

Dedicated to the memory of Professor Božidar Ćurčić, beloved father, friend and colleague

Checklist of the pseudoscorpions (Arachnida: Pseudoscorpiones) of Montenegro

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Received 25 September 2016 | Accepted 7 November 2016 | Published online 12 November 2016.

Abstract

Based on current knowledge, it can be stated that a total of 50 species and seven subspecies of pseudoscorpions have been recorded in Montenegro. Out of six pseudoscorpion families and eight genera known in Montenegro, the family Neobisiidae (with two genera – *Neobisium* Chamberlin, 1930 and *Roncus* L. Koch, 1873) is the most abundant (with 34 species and seven subspecies). The pseudoscorpion fauna of Montenegro is characterized by a high degree of endemism (72% of all recorded species and 100% of all recorded subspecies are endemics), as well as by the presence of numerous cave-dwelling forms (58% of species and 57.14% of subspecies). According to their current distribution, these taxa can be relegated to nine zoogeographical categories grouped into six complexes (cosmopolitans, widely distributed taxa, European taxa, Mediterranean taxa, Europeo-Mediterranean taxa and endemics). Professor Božidar P.M. Ćurčić greatly contributed to a better understanding of the biodiversity of this arachnid group in Montenegro. Alone or with collaborators, he erected 52% of all pseudoscorpion species inhabiting Montenegro.

Key words: Pseudoscorpiones, Montenegro, checklist, endemics.

Introduction

The number of known pseudoscorpion species in the world is constantly increasing. Thus, according to Savory (1977), 1,000 species were known to science in 1939, while in the next 25 years this number doubled itself (Ćurčić *et al.*, 2004b). Harvey (1990) recognized 3,064 pseudoscorpion species belonging to 434 genera. Meanwhile, the same author recently reported 3,498 pseudoscorpion species at the global level (Harvey, 2011). The number of known species varies from country to country and depends on many factors. A low number of registered species in some countries can be attributed to the fact that this group of small arachnids has not yet been sufficiently investigated there. Their small body size and cryptic way of life also hinder studies on these tiny arachnids. The Balkan Peninsula is one of the regions of Europe with a very rich and versatile pseudoscorpion fauna (Vandel, 1964; Vitali-di Castri, 1973; Ćurčić, 1988; Harvey, 2011). The countries of the former Yugoslavia are especially rich in numerous epigean and cave-dwelling genera and species.

Study of the Balkan and Montenegrin pseudoscorpion faunas

The first pseudoscorpion species recorded from the territory of the former Yugoslavia was *Neobisium spelaeum* (Schiødte, 1847) from the Postojna Cave in Slovenia (Schiødte, 1847).

In the 19th century, further investigations on the Balkan pseudoscorpion fauna were carried out by the French arachnologist Eugène Simon, the English naturalist Edward Ellingsen and the Austrian-Italian entomologist Josef Müller. From 1929 onwards, the Serbian zoologist Jovan Hadži began important systematic studies on the pseudoscorpion fauna of the Dinaric karst and other parts of the former Yugoslavia and established one new genus, 23 species and five subspecies (Hadži, 1930a, b, 1933a, b, c). An important contribution to study of the Balkan pseudoscorpion fauna was also made by the Austrian arachnologist Max Beier, who established one new genus and listed 55 species and 24 subspecies belonging to the families Chthoniidae and Neobisiidae (Beier, 1939). The number of pseudoscorpion species recorded in the countries of the former Yugoslavia is constantly rising. Thus, the number has increased from one species (Schiødte, 1847) to 342 species (Harvey, 2011). Hadži and Beier can be considered as the initiators of intensive research on this arachnid group in the former Yugoslavia (Dimitrijević, 2000).

The Montenegrin pseudoscorpion fauna is not sufficiently known. The first investigations were conducted in the first half of the 20th century by Beier (1939). The author erected 12 endemic mainly cavernicolous pseudoscorpion taxa inhabiting Montenegro (seven species and five subspecies). In the past 45 years, the main advances toward a better understanding of the pseudoscorpion fauna in Montenegro were achieved by the Serbian arachnologists Božidar P.M. Čurčić and Rajko N. Dimitrijević. After several decades of intensive investigations of the pseudoscorpion fauna, both epigean and cave-dwelling, a monograph entitled "The Pseudoscorpions of Serbia, Montenegro, and the Republic of Macedonia" was published (Čurčić *et al.*, 2004b). Božidar P.M. Čurčić greatly contributed to our knowledge of the pseudoscorpion fauna in Montenegro. With his research team, he established 26 species (52% of all known pseudoscorpion species) from Montenegro, as well as all 10 species of the genus *Roncus* L. Koch, 1873 known from the country.

The purpose of the present study was two-fold: (i) to summarize knowledge about the pseudoscorpion fauna in Montenegro up to now; and (ii) to present a checklist of the taxa (species and subspecies) inhabiting its territory. Records on localities in the country and the world distribution are presented for each pseudoscorpion taxon in Montenegro.

Studied area and material

The studied area is the territory of Montenegro, a country situated in the southwestern part of the Balkan Peninsula. With a population of around 620,000, it covers an area of 13,812 km². Montenegro is a maritime country with 293.5 km of the Adriatic Sea's coastline (Statistical Yearbook MNE, 2015). There are five individual relief units on the territory of Montenegro that differ markedly among themselves: i) the Montenegrin Coast, ii) the plateau of deep karst (the Katun karst, Grahovo region, and the regions of Rudine and Banjani), iii) the Central Montenegrin depression, iv) the region of high mountains and plateaus, and v) the region of Northeast Montenegro (Čurčić *et al.*, 2004b).

All available records were collected and cited from the literature concerning the distribution of pseudoscorpions on the territory of Montenegro. The systematics and nomenclature of Čurčić *et al.* (2004b) and Harvey (2011, 2013) were used. For review of distributions, we used a map of Montenegro in the Universal Transverse Mercator (UTM) system (grid zone 34T, 100x100 and 10x10 km).

Results and discussion

The pseudoscorpion fauna of Montenegro is represented by 50 species and seven subspecies belonging to eight genera. Compared to all other Balkan countries, Montenegro is in sixth place, after Greece (124), Croatia (106), Romania (72), Serbia (67) and Bulgaria (56). Representatives of six pseudoscorpion families have been recorded in Montenegro. In relation to the total number of recent pseudoscorpion families in the world (27), this number represents 22.22% (Harvey, 2011; Čurčić *et al.*, 2014b).

The most abundant genera are *Neobisium* Chamberlin, 1930 (with 24 species or 48%), *Chthonius* C. L. Koch, 1843 (with 11 species or 22%) and *Roncus* L. Koch, 1873 (with 10 species or 20%). The most abundant pseudoscorpion family in Montenegro – Neobisiidae – is represented by two genera: *Neobisium* and *Roncus*. The family Cheliferidae is represented by two genera (*Hysterochelifer* Chamberlin, 1932 and *Rhacochelifer* Beier, 1932), while the other four families are represented by a single genus each (Chthoniidae – *Chthonius*, Cheiridiidae – *Cheiridium* Menge, 1855, Chernetidae – *Chernes* Menge, 1855 and Withiidae – *Withius* Kew, 1911).

The pseudoscorpion fauna of Montenegro is characterized by a high degree of endemism. According to current knowledge, 72% of all recorded species (36 out of 50) and 100% of all subspecies inhabiting Montenegro are endemics.

Within the genus *Chthonius*, nine out of 11 known species in Montenegro are endemics (81.82%). Within the family Neobisiidae, the genus *Neobisium* includes 17 endemic species and seven endemic subspecies (70.83% and 100%, respectively), while all representatives of the genus *Roncus* (10 species or 100%) are endemic to Montenegro.

Distribution of species. The pseudoscorpion fauna in Montenegro is unevenly represented in different regions mainly because not all parts of the country have been investigated to the same extent (Fig. 1). Out of the total number of recorded pseudoscorpion taxa in the country, no precise localities are known for 16 species and two subspecies. The western and southern regions of Montenegro are inhabited by the greatest number of pseudoscorpion taxa. The pseudoscorpion distribution for the most part coincides with the distribution of karst relief in Montenegro, since many pseudoscorpion taxa are cavernicolous (29 out of 50 species – 58%, and four out of seven subspecies – 57.14%). Different forms of the karst relief in Montenegro favoured the differentiation and genesis of cave-dwelling taxa.

The pseudoscorpion fauna in Montenegro has been least investigated in its eastern part, while the western and southern parts have been investigated the most (Fig. 1). Future investigations should include the country's central and eastern parts and cover habitats other than caves and pits.

Zoogeographical analysis. The data concerning the general zoogeographical distribution are taken mainly from Vigna Taglianti *et al.* (1999), Deltchev *et al.* (2003), Ćurčić *et al.* (2004b) and Ćurčić *et al.* (2007). According to their current distribution, the pseudoscorpion taxa from Montenegro can be relegated to nine zoogeographical categories grouped into six complexes: cosmopolitans, widely distributed taxa, European taxa, Mediterranean taxa, Europeo-Mediterranean taxa and endemics.

The complex of endemics (Balkan endemics and endemics of Montenegro) forms the largest group, including 43 taxa (eight species and three subspecies endemic to the Balkans, and 28 species and four subspecies endemic to Montenegro). The majority of endemics were encountered mainly in caves, gorges and high-altitude zones of mountains. The genesis of these taxa and their diversification are connected with the Alpine Orogeny, which led to the formation of an extensive system of cavities, channels, caves and pits capable of offering shelter to this threatened fauna. Such a limited distribution of some cave-dwelling and endogean pseudoscorpion taxa in Montenegro has also been partly dictated by the competitive pressure of other species. Another factor to be considered is influence of the Pleistocene glaciations that encompassed the Balkan Peninsula (Ćurčić *et al.*, 2004b).

The complex of Europeo-Mediterranean taxa includes seven species, that of widely distributed taxa includes three species, there are two species in the complex of Mediterranean taxa, while the complexes of European and cosmopolitan taxa comprise one species each.

Checklist of the order Pseudoscorpiones in Montenegro

Family CHTHONIIDAE

Chthonius C. L. Koch, 1843

Chthonius (Chthonius) exarmatus Beier, 1939

Distribution in Montenegro. BN91: Izeta Pećina Cave in the foothills of Mt. Orjen (Beier, 1939; Ćurčić, 1974; Harvey, 1990; Dimitrijević, 2000).

World distribution. Balkan Peninsula (Montenegro, Croatia).

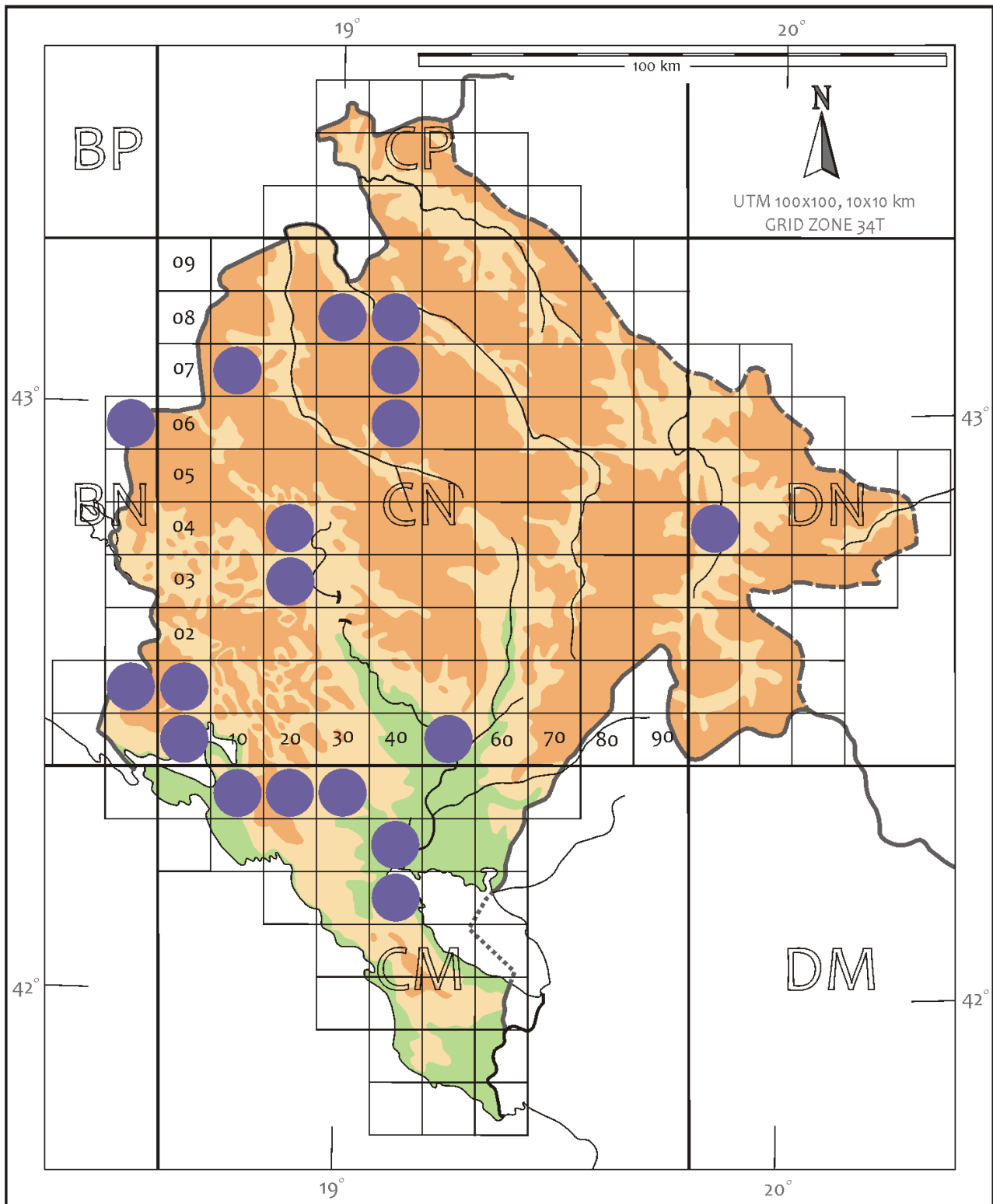


Figure 1. UTM map of the current distribution of 25 pseudoscorpion species and 4 subspecies in Montenegro (modified after Ćurčić *et al.*, 2004b).

***Chthonius (Globochthonius) globimanus* Ćurčić & Rađa, 2011**

Distribution in Montenegro. CN24: Vilina Pećina Cave, near the village of Miločani, by the Krupačko Jezero Lake, near Nikšić (Ćurčić *et al.*, 2011b).

World distribution. Montenegro.

***Chthonius (Chthonius) globocicae* Ćurčić, 2008**

Distribution in Montenegro. Grbočica Cave in the village of Trnovo, near Virpazar (Ćurčić *et al.*, 2008b).

World distribution. Montenegro.

***Chthonius (Globochthonius) medeonis* Ćurčić, 2011**

Distribution in Montenegro. Čafa Pješatica Cave, Fundine, near Medun (Ćurčić *et al.*, 2011a).

World distribution. Montenegro.

***Chthonius (Globochthonius) montis* Ćurčić, 2013**

Distribution in Montenegro. Near Baretina Lokva, Mt. Orjen (Ćurčić *et al.*, 2013a).

World distribution. Montenegro.

***Chthonius (Chthonius) longimanus* Ćurčić & Rađa, 2011**

Distribution in Montenegro. CN24: Vilina Pećina Cave, near the village of Miločani, by the Krupačko Jezero Lake, near Nikšić (Ćurčić *et al.*, 2011b).

World distribution. Montenegro.

***Chthonius (Chthonius) orthodactylus* (Leach, 1817)**

Distribution in Montenegro. Montenegro, without precise locality (Ćurčić, 1974, 1976; Harvey, 1990).

World distribution. Europeo-Mediterranean.

***Chthonius (Chthonius) porevidi* Ćurčić, Makarov & Lučić, 1998**

Distribution in Montenegro. CN01: Knezlaz Cave, Krivošije, near Risan (Ćurčić *et al.*, 1998; Dimitrijević, 2000).

World distribution. Montenegro.

***Chthonius (Chthonius) prove* Ćurčić, Dimitrijević & Makarov, 1997**

Distribution in Montenegro. CN00: A cave in the village of Gornji Morinj, near Risan (Ćurčić *et al.*, 1997; Dimitrijević, 2000).

World distribution. Montenegro.

***Chthonius (Ephippiochthonius) rhizon* Ćurčić, 2013**

Distribution in Montenegro. Bukarička Pećina Cave, Knezlaz, near Risan (Ćurčić *et al.*, 2013b).

World distribution. Montenegro.

***Chthonius (Chthonius) tenuis* L. Koch, 1873**

Distribution in Montenegro. Montenegro, without precise locality (Ćurčić, 1974; Harvey, 1990).

World distribution. Europeo-Mediterranean.

Family NEOBISIIDAE

***Neobisium* Chamberlin, 1930**

***Neobisium absoloni grande* Beier, 1939**

Distribution in Montenegro. CN17: A pit in Sertov Do, Mt. Golija (Beier, 1939; Ćurčić, 1974; Harvey, 1990; Dimitrijević, 2000).

World distribution. Balkan Peninsula (Bosnia and Herzegovina, Montenegro).

***Neobisium alae* Ćurčić, 2004**

Distribution in Montenegro. CN00: Lepetane, near Kotor (Ćurčić *et al.*, 2004a).

World distribution. Montenegro.

Neobisium bozidarcuici Dimitrijević, 2009

Distribution in Montenegro. Vodena Pećina Cave on Mt. Durmitor (Dimitrijević, 2009).

World distribution. Montenegro.

Neobisium carcinoides (Hermann, 1804)

Distribution in Montenegro. Montenegro, without precise locality (Harvey, 1990).

World distribution. Palaearctic, Afro-tropical region.

Neobisium carpaticum Beier, 1935

Distribution in Montenegro. Montenegro, without precise locality (Harvey, 1990).

World distribution. Central Europe, Balkan Peninsula.

Neobisium cephalonicum (Daday, 1888)

Distribution in Montenegro. Montenegro, without precise locality (Ćurčić & Dimitrijević, 1997).

World distribution. Balkan Peninsula.

Neobisium crassifemoratum (Beier, 1928)

Distribution in Montenegro. Montenegro, without precise locality (Harvey, 1990).

World distribution. Central and East Europe, Balkan Peninsula, Asia Minor.

Neobisium crucis Ćurčić, Rađa, Dimitrijević, Ćurčić, Ćurčić & Ilić, 2013

Distribution in Montenegro. CM19: Pećina u Krstacu Cave, Bay of Kotor (Ćurčić *et al.*, 2013c).

World distribution. Montenegro.

Neobisium davidbengurioni Ćurčić & Dimitrijević, 2002

Distribution in Montenegro. CN47: Jama u Vjetrenim Brdima Pit, Vjetrena Brda, Mt. Durmitor;

CN47: Zelenovirska Pećina Cave, Zeleni Vir, Mt. Durmitor (Ćurčić *et al.*, 2002).

World distribution. Montenegro.

Neobisium dinaricum dinaricum Hadži, 1933

Distribution in Montenegro. CN01: A cave near Crkvice, Krivošije (Beier, 1939; Ćurčić, 1974; Harvey, 1990; Dimitrijević, 2000); Montenegro, without precise locality (Ćurčić & Dimitrijević, 1997).

World distribution. Montenegro.

Neobisium dinaricum caligatum Beier, 1938

Distribution in Montenegro. CN01: Doluja Špilja Cave, Dvoršnik, Krivošije (Beier, 1939; Ćurčić, 1974; Dimitrijević, 2000); Montenegro, without precise locality (Ćurčić & Dimitrijević, 1997).

World distribution. Montenegro.

Neobisium dinaricum tartareum Beier, 1938

Distribution in Montenegro. CN01: A cave near Napode, Careve Doline, Terbulov Do, Krivošije (890 m a.s.l.) (Beier, 1939, 1963); Montenegro, without precise locality (Ćurčić & Dimitrijević, 1997).

World distribution. Montenegro.

Neobisium doderoi (Simon, 1896)

Distribution in Montenegro. Montenegro, without precise locality (Ćurčić, 1974, 1976; Harvey, 1990; Ćurčić & Dimitrijević, 1997).

World distribution. West Palaearctic.

Neobisium fuscimanum (C. L. Koch, 1843)

Distribution in Montenegro. Montenegro, without precise locality (Ćurčić, 1974, 1976; Ćurčić & Dimitrijević, 1997).

World distribution. Central and South Europe, Balkan Peninsula, Asia Minor.

Neobisium gentile gentile Beier, 1939

Distribution in Montenegro. Montenegro, without precise locality (Ćurčić, 2002; Ćurčić *et al.*, 2003, 2004a).

World distribution. Balkan Peninsula (Croatia, Bosnia and Herzegovina, Montenegro).

Neobisium gentile flavum Beier, 1939

Distribution in Montenegro. Montenegro, without precise locality (Ćurčić & Dimitrijević, 1997).

World distribution. Balkan Peninsula (Croatia, Montenegro).

Neobisium goldameirae Ćurčić & Dimitrijević, 2002

Distribution in Montenegro. CN47: Arapova Pećina Cave, Grabovica, Mt. Durmitor; CN46: Pećina u Pleću Cave, Tara River Canyon, Mt. Durmitor (Ćurčić *et al.*, 2002).

World distribution. Montenegro.

Neobisium heros Beier, 1938

Distribution in Montenegro. Montenegro, without precise locality (Ćurčić, 1995; Ćurčić & Dimitrijević, 1997); BN91: Pećina u Kučericama Cave, Mt. Orjen (Beier, 1939, 1963; Ćurčić, 1974; Harvey, 1990; Dimitrijević, 2000).

World distribution. Balkan Peninsula (Montenegro, Croatia).

Neobisium macrodactylum montenegrense (Ellingsen, 1910)

Distribution in Montenegro. Montenegro, without precise locality (Harvey, 1990; Ćurčić, 1995); CM29: a cave near Njeguši (Ćurčić, 1974; Ćurčić, 1976).

World distribution. Montenegro.

Neobisium marcchagalli Ćurčić & Ćurčić, 2002

Distribution in Montenegro. CN23: Velja Peć Cave, Nikšićko Polje, near Nikšić (Ćurčić *et al.*, 2002).

World distribution. Montenegro.

Neobisium mendelssohni Ćurčić & Ćurčić, 2002

Distribution in Montenegro. CN47: Godijelji, Mt. Durmitor; CN47: Gornja Ališnica Cave, Mt. Durmitor (Ćurčić *et al.*, 2002).

World distribution. Montenegro.

Neobisium pluzinensis Ćurčić, Rađa, Dimitrijević, Ćurčić, Ćurčić & Ilić, 2013

Distribution in Montenegro. Kostina Pećina Cave, Bajovo Polje, en route Plužine-Nikšić, near Nikšić (Ćurčić *et al.*, 2013c).

World distribution. Montenegro endemic.

Neobisium remyi Beier, 1939

Distribution in Montenegro. DN04: Županska Pećina Cave, Lubnice, near Berane (Harvey, 2011); Montenegro, without precise locality (Ćurčić, 1995).

World distribution. Balkan Peninsula (Serbia, Montenegro).

Neobisium sylvaticum (C. L. Koch, 1835)

Distribution in Montenegro. Montenegro, without precise locality (Ćurčić, 1974).

World distribution. Europe (except its north), Asia Minor.

Neobisium temniskovae Ćurčić, 2002

Distribution in Montenegro. Montenegro, without precise locality (Ćurčić *et al.*, 2002, 2003); CN24: Vilina Pećina Cave, village of Miločani, near Nikšić (Ćurčić, 2002).

World distribution. Montenegro.

Neobisium umbratile Beier, 1938

Distribution in Montenegro. CM19: Lipska Pećina Cave, Dobrsko Selo, near Cetinje (Beier, 1939; Ćurčić, 1974; Harvey, 1990; Dimitrijević, 2000); Montenegro, without precise locality (Ćurčić, 1995; Ćurčić & Dimitrijević, 1997; Ćurčić *et al.*, 2002).

World distribution. Montenegro.

Neobisium vachoni Beier, 1939

Distribution in Montenegro. Montenegro, without precise locality (Ćurčić & Dimitrijević, 1997); BN96: Oborova Pećina Cave, Oputne Rudine, Mt. Troglav, border between Herzegovina and Montenegro (Beier, 1939; Ćurčić, 1974; Harvey, 1990; Dimitrijević, 2000).

World distribution. Balkan Peninsula (Montenegro, Bosnia and Herzegovina, Croatia).

Roncus L. Koch, 1873

Roncus belbogi Ćurčić, Makarov & Lučić, 1998

Distribution in Montenegro. CN01: Knezlaz Cave, Krivošije, near Risan (Ćurčić *et al.*, 1998; Dimitrijević, 2000); Montenegro, without precise locality (Ćurčić & Dimitrijević, 1997; Ćurčić, 2002).

World distribution. Montenegro.

Roncus davor Ćurčić, Dimitrijević & Makarov, 1997

Distribution in Montenegro. CN38: Canyon of the Sušica River, Mt. Durmitor; CN48: village of Tepca, Mt. Durmitor (Ćurčić *et al.*, 1997; Dimitrijević, 2000); Montenegro, without precise locality (Ćurčić & Dimitrijević, 1997).

World distribution. Montenegro.

Roncus golemanskyi Ćurčić, 2002

Distribution in Montenegro. CM39: Ladnica Cave, village of Bokovo, near Cetinje (Ćurčić, 2002); Montenegro, without precise locality (Ćurčić *et al.*, 2004b).

World distribution. Montenegro.

Roncus hajnehaj Ćurčić & Dimitrijević, 2009

Distribution in Montenegro. Haj-Nehaj Cave, Sutomore (Ćurčić *et al.*, 2009).

World distribution. Montenegro.

Roncus hors Ćurčić, Dimitrijević & Makarov, 1997

Distribution in Montenegro. CN00: A cave in the village of Gornji Morinj, near Risan (Ćurčić *et al.*, 1997; Dimitrijević, 2000); Montenegro, without precise locality (Ćurčić & Dimitrijević, 1997).

World distribution. Montenegro.

Roncus negrae Ćurčić & Dimitrijević, 2006

Distribution in Montenegro. Village of Ravna Rijeka, the slopes of Mt. Bjelasica, near Bijelo Polje (Ćurčić *et al.*, 2006).

World distribution. Montenegro.

Roncus orao Ćurčić, 2004

Distribution in Montenegro. CN50: Megara Cave, near Podgorica (Ćurčić *et al.*, 2004a).

World distribution. Montenegro.

Roncus orjensis Ćurčić & Dimitrijević, 2008

Distribution in Montenegro. Bijela Gora, Dubovac, Mt. Orjen (Ćurčić *et al.*, 2008a).

World distribution. Montenegro.

Roncus teutae Ćurčić, 2014

Distribution in Montenegro. Baretina Lokva, Mt. Orjen (Ćurčić *et al.*, 2014a).

World distribution. Montenegro.

Roncus yaginumai Ćurčić, Ćurčić & Dimitrijević, 1996

Distribution in Montenegro. CM48: A cave on the isle of Vranjina, Skadar Lake, near Podgorica; CM47: Golubija Pećina Cave, village of Gornja Seoca, near Virpazar (Ćurčić *et al.*, 1996); Montenegro, without precise locality (Ćurčić & Dimitrijević, 1997).

World distribution. Montenegro.

Family CHEIRIDIIDAE

Cheiridium Menge, 1855

Cheiridium museorum (Leach, 1817)

Distribution in Montenegro. Montenegro, without precise locality (Ćurčić, 1974; Harvey, 1990).

World distribution. Subcosmopolitan.

Family CHERNETIDAE

Chernes Menge, 1855

Chernes similis (Beier, 1932)

Distribution in Montenegro. Montenegro, without precise locality (Ćurčić, 1974).

World distribution. Balkan Peninsula, Central Europe, Near East.

Family WITHIIDAE

Withius Kew, 1911

Withius hispanus (L. Koch, 1873)

Distribution in Montenegro. Montenegro, without precise locality (Ćurčić, 1974).

World distribution. Mediterranean.

Family CHELIFERIDAE

Hysterochelifer Chamberlin, 1932

Hysterochelifer tuberculatus (Lucas, 1849)

Distribution in Montenegro. Montenegro, without precise locality (Ćurčić, 1974).

World distribution. Holarctic (Mediterranean, North America).

Rhacochelifer Beier, 1932

Rhacochelifer maculatus (L. Koch, 1873)

Distribution in Montenegro. Montenegro, without precise locality (Ćurčić, 1974, 1976).

World distribution. Mediterranean.

References

- Beier, M. (1939) Die Höhlenpseudoscorpione der Balkanhalbinsel. *Studien aus dem Gebiete der allgemeinen Karstforschung der wissenschaftlichen Höhlenkunde der Eiszeitforschung und den Nachbargebieten*, 4, 1-83.
- Beier, M. (1963) Ordnung Pseudoscorpionidea (Afterscorpione). *Bestimmungsbücher Bodenfauna Europas*, Vol. 1. Akademie Verlag, Berlin, 313 pp.

- Ćurčić, B.P.M. (1974) Arachnoidea. Pseudoscorpiones. Catalogus Faunae Jugoslaviae. Academia Scientiarum et Artium Slovenica, Ljubljana, 34 pp.
- Ćurčić, B.P.M. (1976) Une contribution à la connaissance de la faune des pseudoscorpions en Serbie. *Bulletin du Muséum d'Histoire Naturelle, Belgrade*, 31B, 159-168.
- Ćurčić, B.P.M. (1988) Cave-Dwelling Pseudoscorpions of the Dinaric Karst. Academia Scientiarum et Artium Slovenica, Classis II: Historia Naturalis, Opera 26, Institutum Biologicum Ioannis Hadži, Ljubljana, 8, 191 pp.
- Ćurčić, B.P.M. (1995) Poreklo i diverzifikacija faune pseudoskorprija iz dinarskog i karpato-balkanskog krša (Srbija i Crna Gora), sa pregledom taksona od globalnog značaja. In: Stevanović, V. & Vasić, V. (Eds.): Biodiverzitet Jugoslavije sa pregledom vrsta od međunarodnog značaja. Ecolibri & Faculty of Biology, University of Belgrade, Belgrade, pp. 337-348.
- Ćurčić, B.P.M. (2002) On two new cave pseudoscorpions (Neobisiidae, Pseudoscorpiones) from Montenegro. *Acta zoologica bulgarica*, 54 (2), 39-46.
- Ćurčić, B.P.M., Ćurčić, S.B., Ćurčić, N.B. & Ilić, B.S. (2011a) *Chthonius (Globochthonius) medeonis* n. sp.: a new cave false scorpion from Montenegro. *Archives of Biological Sciences, Belgrade*, 63, 245-250.
- Ćurčić, B.P.M., Ćurčić, S.B. & Dimitrijević, R.N. (1996) *Roncus yaginumai*, a new pseudoscorpion from Montenegro, Yugoslavia (Pseudoscorpiones: Arachnida). *Acta Arachnologica*, 45, 7-12.
- Ćurčić, B.P.M. & Dimitrijević, R.N. (1997) Further report on some little-known pseudoscorpions from Serbia and Montenegro (Neobisiidae, Pseudoscorpiones). *Archives of Biological Sciences, Belgrade*, 49, 55-62.
- Ćurčić, B.P.M., Dimitrijević, R.N. & Ćurčić, S.B. (2003) A new cave pseudoscorpion (Neobisiidae, Pseudoscorpiones) from the Balkan Peninsula. *Periodicum biologorum*, 105 (2), 167-170.
- Ćurčić, B.P.M., Dimitrijević, R.N., Ćurčić, S.B., Makarov, S.E., Ćurčić, N.B., Tomić, V.T. & Ilić, B.S. (2013a) *Chthonius (Globochthonius) montis* n. sp.: a new epigean pseudoscorpion from Montenegro (Chthoniidae, Pseudoscorpiones). *Archives of Biological Sciences, Belgrade*, 65, 1553-1558.
- Ćurčić, B.P.M., Dimitrijević, R.N., Ćurčić, S.B. & Mitić, B.M. (2004a) Biodiversity of Montenegrin pseudoscorpions: *Neobisium alae* n. sp. and *Roncus orao* n. sp. (Neobisiidae: Pseudoscorpiones). *Académie serbe des sciences et des arts, Édition spéciales, Vol. DCLVI, Classe de mathématique, de physique et des geo-sciences, Vol. 2, Recueil des rapports du Comité pour le karst et la spéléologie*, 8, 83-93.
- Ćurčić, B.P.M., Dimitrijević, R.N., Ćurčić, S.B., Tomić, V.T. & Ćurčić, N.B. (2002) On some new high altitude, cave and endemic pseudoscorpions (Pseudoscorpiones, Arachnida) from Croatia and Montenegro. *Acta entomologica serbica*, 7 (1-2), 83-110.
- Ćurčić, B.P.M., Dimitrijević, R.N., Giurginca, A., Ilie, V., Rađa, T., Ćurčić, S.B. & Tomić, V.T. (2006) Four new and endemic species of *Roncus* L. Koch (Neobisiidae, Pseudoscorpiones) from Romania, Serbia and Montenegro. *Periodicum biologorum*, 108, 213-221.
- Ćurčić, B.P.M., Dimitrijević, R.N. & Legakis, A. (2004b) The Pseudoscorpions of Serbia, Montenegro, and the Republic of Macedonia. Monographs, 8. Institute of Zoology, Faculty of Biology, University of Belgrade, Hellenic Zoological Society, Committee for Karst and Speleology, Serbian Academy of Sciences and Arts & Institute for Nature Conservation of the Republic of Serbia, Belgrade-Athens, 400 pp.
- Ćurčić, B.P.M., Dimitrijević, R.N. & Makarov, S.E. (1997) New species of Chthoniidae and Neobisiidae (Arachnida, Pseudoscorpiones) from Montenegro, Yugoslavia. *The Journal of Arachnology*, 25, 213-227.
- Ćurčić, B.P.M., Dimitrijević, R.N. & Puljas, S. (2009) *Roncus hajnehaj* n. sp. (Neobisiidae, Pseudoscorpiones), a new endemic cave pseudoscorpion from Montenegro. *Archives of Biological Sciences, Belgrade*, 61, 531-535.
- Ćurčić, B.P.M., Dimitrijević, R.N., Rađa, T. & Rađa, B. (2008a) On two new species of pseudoscorpions from the Dinaric Karst. *Archives of Biological Sciences, Belgrade*, 60, 315-324.
- Ćurčić, B.P.M., Dimitrijević, R.N. & Tomić, V.T. (2008b) *Chthonius (Chthonius) globocicae* (Chthoniidae, Pseudoscorpiones), a new species of false scorpion from a cave in Montenegro. *Archives of Biological Sciences, Belgrade*, 60, 309-314.
- Ćurčić, B.P.M., Dimitrijević, R.N., Tomić, V.T., Makarov, S.E., Ćurčić, N.B. & Ćurčić, S.B. (2014a) Biodiversity of *Roncus* L. Koch in Montenegro – *Roncus teutae* n. sp. from Mt. Orjen (Neobisiidae, Pseudoscorpiones). *Archives of Biological Sciences, Belgrade*, 66, 369-375.

- Ćurčić, B.P.M., Makarov, S.E., Ćurčić, N.B. & Tomić, V.T. (2013b) *Chthonius (Ephippiochthonius) rhizon* n. sp.: a new cave false scorpion from the Bay of Kotor (Chthoniidae, Pseudoscorpiones). *Archives of Biological Sciences, Belgrade*, 65, 1547-1551.
- Ćurčić, B.P.M., Makarov, S.E. & Lučić, L. (1998) On two new endemic species of *Chthonius* C. L. Koch and *Roncus* L. Koch from Montenegro, Yugoslavia (Pseudoscorpiones, Arachnida). *Revue Arachnologique*, 12, 69-77.
- Ćurčić, B.P.M., Makarov, S.E., Rađa, T., Dimitrijević, R.N. & Ilić, B.S. (2011b) *Chthonius (Globochthonius) globimanus* n. sp. and *Chthonius (Chthonius) longimanus* n. sp., two new pseudoscorpions from a cave in Montenegro. *Acta zoologica bulgarica*, 63, 223-330.
- Ćurčić, B.P.M., Rađa, T., Dimitrijević, R.N., Ćurčić, S.B., Ćurčić, N.B. & Ilić, B.S. (2013c) *Neobisium crucis* n. sp. and *N. pluzinensis* n. sp., two new cave-dwellers from Montenegro (Neobisiidae, Pseudoscorpiones). *Archives of Biological Sciences, Belgrade*, 65, 1261-1267.
- Ćurčić, N., Dimitrijević, R. & Ćurčić, B. (2014b) The pseudoscorpions of Montenegro – an overview and conservation status. In: Gavin, D., Beierkuhnlein, C., Holzheu, S., Thies, B., Faller, K., Gillespie, R. & Hortal, J. (Eds.): Conference Program and Abstracts. International Biogeography Society 7th Biennial Meeting. 8-12 January 2015, Bayreuth, Germany, *Frontiers of Biogeography*, 6, Suppl. 1, 144. International Biogeography Society.
- Ćurčić, S.B., Brajković, M.M. & Ćurčić, B.P.M. (2007) The Carabids of Serbia. Monographs, 11. Institute of Zoology, Faculty of Biology, University of Belgrade, Committee for Karst and Speleology, Serbian Academy of Sciences and Arts, Department of Conservation Biology, Vegetation- and Landscape Ecology, Faculty of Life Sciences, University of Vienna & UNESCO MAB Committee of Serbia, Belgrade-Vienna, 1083 pp.
- Deltshev, C., Ćurčić, B.P.M. & Blagoev, G.A. (2003) The Spiders of Serbia. Monographs, 7. Committee for Karst and Speleology, Serbian Academy of Sciences and Arts, Institute of Zoology, Bulgarian Academy of Sciences & Institute of Zoology, Faculty of Biology, University of Belgrade, Belgrade-Sofia, 832 pp.
- Dimitrijević, R.N. (2000) A check list of cave-dwelling pseudoscorpions (Pseudoscorpiones, Arachnida) from Yugoslavia (Serbia and Montenegro). *Mémoires de biospéologie*, 27, 37-40.
- Dimitrijević, R.N. (2009) *Neobisium bozidarcucici* (Neobisiidae, Pseudoscorpiones), a new endemic cave pseudoscorpion from Montenegro. *Archives of Biological Sciences, Belgrade*, 61, 323-328.
- Hadži, J. (1930a) Prilog poznavanju pećinskih pseudoskorpija. *Glas Srpske kraljevske akademije*, 67, 115-147.
- Hadži, J. (1930b) Prirodoslovna istraživanja sjevernodalmatinskog otočja. I. Dugi i Kornati. Pseudoscorpiones. *Prirodoslovna istraživanja Kraljevine Jugoslavije, JAZU, Zagreb*, 16, 65-79.
- Hadži, J. (1933a) Beitrag zur Kenntnis der Fauna der Höhle Vjetrenica. *Bulletin de l'Académie des Sciences Mathématiques et Naturelles, Belgrade, Sciences naturelles*, 1, 49-79.
- Hadži, J. (1933b) Beitrag zur Kenntnis der Pseudoskorpionen-Fauna des Küstenlandes. *Bulletin International de l'Académie Yugoslave des Sciences et des Beaux-arts*, 27, 173-199.
- Hadži, J. (1933c) Prinos poznavanju pseudoskopijske faune Primorja. *Prirodoslovna istraživanja Kraljevine Jugoslavije, JAZU, Zagreb*, 18, 125-192.
- Harvey, M. (1990) Catalogue of the Pseudoscorpionida. Manchester University Press, Manchester-New York, 726 pp.
- Harvey, M.S. (2011) Pseudoscorpions of the World Version 2.0. Western Australian Museum, Perth. <http://www.museum.wa.gov.au/catalogues/pseudoscorpions>
- Harvey, M.S. (2013) Fauna Europaea: Palpigradi, PsScorp & Solifugae. Fauna Europaea version 2.6.2. <http://www.faunaeur.org>
- Savory, T. (1977) Arachnida. 2nd Edition. Academic Press, London, 340 pp.
- Schiødte, J.C. (1847) Foreløbig Beretning om Undersøgelser om den underjordiske Fauna i Hulerne i Krain og Istrien. *Oversigt over det Kongelige Danske videnskabernes selskabs forhandlinger*, 6, 75-81.
- Statistical Yearbook (2015). Statistical Office of Montenegro, Podgorica, 276 pp.
- Vandel, A. (1964) Biospéologie. La biologie des animaux cavernicoles. Gauthier-Villars, Paris, 619 pp.
- Vigna Taglianti, A., Audisio, P.A., Biondi, M., Bologna, M.A., Carpaneto, G.M., De Biase, A., Fattorini, S., Piattella, E., Sindaco, R., Venchi, A. & Zapparoli, M. (1999) A proposal for a chorotype classification of the Near East fauna, in the framework of the Western Palaearctic region. *Biogeographia*, 20, 31-59.

- Vitali-di Castri, V. (1973) Biogeography of pseudoscorpions in the Mediterranean regions of the world. *In*: di Castri, F. & Mooney, H.A. (Eds.): Mediterranean Type Ecosystems. Origin and Structure. Ecological Studies, Volume 7. Springer-Verlag, Berlin-Heidelberg-New York, pp. 295-305.