1874.

NEW ZEALAND.

INTRODUCTION OF SALMON OVA,

(FURTHER PAPERS RELATIVE TO THE).

Presented to both Houses of the General Assembly by command of His Excellency.

No. 1.

Mr. ANDREW to the Hon. the PREMIER.

Assembly, 20th September, 1873.

A sum of £500 was last night placed on the Estimates for salmon. I beg to call your attention to the enclosed extracts from a letter of Mr. Frank Buckland. Buckland is undoubtedly the greatest expert living, both theoretically and practically, on the subject. He recommends shipment of ova, at a cost of from £500 to £550, for three or four consecutive seasons. He would himself gladly undertake the charge of impregnating the eggs and supervising the packing and shipment. To give the best chance of success, the shipment should be made from the Clyde; but whether made from the Clyde or London, it is obviable that the ova, on landing, should not have to be re-shipped, especially by steamer. The percentage of eggs sent up to Lyttelton from the "Oberon," which hatched at Christchurch, was miserable. It was a little better, but still very low, with the eggs sent to the Bluff. Salmon ova remain unhatched in English or Scotch streams from 100 to 140 days. In high latitudes —for instance, the Zana or Posvig rivers in Lapland, which I have myself fished—the eggs are laid late in September or early in October, and remain unhatched till the end of May or the June following. There is no reason to doubt that at the temperature of melting ice the ova will keep good for six months. The real danger is from handling and shaking in transhipment and steamboat carriage. To make the thing a success it would, I think, be best to have the eggs landed at the Bluff and all sent to the Southland ponds. At one or two years old, according to development, the parr put on the smelt coat and go to sea. 4,000 or 5,000 young fish at least should leave together, to insure the return of a fair supply of spawners, and these spawners, meeting each other at the critical moment in the upper waters of the river, they ascend. The fish return invariably to the river they have descended. The colder the river the better: snow water is an advantage. If the fish are once established in any one river, there would be no difficulty in supplying all the streams in New Zealand. 100,000 to 150,000 eggs should be sent out; fifteen pair of decent-sized parents would yield this number. If from these eggs 10,000 smelt lived to go to sea, there is every reason to suppose that an industry would be established which, in one generation of fish, would pay the interest on a million of money. I beg to call your attention most earnestly to the necessity of immediate action, if a year is not to be lost. The Agent-General or Mr. Buckland should at once be *telegraphed* to. If the money voted be insufficient, Mr. Macandrew tells me that the liberality of Otago will make good any deficiency. Private business compels me to be away from Wellington for four or five days, or I should have waited upon you on this subject in person. There is no time to be lost.

The Hon. the Premier, Wellington.

I have, &c., J. C. ANDREW.

Enclosure in No. 1.

EXTRACTS from Mr. BUCKLAND'S Letter.

Nevertheless it is a matter of regret to all of us that this great and important undertaking was not allowed to assume the features of an official and international Government transmission of the elements of a vast industry at the antipodes, instead of being intrusted to one individual, to whom access to all the above-mentioned resources would have been freely open on application, which, however, was never made,

I candidly acknowledge that there is no man in the world who, from his practical experience, knows better than Mr. Youl how to pack salmon eggs on board a ship which is bound to the antipodes; but at the same time, I cannot help observing that Mr. Youl has assumed to himself the knowledge of a matter *ultra vires* when he practically takes the command of collecting salmon eggs which, indeed, is the most important operation in the whole affair.

H.—8.

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