

45.—SPAWNING OF ESOX (PIKE OR PICKEREL) IN NORTH CAROLINA.**By E. H. WALKER.**

[From a letter to Prof. S. F. Baird.]

I have been setting gill nets in Salmon Creek. Last Wednesday morning I caught eight pike or pickerel, and four of them were ripe. I tried to impregnate the eggs, but they had been dead too long. I hope to be able to get some more ripe ones. I thought you would like to know what time they spawned.

AVOCA, BERTIE COUNTY, N. C., *February 21, 1883.*

46.—SUMMARY OF DISTRIBUTION OF FISH BY ONE CAR DURING THE PAST SEASON.**By MARSHALL McDONALD.**

[From a letter to Prof. S. F. Baird.]

Mr. Moore's report on the season's work has just come in. The following summary will be of interest to you. The number of miles traveled by car No. 1 in the carp, salmon, and shad distributions aggregates 31,993. The number of shad distributed was 6,715,000, of herring 5,550,000, of carp 113,605, and of salmon 450,000.

UNITED STATES FISH COMMISSION, *August 8, 1883.*

47.—THE MOVEMENTS OF SCHOOLS OF MACKEREL.**By S. J. MARTIN.**

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

The mackerel catchers along this coast are doing poorly. Mackerel are plenty on the eastern shore, but they are small ones, and mesh in the seine, and before they can be picked out the dogfish destroy the netting. Two vessels have come in with seines spoilt. There were five vessels in Boothbay yesterday repairing their seines where the dogfish had eaten them. As I told you in my last letter, the large mackerel come up once a week, stay one hour, and then sink. They are full of feed.

All the vessels which were in the Bay of Saint Lawrence came home with full fares, and have all gone back again. One vessel arrived from the bay this morning with 450 barrels, which she caught in twelve days. She reports that mackerel were abundant when she left. Two vessels

were at the Seven Islands, and found plenty of mackerel, but too near the shore to be caught with deep seines.

GLOUCESTER, MASS., *August 28, 1883.*

Mackerel have been abundant in the Bay of Saint Lawrence during the month of August. All the vessels which were there got full fares. I have been informed by Captain Smith, of the schooner Fred. P. Fry, that there is plenty of food for the mackerel in the bay, an animal which the fishermen call "all eyes." He says there are small mackerel, not over two inches long, all along the coast of Prince Edward Island. Most of the vessels which have arrived from the bay are going back, and some that were fishing on this shore have gone there. Captain Smith says that the school of mackerel which was on this shore last year is the same one which is in the Bay of Saint Lawrence this year.

It is a hard thing to keep the run of the mackerel on this coast. Some vessels after being away four weeks come home with no fish. Others return in three weeks with full fares. The latter is not often the case this year. Two vessels arrived last Wednesday with full fares of large mackerel, caught 30 miles S. E. from Petit Manan light, Bay of Fundy. They saw their mackerel in the night. In three nights the two vessels caught 340 barrels each. The mackerel were large, and out of 340 barrels 150 barrels were number ones, very large, and fat as pork; the fattest mackerel I have seen on the coast in the last five years. The small mackerel which were so plenty on the coast have disappeared. They show up once a week. The fact that the mackerel are so fat shows that their food is all below the surface of the water. I think if the vessels had all carried their bait-mills, and had plenty of bait, they could tole plenty of mackerel to the surface. Schooner Frank Foster arrived last Thursday from the Bay of Fundy. The captain says he caught 40 barrels of large mackerel on a hook and line, and that he could tole them up with bait anywhere to the eastward of Mount Desert Rock.

Squid have been very plenty this season. During the months of July and August there were plenty of squid at Barnstable Bay, Grand Banks, Green Bank, George's Bank, Western Bank, and all along the Nova Scotia shore. Last Wednesday the schooner Northern Eagle, thirty-five miles southeast from Monhegan Island, Me., fell in with what was supposed to be a school of mackerel. The crew set their seine and caught 100 barrels of squid. Schooner E. W. Merchant caught a load of squid at Saint Ann's, and carried them to Saint Pierre, Newfoundland, but could not sell them. She then went to the Grand Banks, but there were so many squid there that she still was unable to dispose of hers. She then brought them home and stored them.

GLOUCESTER, MASS., *August 31, 1883.*