

## OYSTER-CULTIVATION.

The nature, locality, and cost of oyster-cultivation work undertaken during the year are shown in the statement which follows:—

Area. *Oyster-cultivation for the Year ended 31st March, 1941.*

- I. Bay of Islands : 7,468,000 borers and 4,570 pupus destroyed, 3,323 square yards of rock cleared of weeds, and 69 square yards cleared of dead shell. Cost, £429 1s.
- II. Whangarei Harbour : 129,400 borers destroyed, 6,304 square yards cleared of grape-weed, and 1,949 square yards of mixed oyster-bearing and clean rock moved to better position. Cost, £54 10s.
- III. Kaipara Harbour : 1,271,700 borers destroyed and 5,999 square yards of rock cleared of dead shell. Cost, £123 7s.
- IV. Takatu to Gull Point : 124,000 borers destroyed. Cost, £8 2s.
- V. Tamaki Strait : 124,000 borers and 56 pupus destroyed. Cost, £7 12s.
- VI. Coromandel : 808,000 borers and 5,746 pupus destroyed, 5,890 square yards of rock cleared of grape-weed, and 170 square yards of capstones distributed. Cost, £40 10s.
- VII. Kawan : 210 new concrete posts erected and 230 old posts cleaned. Cost, £47 8s.
- XIII. Waiheke : 1,334,900 borers and 142 pupus destroyed, 7,073 square yards of rock cleared of weed, 3,381 square yards cleared of dead shell, 400 square yards of clean rock distributed, 86 yards of oyster-bearing rock moved to better position, and 200 square yards of drift-beds formed. Cost, £253 10s.
- XIV. Ponui : 544,000 borers and 146 pupus destroyed, 2,825 square yards cleared of grape-weed, and 1,238 square yards cleared of dead shell. Cost, £86 2s.
- XVI. Great Barrier Island : 282,000 borers destroyed, 100 square yards cleared of grape-weed, and 930 square yards of clean rock distributed. Cost, £49 7s.
- XVII. Whangaroa Harbour : 30,000 borers destroyed, 320 square yards cleared of grape-weed, and 75 square yards cleared of dead shell. Cost, £27 18s.

Total for all areas : 12,116,000 borers and 10,660 pupus destroyed, 25,835 square yards cleared of weed, 10,762 square yards cleared of dead shell, 3,365 square yards of clean and oyster-bearing rock shifted, 170 square yards of capstones distributed, 200 square yards of drift-bed formed, 210 new concrete posts put down, and 230 old posts cleaned. Cost, £1,127 7s.

## DREDGE OYSTERS.

In the 1940 season, which began on 1st February and ended on 15th October, twelve oyster-dredging vessels worked the Foveaux Strait grounds throughout the season and one commenced late in August. The total number of landings for the year was 1,285, the maximum number of voyages (222) being made in July and the lowest (83) in February. Seventy-nine landings were made for the first half of October at the end of the season. A box of standard size was brought into universal use for measuring the catches on board in the course of this season. This will not only serve to minimize disputes connected with the payment of oystermen, for which reason its use was adopted, but will also make for greater accuracy in rendering returns of catches and will facilitate the compilation of accurate statistics.

The estimated total quantity of oysters landed for the season was 65,993 sacks (each 3 bushels). By way of making a tentative trial of the suggestion made by oyster-fishermen that an extended season would be to their advantage and would do no harm to the fishery, the 1940 season was extended for a fortnight and did not close until 16th October. The catches at the end of the season were marked by a more than usual proportion of oysters that were spawning or about to spawn, and were thus deteriorated as to their edible quality. The spawning season for oysters in Foveaux Strait appeared this year to be somewhat in advance of its normal incidence, a phenomenon connected with variations in temperature and food conditions which is not unusual and which occurs with sufficient frequency to cause uncertainty about the correct date for opening and closing the season if such dates are fixed with reference to spawning conditions alone. However, there was also evidence of an increased proportion of oysters that were below the usual commercial standard of size, and some complaints were voiced by dealers on this account. By no means all the oysters consigned to market and sold to consumers were deficient in size or quality. Some sacks, and some whole catches, of excellent quality were landed, but the increased proportion that fell below the average standard may be taken as an indication of a deterioration of stocks through the increased demands made on the available oyster population by intense fishing. Though further evidence by means of special investigation is desirable to enable one to come to a confident conclusion on this important question, an investigation which is unfortunately hardly possible under prevailing conditions, there is reason to believe that any substantial increase in the exploitation of these natural beds would result in depletion and subsequent economic loss.

## TOHEROA.

The toheroa stocks on both the Ninety Mile Beach and the North Kaipara Beach have shown improvement, especially the latter, since last season. Both canneries operated, and the total pack of toheroa and toheroa pulp amounted to 169,576 lb., valued at £10,071.

The extended close season, in which the taking of toheroa was prohibited for twelve months, on the North Kaipara Beach, in the Bay of Plenty, and on the west coast of the Wellington Provincial District came to an end on 1st January, 1941. All the beds which had been subject to this closure showed gratifying improvement, though nowhere has there been a return to the abundance of supplies which was the rule before the days of constant visitations by motor-car parties.

The conservation of toheroa stocks still calls, and must continue to call, for constant surveillance of the beaches and for restraint on the part of the beach-frequenting public. The amended regulations made on 10th December, 1940, require that no implement made of metal shall be used for digging toheroas on the beaches in the Wellington Provincial District, and the use of garden forks as well as