

over with a little time and patience. So far, I have no hesitation in saying that the consignment is an unqualified success. I have no need to say anything further, as, no doubt, Lieutenant Smith has written you fully on this matter. I will report progress from time to time.

I have, &c.,

H. NELSON FIRTH,

Secretary, Lakes District Acclimatization Society.

The Secretary, Marine Department, Wellington.

No. 34.

The CURATOR, Otago Acclimatization Society, to the SECRETARY, Marine Department.

SIR,—

Opoho, Dunedin, 12th May, 1887.

I returned from the Clinton ponds last night, and, as I omitted in my last to state the number of salmon we calculated to have from the recent shipments, I was about to write to you again, when Mr. Wilkie handed me your telegram.

I have much pleasure in informing you that the young salmon are progressing most satisfactorily. There were in all twenty-one boxes and a half, and I believe each box contained on an average about 20,000. This would give us a total of about 430,000 ova. Six boxes per "Kaikoura" gave 50 per cent. of good eggs, ten boxes per "Doric" 70 per cent., and five boxes and a half per "Tongariro" about 65 per cent.; so that I estimate we will have about 270,000 young salmon. The first hatched have been feeding for some weeks, and are doing remarkably well.

The salmon hatched from box 91, *ex* "Doric," have got a singular peculiarity about them: there are a number of them—probably 20 or 25 per cent.—which have a small portion of the sac hanging at a considerable distance from the body by a fine thread. This part is quite globular in shape, and eventually drops off as the fish gets older. As it is difficult to describe, I forward per mail a few specimens for examination. I observed about half a dozen amongst those we got last year, but I did not take sufficient care to ascertain whether it resulted fatally. It will be interesting to note whether this will be the case this time.

I have, &c.,

F. DEANS,

Curator.

L. H. B. Wilson, Esq., Marine Department, Wellington.

No. 35.

The HONORARY SECRETARY, Waitaki County Acclimatization Society, to the SECRETARY, Marine Department.

SIR,—

Waitaki County Acclimatization Society, Oamaru, 21st March, 1887.

I have the honour to acknowledge the receipt, on Thursday, the 17th instant, of a box, numbered "94," of Tay-salmon ova, from the Howietoun Fishery, *ex* steamship "Doric," and delivered at the Oamaru Station by Lieutenant Smith, R.N. The box was in good order when delivered, and was at once conveyed to our hatchhouse. On being opened it contained six trays of ova, in two rows of three trays each. Each tray contained three layers of ova separated by moss. A large proportion of the ova were dead, and attacked by fungus. Those attacked in this way were adherent to the moss, the threads of the fungus extending to, and causing to adhere to it, all the adjacent healthy ova. Some of the latter—*i.e.*, apparently healthy ova—were separated and watched. They have since died. It is satisfactory to note that even a small proportion have survived and are healthy.

The dead and fungussed ova were separated, and these were weighed and counted. It was found that a tablespoonful weighed exactly half an ounce, and contained 150 eggs, and that the dead ova from the six trays weighed rather more than 21oz., which would amount to 6,300 absolutely bad ova on the first inspection. A quantity of ice had been previously prepayed to lower the temperature of the water in the hatchhouse, the temperature being, outside, 60° Fahr., and in the boxes reduced to 52°. Since Thursday last at least six thousand more have perished, and we expect to lose a few more. The ova are so far advanced, some few hatching out on the day after their arrival. They appear to have been well fertilized, and all show the eyes, and thus require gentle handling and great care.

With regard to the packing, in every tray containing three layers of ova it was found that the lowermost layer was the worst, as though it could not stand the pressure of the moss, and the two upper tiers of ova and the middle layer was the best in each tray. The bottom trays were the worst, and in both cases the lowermost layers of ova were so bad that the whole had to be condemned. The box seems admirably designed for its purpose, and the only suggestion we have to offer is that there should be a separate tray for each layer of ova, in order to avoid crushing, and also that the trays might be so arranged that each tray can be examined *en route*, and the dead eggs removed from time to time, to avoid the contagion of fungus.

I have, &c.,

JAS. FIELD CRAWFORD,

Honorary Secretary.

The Secretary, Marine Department.

No. 36.

The HONORARY SECRETARY, Waitaki County Acclimatization Society, to the SECRETARY, Marine Department.

SIR,—

Waitaki County Acclimatization Society, Oamaru, 15th May, 1887.

In reply to your telegram of the 12th instant, the Waitaki County Acclimatization Society has received two allotments of salmon-ova this season—one box *ex* steamship "Doric," and two