

made a careful survey of the obstructions at Clark's Fork to which the resolutions refer. A topographical map of the stream about these obstructions would enable us to advise how best the obstacles to the ascent of fishes can be surmounted. A record of the temperatures throughout the year of some of the principal lakes and rivers of the Territory would be important information for enabling us to advise you as to what varieties of useful food-fishes these waters will best sustain.

WASHINGTON, D. C., *March 2, 1883.*

**50.—ON THE IMPROPRIETY OF DEPOSITING WHITEFISH MINNOWS OFF THE HARBOR OF CLEVELAND, OHIO—FISHING FOR SAUGERS.**

**By Dr. E. STERLING.**

[Letter to Prof. S. F. Baird.]

There is not a place on all Lake Erie so illy adapted to the successful planting of whitefish as off this harbor. To begin with, there were never 500 pounds of this fish taken by seine, gill-net, or in pound since my remembrance, and I have known gill-nets to be set from 1 to 3 and 8 miles out and pounds innumerable, by experienced fishermen, and the above is near the result. A whitefish taken in this way is a rare occurrence. In the second place, since the almost fishing out of the blue and wall-eyed pike, the "sand pike," "sauger" (*Lucioperca canadensis*), have increased in such numbers that scarcely any other fish can exist. To give you an idea of their numbers, many fishermen make a business of furnishing boats, bait, and tackle to the thousands of citizens that can only enjoy fishing at home. On any day in season, spring and fall, you will see from fifty to one hundred small boats, carrying from three to thirty persons, busily pulling in this little sauger. One Sunday last May I counted, off the river mouth, extending each way a mile or more, 125 small boats, filled with men, women, and children, all fishing. At a low estimate there were nearly 400 at this sport. A low average for each person would be ten fish, making the catch for the crowd 4,000 saugers. This fish can be taken almost as readily through the ice, but few undertake it, owing to danger and exposure. This fishing for saugers has been going on for 15 years or more and still they do not diminish, in fact they are on the increase as well as the black bass. After the crib and water construction, twenty-five years ago, the "sauger" was quite scarce here, as it is at most points on the lake. Why it should have increased here in such numbers I am unable to explain. It cannot be the extirpation of other carnivorous fish, for they have been cleaned out alike the lake over, but in no place followed by an increase of the "sauger."

\* This article was called forth by the U. S. Fish Commission making a deposit of a million young whitefish off the harbor of Cleveland, Ohio. The selection of a place was intrusted to Mr. F. N. Clark, who makes reply on page 349.—C. W. S.

The nearest whitefish grounds to Cleveland are in Dover Bay, 13 and 14 miles to the west. Rocky River intervenes 7 miles west of here. But no fish of any account are found at or about the mouth of this stream. Dover Bay was not found to be a whitefish ground until within a few years, when, in their competition for the ordinary fishes, the fishermen pushed their pounds out to where the whitefish lay. The catches on the first discovery often ran from 3 to 5 and 8 tons; so great sometimes was the catch of a day that a market could not be found. The fish then ran large; now they run half the size and no trouble about a market. The fishermen at the time of the first catch supposed the whitefish had run in there for them, but the explanation is that in their greed to extend their pounds beyond each other they finally reached the ground where they lay. The whitefish very seldom approach the shore nearer than half a mile. The fishing grounds at Dover Bay, and many other places along Lake Erie shores, are owned and leased by them. They are, comparatively speaking, wealthy men; for this reason I do not understand why Uncle Sam or the State of Ohio should stock their waters gratuitously any more than their farms. I was out there five years ago and laid out a plan so they could help themselves; they have the finest facilities without the help of steam or wind-mill power, and can have 20,000,000 eggs every fall if they want them.

CLEVELAND, OHIO, *February 26, 1883.*

**51.—WHAT DANGERS THREATEN THE PRODUCTS OF THE OLD POND CARP FISHERIES FROM ARTIFICIAL FISH CULTURE?\***

**By von TRESKOW-WEISSAGK.**

At the present time fish culture is a subject in which the great public takes a lively interest, which is no longer confined to men of science, but which is shared by many people who formerly discussed the fish question only when they had before them some fine specimen of fish temptingly prepared for the table. At present there is actually a mania for fish culture and for carp-ponds. Landed proprietors ought to tremble when they read how many millions of young fish of the choicest kinds are annually placed in brooks, rivers, and lakes.

It seems but natural to suppose that when the objects of fish culture are fully reached, the products of the old pond culture will have to meet a very serious competition. The carp is a product of agriculture; a great portion of the territory used as ponds could again be transformed into fields, meadows, and forests; and just as our German farmers are compelled to lower the price of their products owing to the importation of American meat and grain, we, the pond culturist, of Germany, might

\* "*Welche Gefahren drohen den Produkten der alten Teichfischerei durch die künstliche Fischzucht?*" In "*Deutsche Fischerei-Zeitung*," Vol. VI, No. 15, Stettin, April 10, 1883. Translated from the German by HERMAN JACOBSON.