

In marked contrast to the previous season the quality of oysters this year was exceptionally good. The fishing was also more successful, and it appeared that the stock of oysters on the beds had undergone an appreciable increase since last year. In these circumstances the oyster-vessel owners expressed the view that there was no need for the survey of the oyster resources of Foveaux Strait for which preliminary plans had been made in the Fisheries Branch of the Department. This was done in accordance with the recommendation made by the Sea Fisheries Investigation Committee in its report of December, 1937, which urged that "No further license (under the Industrial Efficiency Act) be issued until a survey of the beds has revealed that the stocks will stand up to additional abstractions." It was further suggested by the Committee that "a complete survey of the known oyster-beds be undertaken during the period October, 1938, to February, 1939, such survey to be a co-operative effort between the merchants and the Government." Also, "That a further survey be conducted, again by co-operative effort, to establish the existence of new oyster-beds within working distance of Bluff." While confronted with the adverse conditions of the 1938 season there was a general unanimity of opinion among the members of the oyster industry at Bluff that these recommendations should be carried out. There was, moreover, an expression of willingness to co-operate as suggested. But now *laissez-faire* is once more the word. I consider that there is a danger in this return to an attitude of easy-going optimism. It would appear that exceedingly favourable natural conditions for oyster production and growth have brought about a recent improvement. The actual factors responsible for successful oyster-propagation in this area have not been elucidated by investigation. We only know on general principles that it is probably a matter of water temperatures and the presence of sufficient and suitable minute organisms for the nourishment of the larval and fixed oysters. There is always the possibility that a succession of unfavourable spawning-seasons may occur. When such is the case beds that have been overexploited are likely to remain in a chronic state of depletion owing to the lack of a sufficient reserve of brood-stock. With regard to the suggestion that the production of oysters in New Zealand might be increased by artificial culture, it may be pointed out that cultivation methods are relatively costly, while our oysters from the natural beds are comparatively cheap.

#### TOHEROA.

Both canneries operated during the winter season of 1939, though with increased working difficulties owing to the reduced density of the stocks on the Ninety-mile and North Kaipara beaches. The total pack amounted to approximately 85,000 lb. of toheroa products, valued at £5,233.

In the annual report for last year the importance of an adequate stocktaking in respect of our toheroa resources was emphasized. This is especially important at the present time, when all the West Coast beds are reduced as a result of the great mortality that occurred in the autumn of 1938, and at the same time more would-be consumers and even would-be commercial exploiters are finding their way to the beaches.

The history of the exploitation, which has usually been overexploitation, of shell-fish stocks and, indeed, of most wild-life resources anywhere in the world, teaches one lesson most clearly, and that is the importance of maintaining an adequate breeding-stock—of not taking more from the population than its breeding-units can replace by natural reproduction. This is a comparatively simple matter in farm husbandry; in wild-life conservation it involves much more complicated problems, and is therefore usually neglected until exploitation has got ahead of conservation. It is better national economy to err on the side of overconservation than otherwise. Those who are not directly interested in the resources in question do not appreciate this; those who are directly interested frequently have to be made to do so by coercion under the law. Before the motor-car era toheroa-conservation took care of itself and was too easy a matter to make any demand on departmental activity. With the multiplication of motor traffic to the beaches it became too hard a job for existing departmental resources to cope with, and the restrictive regulations, though they were moderate and reasonable, were too often disregarded with impunity. It became evident during the past year that more drastic restrictions were necessary, and in the consolidated Sea Fisheries Regulations issued in October, 1939, a total closure of the toheroa-beds on the North Kaipara beach, in the Bay of Plenty, and on the West Coast of the Wellington provincial district till December, 1940, was prescribed. Elsewhere "bag limits" were reduced and steps were taken to strengthen the ranging personnel. This has always presented difficulties owing to the necessity of providing for expensive transport. It is only by a general recognition on the part of the majority of the beach-visiting public of the need of preserving such assets from over-exploitation that conservational requirements can be adequately met and these resources preserved for posterity. It is pleasing to record that in many quarters there is evidence of this recognition and of a desire to assist the Department in its conservational measures. There have also been some cases of non-recognition in practice which have incurred the penalties of the law.

#### WHITEBAIT.

The whitebait season for 1939, with a total yield estimated at 1,837 cwt., was the poorest on record. Only in 1936, when it was 1,888 cwt., has the estimated total production fallen previously below 2,000 cwt., the decline then being due largely to subnormal supplies from Westland rivers. Only four centres have shown an increase over last year—namely, Napier, Blenheim, Christchurch, and Invercargill. The estimated total for the Waikato this season was only 322 cwt., as compared with 1,171 for the 1938 season. The other important source of whitebait-supplies is Westland. Here the amounts handled at the three chief centres of Westport, Greymouth, and Hokitika together amounted to only 634 cwt., as compared with 965 cwt. for 1938, the fishing in the Westport and Hokitika districts and in South Westland having been especially disappointing, although Greymouth provided local catches that were up to the average of recent years and also received additional supplies brought by air from South Westland.