New species of pseudoscorpions (Arachnida: Pseudoscorpiones) for the fauna of Bulgaria

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Abstract. The fauna of the false scorpions in Bulgaria is still poorly studied. We report the occurrence of eight new species of pseudoscorpions – Chthonius orthodactylus, Neobisium blotroides, N. cf. labinskyi, N. moreoticum, N. peloponnesiacum, Dinocheirus panzeri, Mundochthonius styriacus and Larca lata. The latter three species are members of three genera, previously not reported for the country. The pseudocorpion family Larcidae is new for Bulgaria. New chorological data is provided for the local endemic Allochernes bulgaricus and A. wideri. With the present discoveries the number of species found in Bulgaria increases to 59 species, which belong to 10 families and 24 genera. Illustrations and measurements for each of the species and a map of the new findings are also enclosed.

Key words: Pseudoscorpiones, new records, Bulgaria, distribution.

Introduction

The fauna of the false scorpions in Europe is considered comparatively well known only in several countries (e.g. Germany, France, Czech Republic, Italy and some others). There are many geographic regions all over the continent where pseudoscorpion fauna has never been studied or just a scarce data were published for a long period of time. Thus our knowledge about the distribution of many widely distributed pseudoscorpion species is very limited for some regions. This is especially true for Bulgaria which is situated in southeastern Europe and covers the eastern part of the Balkan peninsula. Altogether 51 species belonging to 9 families and 21 genera are so far reported for the country (PETROV, 1997; 2000; 2004). Majority of the species are known from single localities and more chorological data is doubtless needed to depict their ranges at a regional scale. The aim of this paper is to publish faunistic records about the occurrence of several pseudoscorpion species and genera which are new for Bulgaria and which were assumed to occur but have not been confirmed by field findings.
Material and methods

Pseudoscorpions were hand-collected under stones, tree barks or logs. Litter dwelling species were sifted with a common entomological hand sieve (hole diameter = 8 mm). The material is preserved in 70% ethanol and deposited in the arachnological collection of the National Museum of Natural History in Sofia (NMNHS) or in the collection of F. Šťáhlavský. The number from the museum’s collection database is indicated in square brackets. Larger specimens were examined under stereo microscope. Members of the family Chthoniidae were dissected and examined under a microscope. Larger specimens were measured in a slightly concaved microscope slide without dissection. Smaller parts were measured under microscope. Only the movable palpal finger was measured and further considered. All measurements are given in millimeters. Systematic arrangements follows HARVEY (1990, 1992). The new localities are shown on Fig. 18.

Taxonomic part

Family Chthoniidae

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

**Material examined:** SW Bulgaria, Pirin Mt., Sugarevo, Distr. Sandanski, alt. 750 m, under stone, 3.10.1999, F. Šťáhlavský leg., 1 ♂; SW Bulgaria, Pirin Mt., between Sugarevo and Pirin hut, alt. 900 m, under stones, F. Šťáhlavský leg., 4.10.1999, 1 ♂, 5 ♀♀ (Fig. 1).

**Measurements of 2 ♂♂ and 5 ♀♀:** Body length 1.19-1.40 (♂), 1.44-1.56 (♀); Cephalothorax length 0.38 (♂), 0.39-0.46 (♀); Pedipalps: Femur length 0.50-0.51 (♂), 0.47-0.56 (♀); breadth 0.09 (♂), 0.10-0.11 (♀); ratio 5.54-5.62 (♂); 4.10-5.24 (♀); Tibia length 0.20 (♂), 0.20-0.23 (♀); breadth 0.10 (♂), 0.10-0.12; ratio 2.00 (♂), 1.98-2.01 (♀); Chelal palm length 0.25-0.26 (♂), 0.27-0.29 (♀); breadth 0.13 (♂), 0.15-0.17 (♀); Chelal finger length 0.46-0.48 (♂), 0.47-0.53 (♀).

**Remarks:** Although this species is known from the neighbouring countries it has not been reported yet for Bulgaria. It lives mainly in the soil and in the leaf litter but can also be found under stones.

*Mundochthonius styriacus* Beier, 1971

**Material examined:** SW Bulgaria, Pirin Mt., Lilyanovo, Distr. Sandanski, alt. 600 m, tree hollow of *Platanus orientalis*, F. Šťáhlavský leg., 7.10.1999, 3 ♀♀ (Figs 2-4).

**Measurements of 2 ♀♀♀:** Body length 1.05; Cephalothorax length 0.44; Pedipalps: Femur length 0.38-0.39; breadth 0.10-0.11; ratio 3.52-3.78; Tibia length 0.20-0.21; breadth 0.11-0.12; ratio 1.72-1.85; Chelal palm length 0.23-0.23; breadth 0.13; Chelal finger length 0.46-0.48.

**Remarks:** New genus and species for Bulgaria. Only few specimens of this species are known from several localities in Austria (BEIER, 1971), Switzerland (MAHNERT, 1979) and Germany (JOST, 1982). In the Czech Republic it was proved to be more common (ŠŤÁHLAVSKÝ & DUCHÁČ, 2001). This small species (body length around 1 mm) inhabits hollow trees mainly with humid substrate (ŠŤÁHLAVSKÝ, 2001).
Figs. 1-4. 1 – left palpal hand of a female *Chthonius orthodactylus*, scale line 0.3 mm; 2-4 *Mundochthonius styriacus*, female: 2 – carapace, 3 – right pedipalp, scale lines 0.5 mm; 4 – left palpal hand, scale line 0.25 mm
Family Larcidae

*Larca lata* (Hansen, 1884)

**Material examined:** SE Bulgaria, Black Sea coast, 3 km west of Tsarevo, Distr. Burgas, tree hollow of *Quercus* sp., J. Hájek leg., 26.6.1999, 2 ♂♂ (Figs 5-6), 2 ♀♀.

**Measurements of 2 ♂♂ and 2 ♀♀:** Body length 1.92-1.97 (♂), 2.12-2.14 (♀); Cephalothorax length 0.45-0.53 (♂), 0.49-0.51 (♀); Pedipalps: Femur length 0.70-0.71 (♂), 0.73 (♀); breadth 0.16 (♂), 0.17 (♀); ratio 4.49-4.58 (♂), 4.33-4.35 (♀); Tibia length 0.56-0.61 (♂), 0.58-0.60 (♀); breadth 0.17-0.18 (♂), 0.18-0.19; ratio 3.24-3.49 (♂), 3.11-3.19 (♀); Chelal palm length 0.52-0.54 (♂), 0.53-0.54 (♀); breadth 0.21 (♂), 0.22-0.24 (♀); Chelal finger length 0.36-0.40 (♂), 0.42 (♀).

**Remarks:** New family, genus and species for Bulgaria. The range of the species includes Austria, Czech Republic, Denmark, England, Poland, Romania, Sweden, Latvia and the Netherlands (ZARAGOZA, 2005). *L. lata* is a common dweller of tree hollows with dry and fine-grained substrate. Rarely inhabits synantropic localities (loft, barn) and occasionally occurs in caves. For Romania it was recorded from the cave “Canaraua fetei” close to the border with Bulgaria (DUMITRESCO & ORGHIDAN, 1964). The new locality is the southernmost one within the range of the species extending its border with ca. 300 km southwards.

Family Neobisiidae

*Neobisium blothroides* (Tömösváry, 1882)

**Material examined:** NW Bulgaria, Vartop, Distr. Vidin, cave Prilepanika, P. Stoev, T. Ivanova leg., 23.2.1995, 1 ♀ (Figs. 7-8) [NMNHS BP № 87]; Romania, National Park Valea Cernei, 4 km before Cerna Sat, Distr. Baile Herculane, alt. 620 m, beech litter over a karstic scree, B. Petrov, P. Stoev leg., 12.5.2000, 1 ♀ [NMNHS № 854].

**Measurements of 2 ♀♀:** Cephalothorax length 1.11-1.25, breadth 1.04-1.19; Pedipalps: Femur length 1.79-2.03; breadth 0.35-0.38; ratio 5.18-5.28; Tibia length 1.16-1.44; breadth 0.38-0.42; ratio 3.03-3.41; Chelal palm length 1.40-1.44; breadth 0.69-0.79; Chelal finger length 2.00-2.12.

**Remarks:** This large neobisiid species belongs to *blothroides – praecipuum* species group of *Neobisium* s.str. (BEIER, 1947). Compared to *N. biharicum* Beier [palpal femur x 4.6 – 4.93 longer than broad; tibia x 2.9 – 3.1 after BEIER (1963) and ĆURČIĆ et al. (1993)] both examined *blothroides* specimens have slender palpal femur (x 5.18 – 5.28) and tibia (x 3.41 – 3.55) (see below). However these ratios have lower values compared to those (femur x 5.5 – 5.6; tibia x 3.8 – 4) pointed by BEIER (1947) and by ĆURČIĆ et al. (2005) – femur x 5.34 and tibia x 3.56 in 1♀. Morphologically, the examined specimens fit well in the species’ diagnosis as described by ĆURČIĆ et al. (2005). In comparison, *N. praecipuum* has thicker palpal femur (x 4.6) and tibia (x 3.1) (HEURTAULT, 1968). Compared to *N. biaricum* (as in ĆURČIĆ et al., 1993), IST trichobothrium is situated between ST and T in the studied two *N. blothroides* specimens (Fig. 8). IST is 2.7 times closer to the tip of the finger than to IB. The epistomial process of the carapace is relatively small but clearly pointed. The posterior eyes are flattened, spot-like. There are 6 setae in the posterior row. The chelicera bears 8 setae. The teeth of the fixed palpal finger stay dense but distinct almost to the base. To the middle, between B and SB trichobothria level, all teeth are pointed. The teeth of the movable finger stay relatively distinct and all are flattened from the finger tip to the base. The locality in Bulgaria is in fact the southernmost within the
known species range, situated south of the Danube. Thus, the species becomes subendemic to Romania. Finding of the species in beech litter (*Fagus sylvatica*) over a karstic scree close to Baile Herculane confirms the hypothesis “that it is in the phase of intense colonization of underground milieux” after ĆURČIĆ et al. (2005).

**Neobisium cf. labinskyi** Beier, 1937

**Material examined:** SE Bulgaria, Strandja Mt., Kondolovo, Distr. Malko Tarnovo, *Fagus orientalis*–*Rhododendron ponticum* litter, October 1998, N. Kodjabashev leg., 3 ♀♂ (Fig. 9) [NMNHS № 842]; SE Bulgaria, Strandja Mt., Kachula, Distr. Malko Tarnovo, pitfall traps in *Carpinus* spp. forest, 4.8-4.11.1999, V. Popov leg., 1 ♀ (Fig. 10-11) [NMNHS № 930]; SE Bulgaria, Strandja Mt., Kondolovo, Distr. Malko Tarnovo, *Fagus orientalis*–*Rhododendron ponticum* litter, September 1998, N. Kodjabashev leg., 1 ♀ [NMNHS № 1006].

**Measurements of 5 ♀♂:** Cephalothorax length 0.96-1.06; Pedipalps: Femur length 1.40-1.61, 1.41 (N. *vilcekii*), 1.43 (N. *birtum*); breadth 0.29-0.33, 0.31 (N. *vilcekii*), 0.29 (N. *birtum*); ratio 4.87-5.13, 4.55 (N. *vilcekii*), 4.93 (N. *birtum*); Tibia length 1.08-1.27, 1.05 (N. *vilcekii*), 1.08 (N. *birtum*); breadth 0.35-0.40, 0.35 (N. *vilcekii*), 0.35 (N. *birtum*); ratio 2.95-3.16, 3.04 (N. *vilcekii*), 3.09 (N. *birtum*); Chelal palm length 0.98-1.21, 1.13 (N. *vilcekii*), 1.19 (N. *birtum*); breadth 0.61-0.69, 0.61 (N. *vilcekii*), 0.58 (N. *birtum*); Chelal finger length 1.44-1.59, 1.38 (N. *vilcekii*), 1.37 (N. *birtum*).

**Remarks:** All examined specimens from Strandja Mt. have similar morphology, palpal measurements and ratios as *Neobisium birtum* Ćurčić, 1984 and to some extent as *Neobisium vilcekii* Krumpál, 1983. Originally, *N. labinskyi* is a large neobisiid with a femur length of 1.74-2 mm (x 4.8-5.1) and tibia length of 1.28 – 1.53 mm (x 3-3.1) (after BEIER, 1963). Since DASHDAMIROV & SCHAWALLER (1992) suggested the synonymy of *N. hirtum* (and possibly *N. vilcekii*) with *N. labinskyi*, the range of the body measurements of the latter was broaden out. Thus specimens with length of the femur ca. 1.40-1.50 mm could also be assigned to *N. labinskyii* s. lato. The IST trichobothrium of the fixed finger in the examined specimens stays between ST and T trichobothria but clearly closer to ST (Fig. 9). The group EST-ET-IT is just slightly distally located from the T-level. The epistome on the carapace is small but prominent (Fig. 11). The anterior eyes have slightly more prominent lenses than posteriors. The teeth of the fixed palpal finger are pointed, retroconical to the base. The teeth of the movable finger stay dense and rounded. The teeth proximally to SB are almost fully flattened (Fig. 9).

The presence of this species in Bulgarian Strandja Mt. is not surprising considering its transitional geographic position. The environmental conditions, humid deciduous forest composed of *Fagus orientalis*, *Carpinus betulus*, *Acer campestre*, *Rhododendron ponticum*, *Daphne pontica* and other plant species, favour the occurrence of species distributed in the Eastern Mediterranean and the Irano-Turanian region. Accumulation of further material from Bulgaria and from the Pontic mountains in Turkey along the southern Black Sea coast would shed more light on the intra- or interspecific morphologic variation within *labinskyi* species group, which at present seems heterogeneous.

**Neobisium moreoticum** Beier, 1931

**Material examined:** SE Bulgaria, Strandja Mt., Kondolovo, Distr. Malko Tarnovo, *Fagus orientalis*–*Rhododendron ponticum* litter, October 1998, N. Kodjabashev leg., 1 ♂, 2 ♀♀ [NMNHS № 841]; SE Bulgaria, Strandja Mt., Gramatikovo, Distr. Malko Tarnovo, pitfall traps, August 2000, N. Kodjabashev leg., 1 ♀ (Fig. 12) [NMNHS № 1004]; SE Bulgaria, Strandja Mt., Balgari,
Figs. 5-8. 5-6 *Larca lata*, male: 5 – right palpal hand, 6 – leg IV, scale lines 0.5 mm; 7-8 *Neobisium blothroides*, female (NMNHS BP № 87): 7 – left palp, 8 – palpal fingers, scale lines 1 mm
Figs. 9-13. *Neobium* cf. *labynskyi*, female (NMNHS № 842): 9 – right palpal hand, scale line 1 mm, 0.25 mm for the teeth; 10 – left palp, 11 – carapace, scale lines 1 mm (NMNHS № 930); 12-13 *Neobium moreoticum*, female: 12 – carapace, (NMNHS № 1004); 13 – left palp, scale line 1 mm (NMNHS № 1101)
Distr. Malko Tarnovo, Tisovitsa Reserve, alt. 300 m, *Fagus orientalis – Rhododendron ponticum* litter, 12.07.2002, B. Petrov leg., 1 ♂, 2 ♀♀, 5 nymphs [NMNHS № 1030]; SE Bulgaria, Strandja Mt., Primorsko, Distr. Burgas, cape Maslen Nos, alt. 80 m, litter of *Quercus cerris*, 19.4.2002, B. Petrov leg., 1 ♂, 1 ♀ [NMNHS № 1032]; SE Bulgaria, Strandja Mt., Primorsko, Distr. Burgas, Ropotamo Reserve, close to the mouth of Ropotamo River, alt. 20 m, litter of *Quercus spp.*, 21.4.2001, B. Petrov leg., 3 ♀♀ (Fig. 13) [NMNHS № 1101]; idem., Arkutino swamp, 29.4.2003, B. Petrov, 1♂ [NMNHS № 1065].

**Measurements of 2 ♂♂ and 8 ♀♀:** Cephalothorax length 0.88-0.92 (♂), 0.83-0.88 (♀); Pedipalps: Femur length 1.15-1.17 (♂), 1.09-1.23 (♀), 0.98 (TYPE); breadth 0.26 (♂), 0.23-0.27 (♀), 0.22 (TYPE); ratio 4.45-4.52 (♂), 4.38-5.01 (♀), 4.45 (TYPE); Tibia length 0.83-0.84 (♂), 0.83-0.86 (♀), 0.65 (TYPE); breadth 0.31 (♂), 0.29-0.31 (♀), 0.31 (TYPE); ratio 2.69-2.72 (♂), 2.69-2.87 (♀), 2.5 (TYPE); Chelal palm length 0.86-0.88 (♂), 0.83-0.96 (♀), 0.78 (TYPE); breadth 0.48-0.54 (♂), 0.46-0.54 (♀), 0.45 (TYPE); Chelal finger length 1.17-1.27 (♂), 1.19-1.27 (♀), 0.9 (TYPE).

**Remarks:** Limited and to certain extent inconsistent descriptions of this species are published in the literature. It was originally described from Southern Greece (Peloponnesus) by BEIER (1931). RAFALSKI (1949) has identified several specimens as *N. moreoticum* from Caucasus. The palpal measurements and ratios of his samples differ from those of the type series. This record has no pictures to compare the morphological identity. Another record from Greece (Santorini Island) was published by SCHMALFUSS & SCHAWALLER (1984). The morphology of the specimens from Strandja Mt. (Bulgaria) well fits the original Beier's description. The measurements and the ratios of the palps in 2 ♂♂ and 8 ♀♀ are slightly higher than those published by BEIER (1963). The IST trichobothrium of the fixed finger is exactly at the ST level on the movable one (in SCHMALFUSS & SCHAWALLER (1984) IST is proximally located) (Fig. 13).

**Neobisium peloponnesiacum** (Beier, 1928)

**Material examined:** NW Bulgaria, Vrachanska planina Mt., NP Vrachanski Balkan, Climbers' Home /Dom na alpinista above Vratsa town, alt. 420 m, under stones, 12.4.1998, S. Lazarov leg., 1♀ [NMNHS-BP № 301]; idem., 30.10.2000, B. Petrov leg., 1♂, 2♀♀ (Figs 14-15) [NMNHS № 924].

**Measurements of 1 ♂ and 3 ♀♀:** Cephalothorax length 0.998 (♂), 0.864-0.998 (♀); breadth 0.979 (♂), 0.96-1.094 (♀); Pedipalps: Femur length 1.286 (♂), 1.248 (♀), 1.15 (Beier’s TYPE); breadth 0.326 (♂), 0.326-0.346 (♀), 0.35 (TYPE); ratio 3.94 (♂), 3.61-3.83 (♀), 3.29 (TYPE); Tibia length 1.037 (♂), 1.018-1.037 (♀), 0.87 (TYPE); breadth 0.48 (♂), 0.461-0.488 (♀), 0.48 (TYPE); ratio 2.16 (♂), 2.09-2.21 (♀), 1.8 (TYPE); X 0.346 (♂), 0.355-0.384 (♀); Y 0.691 (♂), 0.614-0.653 (♀); ratio X/Y 0.50 (♂), 0.56-0.59 (♀); Chelal palm breadth 0.672 (♂), 0.634-0.768 (♀), 0.72 (TYPE); length 0.998 (♂), 1.133-1.19 (♀), 1.1 (TYPE); Chelal finger length 1.075 (♂), 1.056-1.133 (♀), 1 (TYPE).

**Remarks:** Together with *N. cephalonicum* and *N. reitteri*, *N. peloponnesiacum* is the largest neobisiid with prominent tibia of a Roncus type. The original description was based upon relatively large type series (26 adults and 4 nymphs) but considering the available morphometric data only few specimens were measured and further considered (BEIER, 1928; 1932; 1963). Our individuals are slightly larger in size and some palpal ratios differ from the published values. However the morphology of the examined specimens well fits the original Beier’s description. The carapace is broader than long, the epistome is small and pointed. The eyes are big and all four have prominent lenses. There are 14-15 setae of the posterior row. The palps are big and stout (Fig.
The tibia is clearly rounded and the X-Y ratio is 0.50-0.59 (cf. GABBUTT & VACHON, 1965). The IST trichobothrium stays slightly proximal from the middle of the finger, between SB and ST trichobothria (Fig. 14). The teeth of the fixed palpal finger are pointed, retroconical almost to the base. The teeth of the movable finger stay dense and rounded throughout. The teeth on the fixed finger of the chelicerae are almost equal in size, the galea is fully flattened. Since its first discovery, the species has never been reported out of Peloponnesus in Greece. The new localities broaden the range of the species with ca. 650 km northwards.

**Family Chernetidae**

**Allochernes bulgaricus** Hadži, 1940


Measurements of 3 ♂♂, 3 ♀♀ and 4 tritonymphs from Pirin Mt.: Body length 1.56-1.63 (♂), 1.80-1.95 (♀), 1.13-1.54 (T); Cephalothorax length 0.56-0.57 (♂), 0.58-0.61 (♀), 0.47-0.52 (T); Pedipalps: Femur length 0.47-0.52 (♂), 0.51-0.55 (♀), 0.35-0.39 (T); breadth 0.17-0.19 (♂), 0.16-0.18 (♀), 0.12-0.14 (T); ratio 2.42-2.98 (♂), 2.89-3.52 (♀), 2.71-3.13 (T); Tibia length 0.40-0.45 (♂), 0.45-0.49 (♀), 0.31-0.34 (T); breadth 0.17-0.19 (♂), 0.19-0.21 (♀), 0.14-0.16 (T); ratio 2.21-2.62 (♂), 2.33-2.48 (♀), 1.99-2.19 (T); Chelal palm length 0.42-0.43 (♂), 0.45 (♀), 0.33-0.35 (T); breadth 0.22-0.23 (♂), 0.24-0.26 (♀), 0.26-0.29 (T); Chelal finger length 0.32-0.36 (♂), 0.36-0.39 (♀), 0.26-0.29 (T).

Remarks: Originally the species was described as new to the science from Vitosha Mt. above Sofia (HADŽI, 1940). With regard to the size, *A. bulgaricus* is amongst the smallest species of the genus. Besides living under tree barks it was found to occur in ant-nests as many other congeners. The new localities are located in two mountains (Pirin and Rila), which broaden our knowledge on the distribution of this endemic species.

**Allochernes wideri** (C. L. Koch, 1843)

Material examined: SW Bulgaria, Pirin Mt., between Pirin and Melnik, tree hollow of *Platanus* sp., 2.10.1999, F. Šťáhlavský leg., 1 ♂; SW Bulgaria, Pirin Mt., Sugarevo, Distr. Sandanski, tree hollow of *Carpinus* sp., 3.10.1999, F. Šťáhlavský leg., 1 ♂, 1 ♀, 2 tritonymphs; SW Bulgaria, Pirin Mt., Lílyanovo, Distr. Sandanski, tree hollow of *Platanus* sp., 7.10.1999, F. Šťáhlavský leg., 1 ♀; idem., 8.10.1999, 1 ♂ (Fig. 16), 3 tritonymphs; SE Bulgaria, Black Sea coast, 3 km west of Tsarevo, Distr. Burgas, tree hollow of *Quercus* sp., 26.6.1999, J. Hájek leg., 1 ♀.

Measurements of 2 ♂♂, 4 ♀♀ and 5 tritonymphs: Body length 2.02-2.30 (♂), 2.09-2.59 (♀), 1.31-1.67 (T); Cephalothorax length 0.66 (♂), 0.71-0.75 (♀), 0.53-0.60 (T); Pedipalps: Femur length 0.58-0.65 (♂), 0.73-0.75 (♀), 0.45-0.51 (T); breadth 0.23-0.25 (♂), 0.25-0.26 (♀), 0.16-0.19 (T); ratio 2.51-2.60 (♂), 2.87-3.02 (♀), 2.59-2.62 (T); Tibia length 0.56 (♂), 0.65-0.68 (♀), 0.38-0.43 (T); breadth 0.22-0.24 (♂), 0.25-0.26 (♀), 0.17-0.20 (T); ratio 2.30-2.50 (♂), 2.56-2.62 (♀), 2.14 (T); Chelal palm length 0.50-0.51 (♂), 0.55-0.60 (♀), 0.41-0.43 (T); breadth 0.30-0.31 (♂), 0.34-0.35 (♀), 0.20-0.25 (T); Chelal finger length 0.44-0.47 (♂), 0.52-0.56 (♀), 0.30-0.36 (T).
Figs. 14-17. 14-15 *Neobisium peloponnesiacum*. 14 – left palpal hand of a female, scale line 0.5 mm (NMNHS № 924); 15 – left palp of a male, (NMNHS № 924); 16 – leg IV of a female *Allochernes wideri*; 17 – leg IV of a female *Dinocheirus panzeri*, scale line 0.5 mm
Remarks: The species occurs in many European countries (Harvey, 1991). It is a common dweller of tree hollows (Šťáhlavský, 2001). *A. wideri* was firstly discovered in Bulgaria in the Eastern Rhodopes Mt. (Petrov, 2004) but the present localities indicate wider distribution in the country.

*Dinocheirus panzeri* (C. L. Koch, 1837)

Material examined: SW Bulgaria, Rupite, volcanic hill Kozhuh, Distr. Petrich, alt. 150 m, tree hollow of *Juglans* sp., 1.10.1999, F. Šťáhlavský leg., 1 ♂, 1 ♀ (Fig. 17); SW Bulgaria, Pirin Mt., Lilyanoovo, Distr. Sandanski, alt. 600 m, tree hollow of *Platanus orientalis*, 7.10.1999, F. Šťáhlavský leg., 3 ♂, 7 ♀, 4 tritonymphs, 1 protonymph; NE Bulgaria, Vinitsa, Distr. Varna, Botanical Gardens, alt. 20 m, under bark, 18.8.2003, P. Mitov leg., 1 tritonymph [NMNHS № 1113].

Measurements of 4 ♂, 8 ♀, 4 tritonymphs and 1 protonymph: Body length 2.05-2.42 (♂), 1.8-2.98 (♀), 1.63-2.01 (T), 1.69 (P); Cephalothorax length 0.73-0.81 (♂), 0.75-0.88 (♀), 0.63-0.70 (T), 0.39 (P); Pedipalps: Femur length 0.62-0.69 (♂), 0.65-0.70 (♀), 0.46-0.51 (T), 0.21 (P); breadth 0.26-0.28 (♂), 0.25-0.28 (♀), 0.16-0.19 (T), 0.10 (P); ratio 2.42-2.50 (♂), 2.43-2.69 (♀), 2.18-2.32 (T), 2.13 (P); Tibia length 0.62-0.68 (♂), 0.62-0.68 (♀), 0.44-0.48 (T), 0.20 (P); breadth 0.28-0.30 (♂), 0.25-0.26 (♀), 0.23-0.24 (T), 0.11 (P); ratio 2.19-2.33 (♂), 2.19-2.44 (♀), 1.94-2.05 (T), 1.73 (P); Chelal palm length 0.59-0.63 (♂), 0.61-0.63 (♀), 0.48-0.53 (T), 0.26 (P); breadth 0.44-0.47 (♂), 0.38-0.43 (♀), 0.31 (T), 0.14 (P); Chelal finger length 0.52-0.58 (♂), 0.52-0.57 (♀), 0.39 (T), 0.17 (P).

Remarks: *D. panzeri* is a common European species, which can be found under tree bark and in tree hollows (e.g. Šťáhlavský, 2001). Its first discovery in Bulgaria is not unexpected considering the broad range of this species.

Fig. 18. Map of the new localities
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Нови видове певдоскорпиони (Arachnida: Pseudoscorpiones) за фауната на България

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(Резюме)

Псевдоскорпионите са все още слабо проучени в България. В настоящата статия съобщаваме осем нови вида за фауната на страната – Chthonius orthodactylus, Neobisium blothroids, N. cf. labinskyi, N. moreoticum, N. peloponnesiacum, Dinocheirus panzeri, Mundochthonius styriacus и Larca lata. Последните 3 вида принадлежат към 3 рода и само семейство, неизвестни до сега у нас. Семейство Larcidae е ново за страната. Публикуваме и нови данни за разпространението на ендемичния Allocernes bulgaricus и за вида A. wideri. С новите находки броят на установените видове псевдоскорпиони в България нараства на 59 вида, които принадлежат към 10 семейства и 24 рода. Приложени са илюстрации на някои от морфологичните белези, морфометрични данни за всеки от видовете и карта с установените находища.
Ценна книга за българската природа

Петър БЕРОН


В авторитетната поредица Monographiae biologicae, издавана в Нидерландия, се появи нова книга. Идеята да се издаде сборник върху биогеографията и екологията на България беше на проф. Виктор Фет, но реализацията бе на български зоолози и ботаници. Подбрани бяха определени теми, които очертават облика на българската природа. Между 23-те статии в сборника са тези, посветени на бозайниците, птиците, земноводните, влечугите, рибите, молуските, насекомите (Odonata, Dermaptera, Mantodea, Blattodea, Isoptera, Orthoptera, Coleoptera), многоножките, скорпионите, опилионите, някои паяци, и някои протозои. Статиите, написани от добри български специалисти (А. Попов, З. Боев, В. Попов, Б. Милчев, Б. Петров, Т. Стефанов, З. Хубенов, В. Бешовски, М. Маринов, Б. Георгиев, В. Сакалян, М. Лангуров, Б. Митов, Хр. Делчев), съдържат съвременен и компетентен синтез на състоянието на изследванията върху съответната група, основната литература и е очертано консервационното й значение. Само статията за скорпионите е от чуждестранни автори – В. Фет и М. Е. Солеглад. Обзори са направени на сухоземната пещерна фауна (П. Берон), стигофауната (Ив. Пандурски) и безгръбначните на Черно море (В. Големански).

Книгата започва с обик преглед на биогеографията на България (А. Попов и В. Фет) и завършва с три ботанически статии: Флорогеографски елементи (Д. Пеев, М. Делчева), Растителност и фитогеография (Т. Мешинев) и Ландшафти и климат в България (В. Великов, М. Стоянова). Като цяло можем да оценим този сборник, издание в авторитетна серия, в която рядко намират място книги за отделни страни, като убедително представя на богатото разнообразие на България и на качествата на българските биолози. Разбира се, заглавието на сборника е много по-широко от съдържанието му, но може би някога ще има втори такъв сборник за многоот оставащи групи животни и растения.