

Chthonius (Globochthonius) globimanus n. sp. and *Chthonius (Chthonius) longimanus* n. sp., Two New Pseudoscorpions from a Cave in Montenegro

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Abstract: The pseudoscorpion sample from Vilina Pećina Cave, nr. Nikšić, Montenegro has been thoroughly studied. Consequently, two new species *Chthonius (Globochthonius) globimanus* n. sp. and *Chthonius (Chthonius) longimanus* n. sp. are described. Both species are troglobites and may be considered endemics of Dinaric Arch and Balkan Peninsula. Diagnostic characters of each new analysed taxon are described and figured. Taxonomic interrelationships of both taxa with their phenetically close congeners are briefly discussed.

Key words: Pseudoscorpions, Chthoniidae, *Chthonius (Globochthonius) globimanus* n. sp., *Chthonius (Chthonius) longimanus* n. sp., troglobites, endemism, Montenegro

Introduction

In the present study, material from a sample of pseudoscorpions collected in 2000 has been examined. This sample from Vilina Pećina Cave, nr. Nikšić, Montenegro, consisted of two previously undescribed species *Chthonius (Globochthonius) globimanus* n. sp. and *Chthonius (Chthonius) longimanus* n. sp. Both new species, described in this paper, are probably endemic and relict taxa which inhabit underground milieux in the southern part of Dinaric Belt in Montenegro.

Setal designations follow BEIER (1939, 1963).

The type material is deposited in the collections of the Institute of Zoology, Faculty of Biology, University of Belgrade, Serbia (Center of Biospeleology of the mentioned Institute).

Systematic Part

Chthoniidae DADAY, 1888

Chthonius C. L. KOCH, 1843

Chthonius (Globochthonius) Globimanus

Ćurčić & Rađa, New Species

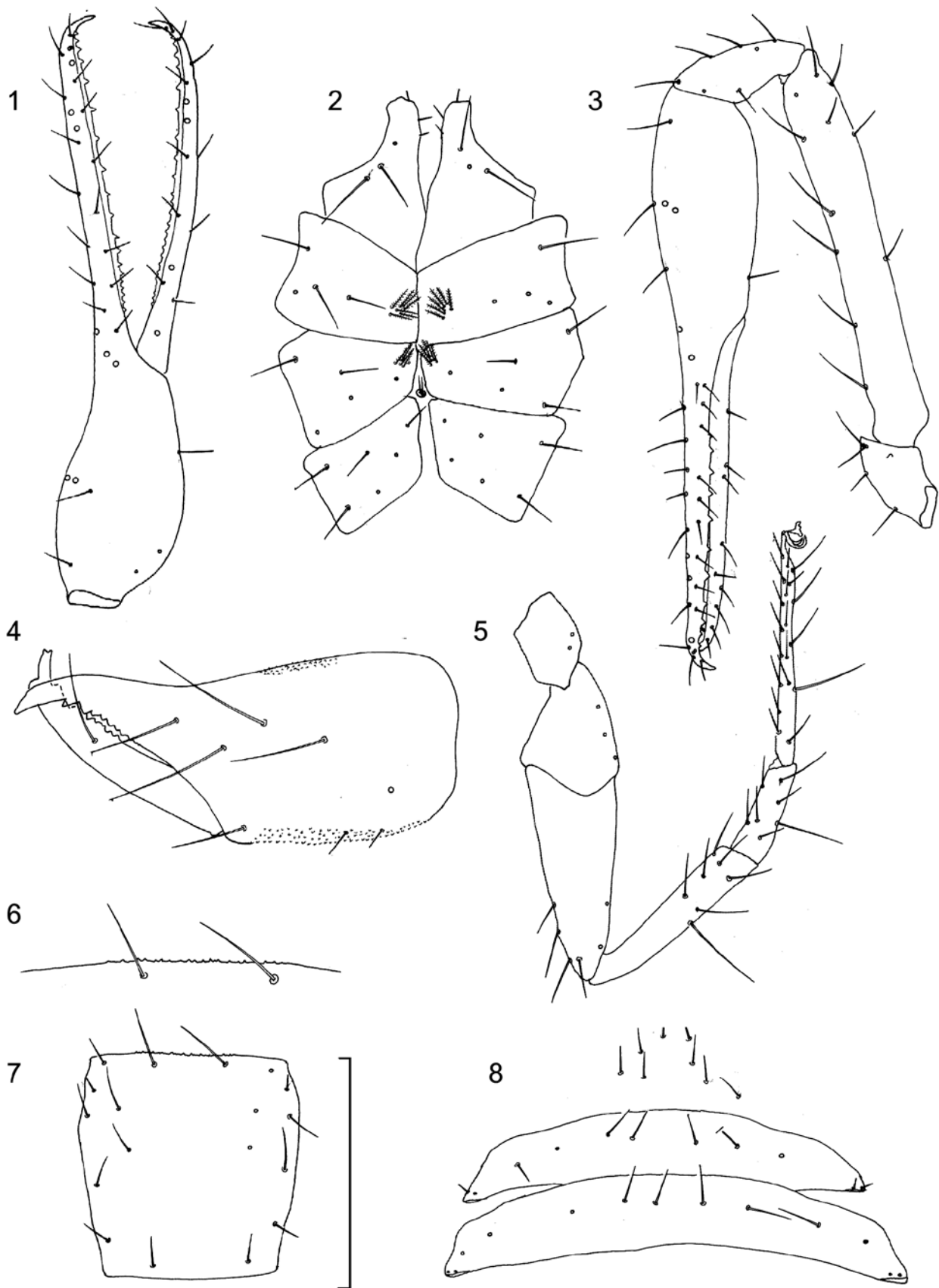
(Figs. 1-8; Table 1)

Etymology. This pseudoscorpion is named after the typical globiform shape of its chelal palm.

Material examined. Holotype female, from Vilina Pećina Cave, nr. village Miločani, Krupačko Jezero Lake, nr. Nikšić, Montenegro; 5 September 2000.

Description. The carapace is as long as broad, and the anterior border is distinctly wider than the posterior one (Fig. 7, Table 1). Neither eyes nor eyespots are developed (Fig. 7). The anterior carapacial border is with no epistomal protuberances. Therefore, it is without a differentiated epistome, although there exist some inconspicuous denticulations, particularly between the two anterior and median seta. Anyway, these denticulations cannot be seen lateral to the anterior setae (Fig. 6, 7).

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Figs. 1-8. *Chthonius (Globochthonius) globimanus* n. sp., from Montenegro. Holotype female: 1 - pedipalpal chela; 2 - coxal area; 3 - pedipalp; 4 - chelicera; 5 - leg IV; 6 - epistomal area; 7 - carapace; 8 - female genital area. Scale lines = 0.25 mm (Figs. 4, 6 and 8) and 0.50 mm (Figs. 1-3, 5, and 7).

Table 1. Linear measurements (in millimeters) and morphometric ratios in *Chthonius (Globochthonius) globimanus* n. sp., *C. (G.) medeonis* ČURČIĆ, *C. (G.) purgo* ČURČIĆ, LEE & MAKAROV, *C. (G.) pancici* ČURČIĆ, and *C. (G.) polychaetus* (HADŽI). Abbreviations: ♀ = female, ♀♀ = females.

Character	<i>C. (G.) globimanus</i>	<i>C. (G.) medeonis</i>	<i>C. (G.) purgo</i>	<i>C. (G.) pancici</i>	<i>C. (G.) polychaetus</i>
	♀	♀	♀	♀♀	♀
Body					
Length (1)	1.54	1.68	1.60	1.24-1.25	1.54
Cephalothorax					
Length (2)	0.48	0.49	0.43	0.38-0.41	0.48
Breadth (2a)	0.48	0.45	0.41	0.42-0.46	0.46
Ratio 2/2a	1.00	1.09	1.05	1.23-1.30	1.04
Abdomen					
Length	1.06	1.19	1.17	-	-
Chelicerae					
Length (3)	0.48	0.45	0.36	0.37-0.38	0.45
Breadth (4)	0.20	0.20	0.17	0.17-0.20	0.21
Length of movable finger (5)	0.25	0.25	0.195	0.20-0.22	0.245
Ratio 3/5	1.92	1.80	1.85	1.73-1.85	1.84
Ratio 3/4	2.40	2.25	2.12	1.90-2.18	2.14
Pedipalps					
Length with coxa (6)	3.21	2.88	1.845	2.10-2.25	2.51
Ratio 6/1	2.08	1.71	1.15	1.68-1.80	1.63
Length of coxa	0.42	0.37	0.34	0.25-0.27	0.40
Length of trochanter	0.24	0.21	0.15	0.16-0.17	0.15
Length of femur (7)	0.91	0.845	0.47	0.59-0.67	0.70
Breadth of femur (8)	0.13	0.13	0.10	0.10-0.11	0.10
Ratio 7/8	7.00	6.50	4.70	5.82-6.09	7.00
Ratio 7/2	1.895	1.72	1.09	1.55-1.63	1.46
Length of patella (tibia) (9)	0.35	0.315	0.205	0.20-0.23	0.26
Breadth of patella (tibia) (10)	0.12	0.13	0.11	0.13	0.15
Ratio 9/10	2.92	2.42	1.86	1.54-1.77	1.73
Length of chela (11)	1.29	1.14	0.68	0.89-0.92	1.00
Breadth of chela (12)	0.24	0.24	0.15	0.20-0.22	0.215
Ratio 11/12	5.375	4.75	4.53	4.18-4.45	4.60
Length of chelal palm (13)	0.51	0.48	0.27	0.34-0.38	0.215
Ratio 13/12	2.125	2.00	1.80	1.70-1.75	1.80
Length of chelal finger (14)	0.78	0.66	0.41	0.54-0.57	0.60
Ratio 14/13	1.53	1.375	1.52	1.42-1.63	2.79
Leg IV					
Total length	2.425	2.24	1.68	-	-
Length of coxa	0.295	0.26	0.38	-	-
Length of trochanter (15)	0.24	0.21	0.22	0.20	0.20
Breadth of trochanter (16)	0.14	0.13	0.10	-	-
Ratio 15/16	1.71	1.615	2.20	-	-
Length of femur + patella (17)	0.68	0.63	0.41	0.54-0.58	0.58
Breadth of femur + patella (18)	0.18	0.22	0.18	0.19-0.24	0.23
Ratio 17/18	3.78	2.86	2.28	2.42-2.84	2.52
Length of tibia (19)	0.45	0.44	0.26	0.35-0.40	0.38
Breadth of tibia (20)	0.09	0.09	0.075	-	-
Ratio 19/20	5.00	4.89	3.47	-	-
Length of metatarsus (21)	0.24	0.23	0.14	0.20-0.22	0.22
Breadth of metatarsus (22)	0.07	0.07	0.065	-	-
Ratio 21/22	3.43	3.285	2.15	-	-
Length of tarsus (23)	0.52	0.47	0.27	0.38-0.41	0.32
Breadth of tarsus (24)	0.04	0.04	0.03	-	-
Ratio 23/24	13.00	11.75	9.00	-	-
TS ratio - tibia IV	0.52	0.49	0.50	-	-
TS ratio - metatarsus IV	0.375	0.43	0.33	-	-
TS ratio - tarsus IV	0.31	0.30	0.31	-	-

The carapace is beset with 16 setae arranged in five rows, four anterior, six 'ocular', two median, two intermedian, and two posterior setae (Fig. 7). In front of the 'ocular' setal row, one small seta is developed in each preocular recess (Fig. 7).

The number of setae carried on abdominal tergites I-X can be expressed as 4 - 4 - 4 - 4 - 4 - 6 - 6 - 6 - 6 - 6. Anal papilla with two pairs of small setae.

Female genital area: sternite II carries nine setae, the following sternite carries seven posterior setae and two small setae along each stigma. The sternite IV has nine posterior setae and two or three suprastigmatic microsetae on either side. The sternite V has seven posterior setae, and the sternites VI-X have 6 - 6 - 6 - 7 - 6 posterior setae (Fig. 8).

The galea (cheliceral spinneret) is represented by a distinct elevation of the finger margin (Fig. 4). There is an isolated tooth distally on the movable finger. The first large tooth is contiguous with a row of smaller teeth which end at the level of insertion of galeal seta (Fig. 4). On the fixed cheliceral finger the teeth extend back, diminishing abruptly in size below those on the movable finger (Fig. 4).

The movable cheliceral finger has one large galeal seta and six setae on the palm of the chelicera; additionally, two small accessory setae are carried exterior to *vb*. The movable finger is slightly longer than the cheliceral breadth and ratio of cheliceral length to breadth is 2.40 (Table 1). The cheliceral flagellum consists of nine or ten blades, one small blade proximally and other blades twice this length, more or less in pairs, distally. The most distal members of the series are curved and pinnate on two sides.

The coxae of the pedipalps each carry five setae: two at the anterior end and manducatory process, and three on the posterior border of the trochantic foramen. The pedipalpal femur is 7.00 times longer than broader and 1.895 times longer than carapace (Table 1). The patella is tulip-like (Fig. 3). The contours of chelal palm on the dorsal and dorsolateral side are distinctly globular (Figs. 1 and 3). The fixed chelal finger is 1.53 times as long as the chelal palm (Table 1). The ratio of the pedipalpal chelal length to breadth is 5.375 (Table 1). The teeth of the fixed chelal finger (21) are small, interspaced, and slightly pointed and eventually merge in smaller and lower

teeth proximally (Fig. 1). The movable chelal finger has one apodeme. The movable chelal finger carries 18 dorsally interspaced teeth; distally these teeth merge into a dental lamella (Fig. 1). In addition, the fixed chelal finger carries an obvious small accessory tooth at its extreme distal end.

The pedal coxa II carries six or seven spines medially, coxa III has five or six spines. The intercoxal tubercle carries two small setae (Fig. 2).

The measurements of various podomeres of leg IV, as well as the tactile seta ratios are presented in Table 1. Tibia IV, metatarsus IV and tarsus IV each carry a long tactile seta (Fig. 5). On tibia IV this sensitive seta is found slightly distal to the middle of the podomere (Table 1). The claws are slender, smooth and sickle-shaped.

Remarks. The new species is easily distinguished from its congener *Chthonius (Globochthonius) medeonis* ĆURČIĆ (from Montenegro) by the number of setae on tergites I-V (4 - 4 - 4 - 4 - 4 vs. 4 - 4 - 4 - 4 - 6), by the number of carapacial setae (16 vs. 18), by the length of pedipalps (3.21 mm vs. 2.88 mm), by the length to breadth ratio of pedipalpal femur (7.00 vs. 6.50), by the chelal length to breadth ratio (5.375 vs. 4.75), as well as by many other linear measurements (in mm) and morphometric ratios (Table 1).

From *Chthonius (Globochthonius) polychaetus* HADŽI from Southern Serbia, the new taxon is easily distinguished by the number of seta on sternites V-X (7 - 6 - 6 - 6 - 7 - 6 vs. 6 - 6 - 6 - 6 - 6 - 6), by the number of teeth on the movable chelal finger (5 vs. 18), by the pedipalpal length (2.51 mm vs. 3.21 mm), in the pedipalpal femur length (0.70 mm vs. 0.91 mm), by the pedipalpal chelal length to breadth ratio (4.60 vs. 5.375), by the pedipalpal chelal finger length to chelal palm length ratio (2.79 vs. 1.53), as well as in many other morphometric ratios and linear measurements (Table 1).

From *Chthonius (Globochthonius) purgo* ĆURČIĆ, LEE & MAKAROV, C. (G.) *globimanus* n. sp. differs in many important aspects: in the setation of the carapace (21 vs. 18), in the setation of sternites V-X (6 - 6 - 6 - 6 - 6 - 6 vs. 7 - 6 - 6 - 6 - 7 - 6), in the number of teeth on fixed (37 vs. 21) and movable chelal finger (27 vs. 18). The new species is also distinguished from C. (G.) *purgo* by the pedipalpal length (3.21 mm vs. 1.68 mm), by the pedipalpal chelal length (0.68 mm vs. 1.29 mm), by the leg IV

length (1.68 mm vs. 2.475 mm), as well as in many other ratios and measurements (Table 1).

From *Chthonius (Globochthonius) pancici* ČURČIĆ, C. (G.) *globimanus* n. sp. can be distinguished by the presence/absence of eyes (present vs. absent), by the number of carapacial setae (20 vs. 16), by the number of teeth on the movable chelal finger (10 vs. 18), by the pedipalpal length (2.51 mm vs. 3.21 mm), by the pedipalpal chelal length to breadth ratio (4.60 vs. 5.375), as well as in other different linear measurements and morphometric ratios (Table 1).

Distribution. Montenegro, in a cave. This is probably an endemic and relict species. The above-mentioned facts and existing literature point to the fact that the subgenus *Chthonius (Globochthonius)* originated in proto-Balkan area, but with two distribution centers, the first of them situated in Dinarids, while the other one encompasses the Carpathian Mountains (BEIER 1939, 1963, ČURČIĆ 1972, 1988, ČURČIĆ *et al.* 1993, 1997a, b, 1999, 2004, 2008, 2010, 2011a, b, c, d, HADŽI 1937).

Chthonius (Chthonius) Longimanus

ČURČIĆ & RAĐA, New Species

(Figs. 9-15; Table 2)

Etymology. After the form of the pedipalpal chelal palm (Fig. 9).

Material examined. Holotype female, from the Vilina Pećina Cave, nr. village Miločani, Krupačko Jezero Lake, nr. Nikšić, Montenegro; 5 September 2000.

Description. The dorsal side of the carapace is distinctly broader than longer and the anterior border is considerably wider than longer the posterior border (Fig. 13, Table 2). Neither eyes nor eyespots are present. The anterior carapacial border is slightly convex and without differentiated epistome, although there are some inconspicuous denticulations particularly between the two anterior and median setae.

The carapace is beset with 19 setae arranged in five rows; five anterior, six 'ocular', four median, two intermedian, and two posterior. In the posterior row only two long setae are developed. A single small seta is found in each preocular recess (Fig. 13). The number of setae on the abdominal tergites I-X is 4 - 4 - 4 - 5 - 6 - 6 - 6 - 6 - 6 - 6. Female genital area: sternite II carries eight setae; the next sternite has 10 setae and two suprastigmal microsetae anterior

to each stigma. Sternite IV has eight posterior setae and two suprastigmal microsetae along each stigma. Sternites V-X carry 6 - 6 - 6 - 6 - 6 - 6 setae. The anal papilla has two pairs of small setae (Fig. 12).

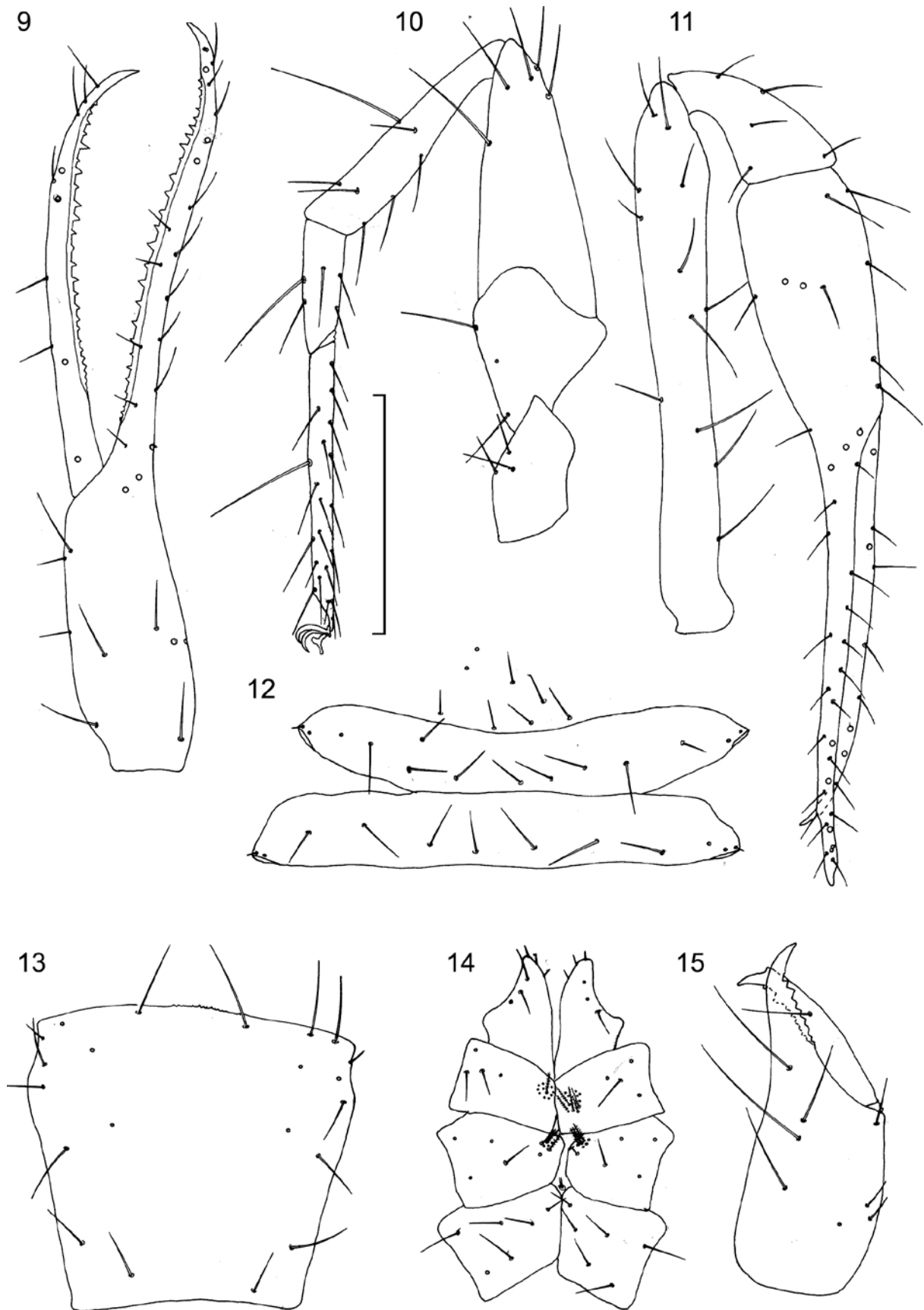
The cheliceral galea is represented by a well developed hyaline tubercle (Fig. 15). There is no isolated tooth distally on the movable finger. The first large tooth is contiguous with a series of smaller teeth which end below the insertion site of galeal seta. The movable finger carries one large galeal seta and there are six setae on the palm of the chelicera. In addition, two small accessory setae are carried exterior to *vb*. The movable finger is longer than the cheliceral breadth and the ratio of the cheliceral length to breadth is 2.27 (Table 2). The cheliceral flagellum consists of nine blades, more or less in pairs. The most distal members of the flagellar row are curved but all are pinnate on two sides.

The coxae of the pedipalps each carry five setae; two at the anterior end and three at the posterior border. The femur is 6.27 times longer than broader and 1.52 time slonger than carapace (Table 2). As usual, the patella at its distal end is broader than the pedipalpal femur (Fig. 11). The ratio of the pedipalpal patella length to breadth is 2.625.

Four trichobothria are carried on the movable and eight on the fixed chelal finger (Figs. 9 and 11). The fixed chelal finger is 2.36 times as long as the chelal palm. The ratio of the pedipalpal chela length to breadth is 5.64 (Table 2). The teeth of the fixed finger (27) are distributed unevenly along its inner length; of these, the distal teeth are closeset, small and apically rounded as are the proximal most teeth. Only median teeth are triangular and interspaced. The movable finger has 25 teeth which resemble the teeth of the fixed finger. Centrally, the teeth increase in size, becoming triangular and slightly interspaced (Fig. 9).

Pedal coxae I-IV carry three, four, five or six setae, respectively. The pedal coxae carry 11 - 12 spines medially; coxa III has six such spines. The intercoxal tubercle carries two small setae (Fig. 14).

The measurements of the different podomeres of the leg IV, as well as different morphometric ratios and other measurements are presented in Table 2. Tibia IV, metatarsus IV, and tarsus IV each carry a long tactile seta (Fig. 10). The claws are slender, smooth and sickle-formed.



Figs. 9-15. *Chthonius (Chthonius) longimanus* n. sp., from Montenegro. Holotype female: 9 - pedipalpal chela; 10 - leg IV; 11 - pedipalp; 12 - female genital area; 13 - carapace, 14 - coxal area; 15 - chelicera. Scale lines = 0.25 mm (Fig. 12) and 0.50 mm (Figs. 9-11, 13-15).

Table 2. Linear measurements (in millimeters) and morphometric ratios in *Chthonius (Chthonius) longimanus* n. sp., *C. (C.) absoloni* BEIER and *C. (C.) pristani* ČURČIĆ. Abbreviations: ♀ = female, ♂ = male.

Character	<i>C. (C.) longimanus</i>	<i>C. (C.) absoloni</i>	<i>C. (C.) pristani</i>
	♀	♂	♀
Body			
Length (1)	1.93	2.06	2.00
Cephalothorax			
Length (2)	0.62	0.55	0.58
Breadth (2a)	0.70	0.51	0.56
Ratio 2/2a	0.89	1.08	1.04
Abdomen			
Length	1.31	1.51	1.42
Chelicerae			
Length (3)	0.67	0.50	0.62
Breadth (4)	0.295	0.205	0.25
Length of movable finger (5)	0.37	0.27	0.34
Ratio 3/5	1.81	1.85	1.82
Ratio 3/4	2.27	2.44	2.48
Pedipalps			
Length with coxa (6)	3.62	3.145	3.605
Ratio 6/1	1.875	1.53	1.80
Length of coxa	0.51	0.47	0.41
Length of trochanter	0.34	0.25	0.295
Length of femur (7)	0.94	0.86	1.03
Breadth of femur (8)	0.15	0.12	0.14
Ratio 7/8	6.27	7.17	7.36
Ratio 7/2	1.52	1.56	1.775
Length of patella (tibia) (9)	0.42	0.32	0.41
Breadth of patella (tibia) (10)	0.16	0.15	0.16
Ratio 9/10	2.625	2.13	2.56
Length of chela (11)	1.41	1.245	1.46
Breadth of chela (12)	0.25	0.19	0.23
Ratio 11/12	5.64	6.55	6.35
Length of chelal palm (13)	0.59	0.425	0.46
Ratio 13/12	2.36	2.24	2.00
Length of chelal finger (14)	0.835	0.82	1.00
Ratio 14/13	1.415	1.93	2.17
Leg IV			
Total length	2.885	2.465	2.655
Length of coxa	0.34	0.29	0.295
Length of trochanter (15)	0.275	0.22	0.22
Breadth of trochanter (16)	0.15	0.13	0.13
Ratio 15/16	1.83	1.69	1.69
Length of femur + patella (17)	0.825	0.71	0.78
Breadth of femur + patella (18)	0.25	0.19	0.22
Ratio 17/18	3.30	3.74	3.545
Length of tibia (19)	0.56	0.445	0.52
Breadth of tibia (20)	0.10	0.08	0.08
Ratio 19/20	5.60	5.56	6.50
Length of metatarsus (21)	0.285	0.24	0.24
Breadth of metatarsus (22)	0.08	0.075	0.06
Ratio 21/22	3.56	3.20	4.00
Length of tarsus (23)	0.60	0.56	0.60
Breadth of tarsus (24)	0.05	0.05	0.04
Ratio 23/24	12.00	11.20	15.00
TS ratio - tibia IV	0.51	0.49	0.43
TS ratio - metatarsus IV	0.38	0.43	0.46
TS ratio - tarsus IV	0.34	0.43	0.40

Remarks. The new species is distinct from its close congener, *Chthonius (Chthonius) absoloni* BEIER, from Dalmatia in the setation of sternites V-X (6 - 6 - 6 - 6 - 6 - 6 vs. 9 - 7 - 7 - 6 - 6 - 6), in the number of teeth on the fixed (36 vs. 27) and the movable chelal finger (36 vs. 25), as well as in their form and disposition, in the cheliceral length (0.67 mm vs. 0.50 mm), in the pedipalpal length (3.62 mm vs. 3.145 mm), in the pedipalpal femur length to breadth ratio (6.27 vs. 7.17), pedipalpal tibia length to breadth ratio (2.65 vs. 2.13), leg IV length (2.885 mm vs. 2.465 mm), telotarsus IV length to breadth ratio (12.00 vs. 11.20), as well as in other measurements and ratios (Table 2).

From *Chthonius (Chthonius) pristani* ĆURČIĆ, from Dalmatia, *C. (C.) longimanus* n. sp. is distinct in the setation of sternites V-X (11 - 13 - 11 - 11 - 11

- 10 vs. 6 - 6 - 6 - 6 - 6 - 6), in the number of teeth on the fixed (48 vs. 27) and movable chelal finger (92 vs. 25), as well as in their form and disposition, in the number of spines on coxa II (9 vs. 6), in the pedipalpal length (3.605 mm vs. 3.62 mm), in the pedipalpal femur length to breadth ratio (7.36 vs. 6.27), in the length to breadth ratio of the chela (6.35 vs. 5.64), in the leg IV length (2.655 mm vs. 2.885 mm) and in many other linear measurements and morphometric ratios (Table 2).

Distribution. Montenegro, in a cave. This is probably an endemic and relict species (Beier, 1939, 1963; Ćurčić, 1972, 1988; Ćurčić et al., 1993, 1997a, b, 1999, 2004, 2008, 2010, 2011a, b, c, d, Hadži, 1937).

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References

- BEIER M. 1939. Die Höhlenpseudoscorpione der Balkanhalbinsel. – *Studien aus dem Gebiete der allgemeinen Karstforschung der wissenschaftlichen Höhlenkunde der Eiszeitforschung und den Nachbargebieten*, Brünn, **4** (10): 1-83.
- BEIER M. 1963. Ordnung Pseudoscorpionidea (Afterscorpione). – In: Bestimmungsbücher zur Bodenfauna Europas, Vol. 1. – Akademie Verlag, Berlin. 313 p.
- ĆURČIĆ B. P. M. 1972. Nouveaux pseudoscorpions cavernicoles de la Serbie et de la Macédoine. – *Acta Musei Macedonici Scientiarum Naturalium*, Skopje, **12**: 141-161.
- ĆURČIĆ B. P. M. 1988. Cave-Dwelling Pseudoscorpions of Dinaric Karst. *Academia Scientiarum et Artium Slovenica, Classis IV, Historia Naturalis, Opera* 26, Institutum Biologicum Ioannis Hadži, 8, Ljubljana, 192 p.
- ĆURČIĆ B. P. M., V. F. LEE, and S. E. MAKAROV 1993. New and little-known cavernicolous species of Chthoniidae and Neobisiidae (Pseudoscorpiones, Arachnida) from Serbia. – *Bijdragen tot de Dierkunde*, **62**: 167-178.
- ĆURČIĆ B. P. M., R. N. DIMITRIJEVIĆ, S. E. MAKAROV, L. R. LUČIĆ, and O. S. KARAMATA 1997a. New and Little-Known False Scorpions from the Balkan Peninsula, Principally From Caves, Belonging to the Families Chthoniidae and Neobisiidae (Arachnida, Pseudoscorpiones). Monographs, 2. Faculty of Biology, University of Belgrade, Belgrade, 159 p.
- ĆURČIĆ B. P. M. and R. N. DIMITRIJEVIĆ 1997b. Further report on some little-known pseudoscorpions from Serbia and Montenegro (Neobisiidae, Pseudoscorpiones). – *Arch. Biol. Sci.*, Belgrade, **49**: 55-62.
- ĆURČIĆ B. P. M., R. N. DIMITRIJEVIĆ, E. A. STOJKOSKA, S. V. STANKOVIĆ-JOVANOVIĆ, and O. S. KARAMATA 1999. Further report on some false scorpions (Neobisiidae, Pseudoscorpiones) from Macedonia (FYROM). – *Arch. Biol. Sci.*, Belgrade, **51**: 9P-10P.
- ĆURČIĆ B. P. M., R. N. DIMITRIJEVIĆ, and A. LEGAKIS 2004. 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; and Institute of Nature Conservation of the Republic of Serbia; Belgrade-Athens, 400 p.
- Ćurčić B. P. M., R. N. Dimitrijević, and V. T. Tomić 2008. *Chthonius (Chthonius) globocicae* (Chthoniidae, Pseudoscorpiones), a new species of false scorpion from a cave in Montenegro. – *Arch. Biol. Sci.*, Belgrade, **60** (2): 309-314.
- ĆURČIĆ B. P. M., T. RADA, R. N. DIMITRIJEVIĆ, V. T. TOMIĆ, M. PECELJ AND S. B. ĆURČIĆ 2010. *Chthonius (Chthonius) torakensis* and *Chthonius (Ephippiochthonius) cikolae*, two new species of pseudoscorpions (Chthoniidae) from Croatia. – *Arch. Biol. Sci.*, Belgrade, **62** (4): 1223-1229.
- ĆURČIĆ B. P. M., R. N. DIMITRIJEVIĆ, S. E. MAKAROV, M. MILINČIĆ, M. PECELJ AND T. RADA 2011a. Two new pseudoscorpions from the UN Administered Province of Kosovo and Croatia. – *Arch. Biol. Sci.*, Belgrade, **63** (1): 235-244.
- ĆURČIĆ B. P. M., S. B. ĆURČIĆ, N. B. ĆURČIĆ AND B. S. ILIĆ 2011b. *Chthonius (Globochthonius) medeonis* n. sp., a new cave false scorpion from Montenegro. – *Arch. Biol. Sci.*, Belgrade, **63** (1): 245-250.
- ĆURČIĆ B. P. M., T. RADA, S. E. MAKAROV, S. B. ĆURČIĆ, B. S. ILIĆ AND R. N. DIMITRIJEVIĆ 2011c. A cavernicolous pseudoscorpion of the genus *Chthonius (Chthonius)* C. L. Koch from Dalmatia. *Arch. Biol. Sci.*, Belgrade, **63**(2): 493-498.
- ĆURČIĆ B. P. M., R. N. DIMITRIJEVIĆ AND N. B. ĆURČIĆ 2011d. A new cave pseudoscorpion (Pseudoscorpiones: Chthoniidae): *Chthonius (Chthonius) lupinus* n. sp. from Bosnia-Herzegovina. – *Arch. Biol. Sci.*, Belgrade, **63** (2): 499-506.
- HADŽI J. 1937. Pseudoskorpioniden aus Südserbien. – *Glasnik Skopskog naučnog društva*, Skopje, **18**: 13-38.

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