

98.—SUCCESS OF THE GILL-NET COD-FISHERY ON THE NEW ENGLAND COAST, WINTER OF 1882-'83.**By J. W. COLLINS.**

The importance of the introduction, by the United States Fish Commission, of the method of catching codfish by the use of gill-nets, a full account of which was given in the first volume of the Bulletin, has never been so apparent as during the present winter. Owing to the almost total failure of the bait supply it has been impracticable to carry on the shore cod-fishery by the old method of hook-and-line fishing. Such a scarcity of bait has never been known before, and if the fishermen had not been instructed in the use of gill-nets for the capture of cod a valuable and important industry must have been almost abandoned for this season, at least while the scarcity of fresh cod in our markets would have increased the price to such an extent as practically to place this important article of food beyond the reach of the masses.

But during the past two years the New England fishermen have learned a great deal about catching codfish in nets from an illustrated pamphlet containing descriptions of all the methods, which has been freely circulated by the United States Fish Commissioner, Prof. Spencer F. Baird, and to this was also added the knowledge gained in a practical way. They were therefore prepared to meet such an unforeseen emergency as has arisen this winter, and, instead of being compelled to give up the shore cod-fishery, have met with a success which has rarely or never been equaled. Such excellent results have been obtained by the use of gill-nets in the cod fisheries that the local papers in the principal fishing ports have contained frequent notices of successful catches. The Cape Ann Advertiser of December 8, 1882, gives the following account of the "Good results of net cod-fishing."

"On Tuesday, December 4, boat Equal, with two men, took 5,000 pounds of large codfish in seven nets off shore, sharing \$40 each. The Rising Star has stocked \$1,200 the past fortnight fishing in Ipswich Bay. The Morrill Boy has shared \$101 to a man net-fishing off this shore the past three weeks."

The last-mentioned schooner, the Morrill Boy, met with unexampled success, her crew of five men having shared \$320 apiece, clear of all expenses, by the last of December, the time employed being less than six weeks.

From the port of Gloucester alone, according to Capt. S. J. Martin, there were employed in the gill-net cod-fishery during December twenty vessels, carrying 124 men and 176 nets. In the period between November 19 and the last of December, 600 000 pounds of large shore codfish were landed in Gloucester, while 150,000 pounds were marketed at Rockport and Portsmouth, making a grand total of 750,000 pounds.

When to this is added the amount which was probably taken by the vessels from Swampscott, Portsmouth, and other ports, it is perhaps safe to say that no less than 2,000,000 pounds of this highly valued and most excellent food-fish were taken by nets during the month of December and the latter part of November. The fish caught in nets have been of extraordinary size, averaging more than 20 pounds each, while some individuals weigh as much as 60 or 75 pounds.*

During the past two winters cod have been taken in nets, with rare exceptions, only in Ipswich Bay, but this season they have been caught very extensively on the rocky shoals in Massachusetts Bay. Since the beginning of January, however, the fish have been most abundant in Ipswich Bay and the fleet of shore cod fishermen have resorted to that locality, where they have met with the most flattering success, the catch during the first month of the year being, it is said, much larger than at any previous time.† The Cape Ann Advertiser of January 26, 1883, contains the following item in relation to this subject:

"The net cod-fishermen are meeting with good success in Ipswich Bay. On Thursday of last week three fares of handsome large cod-fish, nearly 30,000 pounds, were landed at Portsmouth."

An important matter for consideration, in this connection is, that not only can the cod-fishery be successfully carried on even when bait is not obtainable—for, of course, no bait is required when nets are used—but a very great saving is made in time and expense. As an instance of this it may be stated that the average bait-bill of a shore trawler would not be less than \$150 to \$250 per month, when herring are so high-priced as they have been this winter. Therefore it is safe to estimate that, when such a large fleet is employed in gill netting as there has been this season, the amount saved to the fishermen (which otherwise must be paid for bait) cannot be less than \$30,000 to \$40,000.

The day is now not far distant when the United States Fish Commission will be able to supplement the many other important works it has done, one of which is bringing about this innovation in the fisheries, by propagating the cod on a very extensive scale, this having been found perfectly practicable. When this is done, we may confidently

* The above statements are based on the report of the Gloucester fisheries for November and December, by Capt. Stephen J. Martin, of the United States Fish Commission, pp. 159-161 of this volume.

† According to Captain Martin's report for January, 1883, 121,000 pounds of cod that were caught in gill-nets were landed in Gloucester during the month. (See page 168 of this volume.) Writing to Professor Baird, under date of February 6, 1883 (see page 160 of this volume), he makes the statement that ten sail of small vessels, which had been fishing in Ipswich Bay, had landed at Rockport, Mass., and Portsmouth, N. H., during the previous twenty days, 230,000 pounds of large codfish. Calculating on this basis, the total catch of the whole fleet during the month of January would be very large. Owing to the fact, however, that no accurate and reliable statistics of the entire catch in gill-nets, along the whole coast, is obtainable, estimates must be based on the reports of the Gloucester fisheries, which have been carefully made by Captain Martin.

look forward to the establishment along our coast, from Eastern Maine to Virginia, of a cod-fishery unexcelled in any part of the world, and which for ages to come will be a fruitful source of food supply for the millions who people our land.

WASHINGTON, D. C., *March 1, 1883.*

99.—A MAMMOTH COD.

By EVERETT SMITH.

The largest specimen of the common Atlantic coast codfish (*Gadus morrhua*) I have seen was displayed at the market in this city April 11, 1883. It was caught by a boat fisherman off Wood Island, about 12 miles from Portland, April 9. I noted the following measurements: Length (central), 65 inches; length of head (opercular flap), 17.5 inches; girth of head, 32 inches; weight, 100 pounds.

PORTLAND, ME.

100.—ARRIVAL OF BLUE CARP FROM GERMANY.

By RUD. HESSEL.

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

We have received from Mr. E. G. Blackford, of New York, by four separate shipments during the last five weeks, eleven new carp, so-called blue carp, sent from Germany. There proved to be eight blue leather carp, one common leather carp, one common mirror carp, and one common scale carp.

Two of the blue carp were dead when received here and two others died two days after. Another, the scale carp, died to-day. We have now six in all; four blue leather, one common leather, and one common mirror carp. The fish were all in a very bad condition from the transport on the sea, suffering from fungus and new bruises they had gotten in the small tanks at New York, which seems to have been too small for that size of fish. They were covered with numerous parasites; *Branchiobdella astaci*, which lives upon grown fish, and *Piscicalo geometro*.

The carp are suffering yet. Morbid as they are, they can scarcely digest the light food they are getting every day—cooked flour with raw eggs. They had not gotten any food in New York although they were kept there some days.

I am using the utmost possible means to save them, but I cannot positively promise their recovery.

WASHINGTON, D. C., *February 9, 1883.*