

# BELGIAN REGISTER OF MARINE SPECIES

September 2010





# BELGIAN REGISTER OF MARINE SPECIES, COMPILED AND VALIDATED BY THE VLIZ BELGIAN MARINE SPECIES CONSORTIUM

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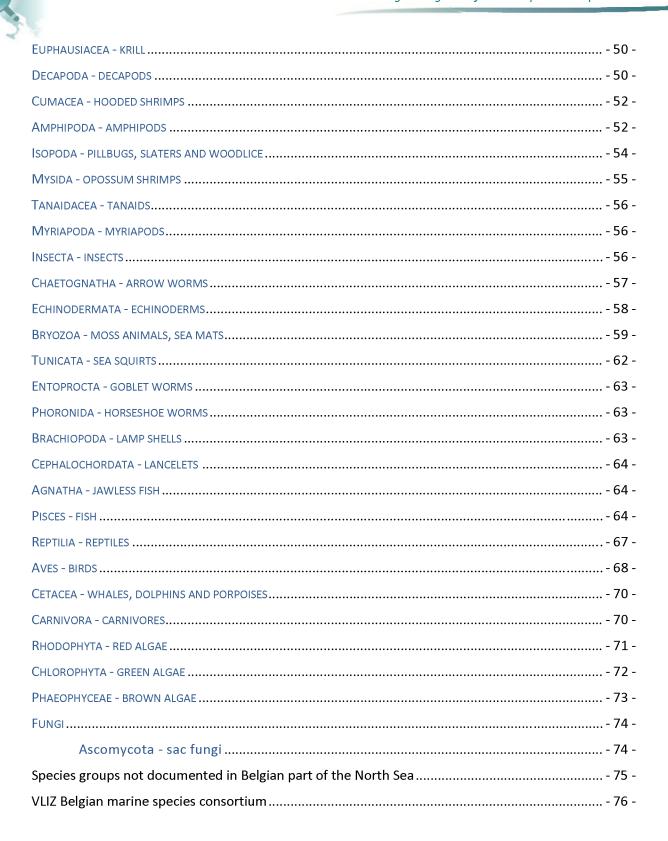
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## Introduction

The sea has always had a certain attraction on people. Although Belgium is the smallest North Sea country with the shortest coastline ( $\pm$  67 km) and a continental shelf of 3.457 km<sup>2</sup>, many have been drawn to it to try to understand its diversity and complexity.

A first step towards understanding is to obtain an idea of the species diversity within an area, to establish an inventory of the local marine species. Since 2000, the Flanders Marine Institute (VLIZ) compiles distribution information on species from the Southern Bight of the North Sea into a single database: Taxonomic Information System for the Belgian coastal area - TISBE. TISBE tried to develop a comprehensive list of all species recorded for the Belgian coast, the Southern Bight of the North Sea and surrounding countries. The focal area for this database spanned from the rocky shores of the Boullonais in North France to southern Holland, including the Delta area and the Scheldt estuary.

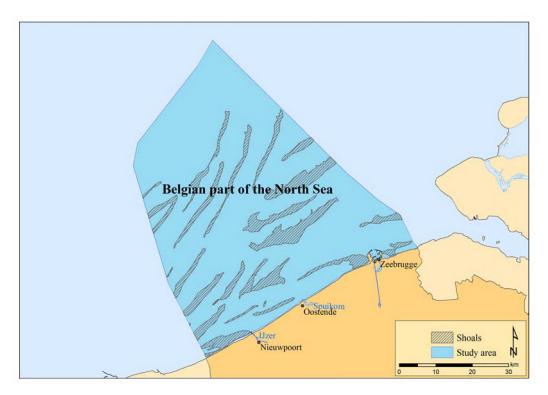
Despite the availability of a general list for the Southern Bight, there was a growing demand for a species list only containing species present in the Belgian part of the North Sea. Following this request, the Flanders Marine Institute started with the composition of such a list. This Belgian Register of Marine Species – BeRMS – is based on TISBE: all species occurrences within the Belgian part of the North Sea were filtered from Tisbe and a new literature search was started, to further complete the Belgian marine list. Additionally, a number of databases holding Belgian marine distribution data were searched for relevant species. These database included EurOBIS (European Ocean Biogeographic Information System, <a href="www.eurobis.org">www.eurobis.org</a>) and IMERS (Integrated Marine Environmental Readings & Samples, <a href="http://www.vliz.be/vmdcdata/imers/">http://www.vliz.be/vmdcdata/imers/</a>). Both TISBE and BeRMS are part of the World Register of Marine Species (WoRMS, <a href="www.eurobis.org">www.eurobis.org</a>), which is managed and maintained by taxonomic experts, thereby guaranteeing the taxonomic correctness of the included species names.

The recent literature search showed however that not all distribution records were thrustworthy, leading to the fact that – solely based on literature – there would probably be an overestimation of the number of species present in the Belgian part of the North Sea. This led to an additional quality check, where field experts were asked to help verify the geographical spread of all species listed as 'present in the Belgian part of the North Sea' based on literature and to list additions or specific comments such as 'extinct in Belgian marine waters', 'non-indigenous', 'vagrant', … This exercise learned that not each group is being (or has been) studied in detail in the Belgian part of the North Sea, and for those groups we need to rely on published literature.

This document lists all known species for the Belgian part of the North Sea and the beach up till (but not including) the dune front (see map), after verification by field experts. If there was no field expert available, the species based on literature are listed with a clear notification of this. Experts have only validated the species they know themselves or are familiar with; additional species thus might occur in the Belgian part of the North Sea which are not listed here. If you would identify missing species or have additions, corrections or remarks on this list, please contact Leen Vandepitte (leen.vandepitte@vliz.be) or Wim Decock (wim.decock@vliz.be).



Although incomplete, this does represent the most complete list of marine species occurring in the Belgian part of the North Sea at the moment. As marine biologists are still intensively studying the Belgian part of the North Sea and new or yet undocumented species will 'surface', constant updates to this list will be possible in the future. An updated version of this list will be consultable at all times on <a href="https://www.marinespecies.org/berms">www.marinespecies.org/berms</a>.



Study area: the Belgian part of the North Sea.

Only species present in the Belgian part of the North Sea were included in the list.

The dune front was identified as the landward boundary and is not included.

Additional efforts will be undertaken to list all known species of the coastal zone, including the salt marshes, mud flats, dunes, and brackish areas (Scheldt estuary).

This species list will also be made available through the VLIZ-webpages (webpages currently in development). Basic information on all the species groups will be provided online, together with more details on their occurrence in the Belgian part of the North Sea.



# Used terminology and definitions

#### Marine environment:

Aquatic environment with salinity levels ranging between > 35 PSU and 18 PSU.

## Marine species:

All organisms living in the marine environment or dependent on this environment for their survival.

This includes all organisms living permanently submerged, organisms dependent on the marine environment as their food source or refuge / resting area and all terrestrial organisms depending on the marine environment for their survival (= intertidal area, tidemark, breakwaters). Organisms which only occur in the marine environment for part of their lifecycle (e.g. anadromous and katadromous fish) are also included.

## **Permanent species:**

Marine organisms with established populations in the study area.

## (Probably) extinct in Belgian marine waters:

Species which used to occur on a regular basis in the Belgian part of the North Sea, but for which recent observations are unknown. A species is classified as "(probably) extinct" if it hasn't been observed in the last 30 years.

## Non-indigenous species:

All organisms living outside their natural distributional range, which have arrived there by human activity, either accidental or deliberate. Only non-native organisms which have an established population in the Belgian part of the North Sea have received the label "non-indigenous" in the Belgian marine species list.

Synonyms: introduced species, non-native species

## **Exotic species without permanent population:**

Species which are living outside their natural distributional range, which have arrived there by human activity, either accidental or deliberate.

## **Vagrant species:**

Species which are signaled only a limited number of times in the area, without having an established population in this area.

For the Cirripedia, a distinction was made between vagrant and exotic species: where the vagrant species have reached the Belgian part of the North Sea on their own (larval transport by prevailing sea currents), the exotic species were introduced by man (e.g. larval transport in ship hulls and released in the study area). Both vagrant and exotic species have no established populations in the Belgian part of the North Sea.



## **Drift species:**

Species found washed ashore (only applied for algae).

## **Taxonomic validation:**

Person(s) who have checked the names for taxonomic correctness. Only valid species names are represented in this list

## **Geographic validation:**

Person(s) who have confirmed the presence of the represented species in the Belgian marine environment.

#### Information based on available literature and data:

For these groups, there was no expert available for geographic validation and geographic validation is in these cased based on what is available in known literature and datasets.

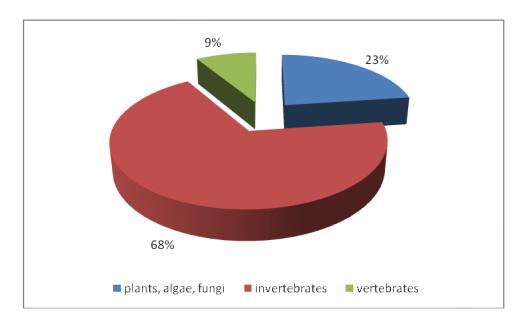


# **Belgian Register of Marine Species in numbers**

Up till now (September 2010), 2187 species have been documented to appear in the Belgian part of the North Sea. The majority of these species are invertebrates with Nematoda being the most abundant invertebrate species group (472 species). Within the vertebrates, fish and birds are the most abundant (respectively 127 and 75 species).

Of those 2187 species, 118 are considered to be vagrant, exotic or drift species, meaning they are only signaled a limited number of times in our part of the North Sea without having an established population here. When experts made no distinction between permanent and vagrant species, all were considered to be permanent.

14 species have been known to occur in the Belgian part of the North Sea, but are now considered to be (probably) extinct as they haven't been observed over the last 30-100 years. These species belong to the Bryozoa (6), Pisces (6) and Cetacea (2).



Relative proportions of invertebrates, vertebrates and algae in the Belgian part of the North Sea



Group	General classification	Total # species	Vagrant/exotic/drift	(probably) extinct
Bacteria		?		
Protozoa		?		
Bacillariophyta		?		
Porifera	invertebrates	34		
Cnidaria	invertebrates	55	6	
Ctenophora	invertebrates	3		
Platyhelminthes	invertebrates	161		
Nemertea	invertebrates	10		
Gastrotricha	invertebrates	36		
Nematoda	invertebrates	473		
Rotifera	invertebrates	20		
Kinorhyncha	invertebrates	2		
Sipuncula	invertebrates	2		
Echiura	invertebrates	2		
Mollusca	invertebrates	129	1	
Oligochaeta	invertebrates	11		
Polychaeta	invertebrates	150		
Pycnogonida	invertebrates	16		
Branchiopoda	invertebrates	3		
Ostracoda	invertebrates	56		
Copepoda	invertebrates	194		
Cirripedia	invertebrates	27	12	
Nebaliacea	invertebrates	1		
Euphausiacea	invertebrates	1		
Decapoda	invertebrates	72		
Cumacea	invertebrates	13		
Amphipoda	invertebrates	71		
Isopoda	invertebrates	33		
Mysida	invertebrates	18		
Tanaidacea	invertebrates	3		
Myriapoda	invertebrates	1		
Insecta	invertebrates	27		
Chaetognatha	invertebrates	1		
Echinodermata	invertebrates	27		
Bryozoa	invertebrates	156	58	6
Tunicata	invertebrates	11		
Entoprocta	invertebrates	1		
Phoronida	invertebrates	1		
Brachiopoda	invertebrates	1		
Cephalochordata	invertebrates	1		
Agnatha	vertebrates	2		
Pisces	vertebrates	127	18	6



Reptilia	Vertebrates	2	2	
Aves	vertebrates	75	_	
Cetacea	vertebrates	20	12	2
Carnivora	vertebrates	7	5	
Rhodophyta	plants, algae, fungi	45		
Chlorophyta	plants, algae, fungi	46		
Phaeophyceae	plants, algae, fungi	25	4	
Fungi	plants, algae, fungi	3		
Magnoliophyta	plants, algae, fungi	12		
TOTAL		2187	118	14

Overview of the number of species present in the Belgian part of the North Sea. If experts made no distinction between permanently established species and vagrant/exotic/drift species, all species are considered as permanently established. This table should be seen as a dynamic representation of our current knowledge of the biodiversity in the Belgian part of the North Sea. Updates and corrections can be made at any time to VLIZ.



## **Belgian Register of Marine Species**

#### **BACTERIA**

Contact: Prof. Dr. Anne Willems (University of Ghent, Laboratory of Microbiology, Belgium)

To know the number of Bacteria species present in the Belgian marine environment is an intriguing yet difficult question to answer. There are no recent reports documenting the diversity of marine Bacteria in the Belgian marine environment and all information available originates from older literature. Research in this area is just starting and will in the future provide insights into this diversity.

Over the last 5 to 10 years, a lot of changes have taken place in the field of bacterial research: improved identification techniques and new taxonomical insights have led to a better understanding of this group.

The most recent literature information the Belgian Register of Marine Species has available dates from early 2000 and goes back to 1907. Experts on the matter suspect this literature makes use of outdated taxonnames. Many bacterial taxa have in recent years been renamed or split up into several species and or genera, leading to an incorrect species list.

Keeping in mind these concerns, it was decided not to present a list of Bacteria currently documented for Belgium. In the future, we will however be able to fill this gap in our knowledge, as the Laboratory of Microbiology and the Department of Biology (UGent) have started to investigate the bacterial diversity in the Belgian marine environment.

## **PROTOZOA**

Contact: Alan Warren (Natural History Museum, Department of Zoology, UK)

The question of protist species distribution is currently hotly debated with two conflicting theories. One maintains that all free-living protists are cosmopolitan, i.e. that "everything is everywhere" and that the environment selects which will grow to form active populations. The other maintains that many species (at least 30%) are biogeographically restricted, and that evidence for this increases if one takes into account molecular diversity and the likelihood that many morphospecies are in fact complexes of sibling species.

Keeping in mind these concerns, it was decided not to present a list of Protozoa currently documented for Belgium.



## **BACILLARIOPHYTA - DIATOMS**

**Contact:** Prof. Dr. Koen Sabbe (University of Ghent, Section Protistology and aquatic ecology - PAE, Belgium)

As in other groups of unicellular organisms, the last decades have seen tremendous changes in our knowledge about the biodiversity, taxonomy and biogeography of diatoms. First, detailed studies of the morphological variation during the life cycles of diatoms have shown that in the past many species have been lumped together. This has not only led to confused species identities but also to a serious underestimation of marine diatom biodiversity in general, and in the notion that most species are cosmopolitan. Second, the realization that our estimates of diversity were wrong has been confirmed by the increased use of molecular techniques. These have uncovered that many - if not most - traditionally known species (delineated on the basis of morphological features) actually consist of numerous so-called cryptic species (this means that they are difficult or impossible to distinguish using microscopy alone). Finally, the use of molecular-genetic inventarization methods (such as clone libraries and more recently large-scale sequencing projects) have shown that our current estimates of the biodiversity of marine diatom communities are too low, because especially the rare fraction of these communities is much more diverse than previously thought. In traditional microscopy-based analyses, these rare species are usually overlooked.

At present, it is not possible to evaluate the identity of many species reported in the literature, because most published data cannot be critically evaluated due to the lack of good, detailed descriptions and/or illustrations, and because molecular data are sometimes necessary to confirm the presence of a species. It is therefore advisable to create new species lists based on recent, intercalibrated diatom records from the coast. Based on future efforts, compiling a species list specific for the Belgian marine water will become possible.

## **PORIFERA - SPONGES**

## Taxonomic validation:

Dr. Rob van Soest (University of Amsterdam, The Netherlands)

## Geographic validation:

Dr. Rob van Soest (University of Amsterdam, The Netherlands)

## Number of species: 34, of which 1 is non-indigenous (\*)

Amphilectus fucorum (Esper, 1794)
Ciocalypta penicillus Bowerbank, 1862
Clathria (Microciona) armata (Bowerbank, 1862)
Clathrina coriacea (Montagu, 1818)
Cliona celata Grant, 1826
Cliona lobata Hancock, 1849
Dysidea fragilis (Montagu, 1818)
Grantia compressa (Fabricius, 1780)
Halichondria (Halichondria) bowerbanki Burton, 1930
Halichondria (Halichondria) panicea (Pallas, 1766)



Haliclona (Haliclona) oculata (Pallas, 1766)

Haliclona (Reniera) cinerea (Grant, 1826)

Haliclona (Rhizoniera) rosea (Bowerbank, 1866)

Haliclona (Rhizoniera) viscosa (Topsent, 1888)

Haliclona (Soestella) xena De Weerdt, 1986 (\*)

Halisarca dujardini Johnston, 1842

Hymedesmia (Stylopus) coriacea (Fristedt, 1885)

Hymeniacidon perlevis (Montagu, 1818)

Leucosolenia complicata (Montagu, 1818)

Leucosolenia variabilis (Haeckel, 1870)

Mycale (Carmia) macilenta (Bowerbank, 1866)

Myxilla (Myxilla) rosacea (Lieberkühn, 1859)

Phorbas plumosus (Montagu, 1818)

Pione vastifica (Hancock, 1849)

Polymastia penicillus (Montagu, 1818)

Raspailia (Raspailia) ramosa (Montagu, 1818)

Raspailia (Raspailia) virgultosa (Bowerbank, 1866)

Suberites ficus (Johnston, 1842)

Sycon ciliatum (Fabricius, 1780)

Terpios gelatinosa (Bowerbank, 1866)

Tethya citrina Sarà & Melone, 1965

Tethyspira spinosa (Bowerbank, 1874)

Timea hallezi (Topsent, 1894)

Ulosa stuposa (Esper, 1794)

## **CNIDARIA - CNIDARIANS**

## Taxonomic validation:

- Peter Schuchert (Natural History Museum of the city of Geneva, Switzerland)
- Paul Cornelius (Natural History Museum, UK)
- Dr. Daphne G. Fautin (University of Kansas, KU Natural History Museum, USA)

## Geographic validation:

- Hans de Blauwe (Strandwerkgroep SWG, Belgium)
- Drs. Karl Vanginderdeuren (Flemisch Government, Agriculture and Fisheries, Institute for Agriculture and Fisheries Research, Animal Knowledge Unit -ILVO, Belgium)
- Emmanuel Dumoulin (Strandwerkgroep SWG, Belgium)

# Hydrozoa - hydroids

Number of species: 30

Permanent: 24, of which 1 is non-indigenous (\*)

Abietinaria abietina (Linnaeus, 1758)

Aequorea forskalea (Forsskål, 1775)

Aequorea vitrina Gosse, 1853

Bougainvillia brittanica (Forbes, 1841)



Bougainvillia muscus (Allman, 1863)

Calycella syringa (Linnaeus, 1758)

Clytia hemisphaerica (Linnaeus, 1767)

Ectopleura dumortierii (Van Beneden, 1844)

Ectopleura larynx (Ellis & Solander, 1786)

Eucheilota maculata Hartlaub, 1894

Eutonina indicans (Romanes, 1876)

Gonothyraea loveni (Allman, 1859)

Margelopsis haeckeli Hartlaub, 1897

Mitrocomella polydiademata (Romanes, 1876)

Nemertesia antennina (Linnaeus, 1758)

Nemopsis bachei L. Agassiz, 1849 (\*)

Obelia bidentata Clark, 1875

Obelia dichotoma (Linnaeus, 1758)

Obelia longissima (Pallas, 1766)

Rathkea octopunctata (M. Sars, 1835)

Sarsia tubulosa (M. Sars, 1835)

Sertularia cupressina Linnaeus, 1758

Tubularia indivisa Linnaeus, 1758

Zanclea implexa (Alder, 1857)

## Vagrant: 6

Aglaophenia pluma (Linnaeus, 1767)

Coryne muscoides (Linnaeus, 1761)

Melicertum octocostatum (Sars, 1835)

Obelia geniculata (Linnaeus, 1758)

Sertularella rugosa (Linnaeus, 1758)

Velella velella (Linnaeus, 1758)

# Scyphozoa - true jellyfish

## Number of species: 6

Aurelia aurita (Linnaeus, 1758)

Chrysaora hysoscella (Linnaeus, 1767)

Cyanea capillata (Linnaeus, 1758)

Cyanea lamarckii Péron & Lesueur 1810

Pelagia noctiluca (Forsskål, 1775)

Rhizostoma pulmo (Macri, 1778)

#### Anthozoa - sea anemones

## Number of species: 19, of which 1 is non-indigenous (\*)

Actinia candida Müller, 1776

Actinia equina (Linnaeus, 1758)

Actinothoe sphyrodeta (Gosse, 1858)

Alcyonium digitatum Linnaeus, 1758

Balanophyllia regia Gosse, 1860



Calliactis parasitica (Couch, 1838)

Cereus pedunculatus (Pennant, 1777)

Cerianthus lloydii Gosse, 1859

Diadumene cincta Stephenson, 1925

Diadumene lineata (Verrill, 1869) (\*)

Edwardsia timida Quatrefages, 1842

Hormathia digitata (O.F. Müller, 1776)

Metridium senile (Linnaeus, 1761)

Sagartia elegans (Dalyell, 1848)

Sagartia troglodytes (Price in Johnston, 1847)

Sagartiogeton laceratus (Dalyell, 1848)

Sagartiogeton undatus (Müller, 1778)

Stomphia coccinea (Müller, 1776)

Urticina felina (Linnaeus, 1761)

#### **CTENOPHORA - SEA GOOSBERRIES**

#### Taxonomic validation:

Dr. Jacob van der Land (National Museum of Natural History – Naturalis, The Netherlands)

## Geographic validation:

- Drs. Karl Vanginderdeuren (Flemisch Government, Agriculture and Fisheries, Institute for Agriculture and Fisheries Research, Animal Knowledge Unit - ILVO, Belgium)

## Number of species: 3, of which 1 is non-indigenous

Beroe gracilis Künne, 1939 Mnemiopsis leidyi A. Agassiz, 1865 (\*) Pleurobrachia pileus (Müller, 1776)

#### **PLATYHELMINTHES - FLATWORMS**

#### Taxonomic validation:

- Prof. Dr. Tom Artois (University of Hasselt, Research Group Zoology SBG, Belgium)
- Dr. Anno Faubel (Universität Hamburg, Institut für Hydrobiologie und Fischereiwissenschaft, Germany)
- Dr. David Gibson (Natural History Museum, Department of Zoology UK)
- Drs. Mieke Boone (University of Ghent, Section Nematology Belgium)

## Geographic validation:

- Prof. Dr. Tom Artois (University of Hasselt, Research Group Zoology SBG, Belgium) (Turbellaria)
- Drs. Mieke Boone (University of Ghent, Section Nematology Belgium) (Nemertodermatida)
- Species list based on available literature and data for the Belgian part of the North Sea (Trematoda, Monogenea, Digenea, Cestoda)



## Number of species: 161

Adenorhynchus balticus Meixner, 1938

Allostoma pallidum Beneden, 1861

Amphirhynchus caudatus Schilke, 1970

Aphalloides coelomicola Dollfus, Chabaud & Golvan, 1957

Archiloa petiti Ax, 1956

Archiloa westbladi Ax, 1954

Archilopsis arenaria Martens, Curini-Galletti & Pucinelli, 1989

Archilopsis marifuga Martens, Curini-Galletti & Pucinelli, 1989

Archilopsis spinosa (Jensen, 1878)

Archimonocelis oostendensis Martens & Schockaert, 1981

Archimonotresis limophila Meixner, 1938

Asymphylodora demeli Markowski, 1935

Aulopharynx aestuarius Ehlers, 1972

Bothriocephalus scorpii (Müller, 1776)

Bradynectes sterreri Rieger, 1971

Bresslauilla relicta Reisinger, 1929

Brinkmanniella macrostomoides Luther, 1948

Carcharodorhynchus flavidus Brunet, 1967

Carcharodorhynchus isolatus Schilke, 1970

Carcharodorhynchus listensis Schilke, 1970

Carenscoilia bidentata Sopott, 1972

Carenscoilia biforamen Sopott, 1972

Cheliplana boadeni Schilke, 1970

Cheliplana gemmifera Noldt, 1989

Cheliplana marcusi (Karling, 1956)

Cheliplana microcirrus Noldt, 1989

Cheliplana remanei (Meixner, 1928) Karling 1983

Cheliplana rubescens Brunet, 1966

Cheliplana stylifera Karling, 1949

Cheliplana vestibularis de Beauchamp, 1927

Cheliplanilla caudata Meixner, 1938

Cicerina brevicirrus Meixner, 1928

Cicerina remanei Meixner, 1928

Cicerina tetradactyla Giard, 1904

Ciliopharyngiella constricta Martens & Schockaert, 1981

Cirrifera aculeata (Ax, 1951)

Cirrifera dumosa Sopott, 1972

Cirrifera genitoductus Jouk, Martens, Schockaert, 2007

Cirrifera sopottehlersae Noldt & Jouk, 1988

Coelogynopora axi Sopott, 1972

Coelogynopora forcipis Sopott-Ehlers, 1976

Coelogynopora gynocotyla Steinböck, 1924

Coelogynopora solifer Sopott, 1972

Coronhelmis multispinous Luther, 1948

Cryptocotyle lingua (Creplin, 1825)

Cylindrostoma fingalianum (Claperede, 1861)



Derogenes varicus (Müller, 1784)

Diascorhynchus rubrus Boaden, 1963

Diascorhynchus serpens Karling, 1949

Diclidophora minuti Tirard, Berrebi, Raibaut & Frenaud, 1992

Diclidophora luscae (van Beneden & Hesse, 1864)

Doliopharynx geminocirro Ehlers, 1972

Duplominona septentrionalis Martens, 1983

Duploperaclistus circocirrus Martens, 1983

Elvertia krusei Noldt, 1989

Flagellophora apelti Faubel & Dorjes, 1978

Gnathorhynchus conocaudatus Meixner, 1929

Gyrodactylus arcuatus Bychowsky, 1933

Gyrodactylus ostendicus Huyse & Malmberg, 2004

Gyrodactylus micropsi Glaser, 1974

Gyrodactylus longidactylus Geets, Malmberg & Ollevier 1998

Haloplanella longatuba Ax & Heller, 1970

Hangethellia calceifera Karling, 1940

Haplopharynx rostratus Meixner, 1938

Hemiurus ocreata (Rudolphi, 1802)

Karkinorhynchides purpureus (Schilke, 1970)

Karkinorhynchus bruneti Schilke, 1970

Kataplana germanica Ax, 1951

Leptoplana levigata (Quatrefage, 1845) Prudhoe, 1985

Limirhynchus danicus Schilke, 1970

Listea simplex Ax & Heller, 1970

Litucivis serpens Ax & Heller, 1970

Lonchoplanella axi Ehlers, 1974

Macrostomum balticum Luther, 1947

Macrostomum hystricinum Beklemischev, 1951

Macrostomum pusillum Ax, 1951

Minona degadti Martens, 1983

Monocelis fusca Örsted, 1843

Monocelis lineata (Müller, 1774) Ehrenberg, 1831

Monocelopsis otoplanoides Ax, 1951

Myozona stylifera Ax, 1956

Nematoplana coelogynoporoides Meixner, 1938

Nematoplana riegeri Curini-Galletti & Martens, 1992

Nematorhynchus parvoacumine Schilke, 1969

Nemertinoides elongatus Riser, 1987

Neopolycystis tridentata Karling, 1955

Neoschizorhynchus brevipharyngeus Schilke, 1970

Neoschizorhynchus longipharyngeus Schilke, 1970

Neoschizorhynchus parvorostro Ax & Heller, 1970

Nigerrhynchus opisthoporus Schilke, 1970

Odontorhynchus aculeatus Karling, 1956

Otoplanella baltica (Meixner, 1938)

Otoplanella schulzi (Ax, 1951)

Otoplanidia endocystis Meixner, 1938

Paracicerina deltoides Martens & Schockaert, 1981



Paragnathorhynchus subterraneus Meixner, 1938

Paraschizorhynchoides glandulis Schilke, 1970

Paromalostomum dubium (de Beauchamp, 1927)

Paromalostomum fusculum Ax, 1952

Parotoplana capitata Meixner, 1938

Parotoplana papii Ax, 1956

Petaliella spiracauda Ehlers, 1974

Phonorhynchus helgolandicus (Metschnikow, 1865)

Placorhynchus octaculeatus Karling, 1931

Plagiostomum vittatum (Frey & Leuckart, 1847)

Pogaina kinnei Ax, 1970

Pogaina natans Ax, 1951

Praebursoplana reisingeri Ax, 1956

Procerodes littoralis (Ström, 1768)

Proceropharynx litoralis Ehlers, 1972

Promesostoma caligulatum Ax, 1952

Promesostoma cochleare Karling, 1935

Promesostoma marmoratum (Schultze M, 1851)

Promesostoma serpentistylum Ax, 1952

Promonotus marci Ax, 1954

Promonotus schultzei Meixner, 1943

Proschizorhynchella bivaginata Schilke, 1970

Proschizorhynchella helgolandica (Karling & L'Hardy, 1965) Schilke, 1970

Proschizorhynchus gullmarensis Karling, 1950

Proschizorhynchus triductibus Schilke, 1970

Provortex affinis (Jensen, 1878)

Provortex balticus (Schultze M, 1851)

Provortex karlingi Ax, 1951

Provortex psammophilus Meixner, 1938

Provortex tubiferus Luther, 1948

Proxenetes ampullatus Ax, 1971

Proxenetes cisorius Hartog, 1966

Proxenetes fasciger Ehlers, 1974

Proxenetes pratensis Ax, 1960

Proxenetes puccinellicola Ax, 1960

Proxenetes simplex Luther, 1948

Proxenetes tenuispinosus Ehlers, 1974

Psammorhynchus tubulipenis Meixner, 1938

Pseudomonocelis agilis (Schultze M, 1851)

Pseudoschizorhynchoides ruber Schilke, 1970

Pseudostomum gracilis Westblad, 1955

Pseudostomum quadrioculatum (Leuckart, 1847)

Pseudosyrtis subterranea (Ax, 1951)

Psittacorhynchus verweyi Hartog, 1968

Ptyalorhynchus coecus Ax, 1951

Ptychopera westbladi (Luther, 1943)

Rogneda hibernica (Southern, 1936)

Scanorhynchus forcipatus Karling, 1955

Schizochilus caecus L'Hardy, 1963



Schizochilus choriurus Boaden, 1963

Schizochilus marcusi Boaden, 1963

Schizorhynchoides aculeatus L'Hardy, 1963

Schizorhynchoides symmetricus Martens & Schockaert, 1981

Sterreria psammicola (Sterrer, 1970)

Subulagera rubra Martens & Schockaert, 1981

Thylacorhynchus ambronensis Schilke, 1970

Thylacorhynchus caudatus Meixner, 1928

Thylacorhynchus conglobatus Meixner, 1928

Thylacorhynchus pyriferus Karling, 1949

Toia calceformis Brunet, 1973

Trigonostomum armatum (Jensen, 1878)

Uncinorhynchus flavidus Karling, 1947

Uteriporus vulgaris Bergendal, 1890

Vejdovskya halileimonia Ax, 1960

Vejdovskya pellucida (Schultze M, 1851)

Zoogonoides viviparus (Olsson, 1868)

# **N**EMERTEA - RIBBON WORMS

#### Taxonomic validation:

- Prof. Dr. Raymond Gibson (Liverpool John Moore University, Biodiversity and Evolution, UK)

#### Geographic validation:

Species list based on available literature and data for the Belgian part of the North Sea

## Number of species: 10

Baseodiscus delineatus (Delle Chiaje, 1825)

Cerebratulus marginatus Renier, 1804

Lineus bilineatus (Renier, 1804)

Lineus gesserensis

Lineus ruber (Müller, 1774)

Oerstedia dorsalis (Abildgaard, 1806)

Oxypolia beaumontiana Punnett, 1901

Poliopsis lacazei Joubin, 1890

Tubulanus annulatus (Montagu, 1804)

Tubulanus polymorphus Renier, 1804

#### GASTROTRICHA - GASTROTRICHS, HAIRY-BACKS

#### Taxonomic validation:

- Dr. Jean-Loup d'Hondt (Muséum National d'Histoire Naturelle MNHN, France)
- William Hummon (Ohio University, Department of Biological Sciences, USA)
- Dr. Antonio Todaro (University of Modena e Reggio Emilia UNIMORE, Italy)



#### Geographic validation:

Species list based on available literature and data for the Belgian part of the North Sea

## Number of species: 36

Acanthodasys aculeatus Remane, 1927

Cephalodasys maximus Remane, 1926

Cephalodasys turbanelloides (Boaden, 1960)

Chaetonotus (Schizochaetonotus) neptuni Wilke, 1954

Chaetonotus parthenopeius Wilke, 1954

Chaetonotus variosquamatus Mock, 1979

Dactylopodola typhle (Remane, 1927)

Diplodasys ankeli Wilke, 1954

Diplodasys minor Remane, 1936 sensu Todaro 1992

Dolichodasys elongatus Gagne, 1977

Halichaetonotus aculifer (Gerlach, 1953)

Halichaetonotus arenarius (d'Hondt, 1971)

Halichaetonotus batillifer (Luporini & Tongiorgi, 1972)

Halichaetonotus jucundus (d'Hondt, 1971)

Heterolepidoderma arenosum Kisielewski, 1988

Heterolepidoderma clipeatum Schrom, 1972

Heteroxenotrichula affinis (Remane, 1934)

Heteroxenotrichula squamosa Wilke, 1954

Lepidodasys martini Remane, 1926

Macrodasys caudatus Remane, 1927

Mesodasys laticaudatus Remane, 1951

Mesodasys litoralis Remane, 1951

Neodasys chaetonotoideus Remane, 1927

Paraturbanella dohrni Remane, 1927

Paraturbanella teissieri Swedmark, 1954

Pleurodasys helgolandicus Remane, 1927 sensu Boaden, 1963

Pseudostomella roscovita Swedmark, 1956

Tetranchyroderma megastomum (Remane, 1927)

Tetranchyroderma tribolosum Clausen, 1965

Turbanella ambronensis Remane, 1943

Turbanella bocqueti Kaplan, 1958 sensu Boaden, 1974

Turbanella cornuta Remane, 1925

Turbanella hyalina Schultze, 1853

Urodasys mirabilis Remane, 1926

Xenotrichula intermedia Remane, 1934

Xenotrichula velox Remane, 1927

## **N**EMATODA - ROUNDWORMS

#### Taxonomic validation:

- Dr. Jan Vanaverbeke (University of Ghent, Marine Biology Section MarBIOL, Belgium)
- Dr. David Gibson (Natural History Museum, UK)



- Dr. Tim deprez (University of Ghent, Marine Biology Section MarBIOL, Belgium)
- Prof. Dr. Magda Vincx (University of Ghent, Marine Biology Section MarBIOL, Belgium)

#### Geographic validation:

- Dr. Jan Vanaverbeke (University of Ghent, Marine Biology Section MarBIOL, Belgium) (free-living nematodes)
- Species list based on available literature and data for the Belgian part of the North Sea (parasitic nematodes)

## Number of species: 473, of which 1 is non-indigenous (\*)

Acantholaimus ewensis Platt & Zhang, 1982

Actinonema celtica Boucher, 1976

Actinonema pachydermatum Cobb, 1920

Adoncholaimus fuscus (Bastian, 1865)

Adoncholaimus thalassophygas (de Man, 1876)

Aegialoalaimus elegans de Man, 1907

Aegialoalaimus sabulicola Allgén, 1933

Aegialoalaimus tenuicaudatus Allgén, 1932

Alaimella cincta Cobb, 1920

Amphimonhystera anechma (Southern, 1914)

Anguillicoloides crassus (Kuwahara, Niimi & Itagaki, 1974) (\*)

Anisakis simplex (Rudolphi, 1809)

Anomonema deconincki Jensen, 1976

Anoplostoma blanchardi de Man, 1888

Anoplostoma viviparum (Bastian, 1865)

Anticoma acuminata (Eberth, 1863) Stekhoven, 1950

Anticoma pellucida Bastian, 1865

Aponema torosa (Lorenzen, 1973)

Araeolaimus filipjevi Schuurmans Stekhoven & Adam, 1931

Araeolaimus longicauda Allgén, 1929

Ascolaimus elongatus (Bütschli, 1874)

Atrochromadora microlaima (de Man, 1889)

Atrochromadora parva (De Man, 1893) Wieser, 1954

Axonolaimus anellifera (Wieser, 1956)

Axonolaimus helgolandicus Lorenzen, 1972

Axonolaimus orcombensis Warwick, 1970

Axonolaimus paraspinosus Schuurmans Stekhoven & Adam, 1931

Axonolaimus spinosus (Bütschli, 1874)

Bathylaimus australis Cobb, 1894

Bathylaimus capacosus Hopper, 1962

Bathylaimus filicaudatus (Schuurmans Stekhoven & Adam, 1931)

Bathylaimus macramphis (Schuurmans Stekhoven & De Coninck, 1933)

Bathylaimus parafilicaudatus Allgén, 1935

Bathylaimus paralongisetosus Schuurmans Stekhoven & De Coninck, 1933

Bathylaimus stenolaimus Schuurmans Stekhoven & De Coninck, 1933

Bathylaimus tenuicaudatus (Allgén, 1933)

Bolbolaimus dentatus (Allgén, 1935)

Bolbolaimus denticulatus Gerlach, 1963

Bolbolaimus riemanni (Riemann, 1966)



Bolbolaimus teutonicus (Riemann, 1966)

Calomicrolaimus acanthus (Jayasree & Warwick, 1977)

Calomicrolaimus compridus (Gerlach, 1956)

Calomicrolaimus honestus (de Man, 1922)

Calomicrolaimus monstrosus (Gerlach, 1953)

Calomicrolaimus parahonestus (Gerlach, 1950)

Calomicrolaimus rugatus Lorenzen, 1976

Calyptronema maxweberi (de Man, 1922)

Camacolaimus barbatus Warwick, 1970

Camacolaimus exilis Cobb, 1920

Camacolaimus longicauda de Man, 1922

Camacolaimus tardus de Man, 1889

Capillaria wickinsi Ogden, 1965

Ceramonema carinatum Wieser, 1959

Ceramonema yunfengi Platt & Zhang, 1982

Chaetonema riemanni Platt, 1973

Chitwoodia tripapillata Jayasree, 1976

Chitwoodia warwicki Jayasree, 1976

Choniolaimus panicus Gerlach, 1956

Choniolaimus papillatus Ditlevsen, 1918

Chromadora axi Gerlach, 1951

Chromadora kreisi Schuurmans Stekhoven & Adam, 1931

Chromadora macrolaima de Man, 1889

Chromadora nudicapitata (Bastian, 1865)

Chromadorella problematica Boucher, 1976

Chromadorella salicaniensis Boucher, 1976

Chromadorina demani Inglis, 1962

Chromadorina germanica (Bütschli, 1874)

Chromadorina longisetosa (De Coninck & Schuurmans Stekhoven, 1933)

Chromadorita heterophya (Steiner, 1916)

Chromadorita lunatica Gerlach, 1965

Chromadorita nana Lorenzen, 1973

Chromadorita tenuis (Schneider, 1906)

Chromaspirina chabaudi Boucher, 1975

Chromaspirina inflexa Wieser, 1954

Chromaspirina inglisi Warwick, 1970

Chromaspirina lunatica Gerlach, 1965

Chromaspirina parapontica Luc & De Coninck, 1959

Chromaspirina pellita Gerlach, 1954

Chromaspirina renaudae Boucher, 1975

Cobbia trefusiaeformis de Man, 1907

Comesa cuanensis (Platt, 1982)

Comesa warwicki (Platt, 1982)

Coninckia circularis Gerlach, 1956

Coninckia macrospirifera Zhang, 1983

Crenopharynx marioni (Southern, 1914)

Cucullanus heterochrous Rudolphi, 1802

Cyartonema elegans Jayasree & Warwick, 1977

Cyartonema zosterae (Allgén, 1929)



Cylicolaimus magnus (Villot, 1875)

Dagda bipapillata Southern, 1914

Daptonema acrilabiatum (De Coninck & Schuurmans Stekhoven, 1933)

Daptonema biggi (Gerlach, 1965)

Daptonema calceolatum (De Coninck & Schuurmans Stekhoven, 1933)

Daptonema conicum (Filipjev, 1922)

Daptonema fallax (Lorenzen, 1972)

Daptonema fistulatum (Wieser & Hopper, 1967)

Daptonema flagellicauda (Lorenzen, 1973)

Daptonema groenlandicum (Ditlevsen, 1928)

Daptonema hirsutum (Vitiello, 1967)

Daptonema invagiferoum (Platt, 1973)

Daptonema kornoeense (Allgén, 1929)

Daptonema longicaudatum (Filipjev, 1922)

Daptonema nanum (Lorenzen, 1972)

Daptonema normandicum (de Man, 1890)

Daptonema oxycerca (de Man, 1888)

Daptonema proprium (Lorenzen, 1972)

Daptonema riemanni (Platt, 1973)

Daptonema setifer (Gerlach, 1952)

Daptonema setosum (Bütschli, 1874)

Daptonema stylosum (Lorenzen, 1973)

Daptonema svalbardense (Gerlach, 1965)

Daptonema tenuispiculum (Ditlevsen, 1918)

Daptonema trabeculosum (Schneider, 1906)

Daptonema trichinus (Gerlach, 1956)

Daptonema xyaliforme Wieser & Hopper, 1967

Dasynemella albaensis Warwick & Platt, 1973

Dasynemoides albaensis (Warwick & Platt, 1973)

Deontolaimus papillatus de Man, 1880

Desmodora communis (Bütschli, 1874)

Desmodora hirsuta (Chitwood, 1936)

Desmodora microchaeta Allgén, 1929

Desmodora pontica (Filipjev, 1922)

Desmodora schulzi Gerlach, 1950

Desmodora tenuispiculum Allgén, 1928

Desmodorella tenuispiculum Allgén, 1928

Desmolaimus zeelandicus de Man, 1880

Desmolaimus zosterae Allgén, 1933

Desmoscolex frontalis Gerlach, 1952

Desmoscolex longisetosus Timm, 1970

Dichromadora abnormis Gerlach, 1953

Dichromadora cephalata (Steiner, 1916)

Dichromadora cucullata Lorenzen, 1973

Dichromadora geophila (de Man, 1876)

Dichromadora hyalocheile De Coninck & Schuurmans Stekhoven, 1933

Dichromadora scandula Lorenzen, 1966

Diplolaimella dievengatensis Jacobs & Vrancken, 1989

Diplolaimella ocellata (Bütschli, 1874)



Diplopeltula asetosa Juario, 1974

Diplopeltula belgica Vincx, 1992

Diplopeltula curta Vincx, 1992

Diplopeltula ostrita Boucher & Helléouet, 1977

Dolicholaimus obtusus Stekhoven, 1935

Dracognomus tinae Jensen, 1981

Echinotheristus teutonicus Thun & Riemann, 1967

Eleutherolaimus amasi Bouwman, 1981

Eleutherolaimus iniquisetosus Schuurmans Stekhoven, 1935

Eleutherolaimus stenosoma (de Man, 1907)

Enoploides delamarei Boucher, 1977

Enoploides labiatus (Bütschli, 1874)

Enoploides longispiculosus Vitiello, 1967

Enoploides spiculohamatus Schulz, 1932

Enoploides tyrrhenicus Brunetti, 1949

Enoplolaimus conicollis Gerlach, 1952

Enoplolaimus denticulatus Warwick, 1970

Enoplolaimus litoralis Schulz, 1936

Enoplolaimus longicaudatus (Southern, 1914)

Enoplolaimus propinquus de Man, 1922

Enoplolaimus subterraneus Gerlach, 1953

Enoplolaimus zosterae Schulz, 1932

Enoplus communis Bastian, 1865

Epsilonema pustulatum (Gerlach, 1952)

Epsilonema serrulatum Lorenzen, 1973

Eubostrichus smo Platt & Zhang, 1982

Euchromadora vulgaris (Bastian, 1865) De Man, 1886

Eumorpholaimus sabulicolus Schulz, 1932

Eurystomina filiformis (de Man, 1888)

Eurystomina terricola (de Man, 1907)

Filitonchus filiformis Warwick, 1971

Gammanema conicauda Gerlach, 1953

Gammanema rapax (Ssaweljev, 1912)

Gerlachius lissus (Gerlach, 1956)

Gonionchus cumbraensis Benwell, 1981

Gonionchus heipi Vincx, 1986

Gonionchus inaequalis Warwick & Platt, 1973

Gonionchus longicaudatus (Ward, 1972)

Gonionchus paravillosus Blome, 1982

Gonionchus villosus Cobb, 1920

Halalaimus capitulatus Boucher, 1978

Halalaimus cirrhatus Gerlach, 1953

Halalaimus curvicaudatus Juario, 1974

Halalaimus fletcheri Mawson 1958

Halalaimus gracilis de Man, 1888

Halalaimus longicaudatus (Filipjev, 1927)

Halalaimus longicollis Allgén, 1932

Halalaimus striatus Gerlach, 1956

Halalaimus terrestris Gerlach, 1959



Halaphanolaimus harpaga Boucher & de Bovée, 1972

Halaphanolaimus longisetosus Allgén, 1928

Halaphanolaimus pellucidus Southern, 1914

Halichoanolaimus robustus (Bastian, 1865)

Haliplectus dorsalis Chitwood, 1956

Halomonhystera disjuncta (Bastian, 1865)

Hypodontolaimus balticus (Schneider, 1906)

Hypodontolaimus inaequalis (Bastian, 1865)

Hypodontolaimus schuurmansstekhoveni Gerlach, 1951

Hysterothylacium aduncum (Rudolphi, 1802)

Innocuonema tentabunda (de Man, 1890)

Ixonema sordidum Lorenzen, 1971

Karkinochromadora lorenzeni (Jensen, 1980) Blome, 1982

Karkinochromadora lorenzi (Jensen, 1980)

Kathlania leptura (Rudolphi, 1819)

Kraspedonema octogoniata Gerlach, 1954

Latronema aberrans (Allgén, 1934)

Latronema deconincki Boucher, 1976

Latronema orcinum (Gerlach, 1952)

Leptolaimoides haploopis Jensen, 1978

Leptolaimus ampullaceus Warwick, 1970

Leptolaimus elegans (Stekhoven & De Coninck, 1933)

Leptolaimus membranatus (Wieser, 1951)

Leptolaimus papilliger de Man, 1876

Leptolaimus setiger Schuurmans Stekhoven & De Coninck, 1933

Leptolaimus venustus Lorenzen, 1972

Leptolaimus vinnulus Vitiello, 1974

Leptonemella aphanothecae Gerlach, 1950

Leptonemella granulosa Boucher, 1975

Linhomoeus elongatus Bastian, 1865

Linhomoeus filaris Lorenzen, 1973

Linhystera problematica Juario, 1974

Manunema annulatum (Vitiello & De Coninck, 1968)

Mesacanthion africanthiforme Warwick, 1970

Mesacanthion diplechma (Southern, 1914)

Mesacanthion hirsutum Gerlach, 1953

Metachromadora quadribulba Gerlach, 1956

Metachromadora remanei Gerlach, 1951

Metachromadora suecica (Allgén, 1929)

Metachromadora vivipara (de Man, 1907)

Metadasynemoides lata Gerlach, 1957

Metadesmolaimus aduncus Lorenzen, 1972

Metadesmolaimus gaelicus Platt, 1983

Metadesmolaimus gelana (Warwick & Platt, 1973)

Metadesmolaimus heteroclitus Lorenzen, 1972

Metadesmolaimus pandus Lorenzen, 1972

Metalinhomoeus filiformis (de Man, 1907)

Metalinhomoeus typicus de Man, 1907

Metaparoncholaimus campylocercus (de Man, 1876)



Metaraeolaimoides oxystoma De Coninck, 1936

Metepsilonema callosum Lorenzen, 1973

Metepsilonema comptum Decraemer & Gourbault, 2000

Metepsilonema emersum Lorenzen, 1973

Metepsilonema hagmeieri (Stauffer, 1924)

Metoncholaimus pristiurus (Zur Strassen, 1894)

Metoncholaimus scanicus (Allgén, 1935)

Microlaimus acinaces Warwick & Platt, 1973

Microlaimus acuticaudatus De Coninck & Schuurmans Stekhoven, 1933

Microlaimus annelisae Jensen, 1976

Microlaimus arenicola Schulz, 1938

Microlaimus compridus Gerlach, 1956

Microlaimus conothelis (Lorenzen, 1973)

Microlaimus conspicuus Lorenzen, 1973

Microlaimus cyatholaimoides de Man, 1922

Microlaimus globiceps de Man, 1880

Microlaimus marinus (Schulz, 1932)

Microlaimus ostracion Schuurmans Stekhoven, 1935

Microlaimus paraborealis Allgén, 1940

Microlaimus pinguis Wieser, 1954

Microlaimus problematicus Allgén, 1932

Microlaimus robustidens Schuurmans Stekhoven & De Coninck, 1933

Molgolaimus cuanensis Platt, 1973

Molgolaimus minutus Jensen, 1978

Molgolaimus turgofrons (Lorenzen, 1972)

Monhystera disjuncta (Bastian, 1865)

Monhystera microphthalma de Man, 1880

Monhystera parelegantula De Coninck, 1943

Monhystera pusilla Boucher & Helléouet, 1977

Monhystera venusta Lorenzen, 1979

Monhystrella macrura (de Man, 1880)

Mononcholaimus separabilis Wieser, 1953

Monoposthia costata (Bastian, 1865)

Monoposthia mirabilis Schulz, 1932

Nannolaimus fusus Gerlach, 1956

Neochromadora angelica Riemann, 1976

Neochromadora munita Lorenzen, 1971

Neochromadora nicolae Vincx, 1986

Neochromadora paratecta Blome, 1974

Neochromadora poecilosoma (de Man, 1893)

Neochromadora poecilosomoides (Filipjev, 1918)

Neochromadora quinquepapillata Stekhoven, 1935

Neochromadora tecta Gerlach, 1951

Neochromadora trichophora (Steiner, 1921)

Nudora gourbaultae Vanreusel & Vincx, 1989

Odontophora armata (Ditlevsen, 1918)

Odontophora exharena Warwick & Platt, 1973

Odontophora longicaudata Schuurmans Stekhoven & De Coninck, 1933

Odontophora longisetosa (Allgén, 1928)



Odontophora octoseta Boucher & Helléouet, 1977

Odontophora ornata Lorenzen, 1972

Odontophora paravilloti Blome, 1982

Odontophora phalarata Lorenzen, 1972

Odontophora rectangula Lorenzen, 1972

Odontophora setosa (Allgén, 1929)

Odontophora villoti Luc & De Coninck, 1959

Odontophoroides monhystera Gerlach, 1953

Odontophoroides paramonhystera Lambshead, 1982

Oncholaimellus calvadosicus de Man, 1890

Oncholaimellus mediterraneus Schuurmans Stekhoven, 1942

Oncholaimus brachycercus de Man, 1889

Oncholaimus oxyuris Ditlevsen, 1911

Oncholaimus skawensis Ditlevsen, 1921

Onyx perfectus Cobb, 1891

Onyx sagittarius Gerlach, 1950

Oxyonchus dentatus (Ditlevsen, 1918) Filipjev, 1927

Oxystomina elongata Bütschli, 1874

Panagrolaimus rigidus (Schneider, 1866)

Paracanthonchus caecus (Bastian 1865)

Paracanthonchus heterodontus (Schulz, 1932)

Paracanthonchus longus Allgén, 1934

Paracanthonchus spectabilis Allgén, 1931

Paracanthonchus thaumasius (Schulz, 1932)

Paracyatholaimoides asymmetricus Boucher, 1975

Paracyatholaimoides labiosetosus Riemann, 1966

Paracyatholaimoides multispiralis Gerlach, 1953

Paracyatholaimus intermedius (de Man, 1880)

Paracyatholaimus occultus Gerlach, 1956

Paracyatholaimus pentodon Riemann, 1966

Paralinhomoeus filiformis (Filipjev, 1918)

Paralinhomoeus lepturus (de Man, 1907)

Parallelocoilas dolfusi Boucher, 1975

Paralongicyatholaimus macramphis Lorenzen, 1972

Paramesonchium belgicum Jensen, 1976

Paramicrolaimus conothelis Lorenzen, 1973

Paramonhystera megacephala Wieser, 1956

Paramonhystera riemanni Platt, 1973

Paramonohystera elliptica (Filipjev, 1918)

Paramonohystera pellucida (Cobb, 1920)

Pararaeolaimus nudus (Gerlach, 1951)

Pareurystomina acuminata (de Man, 1889)

Perepsilonema crassum Lorenzen, 1973

Phyllolaimus tridentatus Murphy, 1963

Pomponema ammophilum Lorenzen, 1972

Pomponema compactum Lorenzen, 1972

Pomponema coomansi Vincx, 1981

Pomponema elegans Lorenzen, 1972

Pomponema loticum Lorenzen, 1972



Pomponema multipapillatum (Filipjev, 1922)

Pomponema sedecima Platt, 1973

Pomponema syltense Blome, 1974

Pomponema tautraense (Allgén, 1933)

Pomponema tesselatum Wieser & Hopper, 1967

Pontonema vulgare (Bastian, 1865)

Praeacanthonchus punctatus (Bastian, 1865)

Procamacolaimus papillosus Warwick, 1973

Prochaetosoma mediterranicum Allen & Noffsinger, 1978

Prochromadorella attenuata (Gerlach, 1952)

Prochromadorella ditlevseni (de Man, 1922)

Prochromadorella longicaudata (Kreis, 1929)

Prochromadorella obtusidens (Schuurmans Stekhoven & Adam, 1931)

Prochromadorella paramucrodonta (Allgén, 1929) Wieser, 1951

Prochromadorella septempapillata Platt, 1973

Proleptus obtusus Dujardin, 1845

Promonhystera faber Wieser, 1956

Pselionema longiseta Ward, 1974

Pselionema longissimum Gerlach, 1953

Pseudocella trichodes (Leuckart, 1849)

Pseudonchus decempapillatus Ward, 1974

Pseudonchus deconincki Warwick, 1969

Ptycholaimellus ponticus (Filipjev, 1922)

Ptycholaimellus vincxae Jensen & Nehring, 1992

Rhabditis (Pellioditis) marina Bastian, 1865

Rhabdocoma americana Cobb, 1920

Rhabdocoma birgittae Jensen, 1976

Rhabdodemania birgittae Jensen, 1976

Rhabdodemania imer Warwick & Platt, 1973

Rhabdodemania minor (Southern, 1914)

Rhadinema flexile Cobb, 1920

Rhips ornata Cobb, 1920

Rhynchonema ceramotos Boucher, 1974

Rhynchonema falcifera Boucher, 1974

Rhynchonema lyngei (Allgén, 1940)

Rhynchonema megamphida Boucher, 1974

Rhynchonema moorea Boucher, 1974

Rhynchonema quemer Boucher, 1974

Rhynchonema scutatum Lorenzen, 1972

Richtersia deconincki Vincx, 1981

Richtersia inaequalis Riemann, 1966

Sabatieria armata Gerlach, 1952

Sabatieria breviseta Schuurmans Stekhoven, 1935

Sabatieria celtica Southern, 1914

Sabatieria elongata Jayasree & Warwick, 1977

Sabatieria longispinosa Lorenzen, 1972

Sabatieria praedatrix de Man, 1907

Sabatieria pulchra (Schneider, 1906)

Sabatieria punctata (Kreis, 1924)



Sabatieria rota Gerlach, 1957

Sabatieria tenuicaudata (Bastian, 1865)

Sarsonia leptosoma (de Man, 1893)

Setosabatieria hilarula (de Man, 1922)

Sigmophoranema rufum (Cobb, 1933)

Siphonolaimus ewensis Warwick & Platt, 1973

Sphaerolaimus balticus Schneider, 1906

Sphaerolaimus gracilis de Man, 1876

Sphaerolaimus hirsutus Bastian, 1865

Spilophorella candida Gerlach, 1951

Spilophorella papillata Kreis, 1929

Spilophorella paradoxa (de Man, 1888)

Spirinia laevis (Bastian, 1865)

Spirinia parasitifera (Bastian, 1865)

Stephanolaimus bicoronatus Boucher & Helléouët, 1977

Stephanolaimus elegans Ditlevsen, 1932

Stephanolaimus flevensis Schuurmans Stekhoven, 1935

Stephanolaimus gandavensis Jensen, 1976

Stephanolaimus jayasreei Platt, 1983

Stephanolaimus longispiculum Vadhyar, 1981

Stygodesmodora epixantha Blome, 1982

Stylotheristus mutila Lorenzen, 1973

Symplocostoma tenuicolle (Eberth, 1863)

Synodontium sansingi Hopper, 1963

Synonchiella riemanni Warwick, 1970

Synonchus brevisetosus (Southern, 1914)

Synonchus fasciculatus Cobb, 1893

Syringolaimus caspersi Gerlach, 1951

Syringolaimus striatocaudatus de Man, 1888

Tarvaia angusta Gerlach, 1953

Terschellingia communis de Man, 1888

Terschellingia longicaudata de Man, 1907

Thalassironus britannicus de Man, 1889

Thalassoalaimus septentrionalis Filipjev, 1927

Thalassoalaimus tardus de Man, 1893

Thalassomonhystera parva (Bastian, 1865)

Thalassomonhystera venusta (Lorenzen, 1979)

Theristus acer Bastian, 1865

Theristus acrilabiatus Kreis, 1928

Theristus anisocirculus Blome, 1982

Theristus balticus Lorenzen, 1973

Theristus bastiani Gerlach & Riemann, 1973

Theristus blandicor Rachor, 1971

Theristus denticulatus Warwick, 1970

Theristus ensifer Gerlach, 1951

Theristus heterospiculoides Gerlach, 1953

Theristus interstitialis Warwick, 1970

Theristus longicollis Blome, 1982

Theristus longisetosus (De Coninck & Schuurmans Stekhoven, 1933)



Theristus longissimecauda Lorenzen, 1973

Theristus longissimecaudatus Kreis, 1935

Theristus longus Platt, 1973

Theristus maior Gerlach, 1956

Theristus mirabilis De Coninck & Stekhoven, 1933

Theristus otoplanobius Gerlach, 1951

Theristus parasetosus (Allgén, 1928)

Theristus pertenuis Schuurmans Stekhoven, 1935

Theristus problematicus (Allgén, 1928)

Theristus profundus Blome, 1982

Theristus roscoffiensis Vitiello, 1967

Theristus scanicus Allgén, 1949

Theristus velox (Bastian, 1865)

Thoracostomopsis ditlevseni Filipjev, 1927

Trefusia curvispiculosa Vincx, 1989

Trefusia litoralis (Allgén, 1932)

Trefusia longicauda de Man, 1893

Trefusia longicaudata de Man, 1893

Trichotheristus mirabilis (Schuurmans Stekhoven & De Coninck, 1933)

Tricoma brevirostris (Southern, 1914)

Tricoma longirostris (Southern, 1914)

Tricoma polydesma (Southern, 1914)

Tricoma steineri de Man, 1922

Tricoma strandi (Allgén, 1939)

Trileptium parisetum Warwick & Platt, 1973

Tripyloides gracilis (Ditlevsen, 1918)

Tripyloides marinus (Bütschli, 1874)

Trissonchulus obtusus (Schuurmans Stekhoven, 1935)

Tubolaimoides tenuicaudatus (Allgén, 1934)

Valvaelaimus maior Gerlach, 1956

Viscosia coomansi Smol & Sharma, 1984

Viscosia elegans (Kreis, 1924)

Viscosia franzii Boucher, 1978

Viscosia glabra (Bastian, 1865) De Man, 1890

Viscosia langrunensis (de Man, 1890)

Viscosia separabilis (Wieser, 1953)

Viscosia viscosa (Bastian, 1865) De Man, 1890

Wieseria inaequalis Gerlach, 1956

Wieseria pica Gerlach, 1956

Xyala imparis Boucher & Helléouët, 1977

Xyala riemanni Boucher & Helléouët, 1977

Xyala striata Cobb, 1920



## **ROTIFERA - ROTIFERS, WHEEL ANIMALS**

#### Taxonomic validation:

Dr. Hendrik Segers (Royal Belgian Institute of Natural Sciences – KBIN, Belgium)

#### Geographic validation:

- Dr. Hendrik Segers (Royal Belgian Institute of Natural Sciences – KBIN, Belgium)

## Number of species: 20

Brachionus plicatilis Müller, 1786

Colurella adriatica Ehrenberg, 1831

Colurella colurus (Ehrenberg, 1830)

Colurella dicentra (Gosse, 1887)

Colurella salina Althaus, 1957

Encentrum marinum (Dujardin, 1841)

Encentrum obesum Tzschaschel, 1979

Encentrum tenuidigitatum De Smet, 2000

Encentrum villosum Harring & Myers, 1928

Keratella eichwaldi (Levander, 1894)

Proales christinae De Smet, 1994

Proales halophila Remane, 1929

Proales reinhardti (Ehrenberg, 1834)

Proales theodora (Gosse, 1887)

Synchaeta baltica Ehrenberg, 1834

Synchaeta triophthalma Lauterborn, 1894

Synchaeta vorax Rousselet, 1902

Testudinella clypeata (Müller, 1786)

Testudinella patina (Hermann, 1783)

Trichocerca marina (Daday, 1890)

## KINORHYNCHA - SPINY-CROWN WORMS

#### Taxonomic validation:

- Dr. Birger Neuhaus (Museum für naturkunde, Institute of systematic zoology, Germany)

## Geographic validation:

- Dr. Birger Neuhaus (Museum für naturkunde, Institute of systematic zoology, Germany)

## Number of species: 2

Echinoderes dujardini Claparède, 1863 Echinoderes setiger Greef, 1869



## **SIPUNCULA - PEANUT WORMS**

#### Taxonomic validation:

- José Saiz-Salinas

#### Geographic validation:

 ILVO macrofauna data: macrofauna monitoring on the Belgian Part of the North Sea since 1979. Flemisch Government, Agriculture and Fisheries, Institute for Agriculture and Fisheries Research, Animal Knowledge Unit (ILVO)

## Number of species: 2

Golfingia (Golfingia) vulgaris vulgaris (De Blainville, 1827) Phascolion (Phascolion) strombus (Montagu, 1804)

#### **ECHIURA - SPOON WORMS**

#### Taxonomic validation:

- Dr. John Pilger (Agnes Scott College, Biology Department, USA)

#### Geographic validation:

Based on available literature and data for the Belgian part of the North Sea

## Number of species: 2

Echiurus echiurus (Pallas, 1767) Thalassema thalassemum (Pallas, 1766)

## **MOLLUSCA - MOLLUSKS**

Not all shells found on our beach are remnants of species actually living in the Belgian part of the North Sea. Shells can travel quite some distance before washing ashore or they are fossilized.

Here, only the species with known occurrences of living individuals are listed. For an overview of all shells and fossils which can be encountered in the Belgian part of the North Sea, we refer to literature and guides dealing with this information, for example "Schelpen aan de Belgische kust" published in 2010 by Koen Fraussen and Stefaan Wera.

Mollusca represent a very diverse and complex species group. Of all Molluscan classes, only 4 have living representatives in the Belgian part of the North Sea: Polyplacophora, Bivalvia, Gastropoda and Cephalopoda. For the other classes (Scaphopoda, Caudofoveata, Solenogastres and Monoplacophora), no representatives are known for the study area.

# Polyplacophora - chitons

#### Taxonomic validation:

- Serge Gofas (University of Málaga, Spain)



## Geographic validation:

 Francis Kerckhof (Management Unit of the North Sea Mathematical Models – MUMM, Belgium)

## Number of species: 1

Leptochiton asellus (Gmelin, 1791)

## Bivalvia - bivalves and clams

#### Taxonomic validation:

- Henk Dijkstra (University of Amsterdam, Zoological Museum Amsterdam UVA-ZMA, The Netherlands)
- Serge Gofas (University of Málaga, Spain)
- Jan Johan ter Poorten (the Netherlands)
- Dr. Rudo von Cosel (National Natural History Museum Paris MNHN, France)

## Geographic validation:

 Francis Kerckhof (Management Unit of the North Sea Mathematical Models – MUMM, Belgium)

## Number of species: 69

## Permanent: 68, of which 7 are non-indigenous (\*)

Abra alba (Wood W., 1802)

Abra tenuis (Montagu, 1803)

Acanthocardia echinata (Linnaeus, 1758)

Aequipecten opercularis (Linnaeus, 1758)

Arcopagia crassa (Pennant, 1777)

Barnea candida (Linnaeus, 1758)

Barnea parva (Pennant, 1777)

Cerastoderma edule (Linnaeus, 1758)

Cerastoderma glaucum (Bruguière, 1789)

Chamelea gallina (Linnaeus, 1758)

Chamelea striatula (da Costa, 1778)

Corbula gibba (Olivi, 1792)

Crassostrea gigas (Thunberg, 1793) (\*)

Diplodonta rotundata (Montagu, 1803)

Donax vittatus (da Costa, 1778)

Dosinia exoleta (Linnaeus, 1758)

Ensis directus (Conrad, 1843) (\*)

Ensis magnus Schumacher, 1817

Ensis minor (Chenu, 1843)

Epilepton clarkiae (Clark W., 1852)

Gari fervensis (Gmelin, 1791)

Gastrochaena dubia (Pennant, 1777)

Goodallia triangularis (Montagu, 1803)



Hemilepton nitidum (Turton, 1822)

Heteranomia squamula (Linnaeus, 1758)

Hiatella arctica (Linnaeus, 1767)

Hiatella rugosa (Linnaeus, 1767)

Kellia suborbicularis (Montagu, 1803)

Kurtiella bidentata (Montagu, 1803)

Laevicardium crassum (Gmelin, 1791)

Lepton squamosum (Montagu, 1803)

Lutraria angustior Philippi, 1844

Lutraria lutraria (Linnaeus, 1758)

Macoma balthica (Linnaeus, 1758)

Mactra stultorum (Linnaeus, 1758)

Mercenaria mercenaria (Linnaeus, 1758) (\*)

Mimachlamys varia (Linnaeus, 1758)

Modiolarca subpicta (Cantraine, 1835)

Modiolus modiolus (Linnaeus, 1758)

Mya arenaria Linnaeus, 1758 (\*)

Mya truncata Linnaeus, 1758

Mytilus edulis Linnaeus, 1758

Nucula nucleus (Linnaeus, 1758)

Ostrea edulis Linnaeus, 1758

Paphia rhomboides (Pennant, 1777)

Pecten maximus (Linnaeus, 1758)

Petricola pholadiformis Lamarck, 1818 (\*)

Phaxas pellucidus (Pennant, 1777)

Psiloteredo megotara (Hanley in Forbes & Hanley, 1848) (\*)

Scrobicularia plana (da Costa, 1778)

Solen marginatus Pulteney, 1799

Sphenia binghami Turton, 1822

Spisula elliptica (Brown, 1827)

Spisula solida (Linnaeus, 1758)

Spisula subtruncata (da Costa, 1778)

Striarca lactea (Linnaeus, 1758)

Tapes (Tapes) rhomboides (Pennant, 1777)

Tellimya ferruginosa (Montagu, 1808)

Tellina (Moerella) donacina Linnaeus, 1758

Tellina fabula Gmelin, 1791

Tellina pygmaea Lovén, 1846

Tellina tenuis da Costa, 1778

Teredo navalis Linnaeus, 1758 (\*)

Thracia papyracea (Poli, 1791)

Thracia villosiuscula (MacGillivray, 1827)

Venerupis geographica (Gmelin, 1791)

Venerupis senegalensis (Gmelin, 1791)

Zirfaea crispata (Linnaeus, 1767)

## Vagrant: 1

Neopycnodonte cochlear (Poli, 1795)



# Gastropoda - snails and slugs

#### Taxonomic validation:

- Serge Gofas (University of Málaga, Spain)
- Roland Houart (Royal Belgian Institute of Natural Sciences KBIN, Belgium)
- Dr. David Reid (Natural History Museum, UK)

## Geographic validation:

- Francis Kerckhof (Management Unit of the North Sea Mathematical Models MUMM, Belgium)
- Emmanuel Dumoulin (Strandwerkgroep SWG, Belgium)

## Number of species: 54, of which 1 is non-indigenous (\*)

Acanthodoris pilosa (Abildgaard in Müller, 1789)

Aeolidia papillosa (Linnaeus, 1761)

Alderia modesta (Lovén, 1844)

Alvania lactea (Michaud, 1832)

Assiminea grayana Fleming, 1828

Buccinum undatum Linnaeus, 1758

Caecum glabrum (Montagu, 1803)

Calliostoma zizyphinum (Linnaeus, 1758)

Cerithiopsis tubercularis (Montagu, 1803)

Chrysallida interstincta (Adams J., 1797)

Chrysallida pellucida (Dillwyn, 1817)

Clione limacina (Phipps, 1774)

Crepidula fornicata (Linnaeus, 1758) (\*)

Crisilla semistriata (Montagu, 1808)

Cuthona amoena (Alder & Hancock, 1845)

Cuthona concinna (Alder & Hancock, 1843)

Cuthona gymnota (Couthouy, 1838)

Cuthona nana (Alder & Hancock, 1842)

Dendronotus frondosus (Ascanius, 1774)

Doris pseudoargus Rapp, 1827)

Doto pinnatifida (Montagu, 1804)

Epitonium clathratulum (Kanmacher, 1798)

Epitonium clathrus (Linnaeus, 1758)

Eubranchus pallidus (Alder & Hancock, 1842)

Euspira catena (da Costa, 1778)

Euspira pulchella (Risso, 1826)

Facelina bostoniensis (Couthouy, 1838)

Gibbula cineraria (Linnaeus, 1758)

Hydrobia ulvae (Pennant, 1777)

Limapontia depressa Alder & Hancock, 1862

Littorina littorea (Linnaeus, 1758)

Littorina obtusata (Linnaeus, 1758)

Littorina saxatilis (Olivi, 1792)

Lomanotus marmoratus (Alder & Hancock, 1845)

Myosotella myosotis (Draparnaud, 1801)

Nassarius incrassatus (Ström, 1768)



Nassarius nitidus (Jeffreys, 1867)

Nassarius reticulatus (Linnaeus, 1758)

Nucella lapillus (Linnaeus, 1758)

Odostomia scalaris MacGillivray, 1843

Odostomia turrita Hanley, 1844

Onchidoris bilamellata (Linnaeus, 1767)

Onoba semicostata (Montagu, 1803)

Patella vulgata Linnaeus, 1758

Purpura lapillus (Linnaeus, 1758)

Pusillina inconspicua (Alder, 1844)

Raphitoma linearis (Montagu, 1803)

Retusa obtusa (Montagu, 1803)

Rissoa parva (da Costa, 1778)

Tenellia adspersa (Nordmann, 1845)

Tergipes tergipes (Forskål, 1775)

Tritonia plebeia Johnston, 1828

Trivia arctica (Pulteney, 1799)

Trivia monacha (da Costa, 1778)

# Cephalopoda - cephalopods

## Taxonomic validation:

- Serge Gofas (University of Málaga, Spain)

## Geographic validation:

- Francis Kerckhof (Management Unit of the North Sea Mathematical Models MUMM, Belgium)
- ILVO macrofauna data: macrofauna monitoring on the Belgian Part of the North Sea since 1979. Flemisch Government, Agriculture and Fisheries, Institute for Agriculture and Fisheries Research, Animal Knowledge Unit (ILVO, Belgium)

## Number of species: 5

Alloteuthis subulata (Lamarck, 1798)

Loligo vulgaris Lamarck, 1798

Sepia officinalis Linnaeus, 1758

Sepietta oweniana (d'Orbigny, 1839)

Sepiola atlantica d'Orbigny, 1839

## **OLIGOCHAETA - EARTH WORMS**

### Taxonomic validation:

- Tarmo Timm (Estonian Agricultural University, Estonia)
- Christer Erséus (University of Gothenburg, Sweden)

### Geographic validation:

- Jan Soors (Research Institute for Nature and Forest - INBO, Belgium)



## Number of species: 11, of which 1 is non-indigenous (\*)

Achaeta littoralis Lasserre, 1968
Amphichaeta sannio Kallstenius, 1892
Clitellio arenarius (Müller, 1776)
Grania postclitellochaeta (Knöllner, 1935)
Heterochaeta costata Claparède, 1863
Paranais litoralis (Müller, 1780)
Thalassodrilus klarae (Erséus, 1987)
Tubificoides benedii (Udekem, 1855)
Tubificoides brownae Brinkhurst & Baker, 1979
Tubificoides heterochaetus (Michaelsen, 1926) (\*)

## **POLYCHAETA - BRISTLE WORMS**

#### Taxonomic validation:

- Dr. Ruth Barnich (Senckenbergische Naturforschende Gesellschaft, Naturmuseum und Forschungsinstitut Senckenberg, Abteilung Aquatische Zoologie, Sektion Marine Evertebrates II, Germany)
- Dr. Gérard Bellan (Centre National de la Recherche Scientifique, Institut National de Science de l'Univers, Centre d'Océanologie de Marseille, Station Marine d'Endoume, France)
- Kristian Fauchald (National Museum of Natural History, Smithsonian Institution NMNM, UK)
- Dieter Fiege (Senckenbergische Naturforschende Gesellschaft, Naturmuseum und Forschungsinstitut Senckenberg, Abteilung Aquatische Zoologie, Sektion Marine Evertebrates II, Germany)
- Dr. Christopher Glasby (Natural Sciences Museum & Art Gallery of the Northern Territory, Australia)
- Dr. Luigi Musco (Consorzio Nazionale Interuniversitario per le Scienze del Mare, University of Lecce, Dipartimento di Scienze e Tecnologie Biologiche e Ambientali, Laboratory of Zoology and Marine Biology LZMB, Italy)
- Geoffry Read (National Institute of Water and Atmospheric Research NIWA, New Zealand)
- Harry ten Hove (University of Amsterdam, Faculteit der Natuurwetenschappen, Wiskunde en Informatica, Zoologisch Museum Amsterdam UVA-ZMA, the Netherlands)

#### Geographic validation:

- ILVO macrofauna data: macrofauna monitoring on the Belgian Part of the North Sea since 1979. Flemisch Government, Agriculture and Fisheries, Institute for Agriculture and Fisheries Research, Animal Knowledge Unit (ILVO, Belgium)
- Dr. Steven Degraer (Management Unit of the North Sea Mathematical Models MUMM, Belgium)
- Francis Kerckhof (Management Unit of the North Sea Mathematical Models MUMM,
   Belgium)



## Number of species: 150, of which 2 are non-indigenous (\*)

Alitta succinea (Frey & Leuckart, 1847)

Alitta virens (M. Sars, 1835)

Ampharete acutifrons (Grube, 1860)

Anaitides maculata (Linnaeus, non de Saint-Joseph)

Aonides oxycephala (Sars, 1862)

Aonides paucibranchiata Southern, 1914

Aphelochaeta marioni (de Saint Joseph, 1894)

Aphrodita aculeata Linnaeus, 1758

Arenicola defodiens Cadman & Nelson-Smith, 1993

Arenicola marina Lamarck, 1801

Aricidea (Acmira) cerrutii Laubier, 1966

Aricidea minuta Southward, 1956

Aricidea suecica Eliason, 1920

Bylgides sarsi (Kinberg in Malmgren, 1866)

Capitella capitata (Fabricius, 1780)

Capitomastus minima (Langerhans, 1881)

Caulleriella killariensis (Southern, 1914)

Chaetopterus variopedatus Cuvier, 1827

Chaetozone setosa Malmgren, 1867

Cirratulus cirratus (O. F. Müller, 1776)

Ctenodrilus serratus (Schmidt, 1857)

Erinaceus (Claparède, 1863)

Eteone barbata Malmgren, 1865

Eteone flava (Fabricius, 1780)

Eteone foliosa Quatrefages, 1866

Eteone longa (Fabricius, 1780)

Eulalia bilineata (Johnston, 1840)

Eulalia fucescens Saint-Joseph, 1888

Eulalia pusilla Ørstedt, 1843

Eulalia viridis (Johnston, 1829)

Eumida sanguinea (Örsted, 1843)

Eunereis longissima Johnston, 1840

Euphrosine armadillo Sars, 1851

Eusyllis blomstrandi Malmgren, 1867

Euzonus flabelligerus (Ziegelmeier, 1955)

Exogone (Exogone) naidina Örsted, 1845

Exogone (Parexogone) hebes (Webster & Benedict, 1884)

Ficopomatus enigmaticus (Fauvel, 1923) (\*)

Gattyana cirrhosa (Pallas, 1766)

Glycera alba (O.F. Müller, 1776)

Glycera capitata Örsted, 1843

Glycera convoluta Keferstein, 1862

Glycera gigantea Quatrefages, 1866

Glycera lapidum Quatrefages, 1865

Glycera rouxi Audouin & Milne Edwards, 1833

Glycera tesselata Grube, 1840

Glycinde nordmanni (Malmgren, 1866)

Goniada maculata Örsted, 1843



Goniadella bobretzkii (Annenkova, 1929)

Goniadella galaica (Rioja, 1923)

Harmothoe extenuata (Grube, 1840)

Harmothoe impar (Johnston, 1839)

Harmothoe longisetis (Grube, 1863)

Hediste diversicolor (O.F. Müller, 1776)

Hesionura augeneri (Friedrich, 1937)

Hesionura elongata (Southern, 1914)

Heteromastus filiformis (Claparède, 1864)

Hydroides norvegicus Gunnerus, 1768

Lanice conchilega Pallas, 1766

Lepidonotus squamatus (Linnaeus, 1758)

Lumbrineris fragilis (O.F. Müller, 1766)

Lumbrineris latreilli Audouin & Milne Edwards, 1834

Lysilla loveni Malmgren, 1866

Macrochaeta helgolandica Friedrich, 1936

Magelona filiformis Wilson, 1959

Magelona johnstoni Fiege, Licher & Mackie, 2000

Magelona mirabilis (Johnston, 1865)

Malacoceros fuliginosus (Claparède, 1869)

Malmgreniella arenicolae (de Saint Joseph, 1888)

Malmgreniella castanea (McIntosh, 1876)

Malmgreniella glabra (Malmgren, 1866)

Malmgreniella lunulata (Delle Chiaje, 1830)

Manayunkia aestuarina (Bourne, 1883)

Marenzelleria viridis (Verrill, 1873)

Marenzelleria wireni Augener, 1913 (\*)

Marphysa sanguinea (Montagu, 1815)

Maupasia coeca Viguier, 1886

Mediomastus fragilis Rasmussen, 1973

Microphthalmus similis Bobretzky, 1870

Myrianida prolifera (O.F. Müller, 1788)

Mysta picta (Quatrefagues, 1865)

Nephtys assimilis Örsted, 1843

Nephtys caeca (Fabricius, 1780)

Nephtys cirrosa (Ehlers, 1868)

Nephtys hombergii Savigny in Lamarck, 1818

Nephtys kersivalensis McIntosh, 1908

Nephtys longosetosa Örsted, 1843

Nereis pelagica Linnaeus, 1758

Notomastus latericeus Sars, 1851

Odontosyllis ctenostoma Claparède, 1868

Odontosyllis fulgurans (Audouin & Milne-Edward, 1833)

Ophelia borealis Quatrefages, 1866

Ophelia limacina (Rathke, 1843)

Ophelia rathkei McIntosh, 1908

Ophiodromus flexuosus (Delle Chiaje, 1827)

Ophryotrocha gracilis Huth, 1933

Orbinia latreillii (Audouin & Milne-Edwards, 1833)



Owenia fusiformis Delle Chiaje, 1844

Parougia eliasoni (Oug, 1978)

Pectinaria (Lagis) koreni (Malmgren, 1866)

Pholoe inornata Johnston, 1839

Pholoe minuta (Fabricius, 1780)

Pholoe pallida Chambers, 1985

Phyllodoce (Anaitides) groenlandica Oersted, 1842

Phyllodoce laminosa Savigny in Lamarck, 1818

Phyllodoce lineata (Claparède, 1870)

Phyllodoce longipes Kinberg, 1866

Phyllodoce mucosa (Örsted, 1843)

Phyllodoce rosea (McIntosh, 1877)

Pisione remota (Southern, 1914)

Podarkeopsis capensis (Day, 1963)

Poecilochaetus serpens Allen, 1904

Polydora ciliata (Johnston, 1838)

Polydora cornuta Bosc, 1802

Polydora hoplura Claparède, 1869

Polygordius appendiculatus Fraipont, 1887

Pomatoceros lamarcki (Quatrefages, 1866)

Pomatoceros triqueter (Linnaeus, 1758)

Protodorvillea kefersteini (McIntosh, 1869)

Protodriloides chaetifer (Remane, 1926)

Psammodrilus balanoglossoides Swedmark, 1952

Pseudomystides limbata (Saint-Joseph, 1888)

Pseudopolydora antennata (Claparède, 1869)

Pseudopolydora pulchra (Carazzi, 1895)

Pygospio elegans Claparède, 1863

Sabellaria spinulosa Leuckart, 1849

Sagitella kowalewskii Wagner, 1872

Scolelepis bonnieri (Mesnil, 1896)

Scolelepis fuliginosa (de Claparède, 1868)

Scolelepis (Scolelepis) squamata (O.F. Müller, 1806)

Scoloplos (Scoloplos) armiger (Müller, 1776)

Sigalion mathildae Audouin & Milne Edwards in Cuvier, 1830

Sphaerodorum gracilis (Rathke, 1843)

Sphaerosyllis hystrix Claparède, 1863

Spio filicornis (Müller, 1776)

Spio goniocephala Thulin, 1957

Spiophanes bombyx (Claparède, 1870)

Spiophanes kroyeri Grube, 1860

Sthenelais boa (Johnston, 1833)

Sthenelais limicola (Ehlers, 1864)

Streblospio benedicti Webster, 1879

Streptodonta pterochaeta (Southern, 1914)

Streptosyllis websteri Southern, 1914

Syllidia armata Quatrefages, 1866

Syllis armillaris (O.F. Müller, 1776)

Syllis cornuta Rathke, 1843

Syllis gracilis Grube, 1840

Syllis hyalina Grube, 1863

Thelepus cincinnatus (Fabricius, 1780)

Travisia forbesii Johnston, 1840



## **PYCNOGONIDA - SEA SPIDERS**

#### Taxonomic validation:

- Dr. Roger Bamber (Natural History Museum, Department of Zoology – UK)

### Geographic validation:

- Francis Kerckhof (Management Unit of the North Sea Mathematical Models – MUMM, Belgium)

## Number of species: 16

Achelia echinata Hodge, 1864

Achelia laevis Hodge, 1864

Ammothella longipes (Hodge, 1864)

Anoplodactylus petiolatus (Kroyer, 1844)

Anoplodactylus pygmaeus (Hodge, 1864)

Anoplodactylus virescens (Hodge, 1864)

Callipallene brevirostris (Johnston, 1837)

Callipallene emaciata (Dohrn, 1881)

Endeis spinosa (Montagu, 1808)

Nymphon brevirostre Hodge, 1863

Nymphon gracile Leach, 1814

Nymphon hirtum (Fabricius, 1780)

Nymphon leptocheles Sars, 1888

Nymphon subtile Loman, 1923

Phoxichilidium femoratum (Rathke, 1799)

Pycnogonum litorale (Strom, 1762)

#### **BRANCHIOPODA - BRANCHIOPODS**

#### Taxonomic validation:

- Prof. Geoff Boxshall (Natural History Museum – NHM, UK)

## Geographic validation:

Based on available literature and data for the Belgian part of the North Sea

### Number of species: 3

Bosmina (Bosmina) longirostris (O. F. Müller, 1785)

Chydorus sphaericus (O.F. Müller, 1785)

Podon leuckartii (G.O. Sars, 1862)



### **OSTRACODA - SEED SHRIMP**

#### Taxonomic validation:

- Drs. Simone Nunes Brandao (University of Hamburg, Zoological Museum Hamburg ZMH, Germany)
- Dr. David Horne (Queen Mary University of London, UK)

## Geographic validation:

- Prof. Dr. Karel Wouters (Royal Belgian Institute of Natural Sciences - KBIN, Belgium)

### Number of species: 56

Aurila convexa (Baird, 1850)

Bonnyannella robertsoni (Brady, 1868)

Bythocythere bradyi Sars, 1926

Callistocythere littoralis (G.W. Müller, 1894)

Cyprideis torosa (Jones, 1850)

Cythere lutea O.F. Müller, 1785

Cytherois fischeri (Sars, 1866)

Cytheromorpha fuscata (Brady, 1869)

Cytheropteron depressum Brady & Norman, 1889

Cytheropteron latissimum (Norman, 1865)

Cytheropteron nodosum Brady, 1868

Elofsonia pusilla (Brady & Robertson, 1870)

Eucythere declivis (Norman, 1865)

Eucythere prava Brady & Robertson, 1869

Finmarchinella (Barentsovia) angulata (Sars, 1866)

Finmarchinella finmarchica (Sars, 1866)

Hemicythere villosa (Sars, 1865)

Hemicytherura cellulosa (Norman, 1865)

Hemicytherura clathrata (Sars, 1866)

Heterocythereis albomaculata (Baird, 1838)

Hirschmannia viridis (O.F. Müller, 1785)

Leptocythere baltica Klie, 1929

Leptocythere castanea (Sars, 1866)

Leptocythere lacertosa (Hirschmann, 1912)

Leptocythere macallana (Brady & Robertson, 1869)

Leptocythere pellucida (Baird, 1850)

Leptocythere porcellanea (Brady, 1869)

Leptocythere psammophila Guillaume, 1976

Leptocythere tenera (Brady, 1868)

Loxoconcha elliptica Brady, 1868

Loxoconcha rhomboidea (Fischer, 1855)

Microcytherura boulangei Rome, 1956

Microcytherura fulva (Brady & Robertson, 1874)

Neocytherideis subulata (Brady, 1868)

Neonesidea acanthigera (Brady, 1868)

Palmoconcha laevata (Norman, 1865)

Paracytherois ensiforme (Brady, 1868)

Paracytherois flexuosa (Brady, 1867)



Paradoxostoma abbreviata Sars, 1866

Paradoxostoma angliorum Horne & Whittaker, 1985

Paradoxostoma variabile (Baird, 1835)

Pontocythere elongata (Brady, 1868)

Propontocypris trigonella (Sars, 1866)

Sagmatocythere multifora (Norman, 1865)

Sclerochilus abbreviatus Brady & Robertson, 1869

Sclerochilus contortus (Norman, 1862)

Semicytherura acuticostata (Sars, 1866)

Semicytherura angulata (Brady, 1868)

Semicytherura cornuta (Brady, 1868)

Semicytherura nigrescens (Baird, 1838)

Semicytherura sella (Sars, 1866)

Semicytherura striata (Sars, 1866)

Semicytherura undata (Sars, 1866)

Urocythereis britannica Athersuch, 1977

Xestoleberis aurantia (Baird, 1838)

Xestoleberis depressa Sars, 1866

### **COPEPODA - COPEPODS**

### Taxonomic validation:

- Prof. Geoff Boxshall (Natural History Museum, Department of Zoology UK)
- Dr. Rony Huys (Natural History Museum; Department of Zoology UK)
- Dr. Juliana Kouwenberg (University of Amsterdam, Faculteit der Natuurwetenschappen, Wiskunde en Informatica, Zoologisch Museum Amsterdam UVA-ZMA, the Netherlands)
- Chad Walter (Smithsonian Institution, National Museum of Natural History; Department of Invertebrate Zoology IZ, USA)

### Geographic validation:

Species list based on available literature and data for the Belgian part of the North Sea

## Number of species: 194

Acanthochondria cornuta (Müller, 1776)

Acanthochondria soleae (Krøyer, 1838)

Acartia (Acanthacartia) bifilosa (Giesbrecht, 1881)

Acartia (Acanthacartia) tonsa Dana, 1849

Acartia (Acartiura) clausi Giesbrecht, 1889

Acartia (Acartiura) discaudata (Giesbrecht, 1881)

Afroleptastacus remanei (Noodt, 1964)

Alteutha depressa (Baird, 1837)

Alteutha interrupta (Goodsir, 1845)

Alteutha oblonga (Goodsir, 1845)

Ameira hyalina (Noodt, 1952)

Ameira parvula parvula (Claus, 1866)

Ameira scotti Sars G.O., 1911

Ameiropsis brevicornis Sars G.O., 1907



Amphiascoides debilis (Giesbrecht, 1881)

Amphiascoides subdebilis (Willey, 1935)

Amphiascopsis cinctus (Claus, 1866)

Amphiascus angustipes Gurney, 1927

Amphiascus hirtus Gurney, 1927

Amphiascus paracaudaespinosus Roe, 1958

Amphiascus parvus Sars G.O., 1906

Amphiascus tenuiremis (Brady & Robertson D., 1880)

Amphiascus varians (Norman & Scott T., 1905)

Anomalocera patersoni Templeton, 1837

Apodopsyllus africanus listensis Mielke, 1975

Apodopsyllus littoralis (Nicholls, 1939)

Apodopsyllus spinipes (Nicholls, 1939)

Arenocaris bifida Nicholls, 1935

Arenocaris reducta Huys, 1992

Arenopontia (Arenopontia) nesaie Cottarelli, 1975

Arenosetella germanica germanica Kunz, 1937

Arenosetella tenuissima (Klie, 1929)

Asellopsis hispida Brady & Robertson D., 1873

Asellopsis intermedia (Scott T., 1895)

Bolbotelos longisetosus Huys & Conroy-Dalton, 2006

Boreopontia heipi Willems, 1981

Boreovermis bilobata Huys & Conroy-Dalton, 2006

Bradya (Bradya) typica Boeck, 1873

Bulbamphiascus imus (Brady, 1872)

Calanus helgolandicus (Claus, 1863)

Caligus curtus O. F. Müller, 1785

Candacia armata Boeck, 1872

Canuella perplexa Scott T. & A., 1893

Centropages hamatus (Lilljeborg, 1853)

Centropages typicus Krøyer, 1849

Cletodes limicola Brady, 1872

Cletodes longicaudatus (Boeck, 1872)

Corbulaseta bulligera (Farran, 1913)

Cyclopina littoralis Brady, 1872

Cylindropsyllus laevis Brady, 1880

Cylindropsyllus remanei Kunz, 1949

Dactylopodella flava (Claus, 1866)

Dactylopusia tisboides (Claus, 1863)

Dactylopusia vulgaris vulgaris Sars GO, 1905

Danielssenia typica Boeck, 1872

Diarthrodella secunda secunda Kunz, 1954

Diarthrodes pygmaeus (Scott T. & A., 1895)

Diosaccus tenuicornis (Claus, 1863)

Ectinosoma dentatum Steuer, 1940

Ectinosoma melaniceps Boeck, 1865

Ectinosoma reductum reductum Bozic, 1955

Ectinosoma tenuipes Scott T. & A., 1894

Enhydrosoma gariensis Gurney, 1930



Enhydrosoma propinguum (Brady & Robertson in Brady, 1880)

Eudactylina acuta van Beneden, 1853

Eudactylopus latipes (Scott T., 1893)

Eurytemora affinis (Poppe, 1880)

Eurytemora americana Williams, 1906

Eurytemora hirundoides (Nordquist, 1888)

Eurytemora velox (Lilljeborg, 1853)

Euterpina acutifrons (Dana, 1847)

Evansula incerta (Scott T., 1892)

Evansula pygmaea (Scott T., 1903)

Filexilia brevipes (Kunz, 1954)

Haemobaphes ambiguus Scott T., 1900

Halectinosoma canaliculatum (Por, 1964)

Halectinosoma chrystalli (Scott T., 1894)

Halectinosoma clavatum (Sars G.O., 1920)

Halectinosoma curticorne (Boeck, 1872)

Halectinosoma distinctum (Sars G.O., 1920)

Halectinosoma elongatum (Sars G.O., 1904)

Halectinosoma gothiceps (Giesbrecht, 1881)

Halectinosoma herdmani (Scott T. & A., 1894)

Halectinosoma sarsi Boeck, 1872

Halectinosoma spinicauda (Wells, 1961)

Harpacticus flexus Brady & Robertson, 1873

Harpacticus gracilis Claus, 1863

Harpacticus littoralis Sars G.O., 1911

Harpacticus obscurus Scott T., 1895

Hastigerella leptoderma (Klie, 1929)

Hastigerella psammae (Noodt, 1955)

Heterolaophonte bisetosa Mielke, 1975

Heterolaophonte minuta (Boeck, 1872)

Heterolaophonte stroemii stroemii (Baird, 1837)

Inermiphonte danversae (Hammond, 1969)

Interleptomesochra eulitoralis (Noodt, 1952)

Isias clavipes Boeck, 1865

Kliopsyllus coelebs (Monard, 1935)

Kliopsyllus constrictus constrictus (Nicholls, 1935)

Kliopsyllus holsaticus holsaticus (Klie, 1929)

Kliopsyllus holsaticus varians (Kunz, 1951)

Kliopsyllus paraholsaticus Mielke, 1975

Kroyeria lineata van Beneden, 1853

Labidocera wollastoni (Lubbock, 1857)

Laophonte barbata Lang, 1935

Laophonte cornuta cornuta Philippi, 1840

Laophonte longicaudata Boeck, 1865

Laophonte parvula Sars G.O., 1908

Laophontopsis lamellifera (Claus, 1863)

Lepeophtheirus pectoralis (Müller, 1776)

Leptastacus laticaudatus Nicholls, 1935

Leptastacus macronyx (Scott T., 1892)



Leptastacus pygmaeus Huys, 1992

Leptastacus uncinatus Cottarelli & Venanzetti, 1989

Leptocaris brevicornis (van Douwe, 1905)

Leptocaris trisetosus (Kunz, 1935)

Leptomesochra confluens Sars G.O., 1911

Leptopontia curvicauda Scott T., 1902

Leptopontia dovpori Huys & Conroy-Dalton, 1996

Leptopontia flandrica Huys & Conroy-Dalton, 1996

Leptopontia punctata Huys & Conroy-Dalton, 1996

Lernaeenicus sprattae (Sowerby, 1806)

Lernaeocera branchialis (Linnaeus, 1767)

Lernaeocera lusci (Bassett-Smith, 1896)

Lernaeocera minuta (Scott T., 1900)

Lichomolgus canui G. O. Sars, 1917

Longipedia minor Scott T. & A., 1893

Mesamphiascus junodi (Monard, 1935)

Metacyclopina brevisetosa Herbst, 1975

Metamphiascopsis hirsutus hirsutus (Thompson & A Scott, 1903)

Microarthridion littorale (Poppe, 1881)

Micropsammis noodti Mielke, 1975

Microsetella norvegica (Boeck, 1865)

Mytilicola intestinalis Steuer, 1902

Nannopus palustris Brady, 1880

Oithona nana Giesbrecht, 1893

Oithona robusta Giesbrecht, 1891

Paracalanus parvus (Claus, 1863)

Paralaophonte congenera (Sars G.O., 1908)

Paraleptastacus espinulatus Nicholls, 1935

Paraleptastacus holsaticus Kunz, 1937

Paraleptastacus moorei Whybrew, 1986

Paraleptastacus spinicaudus (Scott T. & A., 1895)

Paramesochra helgolandica helgolandica Kunz, 1936

Paramesochra mielkei Huys, 1987

Paramesochra similis Kunz, 1936

Paramphiascella vararensis (Scott T., 1903)

Paramphiascopsis longirostris (Claus, 1863)

Parapontella brevicornis (Lubbock, 1857)

Parategastes sphaericus (Claus, 1863)

Parathalestris harpactoides (Claus, 1863)

Parathalestris intermedia Gurney, 1930

Paronychocamptus curticaudatus (Boeck, 1865)

Phyllopodopsyllus bradyi (Scott T., 1892)

Porcellidium viride (Philippi, 1840)

Proameira echinipes Soyer, 1975

Proameira hiddensoensis (Schäfer, 1936)

Proameira psammophila Wells, 1963

Protopsammotopa norvegica Geddes, 1968

Psammotopa phyllosetosa (Noodt, 1952)

Pseudobradya beduina beduina Monard, 1935



Pseudobradya minor (Scott T. & A., 1894)

Pseudobradya similis (Scott T. & A., 1894)

Pseudocalanus elongatus (Boeck, 1865)

Pseudocalanus minutus (Krøyer, 1845)

Pseudocharopinus malleus (Rudolphi in von Nordmann, 1832)

Pseudolaophonte spinosa (Thompson I.C., 1893)

Pseudonychocamptus koreni (Boeck, 1872)

Psyllocamptus (Psyllocamptus) minutus minutus Sars, 1911

Psyllocamptus minutus gelatinosus (Kunz, 1951)

Pteropsyllus consimilis (Scott T., 1894)

Pteropsyllus plebeius furcatus Kunz, 1938

Remanea arenicola Klie, 1929

Rhizothrix curvata Brady & Robertson D., 1875

Rhizothrix minuta (Scott T., 1903)

Robertgurneya ilievecensis (Monard, 1935)

Sarsameira exilis (Scott T. & A., 1894)

Sarsameira peresi Bodin, 1970

Schizopera (Neoschizopera) pratensis Noodt, 1958

Scottopsyllus (Intermedopsyllus) intermedius (T & A Scott, 1895)

Scottopsyllus (Scottopsyllus) minor (T & A Scott, 1895)

Scutellidium australe (Scott T., 1912)

Sicameira leptoderma Klie, 1950

Stenhelia (Delavalia) normani normani (T Scott, 1905)

Syrticola flandricus Willems & Claeys, 1982

Tachidius (Tachidius) discipes Giesbrecht, 1881

Temora longicornis (Müller O.F., 1785)

Thompsonula hyaenae (Thompson I.C., 1889)

Tisbe battagliai Volkmann-Rocco, 1972

Tisbe furcata furcata (Baird, 1837)

Tisbe holothuriae Humes, 1957

Tripaphylus musteli (van Beneden, 1851)

Vermicaris minuta (Nicholls, 1935)

Vermicaris pontica (Chappuis & Serban, 1953)

### **CIRRIPEDIA - CIRRIPEDS**

### Taxonomic validation:

- Benny K.K. Chan (Academia Sinica, Biodiversity Research Centre, Taiwan)

### Geographic validation:

 Francis Kerckhof (Management Unit of the North Sea Mathematical Models – MUMM, Belgium)

## Number of species: 27

Permanent: 15, of which 5 are non-indigenous (\*)

Acasta spongites (Poli, 1795)

Amphibalanus reticulatus (Utinomi, 1967)



Balanus amphitrite Darwin, 1854 (\*)

Balanus crenatus Bruguiére, 1789

Balanus improvisus Darwin, 1854 (\*)

Balanus perforatus Bruguiére, 1789

Elminius modestus Darwin, 1854 (\*)

Lepas anatifera Linnaeus, 1758

Megabalanus coccopoma (Darwin, 1854) (\*)

Megabalanus tintinnabulum (Linnaeus, 1758) (\*)

Peltogaster paguri Rathke, 1842

Sacculina carcini Thompson, 1836

Semibalanus balanoides (Linnaeus, 1758)

Trypetesa lampas (Hancock, 1849)

Verruca stroemia O.F. Müller, 1776

## Vagrant: 10

Cetopirus complanatus (Mörch, 1852)

Conchoderma auritum (Linnaeus, 1758)

Coronula diadema (Linnaeus, 1767)

Dosima fascicularis Ellis & Solander, 1786

Lepas anserifera Linnaeus, 1767

Lepas hilli Leach, 1818

Lepas pectinata Spengler, 1793

Scalpellum scalpellum (Linnaeus, 1767)

Solidobalanus fallax (Broch, 1927)

Stomatolepas elegans (Costas, 1883)

## Exotic, no permanent population: 2

Amphibalanus variegatus Darwin, 1854 Balanus trigonus Darwin, 1854

# **N**EBALIACEA

### Taxonomic validation:

- Dr. Jan Mees (Flanders Marine Institute – VLIZ, Belgium)

## Geographic validation:

- Dr. Jan Mees (Flanders Marine Institute – VLIZ, Belgium)

## Number of species: 1

Nebalia bipes (Fabricius, 1780)



## **EUPHAUSIACEA - KRILL**

#### Taxonomic validation

- Dr. Volker Siegler (Federal Research Centre for Fisheries, Institute for Sea Fisheries – ISH, Germany)

## Geographic validation:

Species list based on available literature and data for the Belgian part of the North Sea

### Number of species: 1

Nyctiphanes couchii (Bell, 1853)

## **DECAPODA - DECAPODS**

#### Taxonomic validation:

- Peter Davie (Queensland Museum, Centre for Biodiversity, Australia)
- Dr. Charles Fransen (National Museum of Natural History Naturalis, The Netherlands)
- Dr. Michael Türkay (Senckenbergische naturforschende Gesellschaft, Germany)
- Prof. Peter Ng Kee Lin (University of Singapore, Singapore)

### Geographic validation:

- Dr. Cédric d'Udekem d'Acoz (Royal Belgian Institute of Natural Sciences – KBIN, Belgium)

### Number of species: 72, of which 6 are non-indigenous

Alpheus glaber (Olivi, 1792)

Anapagurus hyndmanni (Bell, 1845)

Anapagurus laevis (Bell, 1845)

Atelecyclus rotundatus (Olivi, 1792)

Callinectes sapidus Rathbun, 1896 (\*)

Cancer pagurus Linnaeus, 1758

Carcinus maenas (Linnaeus, 1758)

Corystes cassivelaunus (Pennant, 1777)

Crangon allmanni Kinahan, 1857

Crangon crangon (Linnaeus, 1758)

Diogenes pugilator (Roux, 1829)

Dromia personata (Linnaeus, 1758)

Ebalia cranchii Leach, 1817

Ebalia tuberosa (Pennant, 1777)

Ebalia tumefacta (Montagu, 1808)

Eriocheir sinensis H. Milne Edwards, 1853 (\*)

Eualus cranchii (Leach, 1817)

Eualus occultus (Lebour, 1936)

Eualus pusiolus (Krøyer, 1841)

Eurynome aspera (Pennant, 1777)

Galathea intermedia Liljeborg, 1851

Galathea squamifera Leach, 1814

Hemigrapsus sanguineus (De Haan, 1835) (\*)



Hemigrapsus takanoi Asakura & Watanabe, 2005 (\*)

Hippolyte varians Leach, 1814

Homarus gammarus (Linnaeus, 1758)

Hyas araneus (Linnaeus, 1758)

Hyas coarctatus Leach, 1816

Inachus dorsettensis (Pennant, 1777)

Inachus phalangium (Fabricius, 1775)

Liocarcinus depurator (Linnaeus, 1758)

Liocarcinus holsatus (Fabricius, 1798)

Liocarcinus marmoreus (Leach, 1814)

Liocarcinus navigator (Herbst, 1794)

Liocarcinus pusillus (Leach, 1816)

Liocarcinus vernalis (Risso, 1816)

Macropodia deflexa Forest, 1978

Macropodia linaresi Forest & Zariquiey Alvarez, 1964

Macropodia rostrata (Linnaeus, 1761)

Macropodia tenuirostris (Leach, 1814)

Maja brachydactyla Balss, 1922

Necora puber (Linnaeus, 1767)

Pagurus bernhardus (Linnaeus, 1758)

Pagurus cuanensis Bell, 1845

Pagurus prideaux Leach, 1815

Pagurus pubescens Krøyer, 1838

Palaemon adspersus Rathke, 1837

Palaemon elegans Rathke, 1837

Palaemon longirostris H. Milne-Edwards, 1837

Palaemon macrodactylus Rathbun, 1902 (\*)

Palaemon serratus (Pennant, 1777)

Palaemonetes varians (Leach, 1814)

Pandalina brevirostris (Rathke, 1843)

Pandalus montagui Leach, 1814

Pestarella tyrrhena (Petagna, 1792)

Philocheras sculptus (Bell, 1853)

Philocheras trispinosus (Hailstone, 1835)

Pilumnus hirtellus (Linnaeus, 1761)

Pinnotheres pisum (Linnaeus, 1767)

Pisa armata (Latreille, 1803)

Pisidia longicornis (Linnaeus, 1767)

Planes minutus (Linnaeus, 1758)

Porcellana platycheles (Pennant, 1777)

Portumnus latipes (Pennant, 1777)

Processa canaliculata Leach, 1896

Processa edulis crassipes (Nouvel & Holthuis, 1957)

Processa modica modica Williamson & Rochanaburanon, 1979

Processa nouveli holthuisi Al-Adhub & Williamson, 1975

Rhithropanopeus harrisii (Gould, 1841) (\*)

Thia scutellata (Fabricius, 1793)

Upogebia deltaura (Leach, 1815)

Upogebia stellata (Montagu, 1808)



### **CUMACEA - HOODED SHRIMPS**

#### Taxonomic validation:

- Prof. Les Watling (University of Maine, USA)
- Dr. Sarah Gerken (University of Alaska Anchorage, USA)

### Geographic validation:

- Dr. Jan Mees (Flanders Marine Institute – VLIZ, Belgium)

### Number of species: 13

Bodotria arenosa Goodsir, 1843

Bodotria pulchella (Sars, 1878)

Bodotria scorpioides (Montagu, 1804)

Cumopsis goodsir (Van Beneden, 1861)

Diastylis bradyi Norman, 1879

Diastylis laevis Norman, 1869

Diastylis lucifera (Krøyer, 1837)

Diastylis rathkei (Krøyer, 1841)

Diastylis rugosa Sars, 1865

Iphinoe trispinosa (Goodsir, 1843)

Monopseudocuma gilsoni (Gilson, 1906)

Pseudocuma (Pseudocuma) longicorne (Bate, 1858)

Pseudocuma (Pseudocuma) simile G.O. Sars, 1900

#### **AMPHIPODA - AMPHIPODS**

### Taxonomic validation:

- Prof. Dr. Mark Costello (University of Auckland, Leigh Marine Laboratory, New Zealand)
- Dr. Jim Lowry (Australian Museum, Marine Invertebrates, Australia)

## Geographic validation:

- Dr. Jan Mees (Flanders Marine Institute VLIZ, Belgium)
- Dr. Annelies De Backer (Flemisch Government, Agriculture and Fisheries, Institute for Agriculture and Fisheries Research, Animal Knowledge Unit -ILVO, Belgium)
- ILVO macrofauna data: macrofauna monitoring on the Belgian Part of the North Sea since 1979. Flemisch Government, Agriculture and Fisheries, Institute for Agriculture and Fisheries Research, Animal Knowledge Unit (ILVO, Belgium)

## Number of species: 71

Abludomelita obtusata (Montagu, 1813)

Ampelisca brevicornis (Costa, 1853)

Ampelisca spinipes Boeck, 1861

Amphilochus manudens Bate, 1862

Amphilochus neapolitanus Della Valle, 1893

Aora gracilis (Bate, 1857)

Apherusa bispinosa (Bate, 1857)



Apherusa ovalipes Norman & Scott, 1906

Atylus guttatus (Costa, 1851)

Atylus swammerdami (Milne-Edwards, 1830)

Bathyporeia elegans Watkin, 1938

Bathyporeia guilliamsoniana (Bate, 1857)

Bathyporeia pelagica (Bate, 1856)

Bathyporeia pilosa Lindström, 1855

Bathyporeia sarsi Watkin, 1938

Calliopius laeviusculus (Kroyer, 1838)

Caprella andreae Mayer, 1890

Caprella linearis (Linnaeus, 1767)

Ceradocus semiserratus (Bate, 1862)

Cheirocratus intermedius G.O. Sars, 1895

Cheirocratus sundevalli (Rathke, 1843)

Corophium arenarium Crawford, 1937

Corophium volutator (Pallas, 1766)

Crassicorophium bonellii (Milne Edwards, 1830)

Ericthonius punctatus (Bate, 1857)

Gammarellus angulosus (Rathke, 1843)

Gammarus crinicornis Stock, 1966

Gammarus insensibilis Stock, 1966

Gammarus locusta (Linnaeus, 1758)

Gammarus salinus Spooner, 1947

Gammarus zaddachi Sexton, 1912

Haustorius arenarius (Slabber, 1767)

Hyale prevosti (Milne-Edwards 1830)

Hyperia galba (Montagu, 1815)

Iphimedia minuta G.O. Sars, 1882

Jassa falcata (Montagu, 1808)

Jassa marmorata Holmes, 1905

Lepidepecreum longicornis (Bate & Westwood, 1862)

Leucothoe incisa Robertson, 1892

Leucothoe lilljeborgi Boeck, 1861

Maerella tenuimana (Bate, 1862)

Megaluropus agilis Hoeck, 1889

Melita dentata (Kroyer, 1842)

Melita hergensis Reid, 1939

Melita palmata (Montagu, 1804)

Melphidippella macra (Norman, 1869)

Metopa pusilla Sars, 1892

Microprotopus maculatus Norman, 1867

Monocorophium ascherusicum (Costa, 1857)

Monocorophium insidiosum (Crawford, 1937)

Monocorophium sextonae (Crawford, 1937)

Monoculodes carinatus (Bate, 1857)

Nototropis falcatus (Metzer, 1871)

Orchomenella nana (Kroyer, 1846)

Pariambus typicus (Krøyer, 1884)

Perioculodes longimanus (Bate & Westwood, 1868)



Phtisica marina Slabber, 1769

Pontocrates altamarinus (Bate & Westwood, 1862)

Pontocrates arenarius (Bate, 1858)

Pseudoprotella phasma Montagu, 1804

Scopelocheirus hopei (Costa, 1851)

Siphonoecetes (Centraloecetes) kroyeranus Bate, 1856

Stenothoe marina (Bate, 1856)

Synchelidium haplocheles (Grube, 1864)

Synchelidium maculatum Stebbing, 1906

Talitrus saltator (Montagu, 1808)

Unciola planipes Norman, 1867

Urothoe brevicornis Bate, 1862

Urothoe elegans (Bate, 1857)

Urothoe marina (Bate, 1857)

Urothoe poseidonis Reibish, 1905

## ISOPODA - PILLBUGS, SLATERS AND WOODLICE

#### Taxonomic validation:

- Chris Boyko (American Museum of Natural History, USA)
- Marilyn Schotte (Smithsonian Institution, National Museum of Natural History, USA)
- Dr. Niel Bruce (Museum of tropical Queensland, Australia)
- Gary Poore (Museum Victoria, Australia)
- John Markham (Arch Cape Marine Laboratory, USA)

## Geographic validation:

Dr. Jan Mees (Flanders Marine Institute – VLIZ, Belgium)

# Number of species: 33

Anthura gracilis (Montagu, 1808)

Astacilla longicornis (Sowerby, 1806)

Athelges paguri (Rathke, 1843)

Ceratothoa oestroides (Risso, 1816)

Eurydice affinis Hansen, 1905

Eurydice pulchra Leach, 1815

Eurydice spinigera Hansen, 1890

Gnathia oxyuraea (Lilljeborg, 1855)

Hemiarthrus abdominalis (Krøyer, 1840-1841)

Idotea balthica (Pallas, 1772)

Idotea chelipes (Pallas, 1766)

Idotea emarginata (Fabricius, 1793)

Idotea granulosa Rathke, 1843

Idotea linearis (Linnaeus, 1766)

Idotea metallica Bosc, 1802

Idotea neglecta Sars, 1897

Idotea pelagica Leach, 1815

Ione thoracica (Montagu, 1808)



Jaera (Jaera) albifrons Leach, 1814

Jaera (Jaera) praehirsuta Forsman, 1949

Janira maculosa Leach, 1814

Lekanesphaera hookeri (Leach, 1814)

Lekanesphaera levii (Argano & Ponticelli, 1981)

Lekanesphaera rugicauda (Leach, 1814)

Ligia oceanica (Linnaeus, 1767)

Limnoria lignorum (Rathke, 1799)

Munna minuta Hansen, 1916

Nerocila orbignyi (Guérin-Méneville, 1832)

Paragnathia formica (Hesse, 1864)

Pleurocrypta porcellanae Hesse, 1876

Prodajus ostendensis Gilson, 1909

Pseudione hyndmanni (Bate & Westwood, 1868)

Rocinela danmoniensis Leach, 1818

### **M**YSIDA - OPOSSUM SHRIMPS

#### Taxonomic validation:

Dr. Jan Mees (Flanders Marine Institute – VLIZ, Belgium)

## Geographic validation:

- Dr. Jan Mees (Flanders Marine Institute - VLIZ, Belgium)

### Number of species: 18

Acanthomysis longicornis (Milne-Edwards, 1837)

Anchialina agilis (G.O. Sars, 1877)

Gastrosaccus sanctus (van Beneden, 1861)

Gastrosaccus spinifer (Goës, 1864)

Leptomysis lingvura (G. O. Sars, 1866)

Mesopodopsis slabberi (van Beneden, 1861)

Mysidopsis gibbosa G.O. Sars, 1864

Neomysis integer (Leach, 1814)

Paramysis (Pseudoparamysis) bacescoi Labat, 1953

Paramysis arenosa (G.O. Sars, 1877)

Praunus flexuosus (Müller, 1776)

Praunus inermis (Rathke, 1843)

Schistomysis kervillei (G.O. Sars, 1885)

Schistomysis ornata (G.O. Sars, 1864)

Schistomysis spiritus (Norman, 1860)

Siriella armata (Milne-Edwards, 1837)

Siriella clausi G.O. Sars, 1877

Siriella jaltensis Czerniavsky, 1868



## **TANAIDACEA - TANAIDS**

#### Taxonomic validation:

- Dr. Graham Bird (UK)

### Geographic validation:

- ILVO macrofauna data: macrofauna monitoring on the Belgian part of the North Sea since 1979. Flemisch Government, Agriculture and Fisheries, Institute for Agriculture and Fisheries Research, Animal Knowledge Unit (ILVO)
- Francis Kerckhof (Management Unit of the North Sea Mathematical Models MUMM,
   Belgium)

## Number of species: 3

Pseudoparatanais batei (G.O. Sars, 1882) Tanais dulongii (Audouin, 1826) Tanaissus lilljeborgi (Stebbing, 1891)

#### **M**YRIAPODA - MYRIAPODS

### Taxonomic validation:

- Anthony Barber (British Myriapod & Isopod Group – BMIG, UK)

#### Geographic validation:

- Dr. Koen Lock (Ghent University, Department of applied ecology and environmental biology, Environmental Toxicology Research Group ECOTOX, Belgium)
- Anthony Barber (British Myriapod & Isopod Group BMIG, UK)

## Number of species: 1

Strigamia maritima (Leach, 1817)

### **INSECTA - INSECTS**

#### Taxonomic validation:

 Prof. Dr. Patrick Grootaert (Royal Belgian Instititute of Natural Sciences, Department of Entomology – KBIN, Belgium)

## Geographic validation:

- Patrick Grootaert & Marc Pollet (2004). Vliegen als onontbeerlijke elementen in de ecologie van strand en duinen. *In: Provoost, S. & D. Bonte (Eds.) (2004). Levende duinen: een overzicht van de biodiversiteit aan de Vlaamse kust. Mededelingen van het Instituut voor Natuurbehoud, 22: pp. 208-219.* 

All insects (adults, larvae or juveniles) occurring in the eulittoral zone, in the tidemark or in washed ashore organic material are listed below. This information is based on recent literature, compiled by



Belgian experts in the field of entomology. Insects living higher up on the beach and in the dunes are not included here.

## Number of species: 27

Aphrosylus celtiber Haliday, 1855

Aphrosylus ferox Haliday, 1851

Canace nasica (Haliday, 1839)

Ceratinostoma ostiorum (Haliday, in Curtis, 1832)

Chersodromia arenaria Haliday, 1833

Chersodromia hirta Walker, 1835

Chersodromia incana Walker, 1851

Chersodromia speculifera Walker, 1851

Coelopa (Coelopa) pilipes Haliday, 1838

Coelopa (Fucomyia) frigida (Fabricius, 1805)

Fucellia maritima (Haliday, 1838)

Fucellia tergina (Zetterstedt, 1845)

Glenanthe ripicola (Haliday, 1839)

Hecamede albicans (Meigen, 1830)

Helcomyza ustulata Curtis, 1825

Heterocheila buccata (Fallén, 1820)

Malacomyia sciomyzina (Haliday, 1833)

Orygma luctuosum Meigen, 1830

Pelomyiella cinerella (Haliday, 1837)

Pelomyiella mallochi (Sturtevant, 1923)

Rhicnoessa grisea (Fallén, 1823)

Rhicnoessa strobliana Mercier, 1923

Scatella subguttata (Meigen, 1830)

Scathophaga litorea (Fallén, 1819)

Tethina albosetulosa (Strobl, 1900)

Tethina illota Haliday, 1838

Thoracochaeta zosterae (Haliday, 1833)

## **CHAETOGNATHA - ARROW WORMS**

#### Taxonomic validation:

- Dr. Erik Thuesen (The Evergreen State College, Laboratory One, USA)

### Geographic validation:

 ILVO macrofauna data: macrofauna monitoring on the Belgian Part of the North Sea since 1979. Flemisch Government, Agriculture and Fisheries, Institute for Agriculture and Fisheries Research, Animal Knowledge Unit (ILVO, Belgium)

## Number of species: 1

Parasagitta setosa (Müller, 1847)



## **ECHINODERMATA - ECHINODERMS**

#### Taxonomic validation:

- Dr. Hans Hansson (Göteborg University, Sven Lovén Centre for Marine Sciences, Sweden)
- Dr. Andreas Kroh (Natural History Museum Vienna, Austria)
- Dr. Christopher Mah (Smithsonian Institution, National Museum of Natural History, USA)
- Sabine Stöhr (Museum of Natural History, Sweden)

## Geographic validation:

- Dr. Claude Massin (Royal Belgian Institute of Natural Sciences – KBIN, Belgium)

## Number of species: 27

Acrocnida brachiata (Montagu, 1804)

Amphipholis squamata (Delle Chiaje, 1828)

Amphiura chiajei Forbes, 1843

Amphiura filiformis (O.F. Müller, 1776)

Aslia lefevrei (Barrois, 1882)

Asterias amurensis Lutken, 1871

Asterias rubens Linnaeus, 1758

Astropecten irregularis (Pennant, 1777)

Astropecten jonstoni (Delle Chiaje, 1827)

Crossaster papposus (Linnaeus, 1776)

Cucumaria frondosa (Gunnerus, 1767)

Echinocardium cordatum (Pennant, 1777)

Echinocyamus pusillus (O.F. Müller, 1776)

Echinus esculentus Linnaeus, 1758

Leptosynapta minuta (Becher, 1906)

Neopentadactyla mixta (Östergren, 1898) Deichmann, 1944

Ocnus lacteus (Forbes & Goodsir, 1839)

Ocnus planci (Brandt, 1835)

Ophiocten affinis (Lütken, 1858)

Ophiothrix fragilis (Abildgaard, 1789)

Ophiura albida Forbes, 1839

Ophiura ophiura (Linnaeus, 1758)

Ophiura robusta (Ayres, 1851)

Psammechinus miliaris (P.L.S. Müller, 1771)

Pseudarchaster gracilis (Sladen, 1889)

Spatangus purpureus (O.F. Müller, 1776)

Thyone fusus (O.F. Müller, 1776)



## **BRYOZOA - MOSS ANIMALS, SEA MATS**

#### Taxonomic validation:

- Dr. Phil Bock (Museum Victoria, Australia)
- Dr. Dennis Gordon (National Institute of Water and Atmospheric Research, New Zealand)
- Dr. Peter Hayward (University of Wales Swansea, UK)
- Dr. Oscar Reverter Gil (University of Santiago de Compostela, Spain)
- Hans de Blauwe (Strandwerkgroep SWG, Belgium)

### Geographic validation:

Hans De Blauwe (Strandwerkgroep – SWG, Belgium)

## Number of species: 150 + 6 species probably extinct in Belgian marine waters

### Permanent: 92, of which 3 are non-indigenous (\*)

Alcyonidioides mytili (Dalyell, 1848)

Alcyonidium condylocinereum Porter, 2004

Alcyonidium diaphanum (Hudson, 1778)

Alcyonidium hydrocoalitum Porter, 2004

Alcyonidium parasiticum (Fleming, 1828)

Ammatophora nodulosa (Hincks, 1877)

Amphiblestrum auritum (Hincks, 1877)

Anguinella palmata van Beneden, 1845

Annectocyma major (Johnston, 1847)

Arachnidium fibrosum Hincks, 1880

Aspidelectra melolontha (Landsborough, 1852)

Bicellariella ciliata (Linnaeus, 1758)

Bowerbankia gracilis Leidy, 1855

Bowerbankia imbricata (Adams, 1798)

Bugula angustiloba (Lamarck, 1816)

Bugula neritina (Linnaeus, 1758)

Bugula plumosa (Pallas, 1766)

Bugula simplex Hincks, 1886 (\*)

Bugula stolonifera Ryland, 1960 (\*)

Callopora discreta (Hincks, 1862)

Callopora dumerilii (Audouin, 1826)

Celleporina pygmaea (Norman, 1868)

Chorizopora brongniartii (Audouin, 1826)

Collarina balzaci (Audouin, 1826)

Conopeum reticulum (Linnaeus, 1767)

Conopeum seurati (Canu, 1928)

Crassimarginatella solidula (Hincks, 1860)

Cribrilina punctata (Hassall, 1841)

Crisia aculeata Hassall, 1841

Cryptosula pallasiana (Moll, 1803)

Disporella hispida (Fleming, 1828)

Distansescharella sequenzai Cipolla, 1921

Einhornia crustulenta (Pallas, 1766)

Electra monostachys (Busk, 1854)



Electra pilosa (Linnaeus, 1767)

Entalophoroecia deflexa (Couch, 1842)

Escharella gilsoni De Blauwe, 2006

Escharella immersa (Fleming, 1828)

Escharella variolosa (Johnston, 1838)

Escharella ventricosa (Hassall, 1842)

Escharina dutertrei haywardi Zabala, Maluquer & Harmelin, 1993

Escharina johnstoni (Quelch, 1884)

Escharina vulgaris (Moll, 1803)

Escharoides bishopi De Blauwe, 2006

Farrella repens (Farre, 1837)

Fenestrulina malusii (Audouin, 1826)

Flustra foliacea (Linnaeus, 1758)

Hagiosynodos latus (Busk, 1856)

Herentia hyndmanni (Johnston, 1847)

Hincksina flustroides crassispinata Gautier, 1962

Hippoporina pertusa (Esper, 1796)

Hippothoa divaricata Lamouroux, 1821

Hippothoa flagellum Manzoni, 1870

Hypophorella expansa Ehlers, 1876

Immergentia suecica Silén, 1947

Lagenipora lepralioides (Norman, 1868)

Liripora amphorae (Harmelin, 1976)

Membranipora tenuis Desor, 1848

Microporella ciliata (Pallas, 1766)

Neolagenipora collaris (Norman, 1867)

Panolicella nutans Jebram, 1985

Parasmittina trispinosa (Johnston, 1838)

Penetrantia concharum Silén, 1946

Phylactella labrosa (Busk, 1854)

Plagioecia patina (Lamarck, 1816)

Porella concinna (Busk, 1854)

Puellina arrecta Bishop & Househam, 1987

Puellina bifida (d'Hondt, 1970)

Puellina corbula Bishop & Househam, 1987

Puellina directa Bishop & Househam, 1987

Puellina innominata (Couch, 1844)

Puellina modica Bishop & Househam, 1987

Puellina nana Reverter Gil & Fernandez Pulpeiro, 2007

Puellina praecox Bishop & Househam, 1987

Reptadeonella violacea (Johnston, 1847)

Schizomavella auriculata (Hassall, 1842)

Schizomavella cristata (Hincks, 1879)

Schizomavella discoidea (Busk, 1859)

Schizomavella linearis (Hassall, 1841)

Schizomavella teresae Reverter-Gil & Fernandez-Pulpeiro, 1996

Schizotheca divisa (Norman, 1864)

Schizotheca fissa (Busk, 1856)

Scruparia chelata (Linnaeus, 1758)



Scrupocellaria scruposa (Linnaeus, 1758)

Setosella vulnerata (Busk, 1860)

Smittina affinis (Hincks, 1862)

Stomatoporina incurvata (Hincks, 1859)

Tricellaria inopinata d'Hondt & Occhipinti Ambrogi, 1985 (\*)

Trypostega venusta (Norman, 1864)

Tubulipora lobifera Hastings, 1963

Vesicularia spinosa (Linnaeus, 1767)

Victorella pavida Saville Kent, 1870

#### Vagrant: 58

Aetea anguina (Linnaeus, 1758)

Aetea sica (Couch, 1844)

Aetea truncata (Landsborough, 1852)

Amathia lendigera (Linnaeus, 1758)

Amphiblestrum flemingii (Busk, 1854)

Beania mirabilis Johnston, 1840

Bugula fulva Ryland, 1960

Caberea boryi (Audouin, 1826)

Callopora lineata (Linnaeus, 1767)

Callopora rylandi Bobin & Prenant, 1965

Cauloramphus spiniferum (Johnston, 1832)

Cellaria salicornioides Lamouroux, 1816

Cellaria sinuosa (Hassall, 1840)

Cellepora pumicosa (Pallas, 1766)

Celleporella hyalina (Linnaeus, 1767)

Celleporina caliciformis (Lamouroux, 1816)

Celleporina decipiens Hayward, 1976

Chartella papyracea (Ellis & Solander, 1786)

Crisia denticulata (Lamarck, 1816)

Crisia eburnea (Linnaeus, 1758)

Crisidia cornuta (Linnaeus, 1758)

Diplosolen obelia (Johnston, 1838)

Escharella labiosa (Busk, 1856)

Escharoides coccinea (Abildgaard, 1806)

Escharoides mamillata (Wood, 1844)

Eurystrotos compacta (Norman, 1866)

Fenestrulina delicia Winston, Hayward & Craig, 2000

Figularia figularis (Johnston, 1847)

Filicrisia geniculata (Milne Edwards, 1838)

Flustrellidra hispida (O. Fabricius, 1780)

Haplopoma graniferum (Johnston, 1847)

Haplopoma impressum (Audouin, 1826)

Jellyella tuberculata (Bosc, 1802)

Membranipora membranacea (Linnaeus, 1767)

Membraniporella nitida (Johnston, 1838)

Omalosecosa ramulosa (Linnaeus, 1767)

Oshurkovia littoralis (Hastings, 1944)

Parellisina curvirostris (Hincks, 1862)



Pentapora fascialis (Pallas, 1766)

Phaeostachys spinifera (Johnston, 1847)

Plagioecia sarniensis (Norman, 1864)

Plesiothoa gigerium (Ryland & Gordon, 1977)

Porella minuta (Norman, 1868)

Pyripora catenularia (Fleming, 1828)

Rhynchozoon bispinosum (Johnston, 1847)

Schizomavella cornuta (Heller, 1867)

Schizomavella hastata (Hincks, 1862)

Schizoporella unicornis (Johnston, in Wood, 1844)

Scruparia ambigua (d'Orbigny, 1841)

Scrupocellaria reptans (Linnaeus, 1767)

Scrupocellaria scrupea Busk, 1852

Smittina landsborovii (Johnston, 1847)

Smittoidea reticulata (MacGillivray, 1842)

Tubulipora liliacea (Pallas, 1766)

Turbicellepora avicularis (Hincks, 1860)

Turbicellepora magnicostata (Barroso, 1919)

Walkeria uva (Linnaeus, 1758)

Watersipora complanata (Norman, 1864)

## Probably extinct in Belgian marine waters: 6

Bugula avicularia (Linnaeus, 1758)

Bugula turbinata Alder, 1857

Cellaria fistulosa (Linnaeus, 1758)

Eucratea loricata (Linnaeus, 1758)

Hippoporidra lusitania Taylor & Cook, 1981

Securiflustra securifrons (Pallas, 1766)

## **TUNICATA - SEA SQUIRTS**

## Taxonomic validation:

- Dr. Arjan Gittenberger (National Museum of Natural History Naturalis, the Netherlands)
- Claude Monniot (National Natural History Museum Paris, France)
- Rosana Moreira da Rocha (Universidade Federal do Paraná, Brasil)

## Geographic validation:

- Hans De Blauwe (Strandwerkgroep SWG, Belgium)
- Dr. Arjan Gittenberger (National Museum of Natural History Naturalis, The Netherlands)

## Number of species: 11, of which 5 are non-indigenous (\*)

Aplidium glabrum (Verrill, 1871) (\*)

Ascidiella aspersa (Müller, 1776)

Ascidiella scabra (Müller, 1776)

Botrylloides violaceus Oka, 1927 (\*)

Botryllus schlosseri (Pallas, 1766)

Ciona intestinalis (Linnaeus, 1758)



Clavelina lepadiformis (Müller, 1776)

Didemnum vexillum Kott, 2002

Diplosoma listerianum (Milne-Edwards, 1841) (\*)

Molgula manhattensis (De Kay, 1843) (\*)

Styela clava (Herdman, 1881) (\*)

#### **ENTOPROCTA - GOBLET WORMS**

#### Taxonomic validation:

- Dr. Peter Hayward (University of Wales Swansea, Biological Sciences, UK)

### Geographic validation:

Francis Kerckhof (Management Unit of the North Sea Mathematical Models – MUMM,
 Belgium)

### Number of species: 1

Barentsia gracilis M. Sars, 1835

### **PHORONIDA - HORSESHOE WORMS**

## Taxonomic validation:

- Dr. Christian Emig (BrachNet, France)

#### Geographic validation:

- ILVO macrofauna data: macrofauna monitoring on the Belgian Part of the North Sea since 1979. Flemisch Government, Agriculture and Fisheries, Institute for Agriculture and Fisheries Research, Animal Knowledge Unit (ILVO, Belgium)

## Number of species: 1

Phoronis pallida Silén, 1952

#### **BRACHIOPODA - LAMP SHELLS**

### Number of species: 1

The occurrence of one species of Brachiopoda in the Belgian part of the North Sea has been confirmed by Francis Kerckhof. The species name has not yet been made publicly available, as a publication on its occurrence in our regions is currently under preparation.



### **CEPHALOCHORDATA - LANCELETS**

#### Taxonomic validation:

- Dr. Jacob van der Land (National Museum of Natural History - Naturalis, the Netherland)

### Geographic validation:

- Dr. Jan Mees (Flanders Marine Institute – VLIZ, Belgium)

### Number of species: 1

Branchiostoma lanceolatum (Pallas, 1774)

### **AGNATHA - JAWLESS FISH**

#### Taxonomic validation:

- Dr. Nicolas Bailly (Worldfish Center, Philippines)
- Dr. Jacob van der Land (National Museum of Natural History Naturalis, the Netherland)

### Geographic validation:

- Hans Hillewaert (Flemisch Government, Agriculture and Fisheries, Institute for Agriculture and Fisheries Research, Animal Knowledge Unit -ILVO, Belgium)
- Dr. André Cattrijsse (Flanders Marine Institute VLIZ, Belgium)

## Number of species: 2

Lampetra fluviatilis (Linnaeus, 1758) Petromyzon marinus Linnaeus, 1758

#### **PISCES - FISH**

#### Taxonomic validation:

- Dr. Nicolas Bailly (Worldfish Center, Philippines)
- Dr. Jacob van der Land (National Museum of Natural History Naturalis, the Netherland)

## Geographic validation:

- Hans Hillewaert (Flemisch Government, Agriculture and Fisheries, Institute for Agriculture and Fisheries Research, Animal Knowledge Unit -ILVO, Belgium)
- Dr. André Cattrijsse (Flanders Marine Institute VLIZ, Belgium)

## Number of species: 121 + 6 (probably) extinct in Belgian marine waters

Permanent: 103, of which 1 non-indigenous (\*)

Agonus cataphractus (Linnaeus, 1758) Alopias vulpinus (Bonnaterre, 1788) Alosa fallax (Lacepède, 1803) Amblyraja radiata (Donovan, 1808) Ammodytes marinus Raitt, 1934



Ammodytes tobianus Linnaeus, 1758

Anguilla anguilla (Linnaeus, 1758)

Aphia minuta (Risso, 1810)

Arnoglossus laterna (Walbaum, 1792)

Aspitrigla cuculus (Linnaeus, 1758)

Atherina (Hepsetia) presbyter Cuvier, 1829

Belone belone (Linnaeus, 1761)

Buglossidium luteum (Risso, 1810)

Callionymus lyra Linnaeus, 1758

Callionymus reticulatus Valenciennes, 1837

Chelidonichthys lucernus (Linnaeus, 1758)

Chelon labrosus (Risso, 1827)

Ciliata mustela (Linnaeus, 1758)

Ciliata septentrionalis (Collett, 1875)

Clupea harengus Linnaeus, 1758

Conger conger (Linnaeus, 1758)

Crystallogobius linearis (Düben, 1845)

Ctenolabrus rupestris (Linnaeus, 1758)

Cyclopterus lumpus Linnaeus, 1758

Dasyatis pastinaca (Linnaeus, 1758)

Dicentrarchus labrax (Linnaeus, 1758)

Echiichthys vipera (Cuvier, 1829)

Enchelyopus cimbrius (Linnaeus, 1766)

Engraulis encrasicolus (Linnaeus, 1758)

Entelurus aequoreus (Linnaeus, 1758)

Eutrigla gurnardus (Linnaeus, 1758)

Gadus morhua Linnaeus, 1758

Gaidropsarus vulgaris (Cloquet, 1824)

Galeorhinus galeus (Linnaeus, 1758)

Gasterosteus aculeatus Linnaeus, 1758

Gobius niger Linnaeus, 1758

Gymnammodytes semisquamatus (Jourdain, 1879)

Hippocampus auttulatus Cuvier, 1829

Hippocampus hippocampus (Linnaeus, 1758)

Hyperoplus lanceolatus (Le Sauvage, 1824)

Labrus bergylta Ascanius, 1767

Lamna nasus (Bonnaterre, 1788)

Limanda limanda (Linnaeus, 1758)

Liparis liparis (Linnaeus, 1766)

Liparis montagui (Donovan, 1804)

Lipophrys pholis (Linnaeus, 1758)

Liza aurata (Risso, 1810)

Liza ramada (Risso, 1827)

Lophius piscatorius Linnaeus, 1758

Melanogrammus aeglefinus (Linnaeus, 1758)

Merlangius merlangus (Linnaeus, 1758)

Merluccius merluccius (Linnaeus, 1758)

Micropogonias undulatus (Linnaeus, 1766) (\*)

Microstomus kitt (Walbaum, 1792)

Mugil cephalus Linnaeus, 1758

Mullus surmuletus Linnaeus, 1758

Mustelus asterias Cloquet, 1821

Mustelus mustelus (Linnaeus, 1758)

Myoxocephalus scorpius (Linnaeus, 1758)



Nerophis lumbriciformis (Jenyns, 1835)

Osmerus eperlanus (Linnaeus, 1758)

Parablennius gattorugine (Linnaeus, 1758)

Pegusa lascaris (Risso, 1810)

Pholis gunnellus (Linnaeus, 1758)

Platichthys flesus (Linnaeus, 1758)

Pleuronectes platessa Linnaeus, 1758

Pollachius pollachius (Linnaeus, 1758)

Pollachius virens (Linnaeus, 1758)

Pomatoschistus Iozanoi (de Buen, 1923)

Pomatoschistus microps (Krøyer, 1838)

Pomatoschistus minutus (Pallas, 1770)

Pomatoschistus pictus (Malm, 1865)

Prionace glauca (Linnaeus, 1758)

Psetta maxima (Linnaeus, 1758)

Pungitius pungitius (Linnaeus, 1758)

Raja brachyura Lafont, 1873

Raja clavata Linnaeus, 1758

Raja montagui Fowler, 1910

Raniceps raninus (Linnaeus, 1758)

Salmo lacustris Linnaeus, 1758

Salmo salar Linnaeus, 1758

Salmo trutta Linnaeus, 1758

Sardina pilchardus (Walbaum, 1792)

Scomber scombrus Linnaeus, 1758

Scomberesox saurus (Walbaum, 1792)

Scophthalmus rhombus (Linnaeus, 1758)

Scyliorhinus canicula (Linnaeus, 1758)

Solea solea (Linnaeus, 1758)

Spondyliosoma cantharus (Linnaeus, 1758)

Sprattus sprattus (Linnaeus, 1758)

Squalus acanthias Linnaeus, 1758

Symphodus (Crenilabrus) melops (Linnaeus, 1758)

Syngnathus acus Linnaeus, 1758

Syngnathus rostellatus Nilsson, 1855

Syngnathus typhle Linnaeus, 1758

Taurulus bubalis (Euphrasen, 1786)

Torpedo (Tetronarce) nobiliana Bonaparte, 1835

Trachinus draco Linnaeus, 1758

Trachurus trachurus (Linnaeus, 1758)

Trisopterus luscus (Linnaeus, 1758)

Trisopterus minutus (Linnaeus, 1758)

Zeus faber Linnaeus, 1758

Zoarces viviparus (Linnaeus, 1758)

## Vagrant: 18

Anarhichas lupus Linnaeus, 1758

Argyrosomus regius (Asso, 1801)

Balistes capriscus Gmelin, 1789

Boops boops (Linnaeus, 1758)

Brama brama (Bonnaterre, 1788)

Centrolophus niger (Gmelin, 1789)

Cepola macrophthalma (Linnaeus, 1758)



Diplecogaster bimaculata (Bonnaterre, 1788)
Glyptocephalus cynoglossus (Linnaeus, 1758)
Microchirus (Microchirus) variegatus (Donovan, 1808)
Molva molva (Linnaeus, 1758)
Pagellus erythrinus (Linnaeus, 1758)
Schedophilus ovalis (Cuvier, 1833)
Sciaena umbra Linnaeus, 1758
Scyliorhinus stellaris (Linnaeus, 1758)
Sebastes marinus (Linnaeus, 1758)
Sparus aurata Linnaeus, 1758
Spinachia spinachia (Linnaeus, 1758)

## (Probably) extinct in Belgian marine waters: 6

Acipenser sturio Linnaeus, 1758 Alosa alosa (Linnaeus, 1758) Coregonus lavaretus (Linnaeus, 1758) Coregonus oxyrinchus (Linnaeus, 1758) Squatina squatina (Linnaeus, 1758) Thunnus thynnus (Linnaeus, 1758)

### **REPTILIA - REPTILES**

#### Taxonomic validation:

- Peter Uetz (J. Craig Venter Institute, USA)

## Geographic validation:

Jan Haelters (Management Unit of the North Sea Mathematical Models – MUMM, Belgium)

## Number of species: 2

Permanent: 0

Vagrant: 2

Caretta caretta (Linnaeus, 1758) Dermochelys coriacea (Vandelli, 1761)



### **AVES - BIRDS**

#### Geographic validation:

- Dr. Eric Stienen (Research Institute for Nature and Forest INBO, Belgium)
- Dr. Jan Seys (Flanders Marine Institute VLIZ, Belgium)

#### Note:

Birds spotted at sea are numerous, but only a limited number of them can truly be identified with the marine environment for survival. This list only contains those birds which forage at sea, forage in the intertidal area, rest at sea, depend on the sea during migration and are spotted rather rarely in the Belgian part of the North Sea.

### Used coding:

- 1 = forages at sea
- 2 = forages in the intertidal zone
- 3 = rests at sea
- 4 = rare guest
- 5 = migrates over sea

### Number of species: 75

Actitis hypoleucos (Linnaeus, 1758) (2)

Alca torda Linnaeus, 1758 (1,3,5)

Alle alle (Linnaeus, 1758) (1,3,5)

Arenaria interpres (Linnaeus, 1758) (2)

Aythya marila Linnaeus, 1758 (1)

Branta bernicla Linnaeus, 1758 (2,3,5)

Calidris alba Pallas, 1764 (2)

Calidris alpina Linnaeus, 1758 (2)

Calidris canutus (Linnaeus, 1758) (2)

Calidris ferruginea Pontoppidan, 1763 (2)

Calidris maritima Brunnich, 1764 (2)

Calidris minuta (Leisler, 1812) (2)

Calidris temminckii (Leisler, 1812) (2)

Calonectris diomedea (Scopoli, 1769) (1,4,5)

Catharacta skua Brünnich, 1764 (1,5)

Cepphus grylle (Linnaeus, 1758) (1,3,4)

Charadrius alexandrinus Linnaeus, 1758 (2)

Charadrius hiaticula Linnaeus, 1758 (2)

Chlidonias niger (Linnaeus, 1758) (1,5)

Chroicocephalus ridibundus (Linnaeus, 1766) (1)

Fratercula arctica (Linnaeus, 1758) (1,3,5)

Fulmarus glacialis (Linnaeus, 1761) (1,3,5)

Gavia arctica (Linnaeus, 1758) (1,3,5)

Gavia immer (Brünnich, 1764) (1,3,5)

Gavia stellata (Pontoppidan, 1763) (1,3,5)

Gelochelidon nilotica (Gmelin, 1789) (1,4,5)

Haematopus ostralegus Linnaeus, 1758 (2)

Hydrobates pelagicus (Linnaeus, 1758) (1,5)

Larus argentatus Pontoppidan, 1763 (1,2,3,5)



Larus cachinnans Pallas, 1811 (1,3,5)

Larus canus Linnaeus, 1758 (1,3,5)

Larus delawarensis Ord, 1815 (1,4)

Larus fuscus Linnaeus, 1758 (1,3,5)

Larus hyperboreus Gunnerus, 1767 (1,4)

Larus marinus Linnaeus, 1758 (1,3,5)

Larus melanocephalus Temminck, 1820 (1)

Larus minutus Pallas, 1776 (1)

Larus sabini Sabine, 1819 (1,4)

Limosa lapponica (Linnaeus, 1758) (2)

Melanitta fusca (Linnaeus, 1758) (1,3)

Melanitta nigra (Linnaeus, 1758) (1,3)

Mergus serrator Linnaeus, 1758 (1,4)

Morus bassanus (Linnaeus, 1758) (1,3,5)

Numenius arquata Linnaeus, 1758 (2)

Numenius phaeopus Linnaeus, 1758 (2)

Oceanodroma leucorhoa (Vieillot, 1818) (1,5)

Phalacrocorax aristotelis (Linnaeus, 1761) (1)

Phalacrocorax carbo (Linnaeus, 1758) (1,3)

Phalaropus fulicarius (Linnaeus, 1758) (1)

Phalaropus lobatus (Linnaeus, 1758) (1)

Pluvialis squatarola Linnaeus, 1758 (2)

Podiceps auritus (Linnaeus, 1758) (1,3)

Podiceps cristatus (Linnaeus, 1758) (1,3)

Podiceps grisegena (Boddaert, 1783) (1,3)

Podiceps nigricollis Brehm, 1831 (1,3)

Puffinus gravis (O'Reilly, 1818) (1,4,5)

Puffinus griseus (Gmelin, 1789) (1,4,5)

Puffinus mauretanicus Lowe, 1921 (1,4,5)

Puffinus puffinus (Brünnich, 1764) (1,4,5) Recurvirostra avosetta Linnaeus, 1758 (2)

Rissa tridactyla (Linnaeus, 1758) (1,3,5)

Somateria mollissima (Linnaeus, 1758) (1,2)

Stercorarius longicaudus Vieillot, 1819 (1,5)

Stercorarius parasiticus (Linnaeus, 1758) (1,5)

Stercorarius pomarinus (Temminck, 1815) (1,5)

Sterna albifrons Pallas, 1764 (1,5)

Sterna dougallii Montagu, 1813 (1,4,5)

Sterna hirundo Linnaeus, 1758 (1,3,5)

Sterna paradisaea Pontoppidan, 1763 (1,3,5)

Sterna sandvicensis Latham, 1787 (1,3,5)

Tachybaptus ruficollis (Pallas, 1764) (1,3)

Tringa erythropus (Pallas, 1764) (2)

Tringa nebularia (Gunnerus, 1767) (2)

Tringa totanus (Linnaeus, 1758) (2)

Uria aalge (Pontoppidan, 1763) (1,3)



## **CETACEA - WHALES, DOLPHINS AND PORPOISES**

#### Taxonomic validation:

- William Perrin (National Oceanic and Atmospheric Administration – NOAA, USA)

### Geographic validation:

- Jan Haelters (Management Unit of the North Sea Mathematical Models MUMM, Belgium)
- Ann-Katrien Lescrauwaet (Flanders Marine Institute VLIZ, Belgium)

## Number of species: 18 + 2 probably extinct

#### Permanent: 6

Balaenoptera acutorostrata Lacépède, 1804 Delphinus delphis Linnaeus, 1758 Globicephala melas (Traill, 1809) Lagenorhynchus albirostris (Gray, 1846) Phocoena phocoena (Linnaeus, 1758) Tursiops truncatus (Montagu, 1821)

### Vagrant: 12

Balaenoptera borealis Lesson, 1828
Balaenoptera musculus (Linnaeus, 1758)
Balaenoptera physalus (Linnaeus, 1758)
Delphinapterus leucas (Pallas, 1776)
Grampus griseus (G. Cuvier, 1812)
Hyperoodon ampullatus (Forster, 1770)
Lagenorhynchus acutus (Gray, 1828)
Megaptera novaeangliae (Borowski, 1781)
Mesoplodon bidens (Sowerby, 1804)
Physeter macrocephalus Linnaeus, 1758
Stenella coeruleoalba (Meyen, 1833)
Ziphius cavirostris Cuvier, 1823

## (Probably) extinct in Belgian marine waters: 2

Eubalaena glacialis (Müller, 1776) Orcinus orca (Linnaeus, 1758)

### **CARNIVORA - CARNIVORES**

## Taxonomic validation:

- Morgan Churchill (University of Wyoming, USA)
- Prof. Annalisa Berta (San Diego State University, Department of Biology, USA)

## Geographic validation:

- Jan Haelters (Management Unit of the North Sea Mathematical Models - MUMM, Belgium)



## Number of species: 7

#### Permanent: 2

Halichoerus grypus (Fabricius, 1791) Phoca vitulina Linnaeus, 1758

### Vagrant: 5

Cystophora cristata (Erxleben, 1777) Erignathus barbatus (Erxleben, 1777) Odobenus rosmarus (Linnaeus, 1758) Pagophilus groenlandicus (Erxleben, 1777) Pusa hispida Schreber, 1775

#### **RHODOPHYTA - RED ALGAE**

#### Taxonomic validation:

 Prof. Michael Guiry (National University of Ireland, Martin Ryan Marine Science Institute -NUIG-MRI, Ireland)

## Geographic validation:

- Dr. Olivier De Clerck (University of Ghent, Phycology (Algology) Section, Belgium)
- Klaas Pauly (University of Ghent, Phycology (Algology) Section, Belgium)

### Number of species: 45, of which 4 are non-indigenous (\*)

Acrochaetium savianum (Meneghini) Nägeli, 1862

Acrochaetium secundatum (Lyngbye) Nägeli, 1862

Aglaothamnion hookeri (Dillwyn) Maggs & Hommersand, 1993

Aglaothamnion roseum (Roth) Maggs & L'Hardy-Halos, 1993

Antithamnionella spirographidis (Schiffner) E.M.Wollaston, 1968 (\*)

Antithamnionella ternifolia (J.D.Hooker & Harvey) Lyle, 1922 (\*)

Bangiadulcis atropurpurea (Roth) W.A. Nelson, 2007

Catenella caespitosa (Withering) L.M.Irvine, 1976

Ceramium botryocarpum A.W.Griffiths ex Harvey, 1848

Ceramium cimbricum H.E. Petersen, 1924

Ceramium deslongchampsii Chauvin ex Duby, 1830

Ceramium diaphanum (Lightfoot) Roth, 1806

Ceramium gaditanum (Clemente) Cremades, 1990

Ceramium shuttleworthianum (Kützing) Rabenhorst, 1846

Ceramium siliquosum (Kützing) Maggs & Hommersand, 1993

Ceramium virgatum Roth, 1797

Chondrus crispus Stackhouse, 1797

Corallina officinalis Linnaeus, 1758

Cystoclonium purpureum (Hudson) Batters, 1902

Gelidium pusillum (Stackhouse) Le Jolis, 1863

Gelidium pusillum var. pulvinatum (C. Agardh) Feldmann, 1936

Haliptilon virgatum (Zanardini) Garbary & Johansen



Jania rubens (Linnaeus) J.V. Lamouroux, 1812

Jania rubens var. cristata (Linnaeus) J.V. Lamouroux

Lithophyllum pustulatum (J.V. Lamouroux) Foslie, 1904

Lomentaria articulata (Hudson) Lyngbye, 1819

Mastocarpus stellatus (Stackhouse) Guiry, 1984

Neosiphonia harveyi (Bailey) Kim, Choi, Guiry & Saunders, 2001 (\*)

Palmaria palmata (Linnaeus) Kuntze, 1891

Phyllophora pseudoceranoides (S.G.Gmelin) Newroth & A.R.A.Taylor, 1971

Phymatolithon lenormandii (J.E.Areschoug) W.H.Adey, 1966

Plocamium cartilagineum (Linnaeus) P.S.Dixon, 1967

Polysiphonia fucoides (Hudson) Greville, 1824

Polysiphonia morrowii Harvey, 1857

Polysiphonia nigra (Hudson) Batters, 1902

Polysiphonia senticulosa Harvey, 1862 (\*)

Polysiphonia stricta (Dillwyn) Greville, 1824

Porphyra dioica J.Brodie & L.M.Irvine, 1997

Porphyra leucosticta Thuret, 1863

Porphyra linearis Greville, 1830

Porphyra purpurea (Roth) C. Agardh, 1824

Porphyra umbilicalis (Linnaeus) Kützing, 1843

Pterothamnion plumula (J.Ellis) Nägeli, 1855

Rhodothamniella floridula (Dillwyn) Feldmann, 1978

Vertebrata lanosa (Linnaeus) T.A. Christensen, 1967

### **CHLOROPHYTA - GREEN ALGAE**

## Taxonomic validation:

 Prof. Michael Guiry (National University of Ireland, Martin Ryan Marine Science Institute -NUIG-MRI, Ireland)

## Geographic validation:

- Dr. Olivier De Clerck (University of Ghent, Phycology (Algology) Section, Belgium)
- Klaas Pauly (University of Ghent, Phycology (Algology) Section, Belgium)

## Number of species: 46, of which 1 is non-indigenous (\*)

Aphanochaete repens A.Braun, 1850

Blidingia marginata (J. Agardh) P.J.L.Dangeard ex Bliding, 1958

Blidingia minima (Nägeli ex Kützing) Kylin, 1947

Blidingia ramifera (Bliding) Garbary & Barkhouse, 1987

Blidingia subsalsa (Kjellman) Kornmann & Sahling

Bryopsis hypnoides J.V. Lamouroux, 1809

Bryopsis plumosa (Hudson) C. Agardh, 1823

Capsosiphon fulvescens (C. Agardh) Setchell & N.L.Gardner, 1920

Chaetomorpha aerea (Dillwyn) Kützing, 1849

Chaetomorpha melagonium (F.Weber & D.Mohr) Kützing, 1845

Cladophora albida (Nees) Kützing, 1843

Cladophora dalmatica Kützing, 1843



Cladophora hutchinsiae (Dillwyn) Kützing, 1845

Cladophora laetevirens (Dillwyn) Kützing, 1843

Cladophora rupestris (Linnaeus) Kützing, 1843

Cladophora sericea (Hudson) Kützing, 1843

Codium fragile fragile (Suringar) Hariot, 1889 (\*)

Gayralia oxysperma (Kutzing) Vinogradova ex Scagel et al., 1969

Monostroma grevillei (Thuret) Wittrock, 1866

Percursaria percursa (C. Agardh) Rosenvinge, 1893

Prasiola stipitata Suhr ex Jessen, 1848

Rhizoclonium riparium (Roth) Kützing ex Harvey, 1849

Rhizoclonium tortuosum (Dillwyn) Kützing, 1845

Ulothrix flacca (Dillwyn) Thuret, 1863

Ulothrix palusalsa Lokhorst, 1978

Ulothrix speciosa (Carmichael) Kützing, 1849

Ulothrix subflaccida Wille, 1901

Ulothrix zonata (F.Weber & D.Mohr) Kützing, 1833

Ulva clathrata (Roth) C. Agardh, 1811

Ulva compressa Linnaeus, 1753

Ulva curvata (Kützing) De Toni, 1889

Ulva flexuosa Wulfen, 1803

Ulva intestinalis Linnaeus, 1753

Ulva kylinii (Bliding) Hayden, Blomster, Maggs, P.C. Silva, M.J. Stanhope & J.R. Waaland, 2003

Ulva lactuca Linnaeus, 1753

Ulva linza Linnaeus, 1753

Ulva prolifera O.F. Müller, 1778

Ulva pseudocurvata Koeman & van den Hoek, 1981

Ulva pseudolinza (R.P.T. Koeman & Hoek) Hayden, Blomster, Maggs, P.C. Silva, M.J. Stanhope & J.R. Waaland, 2003

*Ulva radiata* (J. Agardh) Hayden, Blomster, Maggs, P.C. Silva, M.J. Stanhope & J.R. Waaland, 2003 *Ulva ralfsii* (Harvey) Le Jolis, 1863

Ulva rigida C. Agardh, 1823

*Ulva simplex* (K.L. Vinogradova) Hayden, Blomster, Maggs, P.C. Silva, M.J. Stanhope & J.R. Waaland, 2003

Ulva torta (Mertens) Trevisan, 1841

Urospora neglecta (Kornmann) Lokhorst & Trask, 1981

Urospora penicilliformis (Roth) Areschoug, 1874

## PHAEOPHYCEAE - BROWN ALGAE

#### Taxonomic validation:

 Prof. Michael Guiry (National University of Ireland, Martin Ryan Marine Science Institute -NUIG-MRI, Ireland)

## Geographic validation:

- Dr. Olivier De Clerck (University of Ghent, Phycology (Algology) Section, Belgium)
- Klaas Pauly (University of Ghent, Phycology (Algology) Section, Belgium)



## Number of species: 25

### Permanent: 21, of which 2 are non-indigenous (\*)

Ascophyllum nodosum (Linnaeus) Le Jolis, 1863

Ectocarpus confervoides f. confervoides (Roth) Le Jolis, 1863

Ectocarpus fasciculatus Harvey, 1841

Ectocarpus siliculosus (Dillwyn) Lyngbye, 1819

Elachista fucicola (Velley) Areschoug, 1842

Elachista stellaris Areschoug, 1842

Fucus serratus Linnaeus, 1753

Fucus spiralis Linnaeus, 1753

Fucus vesiculosus Linnaeus, 1753

Himanthalia elongata (Linnaeus) S.F. Gray, 1821

Hincksia ovata (Kjellman) P.C.Silva, 1987

Hincksia secunda (Kützing) P.C.Silva, 1987

Petalonia fascia (O.F.Müller) Kuntze, 1898

Pilayella littoralis (Linnaeus) Kjellman, 1872

Punctaria latifolia Greville, 1830

Pylaiella littoralis (Linnaeus) Kjellman, 1872

Sargassum (Bactrophycus) muticum (Yendo) Fensholt, 1955 (\*)

Scytosiphon Iomentaria (Lyngbye) Link, 1833

Sphacelaria plumigera Holmes, 1883

Spongonema tomentosum (Hudson) Kützing, 1849

Undaria pinnatifida (Harvey) Suringar, 1872 (\*)

### Drift: 4

Chorda filum (Linnaeus) Stackhouse, 1797

Halidrys siliquosa (Linnaeus) Lyngbye, 1819

Laminaria digitata (Hudson) J.V. Lamouroux, 1813

Saccharina latissima (Linnaeus) C.E. Lane, C. Mayes, Druehl & G.W. Saunders, 2006

## **FUNGI**

# Ascomycota - sac fungi

## Taxonomic validation:

- Dr. Paul Kirk (CABI, UK)

# Geographic validation:

Based on: Diederich, P., D. Ertz, N. Stapper, E. Sérusiaux, D. Van den Broeck, P. van den Boom &

C. Ries, 2010. The lichens and lichenicolous fungi of Belgium, Luxembourg and northern

France. URL: <a href="http://www.lichenology.info">http://www.lichenology.info</a> [18.08.2010].

## Number of species: 3

Tephromela atra var. atra (Huds.) Hafellner, 1983 Verrucaria maura Wahlenberg, 1803 Xanthoria parietina (L.) Beltr., 1858



### **MAGNOLIOPHYTA - FLOWERING PLANTS**

#### Geographic validation:

- Dr. Sam Provoost (Research Institute for Nature and Forest – INBO, Belgium)

## Number of species: 12

Atriplex glabriuscula Edmondst.

Atriplex laciniata Linnaeus

Atriplex littoralis Linnaeus

Beta vulgaris Linnaeus

Cakile maritima Scop.

Crambe maritima Linnaeus

Crithmum maritimum Linnaeus

Elymus farctus boreali-atlanticus (Simonet & Guin.) Melderis

Honckenya peploides (L.) Ehrh., 1783

Lathyrus japonicus maritimus (L.) P.W. Ball

Polygonum oxyspermum C.A. Mey. et Bunge ex Ledeb.

Salsola kali kali Linnaeus

# Species groups not documented in Belgian part of the North Sea

For a number of taxonomic groups, no species were documented (sofar) in the Belgian part of the North Sea. Known shortcomings and additions can be communicated with VLIZ, so the list can be updated (leen.vandepitte@vliz.be or wim.decock@vliz.be).

For the following groups, literature was searched without results:

- Acanthocephala

- Acarina

Anaspidacea

- Bathynellacea

- Branchiura

- Cephalocarida

Gnathostomulida

- Hemichordata

- Mesozoa

- Mystacocarida

Nematomorpha

- Pentastomida

- Placozoa

- Priapulida

- Remipedia

- Staurozoa

- Stomatopoda

- Tantulocarida

- Tardigrada

- Thermosbanaceae



# **VLIZ Belgian Marine Species Consortium**

Overview of all institutes and persons who contributed to the compilation and geographical validation of the Belgian Register of Marine Species (BeRMS).

- Vlaams Instituut voor de Zee (VLIZ)
  - Vandepitte, Leen
  - o Decock, Wim
  - o Hernandez, Francisco
  - Appeltans, Ward
  - Vanhoorne, Bart
  - Cattrijsse, André
  - Lescrauwaet, Ann-Katrien
  - o Seys, Jan
  - o Mees, Jan
  - Scholaert, Annelies
  - o Bouchti, Zohra
  - o Dewitte, Elien
  - Deneudt, Klaas
  - Goffin, Annelies
- Vlaamse Overheid; Beleidsdomein Landbouw en Visserij; Instituut voor Landbouw- en Visserijonderzoek; Kenniseenheid: Dier; Onderzoeksdomein Visserij (ILVO)
  - Hostens, Kristian (Kris)
  - Wittoeck, Jan
  - Van Ginderdeuren, Karl
  - De Backer, Annelies
  - Van Hoey, Gert
  - o Hillewaert, Hans
  - o Delbare, Daan
- De Strandwerkgroep België (SWG)
  - De Blauwe, Hans
  - Dumoulin, Emmanuel
- Universiteit Gent; Faculteit Wetenschappen; Vakgroep Biologie; Afdeling Mariene Biologie (MarBiol)
  - Vanaverbeke, Jan
- Koninklijk Belgisch Instituut voor Natuurwetenschappen; Departement Beheer van het Mariene Ecosysteem; Beheerseenheid Mathematisch Model Noordzee en Schelde-estuarium (BMM – MUMM)
  - Kerckhof, Francis
  - Haelters, Jan
  - o Degraer, Steven



- Instituut voor Natuur- en Bosonderzoek (INBO)
  - o Stienen, Eric
  - o Soors, Jan
  - Provoost, Sam
  - o Speybroeck, Jeroen
- Koninklijk Belgisch Instituut voor Natuurwetenschappen (KBIN)
  - Segers, Hendrik
  - o Wouters, Karel
  - o d'Udekem d'Acoz, Cédric
  - Massin, Claude
- Universiteit Gent; Faculteit Wetenschappen; Vakgroep Biochemie, Fysiologie en Microbiologie; Laboratorium voor Microbiologie
  - o Willems, Anne
- Universiteit Gent; Faculteit Wetenschappen; Vakgroep Biologie; Afdeling Protistologie en aquatische ecologie (PAE)
  - o Sabbe, Koen
- Universiteit Gent; Faculteit Wetenschappen; Vakgroep Biologie; Afdeling Algologie (Phycology)
  - o De Clerck, Olivier
  - o Pauly, Klaas
- Universiteit Gent; Afdeling Nematologie
  - o Boone, Mieke
- Universiteit Hasselt; Departement Scheikunde, Biologie, Geologie
  - o Artois, Tom
- Ghent University; Faculty of Bioscience Engineering; Department of Applied ecology and environmental biology; Laboratory of Environmental Toxicology and Aquatic Ecology; Environmental toxicology research group (ECOTOX)
  - o Lock, Koen
- National Museum of Natural History Naturalis
  - Gittenberger, Arjan
- Universiteit van Amsterdam
  - o van Soest, Rob
- British Myriapod and Isopod Group
  - o Barber, Anthony



- Museum für naturkunde; Institute of systematic zoology
  - o Neuhaus, Birger
- Natural History Museum; Department of Zoology
  - o Warren, Alan
- Senckenbergische Naturforschende Gesellschaft; Senckenberg Naturmuseen und Forschungsinstitute
  - o Bartsch, Ilse