

## **Deep-sea fauna of European seas: An annotated species check-list of benthic invertebrates living deeper than 2000 m in the seas bordering Europe. Echiura**

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**ABSTRACT:** An annotated check-list is given of Echiura species occurring deeper than 2000 m in the seas bordering Europe. The check-list is based on published data. The check-list includes 23 species. For each species synonymy, data on localities in European seas and general species distribution are provided. Station data are presented separately in the present thematic issue.

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**KEY WORDS:** deep-sea fauna, European seas, Echiura.

## **Глубоководная фауна европейских морей: аннотированный список видов донных беспозвоночных, обитающих глубже 2000 м в морях, окружающих Европу. Echiura**

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**РЕЗЮМЕ:** Приводится аннотированный список видов Echiura, обитающих глубже 2000 м в морях, окружающих Европу. Список основан на опубликованных данных. Список насчитывает 23 вида. Для каждого вида приведены синонимия, данные о нахождении в европейских морях и сведения о распространении. Данные о станциях приводятся в отдельном разделе настоящего тематического выпуска.

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**КЛЮЧЕВЫЕ СЛОВА:** глубоководная фауна, европейские моря, Echiura.

**Phylum Echiura****Order Bonelliida****Family Family Bonelliidae****Genus *Alomasoma* Zenkevitch, 1958**

COMPOSITION: 4 species (Zenkevitch, 1958, 1964, 1966; Zenkevitch, Murina, 1976; Datta-Gupta, 1981; Murina, 1993; Biseswar, 1993, 1997; Saiz-Salinas et al., 2000; Murina, 2005). Type species: *Alomasoma chaetiferum* Zenkevitch, 1958.

DISTRIBUTION: Pacific and Atlantic Oceans — 2 species, North Atlantic — 1, Pacific Ocean — 1, Antarctic area — 1.

***Alomasoma chaetiferum* Zenkevitch, 1958**

LOCALITIES: “Akademik Mstislav Keldish”, St. 4234 (Murina, 2003).

DISTRIBUTION: Atlantic, south-west Pacific, Aleutian Trench, Corall Sea, South America, South Orkney Trench, Mauritania.

DEPTH RANGE: 1914–7286m.

***Alomasoma nordpacificum* Zenkevitch, 1958**

LOCALITIES: BIOGAS, 1973 (Datta-Gupta, 1981).

DISTRIBUTION: Northeast Atlantic, Bay of Biscay, 2177–3056 m (Datta-Gupta, 1981).

DEPTH RANGE: 520–8040 m.

**Genus *Amalosoma* Fisher, 1948**

COMPOSITION: 2 species (Stephen, Edmonds, 1972; Datta-Gupta, 1981). Type species: *Acanthohamingia paradola* Fisher, 1946.

DISTRIBUTION: Northeast Atlantic Ocean, East Pacific.

***Amalosoma eddystonense* Stephen, 1958**

LOCALITIES: BIOGAS VI, CP 19; CP 21 (Datta-Gupta, 1981).

DISTRIBUTION: Northeast Atlantic, Bay of Biscay.

DEPTH RANGE: 218–4453 m.

**Genus *Biporus* Murina et Popkov, 2000**

COMPOSITION: 1 species (Murina, Popkov, 2000). Type species: *Biporus mycorhynchus* Murina et Popkov, 2000.

DISTRIBUTION: Norwegian Sea.

***Biporus mycorhynchus*****Murina et Popkov, 2000**

LOCALITIES: “Akademik Mstislav Keldysh”, St.2091.

DISTRIBUTION: Norwegian Sea.

DEPTH: 1670 m.

**Genus *Bonellia* Rolando, 1821**

COMPOSITION: 7 species (Stephen, Edmonds, 1972; Datta-Gupta, 1981, Biseswar, 1992). Type species: *Bonellia viridis* Rolando, 1821.

DISTRIBUTION: Atlantic Ocean — 5 species, Pacific Ocean — 2, Indian Ocean — 1, Indo–West Pacific — 1, West–India — 2.

***Bonellia pumicea* Sluiter, 1891**

LOCALITIES: INCAL, 1976, St. WS 09 (Datta-Gupta, 1981).

DISTRIBUTION: North-East Atlantic Ocean, Bay of Biscay, off Portugal.

DEPTH RANGE: from “shelf” to 4277m [according to Sluiter (1891) and Shipley (1899; 1903) the species was found in Sumatra, Ceylon and Loyalty Islands, depth unknown].

***Bonellia suhmii* Selenka, 1885**

LOCALITIES: Type locality off Nova Scotia in the North Atlantic. “Challenger”, St. 47 (Selenka, 1885).

DISTRIBUTION: Off Nova Scotia; Denmark Strait, Greenland, south of Iceland, North Atlantic (Stephen, Edmonds, 1972).

DEPTH RANGE: 1540–4380m.

**Genus *Bonelliopsis* Fisher, 1946**

COMPOSITION: 2 species (Fisher, 1946; Datta-Gupta, 1981). Type species: *Bonelliopsis alaskana* Fisher, 1946.

DISTRIBUTION: Pacific Ocean — 1 species; Atlantic Ocean — 1.

***Bonelliopsis minutus* Datta-Gupta, 1981**

LOCALITIES: BIOGAS I, St. DS 10 (Datta-Gupta, 1981).

DISTRIBUTION: Northeast Atlantic, Bay of Biscay (Datta-Gupta, 1981).

DEPTH RANGE: 2240 m.

**Genus *Brunellia* Zenkevitch, 1966**

COMPOSITION: 1 species (Zenkevitch, 1966; Datta-Gupta, 1981). Type species: *Brunellia bandae* Zenkevitch, 1966.

***Brunellia bandae* Zenkevitch, 1966**

LOCALITIES: BIOGAS IV, St. DS 57 (Datta-Gupta, 1981).

DISTRIBUTION: Northeast Atlantic.

DEPTH RANGE: 2906–7250 m. (In the North-East Atlantic — 2906 m).

**Genus *Charcotus* Datta-Gupta, 1981**

COMPOSITION: 2 species (Datta-Gupta, 1981). Type species: *Charcotus charcotus* Datta-Gupta, 1981.

DISTRIBUTION: North Atlantic Ocean.

***Charcotus charcotus* Datta-Gupta, 1981**

LOCALITIES: BIOGAS VI, St. CP 10.

DISTRIBUTION: Known only from one station in the abyssal of the North Atlantic, depth 2878 m (Datta-Gupta, 1981).

***Charcotus clavatum* Datta-Gupta, 1981**

LOCALITIES: INCAL, WS 03 (Datta-Gupta, 1981).

DISTRIBUTION: Known only from one station in the abyssal of the North Atlantic (Datta-Gupta, 1981).

DEPTH: 4829 m.

**Genus *Choanostomellia* Zenkevitch, 1964**COMPOSITION: 3 species (Zenkevitch, 1964; Murina, 1978). Type species: *Choanostomellia bruuni* (Zenkevitch, 1964).

DISTRIBUTION: Atlantic Ocean — 1 species, Indian Ocean — 1, Pacific Ocean — 2.

***Choanostomellia bruuni* (Zenkevitch, 1964)**

LOCALITIES: BIOGAS (1972), St. DS 26 (Datta-Gupta, 1981).

DISTRIBUTION: East Atlantic Ocean, Bay of Biscay (Datta-Gupta, 1981).

DEPTH RANGE: 2076–4930 m.

***Choanostomellia filatovae* Zenkevitch, 1964**

LOCALITIES: BIOGAS, St. CV 28 (Datta-Gupta, 1981).

DISTRIBUTION: Atlantic Ocean, Bay of Biscay (Datta-Gupta, 1981).

DEPTH RANGE: 1693–4023 m.

**Genus *Dattaguptus* Murina et Popkov, 2000**

COMPOSITION: 1 species (Murina, Popkov, 2000).

DISTRIBUTION: Norwegian Sea.

***Dattaguptus fragilis* Murina et Popkov, 2000**

LOCALITIES: “Akademik Mstislav Keldish”, St. 2079.

DISTRIBUTION: Norwegian Sea.

DEPTH: 1548 m.

**Genus *Eubonellia* Fisher, 1946**COMPOSITION: 2 species (Stephen, Edmonds, 1972; Datta-Gupta, 1981; 1983). Type species: *Eubonellia valida* Fisher, 1946.

DISTRIBUTION: Pacific Ocean — 1 species, North Atlantic — 2; Central Atlantic — 1, Indian Ocean — 1.

***Eubonellia longistomum* Datta-Gupta, 1981**

LOCALITIES: BIOGAS VI, St. CP 14, CP 22 (Datta-Gupta, 1981).

DISTRIBUTION: Northeast Atlantic (Bay of Biscay).

DEPTH RANGE: 4237–4475 m.

***Eubonellia noratlanticum* Datta-Gupta, 1981**

LOCALITIES: BIOGAS VI, St. CV 41 (Datta-Gupta, 1981).

DISTRIBUTION: Endemic of Northeast Atlantic, Iberian Basin.

DEPTH: 3800 m.

**Genus *Jacobia* Zenkevitch, 1958**COMPOSITION: 2 species (Zenkevitch, Murina, 1976; Datta-Gupta, 1981). Type species: *Jacobia birsteini* Zenkevitch, 1958.

DISTRIBUTION: Pacific Ocean — 1 species; North and Central Atlantic (Bay of Biscay, Romanche and South Sandwich Trenches) — 1 species.

***Jacobia similaris* Datta-Gupta, 1981**

LOCALITIES: BIOGAS VI, St. CV 37 (Datta-Gupta, 1981).

DISTRIBUTION: This species is known only from one station in the Bay of Biscay.

DEPTH RANGE: 3000 m.

**Genus *Maxmuelleria* Bock, 1942**COMPOSITION: 5 species (Selenka, 1885; Stephen, Edmonds, 1972; Datta-Gupta, 1981; Murina, 1982; Saiz Salinas et al., 2000). Type species: *Maxmuelleria (Thalassema) gigas* M. Mueller, 1852.

DISTRIBUTION: North Atlantic — 4 species, South Atlantic — 1, Mediterranean — 1, Indian Ocean — 1.

***Maxmuelleria (Thalassema) faex*****(Selenka, 1885)**

LOCALITIES: “Vitjaz”, St. 7941, 7943, Iberian Basin, depth 4900–5370 m (Murina, 1982).

DISTRIBUTION: Norwegian coast (Selenka, 1885); Iberian Basin (Murina, 1982).

DEPTH RANGE: 336–5370 m.

***Maxmuelleria verrucosum* (Studer, 1879)**

LOCALITIES: INCAL, St. WS 03 (Datta-Gupta, 1981).

DISTRIBUTION: North Atlantic, Iberian Basin.

DEPTH RANGE: 0–4829 m.

**Genus *Prometor* Fisher, 1948**

COMPOSITION: 4 species (Stephen, Edmonds, 1972; Zenkevitch, Murina, 1976; Datta-Gupta, 1981, 1983; Saiz Salinas et al., 2000).

DISTRIBUTION: North East Atlantic — 1 species, Pacific Ocean — 3, Antarctic, Indian Ocean sector — 1.

***Prometor pocula* Hartman et Bernard, 1960**

LOCALITIES: BIOGAS 3, St. CV 31 (Datta-Gupta, 1981).

DISTRIBUTION: Northeast Atlantic, Iberian Basin.

DEPTH RANGE: 1670–4293 m.

**Genus *Protobonellia* Ikeda, 1908**

COMPOSITION: 6 species (Murina, 1976, 1978, 1982; Zenkevitch, Murina, 1976; Datta-Gupta, 1981; Biseswar, 1992; Saiz Salinas et al., 2000). Type species: *Protobonellia mitsukurii* Ikeda, 1908.

DISTRIBUTION: Northeast Atlantic — 2 species, Mediterranean — 1, Pacific Ocean — 4, Indian Ocean — 1.

***Protobonellia breviryhynchus* Murina, 1982**

LOCALITIES: “Vitjaz”, St 7924, depth 1150 m, St. 7927, depth 3630 m (Murina, 1982).

DISTRIBUTION: Mediterranean, Tyrrhenian Sea.

DEPTH RANGE: 1113–3630 m.

***Protobonellia mitsukurii* Ikeda, 1908**

LOCALITIES: INCAL, St. WS 03 (Datta-Gupta, 1981).

DISTRIBUTION: North Atlantic, Bay of Biscay, Norwegian Sea.

DEPTH RANGE: 554–5540 m.

**Family *Thalassematidae*****Genus *Thalassema* Lamarck, 1801**

COMPOSITION: 15 species (Stephen, Edmonds, 1972; Datta-Gupta, 1981; Biseswar, 1997). Type species: *Lumbricus thalassema* Pallas, 1766 (= *Thalassema neptuni* Gaertner of Pallas, 1774 and other authors).

DISTRIBUTION: Atlantic Ocean — 9 species, Indian Ocean — 3, Pacific Ocean — 6, Indo-West Pacific — 3.

***Thalassema elapsum* Sluiter, 1912**

LOCALITIES: Northeast Atlantic (no station details) (Datta-Gupta, 1981).

DISTRIBUTION: Northeast Atlantic, Iberian Basin.

DEPTH RANGE: 628–4228 m.

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