

much larger and sometimes much less in size. In this she deposits her ova. This process will take from three to ten days, according to circumstances. After entering the creek they apparently take no food, as I have tempted them with every possible description, but to no purpose. By this time they have become a black, lean, soft, flabby fish; parts of their fins, tail and body becoming actually raw from rubbing and working in the ground, in some instances covered with sores, parasitic insects attack and cling to them, yet strange to say the inhabitants residing near the streams actually kill them at this time, and in this state using them for food; the flesh being mere carrion. So soon as the process of spawning is over, and if any escape being caught, they immediately drop down the stream to the lake, thence down the St. Lawrence to the sea, in order to get rid of the parasites, and obtain food, which they there find in great abundance. This journey or migration from Lake Ontario to salt water, would take place in December, perhaps later, and would be easily performed in a few days, and at a season that, if myriads passed down the St. Lawrence, they would not be noticed. Although I have heard of these black lank salmon being seen between Kingston and Montreal late in the winter. When in the sea salmon put on flesh very rapidly, having been known to increase in weight from four and five pounds to ten and fifteen, in the space of three or four months. Smelt (young salmon), five or six inches long, and weighing only a few ounces, will leave their native stream go to the sea, and return again in a period ranging from two to four months, having increased in weight from two to five and six pounds, in some instances even more; these are well proven facts, having been thoroughly tested by experiments at the Doochulla and other fisheries in Ireland, and also in England and Scotland. Having described the period at which our salmon go down to the sea, and shown the time in which they can replenish themselves and gain their former good condition, and giving them three or four months in salt water, I will now notice their journey back. Salmon after replenishing themselves in the sea, commence their migration again to the fresh water in search of their native streams in order to carry out the periodical laws of their nature to reproduce their young. This migration from the sea, up the St. Lawrence, say between Montreal and Kingston, the place in dispute, would be perhaps March and April, being again at a time when large numbers might easily pass up unnoticed by any one, keeping the deep water, moving along rapidly, from the fact of there being no feeding grounds, or convenient places of resort, and reaching the foot of Lake Ontario about the latter end of April or beginning of May, where they are frequently caught both at the upper and lower gaps, and from this time till late in the fall they are taken, more or less, along the shore of Lake Ontario; and I have while writing been informed that they were formerly taken in large numbers near Cornwall. This then is the theory which I advance in reference to the migration of our salmon to and from the salt water, and I believe that it can be substantiated by the fact that it is very similar to the migratory habits of the salmon, both as to time and manner, in other

waters which they frequent in other parts of the world. Now, as to having no "giants" of their race, the ordinary average weight of salmon taken in Britain and elsewhere, from what I can learn, will be about ten or twelve pounds, some are known to attain the weight of twenty, thirty, forty, and fifty pounds and even upwards; very large salmon, however, are not common. Our salmon in Lake Ontario in years past would average ten pounds easily when caught in the spring, and I have known them taken during the spawning season in our creeks, when in very low condition, weighing twenty, twenty-five, and thirty-two pounds, whilst I have heard of still larger fish being caught. Now, as to our salmon being silvery in colour and high in condition, which, it is asserted by "Ontarionensis," could not be the case after being so long in fresh water. Do not the "Salar" enter the rivers in Britain as early as May and remain there till late in the season, retaining their colour and condition? Are not the salmon of the lower St. Lawrence caught in the fresh water rivers during May, June, July, and later, having their bright colour and high condition? Then, why should not our Ontario salmon retain in a like manner the silvery appearance and high condition referred to? There are many other arguments and facts that I might produce as to the Ontario salmon being the "Salar," but space will not at present admit. There is one peculiarity, however, which I will mention, belonging only to the salmon, and is a proof of the identity of the fish everywhere, that is the cartilaginous excrescence or hook found upon the extremity of the lower jaw of the male salmon, or *kipper*, during the spawning season. I will now relate some facts in reference to the return of salmon to the same stream in which they were hatched, and in which salmon were never known till placed there through the artificial process. Mr. Ramsbotham, the celebrated pisciculturist, in his operations in producing a new fishery at the Doochulla Lakes in Ireland, marked some seven hundred smelts by cutting off the adipose fin. In due time, the larger proportion of these marked smelts returned as grilse and salmon to the identical place, one in marking was found to be much larger than the others, and a different mark was put upon him. This same fish returned with the others having the peculiar mark, and still retaining his extra size over the rest. Experiments of a similar nature were made by marking young salmon produced by artificial means, in the Tay, and the Tweed, large numbers of the marked fish returning to the place of their birth as grilse, and salmon; it is also a remarkable fact that years ago, when salmon were plentiful in every creek in this neighbourhood, you could easily distinguish the fish caught in one stream from those in another; another evidence of each stream having its own family, in which they produce their young, and their young again when matured returning for a like purpose.

Since the above was in type, we see it stated that Mr. Wilmot has been appointed by the Inspector of Fisheries an Overseer of Fisheries on a portion of the north shores of Lake Ontario; and that a portion of the Fisheries' grant of money has been appointed to his system of artificial propagation.