

# *Neobisium (Ommatoblothrus) epirensis* sp. nov., a new troglobiotic pseudoscorpion from Epirus (Arachnida: Pseudoscorpiones: Neobisiidae)

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**Samenvatting.** *Neobisium (Ommatoblothrus) epirensis* sp. nov., een nieuwe troglobionte pseudoscorpion uit Epirus (Arachnida: Pseudoscorpiones: Neobisiidae)  
*Neobisium (Ommatoblothrus) epirensis* sp. nov., een nieuwe troglobionte pseudoscorpion uit Epirus, wordt beschreven en vergeleken met de verwante soorten.

**Résumé.** *Neobisium (Ommatoblothrus) epirensis* sp. nov., un nouveau pseudoscorpion troglobie d'Épire, (Arachnida: Pseudoscorpiones: Neobisiidae)  
*Neobisium (Ommatoblothrus) epirensis* sp. nov., une nouvelle espèce de pseudoscorpion troglobie d'Épire, est décrite et comparée aux espèces voisines connues.

**Zusammenfassung.** *Neobisium (Ommatoblothrus) epirensis* sp. nov., eine neue Pseudoscorpion aus Epiros (Arachnida: Pseudoscorpiones: Neobisiidae)  
*Neobisium (Ommatoblothrus) epirensis* sp. nov., eine neue Pseudoscorpion aus Epiros, wird beschrieben und mit den nahverwandten Arten verglichen.

**Key words:** Pseudoscorpiones – *Neobisium (Ommatoblothrus) epirensis* – new species – Epirus – Greece.

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## Introduction

The subgenus *Ommatoblothrus* Beier, 1956 was erected for troglobitic, depigmented *Neobisium* spp. with elongated extremities and with (reduced) eyes present (Beier 1956). The movable finger of the pedipalp has a serrated elevation or a single tooth. In 1963, only 5 species of this subgenus were known (Beier 1963). Extensive biospeleology has led to the discovery of a number of new species since Beier's publication. Harvey (1990) mentions 17 species and recently *N. (Ommatoblothrus) schawalleri* Henderickx, 2000 (Henderickx 2000) was added to the list. *N. spilianum* Schawaller, 1985, not previously defined as an *Ommatoblothrus*, should be included in this subgenus.

In 1983, a female specimen of a *Neobisium (Ommatoblothrus)* species was collected by dr. Claudio Bonzano in Epirus (15.VIII.1983, Panaghia-Kipina, cave "Spilia Monasteri"). That specimen, previously examined by Schawaller (1985), was lent to us, and is described here as a new species since its morphological characters distinguish it from all examined *Neobisium (Ommatoblothrus)* species (see differential diagnosis).

## *Neobisium (Ommatoblothrus) epirensis* sp. nov.

Holotype ♀, Epirus, Panaghia-Kipina, cave "Spilia Monasteri", 15.VIII.1983, leg. C. Bonzano, in coll. Staatliches Museum für Naturkunde, Stuttgart (SMNS 1003) (fig. 1).

## Description (all measurements in mm, index is length/width).

Total length (excluding celicerae) 4.45 mm.

Opisthosoma brown yellow, poorly pigmented, carapace and pedipalps slightly darker, sclerotised.

Carapace (excluding epistome) (1.12 × 1.10 mm), glossy, with 22 setae, 4 on the anterior, 6 on the posterior margin. Setal formula 4, 6, 6, 6. Epistome right-angled triangle-shaped, pointed (fig. 2c). Two pairs of reduced eyes, only the first pair with flat lenses, the second pair reduced to whitish spots.

Abdomen of usual *Neobisium* facies, pale. Tergal chaetotaxy 6, 6, 6, 9, 9, 9, 10, 10, 10, 9; terminal segment with 16+4 setae.



Fig. 1: *Neobisium (Ommatoblothrus) epirensis* sp. nov., holotype ♀, habitus.

Celiceræ (Fig. 2a, b) with 6 setae on the left hand, 7 setae on the right. Movable finger with 1 seta, median large tooth,  $L=0.54$  mm. Galea pronounced, blunt, rounded. Length of hand + finger: 0.82 mm, hand without finger ( $0.43 \times 0.43$  mm), index 1. Flagellum with eight blades, two distal ones pectinated, the remaining acuminate blades smooth and decreasing in size proximally (Fig. 4).

Pedipalps slender and elongated; trochanter ( $0.79 \times 0.36$  mm), index 2.19; femur ( $2.05 \times 0.31$  mm), index 6.61 and  $1.31\times$  longer than tibia; tibia ( $1.56 \times 0.34$  mm), index 4.58. Length of hand + fixed finger: 3.74 mm, hand with stem and without finger ( $1.40 \times 0.66$  mm), index 2.12. Fixed finger ( $2.34 \times 0.19$  mm), index 16.7 ( $0.95 \times$  the length of the movable finger), with 112 teeth. Movable finger ( $2.45 \times 0.15$  mm), index 16.3, with 101 teeth. Both fingers with terminal claw. Small teeth on both fingers, irregularly altered long and short.

Trichobothrium **ist** is placed distally from the middle of the fixed finger, between **st** and **t**, slightly distal from **st**.

Leg I: trochanter ( $0.34 \times 0.21$  mm) index 1.61; femur: basifemur ( $1.12 \times 0.13$  mm) index 8.614, telofemur ( $0.72 \times 0.14$  mm) index 5.14; tibia ( $0.81 \times 0.12$  mm) index 6.75; metatarsus ( $0.50 \times 0.10$  mm) index 5; telotarsus ( $0.64 \times 0.10$  mm) index 6.4.

Leg IV: trochanter ( $0.69 \times 0.29$  mm) index 2.37; femur (basifemur  $L=0.77$  mm + telofemur  $L=0.96$  mm) =  $1.73$  mm  $\times 0.34$  mm, index 5.08; tibia ( $1.50 \times 0.16$  mm) index 9.37; metatarsus ( $0.66 \times 0.14$  mm) index 4.71; telotarsus ( $0.91 \times 0.10$ ) index 9.1.

Male unknown.

*Phegea* **28** (3) (I.IX.2000): 84

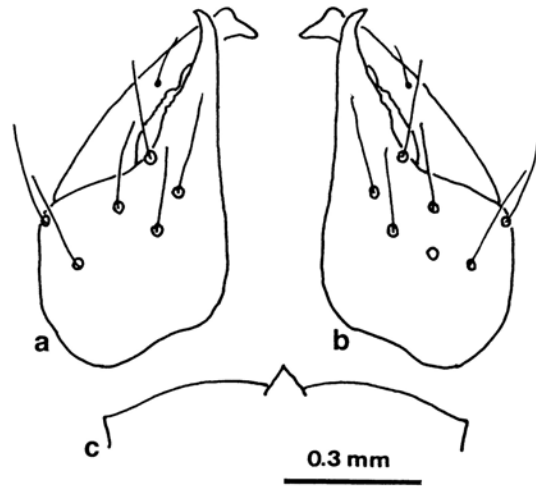


Fig. 2a: *Neobisium (Ommatoblothrus) epirensis* sp. nov., holotype ♀, left celicera, 2b: right celicera, 2c epistome.

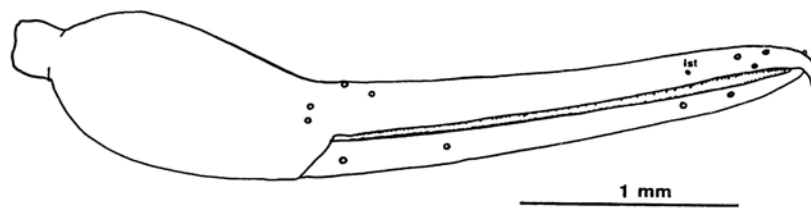


Fig. 3: *Neobisium (Ommatoblothrus) epirensis* sp. nov., holotype ♀, hand of right pedipalp.



Fig. 4: *Neobisium (Ommatoblothrus) epirensis* sp. nov., holotype ♀, flagellum.

#### Differential diagnosis

Beier (1963) recognises two groups among the few species of the subgenus *Ommatoblothrus* that were known in 1963. One group possesses a wide blunt tooth on the subdistal side of the celiceral finger and 4 setae on the rear row of the carapace, the other shows a serrated thin elevation on the distal half of the movable celiceral finger and 6–8 setae on the rear row of the carapace. The species from Epirus has the wide blunt tooth

**and** 6 setae on the rear row of the carapace, and therefore does not fit in either one of these groups.

In the table of Heurtault (1979), a division between species with 6 setae and species with 7 setae on the hand of the chelicera is made. The new species has 6 setae on the right hand and 7 setae on the left...

The table of Gardini & Rizzerio (1986) includes most of the recently described species and is based on more characters. According on this table, *N. (O.) epirensis* sp. nov. should be placed near the Italian *N. (O.) battoni* Beier, 1966.

In *N. (O.) battoni* the trichobothrium **st** is approximately 2× distal from **sb** than from **t**. In *N. (O.) epirensis* sp. nov. **st** is approximately 5× distal from **sb** than from **t**. The pedipalps of *N. (O.) battoni* are smaller. The index peripalpfemur/carapax is 1.62 in *N. (O.) battoni*, but 1.83 in *N. (O.) epirensis* sp. nov.

The shape of the hand of the Greek *N. spilianum* Schawaller, 1985 is similar to that of the new species, but the tergal chaetotaxy of *N. spilianum* (8,8,10,10,10,12,12,8,6,6) differs completely from *N. (O.) epirensis* sp. nov. In *N. spilianum* the trichobothrium **ist** is placed more distally, opposite to **t**, in *N. (O.) epirensis* sp. nov. **ist** is placed almost opposite to **st**.

#### **Biology and ecology**

*Ommatoblothrus* on Greek islands seems rare and scarcely dispersed. The populations are isolated from the ones in Hungary, Romania, Yugoslavia, and the Greek mainland. The reason for such a scattered distribution is not clear yet.

#### **Distribution**

No *Neobisium (Ommatoblothrus)* species were previously known from Epirus. The species is known from the type locality (Epirus, cave "Spilia Monasteri", Panaghia-Kirpina) only.

#### **Etymology**

The species is named after the region where the type locality is situated, Epirus.

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