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THE
HERRING FISHERY.

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THE HERRING FISHERY.

IN the early history of our nation the North Britons were fonder of the chase, or an occasional raid by night on salmon with torch and spear, than looking after the treasures of the deep.

Little is known of herring except that the Dutch visited our coasts annually for the purpose of fishing them, returning often with good harvests. It is difficult to understand why Britain did not cultivate such an important industry, Causes of the neglect of fisheries. allowing the Dutch to have it all to themselves, unless it was the many wars she was engaged in and the continual local feuds that kept her hands full, for it would appear that this branch of fishing was very little followed after till the middle of the seventeenth century, and even then it remained for a long time unproductive, for many reasons, Unproductive even in 17th century. of which I will mention a few : first, the fishers were nearly all Reasons. small crofters, who, as they derived their subsistence chiefly from their crofts, did not require to prosecute the fishing to any extent. If they earned as much as would pay their rents and get a few necessities that their land did not supply, they were content ; and as they lived a very frugal life, their wants were but few.

Another reason was that their materials were not good. Materials defective. The boats that were used for fishing did not suit the

Boats (their
build, &c.).

purpose well, being nearly half as broad as they were long, and open from bow to stern. There was no place of shelter in them, nor any way of cooking their food. Oars were always used, but the fishermen always carried a large blanket with them, which served both as a covering to keep them warm and a sail when the wind was fair. These boats were round-sterned—from fourteen to sixteen feet keel and about seven feet beam. It was not possible to go any distance to look for herrings in boats of this description. They were known by the name of “nabbies.”

Nets and their
manufacture.

The nets were also very indifferent, being all home-made. The women spun the twine, and it was very coarse, twice as heavy as that used at the present time. The fishers themselves made the nets.

Crew.

There were generally four men in each boat, and each boat carried a train or fleet of nets consisting of four barrels, one for each man, the name “barrel” arising from the habit of carrying their nets in barrels when going from one fishing station to another. The barrel or net was not made in one length; it consisted of thirty “deepings,” each deeping being twelve yards long and fifty meshes deep, the size of the mesh being rather more than an inch, or what we term thirty-four rows per yard. I will now proceed to make some general statements, confining myself to the west and north coasts of Scotland.

The term
“barrel.”

Opinions of
writers re-
garding
migratory
habits of
herrings.
These
opinions
contradicted.

The method of fishing is nearly alike as regards herrings on all the British coasts, except “trawling,” which I refer to afterwards. Buffon and other writers were of opinion that the herring was migratory, that our coasts were wholly supplied from the Arctic regions, and that herrings visited our coasts in spring and left in early winter. The spawning banks off Ballantrae and others around our coasts have proved the fallacy of these opinions. In regard to these

statements, I remember hearing an old legend told, how An old legend that herrings were only to be found on the east coast of Scotland ; so a silver herring was made and towed after a vessel or boat round Cape Wrath, and the whole shoal followed and filled all the west coast.

I do not doubt that we get a supply of herrings from the Herrings from the oceans around. oceans around, but I think we depend chiefly on the herrings bred in our own waters. Men of experience seeing her- Distinctive marks in herrings of separate localities. rings in any of our markets can generally tell where they are caught.

Herrings fished at different places have their own peculiar Places quoted. appearance, such as Loch Nevis, large ; Loch Hourn (6 or 8 miles distant), small ; Scalpa, large ; Loch Broom, small ; Hebrides, all large ; Loch Fyne, generally large ; and Firth of Clyde, generally small.

This grouping of herrings in different classes according The herring scarcely migratory. to size proves, I think, that each class of herring frequents its own particular locality. I may state that I noticed in a newspaper that one of our professors had examined herrings caught at the Hebrides, and found that they had one or two more joints in the backbone, and one or two more ribs in either side, than herrings caught near the mainland. This shows that there is a difference in the species.

In the early history of the herring fishing there were Great quantities caught occasionally in early times. sometimes great quantities caught, although the boats and nets were deficient. The fishermen waited till the herrings went to the heads of the lochs in shallow water, where their capture was easy. Sometimes their nets were so full of herrings that their boats could not take more than half of them. But that involved no loss, as they could return when empty and haul the remainder. Nothing could go wrong with their nets, as they were generally trammelled in

Carries built. sheltered places. Carries were built in some places, that is, a round circle was built with stones to the height of about four feet. At high water the tide overflowed the wall by some feet, and the herrings went in and got ebbd.

At Loch Slaben in September 1867 one hundred crans were taken in one of these old carries that had been kept in repair.

The beginning
of this century.

About the beginning of this century there were large fleets of vessels, of from 30 to 150 tons burden, fitted out from our ports on the Clyde bound for the lochs in the west and north highlands to buy and cure. Others of them fished their cargoes. The herrings were all sold by the cran—a cran holding forty-five gallons.

Price and
profits.

The average prices at the fishing stations were from 10s. to 15s. per cran.

A town built
on herring-
bones.

Great profits were realized, as they were seldom sold in the market at less than £2 per barrel, and sometimes at a much higher figure. It was one of the staple trades of Greenock, and Rothsay is said to have been built on herring-bones. Ayr and other places contributed their fleets. Saltcoats, a small sea-port, sent out twelve to twenty vessels every season.

Saltcoats.

The varying
fortunes of the
trade.

The vessels that bought generally made a good many runs in the season, if the fishing was good. Sometimes it proved a complete failure, and it was not an uncommon thing for a vessel to come home clean. I remember hearing of a vessel and her two fishing boats being away four months, and all for one barrel of herrings. Seasons so poor caused heavy loss to all concerned, and the Government saw that a branch of our industries was not improving. So they established a Board of Fishery, with powers to give grants to fishermen and to maintain law and order among them. One of the grants allowed was for

Government
encourage-
ment.

Board of
Fishery.

the purpose of helping to repair broken boats. They offered a bounty for herrings fished a certain distance from shore. This deep-sea fishing, however, did not succeed, as fishermen had not made any improvement on their materials.

At that time there was a heavy duty on salt, but salt used for curing herrings was relieved from taxation by Government. They also stationed fishery officers at the different fishing districts along our coasts, to look after fishermen's interests, and to settle any disputes among them, or between them and the buyers. They were there to see that no measures were used except those that bore the Crown brand.

Government
superintend-
ence of fish-
eries.

Fishery
officers
appointed.

Their duties.

If herrings were sold by the hundred, forty-one casts and a tally were given, making in all one hundred and twenty-four herrings; this was the rule on all our coasts except at Howth, where forty-two casts were given, being three herrings more. If there was anything too difficult for these officers to settle, they referred it to headquarters. They were also experienced in curing, and had power to brand barrels, first having ascertained that they were well filled and properly cured. Curers who wanted the Crown brand had to pay a small fee for each barrel. Crown brands always drew a better price in home and foreign markets than individual or company brands. The Government also appointed a revenue cutter under the Board to attend the fishing fleet. Her duty was to see that each boat was properly lettered and numbered. These letters are the custom-house initials of the district to which the boat belongs.

Higher price
drawn by
Crown brand.

Revenue
cutter and her
duties.

Lettering and
numbering of
boats, and the
advantages of
the same.

The letters and numbers have proved very useful if any damage is done, such as fouling of boats or destruction of nets; the guilty parties can at once be found, if their official

Cutter goes
to sea with
the fleet.

number is known, by applying to the cutter. At the outside fishing stations she goes to sea every night along with the fishing fleet, not returning till the fleet is in harbour, and if any boat gets disabled she takes her in tow.

Improvement
under Fishery
Board.

The fishing gradually improved under the Fishery Board, but it was not until about 1840 that a new epoch in the history of the herring fishing came about, when a Mr.

Improved
nets.

Paterson patented a machine for making nets. He opened business at Musselburgh, and it was not long before he had a great many machines at work. The demand for these nets was very great, and has gone on steadily increasing. There

Difference
between hand
and machine-
made nets.

are now a great number of these net factories over our land and our colonies, and other parts of the world are supplied with these far-famed nets. The machine nets are much fairer than those made by the hand, and consequently fished better. Instead of two hundred meshes, as

Nets enlarged.

before, they were increased to three hundred meshes deep, and in two or three years the trains increased in some cases to twenty pieces, each piece a hundred yards long and three hundred meshes deep. By this time there had been

Better boats,
but not quite
adequate.

a great improvement on the boats. There was the "wherry," a good large-sized boat with a place for the crew to sleep in, but rather clumsy on the whole. The fishermen began to see that these boats were, although better than their predecessors, still unsuitable, and that they required something faster and abler. So they applied to

Superior boat
from Fairlie.

Mr. Fife, boat-builder, Fairlie, father of the present Mr. Fife, yacht-builder there, who built a number of beautifully modelled fishing boats, some of them being 39 feet keel, 12 feet beam, and from 6 to 7 feet depth of hold. A

Plan for
lowering sail.

plan was also invented for lowering the mast when the nets were shot, allowing them to be hauled much more easily. These boats sailed very fast, and suited our waters well ;

but for the outside fishing nothing has yet been found to equal the Penzance and St. Ives luggers. I consider them far superior to the east of Scotland luggers ; the fineness of their lines and the symmetry of their hulls make them more to resemble pleasure yachts than fishing boats. Some of our west of Scotland fishermen went to England and got boats of this class built to order, and their models were copied here for the mackerel and outside herring fishing. When fitted up with every appliance they cost nearly a thousand pounds. Our fishermen say they are really good boats, being so buoyant that they can weather almost any storm. The Isle of Man fishers seem to have a like good opinion of them, as all the old crafts have given way to them. The nets in these large boats are nearly all hauled by spring-backs, which are hove in by capstans or winches. Some of the largest boats indeed employ steam winches for this purpose. There is an improved winch, or, as fishermen call it, "iron man," which can be used without a spring-back, thus saving both labour and expense. The east coast fishermen regard it as a great improvement. The boats used at both the out and inside fishing are in the best of order, and whatever may be said to the contrary, the gear, sails, sleeping berths, cabins, &c., are all good. Speaking of boats and their furniture, I may state that it has often occurred to me that a part of the ballast carried on the outside of the boat would prove a protection against capsizing, and give more stowage for nets. That this would give extra speed is shown by the example of the yachts. Some people might object to this proposal on the ground that it would be unsuitable for dry harbours, but I cannot think that a few tons of iron bolted through the keel and through a good keelson would do any harm ; and where the boats were always kept afloat, more could be added. I mention iron as

Penzance and
St. Ives
boat.

Adopted in
Scotland.

Cost of these
boats.

Nets in boats
mentioned.
"Spring-
backs."

Boats and
furniture in
good order.

A suggestion.

being much less expensive than lead, and a casting of iron of the required mould could be made at any foundry.

Steamboats
for fishing
herring.

Steamboats for fishing herrings have been tried, but on account of the expense involved have hitherto been little better than failures. However, I think I am safe in saying that steam will yet become general in our herring fishery. When such improvements are being made in the departments of steam and steam engines, it is difficult to say what may not be in the future.

Steam fishing
boats of great
service at
outside
fishing.

Steam fishing boats would be of great service at our outside fishing grounds, which are sometimes far from harbours. The fleet sometimes goes as far as thirty or forty miles to sea, and then calm weather or headwinds are great drawbacks, especially with heavy hauls on board, as if they are not in time for that day's market the whole cargo is generally lost, and likewise the following night's fishing. I have seen, both at Stornoway and at Howth, as many as two nights' fishing lost in one week with calm weather.

Towing at
Shields.

At Shields towing is becoming very common among the fishing fleet; a tug will engage to attend six fishing boats for a week for £30—£5 for each boat—thus showing that steam for herring fishing is much required; and it is to be hoped that, seeing steam trawlers have been so successful in other fishings, it will not be long before steam will be employed in this fishing also.

The year 1848
nets.
Cutch.
Tanning of
nets.

Returning, in the matter of nets, to the year 1848, I may first mention that cutch was for some previous years used by fishermen in tanning nets, sails, &c. It is a great improvement on the old system of boiling oak or larch bark to draw the tanning qualities from them. I have seen days and nights occupied under the old system in doing an amount of work that with cutch can now be done in as many hours. The cutch has only to be melted in water

Advantages
of "cutch."

and poured on the nets in a large tub till they are well saturated. This process is repeated once a month while the nets are new, afterwards the periods can be lengthened ; but if nets have not been properly cured they will rot in a very short time.

Method of
tanning by
cutch.

Different substances, such as alum, oils, dyes, tar, have been tried for curing purposes, but nothing has yet been found to equal cutch.

Small trawl-nets were in use before the year I have mentioned, chiefly for fishing saithe. When these fish came close to the shore a few herrings were sometimes caught in this kind of trawl, but they were not looked after. About this time a fisherman belonging to Tarbet on Loch Fyne lost part of his drift-nets, so he made a large trawl of what remained.

Trawl-nets for
"saithe."

The first night he went out he secured a large haul of herrings with this net, about four hundred maise (five hundred herrings being a maise). This was a turning point on the road to improvement in our herring fishing, proving in this case the truth of the old adage, "Necessity is the mother of invention."

Trawling for
herrings
commenced.

About this time a number of fishermen, the writer being one, began to make trawl-nets. In the beginning of 1849 I had in one haul upwards of three hundred crans of very large herrings (about five hundred to the cran). We drew, however, only a very small price for them, about 5s. a cran, as we did not know of any fresh market for them, and curers were afraid to buy, as they thought that trawled herrings would not cure. One buyer sent a few of them to England, and next year the result was that we had buyers from different parts of England, including London ; prices rose to 7s. and 8s. per hundred, or from 35s. to 40s. per cran, showing that there must have been a great demand for large herrings in England.

The writer's
experience in
1849.

English
market
opened.

Its beneficial
results.

Before this the buying was mostly in the hands of the curers. The greater part of the herrings fished on the coasts of Scotland were cured and sent to the market and sold as new salt herrings. Grocery shops and other places of retail sold them by the pound, like any other commodity. The opening up of the English market to us, and the prices realized there, alarmed the curers, who thought this new method of fishing would hurt their trade, and they raised the hue and cry which several interested parties were not

Trawling condemned by interested parties.

slow to take up. They said that trawling would soon rob our waters of all the mother herrings, and that herring fishing would soon become a thing of the past. Among the malcontents were fishermen, if we can call them fishermen—men who earned their livelihood as such in the summer months and returned to their trades or farms in the winter. In the newspapers articles appeared against trawling, and monster petitions, very largely signed by consumers, were presented to Parliament against the practice.

Trawling forbidden by Act of Parliament.

The consequence was that in 1860 an Act was passed making trawling illegal on the west coast of Scotland, also closing the time for fishing herrings from the 1st of February to the 1st of June.

Effects of this measure.

Many fishermen and their families were brought to poverty through this Act. The law was so strictly enforced that the fishermen were not allowed even to fish herrings for bait, and a substitute for this purpose could not be found.

Government inquiry instituted.

Her Majesty's Government at last became aware that some error had been committed and appointed a Commission to investigate. The Commission found that neither the quantity nor the quality had been produced since the

Commission appointed to investigate.

Act repealed.

passing of the Act already referred to; it was repealed as soon as possible and all restrictions removed. After this herring fishing began to flourish. Cotton twine was also

introduced for making nets, giving us a finer, cheaper, and more durable article than the hemp or flax nets that were formerly used.

Trawling has now become a recognised method, and the nets are enlarged to such an extent that, instead of being fifteen or eighteen score meshes deep, they are now from forty to fifty score meshes deep, and three hundred yards in length.

Trawling now
a recognised
method.
Trawl-nets.

Some of our fish merchants tried a small screw-steamer to attend trawlers and run with their herrings to the market, as heavy hauls were sometimes got early in the morning. This plan succeeded so well that we have now about a dozen screw-steamers in attendance. Tugs are sometimes chartered for the same purpose. These steamers are all capable of maintaining a high rate of speed, some of them reaching eleven or twelve knots an hour, so that when they get their cargo of herrings on board they very soon reach Glasgow, often before the market is open. If the herrings will suit the English market they are sent off per rail as soon as possible, and will arrive in England in good condition. When the steamers are on the fishing ground they follow the fleet, and the fisherman who gets a good haul shows a signal with a light which the buyer understands. A steamer is soon on the spot, and when the price is agreed on, the work of transferring the herrings from the boats to the steamer is soon accomplished. The herrings are sold by the basket to further their dispatch.

Small screw-
steamers
employed
by merchants.

The herrings
transferred
from boat to
steamer.

It requires two boats for trawling, and each boat has a crew of four men. They generally put to sea in the afternoon to look for appearances. One man is always stationed at the bow to keep a look out, and the practised eye will at once detect the slightest appearance of herrings.

Two boats
for trawling.

The "look-
out."

Methods of
discovering
the presence
of herrings.

There are different ways of discovering their whereabouts, sometimes by the presence of gulls, "gannets," porpoises, or the whale. But what is most depended on is what fishermen term "putting up." Bubbles are seen rising to the surface caused by the water passing through the gills of the herrings. The other appearances mentioned are often on small fry, but this of "putting up" seldom fails.

Trawling.

When seen the net is run out in the form of a half circle and hauled near the shore, if possible. The two ends of the net are hauled into the boat, forcing the herring into the centre or bag, where they can be taken out with baskets. Heavy fishings are also got in the middle of our channels by making a circle with this net. I think that steam launches would be a benefit for trawling purposes, as the boats are too large to be easily managed with oars, and they could go a greater distance in calm weather to look for herrings. The take with drift-nets on the west of Scotland has been greatly on the increase for the last two or three seasons, while in Loch Hourn it has been unprecedented.

Steam
launches a
benefit.

Drift-nets.

Successes of
drift-net
fishing.

Our east coasts both in England and Scotland have also done well, and good "takes" have been fished at the Orkneys. Some of the boats fished there two hundred crans in a few weeks. At Howth and Ardglass it has fallen off greatly, and no reason can be given for it. It cannot, however, I think, be attributed to over-fishing. In my own experience I have observed that herrings will frequent certain grounds for a number of years, then suddenly leave, to return again when not expected.

Decrease at
various places
not to be
attributed to
over-fishing.

Sudden move-
ments of
herrings.

Recent im-
provement on
drift-net.

An improvement has of recent years been made on the drift-net which I cannot explain better than by saying that the net is turned upside down. The strong rope is underneath, and a small cord or rope is run along the upper edge

well corked, so that the net can be kept on or near the surface. This plan will do well where herrings are fished in the tracks of steamers. Some of these, as well as sailing vessels, draw twenty-four feet water, so fishermen must have their nets fully that distance below the surface to allow them to pass; so if the herrings are near the surface the greater part of the nets will be beneath them. When the small rope is uppermost, steamers or sailing vessels passing over the nets will only break the small rope, doing very little damage, as the strong rope will keep the whole fleet of nets together. By this means the herrings can be fished near the surface. This inverted net was first used on the east coast of Scotland, where it has now become general. A few of the west coast fishermen have adopted the plan with success.

Inverted net
first used on
east coast of
Scotland.

At Ballantrae a different kind of net is used when the herrings are on the banks spawning. These nets are called 'bottom nets,' and are about eighty meshes deep. A rope is put on both edges; the upper one is well corked, while on the one underneath stones are tied to keep the nets at the bottom, the stones being some distance apart. A large stone is attached to either end for moorings. I have seen these narrow strips of nets completely filled with herrings, and when this is the case it is with the greatest difficulty that the crew can get them hauled.

Nets at
Ballantrae.
"Bottom"
nets.

It is to these banks that the greater part of the herrings on the west coast of Scotland resort to spawn, and I may add from the English Channel also, as great shoals are seen coming from the south. The herrings begin to gather there about the 1st of January, and by the middle of February the greater part of the body has arrived. They begin to spawn about the end of February, and are generally spawned and away by the middle of March.

Banks at
Ballantrae.

Spawning.

Herrings do not go in a body after spawning, but scatter, keeping near the surface to get food, and if it is mild weather they are in good condition by the middle of June.

Ancient origin
of Ballantrae
fishing.

Its import-
ance.

The Ballantrae fishing is of long standing—some old papers turned up not long ago showing that herrings were fished there as far back as the 15th century. But it is only of recent years that it has become of such importance. As many as five hundred boats from different parts are fishing there every season; the majority are trawling, and the greater part doing well, as the prices are generally good—much better than in the summer season. The most of these herrings are sent per rail to England.

Fishing at
spawning
time.

Some think that herrings should not be fished when near spawning, as it will affect our future fishing, and that they are not in a good condition for food. Regarding the last statement I would say that the prices realized for them show that they cannot be in a bad condition, and the idea that man may reduce the quantity of herrings in the sea is simply absurd. As many as 68,608 eggs have been counted in a single female, and if only a tithe of them would come to maturity our waters would get completely filled.

Herrings the
food of other
fish.

All sorts or kinds of fish in our waters will eat herrings, and they constitute the chief food of the most of them. It is enormous the amount of herrings destroyed by other fish for food. I saw a fish caught about twenty lbs. weight, and in its stomach were one hundred small herrings about two inches in length. Now if a single fish will consume that quantity at one meal what must the total consumption be? It is well known that sea-fowl also live almost entirely on herring, so that the herrings fished by man must be only a small fraction compared with what is destroyed otherwise.

Sea-fowl also
live on
herrings.

Abundance of
herrings at
Ayr, 1796.

I remember seeing in an old Edinburgh publication that on the 20th of August, 1796, the herrings were so plentiful

along the shores at Ayr that the people got a good supply by means of baskets. This is not at all wonderful, as three years ago we lifted a good many on board with baskets in deep water off Ballantrae. Abundance in recent years.

Writers differ widely in their opinions regarding the time required to bring a herring to maturity—most of them thinking that it takes years. Fishermen, too, I observe, are undecided on the point, but recent experiments in Maturity of the herring. Rothsay Aquarium. Growth of the herring. Mr. Buckland's investigation. A failure. Probable causes of the failure. Beauty of spawn on seaweed.

Rothsay Aquarium. Growth of the herring.

Mr. Buckland's investigation.

A failure.

Probable causes of the failure.

Beauty of spawn on seaweed.

put in there a few inches long became full grown in less than eighteen months, though they did not fill properly. It may be supposed that if in confinement herrings grow so quickly, maturity must be reached much earlier in the open sea, where proper food can be got. At Ballantrae, in 1879, I assisted Mr. Melville, who was fishery officer there at that time, in procuring some herring spawn for the late Mr. Frank Buckland, Her Majesty's Inspector of Salmon Fisheries. He wished to ascertain the time taken by the herring to arrive at maturity. Most likely the spawn died before reaching Mr. Buckland, as his investigation was unsuccessful. The bottles employed were small, holding only two pints or little more. These were filled three parts with water, and pieces of seaweed, to which the spawn had adhered, were also put into the bottles, which were closed by covering their mouths with thick paper secured with gum, no air being admitted. The spawn would be at least two hours out of water before being placed in bottles. Had larger bottles been used, the spawn placed immediately in them and the cover perforated, the result might perhaps have been more satisfactory. It is very beautiful to see the spawn on a broad leaf of seaweed. There is no crowding, each egg or particle is placed in the nicest precision, and there is ample space to allow the egg to expand as the young herring is

Early develop- forming. I have seen head and eyes distinctly developed ment.
five or six days after being spawned.

Growth of If their growth could be ascertained as easily as that herrings, of the salmon, it would most likely be found that the herring, to arrive at maturity, takes months instead of years, as is generally supposed at present.

Two classes It is universally thought that there are two classes of herrings, the "Gutpock," or herring that feeds, and the herring that derives its nourishment from water only. All herrings, however, must eat till they are full grown, and after spawning they eat till they become "prime," that is, when Stomach. they become well filled with fat. If this fat was examined the stomach would be found in the centre of it, completely closed up.

Weather— I believe that warm weather is beneficial for fishing, especially in summer, as heat is requisite for bringing to its effects, life that small fry on which herrings feed. This fry is The food of herrings. scarcely discernible, but when sailing over a quantity of it the water has a reddish appearance. It is generally near the surface, and if drift-nets are run out through this, good fishings are generally got if herrings are there in search of their food.

Personal In my own experience at different fishing grounds I have experience. always found that the stomachs of prime herrings when Food of examined were empty, and that their general food was that herrings. small animalculæ which I have just referred to, and which, depending on the warmth of the season, is to be found in the end of April or the beginning of May. This animal- Summer life. culæ or crustacea comes into life with the increasing heat of the water, and dies when the cold comes, the quantity always being in proportion to the degree of heat. Another Jelly-fish. instance of this short summer life is to be found in the jelly-fish, which appears in the beginning of summer affords

food and shelter to the young whiting, and dies on the approach of winter. A warm summer must therefore, as I said before, have a beneficial influence on the fishing, as it is generally the end of summer when herrings become "prime."

If, however, the herrings cannot get this food, which appears to be specially prepared for them, they will take shrimps or

other small fish. It is in August that our lochs teem with herrings, especially our deep-water lochs, and it is there

that herrings get that fine flavour for which Loch Fyne herrings are so much famed. When fishing in Loch Fyne

I have seen the nets lowered twenty, forty, and even fifty fathoms below the surface to get these fine herrings. In

Loch Hourn and all other deep-water lochs along our coasts the herrings improve in quality very rapidly. About

August herrings gather into large bodies, and if broken up they immediately close again so as to protect themselves

against their enemies. These shoals can only be attacked on the flanks, as when alarmed the body becomes so dense

that the assailant is in danger of being choked by the multitudes. It is for such shoals that trawlers naturally

watch. If they are not seen in the daytime by the appearances I have already described there are other ways

of finding them at night. If it is a moonlight night fishermen watch eagerly for them rushing or "putting up"

on the surface of the water.

But when the night is dark, a man is stationed on the look-out, and by striking on the gunwale of the boat, the

herrings can easily be seen moving by means of the phosphorus that is in the water. If herrings are plentiful

they will make such a flame that it will light up all around the boat when a heavy stroke is given on the gunwale. I

saw a statement by one of our professors, to the effect that he had examined the head of a herring and that it con-

A warm
summer
beneficial.

Other food.

Deep-water
lochs.

Density of
shoals.

The shoals
and the
trawlers.

"Putting up."

A dark
night.

Phosphorus.

Herring
having no
organ of
hearing.

tained no organ of hearing. If this be the case the other senses must be very acute, as at the slightest noise they will swim away, though it be a gun fired at a considerable distance. The same appearances are, of course, looked for by drift-net fishermen.

Morning
fishing.

It is in the evening that herrings generally "mesh," before the "fire," as the fishermen term it, comes into the water. The reason of this is that herrings notice the nets by the phosphorescent light and avoid them. If the fishing is light and the night long the fishers generally haul in their nets and look somewhere else for herrings, so that they may have another chance before the break of day.

Fishers
change their
positions.

Moonlight
fishing.

It is different altogether when there is moonlight, as then herrings often net all night. Hence the line in the old song, "The herring loves the merry moonlight." Drift-

Enemies of
fishers.

net fishermen have many enemies which prey on the herrings caught in their nets. During some seasons the

Dog-fish.

"dog-fish" is very plentiful, and very destructive, doing great damage to the nets as well as abstracting the

Porpoise.

herrings. Porpoises too, in large numbers, frequent our waters, and, when they discover nets well-fished, the fisher-

Nets attacked.

men have but a poor chance, as the nets are cleaned by them faster than they can be hauled. There are many other

The basking
shark.

enemies among the large fish which do a great amount of damage, but the most destructive of them all is the basking shark or sunfish. It visits our coasts in the beginning of summer and leaves at its close. Fishermen

Destruction of
basking shark
among nets.

greatly dread this monster, as it often carries away their nets when it gets entangled in them, or if the nets are left they are so badly torn that they seldom can be mended.

Harpooning
the "shark."

In the beginning of this century the harpooning of the basking shark was common on our coasts, and it is said to have been very remunerative, as an immense quantity of

oil as obtained from its liver. I mention this because I think that not only would it be profitable to pursue this fishing at the present day, but it might help to rid the waters of one of the drift-net fisherman's worst enemies. It may be the scarcity of the fish was the cause of this fishing being discontinued, but its reappearance in greater numbers during the past ten or twelve years might warrant fishermen in turning their attention to the subject. It would not be difficult to harpoon these fishes, as they will remain on the surface a long time, allowing a boat to come up quite close to them before going down.

Having just returned from Ballantrae (March 20, 1883), I will add my experience of the year's fishing there. It was the general opinion of all fishermen that there were more herrings on the Ballantrae Banks than had been there during any previous season in their experience. The gales, however, in January and February were very much against the fishing; it was but seldom that boats could go to sea, and when they did get out it was only with the drift-net that boats did any good. I have explained before that the trawl boats have to be pulled with oars while making a ring, and the drift-nets are run out in a straight line before the wind, consequently there were very few herrings landed, and prices ran as high as £5 per cran. The 1st of March brought a change for the better, and there were landed on one day seven thousand crans; prices ranging from 15s. to 20s. per cran, mostly trawled. Some of our trawlers are engaged by an English firm to trawl during the first two months of summer on any part of the Irish coast from Innistrahull to Ardglass. They are to be attended by steamers to take the herrings to market. The trawl has never been used before in this district for herring fishing.

I Harpooning the "shark," recommended

Experience at Ballantrae. Year 1883.

Gales in January and February. Drift-nets only of use.

Price. Improvement in March.

Engagement of trawlers for Ireland.

Shetland and
the trawl.

In conversation with some fishermen who had been fishing among the Shetland Islands during last summer, I heard it stated that trawling, if adopted there, would be a success, as the herrings were close inshore. The only difficulty would lie in getting the trawl boats there, on account of the great distance.

Source of
wealth to
England.

I need not say anything here of what a great source of wealth the herring fishery is to our country, as that is well known from the figures published regarding our exports, not to speak of the immense quantities consumed at home. It would not be possible to give a correct statement of what is used at home; there are so many bye-ports and creeks where herrings are landed.

"Catch"
greater.

It is acknowledged by all, including those who would put restrictions on engines used for fishing, that the "catch" of herrings is greatly on the increase. I have forty years' experience, and I see no danger of reducing the quantity of herrings in our waters. All the improvements on our material have been a benefit both to fisher and consumer, and, judging the future by the past, we may expect greater improvements and better methods still in capturing the finny tribes. Restrictions on any industry are hurtful, but they are particularly so when applied to herring fishing.

No danger of
reduction of
supply.

Better
methods in
future.

Curing.

Before closing I may mention that the system of curing for the home market is now nearly supplanted by better methods of preparing herring for food. There is the "bloater," and the "kipper," and many other ways of making them more palatable than having them packed in barrels and covered with pickle.

"Bloater,"
"kipper," &c

Railways.

Our railways are also a great advantage to fishers, branches being laid to all the principal parts of the coast, and steamers run in connection with them to the islands, bringing as it were the remotest stations near, so that

England can in a few hours get a fresh supply from the far North.

It is computed that in Scotland alone upwards of one hundred thousand persons depend on the fishing for their support, and if England and Ireland were added thereto, the number would be immense. It is well known that our navy derives a great many of her seamen from our fishing population, and so does our merchant service, proving that Great Britain's fisheries are most beneficial to her, both directly and indirectly.

Our Government has always taken a deep interest in the fisheries of the country, and fishermen as a rule know this and appreciate it. They are a loyal race, and, if need be, they would, in the words of the poet :—

“Stand

A wall of fire around our much-loved isle.”