

Text

Solway Heritage

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Cover Image - Kippford, East Stewartry

Coast National Scenic Area



WELCOME TO THE SCOTTISH SOLWAY COAST

The Solway Coast Heritage Trail is a way marked route between the vast tidal flats of the Solway Firth at Annan, to the towering sea cliffs of the Rhins, including Scotland's most southerly point at the Mull of Galloway.

Lurking beneath the waves the marine life could be described as the Solway Firth's hidden treasure. The complex currents often make the sea water appear dark and murky but below the surface lives a profusion of sea creatures many of which have been used as a source of food for people and become an integral part of local life.

The magnificent coastline is richly endowed with evidence of traditional methods used to catch sea food many of which have evolved over hundreds of years. Colourful fishing boats viewed from rocky headlands, stake nets in sandy bays and cockle pickers in estuaries are proof of the sea life that will inspire your imagination as well as your taste buds, but careful management is needed to maintain traditional fisheries for generations to come.

The Solway Coast is a very special place and rewarding for anyone who visits the many nature reserves and visitor centres, harbours and bays, fish shops and restaurants, where you can discover more about the natural wonders or get a privileged taste of local sea food.



Galloway Smokehouse, near Creetown



SOLWAY COAST HERITAGE TRAIL

- 1 Annan (salmon nets)
- 2 Glencaple (salmon haaf netting)
- 3 Colvend Coast (mussels / winkles)
- 4 Palnackie (flounder)
- 5 Kirkcudbright (scallops / lobster fishing)

- 6 Creetown (salmon nets)
- 7 Wigtown Bay (sparling)
- 8 Isle of Whithorn (oysters)
- 9 Port William (lobster fishing)
- 10 Lucebay (razorshells / rays)
- 11 Loch Ryan (herring / oysters)



The Solway Coast Heritage Trail is a route between Annan and Stranraer which is sign posted with a blue-on-white symbol of an early Christian cross, representing the rich cultural heritage of the area. As you explore Dumfries and Galloway you will discover something for everyone. The choice really is amazing, from rock pooling for the family group who are looking for a fun day out to boat charters for the specimen hunter who wants to catch and release the fish of a lifetime.

Further information about marine life and sea food can be accessed on the websites listed on the back page.





STRANGE AND SPECTACULAR

Where the land meets the sea is a fascinating and dynamic place. The coast is an ever changing boundary that provides some of the harshest environments for wildlife to flourish. Despite this hostile environment there are a huge variety of creatures beneath the waves where the strange and spectacular have often provided food for thought.

Basking Sharks are harmless giants which may be seen in late summer during calm sunny weather. They suck up microscopic plankton which can sometimes occur in vast numbers; over a million tiny creatures may be found in a litre of water in exceptional spring blooms. Basking Sharks capture the plankton by sieving seawater though their gill rakers but in the winter when there is



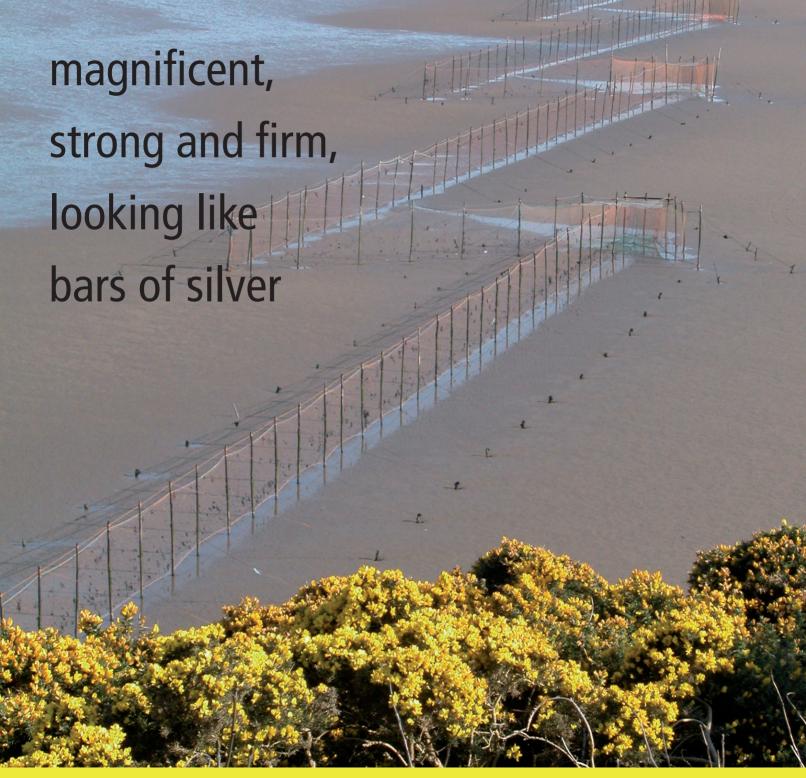
Sasking shark

very little plankton the sharks stop feeding, shed their gill rakers and retire to unknown depths until the spring when their gill rakers regrow.

Historically basking sharks were hunted by people who valued its one-ton liver, exceedingly rich in commercially valuable oils used for lighting and the tanning process. The meat was used for food and the rough skin for shark skin leather.

Sea lampreys are sometimes found attached to basking sharks. The long scale-less fish looks very much like an eel with a downward slanting mouth consisting of a large, tooth-lined sucking disc. Once it has latched onto the side of another fish, the lamprey bores a hole in its host by wiping its raspy tongue across the skin. The parasite then secretes an anticoagulant that keeps this wound open so that the lamprey can feed on the prey's blood and tissue.

Remains of lamprey have been excavated from the site of the Cistercian Abbey at Dundrennan, near Kirkcudbright and were probably served baked in a traditional pie, set in cool syrup and covered with a large raised crust.





SALMON STAKES

The Solway Firth abounds with Atlantic salmon and over the centuries many ingenious methods were devised to catch them as they made their return migration to rivers to spawn. Recorded in use by Monks in Gretna 1000 years ago, stake netting has a long and prosperous history and is still used along the North Solway coast between Annan and Creetown.

The net itself, traditionally made of tarred twine and now made of nylon, is fixed to stakes which are permanent posts embedded into the tidal sands. A distinctive element on the Solway coast the nets form a barrier to the salmon deflecting them into pockets with a narrow aperture which are easy to enter and difficult to exit. Sometimes the nets form a zigzag line in the sand, with a trap at every angle while other designs include a maze of nets guiding the fish into the traps.

Another method of trapping salmon are lines of poke nets, which are distinct to the Parish of Annan. The net pockets are fixed to an iron post embedded into the sand with the net held steady at the top and attached to a moving ring at the bottom. With the rising tide the net opens and blooms in the current trapping fish inside until the sea rushes out again.

The wild Solway salmon caught in the nets are absolutely magnificent, strong and firm, looking like bars of silver. Some of this prized catch is retained to be treated in local smoke houses to create the ultimate smoked salmon.



Stakenets on the Cree Estuary

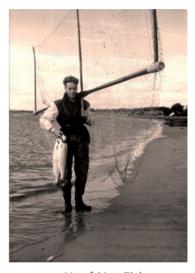




A GOOD CATCH

Haaf net fishing was once carried out in many of the estuaries on the Solway coast but is now limited to the Nith and the Annan. Catching fish in this form of nets may date back thousands of years to the introduction by Viking invaders, 'haaf' being the Norse word for channel. As the tide runs over the mud flats at Glencaple, haaf netters stand in a line chest deep in the current of the river forming a human chain. Their fishing net consists of a four metre wide frame once of wood but now generally of aluminium which supports the net and divides it into two pockets or 'pokes'. When the haaf netter feels a fish strike the net the frame is lifted and the fish is trapped in one of the pockets.

In the early 1800s Richard Ayton recorded 'there is another mode of salmon fishing practised here called 'shauling', from its being pursued in shallow water. A man is armed with an instrument called a 'leister', a three pronged fork, with a shaft twenty or twenty four feet long, which he fixes in the sand edgeways, and thrusts before him like shrimp net. But there is a more spirited manner of using this weapon, and one requiring considerably more skill. It is often used as a spear, the sports man being on horseback, and hurling it sometimes at speed. Some of the people are said to be very dexterous at this exercise, transfixing the fish with certainty at a great distance.'



Haaf Net Fisherman





UNDER COVER COCKLES

The cockle is a plump tasty burrower that thrives on our vast tidal flats. Although extremely prolific, the population goes through phases of low density when the cockles grow faster than when densities reach over 2,000 per square metre. The cockles can be decimated by competition for food, winter storms and hard frosts. This natural fluctuation of cockle population is now measured every year by scientists and the cockle fishery is controlled to avoid over fishing.

In years when they abound in the sandy shores of the Solway, the cockles are some of the finest most succulent shellfish that can be found. Perhaps because it is so common, the cockle is perceived as food for the under-classes, indeed the Solway cockles were credited with preventing the poor starving during the 1674 famine. Under rated in this country, most of the cockles gathered are sent to Holland or Spain where they have the reputation they deserve.

You may find the shells of similar sand dwelling bivalves washed up from deeper water. They include the prickly cockle, Norway cockle and Icelandic cyprine. The later is thought to be the longest living creature in the world with some reaching the grand age of 400 years old.



Icelandic cyprine





ANCHORED DOWN

Juicy mussels are cheap, highly nutritious and one of the most numerous bivalves on rocky shores in the Solway Firth. They have been gathered by people from the earliest times but, in common with most easily accessible shellfish, are undervalued as a food source. At Kirkcudbright in 1845 it was noted that 'Mussels are much sought after by the poor and may be collected on some rocks in pretty large quantities'.

Most common on rocky shores, such as the Colvend Coast, they are adapted to withstand the pounding of waves and strong currents. The mussels attach themselves to rocks and other shells by threads, called byssus, which are secreted as a thick fluid which hardens on contact with water. They can reabsorb these anchors and put out new threads to jostle for a better position in the tightly packed clumps.

The edible periwinkle grazes lichens off the rocks and has a different strategy to beat wild seas. If it is knocked off its resting place it withdraws into its tough shell which can withstand being thrown about by the waves. Despite enormous numbers of them being collected for food in the past the humble winkle is very common on the rocky shores of the Solway. It is usually brown and quite dull compared with the jewel like yellow, orange, red and green of the smaller flat periwinkle.



Jewel like seashells



Paidle nets Rockcliffe, East Stewartry Coast National Scenic Area



NO MEAN FEET

Flounders or flukes in Scotland have never made it into the fine-dining flatfish hierarchy like sole or plaice, but they can still make great eating. The flounder tends to be smaller than other flatfish, with no elaborate markings or attractive patterns on its plain, rough skin. The ability to swim flat, combined with the capacity to change skin colouration to suit its surroundings, enables the flounder to lie concealed in sand or mud and prey on passing marine worms, sandeels and small crustaceans.

Fishing with the feet, or flounder-tramping is a rare skill used on the sandbanks of the Nith and Urr. Fishers walk through the shallow water barefoot and when they feel a fish slide under their foot they strike it with a three pronged fish spear called a 'leister'.

World Flounder Tramping Competitions have been held in Palnackie (usually in July or August). The tradition involves wading through mud looking for flounders, competitors are encouraged to keep their fish alive and any catches are kept in water until the weigh-in time.

Flounders are also caught in mini stake nets called Paidle nets where the arms of the net lead the fish into a trap or 'paidle'. Surprisingly large flounders have been caught in the past including this giant reported in newspapers in 1798:

'On Friday last there was got in the parish of Ruthwell a most extraordinary white flounder; equal has not been heard of by the oldest person living in the place; it measured four feet and a half in length was eighteen inches across the tail and weighed 67 lb'



Flounder trampling, Palnackie





SHELLFISH ROYALTY

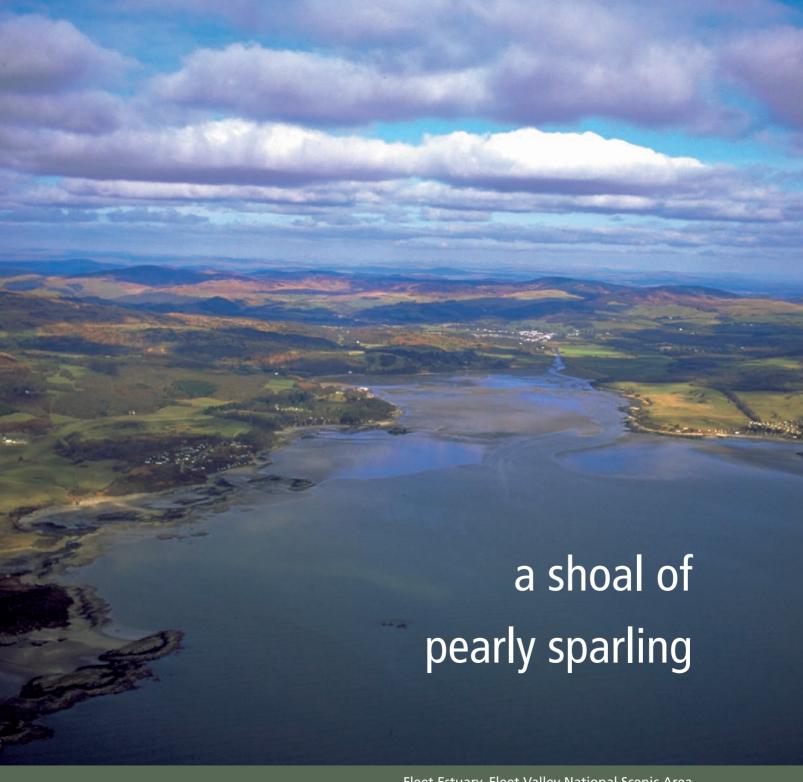
These sweet, firm textured molluscs are harvested from all round the Scottish coast. The description King and Queen scallops (Queenies) refer not to their sex (they are hermaphrodite) but to two different species. They are gregarious creatures which sometimes congregate in large colonies in their favoured beds of clear, fine sand in the waters of the west coast of Scotland.

When feeding the scallop lies on the sea bed with its shell gaping drawing water in through the gills to strain out the edible particles. The sensitive tentacles and small primitive eyes along the edges of the shell can detect approaching predators. At the threat of danger the shell closes, but if sufficiently alarmed the animal can snap the shell shut in a series of clapping movements to shoot rapidly backwards out of danger.

Scallop fishing has become a major industry over the last twenty five years largely because of the development of overseas markets. The scallop dredgers tend to fish away from the home port when new grounds are located but return to Kirkcudbright where the shellfish are landed. Processed in nearby factories the scallops are usually exported to European countries such as France and Spain.



Scallop boats with Queenies, Kirkcudbright





FRAGRANT REVIVAL

Wigtown Bay is well regarded for its aquatic life and is home to some of Scotland's more unusual fish species. The most famous of these is the mysterious smelt, or sparling as it is known in Scotland, which enters the River Cree during the hours of darkness to spawn during the spring and autumn. Shoals of sparling used to be present throughout the Solway Firth

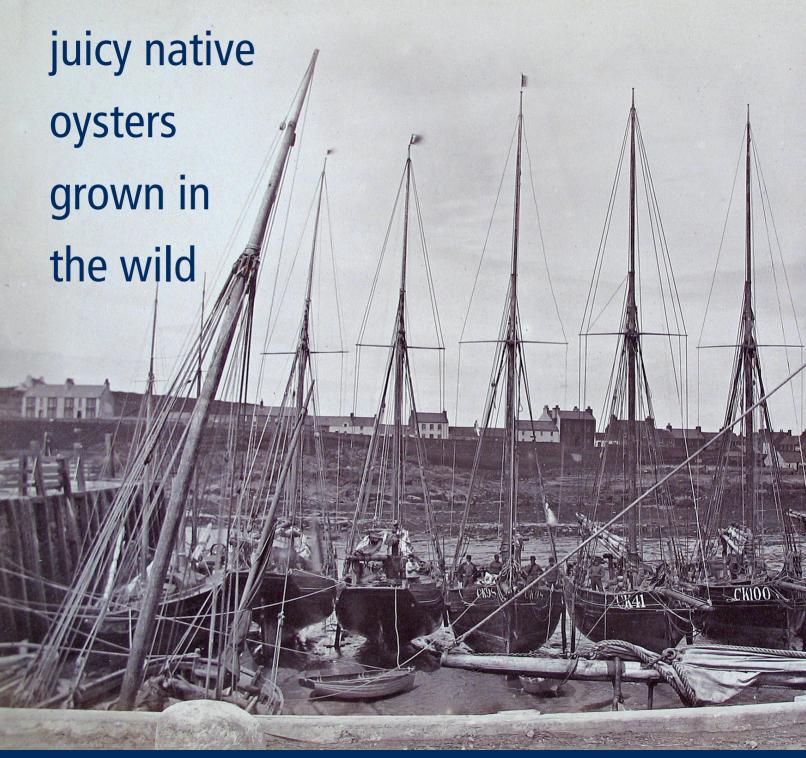


barling

as well as other parts of Scotland but they are now confined only to the Cree, Forth and Tay estuaries. Their appearance in the River Cree is heralded by the sight of thousands of tiny round eggs on the rocks and plants within the river.

In the early 1900s Sir Herbert Maxwell noted that 'for generations the fisher folk had netted the smelts in their passage to and fro....the fish as soon as landed, are neatly packed in small boxes and sent off to the great towns, where they command a high price....but by the time they reach their destination they will have lost much of their delicate texture and exquisite flavour.' He continued; 'to be eaten to perfection, the fish should be carried from the nets into the kitchen and served forthwith. There comes to mind a quiet fishing village on Solway shore. It is early on a winter morning but the air is still and warm. The small meshed seine is coming slowly to shore, filled with a shoal of pearly 'sparlings'. As they are drawn from the muddy water of the estuary, a fragrance as of cucumbers and violets diffuses itself, plainly perceptible at a distance of more than fifty yards.'

The lower river has now been designated as a Site of Special Scientific Interest for sparling, as well as allis and twaite shad, and commercial fishing is no longer undertaken. The Galloway Fisheries Trust is now working to reintroduce the odd smelling sparling to the Fleet Estuary.





NATIVE HAVEN

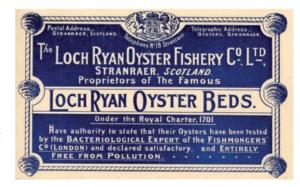
There are many records of oysters being gathered from bays along the Solway Firth but there has been a dramatic decline of British native oysters due to a combination of disease, harsh winters and over fishing. Available when there is an "r" in the month's name, their rarity and the superior flavour of plump, juicy native oysters grown in the wild is reflected in their price.

Found on the sand bank called the Scar in Loch Ryan the Rev Mr John Coulter noted in the 1790s that it 'abounds with oysters of a most excellent flavour. They are found indeed all around the shores and might be got in great quantities would people drag for them. At present they are only gathered at low water, in spring tides, for a few months in spring'.

In the 1840s a new bed of 'large and superior quality' oysters was discovered in Luce Bay and by the late 19th century there were at least 50 oyster smacks dredging the Solway. Many of the oyster fishermen came to the area from Essex and used the harbour at the Isle of Whithorn as a base.

Today Loch Ryan is home to Scotland's largest known native oyster bed and is the regions only commercial oyster fishery. The Loch Ryan oysters have been harvested by the Wallace family since 1701 when they were given the rights under a Royal Charter by King William III. The Native

Oyster season starts on the 1st September and they are supplied to the whole of the UK. The meat from the Loch Ryan oysters has a firm texture with a slightly sweet taste and because they are slow growing, only gaining about 10grams per year, the fully grown oyster is almost ten years old.







BREAK A LEG

Writing in the late 1600s Symson noted that 'in the loch of Lochrian,....and the coast thereabout, they take very good lobsters, and some of them incredibly great'.

Some giant common lobsters have been caught in the past and they are know to live to a ripe old age. The size of those caught off the rocky shores of the Solway tend to be limited by the dimensions of the lobster creels, however it is thought the largest are not necessarily the oldest and those captured may be up to 70 years old.

Port William

Red when cooked, under water they are a blue-black colour with bright orange long antennae used to sense food and danger. The massive claws are unequal, one used for crushing and the other smaller claw for cutting. Lobsters are always in danger of having a large claw or one of the walking legs caught under stones, rolled about by the waves, or seized by



some tenacious enemy. In such circumstances they sacrifice the limb so that its owner may survive to live another day. It is far from a random break because each limb has an in built weakness – a groove round the leg near to the body – which snaps off a reflex mechanism in response to injury. The damage is minimal and a new miniature leg is regenerated which increases in size at each moult until it catches up with the other limbs.





A CLOSE SHAVE

Razor shell is the name given to several varieties of thin brittle shell which have a resemblance to an old cut-throat razor. They are rarely found on menus but are a source of good white flesh.

When the tide is in, the shell fish rise so their short siphons project above the sea bed but when the water leaves they retreat deep into the sand. Their presence may be indicated in the sands near the low water mark by shallow depressions from which sudden squirts of water and sand are forced up giving it its Scottish name of Spout Fish or 'spoot'.

In the 1600s it was noted that 'on the sands of Luce, they get abundance of the long shll'd fish, call'd the spout fish; the man that takes them hath a small iron rod in his hand, pointed at one end, like a hooked dart, and treading on the sands and going backward, he exactly knows where the fish is, which is deep in the sands, and he stands perpendicular, whereupon he thrusts down his iron-rod quite through the fish betwixt the two shells, and then by the pointed hook he brings up the fish.'

Other edible bivalves, such as venus and carpet shells, like to live among coarse sand grains and their shells can often be found amongst a wide variety of seashells washed up on the beach.



Striped venus





A SHORE THING

Mermaids purses are often found on the strand line are the empty egg cases of skate, ray or dogfish. Laid on the bed of shallow seas in spring each purse contains an embryo which after several months has hatched as a miniature fish.

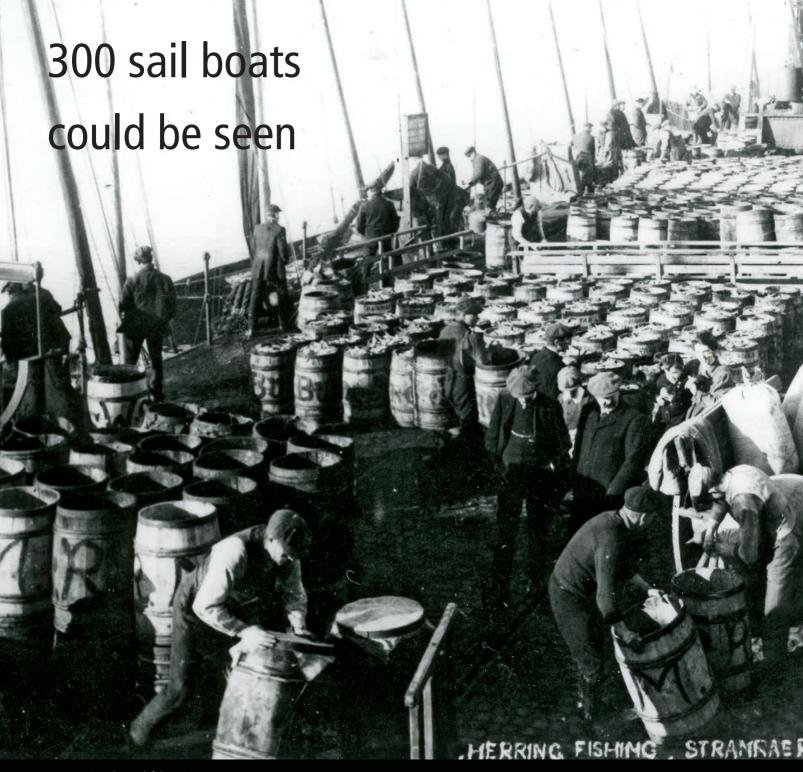
The most common are the slender paper thin egg cases with curly tendrils, often seen in clumps the larger ones (about 9cm long) belong to the bull huss, while the smaller ones (about 4cm long) belong to the lesser spotted dogfish. Dogfish is a common name to many small sharks but only the lesser spotted dogfish and bull huss lay eggs.

The larger black egg cases belong to the various kinds of skates and rays. These are flat kite shaped fishes related to sharks and found on the sea bed over mud, sand, shingle and rough ground. Skates and rays feed on fish, crustaceans and most kinds



Thornback ray eye

of small bottom-dwelling animals. These fish are exceptionally vulnerable to overfishing because they are generally slow growing, taking up to 8 years to reach sexual maturity, and tend to produce few young. They have a long lifespan, up to 50 years, but their numbers appear to have declined in Luce Bay area although they are thought to be more common further east in the Solway. Research is being carried out which will improve our understanding of population changes and propose conservation measures to reverse their decline.





UNPREDICTABLE HERRING

The mysterious herring is a fish which has had a great influence on the fishing industry in Scotland and was a staple of the European diet. It is easy to see why because two of these fatty fish provide about 600 calories and 70 grams of protein.

There are several races of herring which are mainly distinguished by size, rate of growth, spawning period and migration routes. When they are sexually mature they join vast shoals, spending the day in deeper water and rising to the surface at night, gathering at particular spawning grounds.

Perhaps the most notable thing about these fish is their unpredictable occurrence in bays along the coast of south west Scotland.

In the late 1600s Symson stated 'in the loch of Lochrian, there is some years a great herring-fishing' and a hundred years later the Rev Mr John Coulter noted that 'the herrings make their appearance generally some time in September, continue for two or three month, appearing and disappearing at intervals'.

In years when herring were unusually abundant 300 sail boats could be in Loch Ryan at one time. Many of the boats, crew operating them and herring girls packing the fish, came from north and east of Scotland following the herring around the coast. The herring industry was at its height between 1900 and 1910 although there was another short lived herring boom in the 1950s when vessels from Leith used Portpatrick as a base for fishing the North Channel.



Herrings







Special Places

The Solway Coast is so special that many places have been given protection by law to conserve the landscapes, habitats and species. Along the Scottish Solway Coast there are three National Scenic Areas (NSAs) which are recognised for their outstanding natural beauty. The Solway Firth, Luce Bay and Sands and Mull of Galloway are all Special Areas of Conservation (SACs) for habitats and species and the Upper Solway Flats and Marshes is a Special Protection Area (SPA) for birds. Caerlaverock mud flats and merse is a National Nature Reserve (NNR) and the largest Local Nature Reserve (LNR) in Britain is found at Wigtown Bay. In addition to these special places there are 21 Sites of Special Scientific Interest (SSSI) managed for their important natural heritage. These designated areas along the coast form a chain of the best examples of species, habitats and landscapes throughout Dumfries and Galloway and support a wider network across Great Britain and the European Union.

More Information

Scottish Natural Heritage

Solway Firth Partnership Solway Heritage

Visistscotland

www.snh.org.uk

www.solwayfirthpartnership.co.uk

www.solwayheritage.co.uk

www.visitdumfriesandgalloway.co.uk