

Captain C. A. NIELSEN to the MINISTER OF MARINE.

SIR,—

I have the honour to submit to you a short report of the recent trawling experiments carried out in the "Doto" by me for the New Zealand Government, and under the personal superintendence of Mr. L. F. Ayson, Chief Inspector of Fisheries.

The time allowed for the operations was not sufficient to give each locality such a thorough exploration as I would wish, seeing such a large extent of coast-line had to be tested in the time at our disposal. However, the work that we did proved conclusively to me that the sea-bottom around the coast of New Zealand, wherever we tried it, with few exceptions, is most suitable for trawl-fishing.

I was very much surprised that we met with such few instances where the bottom proved of such a character that trawling operations could not be carried on. In many instances we found the bottom all that could be desired, but, unfortunately, we did not find many marketable fish in these places. This may be accounted for in many ways. I think, owing to the lateness of the season when these experiments were carried out, that at the time of the year we tested these grounds the fish were not frequenting them. Such grounds could only be thoroughly tested and proved with anything like success by trawling over them at different periods or seasons of the year. I am of opinion, and the recent trials also prove, that wherever a soft mud-bottom is found, it is in these places fish will always be found in payable quantities, especially soles and flounders.

I was very much disappointed with the small quantity of flat-fish we obtained along the Ninety-mile Beach, for it was along this part of the coast I anticipated we should catch them in large quantities. Our trials proved that for a considerable distance from the shore the bottom, at intervals, consists of shingle and much bottom-growth, which is altogether unsuitable for fish, and also trawling. We tried several times in deep water, and, although the bottom proved clean and good, we did not obtain any better results. Whenever we tried beyond the 20-fathom line, I think, without exception, the results were very much the same.

By the recent trials I firmly believe that deep-sea trawling could be carried on with profitable results in and around Pegasus Bay, Blueskin Bay, Tewaewae Bay, and Tasman Bay. In each of these places there is a great extent of trawling-grounds, for the bottom proved most suitable. I consider that Pegasus Bay would prove a most valuable and convenient trawling-ground for the Christchurch district, the same as Blueskin Bay would be to the Dunedin district, and Tasman Bay to Wellington. Tewaewae Bay, I think, would prove most prolific for many kinds of fish, especially soles and flounders, and this bay could be easily worked by suitable steamers from the Bluff, and this would also be a very good centre from which to supply the Australian markets. At present Napier is the only place where trawling is carried on to any extent and with success, but I am of opinion that if deep-sea trawling was carried on with the same energy in other parts of the colony it would prove equally successful.

The trials made in the Wanganui Bight impressed me that trawling operations could not be carried on with success on that part of the coast. Our trials to the north of the Wanganui River proved that the bottom was very rough, consequently we were unable to tow the trawl for many minutes clear of rocks or boulders. The bottom south of the river as far as Kapiti Island proved very good, consisting of sand, but very clean, and I am of opinion that this bight is too exposed to heavy north-west weather, which sweeps the ground of all feed, hence the scarcity of all kinds of fish, more especially flat-fish.

The trials we made around Stewart Island in most instances proved that the bottom was not favourable for trawling operations.

I consider the Government were very wise to carry out the recent trials, for it has proved beyond doubt that many valuable fishing-grounds exist around these shores, and if private enterprise were now to take the matter up I have no doubt that deep-sea fishing in this colony would soon become a great and valuable industry. Comparing the quality and class of fish that abound in these waters with those in the Old Country, and taking into consideration the great difference in their present value, I believe that a large and profitable export trade could be established in frozen fish.

In conclusion, I think the Government should make further experiments, but for a longer period, which would enable other parts of the coast to be tested, and also revisit some of the places already tested, but at a different time of the year, and thereby ascertain if fish are to be found in places which proved almost barren during the recent trials.

I have, &c.,

The Hon. W. Hall-Jones, Minister of Marine.

C. A. NIELSEN.

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