Arch. Biol. Sci., Belgrade, 58 (4), 37P-38P, 2006.

NEOBISIUM PERUNOIDES (PSEUDOSCORPIONES, NEOBISIIDAE), A NEW CAVE SPECIES FROM CROATIA.

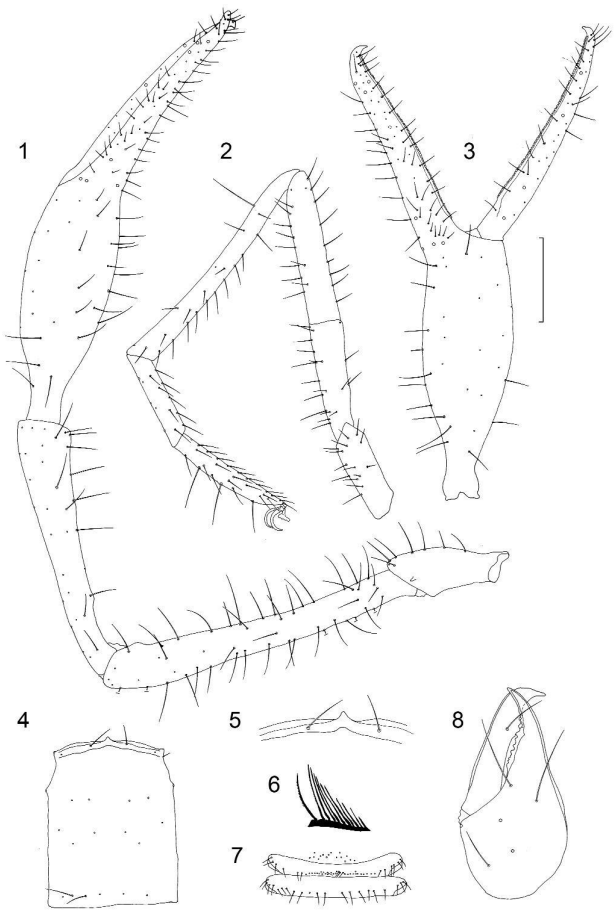
B. P. M. Ćurčić[1], R. N. Dimitrijević[1] and **T. Rađa[2].** *[1]Institute of Zoology, Faculty of Biology, University of Belgrade*, 11000 Belgrade, Serbia; *[2]Špiljar Speleological Society*, 21000 Split, Croatia

Key words: Pseudoscorpiones, Neobisiidae, *Neobisium perunoides*, caves, endemism, Mt. Biokovo, Croatia

UDC 595.47 (497)

Recent analysis of the small pseudoscorpion sample from Jama Na Vrhu Malog Šibenika Pothole, Mt. Biokovo, collected by Marko Jug-Duraković, revealed the presence of a new troglobitic species: *Neobisium perunoides.*

Here is the description of the new taxon:



Figs. 1-8. *Neobisium perunoides* n. sp., from Dalmatia (Croatia). 1 – pedipalp; 2 – leg IV; 3 – pedipalpal chela; 4 –carapace; 5 – epistome; 6 – flagellum; 7 – female genital area; 8 – chelicera. Scales = 0.50 *mm* (Figs. 1-4, 7) and 0.25 *mm* (Figs. 5, 6, 8).

NEOBISIUM J. C. CHAMBERLIN, 1930

NEOBISIUM PERUNOIDES ĆURČIĆ & RAĐA, NEW SPECIES (Figs. 1-8; Table 1)

Specimens examined. – Holotype female, from the Jama Na Vrhu Malog Šibenika Pothole, Mt. Biokovo, 6 May 2006, collected by Marko Jug-Duraković, Dalmatia (Croatia).

Etymology. – After its phenetical similarity to *N. peruni* Ćurčić, 1988, inhabiting some caves and pits on Mt. Biokovo, Dalmatia (Croatia).

Description. – Carapace longer then broad (reticulate throughout; Fig. 4). Epistome small and tubercular (Fig. 5). Neither eyes nor eyespots are developed (Fig. 4). One 'preocular' microseta on either carapacal side. Setal formula: 4+6+6+6 = 22 setae.

Abdominal sclerites smooth, entire and uniseriate. Tergites I-X with 4-6-7-9-9-10-12-12-12-10 setae. Male genital area: unknown. Female genital area: sternite II with a median and posterior group of 16 small setae, sternite III with 35 posterior and close-set setae and 3 or 4 microsetae along each stigma, sternite IV with 14 posterior setae and 3 or 4 suprastigmal small setae along each stigma (Fig. 7). Sternites V-X each with 17-22-17-21-18-17 posterior setae. Twelfth abdominal segment with two pairs of small setae. Pleural membranes granulostriate.

Galea of a low hyaline convexity (Fig. 8). Fixed cheliceral fingers with six long sensitive setae, movable finger with one sensitive seta (Fig. 8). Fixed cheliceral finger with 10 or 11 small teeth of irregular size. Movable cheliceral finger with three or five small teeth followed by a dental lamella (Fig. 8). Flagellum eleven-bladed; only two distal blades are pinnate along their anterior margins. Other flagellar setae smooth and acuminate and decrease from distal to proximal; the two or three most proximal blades are the smallest (Fig. 6).

Apex of pedipalpal coxa with five long and acute setae. Pedipalpal femur and tibia dilated distally, chelal palm elongately ovate, chelal fingers considerably shorter than chelal palm (Figs. 1,3; Table 1). Fixed chelal finger with 121 and movable chelal finger with 99 small teeth, retroconical and contiguous; the teeth are gradually replaced by rounded teeth, and eventually by even smaller and pointed teeth.

Table 1. Linear measurements (in millimetres) and morphometric ratios in *Neobisium peruni* Ćurčić, 1988 and in *N. perunoides* n. sp., from Croatia. Abbreviations: F = female.

Character	*N. peruni* F	*N. perunoides* F
Body		
Length (1)	6.73	**8.12**
Cephalothorax		
Length (2)	1.69	**2.40**
Breadth (2a)	1.34	1.29
Ratio 2/2a	-	1.86
Abdomen		
Length	5.04	**5.72**
Chelicerae		
Length (3)	1.23	1.33
Breadth (4)	-	0.67
Length of movable finger (5)	0.775	**0.825**
Ratio 3/5	1.59	1.61
Ratio 3/4	-	1.985
Pedipalps		
Length with coxa (6)	16.48	**16.315**
Ratio 6/1	2.54	2.01
Length of coxa	1.43	**1.28**
Length of trochanter	1.32	1.365
Length of femur (7)	4.14	4.14
Breadth of femur (8)	0.47	0.50
Ratio 7/8	8.81	**8.28**
Ratio 7/2	2.45	**1.725**
Length of patella (tibia) (9)	3.46	3.45
Breadth of patella (tibia) (10)	0.535	0.66
Ratio 9/10	6.47	**5.23**
Length of chela (11)	6.13	6.08
Breadth of chela (12)	0.78	**1.21**
Ratio 11/12	7.86	**5.02**
Length of chelal palm (13)	2.47	**3.21**
Ratio 13/12	3.17	**2.65**
Length of chelal finger (14)	3.66	**2.87**
Ratio 14/13	1.48	**0.89**
Leg IV		
Total length	12.295	**11.43**
Length of coxa	0.97	0.92
Length of trochanter (15)	1.17	1.10
Breadth of trochanter (16)	0.35	0.35
Ratio 15/16	3.34	3.14
Length of femur + patella (17)	3.80	**3.44**
Breadth of femur + patella (18)	0.34	0.40
Ratio 17/18	11.18	**8.60**
Length of tibia (19)	3.30	3.14
Breadth of tibia (20)	0.24	0.295
Ratio 19/20	13.75	**10.64**
Length of metatarsus (21)	1.365	1.31
Breadth of metatarsus (22)	0.175	0.24
Ratio 21/22	7.80	**5.46**
Length of tarsus (23)	1.69	1.52
Breadth of tarsus (24)	0.15	0.23
Ratio 23/24	11.27	**6.61**
TS ratio - tibia IV	0.25	0.44
TS ratio - metatarsus IV	0.075	0.08
	0.19	0.20
	0.42	0.42
TS ratio - tarsus IV	0.09	0.24
	0.28	0.59

Trichobothriotaxy as presented in Fig. 3.

Pedal tactile setae: tibia IV with one elongate sensitive seta, basitarsus IV with three sensitive setae and tarsus IV with two sensitive setae. The relative position of these setae is subject to variation (on left and right legs IV) (Fig. 2). Subterminal tarsal setae furcate, each branch with few spinules.

Morphometric ratios and linear measurements are presented in Table 1.

Diagnostic remarks. – The new species is easily distinguished from *N. peruni* Ćurčić, 1988 in many important respects, such as: the body length, the carapace length, the abdomen length (all longer than in *N. peruni*), the pedipalpal length (16.315 mm vs. 16.48 mm), the pedipalpal patella length to breadth ratio (5.23 vs. 6.47), the pedipalpal chela length to breadth ratio (5.02 vs. 7.86), the pedipalpal chelal finger to pedipalpal chelal palm ratio (0.89 vs. 1.48), in the leg IV length to breadth ratio (11.43 vs. 12.295), as well as in many other linear measurements and morphometric ratios (differences marked in bold; Table 1).

Additionally, distinctions are seen in the number of setae on sternite III (27 in *N. peruni* vs. 35 in *N. perunoides*), and in the number of chelal teeth on both fixed (156 in *N. peruni* vs. 121 in *N. perunoides*) and movable chelal fingers (132 in *n. peruni* vs. 99 in *N. perunoides*).

Distribution. – Like *N. peruni* the new species (*N. perunoides*) inhabits only underground compartments on Mt. Biokovo (Dalmatia).

Acknowledgements - This work was supported by Grant #143053 from the Ministry of Science and Environment Protection of Serbia.

Reference - Ćurčić, B.P.M. (1988). *Cave - dwelling pseudoscorpions of the Dinaric Karst.* Acad. Sci. Art Slov.; Cl. IV: Hist. Nat., Opera 26, Inst. Biol. Ioannis Hadži, Ljubljana 1-191.