

to Factory. Here we caught three females and two males, ripe and full, and by noon I was in possession of 38,000 fine salmon eggs. I may here state that I informed Mr. Donaldson I wished to strip and impregnate the whole, as I hoped to prevent one of the causes of failure in previous shipments to the colony. Having arranged with Mr. Donaldson that the men should continue fishing, I proceeded by train to Edinburgh, thence to Linlithgow, with my choice freight. Here I had engaged a hatchery, to deposit the ova if required. The ova was placed that night in the trays, and I left a man in charge with full instructions as to what I wished done. Returned to Edinburgh by the last train, weary and worn. Next morning I was on my way back to Peebles by first train, and was pleased on my arrival to find eleven fine female fish and seven males; but of the former only eight had spawn in them. Going to work at once, I secured from these about 160,000, duly impregnated them, and, with the aid of the Superintendent, conveyed them to the hatchery, thus making a total placed in the trays of about 198,000. Knowing that I was too late to get my cases and fittings ready for the February steamer, I decided to risk leaving them in the hatchery until March. Thus I had been successful in quantity, but I had to wait patiently to be certain of the eggs being fecundated or not, and I was not a little gratified on the seventh day after impregnation to find the whole in a most perfect state; and, although I had proved it to be a most difficult and by no means a pleasant task to collect salmon eggs, especially so being obliged to manipulate on the bank of the river, without shelter, in driving sleet and rain, requiring an amount of energy and enthusiasm until then I little dreamed I possessed, yet, success having crowned my efforts, I was delighted when perseverance was thus rewarded.

I then went to London, arranged all necessaries for shipping ova, and the voyage. Returned again to Scotland, being anxious about the ova. The man, I found, had taken great care of it, picking out the dead every day, and, as he evinced much intelligence in the management of ova, I again left him in charge, so as to prepare everything for its transit from Scotland to London, thence to the vessel. Having done all that I could in Edinburgh, I took another journey to London, so that I might inspect and direct the works on the ship, arrange for ice and all the etceteras requisite to insure as great a success to the undertaking as possible. Being satisfied these were as complete as they well could be, I went back to Scotland, and, finding I could get some salmon parr at the Stormontfield Ponds, I decided to make the attempt to bring some out with me. For this I had a special vessel made from my own design. Proceeded to the ponds, where, with the aid of Mr. A. Lumsden, Superintendent of the Fisheries, and six men, I secured fifty parr, healthy and strong, with one exception. Brought them to Linlithgow and placed them in the hatchery, where they did well, although still in the tin vessel, so that I was encouraged to think I should get them out to New Zealand by careful management.

On the 9th March packed the ova in glass jars made expressly for that purpose. The ova had been in the trays five weeks and four days: during that period 1,891 dead ova had been taken out. The water flowing through the trays had a temperature averaging 40° Fahr. The glass jars were placed in wooden boxes, well packed with moss, and the boxes were slung on frames resting on spiral springs, with a view to minimize the effects of oscillation in van. I had engaged a van for the journey, which was sent to Linlithgow Station. In this everything was carefully and strongly packed, a good supply of ice was also secured, and, thus equipped, I left Edinburgh by the 10.20 p.m. train, with my precious freight. The night was dark and dreary, for a regular winter's storm came on soon after we left. I was alone in the van, the oscillation of which, when going at the top speed, soon disarranged my packing and jeopardized the ova to such a degree that my excitement and anxiety cannot easily be pictured or explained. It was certainly the longest night I ever experienced. Arrived at King's-Cross Station at 9.20 a.m., where the spring-van I had engaged was in readiness. Reached the vessel at the Albert Docks at 1.30 p.m. on the 10th March. Packed in trays and placed in cases as packed, reducing the temperature to the proper degree in the cases by means of ice. Continued packing until 8.30 p.m., when, feeling tired and hungry, suspended work for the night. The next morning, 11th, finished packing ova. The young salmon were all well and getting quite tame, coming up to the top of water for their food (Spratt's patent fish-food) without showing the least timidity. On the morning of the 12th, the day we sailed, I procured a dozen small lobsters and a dozen crabs, with the hope of bringing them out alive: the food for these was shrimps and small crustacea. I also had with me three dozen small sticklebacks, from the Brighton Aquarium, which took the patent food and did well until we had to use the condensed water, when they all died.

I need not trouble with the details of the voyage in this paper further than stating that, with one or two exceptions, and those because it was quite impracticable owing to rough weather, daily attention was given to the ova, picking out dead eggs, regulating temperature of cases with ice, which averaged 34.06° Fahr. throughout the voyage. About 81,000 bad eggs were taken from the trays, leaving 117,000 in a very healthy condition up to the forty-fourth day from date of sailing, and ninety days after being taken from the parent fish: when, having arrived at Wellington, the refrigerating engine was stopped, and I found great difficulty in keeping down the temperature; consequently many died. This was not to be wondered at when considering the extraordinary ordeal it had passed through, such as no ova had ever been subject to. Two cases were delivered to Mr. Rutherford for the Napier and Wellington societies, two to Mr. Edwards for the Otago and Waitaki societies, and two were detained at Christchurch for North and South Canterbury societies. Of the actual numbers hatched out I have no returns up to date; will furnish Government with it when received: in the boxes at the Christchurch hatchery we have about 21,000.

I cannot close this report without acknowledging my indebtedness to those from whom I have received much kindness and assistance—to Mr. John Anderson, Trinity, near Edinburgh, for his untiring zeal in my mission, who, through his writings and introductions, was mainly instrumental in bringing the collecting to a successful issue; to J. Tait, Esq., Kelso, W.S. and clerk to the Tweed Commissioners, who told me if I came earlier next season I should get a much larger quantity.