

FURTHER PAPERS RELATING TO THE INTRODUCTION OF SALMON OVA.

No. 26.

Dr. FEATHERSTON to the Hon. the COLONIAL SECRETARY.

(No. 380A.)

Westminster Chambers, Victoria Street,

Westminster, August 3, 1872.

SIR,—

I have the honor to transmit herewith a further Memorandum, by Mr. Buller, on the subject of the proposed shipment of salmon ova to New Zealand, in terms of your letter of the 13th March (No. 30).

As there will be a manifest advantage in securing the services of one who has had practical experience of the kind required, and as Mr. Youl has signified his willingness to undertake this duty, my present intention is to make the shipment from London instead of from the Clyde, when the proper season arrives.

I would beg to direct your attention to Mr. Youl's suggestion, of offering a bonus to a fast-sailing clipper ship, so as to insure, if possible, a rapid passage out.

As I gather from Dr. Hector's memorandum, that every preparation will be made in the Colony for the custody and hatching of the ova when received, it is hardly necessary for me to refer to Mr. Youl's observations on that head.

I have, &c.,

I. E. FEATHERSTON,

Agent-General.

The Hon. W. Gisborne, Colonial Secretary.

Enclosure in No. 26.

MEMORANDUM by Mr. W. BULLER on SALMON.

In continuation of the Memorandum presented to the Agent-General on the 22nd June, I have now to report that I have seen both Mr. Gould and Mr. Francis Francis on the subject of the proposed shipment of salmon ova to New Zealand, and with the following result in each case:—

Mr. Gould, to whom I was referred by Dr. Gunther as one of the reputed authorities on the subject, is decidedly of opinion that salmon will not thrive beyond certain parallels of latitude, and that the attempt to introduce it into New Zealand must necessarily end in failure. But as Mr. Gould appears to have held the same view with regard to the acclimatization in New Zealand of the English pheasant and partridge, both of which birds have already been successfully introduced, and are now permanently established in the Colony, and, moreover, as the physical laws which regulate the geographical distribution of species are at present very imperfectly understood, I submit that any such opinion is fairly open to question, and that Mr. Gould's objections may be at once met by a reference to the success of analogous experiments elsewhere, particularly the success which appears to have attended the introduction of salmon into Tasmania.

Mr. Francis Francis, who is a well-known practical pisciculturist, and one of the Editors of *The Field*, is, on the contrary, most sanguine of the complete success of the enterprise, if intrusted to proper hands, and carried through in a careful manner. He is of opinion that the plan of packing in an ice-house, on the principle adopted by Mr. Youl in his Australian shipments, is the only one that can be followed with any safety. He considers the first week in December about the best time for taking the ova; but the exact period must be regulated to some extent by the choice of a river for the supply of ova, the breeding season being a week or two earlier or later according to locality.

Mr. Francis recommends our sending out at the same time a supply of sea trout ova, as being undoubtedly the next best fish to the true salmon. He states, as the result of actual experience, that these species will exist very harmoniously together.

Dr. Gunther, on the other hand, is of opinion that the introduction of sea trout would be a serious drawback to the success of salmon, owing to their predaceous habits, and their fondness for the ova and fry of other fish.

With regard to the requirements in the way of hatching-ponds, &c., Mr. Youl has addressed me the following note:—

"I am in receipt of your favour of the 23rd instant, by which I learn that the matter of the shipment of salmon ova has been referred to the Government of New Zealand. I hope you requested power to pay extra freight to secure the services of a fast-sailing clipper ship, time being an essential element to success; and I trust you also pointed out the absolute necessity of having the ponds in perfect order, ready to receive the ova the moment they arrive. The wonderful success attending the hatching of the salmon and trout in Tasmania is to be attributed to the beautifully-constructed ponds they had all ready to receive them. It is only those persons who, like myself, have impartially watched the attempts made to hatch salmon, and have, by artificial means for many years, succeeded in accomplishing it, are aware of the many failures and difficulties attending every stage of the progress, never indeed to be overcome except by practical hands."