

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

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ABSTRACT: An annotated check-list is given of Antipatharia species occurring deeper than 2000 m in the seas bordering Europe. The check-list is based on published data. It includes 12 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, Antipatharia.

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

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РЕЗЮМЕ: Приводится аннотированный список видов Antipatharia, обитающих глубже 2000 м в морях, окружающих Европу. Список основан на опубликованных данных. Список насчитывает 12 видов. Для каждого вида приведены синонимия, данные о находениях 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, Antipatharia.

Phylum Cnidaria
Class Anthozoa
Order Antipatharia
Family Antipathidae

Genus *Stichopathes* Brook, 1889

COMPOSITION. 34 species (Pesch, 1914; Molodtsova, 2006). Type species of the genus: *Stichopathes pourtalesii* Brook, 1889.

DISTRIBUTION. Cosmopolitan, Atlantic — 11, Indian Ocean — 12, Pacific — 11; 10–2200 m.

CENTRE OF DIVERSITY. Indo-Pacific (17 species).

***Stichopathes flagellum* Roule, 1902**

Stichopathes flagellum Roule, 1902: 229–230; Roule, 1905: 56–58, 92–95, pl. 1 (1), pl. 6 (4); Silberfeld, 1909: 11; Pesch, 1914: 113–114; Gravier, 1921: 9, pl. 2 (14); Land, Opresko 2001: 109.

LOCALITY. “Hirondelle”, St. 1116 (Roule, 1905).

DISTRIBUTION. Atlantic (Madeira, Morocco, Azores).

DEPTH RANGE. 1165–2000 m.

***Stichopathes abyssicola* Roule, 1902**

Stichopathes abyssicola Roule, 1902: 232; Roule, 1905: 64–66, 92–95, pl. 1 (3), pl. 6 (1); Silberfeld, 1909: 11; Pesch, 1914: 112–113; Grasshoff, 1985b: 303; Grasshoff, 1989: 215, 219; Land, Opresko, 2001: 109; *Stichopathes richardi* (not Roule, 1902) Gravier, 1921: 9–10; non *Stichopathes abyssicola* Grasshoff, 1981a: 741–742, 760; Grasshoff, 1981b: 960, 978.

LOCALITIES. “Hirondelle”, St. 1116 (Roule, 1905); SEAMOUNT1, CP 30 (original observations).

DISTRIBUTION. North Atlantic (Bay of Biscay; Azores, Madeira, Morocco).

DEPTH RANGE. 1500–2200 m.

***Stichopathes dissimilis* Roule, 1902**

Stichopathes dissimilis Roule, 1902: 231–232; Roule, 1905: 58–62, pl.1 (2), pl.6 (2, 2a–c, 3, 3a, 3b); Silberfeld 1909: 11; Land, Opresko, 2001: 109; p.p. *Stichopathes richardi* (non Roule, 1902) Gravier, 1921: 9–10, pl.1 (1); non *Stichopathes* aff. *dissimilis* Molodtsova, 2006: 147, fig. 2 (d–g), fig. 5.

LOCALITIES. “Princesse-Alice”, St. 2048 (original observations).

DISTRIBUTIONS. North Atlantic (off Morocco).

DEPTH RANGE. 240–2000 m.

Genus *Antipathes* Pallas, 1766

COMPOSITION. 67 species (Silberfeld, 1909; Pesch, 1914; Opresko, 1974, 2001, 2003). Type species: *Antipathes dichotoma* Pallas, 1766.

DISTRIBUTION. Cosmopolitan, Atlantic — 15, Indian Ocean — 19, Pacific — 33, for some species

described in this genus no geographical locations are given. 0–2500 m.

CENTRES OF DIVERSITY. Caribbean (8 species), Indonesia (8 species) and north-west Pacific, mainly around Japan (13 species).

***Antipathes furcata* Gray, 1857**

Antipathes furcata Gray, 1857: 291; Brook, 1889: 104, pl. 11 (2); Johnson, 1899: 819; *Antipathes furcata* var. α Schultze, 1902: 92, tab.13 (5), tab. 14 (10,14)

LOCALITIES. “Valdivia”, St. 33 (Schultze, 1902).

DISTRIBUTION. North Atlantic (seamounts of north-east Atlantic and Madeira), Caribbean Sea.

DEPTH RANGE. 30–2480 m.

***Antipathes viminalis* Roule, 1902**

Antipathes viminalis Roule, 1902: 233–234; Roule, 1905: 64–66, 93–95, pl. 2 (1), pl. 7 (2); Silberfeld, 1909: 6; p.p. *Euantipathes dichotoma* (non *Antipathes dichotoma* Pallas, 1766) Pesch, 1914: 52–78; *Antipathes* (?) *virgata* (non Esper, 1788) Roule, 1905: 77–78; non *Antipathes viminalis* Zou, Zhou, 1984: 101, 103–104.

LOCALITY. “Hirondelle”, St. 1116 (Roule, 1905).

DISTRIBUTION. Atlantic (off Morocco).

DEPTH RANGE. 2165 m.

Family Leioopathidae Haeckel, 1896

Genus *Leioopathes* Haime, 1849

COMPOSITION. 8 species (Molodtsova, 2011). Type species *Antipathes glaberimma* Esper, 1792.

DISTRIBUTION. Pacific, Atlantic and Indian Ocean, Atlantic — 4, Indian — 4, Pacific — 3; 100–2165 m.

CENTRES OF DIVERSITY. North Atlantic (4 species) and Indian Ocean (4 species).

***Leioopathes glaberrima* (Esper, 1792)**

?*Antipathes clathrata* — Pallas, 1766: 212; Esper, 1788: pl. 2; Esper, 1792: 141; Lamarck 1815: 475; Lamarck, 1816: 309; Lamouroux, 1816: 382; ?*Arachnopathes clathrata* Milne-Edwards, Haime, 1857: 320; Brook, 1889: 164; *Antipathes glaberrima* Esper, 1792: 160, pl. 9 (1–5); Lamarck, 1815: 471; Lamarck, 1816: 306; Dana, 1846: 585; de Pourtalès, 1880: 118, pl. 3(2, 28); Koch, 1889: 194; Pesch, 1914: 86; Pax, Müller, 1955:107; Pax, Müller, 1964:104; Tyler, Zibrowius, 1992: 217; *Leioopathes glaberrima* — Haime, 1849: 284–287; Gray, 1857: 290; Milne-Edwards, Haime, 1857: 322; Brook, 1889: 95, pl.4 (8–9), pl.12 (21–22), pl.15 (3–5); Silberfeld, 1909: 4; van Pesch, 1914: 76–77; Gravier, 1918a: 343; Gravier, 1918b: 225; Gravier, 1921: 14; Opresko, 1974: 116; Grasshoff, 1989: 215; Grasshoff, 1990: 361; Land, Opresko, 2001: 109; ?*Antipathes boscii* Lamouroux, 1816: 375, pl. 14 (5); Dana, 1846: 584; Milne-Edwards, Haime, 1857: 318; ?*Leioopathes boscii* Gray, 1857: 290; ?*Antipathes dichotoma* (non Pallas, 1766) Gray, 1832: 41; ?*Antipathes dissecta* Duchassaing, Michelotti, 1864: 142; de Pourtalès, 1871:

53; non *Leiopathes glaberrima* Johnson, 1899: 817; Grasshoff, 1985a: 73;

LOCALITIES. “Princesse-Alice”, St. 2048 (Gravier, 1921), CYAPORK dive 32 (Tyler, Zibrowius, 1992).

DISTRIBUTION. Widely distributed in the North Atlantic and the Mediterranean Sea.

DEPTH RANGE. 100–2048 m.

***Leiopathes grimaldii* Roule, 1902**

Leiopathes grimaldii Roule, 1902: 236–237; Roule, 1905: 73–75, 92–95, pl. 3 (1–2), pl. 7 (4); Silberfeld 1909: 4; van Pesch, 1914: 77–78; Grasshoff, 1985b: 303, 306; Tyler, Zibrowius, 1992: 217.

LOCALITIES. “Hirondelle”, St. 1116 (Roule, 1905), CYAPORK dive 33 (Tyler, Zibrowius, 1992).

DISTRIBUTION. North Atlantic (at the latitude of Morocco and Madeira).

DEPTH RANGE. 880–2165 m.

Family Schizopathidae Brook, 1889

Genus *Schizopathes* Brook, 1889

COMPOSITION. 3 species, type species of the genus: *Schizopathes crassa* Brook, 1889.

DISTRIBUTION. Cosmopolitan, Atlantic — 2, Indian Ocean — 3, Pacific — 2; 1900–8600 m.

CENTRE OF DIVERSITY. Indian Ocean — 3.

***Schizopathes affinis* Brook, 1889**

Schizopathes affinis Brook, 1889: 148–150, pl. 9 (1–6); Opresko, 1997: 161–163, fig.2; Loiola, Castro, 2001: 6; Molodtsova, 2006: 142; Molodtsova et al., 2008: 116–118; p.p. *Bathypathes patula* (not Brook, 1889) Pasternak, 1958:181–187; Pasternak, 1976: 46–47; Pasternak, 1977: 157–159, 162–164; Grasshoff, 1981a: 738, 741–742, 755, 760; Grasshoff, 1981b: 961, 978; Grasshoff, 1985b: 303; Pasternak, 1985: 34.

LOCALITIES. “G.O. Sars” MARECO 42/368 (Molodtsova et al., 2008); BIAÇORES St 129 BL; NORATLANTE P65 B010, P85 E012; “Tydeman” Azores Expedition, 1981 CANCAP 5049 (original observations).

DISTRIBUTION. Cosmopolitan.

DEPTH RANGE. 1900–8900 m.

Genus *Bathypathes* Brook, 1889

COMPOSITION. 10 nominal species, type species of the genus: *Bathypathes patula* Brook, 1889.

DISTRIBUTION. Cosmopolitan, Atlantic — 2, Indian Ocean — 2, Pacific — 7, Antarctic — 2; 100–8600 m.

CENTRE OF DIVERSITY. south-east Pacific (4 species).

***Bathypathes robusta* (Gravier, 1918)**

Stichopathes robusta Gravier, 1921: 12–13, pl. 1 (3–5), pl. 2 (16–17); Land, Opresko, 2001: 109; p.p. *Bathypathes patula* (not Brook, 1889) Pasternak, 1958:181–187; Pasternak, 1976: 47; Pasternak, 1977: 157–159,

162–164; Grasshoff, 1981a: 738, 741–742, 755, 760; Grasshoff, 1981b: 961, 978; Grasshoff, 1985b: 303; Pasternak, 1985: 34; Land, Opresko, 2001: 109.

LOCALITIES. GEOMANCHE CH60, DR13; BIOGAS VI, CP 23, St. 6; SEAMOUNT 1 CP 102 (original observations).

DISTRIBUTION. Bay of Biscay, Ampère seamount, Celtic slope.

DEPTH RANGE. 610–4150 m.

***Bathypathes* sp.**

Bathypathes patula (not Brook, 1889) Roule, 1902: 237; Roule, 1905: 76; Gravier, 1921: 16, pl. 1 (9), pl. 2 (20); Molodtsova, 2006: 141–142, fig.1; p.p. *Bathypathes patula* (not Brook, 1889) Pasternak, 1958: 181–187; Opresko, 1974: 127–130; Pasternak, 1976: 47; Pasternak, 1977: 157–159, 162–164; Grasshoff, 1981a: 738, 741–742, 755, 760; Grasshoff, 1981b: 961, 978; Grasshoff, 1985b: 303; Pasternak, 1985: 34; Tyler, Zibrowius, 1992: 217; Land, Opresko, 2001: 109.

LOCALITIES. “Hirondelle”, St. 1116; BIOGAS II (Roule, 1905), CYAPORK dive 32 (Tyler, Zibrowius, 1992), CV 20, St. 1; POLYGAS CV 10, St. 1; BIOGAS IV, CP 02, St. 1; BIOGAS V, CP 07, St. 6; “Akademik Mstislav Keldysh” (2002) St. 4304 (original observations).

DISTRIBUTION. North Atlantic.

DEPTH RANGE. 1600–3500 m.

REMARKS. Specimens reported as *Bathypathes patula* in the Northern Atlantic belong to 2–3 undescribed species.

Genus *Abyssopathes* Opresko, 2002

COMPOSITION. 2 species (Opresko, 2002).

Type species: *Bathypathes lyra* Brook, 1889.

DISTRIBUTION. Cosmopolitan, Atlantic — 1, Indian Ocean — 1, Pacific — 2; 3459–5930 m. Antarctic — 1.

***Abyssopathes lyra* (Brook, 1889)**

Bathypathes lyra Brook, 1889: 154, pl. 6 (4–6); Silberfeld, 1909: 12; Gravier, 1921: 19–20, pl. 1 (10–13), pl. 2 (21); Pasternak, 1958: 187; Pasternak, 1964: 201–204; Pasternak, 1976; Pasternak, 1977: 159, 162–164; Grasshoff, 1981a: 737–738, 742, 754; Grasshoff, 1981b: 961–962, 978; Mironov, Pasternak, 1981: 15; Grasshoff, 1985b: 303; Land, Opresko, 2001: 109; *Abyssopathes lyra* Opresko, 2002: 421–422, 424.

LOCALITIES. “Hirondelle”, St. 821 (Gravier, 1921); “Princesse-Alice”, St. 3223 (Gravier, 1921); BIOGAS V, CP 05, St. 4 (Grasshoff, 1981b); ABYPLAINE CP 02, DS 04, CP 05, CP 08, CP 15, CP 18, CP 20 (original).

DISTRIBUTION. Cosmopolitan, known from abyssal depths of Atlantic, Indian Ocean and Pacific.

DEPTH RANGE. 3492–5930 m.

Genus *Stauropathes* Opresko, 2002

COMPOSITION. 3 nominal species. Type species *Stauropathes stauocrada* Opresko, 2002.

DISTRIBUTION. Atlantic and Pacific, Arctic — 1, Atlantic — 2, Pacific — 1; 400–1850 m.

CENTRE OF DIVERSITY. North Atlantic (2 species).

Stauropathes punctata (Roule, 1905)

(?) *Tylopathes hirta* — Roule 1902: 81–82; pl.4: 1; n.n. (?) *Tylopathes (Eutylopathes) punctata* Roule, 1905: 81–82, pl.4 (1, 1a, 1b); *Antipathes punctata* Silberfeld 1909: 8; Land, Opreško, 2001: 109; Grasshoff, 1985b: 303, 306; Tyler, Zibrowius, 1992: 217; *Stauropathes punctata* Opreško, 2002: 417, 420; Molodtsova, 2006: 148.

LOCALITIES. “Thalassa”, W 425 (Grasshoff, 1985b), CYAPORK dredge 1 (Tyler, Zibrowius, 1992), Seamount 1 CP102 (original).

DISTRIBUTION. Atlantic (Azores, Bay of Biscay, Ampère seamount).

DEPTH RANGE. 1300–2100 m.

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