

10.—SOME OF THE EARLY RESULTS OF THE INTRODUCTION OF COD GILL-NETS AT GLOUCESTER, MASSACHUSETTS, 1880-1881.**By S. J. MARTIN.**

[Letters to Prof. S. F. Baird.]

A few remarks on the cod gill-nets used by Capt. George H. Martin on the schooner Northern Eagle. He set them one night on the Honey-pinks, and got 1,000 pounds of cod; but the bottom was rocky, and the nets were somewhat injured. Afterwards, he set them in Spanish Bay, and obtained 4,000 pounds in two nights. The fish were very large, averaging 22 pounds apiece. The catch of the nets was greater than that of the trawls. One boat fishing close to the nets with 10,000 hooks got 2,000 pounds. Captain Martin thinks the nets will work well. Those he has are 50 fathoms long and 3 fathoms deep, with glass ball floats, like those which we used; but the twine is too small and breaks easily. He has gone to Boston to get eight more, made of salmon twine, with a length of 100 fathoms each and a 10-inch mesh. The fish are scarce. I will keep you posted on the nets.

GLOUCESTER, MASS., *December 1, 1880.*

The schooner Northern Eagle made a second trip down in the bay and obtained 6,000 pounds of large cod, which were sold in Boston for 3½ cents per pound. She had no bait bill. The schooner Breeze went out at the same time, and had a bait bill of \$54. She used 10,000 hooks on the same ground where the nets were set and took 7,000 pounds, half of her fish being small.

They are going to have three nets, 50 fathoms long, to a dory, which will make twenty-seven in all. I think that after they are equipped they will get a good trip in two nights. The men no longer get their fingers cold by cutting up frozen herring, and do not have the trouble of baiting trawls. The decks are clear, and when the nets are hauled the fish are put into a pen on deck and salted. The nets have, each, twenty two glass-ball floats, and twenty-two bricks for sinkers. The herring catchers don't like to see them introduced.

GLOUCESTER, MASS., *December 10, 1880.*

The Northern Eagle has made a third trip to the bay, with the cod gill-nets. She was gone two days. The weather was bad, but they set the nets five times and got 15,000 pounds of large cod, averaging 23 pounds apiece. Eight thousand pounds were taken at one haul. The first nets they had are condemned; the twine of which they were made was too small and they were torn all to pieces. They now have twenty-four nets, 50 fathoms long, with a 10-inch mesh, all made of salmon

twine. Ipswich Bay is a hard place to fish in with nets. The fish are all caught on a place ten miles long northeast and southwest, and two miles wide southeast and northwest. If one gets outside of that range he will take nothing. There are fifty sail of vessels fishing on that small piece of ground. The vessels will average six dories each, and each dory sets 1,000 hooks. The Northern Eagle set her nets one night outside the trawls, and got only 300 pounds of fish. The nets were then taken up and set on a bunch of rocks, and there they caught plenty. One vessel set her trawls across the nets and hauled one up and cut it in two. I think that in the spring, when the bait gets scarce, some of the vessels will go to George's, and the Northern Eagle will do better, as she can then set her nets in deeper water. She has done as well as the trawlers, and has had no bait-bill to pay; the last morning the nets were hauled one man got 68 large fish in one net. The water was 11 fathoms deep where the fish were taken. They have to lie still all day, as no fish are caught in the nets except at night.

GLOUCESTER, MASS., *December 28, 1880.*

The schooner Northern Eagle has made a trip to Ipswich Bay and has done well. She sold 19,300 pounds in Portsmouth and 15,500 pounds in Gloucester. They under-run their nets seven mornings. None of the trawlers got half as many in the same time. They never took their nets up till they got ready to come home. They had them down a week and three days; got 8,000 pounds one haul. The fish they landed in Portsmouth averaged 24 pounds each. The trawlers say the fish are scarce in Ipswich Bay. One vessel went out when my son, George H. Martin, did, and arrived this morning with 4,000 pounds. They did not get their nets torn much this time. The crew are as proud as a dog with two tails; no bait-bill; no trawls to fix. The trawlers have not bothered them much this time; they lose too many hooks. There are two vessels at Portsmouth which are going to have nets. I think some of the boats here will have nets. Most of the shore boats will have nets in the spring. When bait gets scarce the nets will do well. There were 52 vessels fishing in Ipswich Bay last week—a large fleet for so small a place. The fish are full of ripe spawn. I saw four and a half barrels taken from 15,000 pounds of fish. The female fish are very large. One-half of our vessels sell their fish in Portsmouth. George told me to-day that they got 10,000 pounds at one haul instead of 8,000 pounds. One dory got 84 fish. Schooner Phantom arrived to-day with 8,000. It went down the same day that George did. So the nets catch more fish than the trawls, thanks to Professor Baird. The crew made \$32 to a share.

GLOUCESTER, MASS., *January 12, 1881.*

The schooner Northern Eagle, Capt. G. H. Martin, has returned from her sixth trip in Ipswich Bay. She got 35,000 pounds in four nights, which is three times as much as the trawlers obtained in the same time.

On the morning of January 19 she got 18,000 pounds in one haul. The schooner *Christie Campbell* had 10,000 hooks set abreast of the nets at the same time, and caught 37 fish. Captain Martin sold his catch to-day at \$1.40 a hundred pounds. The following vessels are having nets made: Schooner *Emma L. Osier*, 18 nets 50 fathoms long; schooner *Defiance*, 15 nets; schooner *David A. Osier*, 18 nets. Some of the men that are going in small boats are knitting two nets each. John Pew has a vessel which is going to carry nets to the Grand Banks. Captain Wheeler, of the schooner *Defiance*, went to Boston yesterday and ordered 900 fathoms. I think that next month all the boats will have nets. The net company ought to give Captain George a gang of nets. It has more orders than it can fill in three weeks. The glass-blowers told Captain Wheeler that they had 2,500 balls to blow. There were five masters of vessels over to see Captain Martin to find out how the nets are set and how they are rigged. Some think that if all have nets they will not get so many fish. It is suggested that the bait on the trawls toles the fish. The complaint is made that if all have nets of 10 inch mesh they will not get any small fish to cut up; so much the better; the large ones will fetch a higher price. Captain Martin thinks the nets are good things, because they give the small fish a chance to grow. He does not think they will hurt the fishing as much as the trawls. In the nets they get all that "mesh," while on the trawl the fish often break the gangings and go off with the hooks in their throats, which soon kill them.

Captain Martin in six trips has landed 120,000 pounds of fish, which were all sold round. He did not have a hundred pounds of small ones; while some of the trawlers got one-third small. The bait-bill of some of the vessels that started when he did is \$380. The men on the herring vessels swear at the nets because they think none of the shore boats will buy bait after this month.

GLoucester, MASS., *January 22, 1881.*

The vessels with cod gill-nets are doing well. The schooner *Defiance*, with eighteen nets, got 45,000 pounds in seven nights. The schooner *Morrill Boy*, with twelve nets, got 24,000 pounds in five nights. The schooner *Emma S. Osier*, with eighteen nets, got 54,000 pounds in ten nights. The *Northern Eagle* got 12,000 pounds in three nights. There are several more which I have not heard from; they do not bring their fish to Gloucester, as they can get a better price at Portsmouth, and they do not have to come for bait. It bothers the fishermen why they cannot get big fish on the trawls. The average weight of the trawl fish last week was 10 pounds; of those caught in nets, 22½ pounds.

There are now 10 vessels altogether which have nets. The weather during the past week has been cold and foggy. There are in Gloucester 200 nets. When they all are in use we shall hear of good work. I am watching to get some spawn. I think some of the boats

will be up Sunday. One vessel from Portsmouth and three from Swampscott have nets. The schooner Barbara Frietchie has gone to the Western Bank, carrying three nets; and schooner Commodore Foote is going there with the same number. Some of the vessels tried floats made of cork boiled in pitch, which filled with water in two nights. One had hers of sheet-iron, but they flattened together. Now, all have provided themselves with glass ones. On Monday they got $2\frac{1}{2}$ cents per pound for fish in Portsmouth. The wind is blowing fresh from the northeast to-day, and the nets cannot be hauled.

GLOUCESTER, MASS., *March 2, 1881.*

The vessels with cod gill-nets have failed to get fish during the past week, as the weather has been too rough. Some of them hauled their nets this morning, getting from 2,000 to 3,000 pounds, which sold at 5 cents per pound. Schooner George Clark, jr., has returned from the Western Bank. One of her 3 nets was out two days in 60 fathoms of water and caught only 19 fish. The weather was rough, and I do not think the net was set right. The sinkers were too small; it takes 4 pounds to sink one ball, and some of the sinkers she had weighed only 2 pounds. Schooner Commodore Foote set 2 nets in 50 fathoms of water on Western Bank, and got 50 large fish to a net. Next month when the fish get into shoaler water the nets will do well. I think they would be successful in 60 fathoms if they were set right. George [Capt. George H. Martin] is going to the Western Bank next month and will give the nets a fair trial. He will take 32 of them with him.

Finback whales are plenty on the coast. Three were shot at Provincetown; there are many in Ipswich Bay, and the fishermen say there are plenty of them on George's. There is a great school of herring on George's, which are of very large size. The weather is very cold. For two mornings the thermometer has been at 19° at six o'clock. There are two Gloucester vessels at Grand Manan. I think they will each get a load of frozen herring. A small vessel arrived this evening with 50,000.

We shall hear more about the nets next week when other Western Bankers get home, and then I will write again.

GLOUCESTER, MASS., *March 6, 1881.*

The spawn I sent you this morning was the best I could get. There were 7,000 pounds of codfish here this morning, but there was only a bucket of spawn from the whole. They were nearly all large, ripe, male fish. Captain Gill says that on Wednesday he carried 6,000 pounds of cod to Portsmouth, which were half females. I never saw all the fish males before at this time of the year. I opened 22 that came out of a net yesterday, and every one was a male. I think the female fish will come back as soon as the sea goes down. Schooner Martha Jane had 6,000 pounds of codfish. Her captain gutted his fish and sent them to Boston. He says they were all males. The fishermen think it strange that

the female fish have gone in so short a time. All the vessels that carry nets are at home mending them, as they were badly torn during the last storm. Almost all the nets went adrift, but were all recovered. Their drifting was caused by the strong tide resulting from the freshet in the rivers. The men like the nets first rate. Herring are selling to-day for \$1.25 per hundred. It comes hard on the trawlers, but it does not affect the netters. I think that this week, when the latter all get to work, we shall hear of good fishing with the nets. There will be 180 nets down this week in Ipswich Bay.

GLoucester, MASS., *March 15, 1881.*

There were 9 vessels fishing with cod gill-nets in Ipswich Bay last week. They carried 21 nets each, and averaged 20,000 pounds of nice cod to a vessel. The trawlers had to leave the bay, as they could not get bait. Some of them bought razor-clams and tried them on the trawls. Several got 7,000 pounds as the result of the week's fishing. Their fish were of small size, but those taken in the nets were large. The stormy weather has hurt the nets. Two mornings in last week the water was too rough for them to be hauled, and, lying on the bottom with fish in them, they were badly torn. A new school of cod entered the bay last week. A quarter of them were females, and large. If the weather is good this week the netters will do well. All the large trawlers have quit; but so much the better for the netters. They are getting nets all along the eastern shore.

GLoucester, MASS., *March 23, 1881.*

The vessels with cod gill-nets did not do much the last week. The weather was too windy. They under-ran their nets twice, and found good fishing. The fish were large, and half of them were females. The weather has been cool the last two days, and the wind has been blowing hard from the northwest. Poor chance for the netters.

I suppose you have heard all the news about the mackerel that Sol. Jacobs carried in to New York. He caught them 40 miles southeast from Chincoteague. The mackerel are only 9 inches long, but they are plenty and extend from the southeast part of La Have Bank to as far south as Chincoteague. On the day when Sol. Jacobs got his mackerel there were a great many schools seen, and if it had been fine weather he could have gotten the vessel full. A telegraphic dispatch has just come telling of the loss of the schooner *Lizzie K. Clark*. She was bound south after mackerel, and was upset in a squall. All the members of the crew were saved.

GLoucester, MASS., *March 24, 1881.*

The net fishing in Ipswich Bay is almost over. They have not caught any fish there this week. The Northern Eagle got 500 pounds on Saturday night and 800 pounds on Sunday night. George [Capt. George H. Martin] is going to the Western Bank. The vessels that carried nets

there did not give them a fair trial. When George gets back we shall find out what can be done with them on that ground. A large school has been on the Western Bank. Some of the fishermen think that as soon as the boats left off trawling the fish went away, for they suppose that the bait which comes off the trawls attracts them. Most of the netters are going to the offshore grounds. No cod have yet been caught in Boston Bay this spring. The haddock vessels have done well this winter. If George gets a good trip on Western Bank a good many others will go there with nets. They all want some one to go first. Hope he will do well.

GLOUCESTER, MASS., *April 18, 1881.*

Ten sail of vessels have put their cod gill-nets ashore. There are fish in Ipswich Bay, but they cannot be caught with nets. Two boats caught, with trawls, 25,000 pounds of fish in five nights and days. The highest catch in nets was 3,000 pounds in the same length of time. Nets were set at the same place where the trawls were, but took no fish. On Tuesday night the schooner *Anna Bell* took 5,000 pounds of fish on trawls. The schooner *Rising Star*, with 24 nets, got 26 fish. The netters had to give it up. It works the same way off Gloucester. Some of the small boats had 2 nets set and got no fish. Trawls set in the same place took 300 and 400 pounds. Schooner *Annie Fey* set 6 nets on Western Bank one night and caught 1 fish. Perhaps the nets were not set right. I am sorry it has worked so. The men have been to a good deal of expense. They spent a week tanning and tarring their nets for summer fishing. The vessels have all taken their trawls. The men say: "D—n the nets! All they are good for is three months in winter, when the fish are spawning." When the *Northern Eagle* returns from the Western Bank we may hear a better report. If you can throw any light on the subject, please write and let me know. They ask me about the matter, and I do not know what to say. The cod which they are getting in Ipswich Bay are large, but different from the ones they get in winter. What few are taken in the nets are dissimilar to those hooked on the trawls, and look like the winter fish. The fish here now do not travel by nights; if they did, they would go into the nets. I do not think the nets will be used again until next winter, unless George does well on Western Bank.

GLOUCESTER, MASS., *April 22, 1881.*

NOTE.—For a continuation of Captain Martin's reports on the cod gill-net fishing, see pages 343–345 in Volume I of this Bulletin for 1881. A full description of the nets and of their use, together with the history of their introduction by the United States Fish Commission, written by Captain Collins, may be found in the same volume, pages 1–17, with 12 illustrative plates.—C. W. S.