

increase in 2 rivers; increase varying in 8 rivers; the fish decreased in 17 rivers; no fish observed in 10 rivers; no statistics in 24 rivers.

Several varieties of carp, perch, and other freshwater fish have also been introduced into the Australian rivers and lakes during the same period, and, on the whole, with satisfactory results. Especially the common tench (*Tinca vulgaris*) and the common perch (*Perca fluviatilis*) have in a comparatively short time increased very much, and may now be considered as entirely acclimatized in Australia.

#### 154.—NEW ENGLAND FISHERIES IN AUGUST, 1885.

By W. A. WILCOX.

August shows a decided improvement in receipts, prices, and demand for the leading varieties of salt-water fish. Codfish have been fairly abundant on the Grand Banks and also on George's Bank. During August few cod were found on Brown's Bank, and most of the vessels changed for George's. The receipts of the month at Gloucester aggregate only about one-half as much as the corresponding month last year. The home fleets have landed an average amount, the falling short being mostly Canadian vessels, as low prices and the duty keep out the customary large receipts brought by foreign vessels. With a large falling off in the aggregate receipts, the market has at all times been fully supplied and prices have generally been low.

The schooner Byron was the first vessel since the termination of the Washington treaty to pay a duty on a cargo brought from the fishing banks. She arrived at Gloucester on August 20, with 300,000 pounds of codfish caught on the Grand Banks. This was the only cargo of fish from the banks that paid a duty during the month.

The shore fleet, ground-fishing off the eastern coast, reported less than the average catch, as fish were scarce. Off the Massachusetts coast a light catch is expected this season, as a large number of the vessels usually engaged have changed to the mackerel or swordfish fishery. As compared with former years receipts have been up to the average.

Mackerel receive more attention at this season than all other fish, the catch, movements of the fleet, receipts, and fluctuations of the market being closely watched. During the past month, with the exception of a few sail in the Gulf of Saint Lawrence, the vessels have worked along the New England coast from Boston Bay to the Bay of Fundy. Mackerel were found abundant, the fleet landing 106,316 sea-packed barrels\* during the month, this being only 10,520 barrels less than the entire amount of sea-packed barrels landed at all ports during 1885 up to August 1.

\*Sea-packed barrels are so called from the mackerel having been cured and packed at sea. At that time all sizes and qualities are packed together. On reaching port they are repacked, sorted, and inspected by a commissioned State inspector.

The small fleet from New England in the Gulf of Saint Lawrence found the mackerel fishery very uncertain. At times fish were abundant, at others scarce, while the size was small and quality inferior. Twenty-two sail returned to land their cargoes or complete them off the New England coast, where they remained. Twelve sail, all belonging at Gloucester, comprise the North Bay mackerel fleet from the United States at the close of the month.

From a daily record at the leading ports the following extracts relating to the mackerel catch are given:

*August 7.*—During the past week the mackerel fleet landed at all ports 40,150 barrels of sea-packed mackerel. We have only one record of so large an amount ever having been landed in one week, that being the week ending September 12, 1884, in which 42,319 barrels were landed.

The large amount of the past week was taken mostly off the New England coast, the amount received the past week from North Bay by 11 sail being 4,905 barrels, and by railroad, from Gloucester vessels that remained in hopes of finding large fish, 736 barrels.

*August 9.*—Eighty sail were fishing between Ipswich Bay and Isles of Shoals; 20 sail were off Marblehead; a large fleet were working west from the Bay of Fundy; the Block Island and Cape Cod fleets were working east; the North Bay fleet nearly all left the Gulf of Saint Lawrence for the New England shore or home ports. But few fish taken during the past week in any direction.

*August 10.*—Twenty-one arrivals at Gloucester landed 5,855 barrels of mackerel, taken as follows: One from off Block Island, 100 barrels; 2 from Massachusetts Bay, 280; 9 from the eastern shore and Bay of Fundy, 3,120; 2 from the North Bay, 760; 7 from Barnstable Bay, 1,595.

*Boothbay, August 14.*—Much fog, and few mackerel being caught.

*August 17.*—Continued foggy weather has detained 60 sail of seiners in this harbor. Clear weather to-day sends them to sea.

*August 24.*—A strong southerly breeze brings in 75 sail of the mackerel fleet for a harbor.

*Gloucester, August 17.*—The mackerel fleet continue scattered from Cape Cod to the Bay of Fundy. A few good hauls made the past week in Massachusetts Bay. Schooner Volunteer has taken 300 barrels there during the past two weeks. Fish are of good size and quality.

*August 20.*—Large quantities of mackerel now in Massachusetts Bay, but too near the rocks for much of a catch. These fish are the largest, fattest, and best found anywhere, and bring from one to two dollars a barrel more than mackerel caught to the eastward or in the Gulf of Saint Lawrence.

*August 28.*—The mackerel fleet are now scattered from off Monhegan to Mount Desert. Fog and rough weather continue much of the time. Mackerel are mixed with large quantities of alewives, and only a light catch is being taken. Fish now arriving mostly caught well to the

eastward, and of a poorer quality than those taken in Massachusetts Bay.

August 31.—Most of the mackerel fleet are now between Monhegan and Cape Elizabeth, Me., and are having a moderate catch, the schools being small and mixed with alewives, great quantities of which are taken with the mackerel.

The fishermen all report never having seen or heard before of such quantities of alewives at this season of the year. From their description the fish are no doubt the *Clupea astivalis*, gut herring, or blue-back.

None of the mackerel seiners saved any of the alewives. Two small steamers that have been engaged in the shore whale-fishery and a few other small vessels have been engaged in capturing these alewives and selling them to the oil and fertilizer factories at Boothbay, receiving 40 cents a barrel for them. The fish are of good size, very fat, and said to produce 3 gallons of oil to the barrel of fish.

The close of the month finds the mackerel fleet located as follows: 50 sail off Mount Desert; 50 sail off Isle au Haut; 80 sail off Monhegan; 20 sail in Gulf of Saint Lawrence.

The remainder of the fleet were scattered between Cape Cod and the Maine coast. During the past two weeks the catch showed a large falling off in all directions.

August 31.—The first steamer ever built for the mackerel fishery arrived at Gloucester to-day, took on her four seine-boats, and went to sea. This steamer, the Novelty, is 150 feet long, 27 feet beam,  $11\frac{3}{2}$  feet hold, gross tonnage of 294, net 197.45, is schooner rig, carries four seine-boats, two being swung on davits on each side of the steamer, four seines, and a crew of 40 men. It is furnished with engines of 450 horse-power. The Novelty enters the field too late to demonstrate this season whether steam is a benefit and liable to lead to another radical change in the mackerel fishery or not. She is a fine seaworthy-looking vessel; built and commanded by Capt. H. C. Joyce, one of the ablest and most successful fishermen in New England, and her future will be watched with much interest.

Prices of mackerel per barrel at Gloucester during August, 1885, (sales being made by the cargo).

Date.	Shore.	Bay of Fundy.	North Bay.
August 5 ..	\$3 00	.....	\$2 25
8 ...	4 00	.....	2 30
10 ...	.....	\$2 75	2 25
11 ...	.....	2 00	.....
17 ...	6 00	.....	3 00
20 ...	6 50	5 00	3 25 to 3 50
25 ...	7 00 to 7 30	.....	4 00 to 4 25
28 ...	6 00 to 7 00	.....	.....

*Receipts of fish at Gloucester, Mass., in August, 1885.*

From--	Fares.	Codfish.	Halibut.	Cusk.	Hake.	Had-dock.	Sword-fish.	Mack-erel.	Menh-den oil.
		<i>Lbs.</i>	<i>Lbs.</i>	<i>Lbs.</i>	<i>Lbs.</i>	<i>Lbs.</i>	<i>Lbs.</i>	<i>Bbls.</i>	<i>Bbls.</i>
George's Bank .....	156	2, 890, 000	204, 600	12, 000					
Brown's Bank .....	27	687, 000	7, 850						
Grand Banks .....	41	2, 797, 000	898, 500						
Cape shore .....	14	275, 000						2, 014	
New England shore .....	9	71, 000		12, 000	54, 000	42, 000			
New England shore and Bay of Fundy .....	12						70, 345		
Banquereau .....	2	72, 000		15, 000	15, 000				
Grand Banks (British schooner)* .....	1	330, 000							
Tiverton, R.I. .....	2								700
Eastern shore and Bay of Fundy .....	109							30, 843	
Gulf of Saint Lawrence Railroad from Gulf of Saint Lawrence .....	21							8, 195	
Steamer to Boston from Gulf of Saint Lawrence .....								2, 002	
Massachusetts Bay .....	15							910	
Block Island .....	5							3, 618	
								655	
<b>Total .....</b>	<b>414</b>	<b>7, 122, 000</b>	<b>1, 112, 950</b>	<b>30, 000</b>	<b>69, 000</b>	<b>42, 000</b>	<b>70, 345</b>	<b>48, 237</b>	<b>700</b>

\* Subject to duty.

There were received also, from 20 small boats fishing in Massachusetts Bay, 90,000 pounds hake, 17,000 pounds codfish, and from traps in the harbor 770 barrels fresh mackerel.

*Mackerel landed by the New England fleet, in sea-packed barrels, at all ports.*

	Barrels.
Up to August 1, 1885 .....	116,836
Week ending August 7 .....	40, 150
Week ending August 14 .....	18, 363
Week ending August 21 .....	18, 584
Week ending August 28 .....	19, 066
Three days ending August 31 .....	10, 153
<b>Total to September 1 .....</b>	<b>223, 152</b>

Location of the New England fishing fleets the last week in August:

- 330 sail, mackerel, between Cape Ann and Mount Desert ;
  - 20 sail, mackerel, in Gulf of Saint Lawrence ;
  - 38 sail, halibut, on the Grand Banks ;
  - 187 sail, codfish, on the Grand Banks and Banquereau ;
  - 155 sail, codfish, on George's and Brown's Banks ;
  - 12 sail, codfish, off the Nova Scotia shore ;
  - 250 sail, ground and sword fishing, off the New England coast ;
  - 11 sail, for halibut, off Greenland and Iceland ;
  - 6 steamers, taking whales, off the New England coast.
- Total, 1,003 sail and 6 steamers.

The mackerel fleet have landed, in sea-packed barrels, up to September 1, 1885, 223,152 barrels ; 1884, 202,584 barrels ; 1883, 87,054 barrels ; 1882, 251,955 barrels. Vessels are now arriving from Banquereau and the Grand Banks with full fares of codfish.

GLOUCESTER, MASS., *September 25, 1885.*