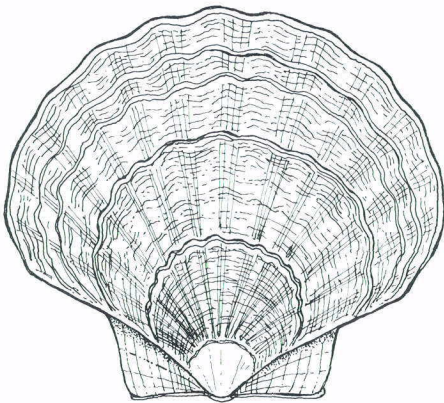




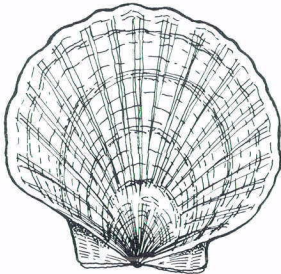
# MANX SEA FISHING

9

## SCALLOPS AND QUEENIES



Scallop



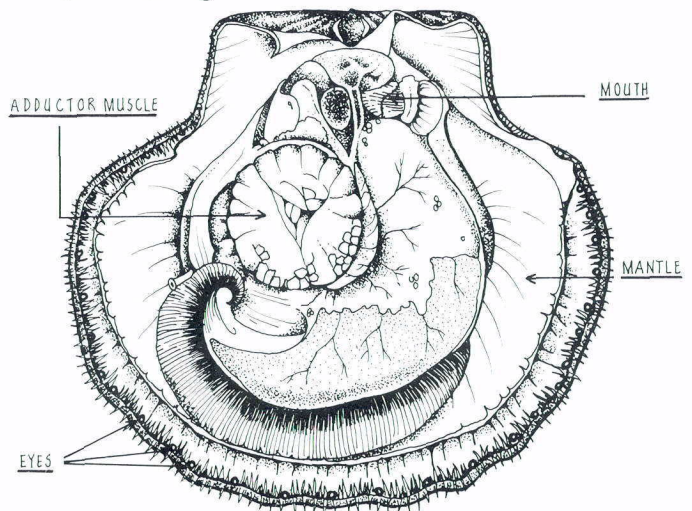
Queenie.

**S**CALLOPS are sometimes known as escallops, edible scallops or king scallops.

Queenies are also known as queens, or queen scallops. The attractive shells of scallops have always interested people. Greeks and Romans used the scallop shell form on coins, burial urns and for decorative patterns in houses. At Pompeii it is found as a wall and floor decoration. Later on Christian pilgrims who had visited the shrine of St. James at Compostella in north west Spain wore scallop shell shaped badges. Today it is best known as the badge of the Shell Oil Company.

Scallops and queenies both have almost circular shells. The queenie shells are smaller

and have more ribs. The scallop has one flat shell and one deeply curved, queenies have two curved shells. The shells of scallops and queenies are held together by a ligament along the almost straight hinge line and are also linked inside by a white adductor muscle. The adductor muscle, used to draw the two shells together, is the main scallop meat for which they are fished. When scallops and queenies are at rest the shells are open, showing a delicate mantle curtain and long tentacles which are constantly stretched out and withdrawn testing the water. These creatures are filter feeders, living mainly on plant plankton and bacteria. Amongst the bases of the tentacles are many tiny glistening green eyes. Scallops and queenies open and close their shells, jump and swim. They swim by quickly clapping their shells, seeming to bite the water as they move forward with the curved edges of the shells leading. Queenies swim much more actively than scallops. Annual growth rings on the shells can be used to find their age.

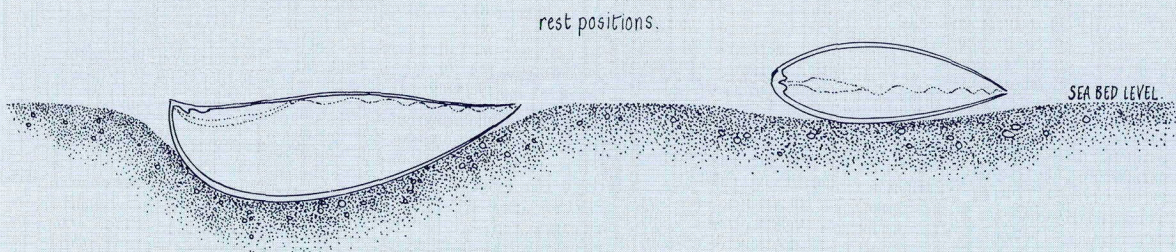


Scallop – Internal Organs.



Scallops usually lie in a slight hollow in the seabed with the flat shell uppermost and covered by a thin layer of silt. Once fully grown they do not normally move much unless disturbed. Scallops prefer parts of the seabed where there is clean firm sand, fine gravel or sandy gravel, making it easy for them to ease themselves into a little hollow. Queen scallops share the same areas as scallops, but can also live on harder gravel and shelly bottoms since they do not recess into the seabed. Both species can live in depths of up to 180 metres, but are commonest at depths of 18 to 46 metres in the Irish Sea. Both are coastal species and are found in largest numbers just inside or just beyond areas of strong currents, e.g. the Calf Sound.

Scallop fishing began in October 1937 off Port Erin. Later the grounds came to include areas off Chicken Rock, to the south east of Douglas and Kirk Michael Bank. Since 1972, when smaller dredges with spring tooth bars were brought into use, the rougher grounds to the south and east of the Island could be tackled without damage to gear. Scallop boats have operated much further offshore since 1972. In 1969 queenies began to be fished and scallop grounds which had not been thought worth fishing until then came into use, as queenies live amongst scallops and it was now worth taking them with the scallops as a by-catch.



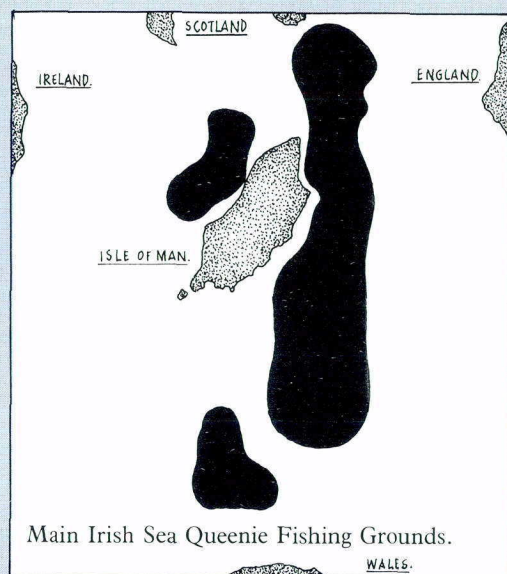
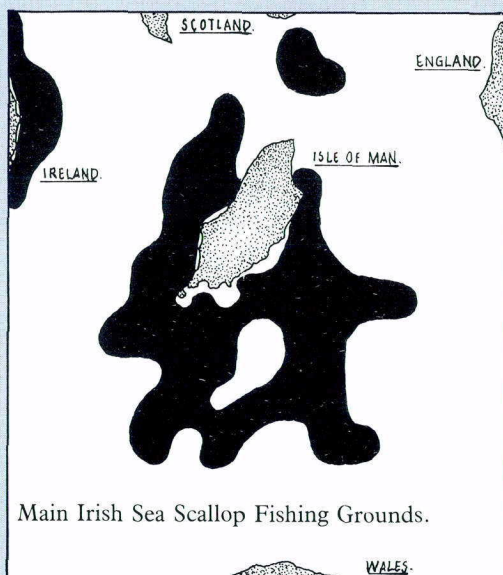
Scallop and Queenie – Side View.

Scallops can reach an age of about twenty years. Queenies have a much shorter life span, seldom living more than eight years. Queenies grow faster and are of commercial size in 14-18 months.

The parts of scallops and queenies used for food are the adductor muscle and the roe. In some countries only the adductor muscle is used for meat, in others the roe as well.

Scallop fishing now takes place over much of the north Irish Sea. Queenies occur particularly off the Point of Ayre, east of Douglas and south of Port St Mary. With the discovery of the Chicken Rock scallop grounds in the 1960's, Port St Mary became the Island's main scalloping port.

#### FISHING GROUNDS

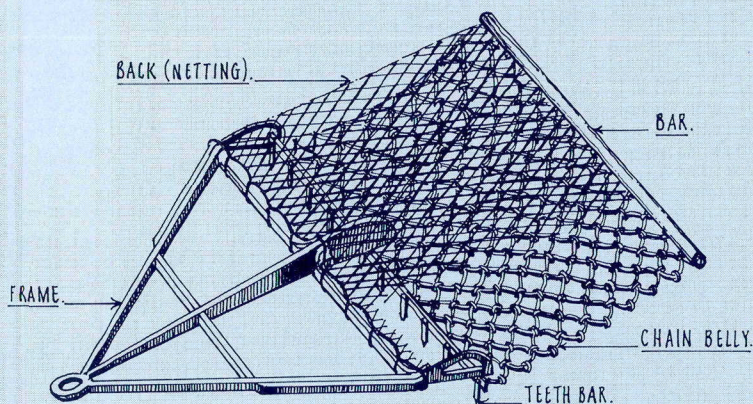


#### FISHING EQUIPMENT

Both scallops and queenies are fished using dredges. The typical dredges are 0.6 – 1.2



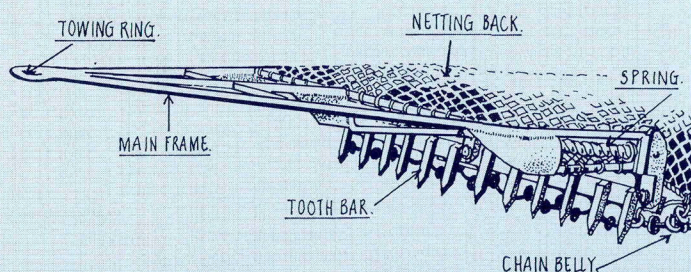
metres wide with metal teeth set vertically along the front edge at the dredge mouth. The dredges are fished in 'gangs' from a towing bar attached to a warp by means of a 'bridle'. The purpose of the dredge is to scrape the scallops from the seabed and a bag is attached to collect them. The bag usually consists of a belly of linked steel rings secured behind the blade with a back of netting which allows trash and general seabed materials to pass through. The dredge for queenies has shorter teeth and smaller diameter rings in the belly and there may be a tickler chain to disturb these more active creatures which will readily swim up off the bottom. The queenie dredge is also towed at a faster speed than the scallop dredge to keep the warp and bridles off the seabed lest the queenies are disturbed too far ahead of the net. The dredges used on rough ground are fitted with spring-loaded teeth allowing the escape of bottom deposit between the teeth. The gangs of dredges are fished from each side of the boat from an hour to an hour and a half at a time. Varied types of gear have been tried around the Isle of Man, especially since rougher ground has been fished. Since 1980 the Manx fleet has switched to fishing for scallops with small (0.6 – 0.76m) spring tooth bar dredges attached to tow bars on large solid rubber rollers. It is thought that these smaller dredges follow the ups and downs of the seabed more closely. On good, clean grounds queenies are often fished with special trawl nets which have large bobbins or 'rock-hoppers' on the footrope.



Scallop Dredge.

Sorting the catch may be done by hand on deck, or by machine. Scallops are large (say 110-140mm) and are usually hand sorted. Dead shells, stones and other debris are thrown overboard. Queenies, however, are

much smaller (50-90mm) and caught in larger numbers. There is more trash owing to the smaller mesh and ring size of the queenie nets and many under-sized animals have to be discarded. Steel rotary sorters are necessary to avoid time-consuming hand sorting of queenies.



Scallop Dredge – Showing Tooth Bar.

### PROCESSING AND MARKETING

After sorting the catch is hosed down to remove loose debris then packed in sacks of about 50kg. Scallops are packed carefully with the curved shell downwards to hold as much water as possible.

Queenies are shovelled in or fed in from sieves.

Scallops used to be delivered to markets live in their shells. In 1937 scallops would be landed at Port Erin, carried to Douglas unrefrigerated on the steam train, taken by boat to Liverpool, then by train to London. They were usually still alive when they arrived at Billingsgate Market, some 48 hours after capture.

Before there were local processing factories and only scallops were used there had to be a closed season during the warm months of the year when they would "go off" during transport in the sacks. By the 1960's scallop processing factories had been set up in the Isle of Man and the fresh scallop meat (adductor muscle and roe) began to be sent to Belgium and France.

In the later 1960's it was discovered that there was a market for queenies in the United States. Until this time queenies had been used only as a fishing bait, and those caught in scallop dredges were always thrown away as of no use for human food. The Isle of Man was quick to take advantage of the new market and all year use could now be made of the processing units, since Manx boats began to fish for queenies throughout the year.



Removing the meat from scallops is known as 'shucking'. Scallop shucking is done by inserting a sharp knife along the inside of the flat shell, removing everything except the adductor muscle and roe. Teams of women carry out this operation with amazing speed. Because queenies are smaller in size, hand shucking of the large numbers caught is not so practical. Several processing factories installed shucking machines when queenie dredging began. Hand shucking of queenies, however, has still to be done for the meat sent to Europe where roes as well as the adductor muscle is eaten (Americans do not want the roe). The meats of scallops and queenies are washed then frozen. They keep in good condition for up to six months if stored at  $-30^{\circ}\text{C}$ .

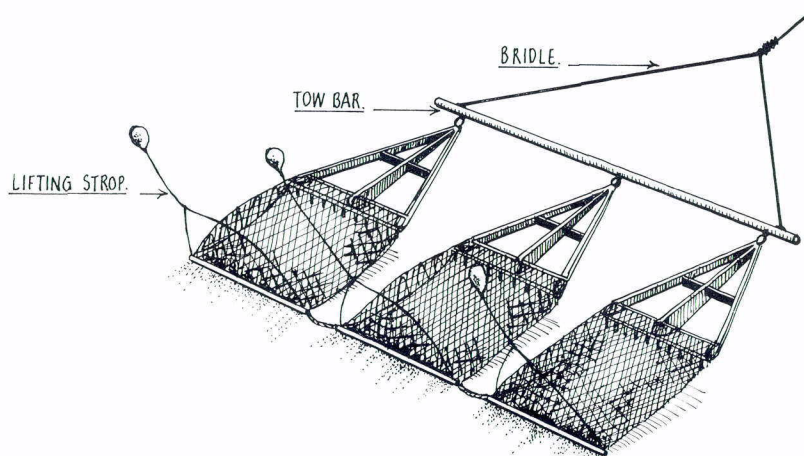
### THE MAINSTAY OF MANX FISHING

Until World War II herring fishing was the outstanding activity of Manx fishermen. Today scallops and queenies are the main catch. As the herring fishing declined with over-fishing nearly all this fishing was carried on by non-Manx boats and most of the herring catch was landed in ports outside the Island. The new fisheries were quite different. Landings of scallops and queenies are almost entirely from Manx boats. The new fisheries began just when the herring fishing was at its lowest ebb and has grown so that by 1987 95% of all the fish landed on the Island was scallops and queenies. 55 out of 68 Manx boats fished for them in that year. The Isle of Man has a very prominent place in the British Isles for this newer fishing industry. Of the total catch for the Irish Sea 60% is landed on the Island.

### CONSERVATION

Will the new fisheries be ruined by over-fishing? The Isle of Man is able to have its own fisheries policy and control fishing within its coastal waters. There has always been a closed season for scallop fishing since the industry began in 1937. At present the closed season is from 1st June to 31st October. There is also a minimum size limit of 110mm shell length on scallops which can be landed. There are no laws about queenie fishing, though the buyers will not usually accept catches where a large proportion of the shells is below 55mm. Most boats have a mechanical sorter aboard so that small queenies are returned to the seabed. The Marine Biological Station at Port Erin watches for any changes in the stocks of scallops and queenies. A special area of  $1\text{km}^2$  within the Bradda Head scallop fishing round has been closed to scallop dredgers and trawlers since 1989.

Experiments are being carried out to see if it is possible to increase the scallop stock by artificial means. Perhaps we shall see scallop 'farms' in the future on the lines of what is done in Japan. Experiments have already been carried out in the Isle of Man to see if scallop spat can be settled on artificial structures such as plastic mesh. It seems likely that the Isle of Man will have its share in turning man from a sea hunter to a sea farmer.



Three Dredges in Tow.