

*Lauterbornia* 55: 113-115, D-86424 Dinkelscherben, 2005-08-19

## ***Echinogammarus thoni* (Schäferna, 1922) – a new gammarid species (Crustacea, Amphipoda) in Serbia & Montenegro**

Michał Grabowski and Vladimir Pešić

With 1 figure

**Keywords:** *Echinogammarus*, Amphipoda, Crustacea, Serbia, Montenegro, first record, morphology, distribution

**Schlagwörter:** *Echinogammarus*, Amphipoda, Crustacea, Serbien, Montenegro, Erstfund, Morphologie, Verbreitung

Five species of the genus *Echinogammarus* Stebbing, 1899 have been identified in coastal and inland waters of Serbia & Montenegro until now. In 2004, another species, *E. thoni*, has been found in the Canj stream near the town of Bar in the southern part of Montenegro; it is the first record in this country. Formerly the species was known only from Croatia and Bosnia & Hercegovina.

### **1 Introduction**

*Echinogammarus* Stebbing, 1899 is a large genus, represented by some 50 species in European fauna, and comprising about 20 % of all Gammaridae species known from the continent. Members of the genus are epigean and inhabit marine, brakish and fresh water, predominatly in Southern Europe. In former Yugoslavia the genus was represented by 9 species. Five of them were found in Serbia & Montenegro, occuring mostly in brackish coastal, or fresh waters with high Ca-ion content (Karaman 1974, Pinkster 1993).

### **2 Materials and methods**

Amphipoda sample was taken on 8<sup>th</sup> of August 2004, in the Canj stream at the village Djurmani near Sutomore, in the coastal region of southern Montenegro (Geographical coordinates: N 42° 10', E 019° 02', UTM code: CM37) (Fig. 1). Sampling was done with hand net on the gravel and stony bottom of the stream. The gathered Gammaridae were sorted, preserved in 75 % ethanol and subsequently identified according to Pinkster (1993). The identified material remains in the collection of the Department of Invertebrate Zoology & Hydrobiology, University of Lodz.

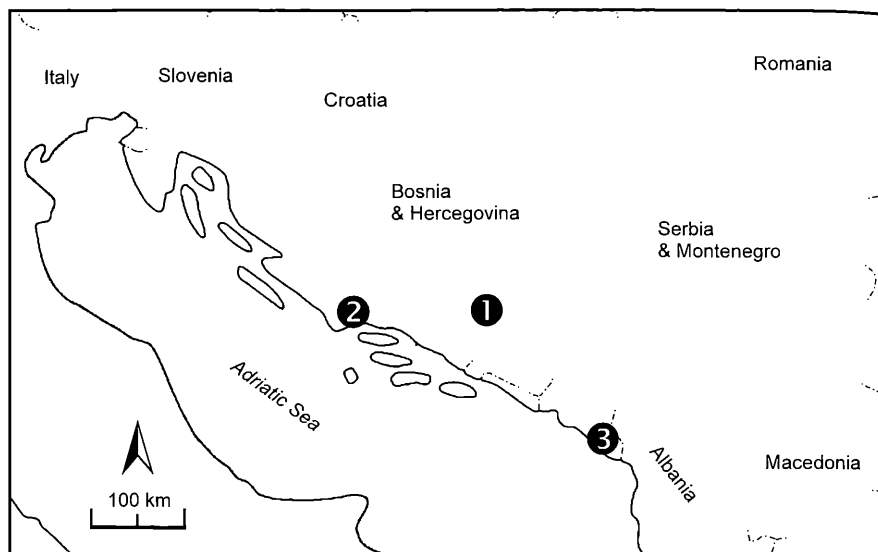


Fig. 1: Records of *Echinogammarus thoni* along Dalmatian coast. Previous: 1 = Deransko Lake and Neretva River, 2 = Jadro River. Present: 3 = Canj stream

### 3 Results

Family: Gammaridae Leach, 1813

Genus: *Echinogammarus* Stebbing, 1899

Type species: *Echinogammarus berillioni* (Catta, 1878)

*Echinogammarus thoni* Schäferna, 1922

All 13 Gammaridae in the sample were classified as *E. thoni*. The species was represented by both sexes. Female mean body length was 8.5 mm (range 7.5-9 mm,  $n = 5$ ). Male mean body length was 10.3 mm (range 7.5-14 mm,  $n = 8$ ). Sex ratio was 1.6 in favour of males. All females were sexually mature with fully developed brood chambers. In one case chamber was filled with 16 eggs of 3<sup>rd</sup>-4<sup>th</sup> stage. In two cases chambers were empty, and in the other two cases contained only one juvenile left in each.

### 4 Discussion

The present locality of *E. thoni* is its first record in Serbia & Montenegro. The species was described by Schäferna in 1922, from Deransko Lake near the mouth of Neretva River, at the vicinity of present border between Bosnia & Herzegovina and Croatia. Later on the species was found only in the drainage basin of Neretva river in Bosnia & Herzegovina, as well as in Jadro River (near

Split) in Croatia (Fig. 1). Thus, the present finding stretches the species distribution range of some 150 km south-east of the Neretva river system.

It is worth to mention that Karaman (1974) reported the species also from southern France, although morphological studies upon geographical variability of *E. thoni* conducted by Pinkster and Platvoet (1986) resulted in erecting the new species, *E. cyrtus* Pinkster & Platvoet, 1986, grouping the French populations.

Among other European members of the genus, *E. thoni* is characteristic for the presence of distinctly compressed dorsal elevations, forming a kind of keel on the last mesosome, all metasome and the first two urosome segments. From the most similar *E. cyrtus* it may be distinguished by presence of long setae on segments 4 and 5 of pereopods 5 to 7 (Pinkster 1993, Pinkster & Platvoet 1986).

All morphological features of the studied individuals fit well within the species characteristics given by Pinkster (1993). The only differences are less pronounced dorsal elevations, and flagellum of antenna 2 slightly longer than it was described in the mentioned paper. However we could attribute that to intraspecific, environmental or geographical variability.

More extensive faunistic investigation along the eastern Adriatic coast will probably result in more findings of *E. thoni* in small karstic streams, that are very common in this area.

## Acknowledgements

Thanks are due to prof. Krzysztof Jażdżewski (University of Lodz, Poland) for verifying identification of the material.

## References

- Karaman, G. S (1974): Catalogus faunae Jugoslaviae. III/3 Crustacea Amphipoda.- Ljubljana, Yugoslavia
- Pinkster, S. (1993): A revision of the genus *Echinogammarus* Stebbing, 1899, with some notes on related genera (Crustacea, Amphipoda).– *Memorie del Museo Civico Di Storia Naturale* (IIa serie), Sezione Scienze Vita (A. Biologia) 10: 1-185, Verona
- Pinkster, S. & D. Platvoet D. (1986): Remarks on the identity of *Echinogammarus thoni* (Schäferna, 1922) with description of a new species, *Echinogammarus cyrtus*, from Southern France (Crustacea, Amphipoda).– *Bulletin of the Zoological Museum of the University of Amsterdam* 10(20): 173-181, Amsterdam
- Schäferna, K. (1922): *Amphipoda balcanica*.– *Mémoires de la Societe royale des Sciences de Bohême*, Prague for 1921-1922 12: 1-111, Prague

*Addresses of the authors:* Dr. Michał Grabowski, e-mail: [michalg@biol.uni.lodz.pl](mailto:michalg@biol.uni.lodz.pl), Department of Invertebrate Zoology & Hydrobiology, University of Lodz, Banacha 12/16, 90-237 Łódź, Poland. Dr. Vladimir Pešić, e-mail: [pesicv@cg.yu](mailto:pesicv@cg.yu), Department of Biology, Faculty of Sciences, University of Crna Gora, Cetinjski put b.b., 81000 Podgorica, Crna Gora, Serbia and Montenegro

# ZOBODAT - [www.zobodat.at](http://www.zobodat.at)

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Lauterbornia](#)

Jahr/Year: 2005

Band/Volume: [2005\\_55](#)

Autor(en)/Author(s): Grabowski Michal, Pesic Vladimir

Artikel/Article: [Echinogammarus thoni \(Schäferna, 1922\) - a new gammarid species \(Crustacea, Amphipoda\) in Serbia & Montenegro. 113-115](#)