

sufficient to destroy the vitality—the box was nailed and not screwed. I am not, however, a great believer in the extra sensibility of ova, especially in their forward state; and I have even dropped a newly-taken ovum from some distance on to the ground, and afterwards hatched it; and I have reason to believe that all the last salmon ova were taken some days previous to shipment; in fact, I suspect were kept until the fish were visible (about twenty-five days, according to temperature), or I cannot account for the perfect fecundation of the ova sent, and their hatching out so soon; in fact, hundreds of the salmon were hatched and dead on arrival.

With regard to the salmon, you will be glad to hear they were a most unqualified success (with the exception mentioned above): very nearly 18,000 have now been turned out by the direction of the Commissioners, and about 200 kept for observation. All those turned out have been taken as far as possible up the Oreti, and placed chiefly in the five rivers at Lowther. This river (Oreti) should be stocked surely, as all have gone into its affluents. The fish grow very rapidly, and are now 3 inches long, quite as large as English fish at six months old: they are the most active fish I have ever had under my charge. When you have leisure, I should feel much obliged if you could recommend me some trustworthy history of these different American fish, as I do not know their peculiarities; for instance, are they as erratic in their first visit to salt water as English fish, &c.? I should also feel obliged if you could give me Mr. S. Baird's address, as I should like much to give him a little information about the time occupied in transit of the ova to this extreme point, in case the Government feel inclined to try other shipments.

If you would care for specimens of the ova of the salmon (American), I have some by me, as also a few of the young fish (in spirits); there is a very marked difference between both, and the Home ova and fish. The young fish rise most readily to the flies thrown to them, whatever the adult fish may do. Should you require any information regarding the fish here, I should always most willingly give it.

Dr. Hector, Colonial Museum, Wellington.

I have, &c.,
H. HOWARD.

No. 28.

EXTRACT from Professor BAIRD's Letter to Dr. HECTOR, dated Washington, 14th May, 1877.

DEAR SIR,—

I am in receipt of your letters of 4th and 5th April, and, with you, regret the failure of the experiment in regard to the white-fish. The suggestion, however, that possibly there was some mistake in the eggs, intentional or otherwise, was enough to produce a slight feeling of irritation, not toward you, of course, but at the person who could imagine that in a matter of this kind any error could or would be committed.

These eggs are all taken in the Detroit River, to which the white-fish of Lake Erie resort for the purpose of spawning. The fish are secured in large sieves, and many of them are kept alive for a considerable time before the spawn is removed. There are no *Clupeidæ* in the lakes except a very broad species having no resemblance whatever to the white-fish, and which does not spawn till autumn.

The suggestion of there being any possible relation between the size of the fish and that of the egg is not warranted at all by the facts. The egg of the cod-fish is extremely minute, that of the striped bass (*Roccus lineatus*), which attains sometimes a weight of 75 lbs. or 100 lbs., is not the fiftieth of an inch in diameter. The egg of our white-fish is smaller than that of the European species; a consignment received from Germany of *Coregonus maræna* took every one by surprise from its superior dimensions.

Of precisely the same hatching of eggs as those sent you, millions of young fish have been hatched and safely deposited; and I myself have seen a small number from the same hatching-house and the same stock, having, unmistakably, all the characteristics of the genus *Coregonus*.

James Hector Esq, M.D.

I have, &c.,
SPENCER F. BAIRD.

No. 29.

The Hon. J. A. R. MENZIES to the Hon. the COLONIAL SECRETARY.

SIR,—

Dun Alister, Wyndham, 2nd June, 1877.

At a recent meeting of the Commissioners appointed to manage the Southland Salmon Ponds the following resolution was agreed to—namely, "That the Commissioners, being impressed with the belief that another importation of salmon ova from the United Kingdom is necessary to insure their naturalization in the colony, and being desirous to plant American salmon and other fish in various other rivers and lakes in the colony, recommend that £1,000 should be placed on the Estimates with the view of obtaining shipments of salmon ova from the United Kingdom by steamers to Melbourne, and of salmon, white-fish, and other ova from America by the Californian mail boats."

In accordance with the instruction of the Commissioners, I have now the honor to communicate this resolution, and, in doing so, venture to express the hope that the Government will place on the Estimates for this purpose even a larger sum than that suggested above, in order that more than one experiment may be repeated by the Melbourne boats.

The Hon. the Colonial Secretary,
Wellington.

I have, &c.,
J. A. R. MENZIES,
Chairman of Commissioners of Salmon Ponds.