

## NEW DATA ON THE POLYCHAETE FAUNA FROM THE ROMANIAN COAST OF THE BLACK SEA

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**Abstract.** During the research activities conducted in the 2002-2006 period in Romanian waters of the Black Sea, situated between Cape Midia and Vama Veche, were identified 25 species of polychaetes belonging to 11 supraspecific taxa as follows: Capitellidae (3), Aphroditoidea (2), Nereididae (5), Syllidae (2), Nereidiformia *incertae sedis* (1), Nephtyidae (2), Phyllodocidae (3), Ampharetidae (1), Pectinariidae (1), Spionidae (4) and Protodrilida (1). *Hesionides arenaria* Friedrich, 1937 is the first doubtless record for the Romanian littoral. The information on worldwide distribution and habitat of selected species is given.

**Key words:** Annelida, Polychaeta, Black Sea, Romanian coast, faunal inventory.

**Rezumat. Noi date asupra faunei de polichete de la litoralul românesc al Mării Negre.**

În urma cercetărilor efectuate între anii 2002-2005 în sectorul marin situat între Capul Midia și Vama Veche au fost identificate 25 specii de polichete aparținând la 11 taxoni supraspecifici după cum urmează: Capitellidae (3), Aphroditoidea (2), Nereididae (5), Syllidae (2), Nereidiformia *incertae sedis* (1), Nephtyidae (2), Phyllodocidae (3), Ampharetidae (1), Pectinariidae (1), Spionidae (4) și Protodrilida (1). *Hesionides arenaria* Friedrich, 1937 este prima semnalare certă pentru litoralul românesc. Sunt prezentate, de asemenea, date asupra ecologiei și răspândirii geografice a unor specii.

**Cuvinte cheie:** Annelida, Polychaeta, Marea Neagră, litoralul românesc, inventar faunistic.

### Introduction

According to the latest inventory 81 species of polychaetes have been recorded from 1924 to 2000 in Romanian Black Sea waters (Surugiu, 2005a). As the result of the anthropogenic impact occurred in the Black Sea in 80-90's, the diversity of polychaete fauna decreased dramatically. Thus at depths less than 20 m Surugiu (2002) has identified only 24 polychaete species. The recent findings of polychaete species unreported previously had revealed some recovery of the benthic communities from the environmental stress.

The present paper presents some new data on the composition and distribution of the Romanian Black Sea coast Polychaete fauna.

### Material and methods

The material was collected between 2002 and 2006 from 12 localities situated along Romanian coast of the Black Sea (Fig. 1). Information on the sampling stations, such as locality, sampling date, geographical co-ordinates, depth and habitat are listed in Table 1.

In the littoral zone samples were collected by hand. The sublittoral samples were collected by van Veen grab for soft substrate or by SCUBA diving and scrapping out the epibiosis with a knife for hard substrate. Samples were washed through 1.0 and 0.5 mm sieves and polychaetes retained were fixed in 10% formalin in seawater and preserved in 70% ethanol.

For the preliminary identifications the keys provided by Fauchald (1977), Marinov (1977) and Kisseleva (2004) have been used. Specification of the systematic status has been carried out, as far as possible, by means of recent revisions on major polychaete families

(e.g. Holthe, 1986; Wesheide, 1990; Rainer, 1991; Pleijel & Dales, 1991 etc.). The taxonomic layout is based primarily on Rouse & Pleijel (2001).

For all species the total number of individuals collected, followed by the locality name, the station number, number of specimens per station (in parenthesis), depth and substrate type are given. For polychaetes not mentioned in the paper of Surugiu (2005a) selected synonyms with reference on the corresponding literature and figures are included. Geographical distribution, especially within the Black Sea, is provided based on the records found in the relevant literature available. Remarks commenting on the taxonomic status of species are also included.

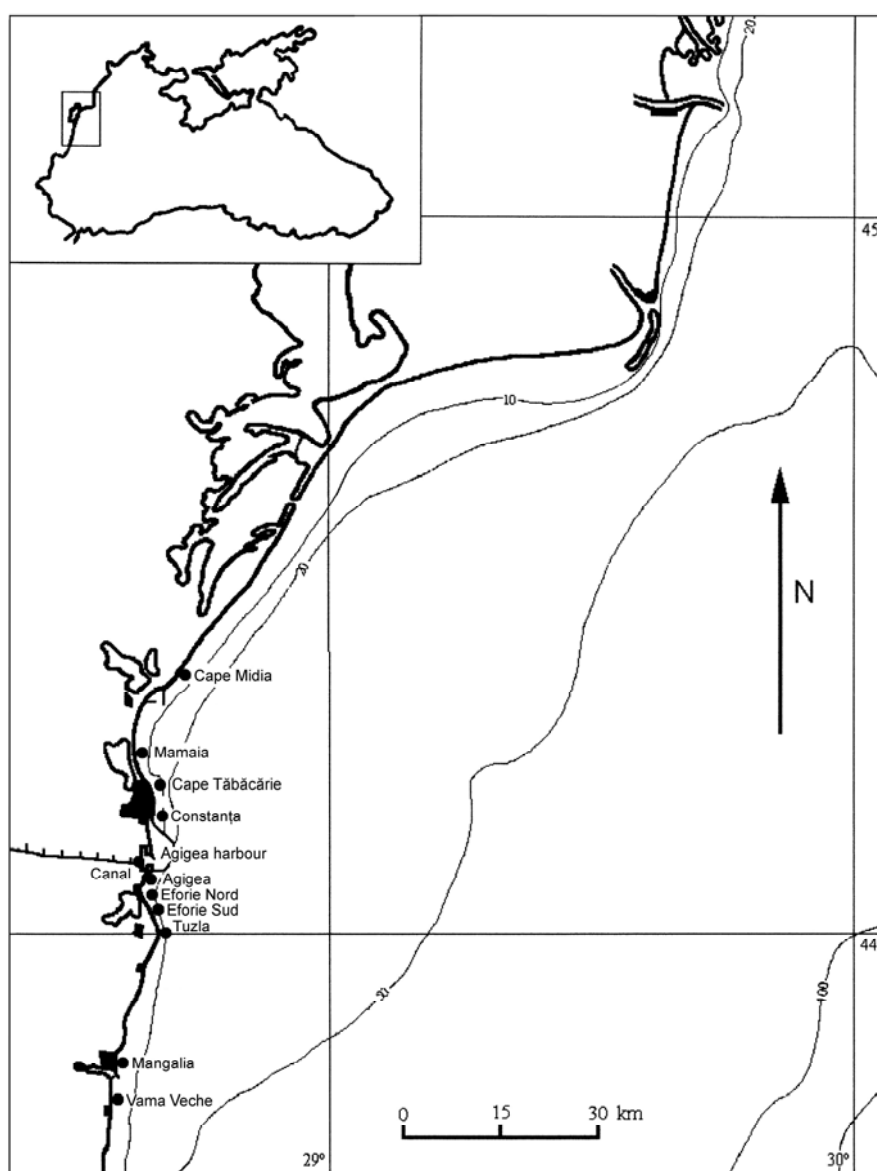


Figure 1. Map of the Romanian littoral showing sampling stations.

**Table 1.** List of stations.

Station	Locality	Date	Latitude	Longitude	Depth	Substrate
75	Vama Veche	??-08-2002	–	–	3	sand
76	Eforie Sud	06-06-2003	44°01'45.6" N	28°39'32.0" E	1.5	rock + seaweeds
P01	Agigea	25-07-2003	–	–	15	rock
P02	Agigea	25-07-2003	44°05'17.0" N	28°40'03.0" E	17	artificial hard substrate
P03	Agigea	25-07-2003	44°05'17.0" N	28°40'02.0" E	17	natural hard substrate
77	Canal	02-08-2003	44°06'01.6" N	28°38'09.1" E	0.3	muddy rock
78	Agigea	03-08-2003	44°04'57.4" N	28°38'36.3" E	4	sand
79	Agigea	05-08-2003	44°04'57.6" N	28°38'36.2" E	4	sandy clayrock
80	Vama Veche	06-08-2003	43°45'54.0" N	28°35'00.8" E	3	rock
81	Agigea	09-08-2003	–	–	15	mud with shell debris
82	Cape Midia	19-08-2003	–	–	5	fine sand + algal detritus
83	Cape Midia	19-08-2003	–	–	10	fine sand + algal detritus
84	Cape Midia	20-08-2003	–	–	20	fine sand
85	Mamaia	20-08-2003	–	–	20	muddy fine sand
86	Cape Tăbăcărie	20-08-2003	–	–	10	rock + fine sand + mud
87	Constanța	20-08-2003	–	–	10	muddy fine sand
88	Constanța	20-08-2003	–	–	20	muddy fine sand
89	Eforie Nord	20-08-2003	–	–	10	medium grained sand
90	Eforie Nord	20-08-2003	–	–	20	medium and fine sand
91	Tuzla	20-08-2003	–	–	10	sand with shell debris
92	Tuzla	20-08-2003	–	–	20	sand with shell debris
93	Cape Tăbăcărie	21-08-2003	–	–	20	fine sand
P04	Agigea	04-10-2003	44°05'17.0" N	28°40'03.0" E	17	natural hard substrate
94	Agigea harbour	23-06-2004	–	–	?	rock
95	Eforie Nord	27-06-2004	44°03'10.5" N	28°38'39.1" E	0	coarse sand
96	Eforie Nord	28-06-2004	44°03'22.0" N	28°38'39.6" E	0	medium grained sand
97	Vama Veche	30-06-2004	–	–	0	coarse sand
99	Eforie Sud	05-08-2005	44°01'15.7" N	28°39'36.9" E	0.5	muddy rock
100	Eforie Sud	05-08-2005	44°01'45.6" N	28°39'32.0" E	0.5	coarse sand with shell debris
101	Mangalia	08-06-2006	43°49'15.9" N	28°35'20.6" E	0	rock
102	Eforie Sud	15-06-2006	–	–	0	rock
103	Eforie Sud	20-06-2006	44°01'15.7" N	28°39'36.9" E	1.5	rock with green algae
104	Eforie Sud	20-06-2006	–	–	1.5	rock with green algae
105	Eforie Sud	20-06-2006	–	–	1	rock with mussels and algae
106	Eforie Nord	26-06-2006	–	–	1	sand
107	Eforie Nord	29-06-2006	–	–	1	sand
108	Eforie Nord	29-06-2006	–	–	?	rock with algae
109	Eforie Nord	29-06-2006	–	–	1	rock with mussels and algae
110	Eforie Nord	29-06-2006	–	–	1	rock with mussels and algae
111	Vama Veche	03-07-2006	–	–	1	sand
112	Eforie Sud	07-07-2006	44°01'15.7" N	28°39'36.9" E	0.	rock with green algae
113	Eforie Sud	07-07-2006	–	–	1	rock with mussels and algae
114	Eforie Sud	07-07-2006	–	–	1	rock with mussels and algae
115	Canal	13-07-2006	44°06'01.6" N	28°38'09.1" E	0.8	rock with green algae
116	Canal	10-08-2006	44°06'01.6" N	28°38'09.1" E	0.8	rock with green algae

## Results and discussion

Examination of 3,255 individuals collected during this study permitted us to identify 25 species belonging to 11 supraspecific taxa.

### Scolecida

#### Capitellidae Grube, 1862

##### *Capitella capitata* (Fabricius, 1780)

*Material examined.* – 4 ind.: Eforie Sud, sta. 99(2), 100(2), 0.5 m, in organically polluted muds covering rocky substrate or in coarse sand with shell fragments.

##### *Capitella minima* Langerhans, 1880

*Material examined.* – 46 ind.: Cape Midia, sta. 82(7), 83(3), Mamaia, sta. 85(3), Constanța, sta. 87(1), Agigea, sta. 81(1), P02(1), Eforie Sud, sta. 99(6), 100(5), Tuzla, sta. 91(19), 0.5-20 m, in fine, muddy or shelly sands, in muds with shell fragments or in detritus covering rocky substrate.

##### *Capitella* sp.

*Material examined.* – 3 ind.: Cape Midia, sta. 84(1), Cape Tăbăcărie, sta. 86(1), Tuzla, sta. 92(1), 10-20 m, in sandy sediments or in sand clogging the cracks of rocky substrate.

*Remarks.* – The individuals are juveniles and could not be identified to the species level.

##### *Heteromastus filiformis* (Claparède, 1864)

*Material examined.* – 102 ind.: Cape Midia, sta. 82(6), 83(23), 84(24), Mamaia, sta. 85(17), Cape Tăbăcărie, sta. 86(3), 93(1), Constanța, sta. 87(14), 88(1), Agigea, sta. P03(1), P04(1), Eforie Nord, sta. 89(4), Tuzla, sta. 91(7), 5-20 m, in fine sands with algal detritus, in muddy sands or in mud accumulated in the interstices of rocky substrate.

### Palpata, Aciculata, Phyllodocida, Aphroditiformia

#### Aphroditoidea Malmgren, 1867

##### *Harmothoe imbricata* (Linnaeus, 1767)

*Material examined.* – 6 ind.: Cape Midia, sta. 84(1), Agigea, sta. P03(1), P04(4), 17-20 m, in fine sand or in the mud accumulated between byssuses of *Mytilus galloprovincialis*.

##### *Harmothoe impar* (Johnston, 1839)

*Material examined.* – 116 ind.: Cape Tăbăcărie, sta. 86(1), Agigea, sta. P01(39), P02(27), P03(24), P04(25), 10-17 m, in the detritus and mud deposited in the interstices of the mussel colonies.

### Polynoidae indet.

*Material examined.* – 1 ind.: Tuzla, sta. 91(1), 10 m, sand with shell debris.

*Remarks.* – The individual lacks all scales and therefore cannot be identified to the species level.

### Palpata, Aciculata, Phyllodocida, Nereidiformia

#### Nereididae Johnston, 1865

##### *Namanereis littoralis* (Grube, 1872)

*Material examined.* – 8 ind.: Eforie Sud, sta. 102(5), 105(1), Mangalia, sta. 101(2), 0-1 m, in coarse sand under isolated stones laying at the upper limit of the splash zone.

*Nereis zonata* Malmgren, 1867

*Material examined.* – 4 ind.: Eforie Sud, sta. 104(2), 113(1), Vama Veche, sta. 111(1), 1-1.5 m, on hard substrate.

*Neanthes succinea* (Frey & Leuckart, 1847)

*Material examined.* – 786 ind.: Cape Midia, sta. 82(4), 83(6), 84(16), Cape Tăbăcărie, sta. 86(4), 93(1), Danube – Black Sea Canal, sta. 77(44), 115(31), 116(53), Agigea, sta. P01(127), P02(20), P03(39), P04(351), 79(1), Eforie Nord, sta. 89(2), 108(2), 109(3), 110(1); Eforie Sud, sta. 99(4), 100(5), 104(25), 105(2), 112(6), 113(24), 114(14), Tuzla, sta. 92(1), 0.5-20 m, on all types of substrata, preferably in soft detrital sediments (mud, muddy sand and muddy shell gravel).

*Perinereis cultrifera* (Grube, 1840)

*Material examined.* – 8 ind.: Vama Veche, sta. 80(8), 3 m, hard substrate.

*Platynereis dumerilii* (Audouin & Milne-Edwards, 1833)

*Material examined.* – 40 ind.: Cape Tăbăcărie, sta. 86(26), Constanța, sta. 87(1), Eforie Nord, sta. 108(2), 109(3), 110(3), Eforie Sud, sta. 103(1), 104(1), 105(1), 112(2), 0.8-10 m, on hard substrate associated with macrobenthic algae.

**Syllidae Grube, 1850**

*Syllis gracilis* Grube, 1840

*Material examined.* – 5 ind.: Agigea, sta. P03(1), P04(2), Vama Veche, sta. 75(2), 3-17 m, in epibiosis of rocks.

*Salvatoria clavata* (Claparède, 1863)

*Material examined.* – 43 ind.: Cape Tăbăcărie, sta. 86(1), Agigea, sta. P03(1), P04(40), Eforie Nord, sta. 96(1), 0-17 m, in detritus and coarse sand covering hard substrate.

**Syllidae indet.**

*Material examined.* – 4 ind.: Agigea, sta. P01(2), P03(2), 15-17 m, on hard substrate.

**Nereidiformia incertae sedis**

*Hesionides arenaria* Friedrich, 1937

*Hesionides arenaria* Friedrich, 1937: 343, fig. 1; Marinov, 1977: 80-83, pl. VIII, fig. 1a-e; Hartmann-Schröder, 1996: 140-141, fig. 58a-c; Kisseleva, 2004: 206-207, fig. 77.

*Material examined.* – 5 ind.: Eforie Nord, sta. 95/2(3), Vama Veche, sta. 97(2), interstitial in ground water of the supralittoral zone.

*Distribution.* – Cosmopolitan species, known in the Aegean Sea (Arvanitidis, 2000), Eastern Mediterranean (Simboura & Nicolaidou, 2001), Western Mediterranean (Castelli *et al.*, 1995), Atlantic coast of Europe, North Sea (Hartmann-Schröder, 1996); Bahamas islands, Pacific (Salvador) and Indian Oceans (western and eastern coasts of Africa). In the Black Sea is known only from Bulgarian (Marinov, 1957a, 1971, 1977) and Ukrainian coasts (Vorobiova, 1977).

*Remarks.* – Despite the fact that this species was mentioned in the checklist of organisms occurring at the Romanian littoral (Băcescu *et al.*, 1971), there is no other evidence in the literature regarding the finding of this species in Romanian waters. Thus, Manoleli (1988), which have studied polychaetes from Romania, does not mention this species. Therefore this finding should be considered as the first documented record of this species at the Romanian littoral.

**Palpata, Aciculata, Phyllodocida unplaced  
Nephtyidae Grube, 1850**

***Nephtys hombergii* Savigny, 1818**

*Nephtys hombergii* Savigny, 1818: 314; Fauvel, 1923: 367, 143a-d; Day, 1967: 344-345, fig. 15.2g-i; Marinov, 1977: 122, pl. XIV, fig. 3a-c, pl. XXXVII, fig. 4; Hartmann-Schröder, 1996: 224-225, fig. 98a,b; Kisseleva, 2004: 108-110, fig. 24.

*Nephtys scolopendroides* Delle Chiaje, 1868; Marion, 1878.

*Material examined.* – 21 ind.: Agigea, sta. 81(9), Eforie Nord, sta. 89(3), 90(5), Tuzla, sta. 91(1), 92(3), 10-20 m, in mud, coarse and fine sand, shelly sand or muddy rock.

*Distribution.* – A cosmopolitan species (Hartmann-Schröder, 1996) recorded in the Sea of Azov (Kisseleva, 1987), Bosphorus strait (Rullier, 1963), Marmora Sea (Rullier, 1963; Gillet & Ünsal, 2000), Aegean Sea (Arvanitidis, 2000), Adriatic Sea (Pozar-Domac, 1978; Castelli *et al.*, 1995), Ionian Sea (Simboura & Nicolaidou, 2001), Western Mediterranean (Bellan, 1964; Castelli *et al.*, 1995), eastern Atlantic from the Barents Sea in the north to the coasts of South Africa in the south (Day, 1967), English Channel, North Sea, Skagerrak, Kattegat, Baltic Sea (Hartmann-Schröder, 1996).

In the Black Sea reported throughout: Prebosphoric region (Dumitrescu, 1960; Rullier, 1963; Gillet & Ünsal, 2000), Caucasian coast (Komakhidze & Mazmanidi, 1998), Karadag region (Vinogradov, 1949), Bay of Sevastopol (Bobretzky, 1881; Jakubova, 1930), north-western part of the Black Sea (Vinogradov & Losovskaya, 1963; Zaitsev *et al.*, 2006), Romanian (Borcea, 1934b; Dumitrescu, 1957, 1963; Manoleli, 1967, 1988) and Bulgarian coasts (Borcea, 1937; Marinov, 1957a, 1963, 1977).

***Micronephthys stammeri* (Augener, 1932)**

*Nephtys longicornis* Perejaslavzeva, 1891: 248-249, fig. 2; Vinogradov & Losovskaya, 1968: 286.

*Nephtys cirrosa* var. *longicornis* Jakubova, 1930: 871.

*Nephtys stammeri* Augener, 1932: 678, fig. 2.

*Micronephthys stammeri* Banse, 1959: 302-305, Abb. 6; Marinov, 1977: 120, pl. XIV, fig. 2a-e, pl. XXXVII, fig. 3; Kisseleva, 2004: 110-111, fig. 25.

*Material examined.* – 3 ind.: Constanța, sta. 88(2), Eforie Nord, sta. 90(1), 20 m, in fine muddy sand.

*Distribution.* – Amphiboreal species, occurring in the Adriatic Sea (Banse, 1959; Pozar-Domac, 1978) and Mediterranean (Castelli *et al.*, 1995).

In the Black Sea cited almost throughout: in the Prebosphoric region, Caucasian coast (Komakhidze & Mazmanidi, 1998; Kisseleva, 2004), Karadag region (Vinogradov, 1949), Bay of Sevastopol (Perejaslavzeva, 1891; Jakubova, 1930), north-western part of the sea (Vinogradov & Losovskaya, 1963; Zaitsev *et al.*, 2006), Bulgarian (Marinov, 1963, 1977) and Romanian littoral (Băcescu *et al.*, 1971; Manoleli, 1988).

**Phyllodocidae Örsted, 1843a**

***Nereiphylla rubiginosa* (de Saint-Joseph, 1888)**

*Material examined.* – 2 ind.: Cape Midia, sta. 82(1), Agigea, sta. P04(1), 5-17 m, on sandy and hard substrate.

***Pseudomystides limbata* (Saint-Joseph, 1888)**

*Mystides limbata limbata* Saint-Joseph, 1888: 310, pl. 13, fig. 186-192; Kisseleva, 2004: 79-81, fig. 6.

*Mystides (Pseudomystides) limbata* Fauvel, 1923: 181-182, fig. 66a-c; Marinov, 1977: 66-68, pl. V, fig. 2a-c.

*Pseudomystides limbata* Pleijel & Dales, 1991: 68-69, fig. 13A-C; Hartmann-Schröder, 1996: 123-124.

*Material examined.* – 1 ind.: Tuzla 92(1), 20 m depth, sand with shell debris.

*Distribution.* – Atlanto-Mediterranean species, reported from Adriatic Sea (Pozar-Domac, 1978; Castelli *et al.*, 1995), Aegean Sea (Arvanitidis, 2000), Ionian Sea (Simboura & Nicolaidou, 2001); Western Mediterranean (Laubier, 1962; Bellan, 1964; Castelli *et al.*,

1995), North-East Atlantic, English Channel (Pleijel & Dales, 1991), North Sea, Kattegat, Skagerrak (Hartmann-Schröder, 1996).

In the Black Sea this species is known from the Prebosphoric region (Gillet & Ünsal, 2000), Caucasian coast (Komakhidze & Mazmanidi, 1998), Karadag region (Vinogradov, 1949), Bulgarian (Marinov, 1957a, 1977) and Romanian coasts (Surugiu, 2005b).

***Eteone picta* Quatrefages, 1865**

*Material examined.* – 5 ind.: Agigea harbour, sta. 94(1), Eforie Nord, 107(1), 108(1), Eforie Sud, sta. 76(1), Tuzla, sta. 91(1), 1-10 m, on sandy or rocky substrate.

**Phyllodocidae indet.**

*Material examined.* – 1 ind.: Constanța, sta. 87(1), 10 m, fine muddy sand.

**Palpata, Canalpalpata, Terebellida, Terebelliformia  
Ampharetidae Malmgren, 1866**

***Melinna palmata* Grube, 1870**

*Melinna palmata* Grube, 1870: 68; Fauvel, 1927: 239, fig. 83a-h; Marinov, 1977: 204-205, pl. XXVIII, fig. 4a-f; Kisseleva, 2004: 333-334, fig. 144.

*Melinna adriatica* Marenzeller, 1874: 66.

*Material examined.* – 24 ind.: Constanța, sta. 88(8), Agigea, sta. P03(1), sta. 81(1), Eforie Nord, sta. 90(6), Tuzla, sta. 91(6), 92(2), 10-20 m, in mud, muddy sand or muddy rock.

*Distribution.* – Atlanto-Mediterranean species, known in the Sea of Azov (Kisseleva, 1987), Bosphorus (Rullier, 1963), Marmora Sea (Rullier, 1963; Gillet & Ünsal, 2000), Aegean Sea (Arvanitidis, 2000), Adriatic Sea (Pozar-Domac, 1978; Castelli *et al.*, 1995), Ionian Sea (Simboura & Nicolaidou, 2001); Western Mediterranean (Bellan, 1964; Castelli *et al.*, 1995), Atlantic coasts of Europe, English Channel.

In the Black Sea recorded throughout: Prebosphoric region (Jakubova, 1948; Dumitrescu, 1960), Anatolian coast (Emig *et al.*, 2003), Caucasian coast (Komakhidze & Mazmanidi, 1998), Karadag region (Vinogradov, 1949), Bay of Sevastopol (Bobretzky, 1881; Jakubova, 1930), north-western part of the Black Sea (Vinogradov & Losovskaya, 1963; Zaitsev *et al.*, 2006), Bulgarian (Borcea, 1937; Marinov, 1957, 1977) and Romanian coasts (Dumitrescu, 1957, 1963, 1973; Manoleli, 1988).

**Pectinariidae Quatrefages, 1866**

***Pectinaria (Lagis) koreni* (Malmgren, 1866)**

*Lagis koreni* Malmgren, 1866: 360; 1867: 104, pl. XIII, fig. 74.

*Pectinaria (Lagis) koreni* Fauvel, 1927: 221; Day, 1967: 681, fig. 34, 1g-h; Vinogradov & Losovskaya, 1968; Marinov, 1977: 202, pl. XXVIII, fig. 3a-f; Hartmann-Schröder, 1996: 483-485, fig. 235a-d.

*Material examined.* – 1 ind.: Agigea, sta. P03(1), 17 m, muddy rock.

*Distribution.* – Arctic-Boreal species, occurring in the Sea of Azov (Kisseleva, 1987), Aegean Sea (Arvanitidis, 2000), Adriatic Sea (Pozar-Domac, 1978; Castelli *et al.*, 1995), Eastern (Simboura & Nicolaidou, 2001) and Western Mediterranean (Bellan, 1964; Castelli *et al.*, 1995), Eastern Atlantic from Barents Sea to South West Africa (Day, 1967); Scotland, Ireland; English Channel, North Sea, Skagerrak, Kattegat, Baltic Sea (Hartmann-Schröder, 1996).

Known in the Black Sea from Prebosphoric region (Dumitrescu, 1960), Bay of Sevastopol (Bobretzky, 1881), Odessa Bay (Bobretzky, 1881), Bulgarian (Borcea, 1937; Marinov, 1957a, 1963, 1977) and Romanian coasts (Borcea, 1934b; Dumitrescu, 1957, 1963, 1973; Manoleli, 1967, 1988; Müller, 1968).

*Remarks.* – Despite the fact that some authors (Fauvel, 1927; Vinogradov & Losovskaya, 1968; Marinov, 1977) synonymise *Pectinaria (Lagis) koreni* Malmgren, 1866 with *Pectinaria neapolitana* Claparède, 1870, according to Day (1967) they must be considered as distinct species on the basis of the structure of the cephalic veil. This is partly fused to the operculum in *Pectinaria neapolitana* and entirely fused to the operculum in *Pectinaria (Lagis) koreni*.

**Palpata, Canalipalpata, Spionoida  
Spionidae Grube, 1850**

***Spio decoratus* Bobretzky, 1871**

*Material examined.* – 527 ind.: Cape Midia, sta. 82(103), 83(119), Mamaia, sta. 85(2), Cape Tăbăcărie, sta. 86(42), 93(9), Constanța, sta. 87(98), 88(3), Eforie Nord, sta. 89(25), 90(3), 106(2), 107(1), Eforie Sud, sta. 100(57), Tuzla, sta. 91(57), 92(6), 0.5-20 m, in fine sand.

***Polydora cornuta* Bosc, 1802**

*Material examined.* – 887 ind.: Cape Midia, sta. 83(8), 84(1), Mamaia, sta. 85(4), Cape Tăbăcărie, sta. 86(2), 93(1), Constanța, sta. 87(1), 88(2), Agigea, sta. P01(17), P02(210), P03(198), P04(364), 78(2), 79(41), 81(2), Eforie Nord, sta. 89(8), 90(2), Eforie Sud, sta. 100(1), 104(9), 105(1), Tuzla, sta. 91(14), 92(3), 0.5-20 m, builds muddy tubes on the surface of sands, hard substrate or clayrock.

***Polydora websteri* Hartman in Loosanoff & Engle, 1943**

*Material examined.* – 344 ind.: Eforie Sud, sta. 99(153), 103(4), 105(1), 112(1), 113(122), 114(63), 0.5-1.5 m, boring in limestone covered by detritus.

***Prionospio cirrifera* Wirén, 1883**

*Material examined.* – 212 ind.: Cape Midia, sta. 84(6), Mamaia, sta. 85(3), Constanța, sta. 87(1), 88(1), Agigea, sta. P02(24), P03(97), P04(55), Tuzla, sta. 91(25), 10-20 m, muddy hard or sandy substrata.

**Palpata, Canalipalpata unplaced  
Protodrilida Pettibone, 1982**

***Saccocirrus papillocercus* Bobretzky, 1872**

*Saccocirrus papillocercus* Bobretzky, 1872: 211-259, pl. 4-5; Fauvel, 1927: 430-431, fig. 145a-g; Vinogradov & Losovskaya, 1968: 335; Marinov, 1977: 238, pl. XXXII, 5a-c; Westheide, 1990: 84-86, fig. 26; Kisseleva, 2004: 233-234, fig. 90.

*Saccocirrus papillicornis* [sic!] Bellan, 1964: 182-183.

*Material examined.* – 68 ind.: Eforie Nord, sta. 95/1(68), 0 m, in coarse sand of the splash zone.

*Distribution.* – Amphiboreal species, present in the Aegean Sea (Arvanitidis, 2000); Western Mediterranean (Bellan, 1964; Castelli *et al.*, 1995), Atlantic Ocean (Madeira), English Channel, Ireland Sea (Westheide, 1990), North Sea; Southern California (Hartman, 1969).

In the Black Sea this species has been reported from Karadag region (Vinogradov, 1949), Yalta (Czerniavsky, 1880), Bay of Sevastopol (Jakubova, 1930), Caucasian coast: Sukhumi (Czerniavsky, 1880), north-western part of the Black Sea (Vinogradov & Losovskaya, 1963), Bulgarian (Borcea, 1937; Marinov, 1957b, 1971, 1977) and Romanian coasts (Borcea, 1934a, 1934b).



### Polychaeta indet.

*Material examined.* – 2 ind.: Cape Midia, sta. 84(1), 20 m, in fine sand; Agigea, sta. P02(1), 17 m, on artificial hard substrate.

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### References

- Arvanitidis, C., 2000. Polychaete fauna of the Aegean Sea: inventory and new information. *Bull. Mar. Sci.*, **66**(1): 73-96.
- Banse, K., 1959. Polychaeten aus Rovinj (Adria). *Zoologischer Anzeiger*, **162**(9/10): 295-313.
- Băcescu, M., Müller, G., Gomoiu, M.-T., 1971. Cercetări de ecologie bentală în Marea Neagră. Analiza cantitativă, calitativă și comparată a faunei bentale pontice. *Ecologie marină*, **4**: 1-357.
- Bellan, G., 1964. Contributions à l'étude systématique, bionomique et écologique des Annélides Polychètes de la Méditerranée. *Rec. Trav. Stat. Mar. Endoume*, **49**(33): 1-371.
- Bobretzky, N., 1872. *Saccocirrus papillocercus* n. gen. et sp., type of the new family of Annelids. Comparative-anatomical note. *Zap. Kievsk. o-va estestvoisp.*, **2**(2): 211-259. [in Russian]
- Bobretzky, N., 1881. Additions to the annelid fauna of the Black Sea. *Zap. Kievsk. o-va estestvoisp.*, **6**(2): 183-212. [in Russian]
- Borcea, I., 1934a. Addendas aux communications antérieures: 1) Nouvelles contributions à l'étude de la faune bentonique dans la Mer Noire, près du littoral roumain. *Ann. Sci. Univ. Jassy*, **19**: 398-401.
- Borcea, I., 1934b. Liste des animaux marins récoltés jusqu'à présent dans la région de la Station d'Agigéa (Mer Noire). *Ann. Sci. Univ. Jassy*, **19**: 402-407.
- Borcea, I., 1937. Les résultats de l'expédition de recherches dans la Mer Noire entre les 28 Août et 1 Septembre 1935. *Ann. Sci. Univ. Jassy*, **23**: 1-26.
- Castelli, A., Abbiati, M., Badalamenti, F., Bianchi, C.N., Cantone, G., Gambi, M.C., Giangrande, A., Gravina, M.F., Lanera, P., Lardicci, C., Somaschini, A. & Sordino, P., 1995. Annelida *Polychaeta*, *Pogonophora*, *Echiura*, *Sipuncula*. In: Minelli, A., Ruffo, S. & La Posta, S. (eds.), *Checklist delle specie della fauna italiana*, Calderini, Bologna, **19**: 1-45.
- Czerniavsky, V., 1880. Materialia ad zoographiam Ponticam comparatam. Fasc. 3. Vermes, II. Polychaeta. *Bull. Soc. Imp. d. Natur. Moscou*, **55**(2): 213-363.
- Day, J.H., 1967. *A Monograph on the Polychaeta of Southern Africa*. British Museum (Natural History), London.
- Dumitrescu, E., 1957. Contribuții la studiul polichetelor din Marea Neagră, litoralul românesc. *Bul. științ. Sect. biol. Seria zool.*, **9**(2): 119-130.
- Dumitrescu, E., 1960. Contributions à la connaissance des Polychètes de la Mer Noire, spécialement des eaux prébosphoriques. *Trav. Mus. Hist. Nat. "Gr. Antipa"*, **2**: 69-85.
- Dumitrescu, E., 1963. Polychètes marines de la zone littorale roumaine (1 à 20 m de profondeur). *Trav. Mus. Hist. Nat. "Gr. Antipa"*, **4**: 181-192.
- Dumitrescu, E., 1973. Nouvelles données écologiques et quantitatives sur les Polychètes pétricoles de la Mer Noire (littoral roumain). *Trav. Mus. Hist. Nat. "Gr. Antipa"*, **13**: 39-46.
- Emig, C.C., Çinar, M.E., Ergen, Z., 2003. Phoronida from Eastern Mediterranean and Black Sea. *Cah. Biol. Mar.*, **44**: 185-190.
- Fauchald, K., 1977. *The polychaete worms. Definitions and Keys to the Orders, Families and Genera*. Natural History Museum of Los Angeles County, Science Series, **28**.
- Fauvel, P., 1923. *Polychètes errantes (Polychaeta errantia)*. Faune de France, **5**, Paul Lechevalier, Paris.
- Fauvel, P., 1927. *Polychètes sédentaires (Polychaeta sedentaria)*. *Addenda aux errantes, Archiannelides, Myzostomaires*. Faune de France, **16**, Paul Lechevalier, Paris.
- Gillet, P., Ünsal, M., 2000. Résultats de la campagne océanographique du "Bilim": annélides polychètes de la Mer de Marmara, du Bosphore et des régions prébosphoriques de la Mer Noire (Turquie). *Mésogée*, **58**: 85-91.
- Hartmann-Schröder, G., 1996. Annelida, Borstenwürmer, Polychaeta. *Die Tierwelt Deutschlands*, **2**. neubearbeitete Auflage, Gustav Fischer Verlag, Jena, **58**: 1-648.
- Holthe, T., 1986. Polychaeta Terebellomorpha. *Marine Invertebrates of Scandinavia*, **7**: 1-194.
- Jakubova, L.I., 1930. List of Archannelidae and Polychaeta of the Sevastopol Bay of the Black Sea. *Izv. Akad. Nauk SSSR*, **7**(9): 863-881. [in Russian]
- Jakubova, L.I., 1948. Features of the biology of Prebosphoric sector of the Black Sea. *Tr. Sevast. biol. st.*, **6**: 274-285. [in Russian]
- Kisseleva, M.I., 1987. Changes in the composition and distribution of polychaete worms in Sea of Azov. *Gidrobiol. Zhurn.*, **23**(2): 40-45.

- Kisseleva, M.I., 2004. *Polychaetes (Polychaeta) of the Azov and Black Seas*. Print. Kola Science Centre RAS, Apatity. [in Russian]
- Komakhidze, A., Mazmanidi, N., 1998. *Black Sea Biological Diversity. Georgia*. Black Sea Environmental Series, Vol. 8, UN Publications.
- Laubier, L., 1962. *Mystides (Pseudomystides) limbata* Saint-Joseph, Phyllococidae nouveau pour la Méditerranée. *Vie et Milieu*, **13**(2): 388-390.
- Manoleli, D., 1967. Date ecologică asupra polichetelor din dreptul Stațiunii marine de la Agigea. *Studii și cerc. de Biol. Ser. Zool.*, Acad. R.S.R., **19**(6): 509-515.
- Manoleli, D., 1988. *Contribution to the study of some freshwater and brackishwater Annelids (Polychaetes, Hirudineans) from Dobrogea and Romanian Plain*. Ph.D. Thesis, Central Institute of Biology, Bucharest (România) [in Romanian]
- Marinov, T., 1957a. Beitrag zur Kenntnis unserer Schwarzmeer Polychätenfauna. *Tr. Morsk. biol. st. g. Varna*, **19**: 105-119. [in Bulgarian].
- Marinov, T., 1957b. Beitrag zur Kenntnis unserer Schwarzmeer Archiannelidenfauna. *Tr. Morsk. biol. st. g. Varna*, **19**: 121-126. [in Bulgarian]
- Marinov, T., 1963. Über die Polychätenfauna der Sandbiozönose vor der Bulgarischen Schwarzmeerküste. *Izv. Centr. Nauk. Izsled. Inst. Ribov. i Ribolov.*, **3**: 61-78. [in Bulgarian]
- Marinov, T., 1971. Polychètes et Archiannelides des eaux souterraines de plages du littoral bulgare de la mer Noire. *Rapp. Comm. int. Mer Médit.*, **20**(3): 207-209.
- Marinov, T., 1977. *Fauna of Bulgaria. Bristle worms (Polychaeta)*. Izd. na Bulgarskata Akademia na Naukite, Sofia, **6**. [in Bulgarian]
- Perejaslavzeva, S.M., 1891. Additions to the fauna of the Black Sea. *Trudy o-va ispyt. prirody pri Harkov. Univ.*, **25**: 235-274. [in Russian]
- Pleijel, F., Dales, R.P., 1991. *Polychaetes: British Phyllocoideans, Typhloscolecideans and Tomopteroideans*. Linnean Society Synopses of the British Fauna (new series), **45**.
- Pozar-Domac, A., 1978. Catalogue of the polychaetous annelids of the Adriatic Sea. 1. Northern and central Adriatic. *Acta Adriatica*, **19**(3): 2-59.
- Rainer, S.F., 1991. The genus *Nephtys* (Polychaeta: Phyllococida) of northern Europe: a review of species, including the description of *N. pulchra* sp. n. and a key to the Nephtyidae. *Helgoländer Meeresuntersuchungen*, **45**: 65-96.
- Rouse, G.W. & Pleijel, F., 2001. *Polychaetes*. Oxford University Press Inc., New York.
- Rullier, F., 1963. Les annélides polychètes du Bosphore, de la mer de Marmara et de la mer Noire, en relation avec celles de la Méditerranée. *Rapp. Pr.-Verb. Réunion. C.I.E.S.M.M.*, **17**(2): 161-260.
- Simboura, N. & Nicolaidou, A., 2001. The Polychaetes (Annelida, Polychaeta) of Greece: checklist, distribution and ecological characteristics. *Monographs on Marine Sciences*, Series no 4. NCMR, 1-115.
- Surugiu, V., 2002. *Populations of the Polychaetes (Annelida) from the Romanian coast of the Black Sea and from the littoral lakes and their ecological role*. Ph.D. Thesis, "Alexandru Ioan Cuza" University of Iași (România) [in Romanian]
- Surugiu, V., 2005a. Inventory of inshore polychaetes from the Romanian coast (Black Sea). *Mediterranean Marine Science*, **6**(1):51-73.
- Surugiu, V., 2005b. Community structure of polychaetes inhabiting shallow-waters in the Cape Midia – Cape Tuzla area (Romanian coast, Black Sea). *Studii și Cercetări Științifice – Seria Biologie*, **10**: 63-68.
- Vinogradov, K.A., 1949. To the fauna of the bristle worms (Polychaeta) of the Black Sea. *Tr. Karadag. biol. st.*, **8**: 1-84. [in Russian]
- Vinogradov, K.A., Losovskaya, G.V., 1963. Polychaeta of the north-western part of the Black Sea. *Nauk. zap. Odessk. biol. st.*, **5**: 3-11. [in Ukrainian]
- Vinogradov, K.A., Losovskaya, G.V., 1968. Phylum Annelida: Class Polychaeta. in *Opređelitel' fauny Chernogo i Azovskogo morey*, vol. 1, Izd. Naukova Dumka, Kiev, 251-359. [in Russian]
- Vorobiova, L.V., 1977. On the interstitial fauna of sandy beaches. *Ghidrobiol. Journ.*, **13**(2): 65-67. [in Russian]
- Westheide, W., 1990. *Polychaetes: Interstitial families*. Linnean Society Synopses of the British Fauna (ns), **44**.
- Zaitsev, Y.P., Aleksandrov, B.G., Minicheva, G.G., 2006. *North-Western part of the Black Sea: biology and ecology*. Naukova Dumka, Kiev. [in Russian]