

Fifth dredge (two minutes): 170 oysters, three years old; some shells.

Sixth dredge (two minutes): 445 oysters, two years old.

The planted beds in this bay are, as a rule, in good condition and not much troubled with enemies, although some drills are found and the drumfish now and then poaches among these preserves; whelks are also found to some extent. Flavor and condition of oysters good, although rather salt.

Spuyten Duyvel Creek. Years ago the Hudson furnished oysters for quite a distance from its mouth above present city limits, but not a great many are found at the present time. Four dredgings were made in about 4 fathoms of water. From two of the hauls 14 oysters were obtained and a good many shells. From the other two only shells were secured. The oysters were all quite small. These dredgings were made above the railroad bridge. A dredging in the mud south of the creek brought up a large number of small soft-shelled clams. The beds in this neighborhood present the appearance of being worked to their destruction.

Most of the natural beds examined during the trips made with the steamer show unmistakable signs of unscrupulous working and little care for the preservation of the beds. They are littered with rubbish of every kind, particularly with old and slimy shells, and appear in too many cases to be the general dumping ground for all sort of garbage from passing vessels. They need a thorough clearing and careful supervision afterwards in order to make them yield what they are capable of doing.

NEW YORK, N. Y., *October 18, 1884.*

17.—NOTES ON THE FISHERIES OF GLOUCESTER, MASS.

By S. J. MARTIN.

[From letters to Prof. S. F. Baird.]

MONTHLY SUMMARY.—The receipts of fish at Gloucester during the month of September, were as follows: From George's Bank, 3,126,000 pounds salt cod, 24,250 pounds fresh halibut; from Grand Bank, 3,225,000 pounds salt cod, 795,000 pounds fresh halibut, 40,200 pounds salt halibut; from Cape shore (Nova Scotia), 810,000 pounds salt cod; from Flemish Cap, 190,000 pounds salt cod, 17,000 pounds salt halibut; from Western Bank, 180,000 pounds salt cod, 1,000 pounds salt halibut; from Iceland (three vessels), 454,000 pounds salt halibut, 200 barrels halibut fins; from Greenland (five vessels), 348,000 pounds salt halibut, 140 barrels fins; from the mackerel fishery, 71,408 barrels salt mackerel from American shore; 6,244 barrels salt mackerel from Bay of Saint Lawrence; from the shore fishery, 373,000 pounds salt cod, hake, pollock, &c.; from the sword-fish fishery, 373 sword-fish weighing, 116,396 pounds

net, and 40 barrels salt sword-fish; from harbor traps, 515 barrels fresh mackerel, 385 barrels fresh herring; by freight from Maine, 3,650 quintals dry hake, 1,600 boxes smoked herring, 41 barrels fish oil. There were imported from Nova Scotia, 670 quintals dry fish.

The separate arrivals from the various grounds are given in my journal. Some of the Grand Bank cod were landed by British vessels, which are so marked in my journal.

GLOUCESTER, MASS., *October 1, 1884.*

HALIBUT FISHERIES.—The Greenland fleet this season consisted of seven vessels, all of which have returned. The first and second to arrive had full fares, having fished farther south than the others, near a place called Caud Hope. The schooner *Mist*, which was the last in starting, caught her fare off Cape Amelia, the other four caught their fares off Holstenburg. The weather at Greenland was fine, though there was one breeze of southwest wind, which lasted from July 6 to July 12. The halibut sold at 5 cents a pound, with the exception of that brought by the schooner *Byron*, of Nova Scotia. Her cargo sold at 6½ cents per pound, having been engaged when she sailed from home. The halibut fins sold at \$9 a barrel.

The three Iceland vessels have returned with full fares. The Iceland halibut are larger than those caught on the Greenland coast.

COD FISHERY.—The George's fleet is doing well. The vessels leave home without any bait and catch plenty of squid on the ground. The squid extend 30 miles southeast from Cape Sable, on George's Bank, the whole length of the coast from Grand Manan to Cape Cod off shore and in shore. Squid have never been known to be so plentiful before. When squid is used for bait the vessels catch no halibut to speak of—rarely a small one.

MACKEREL FISHERY.—Mackerel are very plentiful. During September 72,000 barrels were caught on the New England coast by Gloucester vessels, and 6,000 barrels were shipped by rail from Canso, which had also been caught by Gloucester vessels. There are forty-one of our vessels in the Bay of Saint Lawrence, thirteen of which sailed within the last ten days. Yesterday mackerel were schooling from Thatcher's Island to Eastern Point. From the hill I counted twenty schools at one time. In the morning twenty vessels went out and returned at sundown with 150 barrels of mackerel each. Mackerel were so low yesterday that they brought only \$3.25 per barrel out of pickle, the barrels costing 80 cents each. That left the fishermen only \$2.45 a barrel. Of these 5 per cent. were No. 1; 33 per cent., No. 2; and 62 per cent. No. 3. This morning there are twenty vessels in the harbor dressing mackerel.

GLOUCESTER, MASS., *October 5, 1884.*

MACKEREL.—The market is overstocked with mackerel and some of the vessels have "hailed up." Out of 300 barrels caught, some vessels

have saved but 20 barrels of the largest mackerel, and thrown the rest overboard. Mackerel sold to-day at \$3 a barrel as they run, including the barrel.

COD.—Some of the vessels that have been fishing on George's Bank have hauled up, because the owners could find no place for the fish. Every butt and all the wharves are full of fish. Large piles of kenched fish can be seen on all the wharves. There have been nineteen vessels from Nova Scotia, which landed 4,370,000 pounds of Grand Bank cod, which sold from the vessels, October 10, at \$1.60 per 100 pounds. This is the lowest price for years.

HERRING.—There has been a large catch of herring at Wood Island, Maine, that lasted four nights, and a small catch at Marblehead. Otherwise the herring fishery is a failure. The temperature of the water when the herring were caught at Gloucester last year was 48°, and the temperature at Wood Island during the late catch was also 48°, but this year the temperature of the water at Gloucester has not been below 54°. Herring sold to-day for 75 cents per barrel, not including the barrel.

POLLOCK. To-day pollock sold at 30 cents per 100 pounds for round fish. Pollock is plenty and all kinds of fish sell very low.

GLOUCESTER, MASS., *October 12, 1884.*

MACKEREL.—Most of the mackerel fleet is hauled up, leaving only thirty sail on this shore and thirty sail in the Bay of Saint Lawrence.

SQUID.—Bait has been plenty all the fall. There is an abundance of squid in Boston Bay. Our harbor is full of half-sized herring.

GLOUCESTER, MASS., *October 26, 1884.*

I give below the amount of fish landed at this port during the month of October, 1884: Codfish from George's Bank, 2,870,000 pounds; halibut from George's Bank, 13,200 pounds; fish caught on the Cape shore, Nova Scotia, 580,000 pounds; codfish from Grand Banks, 1,370,000; salt halibut from Grand Banks, 9,800 pounds; fresh halibut caught on the Banks, 724,700 pounds; haddock from the Banks, 45,000 pounds; pollock caught in nets, 1,994,000 pounds; codfish caught in nets 68,000 pounds, and 7 sword-fish, weighing 2,218 pounds.

There also arrived by freight from Maine, 7,784 quintals of shore mackerel; 41,280 barrels of mackerel, and 4,565 barrels of mackerel from the Bay of Saint Lawrence.

The total number of barrels of herring landed was 2,538, most of which was caught in the harbors in nets and traps.

GLOUCESTER, MASS., *November 4, 1884.*

MACKEREL.—There are thirteen sail of the mackerel fleet in the Bay of Saint Lawrence, twelve sail on the shore of Nova Scotia, and ten sail in Barnstable Bay. Those fishing in the latter place carry their mackerel fresh to Boston. During the past four days, there have been seven

arrivals from the Bay of Saint Lawrence with good fares. Schooner *Lizzie Center* arrived yesterday with 320 barrels, making its catch since July 1st an aggregate of 1,055 barrels of salt mackerel. This vessel claims to be "high line" of the Bay of Saint Lawrence fleet. All the vessels report mackerel plenty when they left, but that they have had no weather suitable to catch them.

The mackerel went into the Bay of Saint Lawrence very late, which was doubtless due to the fact that the ice did not leave the bay until June 2, consequently the mackerel will be late coming out. No mackerel were caught in the bay until August. The mackerel caught there this fall were large and fat.

Schooner *John S. McQuinn* had a fare of 340 barrels packed, of which 300 barrels were No. 1; and the fares of the other vessels run about the same. The schooner *Spencer F. Baird* left Gloucester September 2, and arrived home November 6, with 360 barrels of No. 1 mackerel, having lost 50 barrels overboard. The Bay mackerel sold yesterday at \$12.75 a barrel for the trip as they run.

There have been no large mackerel caught on the Cape shore as yet, though on November 4 some vessels caught small mackerel there about the size of those which have appeared on this coast. I am of opinion that no large mackerel will be caught on the Cape shore until the middle of this month. Vessels catch some small mackerel in Barnstable Bay when the weather permits. No mackerel have been taken at Seven Islands this year. The mackerel season is nearing its close.

GLoucester, MASS., *November 9, 1884.*

SQUID AND MACKEREL.—Squid are very plenty from Cape Cod to Cape Breton Island. They are also very plenty on the Nova Scotia shore. The mackerel fishers are being troubled by having their mackerel devoured by squid before they can get them out of the nets. Captain Martin, of the schooner *Martha C.*, arrived home from North Bay last night, and says that at Sidney he could dip them up with a dip net by simply throwing a little bait overboard. The schooner *Orient*, Captain Charles Lee, reports having seen off Halifax, in a boat that came alongside, 280 heads and backbones of large mackerel from which the squid had eaten all the flesh. The same difficulty is experienced all along the New England coast. Boats from Gloucester have to remain outside Eastern Point but an hour to catch all the squid they want for the day's fishing. Even boys go out in the evening and get home at 9 o'clock with from eight to ten buckets of squid to be used for bait.

MACKEREL.—Mackerel fishing is most over, and vessels fishing on this shore having been all hauled up except a few market boats. These caught a few small mackerel in Barnstable Bay yesterday. There are a few small mackerel in the harbor. The North Bay fleet is fast arriving home, mostly with small fares. Captain Martin, of the schooner *Martha C.*, reports plenty of large mackerel schooling off Halifax, No-

ember 4, and the keeper of the light-house on Saint Paul's Island, which is situated at the mouth of the Bay of Saint Lawrence, told him that large mackerel were schooling around that island during all the mouths of July, August, and September. This was attributed to the temperature of the water.

PRICES.—Fish of all kinds, except halibut, bring a very low price, and gill-netters sold large cod for \$1 per 100, and pollock for 45 to 50 cents per 100 pounds. Shore mackerel bring \$3.50 per barrel, including the barrel, when taken by the cargo. No. 2 mackerel brings \$7.50, and No. 1, \$15 per barrel. Some large No. 1, from Bay of Saint Lawrence, have been sold for \$12.50 per barrel. Halibut brings 20 cents a pound.

GLOUCESTER, MASS., *November 16, 1884.*

SUMMARY.—During the month of November there have been landed at Gloucester 1,103,000 pounds of codfish, and 17,550 pounds of halibut from George's Banks; 205,000 pounds of fish caught on the Nova Scotia shore; 101,000 pounds of fresh halibut from Grand Banks; 1,057,000 pounds of pollock and 883,000 pounds of codfish caught in cod gill-nets; 31,000 pounds of codfish caught by small boats with hand lines on the shore grounds; 94,000 pounds of haddock, 68,000 pounds of hake, 2,600 quintals of dried mixed fish on freight from Maine; 7,880 barrels of mackerel from the Bay of St. Lawrence; 4,170 barrels of shore mackerel, and 37 barrels from Nova Scotia.

There were landed at Rockport during the month of November 293,000 pounds of codfish and 105,000 pounds of pollock, and at Lynn, 268,000 pounds of codfish and 80,000 pounds of pollock, which were also caught in nets.

HERRING AND HALIBUT.—All but one vessel of the mackerel fleet is at home. The vessels are now fitting out for the Newfoundland herring fishing. I think twenty-five vessels will go to Newfoundland for frozen herring. Some vessels are also fitting out for Grand Manan to get frozen herring. The schooner Wachusett has brought in 79,000 pounds of codfish and 1,000 pounds of halibut from Brown's Bank, all of which was caught on hand-lines. The schooner was gone from home only twenty days, and the fare is considered the largest ever landed here for so short a time. The bait used was squid, which was caught on the ground. The codfish sold for 2½ cents and the halibut for 19 cents a pound.

MACKEREL.—The Portland Press says: "The mackerel season has been noted for the great catch of small fish. The net stocks of the vessels have been small for the amount of the catch, although a few vessels have done a good season's work. The stock of large mackerel at Portland is nearly exhausted, but there is a large stock of smaller sizes owned by parties who bought them at low prices. As the quality of the fish is exceedingly good a very decided advance is looked for after the holidays.

"The aggregate number of barrels packed at Portland will reach nearly 125,000, one firm having packed 25,000 barrels, and two others about 20,000 each. The fleet of Portland mackerel vessels is growing rapidly, and now ranks next in size to that of Gloucester."

GLOUCESTER, MASS., *December 2, 1884.*

DESTRUCTIVENESS OF SQUID.—On the Nova Scotia shore squid have destroyed *all* the mackerel and herring that were caught in the nets. My son, George H. Martin, was on the Nova Scotia shore four weeks, and tells me that during that time he never saw a mackerel that had been taken out of a net which was fit for market. When squid was plenty on the New England coast, the fishermen had their nets set for herring. That squid would destroy three out of ten barrels taken, I am informed by men who were in the business.

I have been informed that by holding in the water a scrub broom that had been dipped in the gurry pen three and four squid could be taken at a time; and, moreover, that if a strad,* such as is used on a cable at anchor, be lowered in the water after being placed in the gurry pen it is possible to take from three to eight squid at a time. Squid are very plenty on all the outer grounds, but since the last easterly gale, they have moved off shore. Fishermen say that they have never seen squid so plenty as on George's Bank, where they have been of much benefit to the vessels which have arrived there during the last fifteen days. The vessels which carried herring for bait did not need them, and so threw them away.

GLOUCESTER, MASS., *December 7, 1884.*

Pollock have left the inshore grounds. I think cod gill-nets are suitable to catch puffers. There have been eight caught in the nets since the 15th of October. In summer they are very plenty in Boston Bay, close to the shores.

The fishing season is over, and all but seven of the George's fleet have hauled up. They will, however, start out again in January. Twenty-one vessels have sailed for Newfoundland, with seven more to follow, and two have sailed for Grand Manan. These vessels have gone for frozen herring. Nine vessels will also go from Nova Scotia to Newfoundland for frozen herring.

Vessels fishing for halibut have found them very scarce. Two vessels arrived yesterday, each with fares of 20,000 pounds. The vessels have been gone from home six weeks.

GLOUCESTER, MASS., *December 14, 1884.*

* A strad is made of three strands of rope braided together, and tapering to a point at each end. It may vary in length from 1 to 2½ fathoms, but is generally 9 to 10 feet long. The strands are taken from manilla rope of 2½, 2¾ and 3 inches in circumference. Strads are wound around a cable to prevent it from chafing in the hawse-pipe, and about the head-stays.—J. W. COLLINS.