13-NOTES ON THE FISHERIES OF GLOUCESTER, MASSACHUSETTS.

By S. J. MARTIN.

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

The receipts of fish at Gloucester during the month of July were as follows: 200 fares salt mackerel, 62,734 barrels; 5 fares fresh mackerel, 675 barrels; 78 fares from George's Bank and vicinity, with 1,051,000 pounds cod and 114,000 pounds halibut; 40 fares from Western Bank and Banquereau, with 2,105,000 pounds cod and 40,200 pounds halibut; 8 fares from Grand Banks, 870,000 pounds cod; 12 fares from Grand Banks, 625,000 pounds halibut; 55 fares shore fish from Bay of Fundy, etc., with 1,020,000 pounds of mixed fish, one-eighth cod, and the rest haddock, hake, and cusk; 1 fare (500 quintals) freighted from Maine; and 4 fares (2,150 quintals) of cod, etc., imported from Nova Scotia. The schooner Henry N. Woods, 16 men, which had been gone 18 days, brought in the largest fare of salt mackerel—560 barrels.

GLOUCESTER, MASS., August 1, 1882.

The receipts of fish at Gloucester during the month of August were as follows: One hundred and seventy arrivals salt mackerel, 43,328 seapacked barrels; shore mackerel catch, 75 barrels salt, and 370 barrels fresh; eighty-three arrivals from George's and Le Have Banks, with 1,057,000 pounds salt cod, and 50,000 pounds fresh halibut; thirty-six arrivals from Western Bank and Banquereau, with 1,939,000 pounds salt cod, and 9,000 pounds salt halibut; nineteen arrivals from Grand Banks, with 2,540,000 pounds salt cod, and 9,000 pounds flitched halibut; one arrival from the Gulf of Saint Lawrence, with 30,000 pounds salt cod; five arrivals from the cape shore, with 265,000 pounds salt cod; nineteen arrivals from Grand Banks, with 875,000 pounds fresh halibut; thirtyfive arrivals after shore trips-vessels, 879,000 pounds (mostly hake), shore boats, 352,000 pounds (mostly hake). Also there were freighted from Maine 210,000 pounds and 1,550 quintals (mostly hake and cod), and imported from the Provinces 282,000 pounds and 200 quintals of dry fish, and 100 barrels of mackerel.

GLOUCESTER, MASS., September 4, 1882.

The mackerel fleet did poorly during the last week. The mackerel which were caught were taken among the rocks. Two vessels on Friday and Saturday last caught 200 barrels close to Matinicus Rock. One of the Portland vessels caught 275 barrels on the southeast part of George's Bank. Twenty-one sail were in Gloucester from mackerel fishing last Monday. The average catch was 150 barrels, and some of the vessels had been gone 5 weeks. Horse-mackerel are very abundant all along the eastern shore. The schooner Dreadnaught set a seine around what they

supposed to be a school of pollock, but it proved to be a school of horsemackerel; 50 of these tore the seine all to pieces. The fish weighed 35 pounds apiece, and were what the fishermen call bonitoes. 1 think the school of mackerel that was on Brown's Bank has gone over to George's Bank. Some mackerel have been caught on the shore of Nova Scotia. The cod fishermen report mackerel on the southeast part of George's. Large herring are abundant on the eastern shore. I think the mackerel caught on the eastern shore came from the Bay of Fundy. Mackerel sold to day at \$2 a barrel, with the barrel. No codfish are on the shore grounds. The small vessels are doing well catching hake all along the eastern shore; 85,000 pounds were landed to day from 4 vessels which had been gone 10 days. Hake sell out of the vessel for \$2.30 per hundred pounds. The sounds and livers make them \$3 25 per hundred pounds. George's cod sold to day for \$5 a hundred, green out of the vessel; dried George's cod sold for \$7 a quintal; dried Grand Banks cod sold for \$6,25 a quintal. All kinds of dried fish are high.

GLOUCESTER, MASS., September 6, 1882.

The weather for the past four days has been too windy for catching mackerel; but yesterday afternoon, after the wind died away, the mackerel were seen schooling close to the shore from Thatcher's Island to Eastern Point. There were mackerel, alewives, and herring, so mixed together that to get 20 barrels of mackerel one must also catch 20 barrels of alewives and 20 barrels of herring. The alewives and herring are found in unusual numbers near the shore from Gloucester to Booth Bay. The fishermen do not know what keeps the mackerel so near the shore. Mackerel are selling at higher prices to day-\$10 a barrel, with the barrel. The vessels with large seines do not get much chance to get mackerel, while the market boats with shoal seines do very well. The shoal seines are 7 fathoms deep, the large ones 25 fathoms deep, and so the 7-fathom seine has all the advantage in shoal water. Swordfish are They are higher to-day than ever I knew numerous on Jeffrie's Bank. them to be before, selling at \$10 a barrel, salted. The vessels at George's Bank, Western Bank, and the Grand Banks are doing well. Theschooner Hattie L. Newman arrived from Greenland with 150,000 pounds flitched halibut and with 100,000 pounds salt cod caught on Flemish Cap before going to Greenland. The Greenland vessels will make big stocks of salt halibut, which will bring about $7\frac{3}{4}$ cents a pound.

GLOUCESTER, MASS., September 18, 1882.

There has been but little mackerel fishing during the past week; the wind has been northeast and the sea was too rough for seining. On the 20th instant five barrels of large herring, full of spawn, were caught. The spawn was ripe and running out of the fish. This is the earliest that spawning herring have been caught in the harbor for fifteen years; but fifteen years ago some were caught here on September 15. For the past three years they have come from October 5 to 15, and in these three years the temperature of the water when they came was 35° F., while to-day it is 50° F. I find a great difference in the spawning times of schools of herring. At Magdalen Islands they spawn in April, at Grand Manan about September 1.

The herring are not so large at Magdalen or Grand Manan as those which come here to spawn. When the fishermen catch a large herring with a white-tipped nose they know that the spawning herring are coming and put down their nets, for the large spawning herring have white tips on their noses.

The shad went down the coast with the alewives and mackerel, and it seems they are coming back with them. The schooner Finance recently caught 50 barrels of alewives and 2 barrels of mackerel, and among them were 3 barrels of large shad.

I will also refer to the sun jelly [a kind of sea nettle]. I have not seen one of these in the harbor this summer. Last summer there were thousands of them here, but now I cannot find a fisherman who has seen any either in or out of the harbor. It seems that they have left the coast this season.

Mackerel are selling at a highprice to day—\$11 a barrel, including the barrel. Pollock have made their appearance; one vessel caught 25,000 pounds in three days on Jeffrie's Bank. These sold, fresh, at 4 cents a pound. Pollock are a fortnight early this year, and there is no other fish in the market. The harbor now is full of vessels, there being 350 sail, mostly fishing vessels in for shelter.

GLOUCESTER, MASS., September 28, 1882.

The receipts of fish at this port for the month of September were as follows: mackerel, 131 fares, 21,859 sea-packed barrels; George's Bank, 55 fares, 85,200 pounds salt fish, 23,100 pounds fresh halibut; Western Banks, 50 fares, 2,447,000 pounds salt fish, 57,400 pounds fresh halibut; Grand Banks, 12 fares, 575,000 pounds fresh halibut; Grand Banks 13 fares, 2,055,000 pounds salt fish, 10,200 pounds fresh halibut; Greenland, 4 fares, 540,000 pounds salt halibut; Flemish Cap, 2 fares, 210,000 pounds salt fish; Le Have Bank, 5 fares, 225,000 pounds salt fish; Bay of Fundy, 21 fares, 475,000 pounds salt hake; Maine coast, 8 fares, 59,000 pounds fresh pollock, 95,000 pounds salt hake; off Cape Ann, 112,000 pounds salt hake; freight from Maine, 4,650 quintals mixed salt fish; imported from the British Provinces, 1,070,000 pounds salt fish, 3,500 pounds salt halibut.

GLOUCESTER, MASS., October 2, 1882.

The amount of fish landed in Gloucester during October is as follows: mackerel, 17,692 barrels; herring, 3,700 barrels; George's cod, 601,000 pounds; George's halibut, 125,500 pounds; Western Bank cod, 713,000 pounds; Grand Banks cod, 760,000 pounds; Grand Banks halibut, 591,000 pounds; Greenland salt halibut, 80,000 pounds; Greenland cod. 60,000 pounds; pollock 1,267,000 pounds; Cape shore cod, 53,000 pounds;

Bay of Fundy cod, 30,000 pounds; shore cod, 20,000 pounds; Le Have Bank cod, 112,000 pounds; Cashe's cod, 39,000 pounds; cod caught on Seal Island grounds, 15,000 pounds; Western Bank halibut, 7,000 pounds; hake, 670,780 pounds; haddock, 34,000 pounds; cusk, 143,630 pounds; mixed fish, 10,840 pounds; bay mackerel, 47 barrels; salt water herring, 500 barrels; fish oil, 10 barrels; sounds, 11 barrels.

GLOUCESTER, MASS., November 3, 1882.

I send you the amount of fish landed at Gloucester in the month of November: mackerel, 6,185 barrels; herring, 211 barrels; George's cod, 398,000 pounds; George's halibut, 19,500 pounds; Western Bank cod, 353,000 pounds; Western Bank halibut, 14,300 pounds; Grand Banks halibut, 164,000 pounds; Grand Banks hake, 400,000 pounds; haddock caught on the cape shore and brought from Boston, 516,000 pounds; dried fish by freight from Maine, 500 quintals cod, 200 quintals haddock, 2,900 quintals hake, 1,535,000 pounds pollock; mixed fish caught on the shore grounds, 463,000 pounds, being cod, hake, and cusk in equal parts; cod caught with hand lines on the rocks 4 miles from shore, 17,000 pounds. Fish caught in cod gill-nets, 34,300 pounds.

GLOUCESTER, MASS., November 4, 1882.

The mackerel vessels are all home-the last one came yesterday-and they are all hauled up for this season. The mackerel fishing has been a great success this year. The largest stock that ever was made out of Gloucester on any kind of fish has been made by the schooner Nellie (See the figures below.) Pollock have been very plenty this N. Rowe. fall; they have not been so abundant since 1862. To-day there are 200,000 pounds of pollock in port; this is one day's fishing with 30 boats, averaging 9 men to a vessel; and to night at dark probably there will be 400,000 pounds, and the vessels are not half in. As many pollock have been carried to Maine as have been landed here. There have been 800,000 pounds landed at Rockport. The fishermen sell them for \$1 a hundred pounds, round. Three boats have set cod gill-nets. Last week the schooner Quickstep, of Rockport, caught 22,000 pounds of large cod with twelve 50-fathom nets. The boats are doing well on the rocks catching codfish. The winter school is coming on. The amount of hake landed here this year is very great. The first snow of the season came to-day. I now give two extracts from the newspapers:

"Two ROUSING MACKEREL STOCKS.—Two of the largest mackerel stocks ever landed at this port or in New England have been made by the schooners Nellie N. Rowe, Capt. Eben Lewis, and the Edward E. Webster, Capt. Solomon Jacobs, the past season, comprising eight months of time actually employed. The net stock of the Rowe was \$35,537, and of the Webster, \$34,229. The average share of the Webster's crew was \$959.75, and the steward, Mr. Warren Fowles, with his extra pay of \$160, made his season's work \$1,129.75."

"A LARGE POLLOCK FLEET, including many Maine vessels, and one from Nova Scotia, have been busily employed off this port for the past six weeks, meeting with unprecedented success. The amount of pollock landed at this port this season has been 2,094,100 pounds (against 481,000 pounds to this date last year), and nearly, if not quite, as large an amount has been taken to the eastward by the fleet from that section."

GLOUCESTER, MASS., November, 17, 1882.

The fishing business has been prosperous in all its branches this season at Gloucester. Some of the largest stocks that were ever made were made this year. There have been 50 new vessels added to the fleet since the 1st of March; the vessels that have been built will average 85 tons, and cost, when ready for sea, \$9,000 apiece. The firms are selling off their old vessels and having new ones built. There is nothing doing on the rocks, for the fishermen cannot get bait to fish with hand There are four boats fishing with cod gill-nets, and they are lines. doing well. The sperling is all gone. Haddock catchers have to go to There will 12 sail go to Newfoundland after Grand Manan after bait. frozen herring, and 20 sail to Grand Manan after frozen herring. The pollock fishing has been very successful this fall, but it is now ended. As near as I can find out, there have been 4,000,000 pounds of pollock caught, weighing the fish as they came out of the water. I add a newspaper article on-

"THE MACKEREL FISHERY .- The mackerel fishery for the present season has closed, and as a whole it has proved one of the best, and perhaps the very best, season for this branch of the fisheries that Gloucester has ever known. Although a few of the vessels have not made satisfactory stocks, yet the majority have more than fulfilled the expectations of those interested in them, and several of the fleet have stocked amounts which have never before been reached in the history of the mackerel fishing business. To do this required hard and constant work on the part of the fishermen, and many of them have shown an energy and perseverance worthy of the highest commendation. The present manner of fishing with seines makes the possibilities of large stocks more dependent on the ability and energy of the captains than the old method of hand-line fishing. It requires experienced and vigilant men on the lookout both by day and by night, watching for schools. and upon this constant watchfulness, in a great measure, their success depends. The use of the recently patented pocket is a great help in saving the fish when big hauls are made, keeping them in good condition until they can be properly taken care of by the crew, and thus helping to increase the catch of the vessel. Capt. Solomon Jacobs, schooner Edward E. Webster, claims to be 'high line,' he having made a net stock of over \$34,000 this season.

"Captain Jacobs has stocked upwards of \$75,000 during the past

three years' mackerel-fishing, the time actually engaged being eight months each year, as follows: 1880, \$16,700; 1881, \$24,600; 1882, \$34,229; total \$75,539. Capt. Eben Lewis, in schooner Nellie N. Rowe, is probably second, but as no reliable statement of his stock has been made and it is estimated by the fishermen at figures ranging from \$27,000 to \$34,000, it is difficult to tell what his stock really is. The following vessels have stocked upwards of \$15,000 in the mackerel fishery this season from this port:

"Schooner Edward E. Webster, Capt. Solomon Jacobs; net stock, \$34,229; crew shared \$969.75.

"Schooner Nellie N. Rowe, Capt. Eben Lewis; no definite figures given.

"Schooner Col. J. H. French, Capt. John Chisholm; net stock, \$20,000; crew shared \$615.

"Schooner Leona, Capt. Willard Pool; net stock, \$19,715.72; crew shared \$582.

"Schooner Carl Schurz, Capt. Jed. Warren; net stock, \$15,609; crew shared \$468.08. Previous to the 6th of June the Schurz was engaged in fresh fishing, and her total stock since the first of the year is \$23,222, the crew sharing \$733.86.

"Schooner John D. Long, Capt. Charles Hardy; net stock, \$18,500; crew shared \$571.

"Schooner Helen M. Crosby, Capt. Joseph Swim; net stock, \$18,020; crew shared \$596.17.

"Schooner Ivanhoe, Capt. James Crawley; net stock, \$16,942; crew shared \$525.

"Schooner Golden Hind, Capt. Solomon Reed; net stock, \$16,323; crew shared \$504.31.

"Schooner John S. McQuin, Capt. Henry Coas; net stock, \$16,035.57; crew shared, \$517.11.

"The stock of mackerel in first hands is much lighter than last year, and prices, which have been high and well sustained through the season, will continue to increase, especially when the trade opens after the holiday season."

GLOUCESTER, MASS., November 26, 1882.

The first cargo of frozen herring arrived last night. There were 200,000 of them, and they sold for \$3,000.

GLOUCESTER, MASS., December 20, 1882.

The amount of fish landed here during December is as follows: Shore fish caught with hand lines from small boats, 20,000 pounds; George's cod, 202,000 pounds; George's halibut, 16,500 pounds; Western Bank cod, 130,000 pounds; Western Bank halibut, 9,200 pounds; fresh halibut from Grand Banks, 177,000 pounds; fresh haddock, 111,000 pounds; cod caught in nets, 565,000 pounds; 200,000 frozen herring.

GLOUCESTER, MASS., January 5, 1883.

The following is a report of the fish received here during Jaruary, 1883: George's cod, 844,000 pounds; George's halibut, 144,200 pounds; cod from Le Have Bank, 35,000 pounds; halibut from Le Have Bank, 13,000 pounds; halibut from Grand Banks, 199,500 pounds; shore cod caught in gill-nets, 121,000 pounds; herring from Grand Manan, 1,198,000 in number; herring from Newfoundland, 2,180,000 in number; haddock from George's Bank, 685,000 pounds; hake imported from British Provinces, 950 quintals.

GLOUCESTER, MASS., February 2, 1883.

The George's vessels are doing well, as a school of large cod came on the bank early in the winter. In past years the middle of February was about the time when the winter school came on George's Bank; but this winter they came in January, and with them came a large school of haddock. There is a good school of halibut for this season. There were nine sail in from George's on Monday, averaging 15,000 pounds salt cod and 4,000 pounds halibut; this is a good showing work for hand-line fishing. These fish are caught on the eastern part of George's, in from 40 to 60 fathoms of water, on hard bottom. The cod fishermen on George's Bank complain that the haddock fishermen injure the cod fishing. When the cod fishermen are at anchor and succeeding, if the haddock fishers set their trawls near by this frightens away the cod. Besides, the haddock gear is of small size, and if a large cod gets on a trawl the fishes break the snood gear and leave the hook in the fish; and so the fish dies and lies on the bottom. And then the haddock catchers dress their fish on the bank and throw the gurry overboard, and this drives the cod away.

GLOUCESTER, MASS., February 6, 1883.

The vessels fishing on George's are doing well. There have been 10 arrivals from George's during the last week, with an average of 20,000 pounds cod and 3,000 pounds halibut to a vessel. The cod are split and salted on board the vessel and sell here at $4\frac{1}{2}$ cents a pound; halibut have sold all the week for 12 cents a pound. The halibut catchers have done poorly; 2 arrived this week with 20,000 pounds each, after having been gone from home six weeks. The haddock vessels have been fortunate during the past week. Some of the vessels had 75,000 pounds, after two days' fishing on George's; one vessel stocked \$2,100 in two days' fishing. Five vessels arrived with herring; four from Grand Manan, one from Newfoundland. 1,295,000 herring were brought in this week. There is no lack of bait.

GLOUCESTER, MASS, February 24, 1883.

The report of fish landed at Gloucester during the month of February is as follows: George's cod, 1,124,000 pounds; George's, halibut, 184,900 pounds; Western Bank cod, 140,000 pounds; Western Bank halibut, 37,000 pounds; shore fish caught in nets, 18,000 pounds; Grand Banks halibut, 112,000 pounds; haddock, 49,000 pounds; Newfoundland frozen herring, 4,400,000; Grand Manan frozen herring, 4,035,000. There have been imported from Canso, N. S., 28,000 pounds cod, 630 barrels mackerel, 450 barrels pickled herring. The arrivals last month were as follows: Eleven sail from Newfoundland, with frozen herring; 20 sail from Grand Manan, with frozen herring; 59 sail arived from George's, with cod; 5 sail from Western Bank, with salt cod; 6 sail from the Grand Banks, with fresh halibut; 1 from Canso, with mackerel, herring, and cod. There were 2 arrivals with haddock; and 5 sail came in from Ipswich. Bay.

GLOUCESTER, MASS., March 2, 1883.

There have been 37 arrivals from George's Bank during the last week, averaging 25,000 pounds cod and 2,000 pounds halibut to a vessel. The fish caught on George's are caught in shoal water of 18 to 25 fathoms; the fish are large and full of spawn. The first fish were caught on the eastern part of the bank in the month of January, in about 60 fathoms of water. These fish contained no spawn. Those now caught are full of spawn, and are taken on the western part in 20 fathoms. There have been four arrivals from the Western Bank in the last week, with good fares-40,000 pounds salt cod, and 4,000 pounds halibut to a vessel. Six cargoes of frozen herring have arrived during the last week, average 250,000 to a The halibut vessels have not done much-nothing in the last vessel. week. The haddock are plentiful on George's Bank. I have known vessels to catch 70,000 pounds in two days, and make the round trip in a week. Some vessels went out Tuesday and were back Sunday with 60,000 pounds. They caught these on the western part of George's, in 20 fathoms of water. The oldest haddock are full of spawn. The oldest haddock catchers say that they never saw them so numerous. There is a large fleet of vessels in the harbor, and they will not go out until Monday, being afraid of Wiggins's storm.

GLOUCESTER, MASS., March 6, 1883.

The George's vessels are doing well. There were 12 arrivals last week, averaging 30,000 pounds of split fish, and 500 pounds of halibut to a vessel. Two vessels arrived from Western Bank with 65,000 pounds of cod to a vessel. Four came in from Grand Bank with fresh halibut, 25,000 pounds to a vessel. Five sail arrived from Grand Manan with 838,000 frozen herring. Twenty-three vessels sailed southward after mackerel, and 40 more will sail in the course of ten days. Fifteen sail have gone south from Portland and 5 from Southport for mackerel. There will be 140 sail after mackerel.

GLOUCESTER, MASS., March 25, 1883.

The following is a report of the amount of fish landed here in the month of March: George's cod, 1,547,000 pounds; George's halibut, 77 500 pounds; Western Bank cod, 435,000 pounds; Western Bank halibut, 21,150 pounds; Grand Banks halibut, 368,000 pounds; haddock, 225,000 pounds; cod caught in gill-nets, 12,000 pounds; frozen herring brought from Grand Manan, 4,730,000 pounds.

GLOUCESTER, MASS., April 3, 1883.

Since the 1st of April, 45 sail of vessels have arrived from George's, landing 1,350,000 pounds salt codfish, 22,500 pounds fresh halibut. During the same time there have arrived 4 sail from Western Bank with 235,000 pounds salt codfish and 6,000 pounds of halibut. Ten sail from George's Bank, with haddock, landed 436,000 pounds. Three sail from Grand Manan arrived with 320,000 frozen herring. One vessel from Grand Bank brought 30,000 pounds fresh halibut. Twenty thousand pounds shore fish have been landed.

Gloucester now has 74 vessels south for mackerel; 56 vessels on George's for codfish; 42 vessels on the Western Bank after codfish; 23 vessels after fresh halibut; 15 vessels after haddock; 30 sail of shore fishermen, and 22 small boats and dories carrying one man each.

GLOUCESTER, MASS., April 10, 1883.

During the past week there have been 55 arrivals from the fishing grounds, 31 from George's Bank, and 23 from Western Bank. The George's vessels last week averaged 25,000 pounds salt cod to a vessel and 500 pounds halibut to a vessel. The Western Bank vessels averaged 50,000 pounds salt codfish and 4,000 pounds halibut to a vessel. One vessel from the Grand Banks had 20,000 pounds fresh halibut. Halibut are reported scarce. The shore boats have not caught No bait inshore. The bait has gone to eastward. There have any fish. been herring caught on Jeffrie's Bank. There are alewives in Vineyard Most of the vessels go there after bait. Two boats got ale-Sound. wives at North Truro yesterday. Halibut are plenty on the Western Bank in some places. Halibut sold yesterday at eight cents per pound at wholesale. Schooner M. A. Barton caught 20,000 pounds on codtrawl. Some of the mackerel cetchers have done well. There have been 700 barrels more landed this year than last year at this time. The first that came on the coast were small; the last ones caught were large.

GLOUCESTER, MASS, April 22, 1883.

The record of fish landed here during the month of April is as follows: George's cod, 2,462,000 pounds; George's halibut, 65,700 pounds; Western Bank cod, 3,317,000 pounds; Western Bank halibut, 156,400 pounds; Grand Banks halibut, 173,000 pounds; George's haddock, 227,000 pounds; shore fish, 12,000 pounds; frozen herring (by count), 390,000. There were 100 arrivals from George's Bank, 70 from Western Bank, 6 from Grand Bank with fresh halibut; while there were 11 arrivals with haddock, 3 with shore fish, and 3 with herring.

GLOUCESTER, MASS., May 1, 1883.

During the past two weeks there have been 31 arrivals from George's . Bank, with an average of 20,000 pounds to a vessel; 16 from Western Bank, averaging 40,000 pounds each; 19 with fresh halibut from Grand Banks, averaging 30,000 pounds each; and 9 with haddock, averaging 30,000 pounds to a vessel. Yesterday 3 vessels came in with pollock, with a total of 105,000 pounds. These pollock were caught with seines 3 miles off Chatham. Mackerel are very slow in coming northwest this year. Last year at this time they were taken off Sandy Hook; but the farthest north where they have been taken this year is about 35 miles east southeast of Delaware Breakwater; this was on last Wednesday (May 9). Fifty-four vessels have been in New York this week, with 125 barrels to a vessel. A few scattering mackerel have been caught in the traps at Cape Cod. Herring are very scarce inshore this spring. Last year at this time they were abundant in Boston Bay, and 4 vessels were busy seining them. This year there have been uone to catch, either on our coast or on the coast of Nova Scotia. Last week 9 barrels of shad were caught in the traps at Cape Cod. All kinds of small fish are a fortnight late this spring. A school of herring went by to the eastward offshore. They have been seen on Jeffrie's Bank and on Cashc's. Last year at this season there had been 3,000 barrels of salt mackerel landed at New York, while this year only 500 barrels have been landed so far, and only 300 barrels have been landed in Philadelphia.

GLOUCESTER, MASS., May 13, 1883.

During the last week 31 vessels have come in from George's Bank with an average of 18,000 pounds of cod to a vessel; 6 have come in with cod from Western Bank, averaging 40,000 pounds each; and 3 from Grand Banks with an average of 5,000 pounds of halibut. There have also arrived 8 vessels from the shore grounds, with a total of 120,000 pounds of haddock. The halibut catchers are not doing much; during the week 3 vessels arrived with 15,000 pounds each, after trying the banks where halibut used to resort and finding them scarce. Thev went to Burge's, Newfoundland, but found almost nothing, while last year halibut were plenty at Burge's. Small halibut have been plenty on the Western Bank; 2 small vessels got 25,000 pounds each there. These halibut weigh only from 35 to 50 pounds apiece. Herring are searce; this will cause long trips. Some of the vessels which left Gloucester a month ago-some bound to Grand Banks, some to Cape Northhave got no bait even yet. The fishermen's torment, the dog-fish, made its appearance last Monday (May 14). The schooner Blue Jay reports schools of mackerel 25 miles to the eastward of the highlands on Cape Cod. Four vessels have arrived from Chatham with 45,000 pounds of pollock apiece, having caught them with seines. This makes 4 fares (300,000 pounds) of pollock landed at Gloucester this spring; all were caught with seines. Sixty-five thousand large mackerel were caught

in the weirs at Sand Point, Cape Cod. Small cod, from 8 to 20 inches long, are plenty in the harbors.

GLOUCESTER, MASS., May 20, 1883.

There have been 62 arrivals here from the fishing-grounds during the past week. Twenty-seventh came from George's Bank, averaging 25,000 pounds salt fish to a vessel; 5 from Grand Banks with fresh halibut, averaging 30,000 to a vessel; 8 with pollock, with an average of 40,000 pounds each; and 14 from the shore grounds, with 20,000 pounds mixed fish to a vessel. The pollock were all caught with seines about 5 miles off Chatham. Last Friday (May 25) pollock were seen in schools on Middle Bank. I never before knew so many small pollock to be about as there are this year; the harbors are full of them. Mackerel are working eastward fast; they have been off Chatham for the past ten days, and are now in shoal water, which is something unusual. There were 100 sail of mackerel catchers off Chatham yesterday. Off Sandy Hook the mackerel are small; here they are large. Ten vessels were in here yesterday with torn seines. The traps at Harwich are full of pogies. There appears to be something that keeps the bait out of Boston Bav. Herring have been caught at Cape Cod during the past 3 weeks; and mackerel had been caught at Sand Point for the same length of time, and a few have been caught here; and some large ones were taken at Kettle Island last night. The fishermen say that there is plenty of feed, called "all-eyes," at Cape Cod, but none in Boston Bay. Mackerel have been caught as far east as Cape Sable, N. S. Herring are abundant at Magdalen Islands. Vessels which went to Cape North after cod are doing well; and the George's fleet is having good success on the western part of George's Bank. There are many traps set this year; 14 are at Kettle Island and Gloucester, and more are being prepared.

GLOUCESTER, MASS., May 27, 1883.

The amount of fish landed here during the month of May was as follows: 105 arrivals from George's Bank, with 2,098,000 pounds of salt cod and 68,550 pounds fresh halibut; 41 arrivals from Western Bank, with 1,846,000 pounds salt cod and 194,000 pounds fresh halibut; 26 arrivals from Grand Banks, with 750,000 halibut; 18 arrivals with 357,000 pounds haddock; 33 arrivals with shore fish. Of these last there were 252,000 pounds cod, 126,000 pounds hake, 118,000 pounds haddock, and 98,000 pounds cusk. There were 12 arrivals with salt pollock, a total of 484,000 pounds. These were caught with seines off Chatham. Ten vessels arrived with 358 barrels of salt mackerel; these were taken in weirs in the vicinity of Gloucester. Fifty barrels of fresh mackerel were sold also.

GLOUCESTER, MASS., June 4, 1883.

The mackerel fleet has returned from its southern cruise with poor results. Three vessels which left here April 1st did not catch a mackerel. They were hard to catch. One vessel set a seine 74 times, and

yet caught no fish. The difficulty in catching them is charged to the unusual transparency of the water. Captain Cohart says that he lowered a towel to the depth of 20 fathoms, and then could see it plainly. Captain Coas says he could see the purse-weight on the seine when it was 20 fathoms down. They all say it was impossible to seine fish in such water. The large mackerel have gone east, and many are being taken in the weirs at Barrington, N. S. There are small mackerel from Cape Cod to Mount Desert. They are large enough for No. 2's, but are of a different school from the mackerel caught last year.

Pogies are abundant in Boston Bay. Five barrels have been taken in the traps at Kettle Island, and a vessel caught 40 barrels with seine this morning. They are of small size. Last year there was one pogy caught. Yesterday they were schooling close in to the shore of Norman's Woe. Capt. Robert Douglass was in this business twenty years, and he says that he saw as large schools yesterday as he did twenty years ago. It has been so long since pogies were here that people are not prepared to catch them; but some of the small vessels are getting their seines ready. A telegram was received here this morning stating that the weirs at Hyannis, on Cape Cod, were full of pogies. A large fleet has been at Cape North after cod. They are coming

A large fleet has been at Cape North after cod. They are coming home with full fares. One vessel, which had been gone seven weeks, arrived this morning with 140,000 pounds of cod.

GLOUCESTER, MASS., June 6, 1883.

Mackerel are scarce. Vessels have been from Cape Cod to Cape Sable and the Bay of Fundy, and yet found no mackerel. All the large mackerel have passed down the Nova Scotian coast. They have been caught in traps at Cape Sable for the past three weeks. The schooner Polar Wave arrived this morning from the Grand Banks, and reports sailing through mackerel in large schools to the eastward of Sable Island, and that they seemed to be going northward. Those on the New England coast are small. Six barrels of them were sold to-day for \$8 a barrel. Last year at this time they would have sold at \$4.

Pogies are plentiful. Salem Harbor is full of them, and 150 barrels were seined off the mouth of the harbor. Three large salmon have been taken in the traps at Kettle Island, weighing $22\frac{1}{4}$, 20, and $18\frac{1}{2}$ pounds, respectively.

Six vessels have left here for Greenland after halibut. On George's Bank fish are scarce at present. The Cape North fleet has returned with good fares, and vessels are doing well on the shore fishing-grounds, catching cod, hake, and cusk. Thirty sail have gone to the Grand Banks after cod, and 3 have started for the Bay of Saint Lawrence after mackerel. A large fleet will go there after July 4 if there are then no mackerel on this coast. Half a barrel of squid was caught in a trap in the harbor here last night.

I inclose the following newspaper item on the steam menhaden fisheries:

"NEW BEDFORD, June 5.—The greatest week's work at this time in the season was made by Messrs. J. Church & Co.'s steam fishing fleet last week. The Joseph Church, Jemima Boomer, A. M. Hathaway, and George W. Humphrey nearly every day were loaded almost to the water's edge. The George W. Humphrey brought in 2,200 barrels on Saturday, and the A. M. Hathaway the same number. The catch was made in the Seconet River. The first of last week this gang were fishing back of Long Island Sound, but as the fish worked this way the fleet followed them to Seconet River. The catch last week amounted to about 19,000 barrels, and the Narragansett oil works at Portsmouth are consequently running day and night. While the George W. Humphrey was coming up from below Long Island on Wednesday night, loaded hold and deck, she encountered a heavy sea which swept her deck load of 800 barrels of menhaden into the water, which probably was the means of saving the steamer."

GLOUCESTER, MASS., June 14, 1883.

Since my last letter mackerel have come on the coast in considerable numbers. During the past week there have been thirty-five arrivals with 4,840 barrels of salt mackerel. On last Thursday and Friday (June 14 and 15) there were thirty-one arrivals in Boston with 4,000 barrels of fresh mackerel. The mackerel are small—smaller than those of last year. Most of them have been caught from 20 to 40 miles eastsoutheast of Thatcher's Island. Two vessels came in last night from the southeast part of Cashe's with 460 barrels—most of them larger mackerel. Mackerel have got through spawning; among 100 barrels of them landed at the canning factory I saw no spawn. The weather has been unfavorable for fishing during the last four days—mostly thick fog; with fair weather there would have been a good catch. Mackerel sold to day for \$6.25 a barrel—with the barrel out of pickle, and no inspection.

Pogies are abundant along shore. The small boats catch enough in their nets for bait, which is what they have not done before for five years. The weirs at Portsmouth were full of pogies last Monday; and they have been caught as far east as Portland.

GLOUCESTER, MASS., June 21, 1883.

The amount of fish landed at Gloucester during the month of June was as follows: George's Bank cod, 1,579,000 pounds; George's halibut, 44,550 pounds; Western Bank cod, 3,525,000 pounds; Western Bank halibut, 95,000 pounds; Cape North cod, 2,200,000 pounds; shore fish, consisting equally of cod, cusk, and hake, 1,355,000 pounds; fresh halibut caught on Grand Banks, 924,000 pounds; mackerel landed, 12,755 pounds. Two hundred and ninety-five barrels of pogies were caught in seines at the mouth of Gloucester Harbor, and 88 barrels of them were taken in weirs in the harbor; 78 barrels of mackerel were caught in

weirs in the harbor, and 220 barrels of herring were caught among the mackerel in seines.

GLOUCESTER, MASS., July 1, 1883.

I will give a few notes on mackerel: On June 24 large mackerel were plentiful on Cashe's Bank. They lasted for two days there, then they disappeared and have not been seen there since. The vessels which were on Cashe's did well, some of them catching as much as 200 barrels in the two days. Small mackerel came along the coast, from Cape Cod to the Bay of Fundy, about June 30. They are numerous but very small, averaging about 6 inches long. On July 2 a school of large ones appeared in Boston Bay. The traps at Kettle Island and Gloucester caught 200 barrels of them, but after one night they disappeared. Ten vessels have gone to the Bay of Saint Lawrence after mackerel, though no mackerel of any account have been caught there yet. One vessel was there a fortnight and caught none. I think mackerel will be caught soon on our coast. The harbor here was full of small mackerel which were schooling.

GLOUCESTER, MASS., July 8, 1883.

On July 5 and 6 a school of small mackerel was in the harbor. The weirs, eight in number, caught 500 barrels, 1,200 fish to a barrel. On the 13th and 14th a school of still smaller mackerel came into the harbor. It takes 2,000 of these fish for a barrel. The weirs in the harbor to-day have an average catch of 50 barrels. There are 4 barrels of large mackerel to 50 barrels of the remainder.

James Tarr & Bros. bought all the mackerel in the weirs at \$1 a barrel. They intend to salt them round, as they do herring, for an experiment, and try to find a market for them.

Large mackerel are scarce, and the vessels are doing poorly. Fifteen sail have gone to the Bay of Saint Lawrence after mackerel, but the news from the bay is not favorable. Small mackerel are plentiful from Cape Cod to the Bay of Fundy, inshore as well as offshore. It seems too bad to kill them. The vessels set their seines around a school of mackerel and catch perhaps 100 barrels. They then pick out 10 barrels of them and throw the rest overboard. Some vessels which had been gone four weeks returned with but 40 barrels.

The mackerel fleet is spread along the eastern shore from Cape Cod to Cape Sable, and they report nothing but small mackerel. At Kettle Island, Manchester, and Gloucester, within a distance of 10 miles, there are 17 weirs set. This morning they averaged 50 barrels of small mackerel apiece, and some of the weirs were very full.

GLOUCESTER, MASS., July 15, 1883.

The vessels which went to George's Bank for cod have done well. A large school of cod has been on the western part of this bank. The fishermen call this the "squid" school, because the fish are full of squid

when caught. Vessels have been supplied with squid from the weirs at Sandwich and Barnstable Bay. The squid caught this year are of the same kind as those caught at Newfoundland, having no bones in them. They are the first of that kind caught on this coast for 10 years. Vessels catch some with a squid-gig on the Bank. Some of the vessels took as much as 50,000 pounds of large cod in six days, using squid for bait.

GLOUCESTER, MASS., July 15, 1883.

Large mackerel are scarce, but small ones are plentiful all along the Some vessels arrive with only 30 or 40 barrels after being coast. absent for three weeks. A large fleet has gone to the Bay of Saint Lawrence after mackerel, and two vessels went there to fish for mackerel with hooks. Two vessels have left mackerel-catching and gone after cod, while two other mackerel vessels belonging to Boston have hauled up. The schooner J. J. Clark arrived home with 230 barrels of mackerel caught 120 miles to the eastward (east by south) of Thatcher's Island. They were all caught in 10 days, after which the school dis-Large mackerel have been caught on the coast, and it is appeared. hard to tell where they have gone. Some think they are at the bottom. The schooner Maud F. Leighton, fishing for cod on the northwest part of George's Bank, caught a large No. 1 mackerel on a cod-hook in 45 fathoms. 'The captain states that some of the large cod had two or three large mackerel in them when caught. My opinion is that as we have had heavy rains for the last three weeks, this has sunk the seed which the mackerel eat into deep water, and so they leave the surface to feed on it. Four years ago things looked as badly for the mackerel fishermen as they do now, but the vessels did well after August 1. Mackerel bring a high price. They sold yesterday for \$16 a barrel for a small lot of mackerel, large rimmed.

GLOUCESTER, MASS., July 22, 1883.

Yesterday there were eight vessels in from Grand Banks, with 822,000 pounds salt cod; ten vessels from George's, averaging 35,000 pounds; four from Western Bank, with 110,000 salt cod; four from the shore grounds, with 80,000 pounds of mixed salt fish; and one from Grand Banks, with 20,000 pounds halibut.

A large school of big cod is on the western part of George's Bank, in from 35 to 75 fathoms. It is the first time for twelve years that cod have been caught on George's Bank in 40 fathoms. Generally they have been caught in deep water during June, July, and August. Strange to say, there are no dogfish on the western part of the Bank. The George's fishermen make the trip in twelve or fourteen days; one vessel came in this morning with 40,000 pounds of salt cod, after having been gone but eleven days. The Grand Banks vessels are usually gone about seven weeks for a trip.

A few large mackerel are being caught in the weirs in the harbor

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1 inclose a couple of newspaper slips relating to the fisheries:

"Wednesday morning, July 18, the menhaden steamer Annie L. Wilcox, of the Wilcox Company, Mystic, made an immense haul of edible fish. The seine was set off Amagansett, about 15 miles to westward of Montauk light, and the haul resulted in the capture of about 30 tons of weakfish, that would average three pounds apiece. It took about an hour and a half to get the fish on board the steamer, and the haul was without any difficulty. It was the largest cargo of fish ever taken to New London."

"The report of W. Z. King, surveyor of customs at Greenport, L. I., shows that for the quarter ending June 30, 44,000,000 menhaden were rendered at the fish factories, 1,375 barrels of oil made, 4,400 tons of fish-scrap made, and 230 tons of edible fish marketed. The number of menhaden rendered does not include several millions taken in pounds and shore seines and not taken to the factories. The yield of oil is the smallest ever known for the quantity of fish rendered, averaging but 1.12 gallons per 1,000."

GLOUCESTER, MASS., July 24, 1883.

During the month of July 123 vessels arrived in Gloucester with salt mackerel, amounting to 14,566 barrels, 1,853 barrels of small mackerel, and 124 barrels of large mackerel were caught in traps. The mackerel catchers also landed 300 barrels of small mackerel. One hundred and forty barrels of large herring, caught with seines on the Seal Island grounds, were landed at Gloucester. One hundred and thirteen vessels from George's brought 2,118,000 pounds of cod and 35,710 pounds of halibut. Twenty-six vessels from the Western Banks brought 1,321,000 pounds of cod, 13,850 pounds of salt halibut, and 1,000 pounds of tresh halibut: Twenty-five vessels from the Grand Banks landed 2,762,000 pounds of salt cod and 37,000 pounds of salt halibut; 21 vessels from Grand Banks landed 487,000 pounds of fresh halibut; 32 shore fishing vessels landed 180,000 pounds of salt cod, 99,000 pounds of salt cusk, 50,000 pounds of salt hake, and 800 pounds of salt pollock. Five hundred quintals of dried fish (mixed) were brought from Maine by freight. The papers report that very large catches of menhaden were made by the Long Island fish steamers last week. "The fish were along the coast covering hundreds of acres. The factories at the east end of the island were choked with fish and have been running day and night. The bay fishermen have also done better than any previous time this season. At the Newport factory 2,000,000 fish were received and rendered in three days. The menhaden were never before known to be sc plentiful."

GLOUCESTER, MASS., August 2, 1883.

Bull. U. S. F. C., 83-12

Mackerel come in very slowly. What are received have been caught 180 miles east by south from Thatcher's Island. Most of them are mixed with small ones. The schooner Charles E. Warren arrived yesterday with 100 barrels of large mackerel. The captain told me that he caught 800 barrels from which he selected these, throwing overboard the other 700 barrels. The rest of the fleet is doing much the same way. Three hundred sail of mackerel catchers will destroy a great many fish. Last year, to the 4th of August, 96,000 barrels of mackerel had been landed; this year, only 20,000 barrels. The small mackerel are very plenty on George's Bank. There are a few large mackerel in our harbor which are caught close to the bottom, are very fat and very large. It takes only one hundred of them to fill a barrel. Mackerel sold yesterday at \$14 a barrel, including the barrel; last year at this time they brought \$7 a barrel, including the barrel.

The cod fishermen on George's Bank are doing well whenever they can get squid for bait. The captain of the schooner Lettie Hawes says he never saw squid so abundant as this year. They were in large schools all of last week. The captain says that pollock have never before staid so late as this year. The squid keep them here.

Porgies are plenty in the weirs at Hyannis, Chatham, and Portsmouth. A salmon was caught in a trap in the harbor which weighed 9½ pounds. One bluefish was caught in a mackerel-net last week in the harbor.

GLOUCESTER, MASS., August 5, 1883.

During the past week mackerel fishing has been better This morning I found that 15 mackerel vessels had arrived in the harbor, three of them from the Bay of Saint Lawrence with 320 barrels of fish each The other 12 had been fishing on the coast and had obtained 200 barrels each. The prospect for mackerel in the Bay of Saint Lawrence is good. Those caught along the shore are mostly from the eastern part of Cashe's Bank, where they seem to be plenty though they do not come to the surface. Those caught were seen from two to five fathoms below the surface of the water. Captain King told me to-day that he has never seen so many birds before in the Bay of Fundy, such as sea-geese, gaunet, and hagdowns. Sharks and swordfish are also plenty.

One schooner from the Grand Banks arrived yesterday with 290,000 pounds of salt cod having been absent three months. The schooner Amelia S. Cole arrived yesterday with 280,000 pounds of salt cod taken with hand lines on Banquereau, having been absent 11 weeks. The schooner Otis P. Lord brought in 50,000 pounds of cod from George's Bank, having been absent fifteen days. Little, if anything, has been caught in traps during the past week. Mr. Bates caught a sturgeon in his trap last Thursday which weighed 165 pounds. Of course mackerel have been very plenty and one was shot in the Squam River.

GLOUCESTER, MASS., August 12, 1883.