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## 6.1 Bay of Biscay and the Iberian Coast Ecoregion – Ecosystem overview

### Ecoregion description

The ICES Bay of Biscay and the Iberian Coast ecoregion covers the southwestern shelf seas and adjacent deeper eastern Atlantic Ocean waters of the EU. The ecoregion includes waters from Brittany to the Gulf of Cadiz; four key areas constitute the ecoregion:

- the Bay of Biscay, characterized by a wide shelf extending west of France. Upwelling events occur in summer off southern Brittany and low-salinity water lenses are associated with the river outflows of the Landes coastline;
- the northern Iberian Shelf, characterized by a narrow shelf with summer upwelling events off Galicia;
- the western Iberian Shelf, characterized by a narrow shelf west of Portugal with summer upwelling events;
- the Gulf of Cadiz, characterized by a wider shelf strongly influenced by river inputs, strong zonal currents, wind patterns, and Mediterranean water inflow.

The ecoregion includes parts of three Exclusive Economic Zones (EEZs) of EU Member States and a small portion of high seas. Fisheries in the Bay of Biscay and the Iberian Coast are managed under the Common Fisheries Policy (CFP), with some fisheries managed by the North East Atlantic Fisheries Commission (NEAFC) and by coastal states. Responsibility for salmon fishery management lies with the North Atlantic Salmon Conservation Organization (NASCO) and for large pelagic fish with the International Commission for the Conservation of Atlantic Tunas (ICCAT). Fisheries advice is provided by the International Council for the Exploration of the Sea (ICES), the European Commission’s Scientific Technical and Economic Committee for Fisheries (STECF), and the South West Waters Advisory Council (SWWAC). Environmental policy is managed by national agencies and OSPAR, with advice being provided by national agencies, OSPAR, the European Environment Agency (EEA), and ICES. International shipping is managed under the International Maritime Organization (IMO).

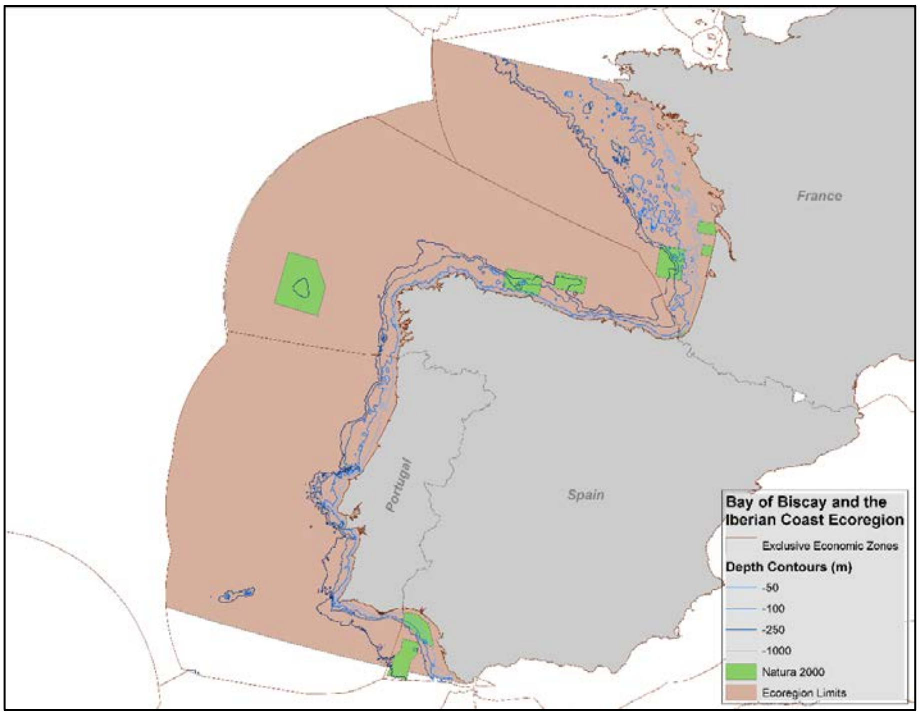


**Figure 1** The Bay of Biscay and the Iberian Coast ecoregion, showing EEZs and larger offshore Natura 2000 sites.

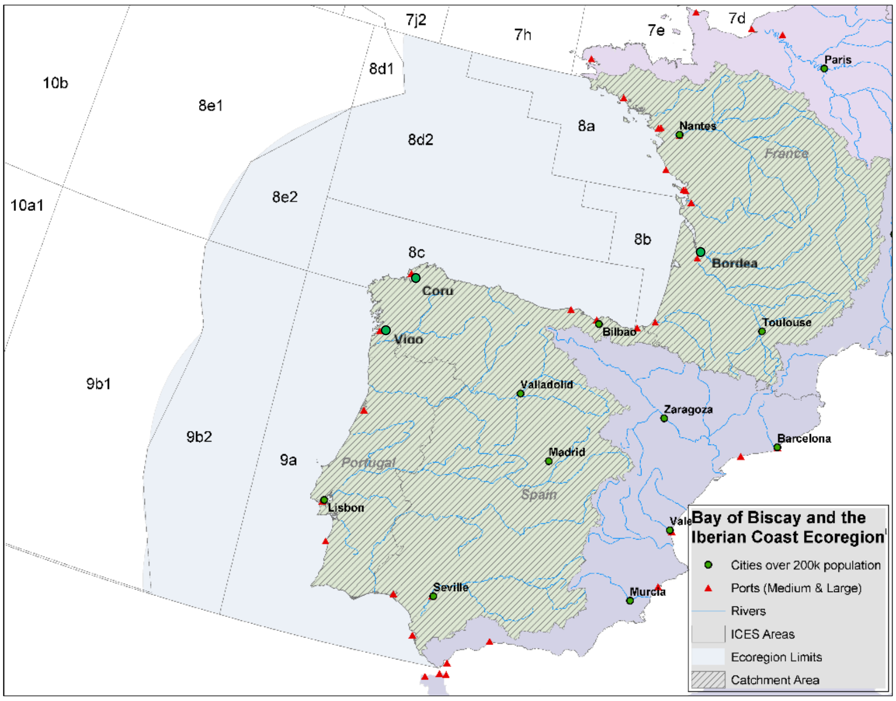


**Figure 2** Catchment area for the Bay of Biscay and the Iberian Coast ecoregion, showing major cities, ports, and ICES areas.

## Key signals within the environment and the ecosystem

This ecoregion is characterized by marked seasonal mixing and stratification of water mases typical of temperate areas. This general pattern is modified over the shelf by wind-driven upwelling, river outflow and tidal related processes increasing the productivity of the system with large variation across the region.

- Large-scale meteorological pressure differences over the North Atlantic can cause speed and direction anomalies of the wind during winter upwelling events, which can influence the recruitment of commercially important species such as anchovy *Engraulis encrasicolus*, sardine *Sardina pilchardus*, southern hake *Merluccius merluccius*, Norway lobster *Nephrops norvegicus*, and horse mackerel *Trachurus trachurus.*
- The spawning-stock biomass (SSB) in this ecoregion is above reference points ($B_{trigger}$) particularly for the demersal stocks.
- Fishing effort has been reduced in the Bay of Biscay and Iberian coast since the 2002 CFP reforms. Benthic and *nephrops* stocks are now fished at or below maximum sustainable yield (MSY) fishing mortality targets ($F_{MSY}$).

## Pressures

The five most important pressures in the Bay of Biscay and Iberian Coast ecoregion are the selective extraction of species, abrasion, smothering, substrate loss, and nutrient and organic enrichment. These pressures are linked mainly to the following human activities: fishing, aquaculture, coastal construction, land-based industry, maritime transport, agriculture, dredging, and offshore structures (Figure 3). Other pressures include the introduction of contaminating compounds, introduction of non-indigenous species, and underwater sound. The pressures are described in the ICES glossary of pressures.

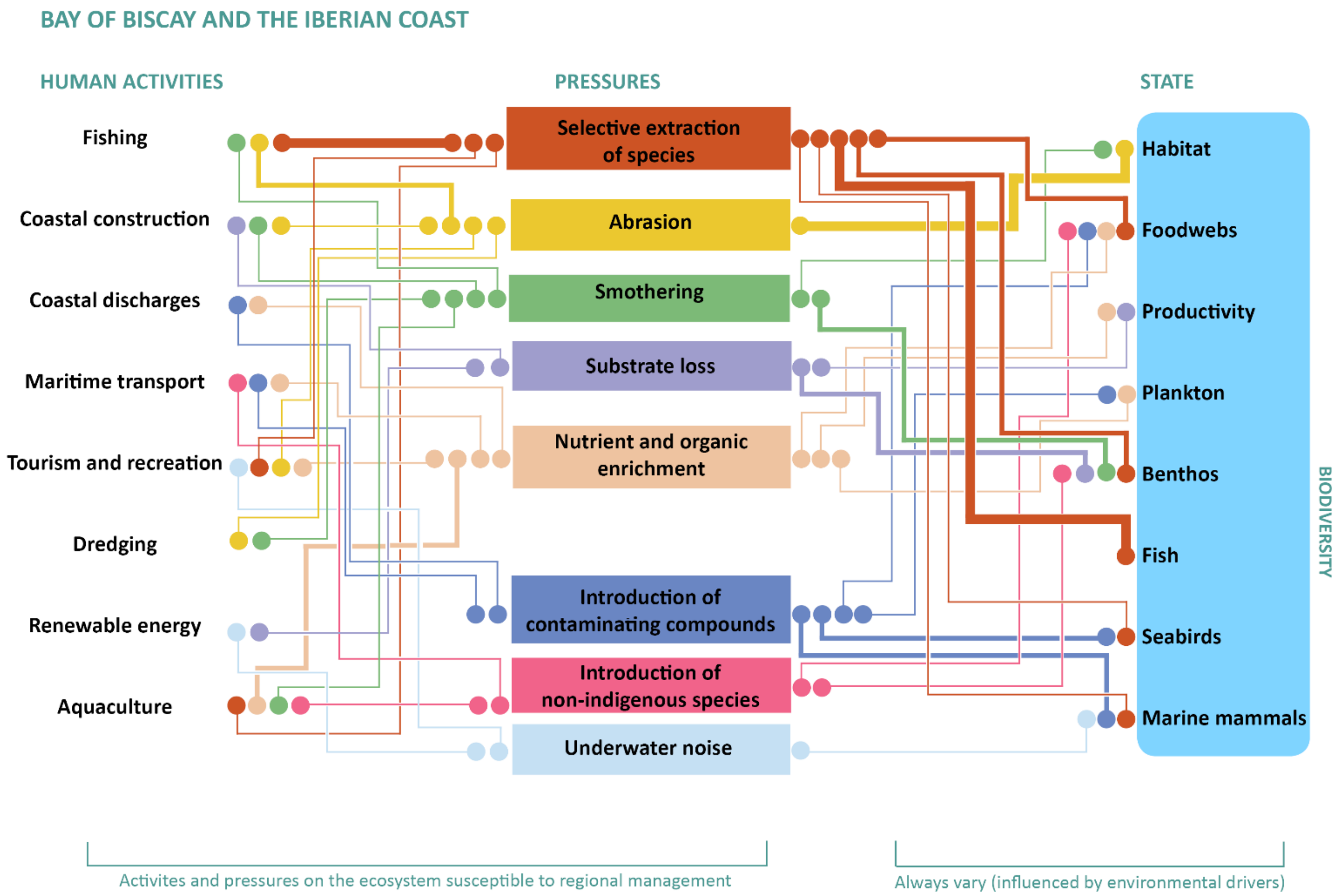


**Figure 3** Bay of Biscay and Iberian Coast ecoregion overview with the major regional pressures, human activities, and state of the ecosystem components. The width of lines indicates the relative importance of main individual links (the scaled strength of pressures should be understood as a relevant strength between the human activities listed, not as an assessment of the actual pressure on the ecosystem). Climate change affects human activities, the intensity of the pressures, and some aspects of state, as well as the links between these.

## Selective extraction of species

Fishing is the main activity contributing to this pressure in the Bay of Biscay and the Iberian Coast ecoregion. Both demersal and pelagic commercial fisheries occur in most parts of the ecoregion. Recreational fishery is becoming a relatively important activity and is in some cases taken into consideration for the management of marine fisheries. Tourism is also linked to aquatic and marine activities that contribute to the increase of this pressure in coastal areas. This pressure has four main effects on the ecosystem and its components, described below.

*Impacts on commercial stocks*

Figure 4 shows the historical evolution of fishing mortality and spawning-stock biomass relative to reference points by fish guild in the Bay of Biscay and the Iberian Coast ecoregion. A general decrease of fishing effort in the region (in many cases through reduction of the fleet) has contributed to an overall decline in the fishing mortality (F) of commercial fish stocks since 1988. The mean F is now closer to the level that produces maximum sustainable yield (MSY); as a consequence an increase in the mean spawning-stock biomass has been observed since 2002.

Stocks of small pelagics like sardine and anchovy are highly influenced by natural recruitment variability and are therefore prone to periodic collapses linked to oceanographic variability. These stocks are closely monitored and regulated by strict management.

The conservation (sustainability) status of cephalopod populations varies depending on the particular subregion with declining catch per unit effort (CPUE) of octopus species in Galicia and long-finned squid *Loligo forbesi* off western Portugal, and increasing CPUE of octopus species in western Portugal and squid species in the southern Bay of Biscay.

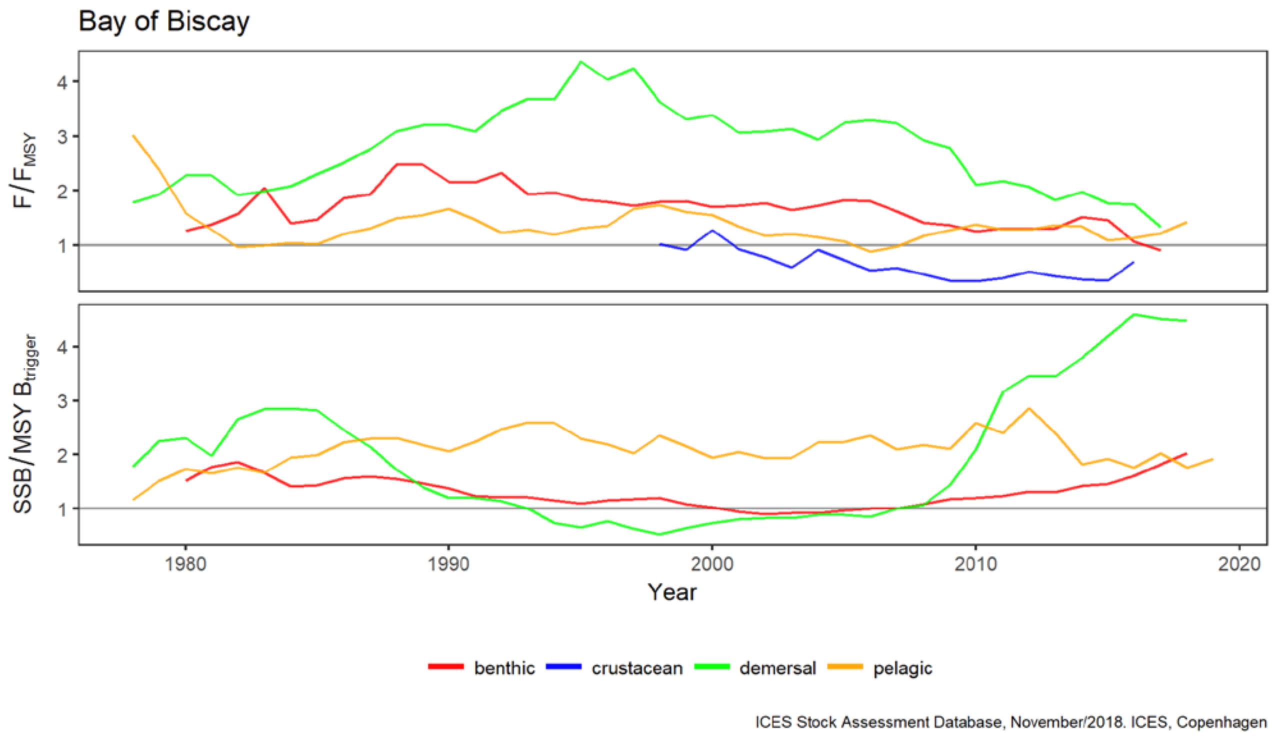


**Figure 4** Time-series of average of relative fishing mortality (F to $F_{MSY}$ ratio) and biomass (SSB to $B_{MSY}$ trigger ratio) by fisheries guild for benthic, demersal, crustaceans, and pelagic stocks (see Annex A).

*Impact on threatened and declining fish species*

Stocks of several fish species have been adversely affected by fishing and are now on the OSPAR list of threatened and declining species (see full list below). These include the sturgeon *Acipenser sturi*, European eel *Anguilla anguilla*, gulper shark *Centrophorus granulosus*, skates and rays like *Dipturus batis*, *Raja montagui*, and *Rostroraja alba*, spurdog *Squalus acanthias*, and salmon *Salmo salar*. Although there are no TACs for these species and some are prohibited to be landed under EU law, several species are vulnerable to existing fisheries. The Common skate, and less often spurdogs, are caught as bycatch in demersal trawl fisheries while deepwater sharks are caught in the mixed deep-water trawl fishery.

*Impacts on foodwebs*

Fishing can disturb the foodweb. Predator–prey relationships can change, depending on the species and on the amount of food (prey) that is available for a given predator. Poor management of fishing for one species could have an adverse effect on the whole foodweb. Multispecies assessment methods can account for some of these interactions and guide appropriate management measures.

Indicators like the large fish indicator (LFI) index (describing the proportion – by weight – of the demersal fish community on survey catch larger than regional length thresholds) can be used to monitor changes in the fish populations. In the Bay of Biscay, the LFI index has shown a positive temporal trend since the year 2000 (Figure 5).

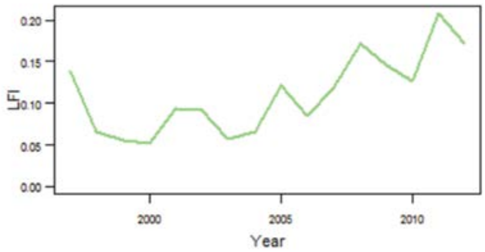


**Figure 5** Time-series of the large fish indicator (LFI) in the Bay of Biscay (ICES, 2013a).

There is no trend in the LFI in Portuguese waters. The index shows high interannual variability (Figure 6).

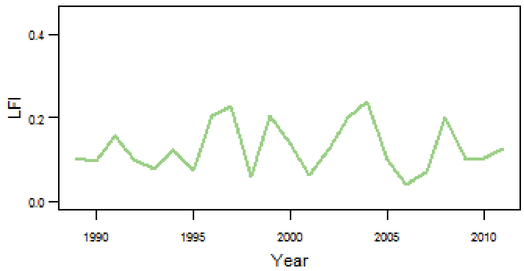


**Figure 6** Time-series of the large fish indicator (LFI) in Portuguese waters (ICES, 2013a).

*Impacts on seabirds and marine mammals*

Observation of marine mammal bycatch has occurred in certain fisheries off France and in a few off Galicia. Harbour porpoises *Phocoena phocoena* are being caught as bycatch off Iberia in set nets to the extent that the local population of the species may become extinct. Set net fisheries and pelagic trawls, particularly those for seabass *Dicentrarchus labrax*, have caught common dolphins *Delphis delphinus* and striped dolphins *Stenella coeruleoalba*. Seabird bycatch seems likely to be part of the reason for the loss of the Iberian form of the common guillemot *Uria aalge* and some other seabird species.

**Abrasion**

This pressure principally affects the seabed habitats and is associated with bottom-contacting mobile gear, in particular beam trawling, otter trawling, and local activities linked to tourism such as anchoring. The physical disturbance of benthic habitats by bottom trawl fishing gear is described by using vessel monitoring system (VMS) and logbook data. The extent, magnitude, and impact of mobile bottom-contacting fishing gear on the seabed and benthic habitats varies geographically across the Bay of Biscay and Iberian Coast ecoregion. Fishing is mainly concentrated along the shelf edge, largely in the Bay of Biscay and off the western Iberian coast (Figure 7 – note that the figure excludes Spanish fishing effort).

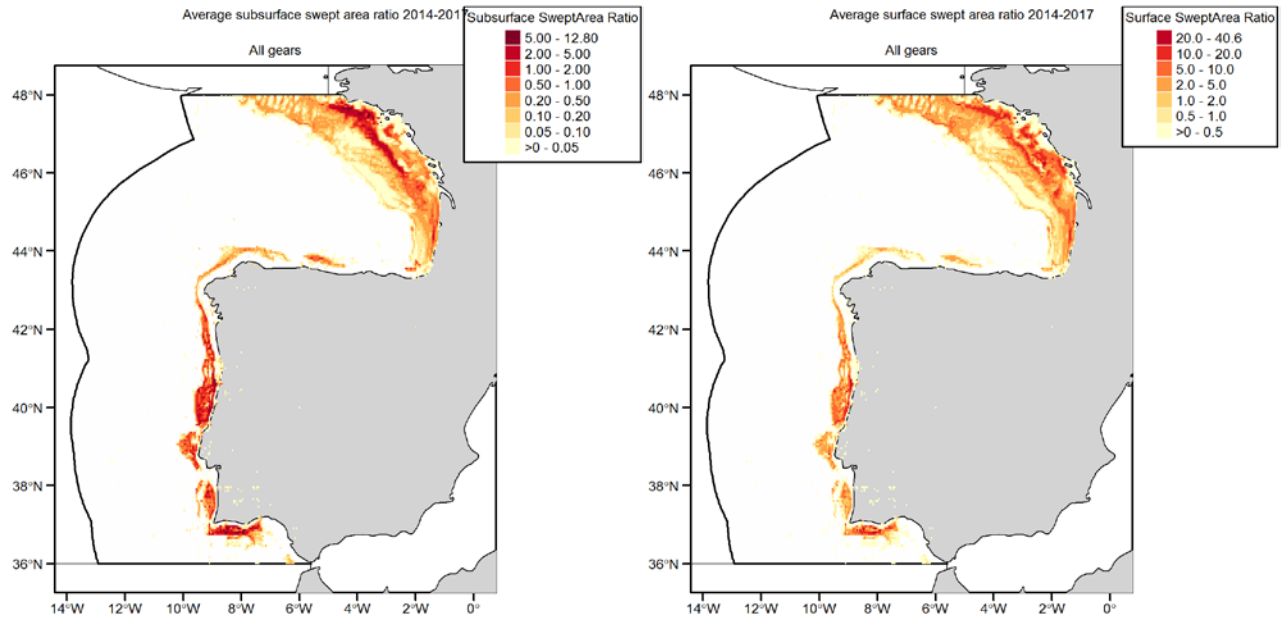


**Figure 7** Average annual subsurface (left) and surface (right) disturbance by mobile bottom-contacting fishing gear (bottom otter trawls, bottom seines, dredges, and beam trawls) in the Bay of Biscay and the Iberian Coast ecoregion during 2014–2017, expressed as average swept area ratios (SAR) .The figure excludes Spanish fishing effort.

**Smothering**

Smothering is caused by several human activities in this ecoregion: extraction of aggregates (sand and gravel), disposal of materials on the seafloor, and navigational dredging for shipping as well as bottom trawling in soft sediment areas. The main dredging sites are found in France in the harbours and estuaries of the Loire (Nantes), Gironde (Bordeaux), and Adour (Bayonne), and in Spain (Avilés, Vilagarcía, and Huelva). This pressure affects both the benthic community structure and its productivity.

**Substrate loss**

Activities such as coastal construction, renewable energy devices, aquaculture, and fishing, all contribute to either sealing or changing natural substrates in this area.

Marine and coastal habitats have been lost in recent decades to land claim for port, industry, residential development and agriculture, coastal defences (including dykes, seawalls, and beach nourishment schemes), aquaculture infrastructure, shipping channels, roads, piers, marinas, and waste water treatment facilities.

**Nutrient and organic enrichment**

The input of nutrients is a relatively important pressure in coastal areas, particularly off areas of intensive agriculture and certain industries. Rivers account for most waterborne inputs of nitrogen and phosphorous. There is no clear trend in nitrate inputs in this region, in contrast to the decreasing trends in other EU waters. Maritime transport, international shipping, and aquaculture also contribute to this pressure.

Tourism and recreation along the coast is increasing in many parts of the ecoregion and seasonal management of the extra waste water produced is necessary. Eutrophication is mainly limited to coastal areas such as bays and estuaries with restricted circulation. Along the French coast, elevated levels of chlorophyll, nuisance phytoplankton species, and algal toxins have been observed.

This pressure produces effects on the plankton community and on the overall productivity of the system.

**Other pressures**

Other relevant pressures in this ecoregion are:

- **Underwater noise**, caused by activities such as shipping, tourism and recreation, and renewable energy installations, which may affect marine mammals, fish, and other organisms using sound or pressure senses.
- **Introduction of non-indigenous species** happens primarily through shipping and aquaculture and may affect the benthic community and foodwebs.
- **Introduction of contaminating compounds,** due primarily to coastal discharges and maritime transport (shipping). This pressure can affect all ecosystem components but may accumulate in the foodweb, having an effect in particular on higher trophic levels (mammals and birds). Some of these compounds may be very stable and remain in the ecosystem for many decades after their introduction.
- **Microplastics and plastic waste**

## Climate change effects

Climate change has already influenced the Bay of Biscay and Iberian Coast ecoregion. Studies have shown that sea surface temperatures have increased. The ecoregion is strongly influenced by upwelling events, which are in turn influenced by wind direction. Off northern Iberia, upwelling intensifies during northerly winds. The winters of recent years have had more northerlies, coupled with strong upwelling events. Furthermore, it has been demonstrated that winter northerly wind regime shifts have occurred since 2005 in western Iberia.

Upwelling intensity and river outflow off Galicia have been seen to affect the degree of synchrony (and stability) of the zooplankton community, which in turn is likely to impact upper trophic levels.

The timing of the mackerel fishery has changed, showing an earlier peak of landings in the Cantabrian Sea. This could reflect a change in the timing of migration in response to climate change effects on upwelling patterns.

An increase in the richness of the demersal fish community, together with a western shift in the distribution of many species has been reported in the Cantabrian Sea and Galicia over the last three decades, along with a northwards distributional change of species previously distributed further south. New occurrences and distributional changes of fish in the Bay of Biscay are attributed to increasing temperatures. Examples include changes in the nursery areas of some flatfish and the increased occurrence of deep-water species previously found further south.

Fish recruitment was reduced by the occurrence of winter northerly winds over the western coast of Portugal at the time of fish spawning. Sea surface temperature, wind regimes, and river discharges have been identified as factors influencing anchovy early life stages at sea. However, no evidence of the effects of warming have been detected during investigations at one of the essential habitats (nursery) of anchovy in the Gulf of Cadiz.

Sea warming, acidification, and eutrophication have been seen to positively affect the palatability of seagrass in the Gulf of Cadiz, triggering an increase in grazing by sea urchins, which may, in turn, have implications for habitat and trophic regulation changes in coastal areas, with potential consequences for artisanal and recreational fisheries.

Climate change-induced changes in temperature and salinity have affected the biological communities of the Gironde estuary and modified its nursery function for marine juvenile fish and potentially migration routes for diadromous species.

At the global level, current greenhouse gas emissions are most closely following the IPCC Regional Concentration Pathway (RCP) 8.5 scenario. Within the Bay of Biscay and Iberian Coast ecoregion, this scenario projects a 1.5°C to 3.0°C warming above mean conditions for the years 2050–2099. Positive anomalies are forecasted everywhere in the region, and are most pronounced in the shelf areas (Figure 8).

 

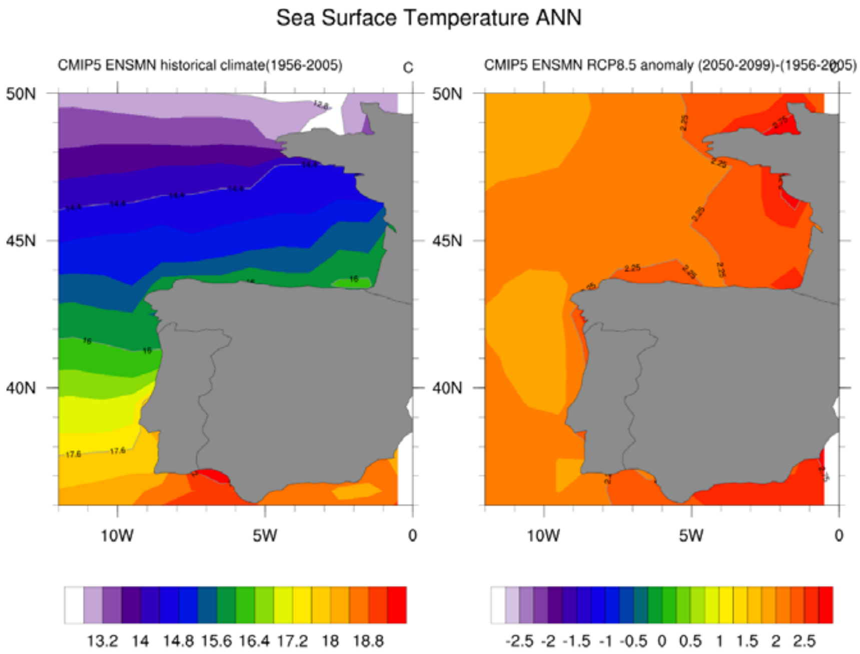


**Figure 8** Ensemble mean sea surface temperature (SST) from the 5th Coupled Model Intercomparison Project (CMIP5), interpolated on a 1×1 grid for the entire year in the Bay of Biscay and Iberian Coast ecoregion. (Left) Historical SST for the period 1956–2005. (Right) Difference in the mean climate in the future time period (RCP8.5: 2050–2099) compared to the historical reference period.

## State of the ecosystem

### Substrate and water masses

The substrate of the shelf of the Bay of Biscay and the Iberian Coast ecoregion is dominated sand and muddy-sand areas, with a large mud area in the Gulf of Cadiz (Figure 9).

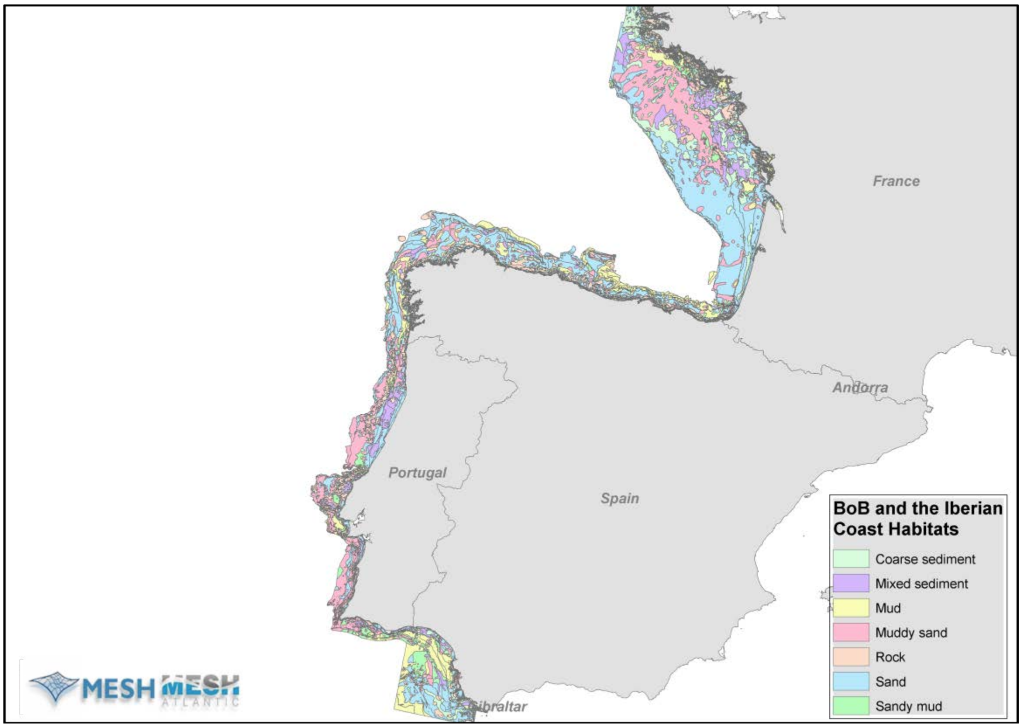


**Figure 9** Major substrates on the shelf of the Bay of Biscay and Iberian coast (as compiled by EMODNET seabed habitats; www.emodnet-seabedhabitats.eu).

Pelagic habitats are dominated by the mixture of Mediterranean waters in the south and the influence of Atlantic waters in Portuguese, northern Spanish, and French waters. River run-off, particularly along the French coast, also influences the pelagic habitat.

**Productivity**

The most important features enhancing primary production and phytoplankton biomass are coastal upwelling, coastal run-off and river plumes, seasonal currents, and internal waves and tidal fronts. Concentrations of toxic dinoflagellates exhibit interannual variations determined mainly by changes in the upwelling regime, river run-off, inoculum size, and other environmental parameters.

Abundance of autotrophic picoplankton in the mid-shelf of the central part of the north Iberian coast do not show a significant long-term trend, but heterotrophic picoplankton show a significant long-term increase that has been associated to warming of the sea surface in this area. The zooplankton in the Bay of Biscay and Iberian Coast ecoregion do not show significant long-term changes.

**Zooplankton**

The most abundant zooplankton species are *Acartia* spp. and *Calanus helgolandicus*. Crab larvae are also important during winter months along the Portuguese coast. In recent years warmer copepod species have appeared or increased in abundance (e.g. *Temora stylifera*) related to SST increases. The seasonal cycle of zooplankton biomass is characterized by a bimodal pattern in the western Iberian coast, with peak biomass in April and August. Copepod abundance remains high throughout the season, with highest abundance from August through November. The observed bimodal pattern is caused by the seasonal upwelling in the area. For the whole area interannual variation of zooplankton abundance and biomass did not show clear trends except for Galicia. There are differences in the structure of the zooplankton community between Galician waters and the Cantabrian Sea.

**Cephalopods**

Within this ecoregion the topographic diversity and the wide range of substrates result in many different habitats for cephalopods. In this region, the most abundant and commercially exploited species are Loliginidae (long-finned squid) and Sepiidae (cuttlefish). Abundance of Ommastrephidae (short-finned squid) increases westwards towards Galicia, and decreases to the south of the Iberian coast. Octopodidae are abundant and heavily exploited along the Iberian coast by a large artisanal fleet, with concomitant social relevance. There are indications of a decline in octopus biomass index in Galicia and an increase off western Portugal. Stocks of both long-finned squid and short-finned squid have declined in the southern Bay of Biscay.

**Fish**

Fish diversity is high in this ecoregion, reflecting its wide latitudinal dimension. The pelagic habitat is mainly dominated by sardine, anchovy, mackerel, horse mackerel, and blue-whiting *Micromesistius poutassou*. Some migratory species also appear in specific periods, such as tuna species (albacore *Thunnus alalunga* and bluefin *Thunnus thynnus*), which feed upon smaller pelagic fish. Hake is the most abundant predator species in the demersal community. Anglerfish, megrim, and sole are more abundant in the northern part of the ecoregion. The limit of distribution for some cold-water species such as whiting *Merlangius merlangus* and pollack *Pollachius pollachius* is in the north of Portugal. Skates, sharks, and deep-sea fish occur over the continental slope and in the deeper parts of this ecoregion. Trends in fishing pressure and stock size are presented in the 'Selective extraction of species' section.

**Seabirds**

The coasts of the Bay of Biscay and the western Iberian Peninsula are used by several seabird species for breeding. These include the European storm petrel *Hydrobates pelagicus*, European shag *Phalacrocorax aristoteli*s, yellow-legged gull *Larus michahellis*, lesser black-backed gull *Larus fuscus*, black-legged kittiwake *Rissa tridactyla*, and common guillemot. Many more species use these waters for feeding in the non-breeding period. The most important species in terms of abundance are northern gannet *Morus bassanus*, gulls *Larus* spp. (seven species), Balearic shearwater *Puffinus mauretanicus*, Manx shearwater *Puffinus puffinus*, sooty shearwater *Puffinus griseus*, Cory's shearwater *Calonectris diomedea*, razorbill *Alca torda*, and Atlantic puffin *Fratercula arctica*. Trends in the numbers of seabirds breeding around these seas are not known, with the exception of Iberian common guillemot and black-legged kittiwake that are either now extirpated or close to that state. Shags have also declined.

**Marine mammals**

No seals are common in the Bay of Biscay and Iberian Atlantic waters. In the Bay of Biscay and Iberian Atlantic, a total of 28 species of cetacean have been recorded, but most of these must be considered vagrants and uncommon. There are six common species (harbour porpoise, short-beaked common dolphin, striped dolphin and bottlenose dolphin and long-finned pilot whale or fin whale.

**Non-indigenous species**

This region has 217 non-indigenous and cryptogenic (obscure or of unknown origin) species. The majority (55 species) arrived between 1950 and 1999. Since 2000, a total of 25 new species have been recorded of which 12 are new to Europe. Consequently, the annual rate of discovery of non-indigenous species increased from 1.1 per year during 1950–2014, to 1.7 per year during 2000–2014 (see Figure 10).

Shipping, in particular through ballast water and biofouling of hulls, as well as coastal water currents (secondary spread from neighbouring areas) are the main species introduction vectors, followed by aquaculture activities (predominantly by shellfish transfers).

Ecological impacts such as declines of native species and structural changes in the benthic communities have been observed. Other impacts include fouling of irrigation systems and clogging of fishing nets and aquaculture nets.

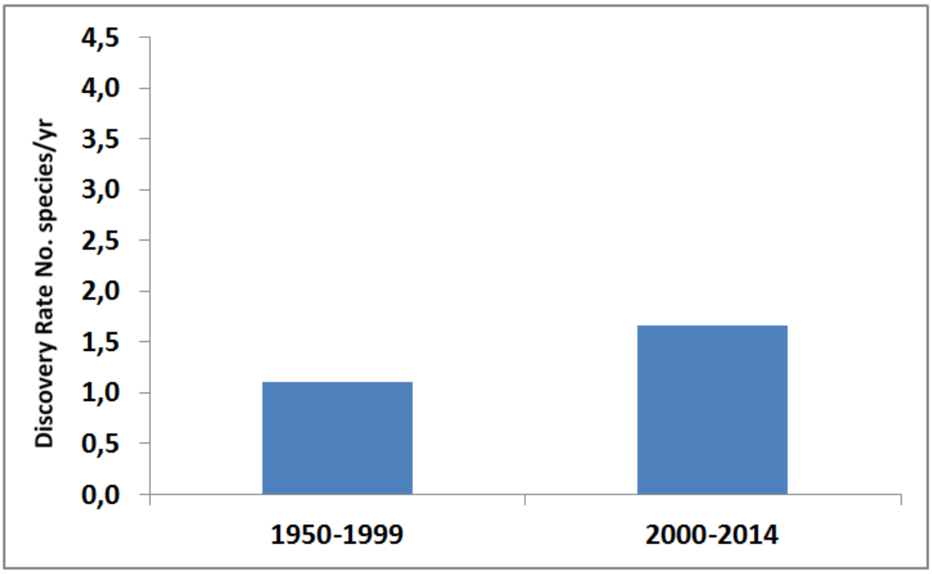


**Figure 10** Annual rate of new non-indigenous and cryptogenic species discoveries in the Bay of Biscay and Iberian Coast ecoregion during 1950–1999 and 2000–2014.

**Threatened and declining species and habitats in the Bay of Biscay and Iberian Coast ecoregion**

The threatened and declining species in the Bay of Biscay and Iberian Coast ecoregion according to the OSPAR List of Threatened and/or Declining Species and Habitats are shown in the table below.

| Scientific name | Common name |
|---|---|
| Invertebrates | |
| *Nucella lapillus* | Dog whelk |
| Seabirds | |
| *Puffinus mauretanicus* | Balearic shearwater |
| *Sterna dougallii* | Roseate tern |
| *Uria aalge* – Iberian population (synonyms: *Uria aalge albionis, Uria aalge ibericus)* | Iberian guillemot |
| Fish | |
| *Acipenser sturio* | Sturgeon |
| *Alosa alosa* | Allis shad |
| *Anguilla anguilla* | European eel |
| *Centroscymnus coelolepis* | Portuguese dogfish |
| *Centrophorus granulosus* | Gulper shark |
| *Centrophorus squamosus* | Leafscale gulper shark |
| *Cetorhinus maximus* | Basking shark |
| *Dipturus batis (synonym: Raja batis)* | Common skate |
| *Raja montagui* (synonym: *Dipturus montagui)* | Spotted ray |
| *Hippocampus guttulatus* (synonym: *Hippocampus ramulosus)* | Long-snouted seahorse |
| *Hippocampus hippocampus* | Short-snouted seahorse |
| *Lamna nasus* | Porbeagle |
| *Petromyzon marinus* | Sea lamprey |
| *Rostroraja alba* | White skate |
| *Salmo salar* | Salmon |
| *Squalus acanthias* | [Northeast Atlantic] spurdog |
| *Squatina squatina* | Angel shark |
| Reptiles | |
| *Caretta caretta* | Loggerhead turtle |
| *Dermochelys coriacea* | Leatherback turtle |

| Scientific name | Common name |
|---|---|
| Marine mammals | |
| *Balaenoptera musculus* | Blue whale |
| *Eubalaena glacialis* | Northern right whale |
| *Phocoena phocoena* | Harbour porpoise |

**Threatened and declining habitats in the Bay of Biscay and Iberian Coast ecoregion according to OSPAR**

| Habitats |
|---|
| Coral gardens |
| *Cymodocea* meadows |
| Deep-sea sponge aggregations |
| Intertidal mudflats |
| *Lophelia pertusa* reefs |
| *Modiolus modiolus* beds |
| *Ostrea edulis* beds |
| Seamounts |
| *Zostera* beds |

## Sources and acknowledgments

The content for the ICES regional ecosystem overviews is based on information and knowledge generated by the following ICES processes: Workshop on Benchmarking Integrated Ecosystem Assessment (WKBEMIA) 2012, ACOM/SCICOM Workshop on Ecosystem Overviews (WKECOVER) 2013, Workshop to draft advice on Ecosystem Overviews (WKDECOVER) 2013, Workshop on Regional Climate Change Vulnerability Assessment for the large marine ecosystems of the northern hemisphere (WKSICCME-CVA) 2017 and Advice drafting groups to finalize draft Ecosystem Overviews (ADGECO) 2015 and 2018, which provided the theoretical framework and final layout of the documents. The ICES integrated ecosystem assessment Working Group on Ecosystem Assessment of Western European Shelf Seas (WGEAWESS) contributed to the main sections of this overview. The following working groups contributed to draft the subsections on the state of the ecosystem components: Benthos Ecology Working Group (BEWG), Working Group on Multispecies Assessment Methods (WGSAM), Working Group on Zooplankton Ecology (WGZE), Working Group on Cephalopod Fisheries and Life History (WGCEPH), Working Group on Marine Mammal Ecology (WGMME), and Working Group on Introductions and Transfers of Marine Organisms (WGITMO).

The maps and GIS products produced by the ICES Secretariat used data from:

1. Exclusive Economic Zones. *Marineregions.org (VLIZ)*
2. Offshore Wind-farms. *OSPAR Commission*
3. Depth Contours. *General Bathymetric Chart of the Oceans (GEBCO)*
4. Natura 2000. *European Commission*
5. Ecoregions. *International Council for the Exploration of the Sea (ICES)*
6. Ports. *Global Shipping Lanes and Harbors (ESRI)*
7. Cities. *World Cities (ESRI)*
8. Rivers. *WISE Large Rivers and large lakes. European Environment Agency (EEA)*
9. ICES Areas. *International Council for the Exploration of the Sea (ICES)*
10. Catchment Area. *European Environment Agency (EEA). European Topic Centre on Inland, Coastal and Marine waters (ETC/ICM).*
11. Substrate maps. EU EMODNET seabed habitats; www.emodnet-seabedhabitats.eu
12. Non indigenous species. AquaNIS; http://www.corpi.ku.lt/databases/index.php/aquanis

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## Annex A

**Table A1** Stocks with analytical assessments and guilds included in Figure 4.

| Stock code | Stock name | Fisheries guild |
|---|---|---|
| meg.27.8c9a | Megrim (*Lepidorhombus whiffiagonis*) in divisions 8.c and 9.a (Cantabrian Sea and Atlantic Iberian waters) | Benthic |
| ldb.27.8c9a | Four-spot megrim (*Lepidorhombus boscii*) in divisions 8.c and 9.a (southern Bay of Biscay and Atlantic Iberian waters East) | Benthic |
| meg.27.7b-k8abd | Megrim (*Lepidorhombus whiffiagonis*) in divisions 7.b–k, 8.a–b, and 8.d (west and southwest of Ireland, Bay of Biscay) | Benthic |
| sol.27.8ab | Sole (*Solea solea*) in divisions 8.a–b (northern and central Bay of Biscay) | Benthic |
| mon.27.78abd | White anglerfish (*Lophius piscatorius*) in Subarea 7 and divisions 8.a–b and 8.d (Celtic Seas, Bay of Biscay) | Benthic |
| mon.27.8c9a | White anglerfish (*Lophius piscatorius*) in divisions 8.c and 9.a (Cantabrian Sea and Atlantic Iberian waters) | Benthic |
| nep.fu.2324 | Norway lobster (*Nephrops norvegicus*) in divisions 8.a and 8.b, functional units 23–24 (northern and central Bay of Biscay) | Crustacean |
| nep.fu.2829 | Norway lobster (*Nephrops norvegicus*) in Division 9.a, functional units 28–29 (Atlantic Iberian waters East and southwestern and southern Portugal) | Crustacean |
| hke.27.3a46-8abd | Hake (*Merluccius merluccius*) in subareas 4, 6, and 7, and divisions 3.a, 8.a–b, and 8.d, Northern stock (Greater North Sea, Celtic Seas, and the northern Bay of Biscay) | Demersal |
| hke.27.8c9a | Hake (*Merluccius merluccius*) in divisions 8.c and 9.a, Southern stock (Cantabrian Sea and Atlantic Iberian waters) | Demersal |
| pil.27.8abd | Sardine (*Sardina pilchardus*) in divisions 8.a–b and 8.d (Bay of Biscay) | Pelagic |
| hom.27.9a | Horse mackerel (*Trachurus trachurus*) in Division 9.a (Atlantic Iberian waters) | Pelagic |
| pil.27.8c9a | Sardine (*Sardina pilchardus*) in divisions 8.c and 9.a (Cantabrian Sea and Atlantic Iberian waters) | Pelagic |
| whb.27.1-91214 | Blue whiting (*Micromesistius poutassou*) in subareas 1–9, 12, and 14 (Northeast Atlantic and adjacent waters) | Pelagic |
| hom.27.2a4a5b6a7a-ce-k8 | Horse mackerel (*Trachurus trachurus*) in Subarea 8 and divisions 2.a, 4.a, 5.b, 6.a, 7.a–c, and 7.e–k (the Northeast Atlantic) | Pelagic |
| mac.27.nea | Mackerel (*Scomber scombrus*) in subareas 1–8 and 14 and division 9.a (the Northeast Atlantic and adjacent waters) | Pelagic |
| boc.27.6-8 | Boarfish (*Capros aper*) in subareas 6–8 (Celtic Seas, English Channel, and Bay of Biscay) | Pelagic |