

**125.—MEMORANDUM OF THE PRESENT CONDITION AND FUTURE NEEDS OF THE OYSTER INDUSTRY.**

**By Lieut. FRANCIS WINSLOW, U. S. N.**

I have the honor to submit the following memoranda relative to the present condition of the oyster industry, with special reference to the Chesapeake and Delaware Bays, and I would respectfully press upon your consideration the necessity for as elaborate and extensive measures as possible to arrest the deterioration of the fishery and oyster beds before the latter are entirely exhausted.

The last census gives 22,195,370 bushels as the product of the oyster industry of the United States. Of this yield the Chesapeake and Delaware Bays produced 19,712,320 bushels, or considerably more than three-fourths of the total. Since 1880, however, prices have increased so rapidly that there is a well-founded opinion that the product of the two bays is rapidly decreasing. The exportation of oysters from the Chesapeake and the Delaware has fallen from nearly 1,000,000 bushels per annum in 1880 to about 500,000 bushels in 1883; and the increase in the price of the Delaware stock indicates an insufficiency of that supply equaling 500,000 bushels, or there is reason to suppose that there is a falling off in the product of the Delaware during the last three years of about 1,000,000 bushels, nearly half the yield in 1879. In the Chesapeake the indications are more serious. Prices have doubled within the last five years, and, judging by them, the product has fallen off since 1880 between 4,000,000 and 6,000,000 bushels. The report of the Maryland oyster commission states that the oyster beds of Maryland "are in imminent danger of complete destruction," and that in the last three years they have lost about 40 per cent of their value. The production of the Maryland beds in 1880, according to the census, was over 10,000,000 bushels. A deterioration of value of 40 per cent would indicate a decrease in the production of 4,000,000 bushels, which results agrees with that arrived at through the comparison of prices.

Mr. W. M. Armstrong, a prominent oyster-planter of Virginia, has recently testified before the legislature of that State that the production of the Virginia beds has, of late, fallen off two-thirds. The yield of the Virginia beds in 1880, according to the census, was about 7,000,000 bushels; therefore the diminution of the product is about 4,000,000 bushels at the least. I think 8,000,000 bushels would be a low estimate of the decrease in the Chesapeake and Delaware since the last census. During the last two years packing and canning houses in Baltimore have frequently been compelled to stop work on account of the insufficient supply of oysters (see Baltimore Sun, January 16, 1882), and I was informed last winter by the most prominent packer in Baltimore that he was forced to take at a high price stock so inferior that

it would not have been offered in the market five years back. The only locality along the coast where the supply is not diminishing at an alarming rate is in Connecticut. But that State produces but an inconsiderable quantity of oysters compared to the yield of the great bays. The importance of arresting the deterioration of this important industry does not need argument; but from the nature of the fishery and the character of the fishermen no effectual steps can be taken until the usefulness and necessity of intelligent cultivation according to the most approved modern methods is made apparent to the men engaged in the business. The benefits of systematic culture must be actually and tangibly before them before they can appreciate their value; and I know of no other way to accomplish this end than by the establishment of small model oyster farms in the Chesapeake and Delaware regions. I know by experience that the fishermen cannot be reached by anything written or said; they can only be taught by what I may call "object-lessons." The value of model and experimental stations is attested by the great influence such establishments had in assisting the French oyster-culturists in their efforts to restock the oyster beds of the French coast. In 1858 there was a very great scarcity of oysters, and in consequence the Imperial Government undertook the restocking of the beds and the establishment of model oyster farms. To-day the waters of France are again prolific, and the numerous oyster farms, breeding establishments, &c., are all copies of the model establishments of the Government.

In addition to the operation of model farms, I would press the importance of continued investigation of the embryological life of the oyster. The effect of the various influences to which it and the mature animal are exposed should be determined as early as possible. Knowledge of those influences and intelligent appreciation of their effects are absolutely necessary to the success of oyster-culture. Thousands of dollars would be annually saved to the Connecticut oystermen if they could determine, with even approximate accuracy, the date when the attachment of the young brood would occur. Hundreds of thousands would be saved if they had any reliable method of determining the probabilities of the spawning season. Careful, continuous, and elaborate study and investigation alone can determine these points and others of equal importance. Considering the value of successful determination, not only in a scientific aspect, but practically, no effort or expense should be spared to obtain it. Obviously the investigation cannot be undertaken by the fishermen, and if not accomplished by the Government it must rest unsettled for many years.

The area of the great beds of the Chesapeake and Delaware Bays is 471,171 acres; and the product per acre was, in 1880, 41 bushels. At present it is certainly not more than 25 bushels. If the deterioration continues at the same rate, the result is too evident to need comment. That remedial measures should be taken is an imperative necessity.

WASHINGTON, D. C., *March 12, 1884.*