

taken to the hatchery on the St. John River, N.B. Among those laid down in this hatchery, a very serious loss has been met with during the last ten days, one lot of our hundred and fifty thousand eggs, taken from the Musquodoboit River having proved lifeless. This loss is confined entirely to this particular lot, and, as far as I am able to determine, is due to the extreme cold to which these eggs were subjected during transportation to the hatchery. This unusual occurrence has reduced my stock to the present time to about nine hundred thousand ova. In these the embryo is now visible, and I hope to succeed in hatching a large proportion of them. During the past year, by the authority of your Department, the reception-tanks, spawning-sheds, and other appliances were enlarged, rebuilt or otherwise improved as they required, and I now have ample space to accommodate all the parent salmon I will require for the use of this establishment in future. Having informed your Department in my letter of the 12th December, as to the nature of the above improvement, and as to the details pertaining to the prosecution of the work, it will, I presume, be unnecessary to relate them here.

The condition of this hatchery with all its appliances is in all respects satisfactory, and no outlay for repairs or improvements will be required during the next year, and with a more favorable season I hope to secure a much larger number of ova in future.

I have the honor to be, Sir,

Your obedient servant,

(Signed) A. B. WILMOT,

*Officer in Charge.*

#### ST. JOHN RIVER HATCHERY.

RAPID DES FEMMES, 31st December, 1879.

The Honorable J. C. POPE,  
Minister of Marine and Fisheries,  
Ottawa.

SIR,—I have the honor to submit to you my report of the operations conducted here during the year 1879, which, as they are yet incomplete, will be necessarily brief.

I am glad to state, that on my arrival here to take charge on the 25th of November last, I found the hatchery in every respect fitted for the purpose for which it was designed. Substantially built, handsome in appearance, replete with the most perfect apparatus, and admirably furnished with pure water, it now only needs ample supplies of ova to ensure its future success. The site of the building is most suitable, being adjacent to the St. John River, and in the near vicinity (as I have ascertained), of favorable localities for securing parent salmon. An additional advantage of this locality is the admirable water supply, which is obtained from a brook, having its origin in a small lake about seven miles north-west of the hatchery, flowing from which, and in its course being augmented by numerous springs, it reaches a point above, two hundred yards west of the hatchery, where it falls over a perpendicular cliff fifty yards high, into a ravine. Immediately above the cascade a dam is thrown across the stream, and sufficient water is conveyed through a race-way or aqueduct to a small supply pond, and thence through an underground iron pipe to the works within the building. This water is, in my opinion, eminently adapted for fish-breeding purposes, being pure in its origin, even in its temperature, and almost entirely free from alluvial deposit, so much so as to render the washing of the eggs an operation of very rare necessity. Near the hatchery where the brook widens, a timber dam of cedar has been erected, forming an ample and convenient reception-pond for the parent fish.