SPECIES FACTSHEET

Taxonomy	Scientific name with original description	***Microstomus kitt*** **(Walbaum, 1792)**
	Common names (FAO nomenclature in red, other common names from IUCN red list or Fish or Sealife base)	
	English	**Lemmon Sole,** Lemon Dab, Lemon Fish, Lemon Sole, Mary Sole, Smear Dab, Sweet Fluke.
	French	**Limande sole,** Limande-sole Commune, Limande sole.
	German	Echte Rotzunge, Limande, Rotzunge.
	Spanish&Catallan	**Mendo Limón,** Lengua Lisa, Microstom, Palaia groga, Mendo limón lengua lisa.
	Italian	Sogliola limanda.
	Other	http://www.fishbase.us/ComNames/CommonNamesList.php?ID=1382&GenusName=Microstomus&SpeciesName=kitt&StockCode=1401
	Classification	Actinopterygii > Pleuronectiformes > Pleuronectidae > Pleuronectinae

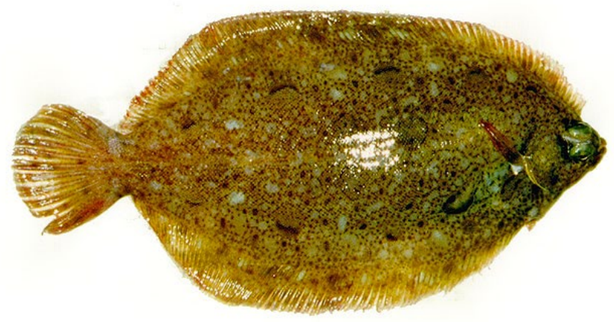

*Image from Fishbase

Biology	Geographical distribution	North Atlantic Ocean, where it occurs from southern Greenland and Norway to the Bay of Biscay. The presence of *M. kitt* along the northern coast of Iceland is uncertain. Is most abundant in the western central and northern North Sea. High concentrations of this species have also been found in the western English Channel.
	Habitat & Ecology	Depths ranging from 10 to 200 m, however, off Greenland, the species has been taken at depths ranging 111 to 424 m. Lives most often on stony bottoms.
	Short description/Behaviour	Small head and mouth. Body is oval. Skin is marbled and smooth. Lateral line almost straight, slight curve above the pectoral fin. Colour generally warm brown with irregular mahogany markings and flecks of yellow and green on the eyed side.
	Size/Weight	Maximum length is 65 cm (TL). Maximum published weight is 3 kg.
	Age	Maximum reported age is 23 years.
	Reproduction	Spawning takes place in the northwest of the North Sea during April and spreads north and east as the season progresses. Off the west coast of Scotland, spawning ends around July and continues until August/September around Orkney, Shetland and the Western Isles. Off the west coast of Ireland, females spawn from January to May. Off the west coast of Ireland, the age at full recruitment for females was found to be six years and five years for males which differs from four years (both sexes) in 1978 to 1979.
	Diet	Small invertebrates, but polychaetes seem to dominate. Apparently they do not feed in wintertime.
	Natural predators	

Use	Interest to fisheries	Commercial important.
	Fishing method	Mixed fisheries by otter trawlers and beam trawlers, ~75% and ~25% respect.
	Fishing area (according to FAO)	27
	Subareas	IIIa-IV-VIId
	Stock assessment/institution responsible	2017/CIEM
	Type of assessement	Qualitative (tendance)
	Special remarks	Each country has to verify the local status of this stock, as it might be different from the one described above. This specie is also native from FAO zone 21. Also, be aware that the minimum legal catch weight diferes from one country to another (local leggislation apllies).

Conservation	IUCN Status	Least concern in Europe
	Stock evalution date by IUCN	18/10/2014
	Population trend	Stable.
	Main threats	Bycatch in demersal trawl fisheries. It is sometimes marketed in commercial markets and sometimes discarded at sea as bycatch. Although an EU landing size minimum has not been established, individuals < 25 cm are discarded in some fisheries. Because the juveniles occur in habitats that are difficult to access by trawl or have different behavior compared with that of adults, they are caught less frequently in trawls than adults.
	Conservation concerns	
	Conservation actions	Subject to several management regulations within its range, including Total Allowable Catches (TACs). For 2014 and 2015, ICES advises that landings should not exceed 4,350t of *M. kitt* . The North Sea and Norwegian Sea have EU TAC limits established.

IUCN	https://www.iucnredlist.org/species/18227047/45790333
Fishbase	https://www.fishbase.in/summary/Microstomus-kitt.html
FAO	No page

SPECIES FACTSHEET

Taxonomy	Scientific name with original description	***Scophthalmus rhombus*** **(Linnaeus, 1758)**
	Common names (FAO nomenclature in red, other common names from IUCN red list or Fish or Sealife base)	
	English	**Brill**, Flounder.
	French	**Barbue**.
	German	Glattbutt, Kleist.
	Spanish&Catallan	Corujo, Coruxo, Remol, **Rémol**, Rodaballo, Rombo.
	Italian	Linguata, Passira, Pettine, Rombetto, Rombo, Rombo di rena, Rombo liscia, Rombo liscio, Romme, Roumbo, Rumbo de fundo, Rumbu, Rumbulu lisu, Rumm, Rumme lisce, Rummu lisciu, Rummulu, Sfazo, Soaso, Suaso, Taccone.
	Other	http://www.fishbase.org/ComNames/CommonNamesList.php?ID=529&GenusName=Scophthalmus&SpeciesName=rhombus&StockCode=545
	Classification	Actinopterygii > Pleuronectiformes > Scophthalmidae

*Image from Fishbase

Biology	Geographical distribution	Eastern Atlantic, from southern Iceland and Norway to Western Sahara. It is also known throughout the Mediterranean Sea, where it has been reported from the Adriatic Sea, the Gulf of Lion and the Sea of Marmara. Also found in the Black Sea and the Azov Sea.
	Habitat & Ecology	Marine demersal oceanodromous, lives on sandy or mixed bottoms. Depth range 5 - 50 m (limit 80 m).
	Short description/Behaviour	Thinner and more slender body. Skin with small, smooth scales, without bony tubercle. Able to change color of the eyed side, matching the bottom they rest on. Color is often olive green, with dark and light spots.
	Size/Weight	Maximum length is 75 cm (TL), common length is 30 cm (TL). Maximum weight is 8 kg.
	Age	The maximum age in the North Sea is 16 years for males and 21 years for female.
	Reproduction	Spawning occurs in shallow water of 5 m to 40 m from March to August in the western Baltic. Shallow coastal estuaries are important nursery areas for this species. In the Adriatic Sea, *S. rhombus* spawns from January to July with intermittent release of ripe eggs. Males mature at age 1, and females at age 2. Individuals in the Adriatic reach size at sexually maturity one year earlier than on the North Sea.
	Diet	Bottom-living fishes and larger crustaceans, as well as echinoderms and cephalopods. Diet changes with size, small individuals feed on small benthic fishes and crabs and large individuals feed on small gadoids.
	Natural predators	Bony fish, seals and sea lions.
Use	Interest to fisheries	Commercial species.
	Fishing method	Beach seines, trammel nets, longlines and trawls.
	Fishing area (according to FAO)	27
	Subareas	IIIa-IV-VIIde
	Stock assessment/institution responsible	2017/CIEM
	Type of assessement	Qualitative (tendance).
	Special remarks	Is a good candidate for diversification of southern Europe and Mediterranean aquaculture due to its high growth rate and high market value. Each country has to verify the local status of this stock, as it might be different from the one described above. This specie is also native from FAO zones 34 and 37. Also, be aware that the minimum legal catch weight diferes from one country to another (local leggislation apllies).
Conservation	IUCN Status	Least concern in Europe.
	Stock evalution date by IUCN	15/10/2013
	Population trend	Unknown (Biomass in the Baltic Sea, North Sea, and Kateggat show increasing trends in the last decade).
	Main threats	Fishing & harvesting aquatic resources.
	Conservation concerns	In the North Sea, *Scophthalmus rhombus* is primarily caught as valuable bycatch by beam-trawl fisheries targeting flatfishes as well as otter trawl and fixed-net fisheries.
	Conservation actions	A minimum landing size has not been implemented, however, Belgian and Dutch producer organizations have adopted voluntary minimum landing sizes of 25 cm to 30 cm. The International Council for the Exploration of the Sea (ICES) advises that catches should not exceed 2,727 tonnes in the North Sea. In the Baltic Sea, ICES advises that catches should not exceed 29 tonnes. Management regulations are implemented in order stabilize stock size, however, they may not be effective if the stock size is low and/or overfished.

IUCN	https://www.iucnredlist.org/species/198732/45790962
Fishbas	https://www.fishbase.in/summary/529
FAO	http://www.fao.org/fishery/species/2562/en

SPECIES FACTSHEET

Taxonomy	Scientific name with original description	***Lophius piscatorius*** **(Linnaeus, 1758)**
	Common names (FAO nomenclature in red, other common names from IUCN red list or Fish or Sealife base)	
	English	**Angler**, Angler fish, Anglerfish, **Monk,** Monkfish.
	French	Baudroie, **Baudroie Commune**, Lotte, Marache.
	German	Angler, Froschfisch, Seeteufel.
	Spanish&Catallan	**Rape**, Rape Blanco, Xuliana.
	Italian	Bordrò, Budegassa, Budeghi, Budego, Coda di rospo, Diavolo de mar,Galanga, Gianello, Giudo, Lamia, Martino, Pescatrice, Pescatrice nera, Piscatrice, Piscatrice niedda, Piscatrici, Piscatrixi, Rana pescatrice, Rospo, Rospo de fango, Rospo de mar, Rospo grosso.
	Other	http://www.fishbase.org/ComNames/CommonNamesList.php?ID=716&GenusName=Lophius&SpeciesName=piscatorius&StockCode=732
	Classification	Actinopterygii > Lophiiformes > Lophiidae

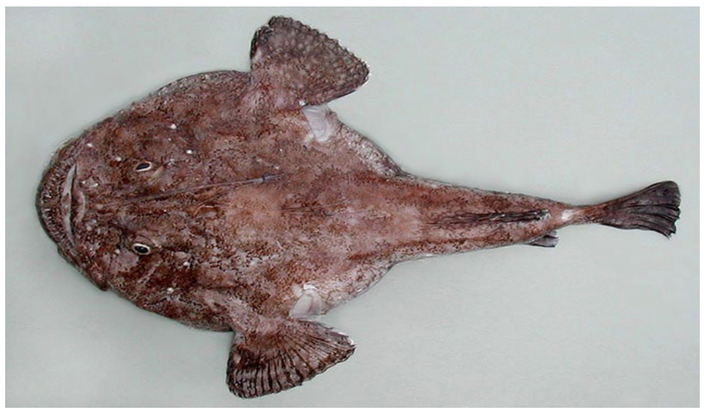

*Image from Fishbase

Biology	Geographical distribution	Restricted to the eastern Atlantic Ocean, where it is distributed from Greenland and Norway south to Mauritania. In the northeastern Atlantic Ocean, *L. piscatorius* is found from the southwest Barents Sea to the Straits of Gibraltar, including the Mediterranean and Black seas.
	Habitat & Ecology	Occurs on sandy and muddy bottoms from the coast (below 20 m, down to depths of 1,000 m). May also be found on rocky bottoms.
	Short description/Behaviour	Head and body depressed. Mouth wide and cavernous. Skin thin and loose, scales absent. It lies half-buried in the sediment waiting for its prey. It attracts prey by means of its fishing filament.
	Size/Weight	Maximum size is 200 cm (SL), though it is more common to 40 to 60 cm (SL). North Atlantic specimens attain larger sizes than those collected off West Africa and they also occur in shallower depths.
	Age	Maximum reported age of this species is 24 years. *L. piscatorius* is long-lived species with slow growth and late maturation with females achieving older age and greater size than males (25 years vs. 21 years old).
	Reproduction	Spawning off the Iberian Peninsula occurred between January and June. Off the northwest coast of Scotland on this species, ripe males occurred year-round, ripe females were found between November and May. Off the Portuguese and Spanish Atlantic coasts, lengths and ages at first maturity for females were 93.9 cm and 14 years and for males 50.3 cm and 6 years, and the number of mature females was low. In the Mediterranean *L. piscatorius* had a mean size at sexual maturity for females of 68.5 cm TL and maximum size of 100 cm (TL).
	Diet	Fishes, occasionally sea-birds. *Lophius piscatorius* is a sit-and-wait predator that utilizes concealment and a lure to opportunistically feed on prey items. In a study off the Shetland Islands, UK this species preyed upon a wide variety of items (mostly fish) with the main prey being Norway Pout (*Trisopterus esmarkii*) and Lesser Sandeel (*Ammodytes marinus*), though diet composition varied seasonally.
	Natural predators	Bony fish.
Use	Interest to fisheries	Is among the most valuable fish targeted in western and southern European waters.
	Fishing method	Bottom trawl fisheries.
	Fishing area (according to FAO)	27
	Subareas	VIIbk- VIIIabd
	Stock assessment/institution	2018/CIEM
	Type of assessement	Quantitative (modèle…).
	Special remarks	Species-specific catch statistics are not available. Each country has to verify the local status of this stock, as it might be different from the one described above. This specie is also native from FAO zones 21, 34 and 37. Also, be aware that the minimum legal catch weight diferes from one country to another (local leggislation apllies).
Conservation	IUCN Status	Least concern in Europe.
	Stock evalution date by IUCN	15/10/2013
	Population trend	Unknown.
	Main threats	Occurred as bycatch in North Atlantic fisheries for at least the past century. They began to be specifically targeted in the 1980s by bottom trawl and gill net fisheries. *L. budegassa* and *Lophius piscatorius* are lumped together in the fishery off of Portugal and Spain where total allowable catch limits were set at very high levels from 1987 to 1999, and did not restrict the fishery. Since 2005, the TAC has been set at 2,000 tonnes, which goes against ICES recommendations for a full moratorium. In a study of the gill net fishery off the northern coast of Spain it was estimated that 18.1 tonnes of *Lophius spp* . are captured annually by abandoned nets (ghost fishing) which represents 1.46% of the total commercial landings of this fishery.
	Conservation concerns	This species is reportedly expanding its range northward due to increasing water temperatures, where it is now known from as far north as Greenland as well as Iceland and northwest Europe. In the northeastern Atlantic, *L. piscatorius* is managed in three units, Northern Shelf stock (Divisions IIIa, IVa–c, and VIa,b), northern Southern Shelf Stock (Divisions VIIb–k and VIIIa,b,d), and southern Southern Shelf stock (Divisions VIIIc and IXa). It is particularly difficult to manage these stocks due to the lack of ageing data and further study on growth is needed. There are also indications that there is a need for a better understanding of the location of spawning grounds and related behaviour.
	Conservation actions	

IUCN	https://www.iucnredlist.org/species/198610/45128985
Fishbas	https://www.fishbase.in/summary/Lophius-
FAO	http://www.fao.org/fishery/species/3379/en

SPECIES FACTSHEET

Taxonomy	Scientific name with original description	***Brosme brosme*** **(Ascanius, 1772)**
	Common names (FAO nomenclature in red, other common names from IUCN red list or Fish or Sealife base)	
	English	**Tusk,** Brismak, **Cusk,** Moonfish, Torsk.
	French	Assiette, **Brosme**.
	German	Brosme, Lumb.
	Spanish&Catallan	**Brosmio**.
	Italian	Brosmio, Brosme.
	Other	https://www.fishbase.se/ComNames/CommonNamesList.php?ID=51&GenusName=Brosme&SpeciesName=brosme&StockCode=61
	Classification	Actinopterygii > Gadiformes > Lotidae

*Image from www.premiumfish.no

Biology	Geographical distribution	North Atlantic Ocean. In the northwest Atlantic, it is known from off the shore of New Jersey to the Strait of Belle Isle and on the Grand Banks of Newfoundland. This species is rare at the southern tip of Greenland. In the northeast Atlantic, it is found from Ireland and the United Kingdom north to Iceland, the northern North Sea, and along the coast of Scandinavia to the Murmansk Coast and Spitzbergen.
	Habitat & Ecology	Found in small shoals on rough, rock, gravel, or pebble bottoms. Generally keeps far from the shore, near the bottom, mostly between 150 and 450 m in the northeastern Atlantic, and between 18 and 550 m in the northwestern Atlantic. Undergo local migrations of greater and lesser depths.
	Short description/Behaviour	Barbel on present on chin. Color is variable, dorsally dark red-brown or green brown to yellow shading into pale color on belly. Young specimens may have six transverse yellow bands on sides. Vertical fins with dark margin rimmed with white. Solitary or in small groups.
	Size/Weight	Maximum length is 120 cm (TL), and common length is 50 cm (TL). Maximum published weight is 30 kg.
	Age	It lives for a maximum of about 20 years.
	Reproduction	Important spawning grounds are located between Scotland and Iceland. In the eastern Atlantic, they are located on the edge of the Shetland Islands, Faeroes and Iceland slopes, from 200 to 500 m depth, and in the northern part of the North Sea, along the 100-200 m isobaths. Tusk spawn in the spring and early summer on both the western and eastern sides of the Atlantic (April-July). Tusk are amongst the most prolific of fishes, with an average sized female (50 cm) capable of producing up to 2 million eggs in one reproductive episode. However, growth rate is slow and the length at first maturity is approximately 50 cm, at approximately 8 years.
	Diet	Crustaceans and shellfishes, benthic fishes (flatfishes and gurnard) and even on starfishes.
	Natural predators	Seals, bony fish, sharks and rays.
Use	Interest to fisheries	Important commerical species.
	Fishing method	Otter trawls and on hard bottoms, with longlines. Longline and handline fisheries off Iceland, Norway and the Faroe Islands harvesting ling (*Molva molva*) and *B. brosme* have a very long history, however contemporary fisheries use highly efficient, mechanized vessels fishing over a wide geographical area in the northern parts of the Northeast Atlantic.
	Fishing area (according to FAO)	27
	Subareas	No information.
	Stock assessment/institution responsible	2017/CIEM
	Type of assessement	Qualitative (tendance).
	Special remarks	Each country has to verify the local status of this stock, as it might be different from the one described above. This specie is also native from FAO zone 21. Also, be aware that the minimum legal catch weight diferes from one country to another (local leggislation apllies).
Conservation	IUCN Status	Least concern in Europe
	Stock evalution date by IUCN	14/10/2014
	Population trend	Unknown.
	Main threats	Tolerates temperatures between 0 and 10 degrees C. The warming trend of the world's oceans certainly affects the range and area of occupay, restricting habitat accessibility and latitudinally restricting them to the more northerly areas of their range. Furthermore, although much has been done to curb the use of deep sea trawls in many fishing areas, they are still used in some areas legally and even in other areas illegally. Trawling destroys much of the benthic fauna and flora it is dragged across, including corals, sponges, seafans and hydroids. Tusk depend on many of theses benthic creatures for suitable habitat.
	Conservation concerns	
	Conservation actions	ICES advice for the Iceland is to fish at MSY, and for almost all other areas there should be no expansion of any fisheries for this species. For 2013, the ICES recommended the following assessment units and landings for Brosme brosme: (1) Subareas I and II -20% reduction in catches (last 3 years' average to 9040 t); (2) Division Va Subarea XIV - Fishing at FMSY (6700t); (3) Mid-Atlantic Ridge - Fisheries should not be allowed to expand and measures should be considered to limit occasional high levels of bycatch; (4) Division VIb - 20% reduction in catches (350 t); (5) DivisionsIIIa, Vb, VIa, and XIIb and Subareas IV, VII, VIII, and IX - No more than a 20% increase in catches to 8500t.

IUCN	https://www.iucnredlist.org/species/18125264/45129766
Fishbase	https://www.fishbase.in/summary/Brosme-brosme.html
FAO	http://www.fao.org/fishery/species/2217/en

SPECIES FACTSHEET

Taxonomy	Scientific name with original description	***Lepidorhombus whiffiagonis*** **(Walbaum, 1792))**
	Common names (FAO nomenclature in red, other common names from IUCN red list or Fish or Sealife base)	
	English	**Megrim,** Flounder, Whiff.
	French	**Cardine Franche.**
	German	Flügelbutt, Scheefschnut, Scheefsnut.
	Spanish&Catallan	Gallo, **Gallo Del Norte**, Llíseria, Ojito, Rapante.
	Italian	Limanda salope, Rombo giallo.
	Other	https://www.fishbase.se/ComNames/CommonNamesList.php?ID=28&GenusName=Lepidorhombus&SpeciesName=whiffiagonis&StockCode=38.
	Classification	Actinopterygii > Pleuronectiformes> Scophthalmidae

*Image from Fishbase

Biology	Geographical distribution	Northeast Atlantic Ocean, from Iceland southwards to Azores, Cape Bojador and the west Sahara. It is also present in the Tyrrhenian Sea and the Ionian Sea, and throughout the Mediterranean Sea, except for Cyprus.
	Habitat & Ecology	Soft mud or muddy sand substrata, and it usually lives at depth range of 100-400 m. It has also been found from 288-700 m in the east Ionian Sea.
	Short description/Behaviour	Dorsal and anal fins terminate just a little on the blind side of the caudal peduncle. Lateral line forms a distinct curve above the pectoral fin. Dorsal and anal fin with indefinite darker spots posteriorly.
	Size/Weight	Maximum size is 60 cm (TL), and its common length is 25 cm (TL).
	Age	Maximum reported age is 16 years.
	Reproduction	Spawning occurs in deep waters off Iceland and west of the British Isles.
	Diet	Small benthic fishes, such as sandeels, dragonets and gobies, as well as on squids and crustaceans.
	Natural predators	Bony fish.
Use	Interest to fisheries	This is a species of commercial interest.
	Fishing method	In the ICES sub-areas VI, VII, VIII and IX, Megrim (*L. boscii* and *L. whiffiagonis*) are caught by various types of bottom-trawling gear in multispecific fisheries where, in most cases, they are the target species. In Divisions VIIIc and IXa, they are caught by the Portuguese and Spanish fleets, along with hake, Nephrops species and monkfish. In Division VIIIc, both species have a particularly important commercial value, despite representing a mere 5% of landings, while in Division IXa, only *L. boscii* shows significant landing levels. The importance of division VIIa as a producer of Megrim has declined, and the main fisheries for the species are in divisions VIIg-k.
	Fishing area (according to FAO)	27
	Subareas	IVa-VIa
	Stock assessment/institution responsible	2018/CIEM
	Type of assesement	Quantitative (modèle...)
	Special remarks	Each country has to verify the local status of this stock, as it might be different from the one described above. This specie is also native from FAO zones 34 and 37. Also, be aware that the minimum legal catch weight diferes from one country to another (local leggislation apllies).
Conservation	IUCN Status	Least concern in Europe
	Stock evalution date by IUCN	10/09/2014
	Population trend	Stable.
	Main threats	This is a species of commercial interest and it is caught with trawls, being quite heavily exploited. Catches as registered in Eurostat show a severe decline during the period 1993-2009.
	Conservation concerns	
	Conservation actions	The species is listed in the HELCOM Red List. There are no specific conservation actions in place for this species, and it is unknown whether its distribution overlaps with any protected areas throughout its range. Further research should be conducted to determine the taxonomy, genetic structure of the populations, size and trend. Once the population has been distinguished and established, with the current Megrim stock boundaries, this will help management policies to be redefined in the future.

IUCN	https://www.iucnredlist.org/species/198730/18987386
Fishbase	https://www.fishbase.in/summary/Lepidorhombus-
FAO	http://www.fao.org/fishery/species/2560/en

SPECIES FACTSHEET

Taxonomy	Scientific name with original description	***Loligo vulgaris*** **(Lamarck, 1798) or** ***Loligo forbesi*** (The present Information is on *Loligo vulgaris* , the available information (FAO/sealifebase) on the *Loligo forbesi* was not sufficient to fill the species factsheet.)
	Common names (FAO nomenclature in red, other common names from IUCN red list or Fish or Sealife base)	
	English	**Cape Hope squid**, Chokka, Common Atlantic squid, Common calmary, Common squid, **European squid**, Inkfish, Lon-finned squid, Sea arrow, Squid.
	French	Calmars côtiers, **Calmar commun**, **Calmar du Cap**, **Encornet**.
	German	Europälscher Langflossenkalmar.
	Spanish&Catallan	**Calamar**, **Calamar común**.
	Italian	Calamaro, Calamaro mediterraneo, Calamaro sudafricano
	Other	https://www.sealifebase.ca/comnames/CommonNamesList.php?ID=57480&GenusName=Loligo&SpeciesName=vulgaris&StockCode=3965
	Classification	Cephalopoda > Teuthida > Loliginidae

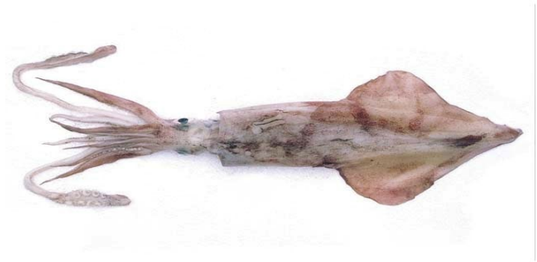

*Image from Sealifebase

Biology	Geographical distribution	Found in almost all of the coastal areas of the eastern Atlantic Ocean, ranging from the Shetland Islands in the north and Nambia in the south. It is also found in all of the coastal areas of the Mediterranean Sea, throughout the North Sea and in the Baltic Sea.
	Habitat & Ecology	Found over coarse sand substrates. Lives on the sea floor during spawning and displays pelagic behaviour at other times. During the day, animals, especially young animals, display vertical migration in relation to food. Horizontal migrations also take place due to environmental factors. Animals migrate into deeper waters during the winter. It is known from depths up to 500 m, but it's usually found between 20 - 250 m.
	Short description/Behaviour	Has an elongated, cylindrical body with an internal shell, the gladius, triangular fins taking up two thirds of the body, eight arms with rows of suction cups and two non-retractable feeding tentacles that it uses to catch prey. It has a reddish-pink colour with brownish spots on the dorsal area. The squid has an almost unique mobility capability, through a jet propulsion technique in which the water is sucked into the mantle cavity and expelled through a narrow funnel at high pressure; the jet can be directed in any direction.
	Size/Weight	Maximum published length is 61 cm (ML). Maximum published weight is 1.5 kg. Males are larger than females, but females are heavier than males.
	Age	Maximum life span is 1.5 to 2 years in females and 3 to 3.5 years in males.
	Reproduction	Male and female adults usually die shortly after spawning and brooding, respectively. Males perform various displays to attract potential females for copulation. During copulation, male grasp the female and inserts the hectocotylus into the female's mantle cavity where fertilization usually occurs. It spawns from October to February and April to June, mainly in coastal waters. Offshore and onshore migrations also take place in relation to reproduction. Eggs are laid in strings on a structure in shallow water. Maturity lenght is 16.9 cm (range 16 - 23 cm).
	Diet	Juvenile feeds on planktonic prey (e.g. copepods, mysids and euphausiids), adult feeds on fish and crustaceans and sometimes on cephalopods.
	Natural predators	Bony fish, whales, dolphins, squids, cuttlefish, sharks,rays and octopus.
Use	Interest to fisheries	One of the most economically important myopsid squid species due to its high market value.
	Fishing method	Trawls and gillnets. It is fished throughout its range, primarily as bycatch by bottom and pelagic trawl fisheries. This species is caught during the day using otter trawls and purse seines.
	Fishing area (according to FAO)	27
	Subareas	VIIIab
	Stock assessment/institution	2015/Univ CAEN
	Type of assessement	No infromation.
	Special remarks	Each country has to verify the local status of this stock, as it might be different from the one described above. This specie is also native from FAO zones 34, 37 and 47. Also, be aware that the minimum legal catch weight diferes from one country to another (local leggislation apllies).
Conservation	IUCN Status	Data deficient globally.
	Stock evalution date by IUCN	02/07/2015
	Population trend	Unknown.
	Main threats	Low quality landing information (due to squids not being identified to species) and because most catches are made as bycatch in finfish fisheries mean that data quality is generally poor and it is very difficult to assess the level of exploitation.
	Conservation concerns	No separate catch statistics are available as this species is usually mixed with *L. forbesii* .
	Conservation actions	There are no species-specific conservation actions in place for this species. There are no regular stock assessments and management is largely limited to landing-size regulations in southern Europe. Better assessments are required to ensure that harvest is sustainable.

IUCN	https://www.iucnredlist.org/species/190946/1961958
Sealifebas	https://www.sealifebase.ca/summary/Loligo-
FAO	http://www.fao.org/fishery/species/17019/en

SPECIES FACTSHEET

Taxonomy	Scientific name with original description	***Pecten maximus*** **(Linnaeus, 1758)**
	Common names (FAO nomenclature in red, other common names from IUCN red list or Fish or Sealife base)	
	English	Scallop, Great scallop, **Great Atlantic scallop**.
	French	Coquilles Saint jacques, **Coquille St-Jacques atlantique**.
	German	
	Spanish&Catallan	**Vieira(=Concha de Santiago)**.
	Italian	Grande pettine.
	Other	https://www.sealifebase.org/comnames/CommonNamesList.php?ID=47521&GenusName=Pecten&SpeciesName=maximus&StockCode=1117
	Classification	Bivalvia > Ostreoida > Pectinidae

*Image from Sealifebase

Biology	Geographical distribution	Eastern Atlantic and the Mediterranean Sea.
	Habitat & Ecology	Lives on sand and gravel bottoms but it can be found in mud as well, from the extreme low tide down to 250 m (in literature to 1846 m). The young molluscs live attached with their byssus to a hard substrate, but when they become adult the shells are free-swimming.
	Short description/Behaviour	Solid shell, with clear growth stages. Sand, mud, gravel or living organism cover the upper valve so that only the margin of the shell (with all tentacles and eyes) remains visible; most active during the day. When disturbed the animal retracts with a quick movement into its valves and becomes virtually undetectable.
	Size/Weight	Common shell diameter is 10 to 15 cm, and maximum shell diameter is 17 cm.
	Age	
	Reproduction	Embryos develop into free-swimming trocophore larvae, succeeded by the bivalve veliger, resembling a miniature clam.
	Diet	Suspension feeder.
	Natural predators	
Use	Interest to fisheries	Is a importante specie for fisheries and aquaculture.
	Fishing method	
	Fishing area (according to FAO)	27
	Subareas	VIIe
	Stock assessment/institution responsible	2018/IFREMER
	Type of assessement	No information.
	Special remarks	Each country has to verify the local status of this stock, as it might be different from the one described above. This specie is also native from FAO zones 34 and 37. Also, be aware that the minimum legal catch weight diferes from one country to another (local leggislation apllies).
Conservation	IUCN Status	**Not evaluated**
	Stock evalution date by IUCN	
	Population trend	
	Main threats	
	Conservation concerns	
	Conservation actions	

IUCN	No page
Sealifebas	https://www.sealifebase.ca/summary/Pecten-
FAO	http://www.fao.org/fishery/species/3516/en

SPECIES FACTSHEET

Taxonomy	Scientific name with original description	***Pandalus Borealis*** **(Krøyer, 1838)**
	Common names (FAO nomenclature in red, other common names from IUCN red list or Fish or Sealife base)	
	English	**Northern prawn, Northern shrimp**.
	French	**Crevette nordique**.
	German	
	Spanish&Catallan	**Camarón norteño**.
	Italian	Gamberetto boreale, gambero boreale.
	Other	https://www.sealifebase.ca/comnames/CommonNamesList.php?ID=25892&GenusName=Pandalus&SpeciesName=borealis&StockCode=29150
	Classification	Malacostraca > Decapoda > Pandalidae

*Image from Sealifebase

Biology	Geographical distribution	Circumpolar.
	Habitat & Ecology	Soft substrates with high organic content. Benthopelagic, depth range 9 - 1450 m, usually 50 - 500 m.
	Short description/Behaviour	Commonly known as the "pink" shrimp, it is slender and has a smooth body surface. The shell is somewhat thin, making it more difficult to transport in good condition than the other species. It's deep red when alive. The rostrum is about one and three fourths times as long as the carapace.
	Size/Weight	Maximum length is 12 cm (TL), and 16,5 cm (TL).
	Age	
	Reproduction	Post-larvae mature first as males for 2 years, sex transition begins afterwards. Spawning begins on the third winter, hatching occurs during spring.
	Diet	Opportunistic omnivore functioning as a predator and a scavenger.
	Natural predators	Bony fish, sea lions and seals.
Use	Interest to fisheries	Is one of the most important carideans of the North Atlantic. There is an intensive fishery around Iceland and a most important one off the Norwegian coast. In the Kattegat and Skagerak it is fished for by Danish trawlers. In the northern and central North Sea Danish, Norwegian, British, German and Dutch trawlers fish for the species. In the Northern Pacific, *Pandalus borealis* also is of economic importance.
	Fishing method	Trawls.
	Fishing area (according to FAO)	27
	Subareas	I
	Stock assessment/institution	2017/NAFO/CIEM
	Type of assessement	Quantitative (modèle…)
	Special remarks	Each country has to verify the local status of this stock, as it might be different from the one described above. This specie is also native from FAO zones 18, 21, 61 and 67. Also, be aware that the minimum legal catch weight diferes from one country to another (local leggislation apllies).
Conservation	IUCN Status	Not evaluated
	Stock evalution date by IUCN	
	Population trend	
	Main threats	
	Conservation concerns	
	Conservation actions	

IUCN	No page
Sealifeba	https://www.sealifebase.ca/summary/Pandalus-
FAO	http://www.fao.org/fishery/species/3425/en

SPECIES FACTSHEET

Taxonomy	Scientific name with original description	***Clupea harengus*** **(Linnaeus, 1758)**
	Common names (FAO nomenclature in red, other common names from IUCN red list or Fish or Sealife base)	
	English	**Atlantic herring,** Bank Herring, Bismark Herring, Bloater, Cleanplate Herring, Cut spiced Herring, Fall Herring, Golden Cure, Hern, Herning, Herring, Herron, Kipper, Kipper Herring, Klondyked Herring, Labrador Herring, Matje Cured Herring, Mattie, Mediterranean Cure, Melker, Mesh Herring, Milker Herring, Murman Herring, Mustard Herring, Newcastle Kipper, Norwegian Cured Herring, Norwegian Herring, Norwegian Milker, Norwegian Silver Herring, Norwegian Sloe, Oriental Cure, Pearl Essence, Pickled Herring, Pickling, Protestant, Red Herring, Sea Atlantic Herring, Sea Herring, Sea Stick, Shore Herring, Sild, Silver Cured Herring, Soused Herring, Split, Split Cure Herring, Spring Herring, Sugar Cured Fish, Summer Herring, Whitebait, Yawling.
	French	**Hareng de l'Atlantique,** Gendarme, Hareng, Hareng Atlantique, Hareng Saur.
	German	Sylecke, Strömling, Silling, Ostseehering, Hering, Allec.
	Spanish&Catallan	Arenque, **Arenque del Atlántico**, Escabeche Frito.
	Italian	Aringa.
	Other	https://www.fishbase.in/ComNames/CommonNamesList.php?ID=24&GenusName=Clupea&SpeciesName=harengus&StockCode=32
	Classification	Actinopterygii > Clupeiformes > Clupeidae > Clupeinae

*Image from Fishbase

Biology	Geographical distribution	North Atlantic Ocean. In the northeastern Atlantic, *C. harengus* is distributed from northern Bay of Biscay to Iceland and southern Greenland, eastward to Spitsbergen and Novaya Zemlya, including the Baltic Sea. It is also seen along southwestern Greenland and Labrador down to South Carolina in the Western Atlantic.
	Habitat & Ecology	Depths of 0 to 200 meters. Light is an important factor in controlling their vertical distribution.
	Short description/Behaviour	Slender fish with a round belly. It is blue to greenish-blue dorsally, becoming silvery ventrally. Herring schools move between spawning and wintering grounds in coastal areas and feeding grounds in open water by following migration patterns learned from earlier year classes. Adults spend the day in deeper water, but rise to shallower water at night. Schooling, silvery sides, excellent hearing (capable of detecting frequencies between 30-4,000 Hz), and very fast escape response act as anti-predator devices.
	Size/Weight	Common length is 30 cm, and maximum length is 45 cm (SL). The maximum published weight is 1.1 kg.
	Age	Maximum reported age is 25 years.
	Reproduction	Herring populations are known to use traditional spawning grounds, many of which are along shallow coastal areas (15-40 m depth) or on offshore banks down to 200 m. Spawning usually occurs on gravel or rock bottoms, with the exception of Baltic populations which show a preference for shallow (less than 10 m depth) seaweed beds. Each population spawns only once a year over a relatively short time period. At least one population is spawning in any one month of the year. The herring is a demersal spawner that releases a ribbon of sticky eggs that sink to the sea bed and adhere to the substrate. The generation length used by the HELCOM Red List project to assess this species was 6.7 years in the Baltic Sea. However, the average age of mature individuals (one generation length) is currently estimated to be 4-5 years across its the range in the Northeastern Atlantic.
	Diet	A facultative zooplanktivorous filter-feeder (it can switch to filter-feeding if the food density and particle size are appropriate). Feed mainly on copepods finding food by visual sense.
	Natural predators	Fish, birds, and marine mammals.
Use	Interest to fisheries	This is one of the most commercially important species within the northern Atlantic Ocean.
	Fishing method	
	Fishing area (according to FAO)	27
	Subareas	IIIa-IV-VIId
	Stock assessment/institution	2018/CIEM
	Type of assessement	Quantitative (modèle…)
	Special remarks	Each country has to verify the local status of this stock, as it might be different from the one described above. This specie is also native from FAO zones 21 and 31, and from Europe inland waters (excluding former USSR) and North America Inland waters (including Central America). Also, be aware that the minimum legal catch weight diferes from one country to another (local leggislation apllies).
Conservation	IUCN Status	Least concern in Europe.
	Stock evalution date by IUCN	16/10/2013
	Population trend	Increasing.
	Main threats	This species is susceptible to threats from overfishing and habitat loss. In some areas, such as off the coast of NW Ireland, spawning aggregations are targeted. Historical stock collapses, such as the collapse of the 1960s, have been ascribed to a combination of over-fishing and changes in environmental variables. Herring spawning and nursery areas are vulnerable to anthropogenic disturbances, especially as gravel substrate is important fish habitat for herring spawning, and can be impacted by activities such as the extraction of marine aggregates.
	Conservation concerns	Since a severe population crash in the stock in the 1970s, limits were imposed on the harvest levels of this species in an attempt to rebuild the stock. Since then the biomass has shown in an increase. Current estimates suggest that only 10% of the stock is being exploited and there are no reports of over-fishing occurring. Continued monitoring of the harvest levels and stock biomass is needed to ensure limits can be revised should there be changes to the levels of recruitment. fluctuations in biomass of *C. harengus* stocks are influenced by variations in climate, which influences the long-term survival of recruits. The North Sea autumn-spawning herring stock collapsed in the late 1970s due to recruitment over-fishing, which resulted in a 5-year closure of the fishery.
	Conservation actions	The HELCOM Red List project assessed this species as Least Concern under the IUCN Red List Categories and Criteria. This is a widely distributed species with high population size and according to estimation of total spawning stock biomass in the HELCOM area no significant decline the last three generations can be detected. No protection actions are currently needed in HELCOM area, however, fishery statistics should continue to be monitored to prevent overfishing.

IUCN	https://www.iucnredlist.org/species/155123/45074983
Fishbase	https://www.fishbase.in/summary/Clupea-harengus.html
FAO	http://www.fao.org/fishery/species/2886/en

SPECIES FACTSHEET

Taxonomy	Scientific name with original description	***Limanda limanda*** **(Linnaeus, 1758)**
	Common names (FAO nomenclature in red, other common names from IUCN red list or Fish or Sealife base)	
	English	**Common Dab,** Dab, Garve, Garve Fluke, Sand Dab.
	French	**Limande,** Limande Commune.
	German	Kliesche, Scharbe, Scharchen.
	Spanish&Catallan	**Lenguadina,** Limanda, Limanda Nordica, Solla.
	Italian	Limanda.
	Other	https://www.fishbase.in/ComNames/CommonNamesList.php?ID=695&GenusName=Limanda&SpeciesName=limanda&StockCode=711
	Classification	Actinopterygii > Pleuronectiformes > Pleuronectidae > Pleuronectinae

*Image from Fishbase

Biology	Geographical distribution	From the Bay of Biscay to the North Sea, Baltic Sea, Iceland, Norway and to the Barents Sea. This species is most abundant in the southern North Sea.
	Habitat & Ecology	Adults live mainly on sandy bottoms, commonly between 20 m to 40 m. They can occur up to 200 m depth. Juvenile *Limanda limanda* uses shallow, sandy sediments in coastal waters as nursery grounds.
	Short description/Behaviour	This species is sensitive to sounds with frequencies from 30 Hz to 250 Hz with the greatest sensitivity from 110 Hz to 160 Hz.
	Size/Weight	Maximum size for this species is 40 cm (SL). Maximum published weight is 1 kg.
	Age	Life expectancy in the Irish Sea is 8 to 9 years, and 11 years in the North Sea.
	Reproduction	The spawning grounds of this species are offshore from 30 m to 50 m depth. The spawning season is from January to September with shorter seasons for each spawning ground. Older, larger individuals commence reproduction first. In the North Sea, the age of first reproduction is 2 years for males and 2 to 3 years for females.
	Diet	Brittle stars, crustaceans, polychaetes, other echinoderms (sea urchins), bivalves and small fishes. Females of this species tend to consume a significantly greater amount of food than males
	Natural predators	

Use	Interest to fisheries	Is the most abundant demersal species in the southern North Sea.
	Fishing method	Captured as bycatch, primarily in the beam trawl but also in the shrimp, flatfish and demersal species fisheries.
	Fishing area (according to FAO)	27
	Subareas	IIIa-IV
	Stock assessment/institution	2017/CIEM
	Type of assessement	Qualitative (tendance)
	Special remarks	Be aware that the minimum legal catch weight diferes from one country to another (local leggislation apllies).

Conservation	IUCN Status	Least concern in Europe and globally
	Stock evalution date by IUCN	18/10/2014
	Population trend	Increasing.
	Main threats	Bycatch of demersal trawl fisheries in nearshore and offshore waters. It is exposed to polyaromatic contaminants in nearshore waters. Although *L. limanda* has demonstrated the ability to adapt to low oxygen levels, lethally low levels of oxygen induces stress which in turn can result in the outbreak of disease such as lymphocystis and epidermal papilloma. In the past, *L. limanda* experienced both inhibitory and stimulatory immune responses when exposed to diesel-based drilling mud which was common around drilling platforms in the North Sea. Since this species is sensitive to sounds with frequencies from 30 Hz to 250 Hz with the greatest sensitivity from 110 Hz to 160 Hz, it may be impacted in areas with high sound production.
	Conservation concerns	Catches of this species may be discarded depending on the availability of the target species and the market price. Landings of *L. limanda* have decreased since the year 2000. In the inner Danish waters, this species is included among a mix of flatfish species taken in a variety of inshore fisheries.
	Conservation actions	*S* ubject to several regulatory measures within the ICES area. In the North Sea, this species is subject to total allowable catches (TAC) which have been set at 7,795 tonnes in 2014. In the Baltic Sea TACs have been set at 1,437 tonnes in 2014. *Limanda limanda* is considered a monitoring organism for pollution levels in the North Sea and western Baltic.

IUCN	https://www.iucnredlist.org/species/18214863/45790133
Fishbase	https://www.fishbase.in/summary/Limanda-limanda.html
FAO	http://www.fao.org/fishery/species/3361/en

SPECIES FACTSHEET

Taxonomy	Scientific name with original description	***Pollachius virens*** **(Linnaeus, 1758)**
	Common names (FAO nomenclature in red, other common names from IUCN red list or Fish or Sealife base)	
	English	American Pollack, Billet, Coal-fish, Coalfish, Coley, Glassan, Gloshan, Green Cod, Kench Cure, **Pollock,** Poodler, **Saithe,** Sillock.
	French	Goberge, Gorberge, Greslin, **Lieu Noir**, Merlan Noir, Merlan Vert, Merluche, Colin.
	German	Köhler, Seelachs, Blaufisch.
	Spanish&Catallan	Bacalao, **Carbonero, Colín**, Faneca Plataeada Carbonero, Fogonero, Palero.
	Italian	Merluzzo nero.
	Other	https://www.fishbase.in/ComNames/CommonNamesList.php?ID=1343&GenusName=Pollachius&SpeciesName=virens&StockCode=1361
	Classification	Actinopterygii > Gadiformes > Gadidae

*Image from Fishbase

Biology	Geographical distribution	Barents Sea and Spitsbergen to the Celtic Sea, and along most of the coast of Iceland. In the Western Atlantic, it is found along southwest Greenland and from Hudson Strait to North Carolina, although it is rare at the extremes of its range.
	Habitat & Ecology	Found in both inshore and offshore waters to depths of up to 400 metres, although the majority of individuals are found in depths of less than 200 metres. Usually enters coastal waters in spring and returns to deeper waters in winter.
	Short description/Behaviour	Body color is brownish-green dorsally, becoming only slightly paler ventrally. Lateral line smooth along its entire length. This species forms large aggregations and undergoes both feeding and spawning migrations. Also long-distance north-south migrations for Europe and the US.
	Size/Weight	Maximum length is 130 cm (TL), common length is 60 cm (TL). Maximum published weight is 32 kg.
	Age	At least 25 years.
	Reproduction	Spawn in batches. Oviparous, sexes are separate. Saithe mature at age 4 and by age 7, all fish can be regarded as mature.
	Diet	Young herring, haddock, whiting and Norway pout. Smaller fish in inshore waters feed on small crustaceans (copepods, amphipods, euphausiids) and small fish, while larger fish prey predominantly upon fishes.
	Natural predators	
Use	Interest to fisheries	Important commercial species, that is among the most important commercial roundfish species.
	Fishing method	Purse seine, Danish seine, bottom and pelagic trawl, longline, and by trolling. In the North Sea eco-region, Saithe is primarily taken by directed bottom trawl fisheries, and also as by-catch in cod and haddock fisheries.
	Fishing area (according to FAO)	27
	Subareas	I-II-III-IIIa- IV-VI
	Stock assessment/institution responsible	2018/CIEM
	Type of assesement	Quantitative (modèle…)
	Special remarks	This species is managed in 4 stocks in the northeast Atlantic. Each country has to verify the local status of this stock, as it might be different from the one described above. This specie is also native from FAO zones 18, 21 and 31. Also, be aware that the minimum legal catch weight diferes from one country to another (local leggislation apllies). This species is often fraudulently sold as smoked Atlantic Cod (*Gadus morhua)* .
Conservation	IUCN Status	Least concern in Europe
	Stock evalution date by IUCN	17/10/2013
	Population trend	Unknown.
	Main threats	Threatened by overexploitation. Since the early 2000s, fishing pressure has generally decreased in the Northeastern Atlantic Fishing Zone. This species may also be affected by the loss of inshore estuaries, which are susceptible to anthropogenic disturbances, provide nurseries and feeding grounds for juveniles.
	Conservation concerns	
	Conservation actions	Total Allowable Catch (TAC) regulations are in place for many *P. virens* stocks. Additional regulations include the prohibition of discards, minimum mesh size, minimum fish size, bycatch regulations, area closures, and other area and seasonal restrictions.

IUCN	https://www.iucnredlist.org/species/190304/45098360
Fishbase	https://www.fishbase.in/summary/Pollachius-virens.html
FAO	http://www.fao.org/fishery/species/3016/en