

The extreme rough windy weather which generally prevailed last autumn retarded his operation very seriously, not only in the collection and impregnation of the eggs, but also in the management of them afterwards.

One million two hundred and sixty four thousand eggs (1,264,000) were, however, collected and forwarded to this hatchery. These were subjected to much danger and exposure in their transportation. A fair percentage, however, are now showing signs of vitality, and a large crop of fry will no doubt be produced from these next spring.

Whitefish and Speckled Trout Eggs.

Small lots of each of these kinds of ova were obtained last fall. The whitefish eggs were got at Sandwich, and the trout eggs were received from the Tadoussac hatchery.

A large number of the former perished in transportation, and the latter arrived in very fair condition. The balance of both lots are now doing very well, the embryos being plainly visible in them.

Total number of fish ova laid down fall of 1879, in Newcasule hatchery.....	2,899,000
Total number of young fry turned out spring 1879.....	2,602,700
Total amount of fry turned out since erection of establishment.....	9,277,700

Ontario Salmon.

Their nature and habits compared with the salmon of the sea, with suggestions for their capture in Lake Ontario. See supplementary remarks hereto appended.

SANDWICH WHITEFISH HATCHERY.

This institution, from its original permanent construction, continues in a good state of repair. No portion of the building other than probably the lower floor (from its constant exposure to wet) will require any outlay for some time to come, and the breeding apparatus, used inside, being principally of a metallic nature, will be found inexpensive to maintain.

The steam engine and rotary pumps have thus far proved to be of an exceptionally good character; very slight expense has yet been incurred to repair them, although the work performed by this machinery has been more than ordinarily severe, running incessantly both night and day from October till May every year.

All the other apparatus in connection with this establishment is in good keeping, and the whole institution gives evidence of order and careful attention.

As previously reported by myself and also by the officer in charge, it is of great importance to the interests of the Detroit River and Lake Erie Fisheries, that the Sandwich Hatchery should be made to perform its utmost capacity of work in the hatching out of whitefish fry.

The engine and apparatus at present in use is capable of working from twenty-five to thirty millions of eggs. This only occupies barely one-half of the area of the breeding room, which, if wholly fitted up, would give ample accommodation for seventy-five or eighty millions. To accomplish this really necessary work, either a more powerful, or an additional engine must be purchased. Three hundred new incubators, with the necessary fittings, will be required, and a conductor pipe of larger capacity must be laid down from the river to the building.

This last mentioned water conductor is a present necessity, whether increased hatching operations are carried on or not, and should be laid down early next summer. The principal outlay would be in furnishing the wooden pipe, as the labor in putting it down would be performed by the officer in charge and his assistant.