

115.—WHY THE SIZE OF MESH IN MENHADEN SEINES SHOULD NOT BE RESTRICTED.**By DANIEL T. CHURCH.**

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

I do not believe that it is possible for man to make a perceptible decrease in sea fish. Hence we shall catch all we can of any size we can get hold of. By observation we know that, during ninety days of the year 1880, 30,000,000 barrels of menhaden were destroyed by bluefish and weakfish in Narragansett Bay, and in a tract of water only 12 miles long by 2 miles wide. As the total catch with purse seines is less than 3,000,000 barrels a year, it seems foolish to limit free fishing. If we are by law compelled to use 2½-inch seines, it is possible to stop every factory south of Montauk for years together. A large body of small menhaden are now on the coast, between Sandy Hook and the Delaware, giving us another illustration that fish go and come without any apparent cause. For the last three years the Virginians have been taking large amounts of small menhaden. Last fall we were in the Virginia waters fishing, and it was the universal testimony that there was then the largest crop of small menhaden ever known. I suppose this crop off the Delaware and Jersey is a part of the overflow, for, in my opinion, the Chesapeake Bay could not hold them after they had grown to full size.

From a selfish point of view, it would be for the interest of our firms to have the mesh restricted, and many fishermen have urged this upon me; but I have taken the opposite ground because I believe more menhaden are destroyed in one hour by fish than are destroyed by man in a year.

TIVERTON, R. I., *August 18, 1882.***116.—THE INJURIOUS EFFECT OF MENHADEN STEAMERS UPON THE FOOD FISHERIES.****By JOHN O. BABBITT.**

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

Since the menhaden steamers have come into general use it gives those fishermen much advantage over the fish, with no law to protect the latter. It has nearly annihilated the fish from the coasts of Maine, New Hampshire, Massachusetts, and Rhode Island. If the fishermen begin next spring where they left off on the Jersey coast, judging from the decrease of the past four years, there will be but few fish seen on the

New England coast in a short time. It is a well-known fact that many of the food-fish follow in the wake of the menhaden; and it is also a well-known fact that a large proportion of the food-fish have left the coast since the menhaden have been checked. The present prices for food-fish vouch for this statement. In the spring when the menhaden leave the gulf for the Northern shores, they start in three different schools, or run but a few days apart, and if undisturbed would soon fill our sounds, bays, and rivers, from Mount Desert to Cape May. This fish is the best known bait for halibut, cod, haddock, mackerel, bass, lobsters, &c. In fact it is a fish that they all love to get a bite at. Without this bait the above fishing has proved a failure compared with what it was when there were plenty of menhaden on our coasts.

I will now show where and how the menhaden are broken up and driven from the coast. In the rear of this large school of fish there follows a large school of bluefish. About the 1st of May, there starts a fleet of steamers to meet these fish. They find them two hundred or more miles south of Long Island. Then commences the massacre, and by the time that is over the second school overtakes the first school, and their fate is nearly the same. By the time they reach Long Island, the third school, driven on by the large amount of bluefish, overtakes the first and second school, and the menhaden re-form to follow the coast of Long Island. The delay these steamers have caused these fish in reaching Long Island has given a part of the bluefish an opportunity to flank, and some go to the front, off Montauk Point. About June 1, a fleet of seventy or more steamers, all engaged in catching these fish, are off Montauk Point. Before this line of steamers and the bluefish, the great school of menhaden makes a hasty retreat, going back thirty or forty miles a day. Now the steamers have all loaded and gone. As the darkness of night comes on, the fish re-form and come back where they were the morning before. The steamers have come back also. The bluefish have become hungry and want their morning's meal. Then the same battle is fought as the day before. As the steamers come onto the grounds the third morning, they still find the fish trying to get around the point, but are driven back as before. As they return on the fourth morning there are not many to be found. Nine-tenths of the fish have disappeared from the sight of man, and steam-power has not revealed their whereabouts.

What is now wanted is a law of equity to protect these fish from the purse-seine until the 1st of September in each year. By that time they will have reproduced in countless numbers, and the fish will have become ripe for the harvest. Then they, of course, belong to the fishermen. With such protection, our coast would be supplied with an abundance of fish. If neglected, it will cost the United States many millions of dollars for the privilege of fishing in the British Provinces, all of which we might have saved by careful and proper protection.

ADAMSVILLE, R. I., *January 8, 1883.*