



# A comprehensive assessment of the intertidal biodiversity along the Portuguese coast in the early 2000s

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## Abstract

### Background

The unprecedented rates of current biodiversity loss have motivated a renewed interest in environmental and biodiversity monitoring. The need for sustained monitoring strategies has prompted not only the establishment of new long-term monitoring programmes, but also the rescue of data from historical or otherwise archived sources. Amongst the most valuable datasets are those containing information on intertidal systems, as they are particularly well suited for studying the biological effects of climate change. The Portuguese rocky coast is quite interesting for studying the effects of climate change on the distribution of species due to its geographical orientation, latitudinal patterns in temperature, species richness, species' distribution patterns and availability of historical information. This work aims at providing a comprehensive picture of the distribution and abundance of intertidal macro-invertebrates and macro-algae along the Portuguese rocky coast in the early 2000s.

## New information

This study provides a description of the rocky shore intertidal biodiversity of the mainland Portuguese coast in the early 2000s. The spatial distribution and semi-quantitative abundance of a total of 238 taxa were assessed at 49 wave-exposed locations. These data provide a comprehensive baseline against which biodiversity changes can be effectively and objectively evaluated.

## Keywords

intertidal, biodiversity, rocky shores, historical data, Portugal

## Introduction

Biodiversity is now declining globally at rates unprecedented in human history (Ceballos et al. 2017, IPBES 2019). This process is being mainly driven by habitat degradation and loss and compounded by the recent climate change (IPCC 2014). Biodiversity loss has been severely affecting species distributions, community structure, ecosystem function, ecosystem services, food security and public health (Edwards and Richardson 2004, Hawkins et al. 2008, Wernberg et al. 2011, IPBES 2019). This so-called "biodiversity crisis" has motivated a renewed interest in effective environmental and biodiversity monitoring (Navarro et al. 2017, CBD 2010). Broad-scale, sustained observations, including historical data rescue, are now regarded as essential to understand past trends and to produce accurate forecasts which are needed to provide information for policy decisions (Hawkins et al. 2013).

Intertidal systems are well suited for studies focusing on the effects of climate variability and climate change on biodiversity, as they are amongst the most thermally complex environments on Earth (Pincebourde et al. 2008) and are strongly influenced by meteorological conditions (Bates et al. 2018, Zamir et al. 2018). They are inhabited by marine organisms that must withstand terrestrial conditions during low tide. Stressful events may have dire consequences for these species (Jurgens et al. 2015), which are, therefore, regarded as sensitive indicators of climate variability and change (Helmuth et al. 2006).

Stemming from its peculiar geographic, climatic and oceanographic setting, the biogeography of the Portuguese rocky coast is quite interesting and offers exceptional conditions for studying the effects of climate change on the distribution of species. First, the coast is mostly linear with a north-to-south orientation and with a latitudinal gradient in temperature during the winter, from relatively cold water in the north to relatively warm water in the south. In the summer, that latitudinal gradient is often intensified by the effects of coastal upwelling, which brings deep cold water to the surface near the coast, especially in the northern portion of the country (Lemos and Pires 2004, Lima et al. 2007, Seabra et al. 2015). These clinal variations in temperature result in a region of contact between

meridional (warm-water) and septentrional (cold-water) fauna and flora, where the distribution limits of several species are reached (Fischer-Pi ette 1959, Fischer-Pi ette and Gaillard 1959, Fischer-Pi ette 1963, Ard re 1970, Santos 2000, Ara ujo et al. 2009, Lima et al. 2007). Second and also due to the cold effects of upwelling, the northern Portuguese coast is, on the one hand, a biogeographic enclave for cold-water species, such as *Himantalia elongata*, *Saccharina latissima* or *Pelvetia canaliculata*, which can only be found again thousands of kilometres further north, in Brittany (France). On the other hand, many warm-water species, such as *Codium adhaerens*, *Padina pavonica* or *Valonia utricularis*, occur both towards either the north or the south, but not in this region; in other words, their distribution features a prominent gap in northern Portugal (van den Hoek and Donze 1967, Lima et al. 2007). Third, shifts in species distributions have been described since the 1950s, not only for this particular stretch of coastline, but also for the neighbouring regions in the Iberian Peninsula (Fischer-Pi ette and Forest 1951, Fischer-Pi ette 1957, Fischer-Pi ette and Prenant 1957, Fischer-Pi ette 1960, Ard re 1971, Santos 2000, Lima et al. 2006, Lima et al. 2007, Berke et al. 2010, Wetthey et al. 2011, Rubal et al. 2013). Fourth, recent evidence suggests that, due to the effects of coastal upwelling, the Portuguese coast has been warming at a slower pace than its neighbouring regions, but that effect may become compromised in the near future (Varela et al. 2018, Seabra et al. 2019). Thus, the long-term monitoring of this region is essential to understand if changes in the distribution of its inhabiting species are either the result of climate change or local impacts (Hawkins 2012).

This work aims at providing a comprehensive picture of the distribution and abundance of intertidal macro-invertebrates and macro-algae along the Portuguese rocky coast in the early 2000s. These data, previously unpublished, may be used for environmental management (e.g. as an aid for the decision processes leading to the establishment of coastal protection areas), in conservation contexts (e.g. for environmental impact assessments studies), in ecological studies (e.g. to better understand the complex relationships between environment and biodiversity) or in climate change studies (since alterations in species distributions may be used as warning signs of the effects of climate change).

## Sampling methods

**Study extent:** Data were collected during the autumns of 2001 and 2002 (Table 1). Sampling was carried out at 49 wave-exposed rocky shore locations along the Portuguese coast, covering the three major rocky stretches of shoreline (Fig. 1, Fig. 2, Table 1). In the northern region, we sampled the locations of Moledo do Minho, Vila Praia de  ncora, Afife, Montedor, Forte da Vigia, Praia Norte, Amorosa, Mindelo, Vila Ch , Labruje, Angeiras, Cabo do Mundo, Homem do Leme, Valadares, Miramar and Aguda. In the central region, we sampled Nazar , S o Martinho do Porto, Baleal, Papoa, S o Bernardino, Santa Cruz, S o Louren o, Ericeira, S o Juli o, Magoito, Adraga, Abano, Cabo Raso, Avencas, Cabo Espichel and Portinho da Arr bida. In the southern region, we sampled S o Torpes, Oliveirinha, Queimado, Vila Nova de Milfontes, Zambujeira do Mar, Vale dos Homens,

Monte Clérigo, Arrifana, Castelejo, Martinhal, Ingrina, Praia da Luz, Porto de Mós, Dona Ana, Castelo and Olhos de Água. The location of Buarcos, roughly at the mid-point between the northern and the central stretches of rocky coast, was also included in this study.

Table 1.

Names of the locations visited in this study, sampling date, coordinates and low tide height on the day of sampling. Map reference numbers are cross-referenced with Fig. 1.

Map reference	Location	Sampling date	Latitude	Longitude	Astronomical low tide height (m below mean sea water level)
1	Moledo do Minho	2001-09-19	41.841824	-8.873979	-1.70
2	Vila Praia de Âncora	2001-09-20	41.816049	-8.872269	-1.60
3	Afife	2002-11-07	41.784753	-8.873573	-1.58
4	Montedor	2001-09-20	41.736517	-8.876095	-1.60
5	Forte da Vigia	2001-09-19	41.699426	-8.857093	-1.71
6	Praia Norte	2002-11-06	41.698016	-8.853935	-1.69
7	Amorosa	2002-06-25	41.642586	-8.825918	-1.24
8	Mindelo	2001-09-17	41.309900	-8.742765	-1.57
9	Vila Chã	2001-09-17	41.295714	-8.737265	-1.57
10	Labruje	2002-11-05	41.274929	-8.729791	-1.69
11	Angeiras	2002-11-05	41.264639	-8.729113	-1.69
12	Cabo do Mundo	2001-09-18	41.223489	-8.716956	-1.68
13	Homem do Leme	2001-09-18	41.159700	-8.686061	-1.68
14	Valadares	2001-09-16	41.088863	-8.658663	-1.40
15	Miramar	2002-11-04	41.068286	-8.658869	-1.58
16	Aguda	2001-09-16	41.043782	-8.652202	-1.40
17	Buarcos	2002-01-02	40.177513	-8.903539	-1.44
18	Nazaré	2001-10-19	39.603837	-9.080406	-1.48
19	São Martinho do Porto	2001-10-19	39.511391	-9.142621	-1.48
20	Baleal	2001-10-18	39.375856	-9.339807	-1.59
21	Papoa	2001-10-18	39.373440	-9.377283	-1.58
22	São Bernardino	2002-12-03	39.309556	-9.347106	-1.42

Map reference	Location	Sampling date	Latitude	Longitude	Astronomical low tide height (m below mean sea water level)
23	Santa Cruz	2002-12-04	39.132919	-9.386206	-1.51
24	São Lourenço	2002-12-04	39.014081	-9.423544	-1.50
25	Ericeira	2001-10-17	38.961181	-9.420290	-1.59
26	São Julião	2002-12-04	38.933212	-9.420080	-1.49
27	Magoito	2001-10-17	38.865024	-9.450610	-1.58
28	Adraga	2002-12-06	38.805798	-9.485069	-1.40
29	Abano	2002-12-05	38.741236	-9.473426	-1.48
30	Cabo raso	2001-10-16	38.709571	-9.486673	-1.47
31	Avencas	2001-10-16	38.688432	-9.360986	-1.49
32	Cabo Espichel	2001-12-06	38.423685	-9.215187	-0.91
33	Portinho da Arrábida	2002-12-06	38.478248	-8.981859	-1.39
34	São Torpes	2002-10-08	37.912645	-8.802884	-1.63
35	Oliveirinha	2001-11-17	37.891804	-8.797249	-1.35
36	Queimado	2002-10-08	37.820059	-8.793436	-1.63
37	Vila Nova de Milfontes	2001-11-17	37.720834	-8.792484	-1.35
38	Zambujeira do Mar	2001-11-16	37.524209	-8.788036	-1.45
39	Vale dos Homens	2002-10-07	37.382567	-8.826646	-1.64
40	Monte Clérigo	2001-11-16	37.340579	-8.854811	-1.44
41	Arrifana	2002-10-07	37.289191	-8.864691	-1.64
42	Castelejo	2001-11-15	37.102461	-8.945659	-1.45
43	Martinhal	2002-10-06	37.021090	-8.921792	-1.53
44	Ingrina	2001-11-15	37.045155	-8.877728	-1.45
45	Praia da Luz	2001-11-14	37.084187	-8.729989	-1.38
46	Porto de Mós	2002-10-06	37.083850	-8.681465	-1.53
47	Dona Ana	2001-11-14	37.091115	-8.668970	-1.38
48	Castelo	2002-10-05	37.072434	-8.298182	-1.38
49	Olhos de Água	2002-10-05	37.089327	-8.188497	-1.38

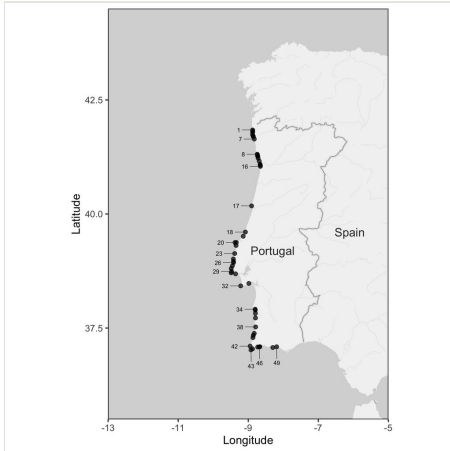


Figure 1. [doi](#)

Study locations along the Portuguese coast (Western Iberia) visited in the years of 2001 and 2002. Location details and sampling dates can be found in Table 1.



Figure 2. [doi](#)

Examples of shores and tide levels surveyed in the present study. A - Mindelo, in northern Portugal, B - Santa Cruz, in central Portugal, C - Dona Ana, in southern Portugal. D - High intertidal at Monte Clérigo, with *Melarhaphé neritoides*, E - Mid-intertidal at Arrifana, with barnacles and mussels, F - Low intertidal at Mindelo featuring *Himanthalia elongata*, which is now almost extinct from the area. Photos taken by Fernando P. Lima.

**Sampling description:** Each of the 49 studied locations were extensively surveyed from the splash fringe level in the high intertidal (area of occurrence of littorinids and lichens) to the low fringe level at the low intertidal (area of occurrence of red, green and brown algae, see Fig. 2). At each location, a two-people team worked from one hour before the low tide peak to one hour after low tide (Fig. 3). The average astronomical low tide height during

surveys was  $-1.51 \pm 0.14$  m below mean sea water level (Table 1). The occurrence and abundance of all easily-identified taxa (animals and algae, sensu lato) were recorded in situ. A semi-quantitative estimation of abundance was assigned to each taxa identified during the survey. We used a modified version of the scale established by Crisp and Southward (1958) — **SACFOR**, where abundances were encoded from 6 to 0 (where 6 means **S**uperabundant; 5, **A**bundant; 4, **C**ommon; 3, **F**requent; 2, **O**ccasional; 1, **R**are; and 0, not found). Small animals or algae (turfs) or other taxa of dubious classification were collected and their identification finalised in the lab under a stereomicroscope (Fig. 3). Additionally, whole substrate samples were collected by scraping the substrate with a paint scraper spatula at three tidal levels: (1) amongst barnacles, (2) amongst mussels and honeycomb worm reefs (*Sabellaria alveolata*) and (3) amongst red, green and brown algae and preserved in a solution of 4% formaldehyde in seawater (Fig. 3). The scraped area was approximately 150-225 cm<sup>2</sup> per sample. The number of samples varied between four and six, accordingly to the spatial heterogeneity of each substrate, but totalling approximately 900 cm<sup>2</sup> per shore and substrate. Later, in the lab, formaldehyde was removed from samples by washing them with running water and smaller organisms were separated from larger mussels, honeycomb worm reefs or canopy algae using a 0.25 cm mesh sieve and identified to the lowest taxonomic level possible.



Figure 3. [doi](#)

A - A team of two people performing the SACFOR survey at Martinhal, B - Substrate scraping in a mussel bed, C - Identification of species in the lab under a stereomicroscope, D - *Siphonaria pectinata*, an invasive warm-water species amongst *Chthamalus montagui* in a tide pool, E - *Pelvetia canaliculata*, a cold-water species with its southern distribution limit at Cabo do Mundo, F - The red algae *Nitophyllum punctatum* as seen under a stereomicroscope. Photos taken by Fernando P. Lima.

**Quality control:** In addition to AlgaeBase (Guiry and Guiry 2021), authoritative identification guides and keys for the Eastern Atlantic and Mediterranean were used. Specifically, Dixon and Irvine (1977), Hiscock (1979), Irvine (1983), Bárbara and Cremades

(1987), Christensen (1987), Fletcher (1987), Saldanha (1988), Burrows (1991), Cabioch et al. (1992), Maggs and Hommersand (1993), Hiscock (1986), Irvine and Chamberlain (1994), Brodie and Irvine (2003) were used for algae and Naylor (1972), Lincoln (1979), Manuel (1981), Graham (1988), Hayward and Ryland (1991) were used for animals. All scientific names were standardised against the WoRMS - The World Register of Marine Species using the Taxon Match tool available at <http://www.marinespecies.org/aphia.php?p=match> (accessed on: 07-07-2021).

**Step description:** The steps that led to the final release of the dataset were as follows: (1) In-situ identification of species and attribution of a semi-quantitative abundance SACFOR score; (2) destructive sampling (substrate scraping) at three tidal levels and preservation of samples in formaldehyde; (3) cleaning of formaldehyde, sorting and identification of specimens in the lab; (4) conversion of paper-based records from the field and from the lab into an electronic data format (spreadsheets); (5) integration of the field and laboratory datasets into a standardised format; (6) retrieval of missing geographical information, georeferencing of coordinates through Google Earth and general quality control; (7) standardisation of taxonomy against the World Register of Marine Species; (8) export of data as a DarwinCore Archive and (9) generation of dataset-level metadata.

## Geographic coverage

**Description:** Sampling was done along the three major rocky stretches of the entire coast of mainland Portugal, covering an extension of approximately 700 km from Moledo do Minho to Olhos de Água.

**Coordinates:** 37.021090 and 41.841824 Latitude; -9.486673 and -8.188497 Longitude.

## Taxonomic coverage

**Taxa included:**

Rank	Scientific Name
kingdom	Plantae
kingdom	Animalia
kingdom	Chromista
kingdom	Bacteria
kingdom	Fungi

## Temporal coverage

**Data range:** 2001-9-16 - 2002-12-06.



## Usage licence

**Usage licence:** Open Data Commons Attribution License

**IP rights notes:** Data users are free to share, create and adapt the dataset as long as they adequately attribute (cite) this work.

## Data resources

**Data package title:** Intertidal Biodiversity along the Portuguese Coast (2001-2002)

**Resource link:** <http://ipt.gbif.pt/ipt/resource?r=ibpc>

**Alternative identifiers:** <https://doi.org/10.15468/mbg5p3>

**Number of data sets:** 1

**Data set name:** Intertidal Biodiversity along the Portuguese coast (2001-2002)

**Download URL:** <http://ipt.gbif.pt/ipt/resource?r=ibpc>

**Data format:** Darwin Core archive

**Description:** The data presented in this paper derives from visual and destructive surveys done along the Portuguese coast in the early 2000s. The dataset published in GBIF has the structure of a Sampling event dataset with two data subsets: Events (Core) and Associated occurrences. These data have been published as a Darwin Core Archive (DwCA), which is a standardised format for sharing biodiversity data. The Sampling Event (Core) contains 49 records (eventID). The extension data (Associated Occurrences) sheet has 11662 occurrences.

Column label	Column description
eventID	Unique identifier associated with an event
samplingProtocol	Sampling method used during the event
samplingEffort	Description of effort during the sampling event
eventDate	The date of the event
year	The year of the event
month	The month of the event
day	The day of the event
eventRemarks	Astronomical low tide height during the event
country	Country where the event took place
countryCode	The unique code of the country where the event took place

locationID	An identifier for the location information from Geonames
decimalLatitude	The geographical latitude of the event
decimalLongitude	The geographical longitude of the event
geodeticDatum	The geodetic datum upon which the geographical coordinates are based
coordinatePrecision	The precision of the coordinates
coordinateUncertaintyInMetres	The uncertainty of the coordinates, in metres
type	Type of dataset
ownerInstitutionCode	Identifier code of the owner institution
habitat	The habitat in which the event took place
waterBody	The water body in which the event took place
rightsHolder	The rights holder of the dataset
bibliographicCitation	Bibliographic citation of the dataset publication
occurrenceID	Unique identifier associated with the occurrence of a species
basisOfRecord	The specific nature of the data record
organismQuantity	An enumeration value for the quantity of a species
organismQuantityType	The quantification scale of the quantity of a species
occurrenceStatus	A statement about the presence or absence of a species in a location
scientificName	The full scientific name, with authorship and date information, if known
scientificNameID	Unique identifier of a species, obtained from WoRMS
kingdom	The full scientific name of the kingdom in which the taxon is classified
phylum	The full scientific name of the phylum in which the taxon is classified
class	The full scientific name of the class in which the taxon is classified
order	The full scientific name of the order in which the taxon is classified
family	The full scientific name of the family in which the taxon is classified
genus	The full scientific name of the genus in which the taxon is classified
specificEpithet	The specific epithet of the species
taxonRank	The taxonomic rank of the most specific name in scientificName
recordedBy	Person(s) responsible for sampling the occurrence

## Additional information

A total of 238 taxa (Table 2) were identified: 99 Plantae, 36 Chromista, 100 Animalia, two Fungi and one Bacterium (Pereira et al. 2021). A description of number of taxa of each Phylum per location is present in Table 3. The site with the least amount of species was Adraga and the one with the most was Nazaré, both sites in central Portugal. On average, the surveyed locations in northern Portugal had a higher number of species (67 species per location), followed by the locations in southern Portugal (66 species per site). On average, locations in central Portugal (59 species per site) had the lowest number of species (Table 3).

Table 2.

List of species surveyed, scientific name ID from the World Register of Marine Species (WoRMS) and taxonomic ranks.

Scientific name	Scientific name ID (Worms)	Order	Family
<i>Eulalia viridis</i> (Linnaeus, 1767)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:130639">urn:lsid:marinespecies.org:taxname:130639</a>	Phyllococida	Phyllococidae
<i>Filograna implexa</i> (Berkeley, 1835)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:130989">urn:lsid:marinespecies.org:taxname:130989</a>	Sabellida	Serpulidae
<i>Sabella spallanzanii</i> (Gmelin, 1791)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:130969">urn:lsid:marinespecies.org:taxname:130969</a>	Sabellida	Sabellidae
<i>Sabellaria alveolata</i> (Linnaeus, 1767)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:130866">urn:lsid:marinespecies.org:taxname:130866</a>		Sabellariidae
<i>Spirobranchus triqueter</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:131027">urn:lsid:marinespecies.org:taxname:131027</a>	Sabellida	Serpulidae
<i>Austrominius modestus</i> (Darwin, 1854)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:106209">urn:lsid:marinespecies.org:taxname:106209</a>	Balanomorpha	Elminidae
<i>Cancer pagurus</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:107276">urn:lsid:marinespecies.org:taxname:107276</a>	Decapoda	Cancriidae
<i>Carcinus maenas</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:107381">urn:lsid:marinespecies.org:taxname:107381</a>	Decapoda	Carcinidae
<i>Chthamalus montagui</i> (Southward, 1976)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:106230">urn:lsid:marinespecies.org:taxname:106230</a>	Balanomorpha	Chthamalidae
<i>Chthamalus stellatus</i> (Poli, 1791)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:106231">urn:lsid:marinespecies.org:taxname:106231</a>	Balanomorpha	Chthamalidae
<i>Diogenes pugilator</i> (P. Roux, 1829)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:107199">urn:lsid:marinespecies.org:taxname:107199</a>	Decapoda	Diogenidae

Scientific name	Scientific name ID (Worms)	Order	Family
<i>Eriphia verrucosa</i> (Forskål, 1775)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:107409">urn:lsid:marinespecies.org:taxname:107409</a>	Decapoda	Eriphiidae
<i>Galathea strigosa</i> (Linnaeus, 1761)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:107155">urn:lsid:marinespecies.org:taxname:107155</a>	Decapoda	Galatheididae
<i>Ligia italica</i> (Fabricius, 1798)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:156211">urn:lsid:marinespecies.org:taxname:156211</a>	Isopoda	Ligiidae
<i>Ligia oceanica</i> (Linnaeus, 1767)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:146999">urn:lsid:marinespecies.org:taxname:146999</a>	Isopoda	Ligiidae
<i>Lophozozymus incisus</i> (H. Milne Edwards, 1834)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:444382">urn:lsid:marinespecies.org:taxname:444382</a>	Decapoda	Xanthidae
<i>Maja squinado</i> (Herbst, 1788)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:107350">urn:lsid:marinespecies.org:taxname:107350</a>	Decapoda	Majidae
<i>Necora puber</i> (Linnaeus, 1767)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:107398">urn:lsid:marinespecies.org:taxname:107398</a>	Decapoda	Polybiidae
<i>Pachygrapsus marmoratus</i> (J.C. Fabricius, 1787)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:107455">urn:lsid:marinespecies.org:taxname:107455</a>	Decapoda	Grapsidae
<i>Palaemon serratus</i> (Pennant, 1777)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:107616">urn:lsid:marinespecies.org:taxname:107616</a>	Decapoda	Palaemonidae
<i>Perforatus perforatus</i> (Bruguière, 1789)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:106219">urn:lsid:marinespecies.org:taxname:106219</a>	Balanomorpha	Balanidae
<i>Pilumnus hirtellus</i> (Linnaeus, 1761)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:107418">urn:lsid:marinespecies.org:taxname:107418</a>	Decapoda	Pilumnidae
<i>Pyrimela denticulata</i> (Montagu, 1808)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:107278">urn:lsid:marinespecies.org:taxname:107278</a>	Decapoda	Carcinidae
<i>Pollicipes pollicipes</i> (Gmelin, 1791)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:106177">urn:lsid:marinespecies.org:taxname:106177</a>	Pollicipedomorpha	Pollicipedidae
<i>Porcellana platycheles</i> (Pennant, 1777)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:107190">urn:lsid:marinespecies.org:taxname:107190</a>	Decapoda	Porcellanidae
<i>Lichina pygmaea</i> (Lightf.) C. Agardh, 1817	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:147720">urn:lsid:marinespecies.org:taxname:147720</a>	Lichinales	Lichinaceae
<i>Verrucaria maura</i> (Wahlenberg, 1803)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:147758">urn:lsid:marinespecies.org:taxname:147758</a>	Verrucariales	Verrucariaceae
<i>Electra pilosa</i> (Linnaeus, 1767)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:111355">urn:lsid:marinespecies.org:taxname:111355</a>	Cheilostomatida	Electridae
<i>Turbicellepora avicularis</i> (Hincks, 1860)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:111285">urn:lsid:marinespecies.org:taxname:111285</a>	Cheilostomatida	Celleporidae

Scientific name	Scientific name ID (Worms)	Order	Family
<i>Bryopsis</i> (J.V.Lamouroux, 1809)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:143812">urn:lsid:marinespecies.org:taxname:143812</a>	Bryopsidales	Bryopsidaceae
<i>Cladophora</i> (Kützing, 1843)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:143996">urn:lsid:marinespecies.org:taxname:143996</a>	Cladophorales	Cladophoraceae
<i>Codium adhaerens</i> (C.Agardh, 1822)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145078">urn:lsid:marinespecies.org:taxname:145078</a>	Bryopsidales	Codiaceae
<i>Codium bursa</i> (Olivi) C.Agardh, 1817	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145079">urn:lsid:marinespecies.org:taxname:145079</a>	Bryopsidales	Codiaceae
<i>Codium tomentosum</i> (Stackhouse, 1797)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145092">urn:lsid:marinespecies.org:taxname:145092</a>	Bryopsidales	Codiaceae
<i>Ulva</i> (Linnaeus, 1753)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144296">urn:lsid:marinespecies.org:taxname:144296</a>	Ulvales	Ulvaceae
<i>Valonia</i> (C.Agardh, 1823)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144267">urn:lsid:marinespecies.org:taxname:144267</a>	Cladophorales	Valoniaceae
<i>Coryphoblennius galerita</i> (Linnaeus, 1758)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:126762">urn:lsid:marinespecies.org:taxname:126762</a>	Blenniiformes	Blenniidae
<i>Diplodus</i> (Rafinesque, 1810)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:126076">urn:lsid:marinespecies.org:taxname:126076</a>	Eupercaria incertae sedis	Sparidae
<i>Gaidropsarus mediterraneus</i> (Linnaeus, 1758)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:126457">urn:lsid:marinespecies.org:taxname:126457</a>	Gadiformes	Lotidae
<i>Gobius paganellus</i> (Linnaeus, 1758)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:126893">urn:lsid:marinespecies.org:taxname:126893</a>	Gobiiformes	Gobiidae
<i>Lepadogaster</i> (Goüan, 1770)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:125781">urn:lsid:marinespecies.org:taxname:125781</a>	Gobiesociformes	Gobiesocidae
<i>Lipophrys pholis</i> (Linnaeus, 1758)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:126768">urn:lsid:marinespecies.org:taxname:126768</a>	Blenniiformes	Blenniidae
<i>Nerophis lumbriciformis</i> (Jenyns, 1835)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:127383">urn:lsid:marinespecies.org:taxname:127383</a>	Syngnathiformes	Syngnathidae
<i>Parablennius gattorugine</i> (Linnaeus, 1758)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:126770">urn:lsid:marinespecies.org:taxname:126770</a>	Blenniiformes	Blenniidae
<i>Salaria pavo</i> (Risso, 1810)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:302108">urn:lsid:marinespecies.org:taxname:302108</a>	Blenniiformes	Blenniidae
<i>Actinia equina</i> (Linnaeus, 1758)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:100803">urn:lsid:marinespecies.org:taxname:100803</a>	Actiniaria	Actiniidae
<i>Actinia fragacea</i> Tugwell, 1856	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:100805">urn:lsid:marinespecies.org:taxname:100805</a>	Actiniaria	Actiniidae

Scientific name	Scientific name ID (Worms)	Order	Family
<i>Actinothoe sphyrodeta</i> (Gosse, 1858)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:100986">urn:lsid:marinespecies.org:taxname:100986</a>	Actiniaria	Sagartiidae
<i>Anemonia viridis</i> (Forsskål, 1775)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:100808">urn:lsid:marinespecies.org:taxname:100808</a>	Actiniaria	Actiniidae
<i>Anthopleura thallia</i> (Gosse, 1854)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:100812">urn:lsid:marinespecies.org:taxname:100812</a>	Actiniaria	Actiniidae
<i>Aulactinia verrucosa</i> (Pennant, 1777)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:100819">urn:lsid:marinespecies.org:taxname:100819</a>	Actiniaria	Actiniidae
<i>Caryophyllia (Caryophyllia) smithii</i> (Stokes & Broderip, 1828)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:1288958">urn:lsid:marinespecies.org:taxname:1288958</a>	Scleractinia	Caryophylliidae
<i>Cereus pedunculatus</i> (Pennant, 1777)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:100987">urn:lsid:marinespecies.org:taxname:100987</a>	Actiniaria	Sagartiidae
<i>Clytia hemisphaerica</i> (Linnaeus, 1767)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:152074">urn:lsid:marinespecies.org:taxname:152074</a>	Leptothecata	Campanulariidae
<i>Corynactis viridis</i> (Allman, 1846)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:101016">urn:lsid:marinespecies.org:taxname:101016</a>	Corallimorpharia	Corallimorphidae
<i>Obelia geniculata</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:117388">urn:lsid:marinespecies.org:taxname:117388</a>	Leptothecata	Campanulariidae
<i>Urticina felina</i> (Linnaeus, 1761)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:100798">urn:lsid:marinespecies.org:taxname:100798</a>	Actiniaria	Actiniidae
<i>Calothrix</i> C.Agardh ex Bornet & Flahault, 1886	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:146624">urn:lsid:marinespecies.org:taxname:146624</a>	Nostocales	Rivulariaceae
<i>Asterias rubens</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:123776">urn:lsid:marinespecies.org:taxname:123776</a>	Forcipulatida	Asteriidae
<i>Asterina gibbosa</i> (Pennant, 1777)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:123987">urn:lsid:marinespecies.org:taxname:123987</a>	Valvatida	Asterinidae
<i>Coscinasterias tenuispina</i> (Lamarck, 1816)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:123795">urn:lsid:marinespecies.org:taxname:123795</a>	Forcipulatida	Asteriidae
<i>Holothuria</i> (Linnaeus, 1767)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:123456">urn:lsid:marinespecies.org:taxname:123456</a>	Holothuriida	Holothuriidae
<i>Holothuria (Panningothuria) forskali</i> Delle (Chiaje, 1823)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:124501">urn:lsid:marinespecies.org:taxname:124501</a>	Holothuriida	Holothuriidae
<i>Marthasterias glacialis</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:123803">urn:lsid:marinespecies.org:taxname:123803</a>	Forcipulatida	Asteriidae

Scientific name	Scientific name ID (Worms)	Order	Family
<i>Ophiocomina nigra</i> (Abildgaard in O.F. Müller, 1789)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:125027">urn:lsid:marinespecies.org:taxname:125027</a>	Ophiacanthida	Ophiotomidae
<i>Ophiothrix fragilis</i> (Abildgaard in O.F. Müller, 1789)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:125131">urn:lsid:marinespecies.org:taxname:125131</a>	Amphilepida	Ophiothrichidae
<i>Paracentrotus lividus</i> (Lamarck, 1816)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:124316">urn:lsid:marinespecies.org:taxname:124316</a>	Camarodonta	Parechinidae
<i>Acanthochitona crinita</i> (Pennant, 1777)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:138675">urn:lsid:marinespecies.org:taxname:138675</a>	Chitonida	Acanthochitonidae
<i>Aplysia</i> (Linnaeus, 1767)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:137654">urn:lsid:marinespecies.org:taxname:137654</a>	Aplysiida	Aplysiidae
<i>Aplysia fasciata</i> (Poiret, 1789)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:138755">urn:lsid:marinespecies.org:taxname:138755</a>	Aplysiida	Aplysiidae
<i>Bolma rugosa</i> (Linnaeus, 1767)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:751225">urn:lsid:marinespecies.org:taxname:751225</a>	Trochida	Turbinidae
<i>Calliostoma zizyphinum</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:141767">urn:lsid:marinespecies.org:taxname:141767</a>	Trochida	Calliostomatidae
<i>Conus</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:137813">urn:lsid:marinespecies.org:taxname:137813</a>	Neogastropoda	Conidae
<i>Diodora graeca</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:139951">urn:lsid:marinespecies.org:taxname:139951</a>	Lepetellida	Fissurellidae
<i>Doris pseudoargus</i> (Rapp, 1827)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:138763">urn:lsid:marinespecies.org:taxname:138763</a>	Nudibranchia	Dorididae
<i>Gibbula magus</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:141790">urn:lsid:marinespecies.org:taxname:141790</a>	Trochida	Trochidae
<i>Hiatella arctica</i> (Linnaeus, 1767)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:140103">urn:lsid:marinespecies.org:taxname:140103</a>	Adapedonta	Hiatellidae
<i>Lasaea rubra</i> (Montagu, 1803)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:140176">urn:lsid:marinespecies.org:taxname:140176</a>	Galeommatida	Lasaeidae
<i>Littorina littorea</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:140262">urn:lsid:marinespecies.org:taxname:140262</a>	Littorinimorpha	Littorinidae
<i>Littorina obtusata</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:140263">urn:lsid:marinespecies.org:taxname:140263</a>	Littorinimorpha	Littorinidae
<i>Littorina saxatilis</i> (Olivieri, 1792)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:140264">urn:lsid:marinespecies.org:taxname:140264</a>	Littorinimorpha	Littorinidae
<i>Melarhappe neritoides</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:151586">urn:lsid:marinespecies.org:taxname:151586</a>	Littorinimorpha	Littorinidae

Scientific name	Scientific name ID (Worms)	Order	Family
<i>Modiolus barbatus</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:140464">urn:lsid:marinespecies.org:taxname:140464</a>	Mytilida	Mytilidae
<i>Musculus costulatus</i> (Risso, 1826)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:140471">urn:lsid:marinespecies.org:taxname:140471</a>	Mytilida	Mytilidae
<i>Mytilus galloprovincialis</i> (Lamarck, 1819)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:140481">urn:lsid:marinespecies.org:taxname:140481</a>	Mytilida	Mytilidae
<i>Nucella lapillus</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:140403">urn:lsid:marinespecies.org:taxname:140403</a>	Neogastropoda	Muricidae
<i>Ocenebra erinaceus</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:140405">urn:lsid:marinespecies.org:taxname:140405</a>	Neogastropoda	Muricidae
<i>Octopus vulgaris</i> (Cuvier, 1797)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:140605">urn:lsid:marinespecies.org:taxname:140605</a>	Octopoda	Octopodidae
<i>Onchidella celtica</i> (Audouin & Milne-Edwards, 1832)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:140626">urn:lsid:marinespecies.org:taxname:140626</a>	Systellommatophora	Onchidiidae
<i>Ostrea edulis</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:140658">urn:lsid:marinespecies.org:taxname:140658</a>	Ostreida	Ostreidae
<i>Patella aspera</i> (Röding, 1798)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:456570">urn:lsid:marinespecies.org:taxname:456570</a>		Patellidae
<i>Patella depressa</i> (Pennant, 1777)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:151374">urn:lsid:marinespecies.org:taxname:151374</a>		Patellidae
<i>Patella pellucida</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:162669">urn:lsid:marinespecies.org:taxname:162669</a>		Patellidae
<i>Patella rustica</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:140683">urn:lsid:marinespecies.org:taxname:140683</a>		Patellidae
<i>Patella vulgata</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:140685">urn:lsid:marinespecies.org:taxname:140685</a>		Patellidae
<i>Phorcus lineatus</i> (da Costa, 1778)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:153534">urn:lsid:marinespecies.org:taxname:153534</a>	Trochida	Trochidae
<i>Sepia officinalis</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:141444">urn:lsid:marinespecies.org:taxname:141444</a>	Sepiida	Sepiidae
<i>Siphonaria pectinata</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:141470">urn:lsid:marinespecies.org:taxname:141470</a>	Siphonariida	Siphonariidae
<i>Steromphala cineraria</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:141782">urn:lsid:marinespecies.org:taxname:141782</a>	Trochida	Trochidae
<i>Steromphala pennanti</i> (Philippi, 1846)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:141792">urn:lsid:marinespecies.org:taxname:141792</a>	Trochida	Trochidae



Scientific name	Scientific name ID (Worms)	Order	Family
<i>Steromphala umbilicalis</i> (da Costa, 1778)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:141801">urn:lsid:marinespecies.org:taxname:141801</a>	Trochida	Trochidae
<i>Stramonita haemastoma</i> (Linnaeus, 1767)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:224350">urn:lsid:marinespecies.org:taxname:224350</a>	Neogastropoda	Muricidae
<i>Trapania maculata</i> (Haefelfinger, 1960)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:140044">urn:lsid:marinespecies.org:taxname:140044</a>	Nudibranchia	Goniodorididae
<i>Tricolia pullus</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:141700">urn:lsid:marinespecies.org:taxname:141700</a>	Trochida	Phasianellidae
<i>Tritia incrassata</i> (Strøm, 1768)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:140503">urn:lsid:marinespecies.org:taxname:140503</a>	Neogastropoda	Nassariidae
<i>Tritia reticulata</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:140513">urn:lsid:marinespecies.org:taxname:140513</a>	Neogastropoda	Nassariidae
<i>Trivia monacha</i> (da Costa, 1778)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:141744">urn:lsid:marinespecies.org:taxname:141744</a>	Littorinimorpha	Triviidae
<i>Alaria esculenta</i> (Linnaeus) Greville, 1830	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:145716">urn:lsid:marinespecies.org:taxname:145716</a>	Laminariales	Alariaceae
<i>Ascophyllum nodosum</i> (Linnaeus) Le Jolis, 1863	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:145541">urn:lsid:marinespecies.org:taxname:145541</a>	Fucales	Fucaceae
<i>Bifurcaria bifurcata</i> (R.Ross, 1958)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:145503">urn:lsid:marinespecies.org:taxname:145503</a>	Fucales	Sargassaceae
<i>Cladostephus spongiosus</i> (Hudson) C.Agardh, 1817	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:145888">urn:lsid:marinespecies.org:taxname:145888</a>	Sphacelariales	Cladostephaceae
<i>Colpomenia peregrina</i> (Sauvageau, 1927)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:145856">urn:lsid:marinespecies.org:taxname:145856</a>	Ectocarpales	Scytosiphonaceae
<i>Cystoseira</i> (C.Agardh, 1820)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:144126">urn:lsid:marinespecies.org:taxname:144126</a>	Fucales	Sargassaceae
<i>Cystoseira humilis</i> (Schousboe ex Kützing, 1860)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:145520">urn:lsid:marinespecies.org:taxname:145520</a>	Fucales	Sargassaceae
<i>Cystoseira tamariscifolia</i> (Hudson) Papenfuss, 1950	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:145536">urn:lsid:marinespecies.org:taxname:145536</a>	Fucales	Sargassaceae
<i>Desmarestia aculeata</i> (Linnaeus) J.V.Lamouroux, 1813	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:145307">urn:lsid:marinespecies.org:taxname:145307</a>	Desmarestiales	Desmarestiaceae
<i>Desmarestia dresnayi</i> J.V.Lamouroux ex Léman, 1819	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:145308">urn:lsid:marinespecies.org:taxname:145308</a>	Desmarestiales	Desmarestiaceae

Scientific name	Scientific name ID (Worms)	Order	Family
<i>Desmarestia ligulata</i> (Stackhouse) J.V.Lamouroux, 1813	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145309">urn:lsid:marinespecies.org:taxname: 145309</a>	Desmarestiales	Desmarestiaceae
<i>Dictyopteris polypodioides</i> (A.P.De Candolle) J.V.Lamouroux, 1809	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145360">urn:lsid:marinespecies.org:taxname: 145360</a>	Dictyotales	Dictyotaceae
<i>Dictyota dichotoma</i> (Hudson) J.V.Lamouroux, 1809	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145367">urn:lsid:marinespecies.org:taxname: 145367</a>	Dictyotales	Dictyotaceae
<i>Ectocarpus</i> (Lyngbye, 1819)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144099">urn:lsid:marinespecies.org:taxname: 144099</a>	Ectocarpales	Ectocarpaceae
<i>Fucus serratus</i> (Linnaeus, 1753)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145546">urn:lsid:marinespecies.org:taxname: 145546</a>	Fucales	Fucaceae
<i>Fucus spiralis</i> (Linnaeus, 1753)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145547">urn:lsid:marinespecies.org:taxname: 145547</a>	Fucales	Fucaceae
<i>Fucus vesiculosus</i> (Linnaeus, 1753)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145548">urn:lsid:marinespecies.org:taxname: 145548</a>	Fucales	Fucaceae
<i>Halidrys siliquosa</i> (Linnaeus) Lyngbye, 1819	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145540">urn:lsid:marinespecies.org:taxname: 145540</a>	Fucales	Sargassaceae
<i>Halopteris filicina</i> (Grateloup) Kützing, 1843	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145906">urn:lsid:marinespecies.org:taxname: 145906</a>	Sphacelariales	Stypocaulaceae
<i>Halopteris scoparia</i> (Linnaeus) Sauvageau, 1904	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145907">urn:lsid:marinespecies.org:taxname: 145907</a>	Sphacelariales	Stypocaulaceae
<i>Himanthalia elongata</i> (Linnaeus) S.F.Gray, 1821	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145551">urn:lsid:marinespecies.org:taxname: 145551</a>	Fucales	Himanthaliaceae
<i>Laminaria hyperborea</i> (Gunnerus) Foslie, 1884	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145725">urn:lsid:marinespecies.org:taxname: 145725</a>	Laminariales	Laminariaceae
<i>Laminaria ochroleuca</i> Bachelot de la Pylaie, 1824	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145728">urn:lsid:marinespecies.org:taxname: 145728</a>	Laminariales	Laminariaceae
<i>Leathesia marina</i> (Lyngbye) Decaisne, 1842	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144953">urn:lsid:marinespecies.org:taxname: 144953</a>	Ectocarpales	Chordariaceae
<i>Padina pavonica</i> (Linnaeus) Thivy, 1960	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145385">urn:lsid:marinespecies.org:taxname: 145385</a>	Dictyotales	Dictyotaceae
<i>Pelvetia canaliculata</i> (Linnaeus) Decaisne & Thuret, 1845	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145550">urn:lsid:marinespecies.org:taxname: 145550</a>	Fucales	Fucaceae

Scientific name	Scientific name ID (Worms)	Order	Family
<i>Petalonia fascia</i> (O.F.Müller) Kuntze, 1898	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145863">urn:lsid:marinespecies.org:taxname: 145863</a>	Ectocarpales	Scytosiphonaceae
<i>Phyllariopsis purpurascens</i> (C.Agardh) E.C.Henry & G.R.South, 1987	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145733">urn:lsid:marinespecies.org:taxname: 145733</a>	Tilopteridales	Phyllariaceae
<i>Saccharina latissima</i> (Linnaeus) C.E.Lane, C.Mayes, Druehl & G.W.Saunders, 2006	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145730">urn:lsid:marinespecies.org:taxname: 145730</a>	Laminariales	Laminariaceae
<i>Saccorhiza polyschides</i> (Lightfoot) Batters, 1902	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145735">urn:lsid:marinespecies.org:taxname: 145735</a>	Tilopteridales	Phyllariaceae
<i>Sargassum</i> (C.Agardh, 1820)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144132">urn:lsid:marinespecies.org:taxname: 144132</a>	Fucales	Sargassaceae
<i>Sargassum muticum</i> (Yendo) Fensholt, 1955	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:494791">urn:lsid:marinespecies.org:taxname: 494791</a>	Fucales	Sargassaceae
<i>Sphacelaria</i> (Lyngbye, 1818)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144272">urn:lsid:marinespecies.org:taxname: 144272</a>	Sphacelariales	Sphacelariaceae
<i>Taonia atomaria</i> (Woodward) J.Agardh, 1848	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145393">urn:lsid:marinespecies.org:taxname: 145393</a>	Dictyotales	Dictyotaceae
<i>Treptacantha baccata</i> (S.G.Gmelin) Orellana & Sansón, 2019	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145507">urn:lsid:marinespecies.org:taxname: 145507</a>	Fucales	Sargassaceae
<i>Treptacantha nodicaulis</i> (Withering) Orellana & Sansón, 2019	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145526">urn:lsid:marinespecies.org:taxname: 145526</a>	Fucales	Sargassaceae
<i>Cliona celata</i> (Grant, 1826)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:134121">urn:lsid:marinespecies.org:taxname: 134121</a>	Clionaida	Clionidae
<i>Halichondria (Halichondria)</i> <i>panicea</i> (Pallas, 1766)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:132627">urn:lsid:marinespecies.org:taxname: 132627</a>	Suberitida	Halichondriidae
<i>Hymeniacion perlevis</i> (Montagu, 1814)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:150223">urn:lsid:marinespecies.org:taxname: 150223</a>	Suberitida	Halichondriidae
<i>Acrosorium ciliolatum</i> (Harvey) (Kylin, 1924)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:295874">urn:lsid:marinespecies.org:taxname: 295874</a>	Ceramiales	Delesseriaceae
<i>Ahnfeltia plicata</i> (Hudson) (Fries, 1836)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144422">urn:lsid:marinespecies.org:taxname: 144422</a>	Ahnfeltiales	Ahnfeltiaceae

Scientific name	Scientific name ID (Worms)	Order	Family
<i>Ahnfeltiopsis devoniensis</i> (Greville) P.C.Silva & DeCew, 1992	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145651">urn:lsid:marinespecies.org:taxname: 145651</a>	Gigartinales	Phylloporaceae
<i>Amphiroa</i> (J.V.Lamouroux, 1812)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144003">urn:lsid:marinespecies.org:taxname: 144003</a>	Corallinales	Lithophyllaceae
<i>Apoglossum ruscifolium</i> (Turner) J.Agardh, 1898	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144737">urn:lsid:marinespecies.org:taxname: 144737</a>	Ceramiales	Delesseriaceae
<i>Asparagopsis</i> (Montagne, 1840)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:295876">urn:lsid:marinespecies.org:taxname: 295876</a>	Bonnemaisoniales	Bonnemaisoniaceae
<i>Asparagopsis armata</i> (Harvey, 1855)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144438">urn:lsid:marinespecies.org:taxname: 144438</a>	Bonnemaisoniales	Bonnemaisoniaceae
<i>Bonnemaisonia hamifera</i> (Hariot, 1891)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144442">urn:lsid:marinespecies.org:taxname: 144442</a>	Bonnemaisoniales	Bonnemaisoniaceae
<i>Bornetia secundiflora</i> (J.Agardh) Thuret, 1855	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144524">urn:lsid:marinespecies.org:taxname: 144524</a>	Ceramiales	Ceramiaceae
<i>Calliblepharis ciliata</i> (Hudson) Kützing, 1843	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145613">urn:lsid:marinespecies.org:taxname: 145613</a>	Gigartinales	Cystocloniaceae
<i>Calliblepharis jubata</i> (Goodenough & Woodward) Kützing, 1843	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145614">urn:lsid:marinespecies.org:taxname: 145614</a>	Gigartinales	Cystocloniaceae
<i>Callithamnion</i> (Lyngbye, 1819)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:143832">urn:lsid:marinespecies.org:taxname: 143832</a>	Ceramiales	Callithamniaceae
<i>Callithamnion tetragonum</i> (Withering) S.F.Gray, 1821	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144529">urn:lsid:marinespecies.org:taxname: 144529</a>	Ceramiales	Callithamniaceae
<i>Callithamnion tetricum</i> (Dillwyn) S.F.Gray, 1821	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144530">urn:lsid:marinespecies.org:taxname: 144530</a>	Ceramiales	Callithamniaceae
<i>Carradoriella denudata</i> (Dillwyn) A.M.Savoie & G.W.Saunders, 2019	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144623">urn:lsid:marinespecies.org:taxname: 144623</a>	Ceramiales	Rhodomelaceae
<i>Catenella caespitosa</i> (Withering) L.M.Irvine, 1976	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145605">urn:lsid:marinespecies.org:taxname: 145605</a>	Gigartinales	Caulacanthaceae
<i>Caulacanthus ustulatus</i> (Mertens ex Turner) Kützing, 1843	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145606">urn:lsid:marinespecies.org:taxname: 145606</a>	Gigartinales	Caulacanthaceae
<i>Ceramium echinotum</i> (J.Agardh, 1844)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144547">urn:lsid:marinespecies.org:taxname: 144547</a>	Ceramiales	Ceramiaceae

Scientific name	Scientific name ID (Worms)	Order	Family
<i>Ceramium virgatum</i> (Roth, 1797)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:178915">urn:lsid:marinespecies.org:taxname:178915</a>	Ceramiales	Ceramiaceae
<i>Champia parvula</i> (C.Agardh) Harvey, 1853	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145804">urn:lsid:marinespecies.org:taxname:145804</a>	Rhodymeniales	Champiaceae
<i>Chondracanthus acicularis</i> (Roth) Fredericq, 1993	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145623">urn:lsid:marinespecies.org:taxname:145623</a>	Gigartinales	Gigartinaceae
<i>Chondracanthus teedei</i> (Mertens ex Roth) Kützing, 1843	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:162858">urn:lsid:marinespecies.org:taxname:162858</a>	Gigartinales	Gigartinaceae
<i>Chondria coerulescens</i> (J.Agardh) Sauvageau, 1897	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:1311369">urn:lsid:marinespecies.org:taxname:1311369</a>	Ceramiales	Rhodomelaceae
<i>Chondria dasyphylla</i> (Woodward) C.Agardh, 1817	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144799">urn:lsid:marinespecies.org:taxname:144799</a>	Ceramiales	Rhodomelaceae
<i>Chondrus crispus</i> (Stackhouse, 1797)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145625">urn:lsid:marinespecies.org:taxname:145625</a>	Gigartinales	Gigartinaceae
<i>Chylocladia verticillata</i> (Lightfoot) Bliding, 1928	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145808">urn:lsid:marinespecies.org:taxname:145808</a>	Rhodymeniales	Champiaceae
<i>Composothamnion thuioides</i> (Smith) Nägeli, 1862	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144573">urn:lsid:marinespecies.org:taxname:144573</a>	Ceramiales	Ceramiaceae
<i>Corallina</i> (Linnaeus, 1758)	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144007">urn:lsid:marinespecies.org:taxname:144007</a>	Corallinales	Corallinaceae
<i>Cryptopleura ramosa</i> (Hudson) L.Newton, 1931	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144743">urn:lsid:marinespecies.org:taxname:144743</a>	Ceramiales	Delesseriaceae
<i>Delesseria sanguinea</i> (Hudson) J.V.Lamouroux, 1813	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144744">urn:lsid:marinespecies.org:taxname:144744</a>	Ceramiales	Delesseriaceae
<i>Dilsea carnosa</i> (Schmidel) Kuntze, 1898	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145222">urn:lsid:marinespecies.org:taxname:145222</a>	Gigartinales	Dumontiaceae
<i>Dumontia contorta</i> (S.G.Gmelin) Ruprecht, 1850	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145228">urn:lsid:marinespecies.org:taxname:145228</a>	Gigartinales	Dumontiaceae
<i>Gastroclonium ovatum</i> (Hudson) Papenfuss, 1944	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145810">urn:lsid:marinespecies.org:taxname:145810</a>	Rhodymeniales	Champiaceae
<i>Gastroclonium reflexum</i> (Chauvin) Kützing, 1849	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145811">urn:lsid:marinespecies.org:taxname:145811</a>	Rhodymeniales	Champiaceae
<i>Gelidium corneum</i> (Hudson) J.V.Lamouroux, 1813	<a href="https://www.marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145579">urn:lsid:marinespecies.org:taxname:145579</a>	Gelidiales	Gelidiaceae

Scientific name	Scientific name ID (Worms)	Order	Family
<i>Gelidium pulchellum</i> (Turner) Kützing, 1868	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145588">urn:lsid:marinespecies.org:taxname: 145588</a>	Gelidiales	Gelidiaceae
<i>Gelidium spinosum</i> (S.G.Gmelin) P.C.Silva, 1996	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145594">urn:lsid:marinespecies.org:taxname: 145594</a>	Gelidiales	Gelidiaceae
<i>Gigartina pistillata</i> (S.G.Gmelin) Stackhouse, 1809	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145626">urn:lsid:marinespecies.org:taxname: 145626</a>	Gigartinales	Gigartinaceae
<i>Gracilaria foliifera</i> (Forsskål) Børgesen, 1932	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145699">urn:lsid:marinespecies.org:taxname: 145699</a>	Gracilariales	Gracilariaceae
<i>Gracilaria gracilis</i> (Stackhouse) Steentoft, L.M.Irvine & Farnham, 1995	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145700">urn:lsid:marinespecies.org:taxname: 145700</a>	Gracilariales	Gracilariaceae
<i>Gracilaria multipartita</i> (Clemente) Harvey, 1846	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145704">urn:lsid:marinespecies.org:taxname: 145704</a>	Gracilariales	Gracilariaceae
<i>Grateloupia doryphora</i> (Montagne) M.Howe, 1914	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145247">urn:lsid:marinespecies.org:taxname: 145247</a>	Halymeniales	Halymeniaceae
<i>Grateloupia filicina</i> (J.V.Lamouroux) C.Agardh, 1822	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145248">urn:lsid:marinespecies.org:taxname: 145248</a>	Halymeniales	Halymeniaceae
<i>Griffithsia</i> (C.Agardh, 1817)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:143841">urn:lsid:marinespecies.org:taxname: 143841</a>	Ceramiales	Wrangeliaceae
<i>Gymnogongrus</i> (Martius, 1833)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144168">urn:lsid:marinespecies.org:taxname: 144168</a>	Gigartinales	Phylloporaceae
<i>Gymnogongrus crenulatus</i> (Turner) J.Agardh, 1851	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145656">urn:lsid:marinespecies.org:taxname: 145656</a>	Gigartinales	Phylloporaceae
<i>Halopithys incurva</i> (Hudson) Batters, 1902	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144812">urn:lsid:marinespecies.org:taxname: 144812</a>	Ceramiales	Rhodomelaceae
<i>Halurus equisetifolius</i> (Lightfoot) Kützing, 1843	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:146345">urn:lsid:marinespecies.org:taxname: 146345</a>	Ceramiales	Wrangeliaceae
<i>Halurus flosculosus</i> (J.Ellis) Maggs & Hommersand, 1993	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144595">urn:lsid:marinespecies.org:taxname: 144595</a>	Ceramiales	Wrangeliaceae
<i>Heterosiphonia plumosa</i> (J.Ellis) Batters, 1902	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144732">urn:lsid:marinespecies.org:taxname: 144732</a>	Ceramiales	Dasyaceae
<i>Hypnea musciformis</i> (Wulfen) J.V.Lamouroux, 1813	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145634">urn:lsid:marinespecies.org:taxname: 145634</a>	Gigartinales	Cystocloniaceae

Scientific name	Scientific name ID (Worms)	Order	Family
<i>Hypoglossum hypoglossoides</i> (Stackhouse) Collins & Hervey, 1917	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:144756">urn:lsid:marinespecies.org:taxname: 144756</a>	Ceramiales	Delesseriaceae
<i>Itonoa marginifera</i> (J.Agardh) Masuda & Guiry, 1995	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:145638">urn:lsid:marinespecies.org:taxname: 145638</a>	Nemastomatales	Nemastomataceae
<i>Jania rubens</i> (Linnaeus) J.V.Lamouroux, 1816	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:145130">urn:lsid:marinespecies.org:taxname: 145130</a>	Corallinales	Corallinaceae
<i>Jania squamata</i> (Linnaeus) J.H.Kim, Guiry & H.-G.Choi, 2007	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:145114">urn:lsid:marinespecies.org:taxname: 145114</a>	Corallinales	Corallinaceae
<i>Laurencia obtusa</i> (Hudson) J.V.Lamouroux, 1813	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:144827">urn:lsid:marinespecies.org:taxname: 144827</a>	Ceramiales	Rhodomelaceae
<i>Leptosiphonia brodiei</i> (Dillwyn) A.M.Savoie & G.W.Saunders, 2019	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:162854">urn:lsid:marinespecies.org:taxname: 162854</a>	Ceramiales	Rhodomelaceae
<i>Lithophyllum</i> (Philippi, 1837)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:205926">urn:lsid:marinespecies.org:taxname: 205926</a>	Corallinales	Lithophyllaceae
<i>Lithophyllum byssoides</i> (Lamarck) Foslie, 1900	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:145140">urn:lsid:marinespecies.org:taxname: 145140</a>	Corallinales	Lithophyllaceae
<i>Lomentaria articulata</i> (Hudson) Lyngbye, 1819	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:145821">urn:lsid:marinespecies.org:taxname: 145821</a>	Rhodymeniales	Lomentariaceae
<i>Lomentaria clavellosa</i> (Lightfoot ex Turner) Gaillon, 1828	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:145825">urn:lsid:marinespecies.org:taxname: 145825</a>	Rhodymeniales	Lomentariaceae
<i>Lophosiphonia obscura</i> (C.Agardh) Falkenberg, 1897	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:146367">urn:lsid:marinespecies.org:taxname: 146367</a>	Ceramiales	Rhodomelaceae
<i>Mastocarpus stellatus</i> (Stackhouse) Guiry, 1984	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:145650">urn:lsid:marinespecies.org:taxname: 145650</a>	Gigartinales	Phylloporaceae
<i>Mesophyllum lichenoides</i> (J.Ellis) Me.Lemoine, 1928	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:145188">urn:lsid:marinespecies.org:taxname: 145188</a>	Hapalidiales	Mesophyllaceae
<i>Metacallophyllis laciniata</i> (Hudson) A.Vergés & L.Le Gall, 2017	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:145262">urn:lsid:marinespecies.org:taxname: 145262</a>	Gigartinales	Kallymeniaceae
<i>Nemalion elminthoides</i> (Velley) Batters, 1902	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:145765">urn:lsid:marinespecies.org:taxname: 145765</a>	Nemaliales	Nemaliaceae
<i>Nitophyllum punctatum</i> (Stackhouse) Greville, 1830	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:144770">urn:lsid:marinespecies.org:taxname: 144770</a>	Ceramiales	Delesseriaceae

Scientific name	Scientific name ID (Worms)	Order	Family
<i>Osmundea hybrida</i> (A.P.de Candolle) K.W.Nam, 1994	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144842">urn:lsid:marinespecies.org:taxname:144842</a>	Ceramiales	Rhodomelaceae
<i>Osmundea pinnatifida</i> (Hudson) Stackhouse, 1809	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144847">urn:lsid:marinespecies.org:taxname:144847</a>	Ceramiales	Rhodomelaceae
<i>Palmaria palmata</i> (Linnaeus) F.Weber & D.Mohr, 1805	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145771">urn:lsid:marinespecies.org:taxname:145771</a>	Palmariales	Palmariceae
<i>Peyssonnelia</i> (Decaisne, 1841)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144051">urn:lsid:marinespecies.org:taxname:144051</a>	Peyssonneliales	Peyssonneliaceae
<i>Phyllophora crispera</i> (Hudson) P.S.Dixon, 1964	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145660">urn:lsid:marinespecies.org:taxname:145660</a>	Gigartinales	Phylloporaceae
<i>Plocamium cartilagineum</i> (Linnaeus) P.S.Dixon, 1967	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145782">urn:lsid:marinespecies.org:taxname:145782</a>	Plocamiales	Plocamiaceae
<i>Polysiphonia</i> (Greville, 1823)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:143853">urn:lsid:marinespecies.org:taxname:143853</a>	Ceramiales	Rhodomelaceae
<i>Polysiphonia macrocarpa</i> (C.Agardh) Sprengel, 1827	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:548028">urn:lsid:marinespecies.org:taxname:548028</a>	Ceramiales	Rhodomelaceae
<i>Porphyra</i> (C.Agardh, 1824)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:143808">urn:lsid:marinespecies.org:taxname:143808</a>	Bangiales	Bangiaceae
<i>Pterocliadiella capillacea</i> (S.G.Gmelin) Santelices & Hommersand, 1997	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145599">urn:lsid:marinespecies.org:taxname:145599</a>	Gelidiales	Pterocliadiaceae
<i>Pterosiphonia complanata</i> (Clemente) Falkenberg, 1897	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:146368">urn:lsid:marinespecies.org:taxname:146368</a>	Ceramiales	Rhodomelaceae
<i>Pterothamnion crispum</i> (Ducluzeau) Nägeli, 1862	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144682">urn:lsid:marinespecies.org:taxname:144682</a>	Ceramiales	Ceramiaceae
<i>Pterothamnion plumula</i> (J.Ellis) Nägeli, 1855	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:144683">urn:lsid:marinespecies.org:taxname:144683</a>	Ceramiales	Ceramiaceae
<i>Rhodymenia holmesii</i> (Ardissone, 1893)	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145853">urn:lsid:marinespecies.org:taxname:145853</a>	Rhodymeniales	Rhodymeniaceae
<i>Rissoella verruculosa</i> (Bertoloni) J.Agardh, 1851	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145669">urn:lsid:marinespecies.org:taxname:145669</a>	Gigartinales	Rissoellaceae
<i>Schizymenia dubyi</i> (Chauvin ex Duby) J.Agardh, 1851	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145673">urn:lsid:marinespecies.org:taxname:145673</a>	Nemastomatales	Schizymeniaceae
<i>Scinaia furcellata</i> (Turner) J.Agardh, 1851	<a href="https://marinespecies.org/taxname/urn:lsid:marinespecies.org:taxname:145743">urn:lsid:marinespecies.org:taxname:145743</a>	Nemaliales	Scinaiaceae



Scientific name	Scientific name ID (Worms)	Order	Family
<i>Scinia interrupta</i> (A.P.de Candolle) M.J.Wynne, 1989	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:239045">urn:lsid:marinespecies.org:taxname:239045</a>	Nemaliales	Sciniaaceae
<i>Sphaerococcus coronopifolius</i> (Stackhouse, 1797)	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:145908">urn:lsid:marinespecies.org:taxname:145908</a>	Gigartinales	Sphaerococcaceae
<i>Stenogramma interruptum</i> (C.Agardh) Montagne, 1846	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:145667">urn:lsid:marinespecies.org:taxname:145667</a>	Gigartinales	Phylloporaceae
<i>Tsengia bairdii</i> (Farlow) K.C.Fan & Y.P.Fan, 1962	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:145649">urn:lsid:marinespecies.org:taxname:145649</a>	Halymeniales	Tsengiaceae
<i>Vertebrata fucoides</i> (Hudson) Kuntze, 1891	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:144639">urn:lsid:marinespecies.org:taxname:144639</a>	Ceramiales	Rhodomelaceae
<i>Vertebrata nigra</i> (Hudson) Díaz-Tapia & Maggs, 2017	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:144651">urn:lsid:marinespecies.org:taxname:144651</a>	Ceramiales	Rhodomelaceae
<i>Vertebrata thuyoides</i> (Harvey) Kuntze, 1891	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:144790">urn:lsid:marinespecies.org:taxname:144790</a>	Ceramiales	Rhodomelaceae
<i>Xiphosiphonia pennata</i> (C.Agardh) Savoie & G.W.Saunders, 2016	<a href="https://www.marinespecies.org/urn:lsid:marinespecies.org:taxname:144852">urn:lsid:marinespecies.org:taxname:144852</a>	Ceramiales	Rhodomelaceae

Table 3.

Number of taxa identified per Phylum in each location. A - Cnidaria; B - Echinodermata; C - Arthropoda; D - Chordata; E - Annelida; F - Mollusca; G - Porifera; H - Rhodophyta; I - Ochrophyta; J - Chlorophyta; K - Ascomycota; L - Bryozoa

Location	A	B	C	D	E	F	G	H	I	J	K	L	Total
Moledo do Minho	3	3	5	2	2	11	1	33	12	2	2	0	76
Vila Praia de Âncora	3	3	8	1	2	14	1	40	13	2	2	0	89
Afife	3	3	11	2	1	15	1	32	12	2	2	1	85
Montedor	6	5	15	5	4	26	3	41	13	2	1	0	121
Forte da Vigia	0	0	0	0	0	0	0	32	13	3	1	0	49
Praia Norte	1	2	3	1	1	11	0	16	7	1	1	0	44
Amorosa	4	2	7	3	1	15	2	29	15	2	0	1	81
Mindelo	4	2	6	0	2	8	1	34	11	2	2	0	72
Vila Chã	2	3	3	1	1	11	0	37	12	2	1	0	73
Labruje	2	3	5	2	2	12	1	21	9	2	0	1	60
Angeiras	3	1	7	3	1	14	1	24	9	2	0	0	65

Location	A	B	C	D	E	F	G	H	I	J	K	L	Total
Cabo do Mundo	5	3	4	0	1	13	0	23	6	2	0	1	58
Homem do Leme	4	3	7	2	1	13	1	27	4	2	1	1	66
Valadares	2	2	2	0	1	8	1	26	3	2	0	0	47
Miramar	2	0	3	0	1	10	1	12	4	2	0	0	35
Aguda	4	1	7	2	1	9	1	35	5	2	0	1	68
Buarcos	2	2	4	1	1	8	1	26	4	3	1	0	53
Nazaré	1	2	10	1	3	19	3	84	13	7	1	0	144
São Martinho do Porto	2	2	4	1	1	13	2	26	7	2	1	0	61
Baleal	3	1	7	1	1	11	1	43	14	5	1	0	88
Papoa	2	1	4	0	0	9	1	20	6	4	2	0	49
São Bernardino	2	2	4	1	1	11	1	14	6	2	1	0	45
Santa Cruz	2	0	3	1	2	12	0	16	4	3	1	0	44
São Lourenço	6	2	6	1	2	12	1	23	9	2	2	0	66
Ericeira	2	2	4	2	1	9	1	30	7	2	0	0	60
São Julião	1	0	3	2	2	11	0	15	3	3	0	0	40
Magoito	3	1	5	0	2	9	1	20	5	2	0	0	48
Adraga	1	0	4	0	1	7	1	11	4	2	0	0	31
Abano	2	0	5	1	2	10	1	9	0	1	1	0	32
Cabo raso	4	1	5	2	2	11	1	37	6	4	2	0	75
Avencas	2	3	8	3	1	15	1	26	7	3	0	0	69
Cabo Espichel	2	3	2	0	0	8	0	11	5	4	0	0	35
Portinho da Arrábida	2	0	3	1	2	9	1	24	8	4	1	0	55
São Torpes	3	1	7	3	2	11	0	29	9	3	1	0	69
Oliveirinha	2	1	4	0	2	8	0	29	13	6	0	0	65
Queimado	4	1	8	3	2	13	1	23	10	4	1	0	70
Vila Nova de Milfontes	1	0	4	0	1	9	0	28	9	3	1	0	56
Zambujeira do Mar	3	2	5	0	1	11	2	37	9	3	1	0	74
Vale dos Homens	6	2	6	2	3	12	1	27	6	3	0	0	68
Monte Clérigo	3	1	4	0	2	13	1	33	12	3	1	0	73
Arrifana	8	2	7	3	2	12	1	25	5	2	1	1	69

Location	A	B	C	D	E	F	G	H	I	J	K	L	Total
Castelejo	4	1	5	2	0	9	2	38	8	3	1	1	74
Martinhal	3	6	8	4	1	13	0	19	8	5	2	0	69
Ingrina	1	2	4	0	2	15	0	32	9	4	0	1	70
Praia da Luz	2	2	4	0	2	11	2	23	9	4	1	0	60
Porto de Mós	1	1	8	6	2	14	0	17	9	3	1	0	62
Dona Ana	1	2	5	0	1	8	0	24	6	5	0	0	52
Castelo	2	1	6	1	2	9	1	26	9	4	0	0	61
Olhos de Água	5	1	8	0	3	12	0	17	6	4	1	1	58

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## Author contributions

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PAR: In situ and laboratory identifications, field and laboratory work and manuscript preparation.

AMS: In situ and laboratory identifications, field and laboratory work and manuscript preparation.

CM: Data curation and manuscript preparation.

RS: Data curation and manuscript preparation.

FPL: In situ and laboratory identifications, field and laboratory work, data curation and manuscript preparation.

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