carried out by the Inspectors in the course of their ordinary duties. The following shows the nature and amount of the work done in the different areas and cost of the same :—

Area, Work done, and Cost :—

I. Bay of Islands : 5,000 borers destroyed. Cost, nil.

III. Kaipara : 2,537 square yards of clean rock moved to the oyster zone. Cost, £48 13s.

IV. Takatu to Gull Point : 78,500 borers destroyed ; 242 pupu destroyed ; 80 yards of rock cleared of dead shell ; 226 sacks of clumpy oysters and 408 capstones transferred to Coromandel. Cost included in sum shown below for Area VI.

VI. Coromandel : 154,240 borers destroyed ; 1,730 pupu destroyed ; 344 square yards of drift-beds formed from the 226 sacks of clumpy oysters transferred from Area IV ; 1,068 capstones transferred from Areas IV and VII. Cost £27 12s.

VII. Kawau : 36,100 borers destroyed ; 124 pupu destroyed ; 660 capstones transferred to Coromandel and 275 yards of walls rebuilt and recapped. Cost, £7 10s.

XIII. Waiheke : 385,100 borers destroyed ; 1,302 pupu destroyed ; 11 yards of rock cleared of dead shell. Cost, nil.

XIV. Ponui : 191,400 borers destroyed ; 123 pupu destroyed. Cost, nil.

All areas : 850,340 borers destroyed ; 3,521 pupu destroyed ; 91 yards of rock cleared of dead shell ; 226 sacks of clumpy oysters transferred to form 344 yards of drift beds ; 1,068 capstones transferred to fresh beds ; 2,537 square yards of clean rock moved down to the oyster zone ; 275 yards of walls rebuilt and recapped. Total cost, £83 15s.

The cultivation work was carried out under the general direction of the Marine Biologist, Mr. M. W. Young. The principal undertaking was the transfer of stones or small boulders bearing numerous but small-sized oysters from the consistently reproductive stocks on Bon Accord, Kawau, and Mahurangi Harbour to the scantily stocked beaches in the Coromandel Peninsula. From subsequent inspections made by the Marine Biologist the transplantations appear to have succeeded. The new colonies show no appreciable losses ; but it is too early yet to see any reproductive effects.

The cultivation experiments begun in 1927 and since continued in a more systematic form by Mr. Young have now reached a stage at which definite conclusions may be drawn. A detailed report by the Marine Biologist will be available at an early date, and only a brief outline of the experiments need be given here. In the annual report for the year 1927–28 reference was made to certain methods which had been successfully adopted in Australia, where stakes are fixed on which oyster spat settles and develops to the half-grown oyster stage. These small oysters are than transfered to "trays" made of galvanized wire netting stretched on a rectangular frame supported by uprights, and placed so as to be submerged by the rise of the tide. The level at which they are placed is chosen by experience of results in growth and fattening that have been observed on natural beds or from previous trials. In Australian waters, especially in Georges River and Hawkesbury River, New South Wales, the oysters transferred to these trays reach a marketable size and a good edible condition in a comparatively short time, and this method of cultivation is the basis of a substantial industry. An account of this industry by Mr. M. W. Young was published as Appendix II in the Fisheries Report for the year ended 31st March, 1929.

Our experiments began in 1927 with a series of preliminary trials in which cheaply constructed trays were used to test the suitability of localities and to ascertain the nature of the various complications that were likely to arise in practice. These preliminary experiments were made in Kaipara Harbour, Mahurangi Harbour, Bon Accord, Kawau, and the Bay of Islands.

Stunted oysters, taken from mangroves or from overcrowded beds in the high-water zone, where reproduction is copious but growth and fattening unsatisfactory, were used for the trays. The results obtained showed that an appreciable increase of growth could be obtained, and in many cases the oysters reached a stage where they were satisfactory for eating, but they did not fatten so early in the season as the natural oysters on the rocks of the foreshore. Thus comparatively few were available for sale during the open season, and many were lost through the collapsing of the trays. In some cases the silting that was induced by the presence of the trays in the tideway caused considerable loss. It was evident that a more constant supervision than was possible in some of the remote and only occasionally visited places chosen for our experiments, in order to correct displacement of the oysters and repair and renew the eroded or teredo-bored material of the trays, would be necessary for success in this method of cultivation. It would also be necessary to market the oysters when they were at their best condition irrespective of season. It was found that the low-level oysters reached marketable size and condition most quickly, but nowhere were results obtained so quickly as in Australia where water temperatures are higher. The use of heavily galvanized wire and teredo-proof frames and supports was indicated. More difficulty than was expected was experienced in finding sites for the trays where there was sufficient depth of submergence at high water to produce the best growth and at the same time sufficient clearance and flow of water below the tray to prevent silting. The most promising results were obtained in the Kaipara and at Manaia.

A second series of experiments commenced in the Kaipara and in Manaia in 1931 has now been reported on by Mr. Young, who gives a careful analysis of costs and results. The conclusion arrived at is that this method of oyster cultivation is definitely unprofitable for New Zealand conditions though satisfactory in New South Wales where natural conditions and the constant presence of the cultivator make for better growth and fewer losses and where, moreover, the market price of the product is considerably higher.

The propagation of oysters on stakes is another feature of Australian cultivation which has been tried out with various materials, and the verdict of the Marine Biologist is that, until such time as we