The following shows the work done in the different areas and cost of same :—

Area, Work done, and Cost :—

I. Bay of Islands : 200 square yards of boulders cleared of weeds, 480 yards of capstones of walls turned, 769,000 borers destroyed. Cost, £49 18s. 4d.

II. Whangarei Harbour : 2,223 square yards of high-water oyster-bearing rock brought down to zone of better growth ; 128 yards of capstones turned ; 11,016 yards of rock cleared of dead shell ; 31,500 borers destroyed. Cost, £9 12s.

III. Kaipara Harbour : 1,760 yards of rock cleared of dead shell ; 644,000 borers destroyed. Cost, £48 10s. 5d.

IV. Takatu to Gull Point : 360 yards of rock cleared of dead shell ; 137 pupu destroyed ; 50 square yards of clean rock-surface exposed by blasting ; 209,250 borers destroyed. Cost, £3 13s. 2d. (for tools and explosives).

VI. Coromandel : 30 yards of clean rock moved down to oyster zone ; 23 sacks of oysters placed on " trays " ; 36 yards of rock cleared of weed ; 532 yards of capstones turned ; 9 sacks stunted oysters transplanted to " drift beds " ; 131 yards of rock walls re-formed ; 381,500 borers destroyed. Cost, £26 10s.

VII. Kawau : 28 pupu and 10,000 borers destroyed. Cost, nil.

VIII. Rakino : 22 pupu and 5,400 borers destroyed. Cost, nil.

X. Motutapu : 15,000 borers destroyed. Cost, nil.

XI. Brown's Island : 3,500 borers destroyed. Cost, nil.

XII. Motuihi : 196 pupu and 11,000 borers destroyed. Cost, nil.

XIII. Waiheke : 1,804 pupu and 392,550 borers destroyed. Cost, nil.

XIV. Ponui : 370 yards of rock cleaned of weed ; 14 square yards of clean rock-surface exposed by blasting ; 60,500 borers destroyed. Cost (of tools and explosives) included in expenditure for Area IV above.

XVI. Great Barrier Island : 201 yards of oyster-bearing and 75 yards of clean rock brought down to lower level ; 433 yards of rock cleared of weed. Cost, £9 17s. 6d.

All areas : 2,424 square yards of high-water oyster-bearing rock brought down ; 105 square yards clean rock placed in zone of best oyster growth ; 23 sacks of small oysters transferred to " trays " ; rock cleared of weeds over a frontage of 1,039 yards ; 1,140 yards of capstones turned ; rock cleared of dead shell over a frontage of 13,136 yards ; 9 sacks of small oysters transplanted to drift beds ; 2,187 pupu destroyed ; 64 square yards of new rock surface exposed by blasting ; 131 yards of rock wall re-formed ; 2,733,200 borers destroyed. Total cost, £148 1s. 5d.

Rock-oyster Investigations.

The task of keeping a systematic record of the conditions and operations connected with the Auckland rock-oyster beds and, within the scope of our powers, of concentrating observations on those aspects of the oyster problems which can only be determined as essential or non-essential in the light of a scientific understanding, has been the principal concern of the Marine Biologist, Mr. M. W. Young, who has inspected all the more important beds during the year. The trend of his work and its bearing on our practical problems may be indicated by the following extract from his report on the year's work :—

" In connection with cultivation work, I have proposed a radical change of policy for this coming season, at any rate as far as Hauraki Gulf and Coromandel are concerned. It seems to be a fairly safe generalization to make that where the fixation occurs regularly and heavily the growth is poor and *vice versa*. Possibly this may be caused by overpopulation in the former case, thus reducing the amount of food available for each individual. We have, however, the concrete problem that in the Mahurangi and Kawau areas we do get regular and heavy fixation, and these places are very much overstocked with oysters which show little signs of ever reaching marketable size due to the overcrowding, whereas in certain other areas, such as Coromandel, we are definitely understocked, and I am of the opinion that the majority of this latter stock is becoming too old for successful reproduction. Since February, 1930, I have made several small transfers of oysters from Kawau to Coromandel to see if the oysters would survive the transfer. With the exception of some mortality due to known causes, such as being placed too near the mud line and the depredations of borer, there has been no mortality of any consequence. These oysters have been inspected at regular intervals, and have all done well. On one point I now see light where there was darkness before. We have always wondered why the presence of these transferred oysters did not make itself felt by an increase in the spat fixation on the neighbouring natural beds, and I am now convinced that this is because we placed the oysters as low down as possible with the intention of accelerating their growth—in which we succeeded, whereas if we had placed them nearer high-water mark they would not have increased so much in size individually, but the spawning would have been increased. I think that it can now be definitely stated that the high-water oysters spawn earlier each season and more regularly than the low-water ones. I am quite convinced from a long series of observations that the low-water oysters come to sexual ripeness so late in the season that they are checked by early cold snaps before spawning occurs, and the sexual elements are reabsorbed. Also by spawning early the spat from the high-water oysters is liberated under conditions of weather and food-supply, which are more favourable to a relatively high rate of survival, whereas if the low-water oyster does spawn, this act takes place in March, when the weather is definitely colder, and the spat which does fix is more liable to destruction by the cold weather of the early winter, before it becomes hardened.