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NEW MENTIONS OF AMPHIPODS (CRUSTACEA: AMPHIPODA) FROM ROMANIAN WATERS OF THE DANUBE

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Abstract. Considerations regarding specific composition and evolution of the knowledge of amphipod fauna from the Romanian waters of the Danube are made, with observations especially regarding the Calafat-Călărași zone, in 2004.

Résumé. On fait des considérations sur la composition et l'évolution de l'étude de la faune d'Amphipodes du secteur roumain du Danube, avec des observations concernant surtout la zone comprise entre Calafat et Călărași pendant l'année 2004.

Key words: amphipods, the Danube, Romanian waters, inventory.

INTRODUCTION

Regarding the distribution of amphipods in the biocenoses of the Romanian waters of the Danube river, two periods must be distinguished: before 1970 when the building of the dam of „Iron Gates” („Porțile de Fier”) power station took place, and after that. First period could be characterized by certain morpho-hydrological modifications: draining of the Danube floodplain and some of the Delta areas and construction of „Iron Gates I” dam lake; the second one, by increasing of alluvial deposits and decreasing of water velocity from upstream to downstream in the dam lake and higher erosion in the downstream sector. Processes increased after 1984 when the second dam was built downstream, for „Iron Gates II” that influenced the biotopes and adjacent fauna.

There isn't any qualitative and quantitative study concerning amphipods from „Iron Gates” to the Danube Delta within the same period of time, only studies on more restricted areas from different periods between 1943 and 2004 dealing with qualitative or quantitative aspects.

First mentions on amphipods from the Romanian waters of the Danube are from Căraușu (1943), who found 23 species, 13 of them being strictly from the Danube Delta, later on mentioned by Căraușu et al. (1955). Băcescu (1948) found five species at Vârciorova. Only *Dikerogammarus bispinosus* and *Obesogammarus crassus* reached Oltenița. Enăceanu & Brezeanu's researches (1964) also revealed the existence of the species *Obesogammarus obesus*, *Pontogammarus robustoides*, *Dikerogammarus haemobaphes* and *Echinogammarus sowinsky* between Giurgiu and Cernavodă. Corophiids, close connected to the facies, are also mentioned from the clear way, not only from Cazane („Iron Gates”). The latest authors found 21 species from Romanian waters, four of them being corophiids, from 46 species reported for the whole Romanian fauna. Later, Prunescu-Arion & Elian (1965) made a list of 20 species from the entire Romanian waters of the Danube, between Cazane and the Black Sea, with

sampling stations at Orșova, Giurgiu, Brăila and the Danube Delta. Enăceanu, in the chapter dedicated to the benthic fauna from “Limnology of the Romanian sector of the Danube” (1967) mentioned for the Danube (including the Danube Delta) 24 species of amphipods, 19 gammarids and five corophiids. Later, Popescu-Marinescu (1970) found four species of gammarids and three of corophiids in the “Iron Gates” dam lake. Studying the plankton and the benthos of the Danube downstream of Corabia - upstream Jiu river mouth (km 628-692) (stations from Celei, upstream Bechet, downstream Corabia, upstream and downstream Jiu river mouth) in 1971, Popescu-Marinescu & Elian-Talău (1972), mentioned only the gammarids (only at Celei). Later, Popescu-Marinescu et al. (1980), in their hydrobiological research on the confluence of the Danube with Olt river, in 1975 and 1976, noted only that few gammarids and corophiids were present and that oligochaets and chironomids were the dominant components. Also, they found a poorer fauna as in the previous researches. For the Tulcea-Siret area (up and downstream Siret river mouth and Tulcea town) Popescu-Marinescu et al. (1980) found two species of gammarids, *Obesogammarus obesus* and *Dikerogammarus haemobaphes*, with a poorer fauna around Tulcea than in Siret area, richer in samples close to the river bank than in the middle of the Danube. Popescu-Marinescu (1986) made a review of observations in the “Iron Gates” area from 1958, 1966-1967, 1972-1973 and 1981-1982, mentioning seven species in 1958 (before dam building), six species in 1971-1972 and no gammarids and corophiids in 1981-1982. Prunescu-Arion (1986) made a brief evaluation of zooplankton evolution in the “Iron Gate” area, including terminal section of Cerna river (Cerna Gulf) mentioning gammarids as 41% of the animals from the samples. Popescu-Marinescu (1992) presented a short history of structure of benthic biocenosis between 1971-1986, revealing that Oligochaeta was the main group of benthic fauna, followed by polichaets and amphipods (11 species of gammarids and corophiids), diminishing as biomass and diversity from “Iron Gates” dam lake towards the Danube Delta (*Dikerogammarus bispinosus*, *D. haemobaphes* and *Corophium curvispinum*), others (*Obesogammarus obesus* and *Euxinia sarsi*) being more frequent in the Danube Delta, also mentioning the influence of both dams on the fauna. Popescu-Marinescu et al. (2002) made a review of all investigations made till then. More recently, Popescu-Marinescu & Năstăsescu (2005), investigating populations of amphipods from the dam lakes of “Iron Gates” (samples from 2002), identified nine species, seven gammarids and two corophiids, most frequently being *Obesogammarus obesus*.

Synthetic data concerning the crustacean amphipods are presented in the framework of results of collecting trips made by a team of specialists of „Grigore Antipa” National Museum of Natural History from Bucharest, in the area between Calafat and Călărași (April - June 2004).

MATERIAL AND METHOD

Taxonomic investigation of benthic invertebrates from the Danube between 767-398 km has been done during four field trips, between 26-28.04.2004 and 16-20.05.2004. Material was collected from 29 stations between Calafat and Călărași (Tatole, 2005) (Tab. 1). Amphipods were identified only in 13 samples.

Table 1

Stations and material collected in 2004.

No	Station no	Station	Date	Amphipods	Associated fauna
1	1	Acalia Islet, downstream Calafat	16.05.2004	<i>Obesogammarus obesus</i>	Hydrozoa, Oligochaeta, Mollusca, Copepoda, Ostracoda, Chironomidae
2	2	Pietriș Islet downstream Calafat	16.05.2004	<i>Obesogammarus obesus</i>	Oligochaeta, Mollusca, Copepoda, Ostracoda, Diptera Chironomidae
3	3	Nebuna Islet downstream Calafat	16.05.2004	<i>Euxinia sarsi</i>	Oligochaeta, Mollusca
4	6	Copănița Islet upstream Jiu confluence	16.05.2004	<i>Corophium curvispinum</i>	Hydrozoa, Nematoda, Oligochaeta, Mollusca, Copepoda, Isopoda, Chironomidae
5	10	Păsărica Islet close to Giurgiu	7.06.2004	<i>Dikerogammarus bispinosus</i> <i>Obesogammarus crassus</i> <i>O. obesus</i>	Oligochaeta, Mollusca, Isopoda, Ostracoda
6	11	Danube, km 514 close to Giurgiu	24.04.2004	<i>Obesogammarus crassus</i> <i>Obesogammarus obesus</i>	Turbellaria, Nematoda, Oligochaeta, Hirudinea, Mollusca, Copepoda, Odonata, Diptera
7	12	Danube, km 512 close to Giurgiu	28.04.2004	<i>Dikerogammarus haemobaphes</i> <i>Obesogammarus crassus</i>	Nematoda, Hydrozoa, Oligochaeta, Mollusca, Copepoda, Isopoda,
8	14	Cama Islet, km 509 close to Giurgiu	28.04.2004	<i>Dikerogammarus haemobaphes</i> <i>Obesogammarus obesus</i>	Oligochaeta, Mollusca, Copepoda, Isopoda, Chironomidae
9	15	Dinu Islet close to Giurgiu	28.04.2004	<i>Dikerogammarus haemobaphes</i> <i>Obesogammarus crassus</i>	Oligochaeta, Mollusca, Copepoda, Ostracoda, Ephemeroptera, Diptera
10	17	Danube, km 502 close to Giurgiu	8.04.2004	<i>Obesogammarus crassus</i> <i>Obesogammarus obesus</i>	Nematoda, Oligochaeta, Mollusca, Copepoda, Cladocera, Diptera
11	18	Slobozia Channel close to Giurgiu	10.06.2004	<i>Dikerogammarus bispinosus</i> <i>Obesogammarus crassus</i>	
12	19	Șaica Pond, tributary, away from Danube course close to Giurgiu	26.04.2004	<i>Synurella ambulans</i>	Hirudinea, Hydrozoa, Oligochaeta, Annelida, Mollusca, Copepoda, Cladocera, Ostracoda, Coleoptera, Diptera Chironomidae, Odonata, Hydracari
13	20	Mahâru pump station	27.04.2004	<i>Obesogammarus crassus</i> <i>Obesogammarus obesus</i>	Oligochaeta, Copepoda, Cladocera, Chironomidae

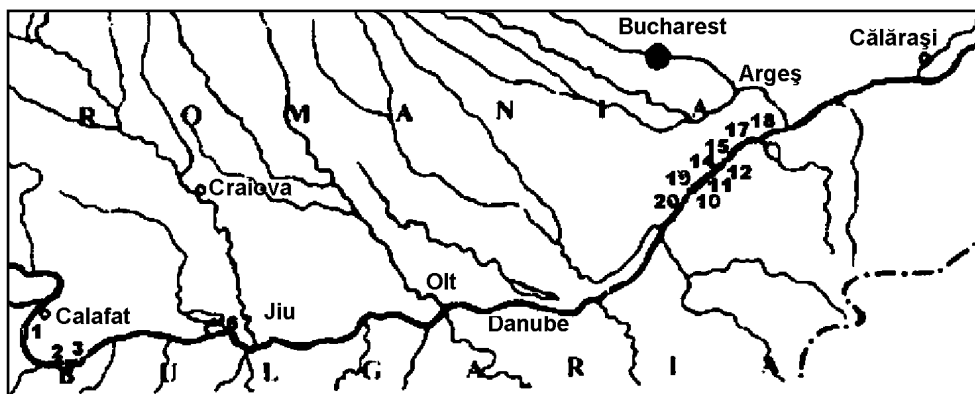


Fig. 1 – The Danube, collecting areas.

Qualitative samples were collected with a Van Veen type bodengreifer and a hydrobiological net from shallow waters (1-4 m) by Dr. Victoria Tatole and Dr. Iorgu Petrescu; identification was made by Dr. Iorgu Petrescu according to Cărașu et al. (1955) and to the last revisions of the group (Stock, 1974; Barnard & Barnard, 1983).

RESULTS

A total of 25 species were recorded from 1943 to 2004 between „Iron Gates” and the Danube Delta, 10 of them being known only from the Danube Delta and the Black Sea coast, 20 Gammaridae species and four Corophiidae species. Our research is the only one with numerous stations between Calafat and Călărași, the others contain data concerning amphipods from limited sectors: „Iron Gates”, Giurgiu, Călărași, Cernavodă, Brăila, Reni and the Danube Delta. Our list contains seven species of amphipods from three families, six species from the Danube and one from an adjacent pond. Species from the Danube are all Ponto-Caspian relicts and the last one, *Synurella ambulans* (Family Crangonyctidae) is a Central European glacial relict, characteristic for springs, with phreatic origin, never mentioned from here up to this moment. Dominant species in our samples were *Obesogammarus crassus*, *O. obesus*, *Dikerogammarus haemobaphes* and *Corophium curvispinum* (Tabs 2, 3).

The studied area, upstream Jiu confluence up to downstream Giurgiu, is characterized by the prevalence of sandy substrate as well of generally a relative uniformity of environmental factors, with several islets. Previous studies (Enăceanu & Brezeanu, 1964) revealed the existence of four species of Gammaridae, *Dikerogammarus haemobaphes*, *Echinogammarus sowinskyi*, *Euxinia sarsi*, *Obesogammarus obesus* and two of Corophiidae, *Corophium curvispinum* and *C. robustum* (period 1958-1959), later, Cure et al. (1983), in her quantitative investigation, pointed out the presence of four gammarids, *D. haemobaphes*, *D. bispinosus*, *D. villosus* and *E. sowinskyi* and one corophiid, *Corophium robustum*.

The greatest number of specimens was collected from Cama – Dinu Islets, suggesting populations better developed than the rest of the areas. Area of islets Cama, Dinu, Păsărica, with adjacent ponds, is the place with the highest diversity.

Ord. Amphipoda

Family Gammaridae

Dikerogammarus bispinosus Martynov, 1925: mentioned between „Iron Gates” and the Danube Delta, collected from two stations close to Giurgiu, in a low number (three specimens).

Dikerogammarus haemobaphes (Eichwald, 1841): mentioned between „Iron Gates” and the Danube Delta, collected from three stations, in the highest number (28 specimens), also close to Giurgiu (Fig. 2).



Fig. 2 – *Dikerogammarus haemobaphes* (Eichwald, 1841) (Photo: Gabriel Chișamera).

Euxinia sarsi (Sowinski, 1898): previously found mainly in the Delta, fewer in the rest of the Danube (from Iron Gates); present only in a sample from downstream Calafat (1 specimen).

Obesogammarus crassus (G. O. Sars, 1894): mentioned in the past from Delta up to Oltenița, found now in seven stations upstream and downstream Giurgiu, in 27 specimens.

Obesogammarus obesus (G. O. Sars, 1894): more frequent than the previous species, present also in seven stations, between downstream Calafat up to downstream Giurgiu, in fewer specimens (seven).

Family Crangonyctidae

Synurella ambulans Fr. Müller, 1846: recorded in the past mainly from streams and ponds with phreatic emergences from the Romanian plain and Dobrogea (Cărăușu et al., 1955), never mentioned so close to the Danube (Șaica pond upstream Giurgiu).

Family Corophiidae

Corophium curvispinum (G. O. Sars, 1895): distribution known – from „Iron Gates” to the Danube Delta; found now in three stations between upstream confluence of Jiu up to Giurgiu, in six specimens.

Lacking of qualitative and quantitative studies focused on the whole Romanian sector of the Danube realized in the same period make impossible any accurate statements regarding the amphipod fauna of the Danube and its evolution, even there are suggestions of species diminishing, inreaching of more eurhybiont ones and of emmigrants towards western Europe.

There isn't any amphipod species protected at national or European level.

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NOI MENȚIUNI PRIVIND AMFIPODELE (CRUSTACEA: AMPHIPODA) DIN APELE ROMÂNEȘTI ALE DUNĂRII

REZUMAT

Primele date despre amfipodele din apele românești ale Dunării sunt oferite de Cărăușu (1943) care menționează 23 de specii, 13 fiind localizate doar în Delta Dunării. Cercetări ulterioare au avut loc după război, în sectoare restrânse de la Porțile de Fier, zona Giurgiu-Delta Dunării, un singur studiu a acoperit zona Cazane-Delta Dunării, cu stații la Giurgiu, Brăila și Deltă (Prunescu-Arion & Elian, 1965). Studiile efectuate după construirea barajului pentru hidrocentrala de la Porțile de Fier (1970) au pus în evidență, prin modificarea habitatului, o reducere a numărului de specii și efective. Ultima lucrare, Popescu-Marinescu & Năstăsescu (2005), evidențiază existența în lacul de baraj a nouă specii, șapte Gammaridae și două Corophiidae. Lucrări care să acopere întregul sector românesc al Dunării lipsesc.

Cercetarea noastră, efectuată în 2004, între Calafat și Călărași, a semnalat doar șase specii, cinci de Gammaridae, *Dikerogammarus bispinosus* Martynov, *D. haemobaphes* (Eichwald), *Euxinia sarsi* (Sowinski), *Obesogammarus crassus* (G. O. Sars), *O. obesus* (G. O. Sars) și una de Corophiidae, *Corophium curvispinum* (G. O. Sars). Lor li se adaugă *Synurella ambulans* Fr. Müller găsită într-un izvor adiacent cursului Dunării (iazul Șaica, amonte Giurgiu), în 13 din cele 29 de stații efectuate.

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Table 2

Species of amphipods mentioned from the Danube, Romania (1942-1968).

No.	Species	CĂRĂUȘU, 1943	BĂCESCU, 1948 (data from 1942)	CĂRĂUȘU et al., 1955.	POPESCU, PRUNESCU- ARION, 1961 (data from 1958)	ENĂCEANU, 1967 (data from 1958-1959)	PRUNESCU- ARION, ELIAN, 1965 (data from 1961-1962)
	Gammaridae						
1.	<i>Compactogammarus compactus</i> (G. O. Sars, 1894)	Danube Delta		Danube Delta			
2.	<i>Dikerogammarus bispinosus</i> Martynov, 1925	Danube, Oltenița		Danube, Oltenița	Danube „Iron Gates” (Coronini to Gura Văii)	Danube, Oltenița	Orșova, Danube Delta
3.	<i>Dikerogammarus haemobaphes</i> (Eichwald, 1841)	Pрут mouth, Hârșova, Tulcea, Danube Delta	Vârciorova	Danube, Razelm	Danube „Iron Gates” (Coronini to Gura Văii)	Danube, Orșova, Giurgiu, Danube Delta, Razelm	Orșova, Giurgiu, Măcin, Brăila, Danube Delta
4.	<i>Dikerogammarus villosus</i> (Sowinski, 1894)	Danube Delta, Razelm, Babadag, Tașaul, Siutghiol, Tăbăcărie, Black Sea		Danube Delta, Razelm, Babadag, Siutghiol, Tașaul, Tăbăcărie, Sahalin Islet		Danube Delta, Orșova, Razelm, Babadag, Siutghiol, Tașaul, Tăbăcărie, Sahalin Islet	Orșova, Măcin, Sulina (Danube Delta)
5.	<i>Echinogammarus placidus</i> G. O. Sars, 1896	Danube, Chilia		Danube Delta, Chilia		Danube, Chilia	Danube Delta, Sulina
6.	<i>Echinogammarus sowinskiyi</i> (Behning, 1914)	Danube, Danube Delta, Siutghiol, Razelm, Babadag, Mamaia	Vârciorova	Danube Delta, Prut mouth, Razelm, Babadag, Siutghiol, Mangalia Lake, Black Sea	Danube „Iron Gates” (Coronini to Gura Văii)	Danube, Orșova, Giurgiu, Danube Delta	Orșova, Giurgiu, Danube Delta
7.	<i>Echinogammarus warpachowskyi</i> (G. O. Sars, 1894)	Danube Delta		Danube Delta, Sahalin Islet			
8.	<i>Euxinia maeotica</i> (Sowinski, 1894)	Danube Delta, Siutghiol, Black Sea		Danube Delta, Siutghiol, Black Sea			Danube Delta, Sahalin, Siutghiol, Black Sea

Table 2 (continued)

Species of amphipods mentioned from the Danube, Romania (1942-1968).

No.	Species	CĂRĂUȘU, 1943	BĂCESCU, 1948 (data from 1942)	CĂRĂUȘU et al., 1955.	POPESCU, PRUNESCU- ARION, 1961 (data from 1958)	ENĂCEANU, 1967 (data from 1958-1959)	PRUNESCU- ARION, ELIAN, 1965 (data from 1961-1962)
9.	<i>Euxinia sarsi</i> (Sowinski, 1898)	Danube, Hârșova, Danube Delta		Danube, Hârșova, Danube Delta, Tulcea		Giurgiu, Călărași, Hârșova, Cernavodă, Danube Delta	Giurgiu, Călărași, Danube Delta
10.	<i>Gmelina aestuarica</i> Cărașu, 1943	Danube Delta, Black Sea		Danube Delta, Black Sea			
11.	<i>Niphargogammarus intermedius</i> (Cărașu, 1943)	Danube Delta		Danube Delta			
12.	<i>Obesogammarus crassus</i> (G. O. Sars, 1894)	Danube Oltenița, Danube Delta, Brateș L., Babadag, Razelm		Danube Oltenița, Danube Delta, Brateș L., Babadag, Razelm		Danube Oltenița, Danube Delta, Brateș L., Babadag, Razelm	Călărași, Dervent
13.	<i>Obesogammarus obesus</i> (G. O. Sars, 1894)	Danube, Danube Delta, Sahalin Islet		Danube, Danube Delta, Sahalin Islet	Danube „Iron Gates” (Coronini to Gura Văii)		Orșova, Giurgiu, Călărași, Danube Delta
14.	<i>Paraniphargoides motasi</i> (Cărașu, 1943)	Danube Delta, St. George		Danube Delta, St. George			
15.	<i>Pontogammarus aestuaris</i> (Derzhavin, 1924)	Hârșova, Tulcea, Danube Delta		Hârșova, Tulcea, Danube Delta		Hârșova, Tulcea, Danube Delta	
16.	<i>Pontogammarus borceai</i> Cărașu, 1943	Danube Delta, Sahalin Islet		Danube Delta, Sahalin Islet			
17.	<i>Pontogammarus robustoides</i> (G. O. Sars, 1894)	Brateș L., Danube Delta, Sahalin Islet		Brateș L., Danube Delta, Sahalin Islet		Călărași, Brateș L., Danube Delta, Sahalin Islet	Călărași, Danube Delt

Table 2 (continued)

Species of amphipods mentioned from the Danube, Romania (1942-1968).

No.	Species	CĂRĂUȘU, 1943	BĂCESCU, 1948 (data from 1942)	CĂRĂUȘU et al., 1955.	POPESCU, PRUNESCU- ARION, 1961 (data from 1958)	ENĂCEANU, 1967 (data from 1958-1959)	PRUNESCU- ARION, ELIAN, 1965 (data from 1961-1962)
18.	<i>Stenogammarus carausui</i> Derzhavin & Pjatakova, 1962	Câșlița, Black Sea		Danube Delta		Danube Delta	
19.	<i>Stenogammarus macrurus</i> (G. O. Sars, 1894)	Danube Delta, Sahalin Islet		Danube Delta, Sahalin Islet		Danube Delta, Sahalin Islet	Danube Delta, Sf. Gheorghe
20.	<i>Uroniphargoides intermedius</i> (Cărașu, 1943)	Danube Delta		Danube Delta			Călărăși, Hârșova, Brăila, Danube Delta
21.	<i>Uroniphargoides spinicaudatus</i> (Cărașu, 1943)	Danube Delta, Razelm		Danube Delta, Razelm			Călărăși, Hârșova, Brăila, Danube Delta
	Corophiidae						
22.	<i>Corophium cheli</i> corne G. O. Sars, 1895			Danube Delta, Sahalin			Danube Delta, Sulina
23.	<i>Corophium curvispinum</i> G. O. Sars, 1895	Danube Delta, Razelm	Vârciorova	Danube Delta, Razelm, Babadag	Danube „Iron Gates” (Coronini to Gura Văii)		Orșova, Giurgiu, Călărăși, Danube Delta
24.	<i>Corophium maeoticum</i> Sowinski, 1898	Siutghiol, Mamaia	Vârciorova	Siutghiol, Mamaia	Danube „Iron Gates” (Coronini to Gura Văii)		Orșova, Sulina, Danube Delta
25.	<i>Corophium robustum</i> G. O. Sars, 1895	Danube Delta, Black Sea	Vârciorova	Danube Delta, Black Sea	Danube „Iron Gates” (Coronini to Gura Văii)		Orșova, Giurgiu, Călărăși, Hârșova, Brăila, Danube Delta

Table 3 (continued)

Species of amphipods mentioned from the Danube, Romania (1970-2008).

No.	Species	POPESCU-MARINESCU, 1970 (data from 1968)	CURE et al., 1975 (data from 1972)	POPESCU-MARINESCU et al., 1980	CURE et al., 1983 (data from 1978, 1981 and 1982)	POPESCU-MARINESCU, 1986 (data from 1958 & 1972-1973)	POPESCU-MARINESCU-ARION, 1986 (data from 1972-1973)	POPESCU-MARINESCU, 1992 (data from 1981-1985)	POPESCU-MARINESCU et al., 2002 (data from 1995-1996)	POPESCU-MARINESCU, 2005 (data from 2002)	PETRESCU, 2009 (data from 2004)
6.	<i>Echinogammarus sowinskyi</i> (Behning, 1914)	Danube „Iron Gates” (Comini to Gura Văii)	Bahna	POPESCU-MARINESCU et al., 1980	Călărași (data from 1978, 1981 and 1982)	POPESCU-MARINESCU, 1986 (data from 1958 & 1972-1973)	Mraconia Gulf, „Iron Gates”	Down-stream of Oltr river mouth	POPESCU-MARINESCU et al., 2002 (data from 1995-1996)	Dam lake „Iron Gates”	
7.	<i>Echinogammarus warpachowskyi</i> (G. O. Sars, 1894)								Tulcea to Sf. Gheorghe, Sulina		
8.	<i>Euxinia sarsi</i> (Sowinski, 1898)							Dam lake „Iron Gates”	Călărași to Sf. Gheorghe, Sulina	Dam lake „Iron Gates”	Nebuna Islet
9.	<i>Gmelina aestuarica</i> Cărașu, 1943								Tulcea to Sf. Gheorghe		
10.	<i>Niphargogammarus intermedius</i> (Cărașu, 1943)								Călărași to Brăila		
11.	<i>Obesogammarus crassus</i> (G. O. Sars, 1894)								Danube Delta		km 502, km 512, km 514, Mahăru, Păsărica, Dinu, Albina Islets, Slobozia Channel

Table 3 (continued)

Species of amphipods mentioned from the Danube, Romania (1970-2008).

No.	Species	POPESCU-MARINESCU, 1970 (data from 1968)	CURE et al., 1975 (data from 1972)	POPESCU-MARINESCU et al., 1980	CURE et al., 1983 (data from 1978, 1981 and 1982)	POPESCU-MARINESCU, 1986 (data from 1958 & 1972-1973)	FRUNESCU-ARION, 1986 (data from 1972-1973)	POPESCU-MARINESCU, 1992 (data from 1981-1985)	POPESCU-MARINESCU et al., 2002 (data from 1995-1996)	POPESCU-MARINESCU, 2005 (data from 2002)	POPESCU, 2009 (data from 2004)
12.	<i>Obesogammarus obesus</i> (G. O. Sars, 1894)	Danube „Iron Gates” (Coronini to Gura Văii)	Mraconia, Dubova, Munteana, Berzeasca	Up & down-stream of Tulcea	Mraconia Gulf	Mraconia Gulf, „Iron Gates”	Călărăși to Brăila	Mraconia Gulf, „Iron Gates”	Brăila to Sf. Gheorghe, Sulina	Dam lake „Iron Gates”	502, km 514, Mahăru, Păsărica, Cama, Acalia & Pietriș Islets
13.	<i>Pontogammarus borceai</i> Cărașu, 1943								Sf. Gheorghe		
14.	<i>Pontogammarus robustoides</i> (G. O. Sars, 1894)				Mraconia Gulf			Dam lake „Iron Gates”	Călărăși to Sf. Gheorghe, Sulina		
15.	<i>Stenogammarus carausi</i> Derzhavin & Pjatakova, 1962								Sulina		
16.	<i>Stenogammarus macrurus</i> (G. O. Sars, 1894)								Tulcea to Sf. Gheorghe		
	Corophiidae										
17.	<i>Corophium chelicorne</i> G. O. Sars, 1895		Mraconia Gulf						Tulcea to Sf. Gheorghe, Sulina	Dam lake „Iron Gates I”	

Table 3 (continued)
Species of amphipods mentioned from the Danube, Romania (1970-2008).

No.	Species	POPESCU-MARINESCU, 1970 (data from 1968)	CURE et al., 1975 (data from 1972)	POPESCU-MARINESCU et al., 1980	CURE et al., 1983 (data from 1978, 1981 and 1982)	POPESCU-MARINESCU, 1986 (data from 1958 & 1972-1973)	PRUNESCU-ARION, 1986 (data from 1972-1973)	POPESCU-MARINESCU, 1992 (data from 1981-1985)	POPESCU-MARINESCU et al., 2002 (data from 1995-1996)	POPESCU-MARINESCU, 2005 (data from 2002)	PETRESCU, 2009 (data from 2004)
18.	<i>Corophium curvispinum</i> G. O. Sars, 1895	Danube „Iron Gates” (Coronini to Gura Văii)	Cerna, Mraconia, Dubova		Mraconia Gulf	Mraconia Gulf, „Iron Gates”	Mraconia Gulf, „Iron Gates”	Mraconia Gulf, „Iron Gates”	Călărăși to Tulcea, Sf. Gheorghe, Sulina	Dam lake „Iron Gates”	Păsărica, Cama & Copănița Islets
19.	<i>Corophium maeoticum</i> Sowinski, 1898	Danube „Iron Gates” (Coronini to Gura Văii)				Mraconia Gulf, „Iron Gates”	Mraconia Gulf, „Iron Gates”				
20.	<i>Corophium robustum</i> G. O. Sars, 1895	Danube „Iron Gates” (Coronini to Gura Văii)	Mraconia Gulf		Mraconia Gulf	Mraconia Gulf, „Iron Gates”	Mraconia Gulf, „Iron Gates”	Dam lake „Iron Gates”	Călărăși to Brăila, Sf. Gheorghe, Sulina	Dam lake „Iron Gates I”	