

# A New Cave Species, *Alpioniscus gueorguievi* n. sp. (Isopoda, Oniscidea, Trichoniscidae) from Continental Greece

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**Abstract:** A new species of Isopoda of the family Trichoniscidae – *Alpioniscus gueorguievi* n. sp. is described. The species was found in the north-west part of continental Greece. In some characteristics it is near to *Alpioniscus vardarensis* (Buturovic, 1939) and has a certain variation on the endopodite and pleopod-exopodite I structure, as well as on the form of the pleopod-exopodite II, pereopod-carpopodite I and pereopod-meropodite VII. It has some similarity to *Alpioniscus tracicus* (Andreev, 1986) and is clearly distinct by the different structure of pereopod-carpopodite I, pereopod-meropodite VII and pleopod-endopodites I and II. New data on the distribution of the genus *Alpioniscus* in Greece are reported.

**Key words.** Isopoda, Trichoniscidae, *Alpioniscus*, new species, cave, Greece

## Introduction

At first the genus *Alpioniscus* in Greece was mentioned by FRANKENBERGER (1939). He reported on the presence of a new genus and species *Helenonethes weidovskii* collected from caves in the surrounding area of Naoussa. VANDEL (1946) found out that the new genus *Helenonethes* belongs actually to the genus *Alpioniscus* and should be mentioned as *Alpioniscus weidovskii* (Frankenberger, 1939). Later, the contributions of VANDEL (1958, 1964), SCHMALFUSS (1981) and ANDREEV (1984, 1986) were published. At present six species of the genus *Alpioniscus* in Greece are known. Most of these are registered from their type localities only.

## Material and Methods

A new isopod species of the genus *Alpioniscus* beside other materials was found by the Bulgarian biospeleologist Dr. Petar Beron during his cave studies in Northwest Greece. The material was collected and preserved in 70% alcohol. Traditional methods such as binocular and microscope were used for the study. The holotype of the new species was dissected and preserved in glycerin gelatine.

The holotype and the paratypes are deposited

at the collections of the National Museum of Natural History in Sofia.

### Description

***Alpioniscus gueorguievi* n. sp.**

**Type locality:** Greece, Cave Arcudaspillo, village Loutraki, Nomos Pellas. 03.11.2007, P. Beron leg.

**Holotype:** adult male with a length of 7 mm.

Paratypes: six male specimens with a length of 5-8 mm; 16 females with a length of 5-9 mm; three females with marsupium with 7 to 9 eggs.

Coloration: white, unpigmented.

Eye apparatus: missing.

Ecological category: Troglobionte

Tegument characters: Cephalon and teguments covered with granules, better developed in anterior part of body, diminishing backwards. Over vertex, three lines of granules located, 1 line on front and two lines on basal part of cephalon. Pereon I-VII equipped with two lines of granules, located in basal part of segments. Pleional segments and telson flat.

**Appendices.** Antennae: Antenna's base consists of five articles, the first three relatively short. Articles IV and V longer and of almost the same length. Article IV with three granules. Article V with one line of 5 granules. Flagellum with 6-7 seg-

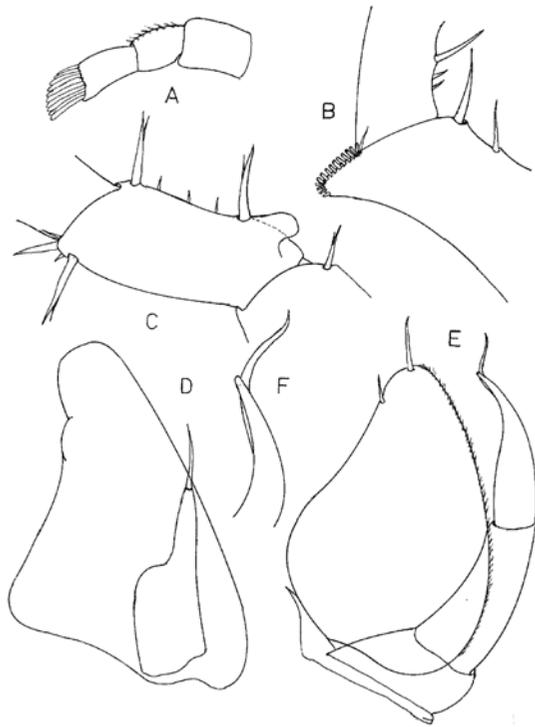


Fig. 1. *Alphoniscus gueorguievi* n. sp. Holotype ♂. A – antennula; B – pereopod I – carpopodite; C – pereopod VII – meropodite; D – pleopod I; E – pleopod II; F – pleopod II – endopodite – apex enlarged.

ments. Distal article of flagellum has a tuft of long fine bristles.

Antennula (Fig. 1, A): Consists of three segments, distal one with 8-9 aesthetascs.

**Male sexual characters.** Carpopodite of Pereopod I (Fig. 1, B): Possessing one line of hyaline sticks in distal side. Meropodite of Pereopod VII has in base a strong excrescence parallel with segments axe. Bord sternale possesses three strong thorns and one short thorn. Distal article with three thorns.

Pleopod I (Fig. 1, D): Exopodite triangular with slightly concave external side, internal side

convex. Distal part truncated with rounded edges. Endopodite double-articulated, short, less than one third of exopodite length. First endopodite article enlarged in its base and nearly rectangular with strongly narrowed distal part. Second article relatively long and fine.

Pleopod II (Fig. 1, E): Exopodite pear-shaped with two thorns in distal part. Outer board nearly straight. Internal side convex with line of very fine bristles. Exopodite with three segments. Distal article longer than articles I and II and strongly narrowed in its distal part, while only apex very fine and bended outward.

**Etymology.** The new species was named in memory of the prominent Bulgarian zoologist and biospeleologist Vassil Guergiev.

**Remarks.** The new species *Alphoniscus gueorguievi* n. sp. has certain characters such as meropodite of pereopode VII and endopodite of pleopod II that make it close to *Alphoniscus vardarensis* (BUTUROVIC, 1954). However the new species clearly varies in the different pleopod I and the form of the II pleopod-exopodite, as well as in the carpopodite of pereopod I. On the other hand the new species shows some similarity to the species *Alphoniscus thracicus* Andreev, 1986 in the form of the exopodite of pleopod I, but the endopodite is rather different, and partially in the form of endopodite of pleopod II. The carpopodite of pereopod I and the meropodite of pereopod VII of these species are also different.

*Alphoniscus henroti* Vandel, 1964

Location: Greece. Magnesia. Othris Mts., Nerospilia cave, Pteleus Village, 14.07.2007, 4 ♂, 7 ♀. P. Beron leg.; Magnesia. Othris Mts., Cave Metaxóspileo, Pteleus Village, 20.07.2007. 9 ♂, 28 ♀, P. Beron leg.

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