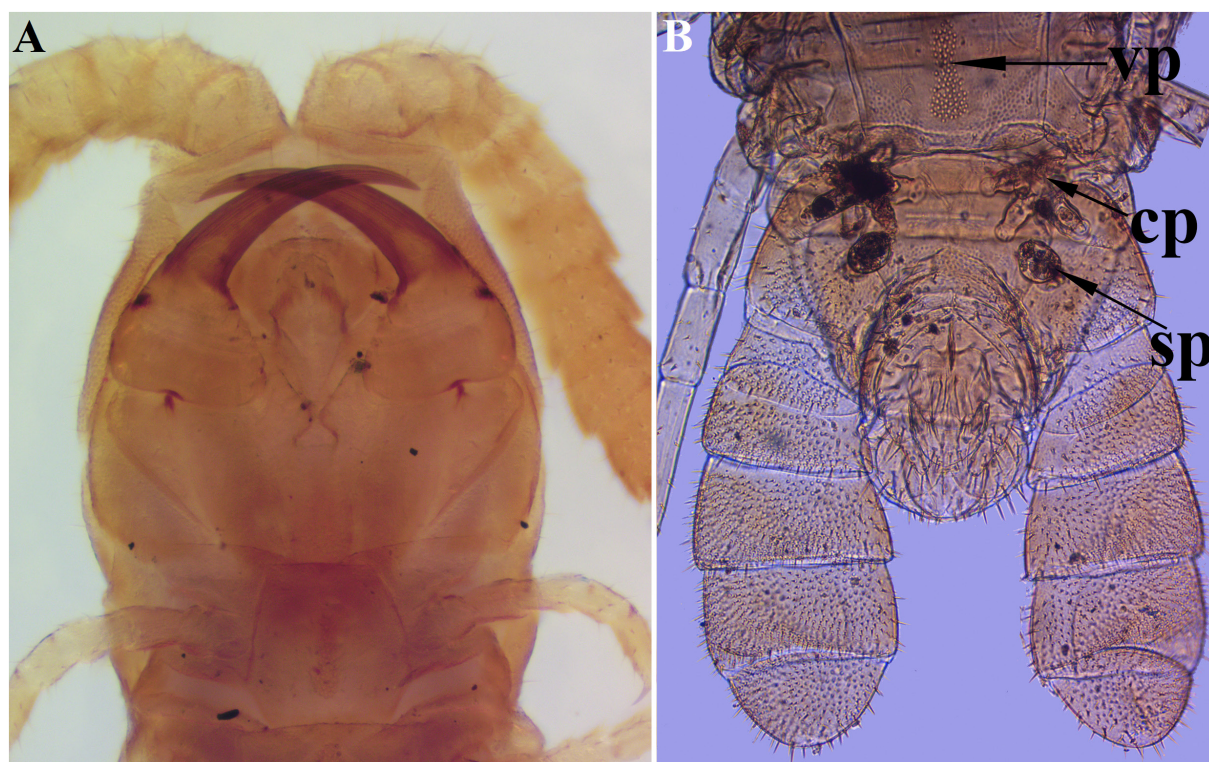


Fig. 5. *Henia bicarinata* Meinert, 1870, male: A — head, ventral view; B — terminal part of body, ventral view. All pictures no scale. Abbreviations: cp — coxopleural pores; vp — ventral pore field; sp — single coxal pore.

Рис. 5. *Henia bicarinata* Meinert, 1870, самец: А — голова, вид снизу; В — задний конец тела, вид снизу. Все фотографии без масштаба. Сокращения: cp — коксальные поры; vp — вентральное поровое поле; sp — одиночная коксальная пора.

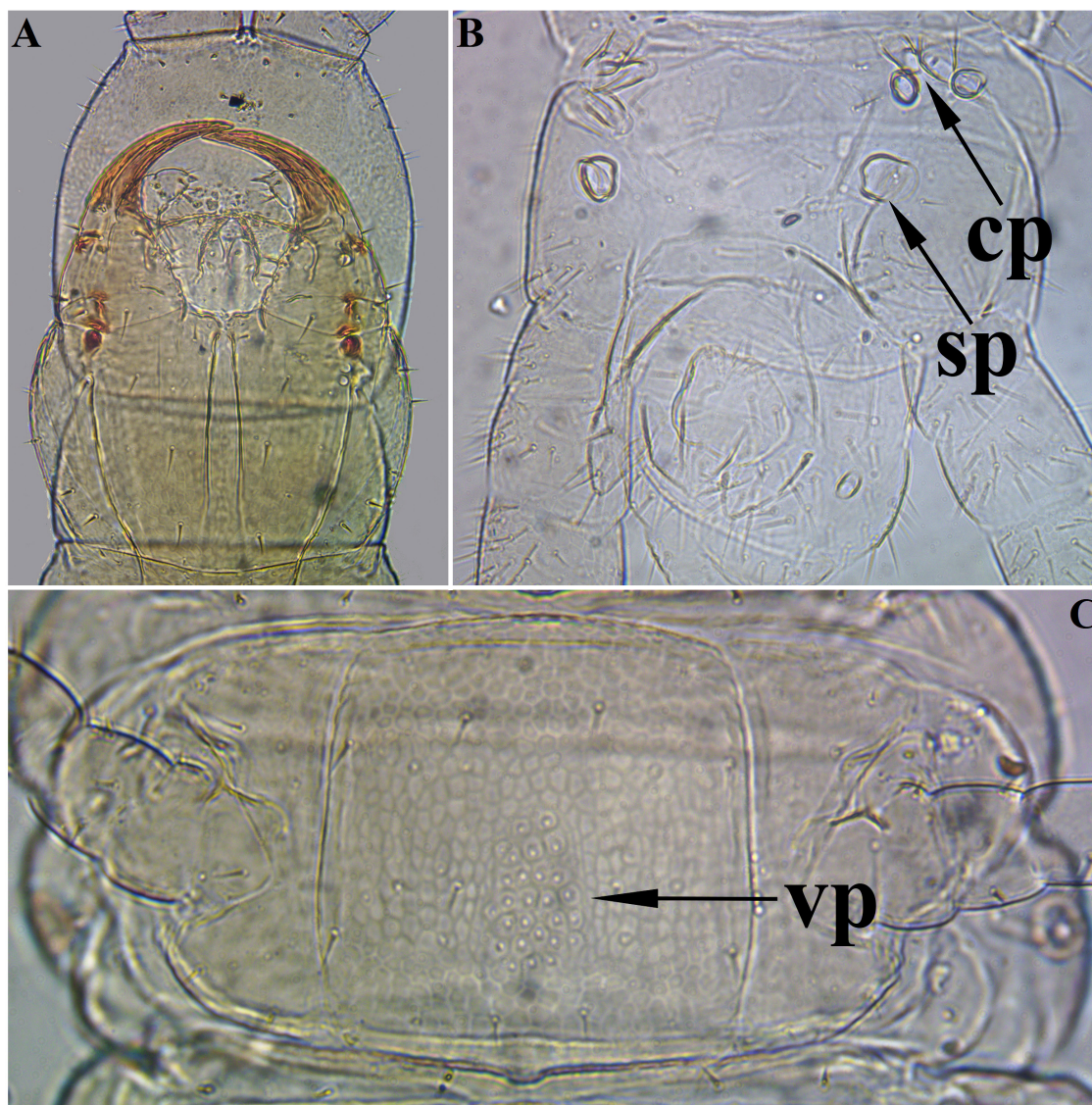


Fig. 6. *Stenotaenia* sp., male: A — head, ventral view; B — terminal part of body, ventral view; C — anterior leg-bearing segment, ventral view. All pictures no scale. Abbreviations: cp — coxopleural pores; vp — ventral pore field; sp — single coxal pore.

Рис. 6. *Stenotaenia* sp., самец: А — голова, вид снизу; В — задний конец тела, вид снизу; С — передний сегмент, вид снизу. Все фотографии без масштаба. Сокращения: cp — коксальные поры; vp — вентральное поровое поле; sp — одиночная коксальная пора.

[11], 24.VIII.2022; 2 ♂♂, 3 ♀♀, 1 juv. (CI RAS), [11], 16.IX.2022; 2 ♂♂, 4 ♀♀, 2 juv. (CI RAS), [14], 18.VII.2023.

REMARKS. Mainly s Mediterranean species [Iorio *et al.*, 2020; Zarei *et al.*, 2020; Dyachkov, 2024b]. In the Caucasus, it is known from Georgia, Azerbaijan, and the Russian part of the Caucasus (Dagestan and Stavropol Province) [Sselivanoff, 1884; Attems, 1907; Zuev, 2016; Dyachkov, Zuev, 2023; Kiria *et al.*, 2023; Dyachkov, 2024a].

Family Geophilidae Leach, 1815
Genus *Clinopodes* C.L. Koch, 1847
Clinopodes caucasicus (Selivanov, 1884)

MATERIAL. 1 ♀, 1 juv. (ZMS), [1], 16.IV.2024; 2 ♂♂, 1 ♀, 6 juv. (ZMS), [3], 15.IV.2024; 1 juv. (ZMS), [8], 17.IV.2024; 1 ♂, 2 ♀♀ (CI RAS), [10], 28.IV.2022; 1 juv. (CI RAS), [11], 28.IV.2022; 1 ♂ (CI RAS), [11], 24.VIII.2022; 2 ♂♂, 4 ♀♀ (ZMS), [12], 12.04.2024; 5 ♂♂, 3 ♀♀ (ZMS), [12], 13.IV.2024; 4 ♂♂, 2 ♀♀, 1 juv. (CI RAS), [14], 18.VII.2023.

REMARKS. Subendemic to the Caucasus [Sselivanoff 1884; Bonato *et al.*, 2011], widespread in the region.

Genus *Pachymerium* C.L. Koch, 1847
Pachymerium ferrugineum (C.L. Koch, 1835)

MATERIAL. 7 ♂♂, 1 ♀ (ZMS), [3], 15.IV.2024; 1 ♂ (ZMS), [3], 16.IV.2024; 4 ♂♂, 9 ♀♀, 12 juv. (CI RAS), [4], 9.IX.2022; 1 ♂, 3 juv. (CI RAS), [5], 28.V.2023; 1 ♀, 1 juv. (CI RAS), [7], 28.V.2023; 4 ♂♂, 2 ♀♀, 1 juv. (ZMS), [8], 16.IV.2024; 3 ♂♂, 4 ♀♀ (ZMS), [8], 17.IV.2024; 1 ♀ (CI RAS), [9], 28.V.2023; 3 ♂♂, 2 ♀♀ (CI RAS), [10], 28.IV.2022; 1 juv. (CI RAS), [10], 16.IX.2022; 1 ♀, 18 juv. (CI RAS), [11], 28.IV.2022; 1 ♂, 3 ♀♀, 1 juv. (CI RAS), [11], 24.VIII.2022; 1 ♀, 6 juv. (CI RAS), [11], 16.IX.2022; 1 ♀ (CI RAS), [13], 16.V.2023; 4 ♀♀, 6 juv. (CI RAS), [14], 18.VII.2023.

REMARKS. A eurybiont trans-Palaearctic species [Dyachkov, Tuf, 2019], widely distributed in the Caucasus [Lignau, 1903; Muralewicz, 1907, 1926; Zuev, 2016; Korobushkin *et al.*, 2016; Dyachkov *et al.*, 2022; Kiria *et al.*, 2023].



Fig. 7. *Strigamia acuminata* (Leach, 1815), female: A — head, ventral view; B — terminal part of body, ventral view; C — anterior leg-bearing segment, ventral view; D — ultimate pleuropretergite, dorsal view. All pictures no scale.

Рис. 7. *Strigamia acuminata* (Leach, 1815), самка: А — голова, вид снизу; В — задний конец тела, вид снизу; С — передний сегмент, вид снизу; D — конечный плейропретергит, вид сверху. Все фотографии без масштаба.

Genus *Stenotaenia* C.L. Koch, 1847
Stenotaenia sp.

Fig. 6.

MATERIAL. 1 ♀ (ZMS), [8], 17.IV.2024; 1 ♂ (ZMS), [10], 16.IX.2022; 3 ♂♂, 1 juv. (ZMS), [11], 16.IX.2022.

REMARKS. The genus *Stenotaenia* is widespread in the Western Palaearctic and it currently includes 15 species [Bonato, Minelli, 2008]. Two species have previously been recorded from the Caucasus. The first of them, *S. giljarovi* (Folkmanova, 1956), is known from the Krasnodar Province, Russia and Georgia [Folkmanova, 1956; Kiria *et al.*, 2023]. The second species, *S. linearis* (C.L. Koch, 1835), has been reported from Azerbaijan, but this record requires confirmation [Dyachkov, 2024a]. The specimens we found are quite small (14–16 mm long), with a small number of pairs of legs (51–55). As we cannot attribute

them to any known species, they may well belong to a new, previously unknown representative of *Stenotaenia*.

Family Linotaeniidae Cook, 1899
Genus *Strigamia* Gray, 1843
Strigamia acuminata (Leach, 1815)
Fig. 7.

MATERIAL. 2 ♀♀ (ZMS), [8], 16.IV.2024; 1 juv. (CIRAS), [11], 24.VIII.2022; 1 ♂♂, 3 ♀♀ (ZMS), [12], 12.IV.2024; 3 ♀♀ (ZMS), [12], 13.IV.2024.

REMARKS. A Western Palaearctic species, introduced to North America [Bonato *et al.*, 2012]. In the Caucasus, it has previously been known from the Krasnodar Province, Russia and Abkhazia [Lignau, 1903, 1914; Titova, 1969; Kiria *et al.*, 2023].

Table 2. Fauna and chorology of Chilopoda in the Chechen Republic, Россия.
Таблица 2. Фауна и хорология Chilopoda Чеченской Республики, Russia.

No.	Species	Chorotypes	Main relevant references
1	<i>Harpolithobius</i> cf. <i>anodus</i> (Latzel, 1880)	WP	Ion, Murariu, 2021
2	<i>Lithobius</i> (s.l.) <i>liber</i> Lignau, 1903	CSe	Turbanov <i>et al.</i> , 2016; Dyachkov <i>et al.</i> , 2022
3	<i>L.</i> (s.l.) <i>rufus</i> Muralewicz, 1926	CE	Dyachkov <i>et al.</i> , 2022
4	<i>L. (Lithobius) forficatus</i> (Linnaeus, 1758)	A	Zapparoli, 2002; Kiria <i>et al.</i> , 2023
5	<i>L. (L.) mutabilis</i> L. Koch, 1862	EM	Kiria <i>et al.</i> , 2023
6	<i>L. (L.) viriatus</i> Sseliwanoff, 1878	EaM	Dyachkov <i>et al.</i> , 2022
7	<i>L. (Monotarsobius) curtipes</i> C.L. Koch, 1847	ES	Farzalieva, Esyunin, 2008
8	<i>L. (M.)</i> sp. <i>ferganensis</i> -group	CE?	—
9	<i>Dignathodon microcephalus</i> (Lucas, 1846)	M	Dyachkov <i>et al.</i> , 2022
10	<i>Henia bicarinata</i> Meinert 1870	M	Kiria <i>et al.</i> , 2023
11	<i>Clinopodes caucasicus</i> (Sseliwanoff, 1884)	CSe	Bonato <i>et al.</i> , 2011
12	<i>Pachymerium ferrugineum</i> (C.L. Koch, 1835)	TP	Dyachkov, Tuf, 2019
13	<i>Stenotaenia</i> sp.	CE?	—
14	<i>Strigamia</i> cf. <i>acuminata</i> (Leach, 1815)	WP	Bonato <i>et al.</i> , 2012
15	<i>Schendyla</i> sp.	?	—
16	<i>Cryptops caucasicus</i> Verhoeff, 1934	CSE	Dyachkov <i>et al.</i> , 2022
17	<i>Scolopendra cingulata</i> Latreille, 1829	M	Zalesskaja, Schileyko, 1991

Chorotypes, from wider to increasingly narrow distributions: A — subcosmopolitan anthropochore; TP — trans-Palaeartic; ES — Euro-Siberian; WP — Western Palaeartic; EM — Euro-Mediterranean; M — Mediterranean; EaM — Eastern Mediterranean; CSe — subendemic to the Caucasus; CE — endemic to the Caucasus.

Family Schendylidae

Genus *Schendyla* Bergsøe et Meinert, 1866

Schendyla sp.

MATERIAL. 1 fragm. (ZMS), [2], 5.V.2022.

REMARKS. Unfortunately, as we found only the posterior fragment of the body, it is not possible to establish the species identity of this individual.

Order Scolopendromorpha Pocock, 1895

Family Cryptopidae Kohlrausch, 1881

Genus *Cryptops* Leach, 1814

Cryptops caucasicus Verhoeff, 1934

MATERIAL. 1 ad. (ZMS), [8], 16.IV.2024; 1 ad. (ZMS), [8], 17.IV.2024.

REMARKS. A species widespread in the Caucasus, also known from Crimea and Turkmenistan [Zalesskaja, Schileyko, 1991, 1992; Zuev 2016; Dyachkov *et al.*, 2022].

Family Scolopendridae Newport, 1844

Genus *Scolopendra* Linnaeus, 1758

Scolopendra cingulata Latreille, 1829

MATERIAL. 1 ♀ (CI RAS), [2], 26.VI.2022.

REMARKS. The species is widespread in the Mediterranean region and Central Asia [Zalesskaja, Schileyko, 1991, 1992; Dyachkov, 2020; Dyachkov, Nedoev, 2021]. In the Caucasus, it is known from the Russian part of the Caucasus (Stavropol and Krasnodar provinces, and Dagestan), Azerbaijan, and Georgia [Muralewicz, 1926; Zalesskaja, Schileyko, 1991; Zuev, 2016; Dyachkov *et al.*, 2022; Kiria *et al.*, 2023]. This is the only representative of Chilopoda previously reported from the territory of the Chechen Republic, Russia [Zalesskaja, Schileyko, 1991].

Discussion and conclusions

The fauna of Chilopoda of the Chechen Republic currently includes 17 species from 11 genera, seven families and three orders (Table 2). All of them, except *Scolopendra cingulata*, are new to the list of the republic.

Among the species found, the largest number are those endemic and subendemic to the Caucasus (35%), which is approximately the same as in the Stavropol Province, Russia (32%) [Zuev, 2016] and Georgia (32%) [Kiria *et al.*, 2023] and slightly higher than in Dagestan, Russia (21%) [Dyachkov *et al.*, 2022].

Considering that the material for this work was collected over a short period of time and from a small number of locations, we can expect that the chilopod fauna of the Chechen Republic will be further refined, including new species.

Compliance with ethical standards

CONFLICT OF INTEREST: The authors declare that they have no conflict of interest.

Ethical approval: No ethical issues were raised during our research.

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