

feasible to introduce the fish into the colony, you are authorised to expend a sum not exceeding £100 in sending out a trial shipment of any two of the kinds of fish mentioned in the first paragraph of the Fish-hatchery Board's letter.

They should be sent by steamer calling first at Port Chalmers, and I understand that the New Zealand Shipping Company and the Shaw, Savill, and Albion Company will be pleased to assist in the matter.

I have, &c.,

WM. HALL-JONES, for the Premier.

The High Commissioner for New Zealand, Westminster Chambers, 13 Victoria Street, London, S.W.

MEMORANDUM from the HIGH COMMISSIONER to the Hon. the PREMIER.

Westminster Chambers, 13 Victoria Street, London, S.W., 7th April, 1906.

*Marine Department.—Shipments of Fish or Ova.*

REFERRING to the Hon. the Minister's letter No. Marine 05/2993 (349/150), of the 15th January last, respecting the introduction into the colony of turbot, herring, cod, or haddock, I now beg to report that letters were forwarded to each of the experts mentioned in the enclosure to the Hon. the Minister's letter before mentioned asking for information as to the probability of successful shipments being effected. Replies have been received from all except Professor J. Cossar Ewart, who has not answered my letter of the 27th February or a letter of reminder sent on the 21st March.

Except in the case of the herring—and even in that success appears doubtful—the experts practically agree that the successful shipment of ova is quite unlikely. They would apparently prefer sending live fish in place of ova, except perhaps as regards the herring.

With respect to live fish, the experts all agree in thinking turbot might be successfully transported, and possibly small cod or codling. Haddocks might be tried, though loss would be considerable, whilst herring is most unlikely to meet with success.

As there is considerable diversity of opinion in this matter, I have decided to refer the replies to the Hon. the Minister for consideration. I shall accordingly be glad of instructions in the matter, more particularly with reference to the particular expert whom the Hon. the Minister would prefer to be engaged to advise upon the collection of the fish or ova and its care during the voyage to New Zealand—that is, supposing it should be decided to make such shipments.

I may add that the sum mentioned—not exceeding £100—may not be sufficient, as these special shipments of ova or fish sometimes entail considerable expense.

I enclose copy of my letter and the replies received from Dr. Fulton, Professor McIntosh, Professor Herdman, and Dr. Allen. It will be noted that the latter's reply also refers to the shipment of lobsters, concerning which the Hon. the Minister, in his letter No. 05/2993 (705/149), of the 19th December last, desired me to reimburse Dr. Allen for any expense to which he might be put in procuring and sending the lobsters to London. As will be seen, shipment will not take place to Otago before May next.

W. P. REEVES.

13 Victoria Street, Westminster, S.W., 27th February, 1906.

Dr. Fulton, F.R.S.E., Scientific Superintendent of the Scotch Fishery Board, 101 George Street, Edinburgh.

SIR,—

I am directed by the High Commissioner to state that he has been requested by his Government to make inquiries as to the practicability of introducing into New Zealand consignments of turbot, herring, cod, or haddock, and, if so, to arrange for a trial shipment of any two of these kinds of fish.

Before making any definite arrangements the High Commissioner is desired to ascertain if possible the following information:—

- (1.) Whether the fish could be transported alive, and how far such an experiment could be intrusted to the engineers of the conveying steamers.
- (2.) Whether the ova of any of these could be brought out.
- (3.) In the latter case, whether their hatching could be retarded sufficiently long to insure their arriving in the colony.
- (4.) Whether all these species of fish can be kept alive in sea-water when the temperature falls to 32° Fahr.

The High Commissioner will esteem it a favour if you can oblige him with any information on the above points to enable him to come to a decision as to sending trial shipments to New Zealand.

I am, &c.,

W. KENNAWAY.

[Similar letter sent to Professor G. C. Ewart, Professor Herdman, and Professor McIntosh and Dr. Allen, with additions *re* lobster.]

SIR,—

The University of Liverpool, 5th March, 1906.

I have been away from home, which has delayed my answer to your letter of the 27th February, 1906.

In answer to your four questions, my opinion is,—

1. The turbot, cod, and haddock could probably be transported alive; the herring, I think, could not. The business could not, I think, be intrusted to the engineers of the steamers. The fish would have to be personally conducted, as they were when Mr. Dannevig imported plaice from this coast to Australia.