

In the Fish Commissioner's report for 1872-3 and 1873-4, vol. I., we meet with another confident statement, but no proof. Mr. Watson, in an article on "The Salmon of Lake Champlain and its Tributaries" (page 536), says: "The sawdust stained and polluted the water, and the sediment and debris of the mills settled largely on the gravelly bottoms, which had been so alluring to the salmon, changed their character, and revolted the cleanly habits of the fish."

Four years after this the Commissioner inserts in his report (1878) a translation of an article by Professor Rasch, of Norway, on "The Propagation of Food Fishes": "That the rivers on which there is considerable cutting of timber gradually become more and more destitute of salmon is an undeniable fact; but while it is asserted that the sawdust introduced into the river from the saw mills causes the salmon coming from the sea either to forsake the foster stream because of meeting the sawdust, to seek another river not polluted, or else when the fish attempts to pass through the areas quite filled with sawdust then this by fixing itself in the gill openings, or between the gills causes its death, yet later experience seems to entitle us to the assumption that sawdust neither causes the salmon to forsake its native stream, nor produces any great mortality among the ascending fishes. The hurtfulness of the sawdust to the reproduction of the salmon is not so direct, but is exceedingly great in this, that it partly limits and partly destroys the spawning grounds of the river."

In his report for 1879, the Commissioner gives a translation from another Norse writer, W. Landmark, on "The Propagation of Food Fishes." This scientist mentions four objections to sawdust:—

1. "Sawdust gradually sinks to the bottom, and thus fills the very place where the fish eggs are to develop, with impure and injurious matter."

2. "When eggs are brought into contact with sawdust or any other rotting wooden matter for any length of time, the eggs are overgrown with a species of fungus, which invariably kills the germ."

3. "When the water rises and causes the masses of sawdust which have gathered in the river to move, a large number of young fish are carried away with it, and are gradually buried in the newly-formed piles of sawdust." In a foot-note he says: "It has been said that sawdust will drive the salmon entirely away from a river, but I think that