

DETAILED STATEMENT of good Salmon-ova, &c.—*continued.*

Layers.			Trays.						
			T.	T.	M.	M.	B.	B.	Total.
<i>Box No. 99, marked "Tay."</i>									
Top	...	...	867	815	877	831	800	849	5,039
Middle...	...	...	826	768	854	916	806	875	5,045
Bottom	...	...	727	360	592	782	197	246	2,904
			2,420	1,943	2,323	2,529	1,803	1,970	12,988
<i>Box No. 98, marked "Tweed."</i>									
Top	...	...	832	789	921	896	780	772	4,990
Middle...	...	...	816	835	855	856	821	837	5,020
Bottom	...	...	797	600	666	582	31	123	2,799
			2,445	2,224	2,442	2,334	1,632	1,732	12,809
Grand total			...	...	...	...	...	...	65,835

Percentage of good ova in the whole lot, 73·15; top layers, 85·21; middle layers, 87·81; bottom layers, 46·42.

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No. 28.

The CURATOR, Otago Acclimatization Society, to the SECRETARY, Marine Department.
The Otago Acclimatization Society's Report on the Salmon-ova ex "Kaikoura," "Doric," and "Tongariro."

DEAR SIR,—

Opoho, 25th April, 1887.

It is now my pleasant duty to report to you the unprecedented success of what you kindly allotted to us of the three shipments of salmon-ova which arrived in Wellington per the "Kaikoura," "Doric," and "Tongariro." It will be unnecessary here to trouble you with the particulars respecting the unpacking, as the method adopted was similar to that on other occasions, every care being taken to bring the temperature of the ova to that of the water as gradually as possible.

On the 1st March we received six boxes of the "Kaikoura" shipment. One was marked "Forth Ova," and the others "Tay Ova." They averaged about 50 per cent. good, and hatched splendidly. The Forth ova began to hatch six days after being placed in the water. The Tay ova were a week later, and a good many of this lot were deformed; while those from the Forth were remarkably free from deformed fish. On the 18th March we received ten boxes of the "Doric" shipment. This lot turned out to be in splendid condition, about 70 per cent. being good. Two boxes of this lot, numbered 103 and 91, yielded about 90 and 95 per cent. respectively. These also hatched well, having very few deformed ones. And, again, on the 30th March we received five boxes and a half of the "Tongariro" shipment. This lot did not turn out quite so well as the last. I estimated there would be about 65 per cent. good. They commenced to hatch on the 6th April, and are now nearly all hatched. I see a few deformed ones amongst them, but I do not think there will be a great many. All the shipments hatched out most satisfactorily, producing strong and healthy fish, very few going bad in the hatching, as is often the case with imported ova.

The success which has attended these shipments of salmon-ova says much for the skill and care bestowed on this particular science by Sir James Maitland. I have on former occasions said a word in favour of his neat and convenient method of packing and transit, and it is very important that you should know the exact condition in which the ova arrived. I will endeavour to make this as clear as possible.

The ova were very neatly packed in clean, fresh, and well-selected moss. Each box contained six trays, and in each tray there were three tiers of eggs. The first two tiers of eggs in each tray were found to be in excellent condition; in some instances there were very few bad ones. But, with the exception of one or two boxes which turned out to be in excellent condition, the bottom tier of each tray was found to be very bad, sometimes a total failure. I do not know whether undue pressure would have anything to do with it, but Lieutenant Smith, of your department, drew my attention to the fact that some of the trays left their impression on the moss of the one immediately below, and in these cases it was noted that the bottom tier of eggs was entirely bad, the dead ova appearing as if they had partly collapsed. Probably this serious loss might be reduced to a minimum if the moss-pads were made slightly thinner. The material on the top of the lowest tier of eggs, consisting of three pads of moss and two tiers of eggs, could not weigh more than 3lb.; but this may not be the cause. I may here state that the salmon-ova which arrived here from California in 1878 were packed in trays 18in. square by 7in. deep, containing seven tiers of eggs, which were in splendid order; but, of course, the voyage was much shorter. Lieutenant Smith, who had charge of all the shipments along the coast, and who took a most active interest in the whole thing, will be able to verify these particulars.