

generally used. The mother-of-pearl from the Gulf of California is white, with bluish-black or yellow bands. The fisheries were carried on to such an excess that the size of the shells decreased from year to year; fishing is therefore now permitted only every fourth year. The California shells are sent almost exclusively to Hamburg, whence they go to England, Austria, and France. The largest quantity goes to Paris, but a great deal also to Frankfort on the Main. The entire California fisheries are said to produce from 600,000 to 700,000 pounds of mother-of-pearl per annum. In 1879 Costa Rica exported 3,540 pounds. In the same year Panama sent pearls to the value of 126,000 crowns [\$33,768] to the New York market. Guayaquil, in 1871, exported 13 to 14 tons of mother-of-pearl. In the Bahamas the snail fisheries form an important industry. The pearls found in them are rose-colored, yellow, or black; the first mentioned alone possess any value. The market for these pearls is Nassau, in the Bahamas; and it frequently happens that a pearl fetches as much as 400 crowns [\$107.20]. The average annual yield is 180,000 crowns [\$48,240]. In the State of Ohio pearl fisheries are carried on in Little Miami River. The season lasts from June till October. Men and boys wade in the river and bring up the pearl-oysters with their feet. The shells are opened with a knife; and seldom are more than 2 pearls found in 300 oysters. Pearl fisheries are also carried on in the rivers of Norway, Bavaria, and Bohemia.

100.—NOTES ON THE NEW ENGLAND FISHERIES IN OCTOBER, 1886.

By W. A. WILCOX.

During most of the month the weather was favorable for fishing, the exceptions being high winds that held mackerel seiners in the harbors of Cape Breton a large part of the month, and a long storm off the New England coast the last week in the month.

Codfish show an increase of 474,758 pounds in the amount landed at Gloucester over the corresponding month of last year, the receipts being mostly from Western Bank. One year ago cod were very abundant on George's Bank, but few if any were caught on Western Bank; this season affairs are reversed. For several months fish have been reported scarce on George's and very plentiful on Western Bank. Off the New England coast cod have been more abundant than of late years. Many vessels engaged in cod-fishing could show a large amount of fish caught during the year. Among others we notice that the schooner *Finance*, of Gloucester, from October 2, 1885, to October 15, 1886, with a crew of 11 men, including the master, has landed 600,000 pounds of codfish and 20,000 pounds of halibut, most of the catch being taken on George's and Brown's Banks.

Vessels engaged in the halibut fishery have found fish fairly plentiful on Grand and Quereau Banks, Gloucester vessels having arrived

with good fares, landing 620,930 pounds more than during the corresponding month of last year.

Mackerel have continued scarce both off the United States and provincial shores. The first of the month 75 sail of seiners from New England ports were off Prince Edward Island, and 100 sail were scattered along the New England coast. The fleet left Prince Edward Island the first week in the month, most of them returning to home ports, some with good fares, but most of them with only a small amount; total receipts of mackerel at all home ports from off provincial shores, 69 fares, with 12,421 barrels, an average of 180 barrels, which is not half a full fare. After leaving the island a small fleet remained off Cape Breton all the month. On October 11 and 23 they took a few hundred barrels of mackerel, but most of the month vessels were detained in harbors by strong winds and unfavorable weather for fishing; seiners after return from the Gulf of Saint Lawrence, hauled up, or joined the fleet off the New England coast. Mackerel were found off the Massachusetts coast, mostly in Barnstable Bay, and off Block Island, all the month, seldom in any great quantities. The fish were of mixed sizes, a good proportion large, and quality fine.

On October 20 mackerel were very plentiful off Sandwich, Mass., 26 sail arriving in Boston the next day, with small fares, aggregating 826 barrels of fresh mackerel and 113 barrels of sea-packed, the fish being of mixed sizes. These fish were mostly taken in the night, the seine being thrown around the vessel; after being pursed up, the vessel is sailed out of the seine, passing over the cork-line, and the fish removed. Some times bait is thrown to call the fish alongside of the vessel, and then vessel and fish are quickly surrounded by the seine.

An immense body of small herring during a large part of the month was in the neighborhood of Gay Head, Vineyard Sound. Mackerel were mixed with them, and a few vessels had a fair catch hooking the mackerel, the size being mostly large and quality fine.

Owing to the scarcity of the fish, prices of mackerel have steadily advanced from \$13.50 a barrel, sea-packed, for North Bay catch, at the first of the month, to \$16 at the close; extra large and fine mackerel caught off the New England coast found quick sale at from \$25 to \$40 a barrel. The fishermen have been encouraged by the high prices to use every exertion to take fish, more bait and hooks having been used than for several years.

Three vessels on long mackerel trips did not take seines, depending on the hook and line, the first time for years; they report as follows: Schooners M. L. Wetherell and William V. Hutchins sailed from Gloucester to the Gulf of Saint Lawrence, going as far as the Magdalen Islands, spending the entire season, and catching only 42 and 33 barrels of mackerel, respectively; schooner Maria Webster, of Wellfleet, used hooks exclusively, for two months' fishing only, off the Massachusetts and Rhode Island shores, taking 161 barrels of fine mackerel.

The great falling off in the mackerel catch is of interest. Total amount

landed, in sea-packed barrels, at all New England home ports up to October 28 :

1886	74, 387
1885	324, 704
1884	411, 08
1883	189, 271

In common with most of the leading food-fishes, cod excepted, pollock have been scarce, hand-lines and gill-nets both taking only a small amount. The total quantity landed at Gloucester during the month was 398,250 pounds, against 3,142,790 pounds for the corresponding month last year.

The first set of gill-nets this season was made 7 miles out from Gloucester, on October 7. Being hauled the next day the catch found was twenty-five pollock, averaging 21 pounds each, two-thirds female fish, mostly full of spawn. They sold for \$1.25 per 100 pounds. As the catch increased the price fell to 50 cents per 100 pounds.

Bait has continued abundant and more than enough for all demands. Weirs along the eastern coast, from New Castle, N. H., to Southwest Harbor, Maine, have had plenty of herring, while weirs at Cape Cod had a smaller amount of herring and mackerel. On the Western Bank, where most of the codfish were caught, squid were very plentiful, furnishing the best of bait free of expense.

Shore herring remained along the Massachusetts coast, in the vicinity of Cape Ann, most of the month, but in no large body, excepting on October 3 and 4, when they were off Rockport, Mass., in immense numbers, and the fishermen had more than they could handle, and many nets were sunk by the weight of the fish. Anticipating a large catch, prices fell to 75 cents to \$1 a barrel. The herring soon struck off, a smaller body of fish appearing off the Eastern Point and along the Massachusetts shore. Prices soon advanced to \$1.50 and \$1.75 a barrel. The total catch of large shore herring taken off the Massachusetts coast has not been one-half that of 1885.

The halibut fleet from Iceland have all arrived, bringing fair but not full cargoes. Two sailed, early in the season, for Greenland on halibut trips, one returned with partial cargo, and one (mentioned below) is probably lost.

A sad record of loss of life and property closes the report for the month. Four vessels have sailed from Gloucester never to return, when and how three of them were lost will probably never be known. During the past month the following have been given up :

On October 3 the schooner Garibaldi, 49.89 tons, on a codfish trip, was burned while at anchor in Schooner Passage near Yarmouth, Nova Scotia, the crew being all saved.

Schooner John F. Wonson, 55.13 tons, sailed on August 4 for codfish on George's Bank; since that time she has not been seen, and the vessel and crew of 10 men are given up.

Schooner Seth Stockbridge, 85.44 tons, sailed in June on a halibut

trip off Greenland. She carried 14 men, and has never been spoken since, but is supposed to have been lost in the ice-fields of the far north.

Schooner George L. Smith, 84.28 tons, sailed August 14 on a halibut trip to Quereau Bank, and was last seen on Brown's Bank on August 21. The vessel and 14 men are now given up. All the above vessels were owned and sailed from Gloucester, and were fine vessels. Total loss, 38 men and 4 vessels; 274.74 net tonnage.

Fish landed at Gloucester, Mass., by Gloucester vessels, in October, 1886.

From—	Fares.	Codfish.	Halibut.	Hake.	Haddock.
		<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
Western Bank	07	3, 147, 000			
George's Bank	39	723, 000	227, 200	26, 000	25, 000
Quereau Bank	26		617, 000		
Jeffrey's Bank	2	2, 000			
Iceland	8		330, 000		
Grand Banks	12	1, 460, 000	185, 500		
Bay of Fundy	2	25, 000	490	2, 000	
New England shore	62				
New England shore	44	65, 050		127, 000	20, 000
New England shore, gill-nets	105	39, 530			
Brown's Bank	2	70, 000			
Gulf of Saint Lawrence	53				
New England shore	29				
Shore, small boats		50, 500		5, 000	
Long Island Sound	8				
Total in October, 1886	449	5, 582, 180	1, 363, 100	160, 000	45, 000
Total in October, 1885	560	5, 107, 372	742, 170	282, 002	74, 334

From—	Pollock.	Cusk.	Herring.	Mackerel.	Menhaden.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Barrels.</i>	<i>Barrels.</i>	<i>Barrels.</i>
Western Bank					
George's Bank		4, 000			
Quereau Bank					
Jeffrey's Bank	10, 000				
Iceland					
Grand Banks					
Bay of Fundy	2, 000				
New England shore			8, 033		
New England shore	71, 050	8, 000			
New England shore, gill-nets	314, 000				
Brown's Bank					
Gulf of Saint Lawrence				10, 031	
New England shore				1, 067	
Shore, small boats	600		60		
Long Island Sound					510
Total in October, 1886	898, 250	10, 000	8, 033	11, 098	510
Total in October, 1885	8, 142, 790	4, 500	4, 321	30, 915	

Receipts of fish from outside vessels at Gloucester, Mass., during October, 1886.

From Maine and New Brunswick :		
Cargoes of dry, pickled, and smoked fish		13
Hake	quintals..	7, 100
Haddock	do..	700
Pollock	do..	25
Cod	do..	480
Cusk	do..	435
Smoked herring	boxes..	14, 000
Bloaters	do..	100
Pickled herring	barrels..	100
From Tiverton, R. I. :		
Menhaden oil	barrels..	450

GLoucester, MASS., October 30, 1886.