

## FISH AND SHELLFISH FACTS

### 1 Haddock

In the North Sea, haddock occur mainly in the northern and central areas, but can be found as far south as the Humber Estuary. At the beginning of the 20th century they were also abundant in the southern North Sea.

Young haddock spend the first few months of life in the upper water layers before moving to the seabed.

Results from early genetic studies on haddock have suggested there could be different populations within the North Sea.

Haddock feed mainly on worms, small molluscs, sea urchins, brittle stars with Norway pout being the most common fish eaten in the more northerly areas, whereas sandeels are more important in the central North Sea.

### 2 Cod

Cod occur mainly in the northern and central areas. New born cod are distributed over a large part of this area, with high concentrations off the Jutland coast.

By the time they reach five years, all cod are mature.

Cod do not usually browse for food on the bottom but are active feeders. By weight, around three quarters of the food of all sizes of cod consists of fish and crustaceans. The rest is made up of small quantities of molluscs and worms. As they grow, cod eat an increasing amount of fish, Sandeel, Norway pout, whiting, herring, dab and cod themselves.

### 3 Herring

During daytime, herring shoals remain close to the sea bottom or in deep water. At dusk they move towards the surface and disperse over a wide area.

Some herring mature and spawn at two years of age, but most are three or four before they spawn. The number of eggs produced by an average-sized female varies between populations.

Herring deposit their sticky eggs on coarse sand, gravel, small stones and rock. Shoals of herring gather on the spawning grounds and spawn more or less simultaneously. Females release eggs in a single batch and the resulting egg carpet may be several layers thick and cover a considerable area.

Herring feed mainly on crustaceans (shrimps and copepods) and young sandeels.

### 4 Mackerel

The mackerel caught by the Scottish pelagic fleet belong to two different stocks – the North Sea and the western. This separation is based on differences in the timing and the areas used for spawning.

North Sea mackerel overwinter in the deep water to the east and north of Shetland and on the edge of the Norwegian Deep. In the springtime, they migrate south to spawn in the central part of the North Sea from May until July.

When spawning is finished, most of the spent fish move to the feeding grounds in the Norwegian Sea and the northern North Sea where they mix with the North Sea stock.

By the time they reach three years old, most mackerel are mature.

The diet of mackerel can vary with the area and the season. By weight, almost half of the food consists of crustacea (shrimps). The remainder is made up of juvenile fish such as sandeel, herring and Norway pout.



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## 5 Plaice

The plaice is Europe's most important commercial flatfish. Adults have a roughly diamond-shaped outline, and are readily identified by their bright orange or red spots.

In all flatfish, the larval stage undergoes a remarkable change in which the left eye moves around the head to the right side. This strange adaptation enables the fish to lie flat on the seabed.

Plaice are active mainly at night, when they feed on molluscs and polychaete worms, which are crushed with the strong jaws. During the day they tend to lie hidden, often partially buried in the sediment (this text © Arkive.org).

## 6 Saithe

Adult saithe can be caught in almost any sea area. The adult stock can occur in dense shoals which move around the water column and are often caught hundreds of metres above the seabed.

Saithe reach maturity between the ages of four and six years. Spawning takes place between January and April near to the edge of the continental shelf to the north and west of the Outer Hebrides.

Saithe grow quickly, reaching 100cm by the time they are eleven years old.

Saithe are active predators, feeding on the bottom and in mid-water, eating Herring, Norway pout and sandeel.

## 7 Brown crab

The brown crab fishery is economically a very important fishery for Scotland. The fishery is long established and landings, although variable, have increased significantly over the last thirty years.

The brown crab is found all around the Scottish coast from the shallow into offshore waters to depths exceeding 100 m. It inhabits rocky reefs, mixed coarse grounds and soft sediments (muddy sand) particularly on the offshore grounds.

Brown crabs eat mainly benthic invertebrates, particularly bivalves, small decapods and barnacles.

Adult crabs, especially females, can undertake extensive seasonal migrations (100s km). The structure of brown crab populations around Scotland is poorly understood.

## 8 Velvet crab

The velvet crab fishery in Scottish waters is a relatively recent development; velvet crabs were once considered a 'pest' species, and only taken in a small scale fishery for a few months in the winter.

Velvet crabs are caught in the inshore creel fishery along with lobster and brown crab. Very few fishermen fish solely for 'velvets'.

The velvet crab is a member of the family Portunidae (Swimming crabs) and is found in waters all around the British Isles. It is a fast moving and aggressive species, most commonly found on rocky substrates down to depths of about 25 m.

Velvet crabs feed on both animal and algal material, with brown algae being the dominant item found in gut content analysis.

## 9 Lobster

The earliest records of lobster fishing in Scotland date back to the 12th century when lobster was caught by hand using 'crooks' and hoop nets. With the introduction of baited traps (creels), a more commercial basis developed.

The European lobster is found all around the coast of Scotland, typically on hard ground in relatively shallow waters and on the fringes of kelp beds.

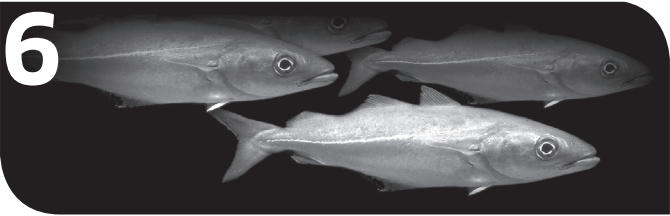
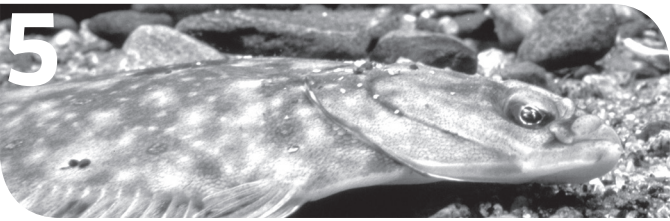
The diet of the adults consists mainly of crabs, molluscs, sea urchins, polychaete worms and starfish, but may also include fish and plants.

Lobsters can grow very old and the potential reproductive life span of a female lobster is in excess of 40 years.



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// CAN YOU NAME THE SPECIES?



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