

# ANNOTATIONES

## ZOOLOGICAE et BOTANICAE

---

SLOVENSKÉ NÁRODNÉ MÚZEUM - PRÍRODOVEDNÉ MÚZEUM

---

December 2003

No. 225

### JAERA DANUBICA SP. N. (CRUSTACEA, ISOPODA, ASELLOTA) FROM THE DANUBE IN BRATISLAVA

JÁN BRTEK

**Abstract:** The only species from the genus *Jaera* LEACH known from the Danube was *Jaera istri* VEUILLE till now (in the previous publications under the erroneous determination as *Jaera nordmanni* RATHKE and *Jaera sarsi* VALKANOV). In the present paper a new species – *Jaera danubica* sp. n. – from the river Danube in Bratislava is described.

**Key words:** *Jaera danubica* sp. n., Crustacea, Danube, Slovakia.

#### Introduction

The first information regarding the occurrence of the genus *Jaera* in the middle Danube and in the river Tisza in Hungary published DUDICH (1930). The author determined found species as *Jaera nordmanni* RATHKE. KESSELYÁK (1938) elaborated the genus *Jaera* and classified this Danubian species as *Jaera sarsi* VALKANOV. His determination was accepted by another from Hungary, Slovakia, Austria and Germany (e.g. DUDICH, 1947, BRTEK, 1953, STROUHAL, 1939, KOTHÉ, 1968).

VEUILLE (1979) in his revision of the genus *Jaera* found the determination of the Danubian species *Jaera sarsi* to be incorrect, and described it as a new species *Jaera istri*.

In my former collections of the genus *Jaera*, collected from the Slovak part of the Danube, I have discovered among the 52 specimens of *Jaera istri* (Plate I, fig. 1 – 5, Plate II, fig. 8 – 13) one male and two females of a new species, which I named after its discovery site:

*Jaera danubica* sp. n.

Plate I, fig. 6 – 7

Plate II, fig. 1 – 7

**Holotype:** male, 1.6 mm (ev. number VII/a-5462 a+b), Slovakia, Bratislava, river Danube, 13. VIII. 1986, J. Brtek leg. **Alotype:** female, 2.0 mm (ev. number VII/a-5463), same data. **Paratypes:** 1 female, same data, 5 females, Slovakia, Bratislava, river Danube, 24. VI. 2003, J. Brtek and V. Janský leg. All in coll. Hornonitrianske múzeum, Prievidza, Slovakia. One male and 1 female, Slovakia, Bratislava, river Danube, 24. VI. 2003, J. Brtek and V. Janský leg., in coll. Slovak National Museum – Natural History Museum, Bratislava, Slovakia. (Holotypus on two slides, prepared in the PVAL, a = whole body, b = the pleopods set apart).

**Type locality:** The river Danube in Bratislava. 1. The Danube in Bratislava – Petržalka, river km 1867.5 right side (13. VIII. 1986). 2. The side arm type Parapotamal river km 1872.5 of the river Danube at Bratislava – Karlova Ves (24. VI. 2003). The river bed at both places was covered with gravel, small pebbles, and sporadic bigger stones.

**Description:** The sudden division of the body into the more narrow anterior part (the head and four anterior segments of the pereion) and the wider posterior part (the three hind segments of the pereion and the pleotelson (Plate II, fig. 1)) is characteristic of both sexes.

In the male (Plate I, fig. 7): the so-called praeoperculum (Plate II, fig. 2) (the first pair of pleopods grown together) is anchor-like, with its distal outward corners drawn out and only weakly bowed towards the basis. The second pleopods (Plate II, fig. 3 – 4) are divided mutually, their large flat propodit is overhanging the praeoperculum by its sides, and together they are forming the so-called operculum (covering the remaining pleopods). Exopodit of this pleopod (reminding the distal prominence of the propodit) is wide rounded, with the broad basis, indistinctly separated from the propodit and a little bent towards the inner side: its outer distal end is tapering outwards into the distinct tip. Endopodit of this pleopod is growing from the centre of the inner side of the propodit. Its basal part is trunk-like, S-shaped: bent first towards the basis, than backwards distally, with its branches close folded up. Its distal part is exceptionally narrowed and whips shape drawn, arched outwards and reaching behind the outer tip of the exopodit. The exopodit of the third pair of pleopods (Plate II, fig. 5) is tapered distally, with the moderate concave outer and convex inner margin. Both margins are provided by the row of the short very fine hair. Endopodit (as the endopodits of all other pleopods) is growing behind the exopodit: it is expressively shorter than the exopodit, flattened and with the rounded top. (On all pleopods the endopodits are alike in the form, and diminish in the direction towards the last pair). On the fifth (last) pair of pleopods (Plate II, fig 7) only the endopodit is developed. The exopodit of the fourth pair (Plate II, fig. 6) is even more tapered, sickle-shaped, bent inwards: its both margins are provided by the dense row of the short and very fine hair.

In the female (Plate I, fig. 6): the operculum (the first pair of pleopods grown together to the perfectly united wide plate) is covering the remaining pleopods (from the third to the fifth pair: the second pair is undeveloped). Its breadth is a little greater than its length

(roughly 1.2 : 1). The exopodit of the third pair of pleopods is different from the male: it is more slender, having its both margins sickle-shaped, bent inwards, with the tip slightly bent outwards. Exopodit of the fourth pleopod is of similar form and ciliation as the third, but it is smaller and more slender.

Differences between the Danubia species *Jaera istri* VEUILLE and *Jaera danubica* sp. n.: The most marked feature between both species is the contour of their body: regularly oval in *Jaera istri*, visibly divided into the more narrow anterior part and the wider posterior part in *Jaera danubica*. The operculum of the female is a little more narrow (1 : 0.9) in *Jaera istri*, a little wider (1 : 1.2) in *Jaera danubica*. The differences between the pleopods in both species are not compared here, because for the judging to what they fall under the specific variability, we have too insufficient number of specimens of the new species at the disposal, at present.

### References

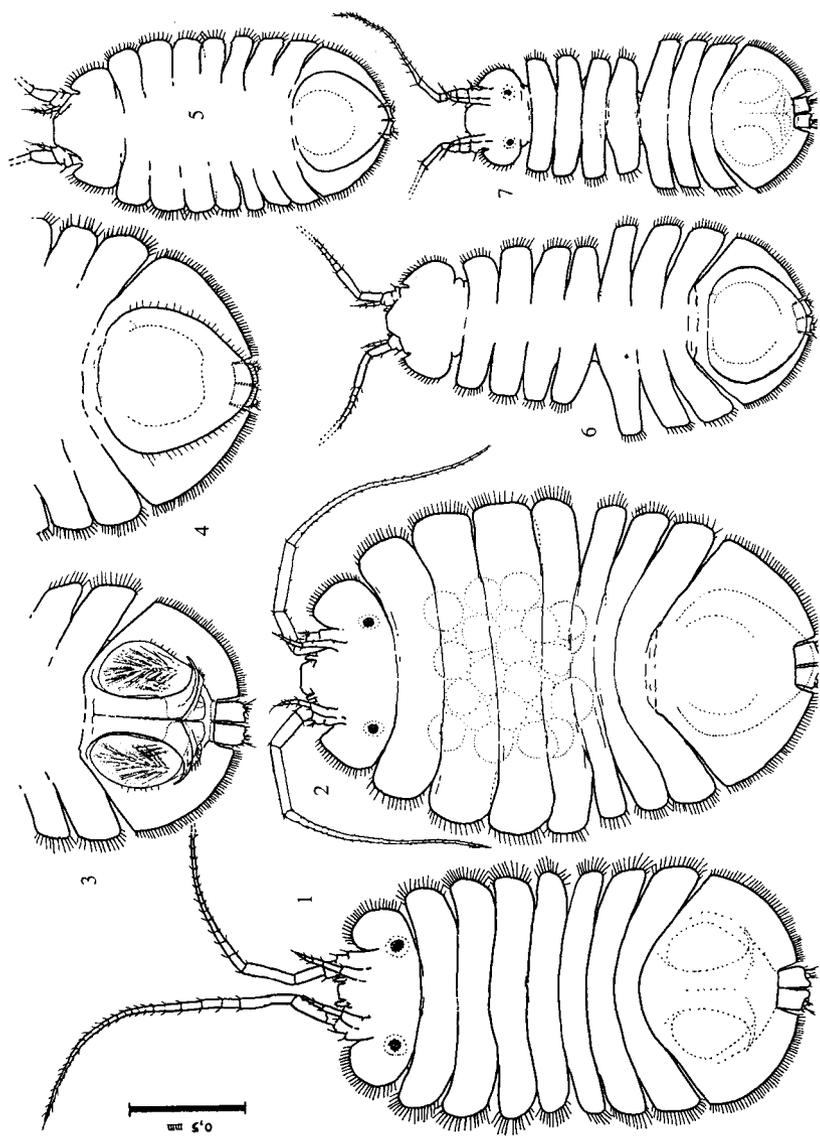
- BRTEK, J., 1953: Príspevok k poznaniu rozšírenia niektorých pre faunu ČSR nových, alebo málo známych pontokaspických druhov živočíchov v Dunaji. *Biológia*, (Bratislava), 8: 297-390.
- DUDICH, E., 1930: *Jaera Nordmanni* Rathke, egy új viziászka a magyar faunában. *Állattani Közlemények*, 27: 120.
- DUDICH, E., 1947: Die höheren Krebse (Malacostraca) der Mittel-Donau. *Fragm. Faun. Hung.*, 10: 125 – 132.
- KESSELYÁK, A., 1938: Die Arten der Gattung *Jaera* Leach. (Isopoda Asellota). *Zool.Jahrb. (Syst., Okol., Georg. d. Tiere)*, 71: 219-252.
- KOTHÉ, P., 1968: *Hypania invalida* (Polychaeta sedentaria) und *Jaera sarsi* (Isopoda) Erstmals in der deutschen Donau. *Arch. Hydrobiol., Suppl.* 34: 88-114.
- STROUHAL, H., 1939: Einige bemerkenswerte Vorkommnisse von Wirbellosen, besonders Isopoden, in der Ostmark. *Festschrift f. Strand*, Riga, 5: 69-80.
- VALKANOV, A., 1938: Predgled na evropejskit predstaviteli na roda *Jaera* Leach 1813 (Isopoda genuina). *Godišn. Sofijsk. univ., fiz.-mat.fak.*, 34, 3: 53-78.
- VEUILLE, M., 1979: L'évolution du genre *Jaera* Leach (Isopodes, Asellotes) et ses rapports avec l'histoire de la Méditerranée. *Bijdragen tot de Dierkunde*, 49: 195-217.

#### Author's address:

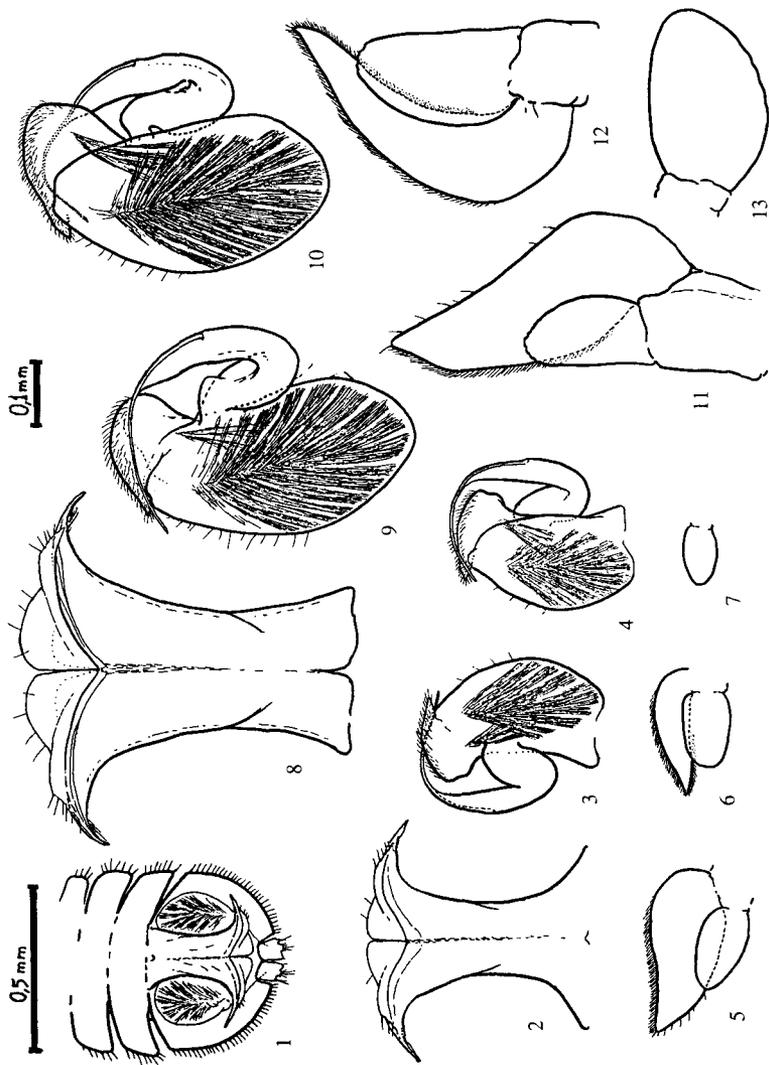
RNDr. Ján Brtek, Hornonitrianske múzeum, Nová ul. 4, 971 01 Prievidza, Slovakia

Received: July 10, 2003

Accepted: December 8, 2003



**Plate I.:** fig. 1 - 5 = *Jaera isfri*: 1 - male, dorsal view. 2 - female, dorsal view. 3 - pleotelson of male, ventral view. 4 - pleotelson of female, ventral view. 5 - juvenile female, ventral view. fig. 6 - 7 = *Jaera danubica*: 6 - female, ventral view. 7 - male, dorsal view. (The abscissa - 0.5 mm - for all figures). In the figures 5 and 6 - the mouth parts and legs are not drawn.



**Plate II.:** fig. 1 - 7 = male of *Jaera danubica*: 1 - pleotelson, ventral view. 2 - praеoperculum. 3 - pleopod 2, dorsal view. 4 - the same, ventral view. 5 - pleopod 3, dorsal view. 6 - pleopod 4, dorsal view. 7 - pleopod 5. fig. 8 - 13 = male of *Jaera istri*: 8 - praеoperculum. 9 - pleopod 2, dorsal view. 10 - the same, ventral view. 11 - pleopod 3, dorsal view. 12 - pleopod 4, dorsal view. 13 - pleopod 5. (The greater abscissa - 0.5 mm - for the fig. 1. The smaller abscissa - 0.1 mm - for figures 2 - 13).