

their well-being, or to have shortened their life; provided, of course, that the specimens which we examined were some of the original immigrants. Undisturbed by all their enemies, man alone excepted, and seemingly free from care as far as obtaining food was concerned, this quiet life has possibly aided in lengthening their existence. On the other hand, their offspring seem to be somewhat feeble, as is also the case with the salmon in inclosed waters. A more thorough examination of the conditions of temperature, food, saltness of the water, and a number of herring of different age at different seasons of the year would be of great interest, and would form an exceedingly valuable contribution to the natural history of the herring; as it is highly probable that we have here before us one and the same generation at a different age.

As there are several places in Norway where the conditions are the same as in the Borgefjord, the editor of the journal from which we have given the above extract has requested all persons interested in this subject to furnish him with information in regard to it.

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**168.—FISH IN THE NATIONAL PARK AND TRIBUTARIES OF SNAKE RIVER—PROPAGATION OF WHITEFISH.**

**By J. E. CURTIS.**

[From a letter to Prof. S. F. Baird.]

I spent two months of the past summer in the Yellowstone National Park, and while there an item concerning fish came to my notice, which I would call your attention to. I have hope of your using your influence that some effort may be made towards preventing the destruction of certain kinds of fish. This seems to me would be the right and proper thing for the Government to do, particularly in that portion of the country which has been dedicated to the people as a national park. There is a lake there called Lake Henry, situated on the public road built by the Government leading from the Upper Geyser Basin to Virginia City. This lake is the headwater of one of the tributaries of Snake River. I spent some three or four days in a thorough examination of this lake, and have become satisfied that it is the breeding ground of the salmon-trout, which are so plentiful in Snake River and its tributaries. There was no boat on the lake, and of course I could get over it only on a clumsily constructed raft poled around by the men I had with me. The trout in this lake were in schools three or four deep, one above the other, seemingly packed as close together as fish could conveniently be, and these schools extended as far as the eye could reach. There is going on a terrible destruction of these fish by the visitors of this park by spearing, and there is not only taken out as high as 600 to 700 pounds in one night, but they wound and mutilate nearly as many as they catch.

In previous years a man netted immense quantities of these fish (trout), and I am informed that he is now making arrangements to go into this lake and again net out these fish. If your influence can be used to bring about their protection and prevent their destruction I think that it will preserve a plentiful supply of this class of fish for all time in the Snake River and its tributaries. I did not see in this lake a single fish of any kind other than the salmon trout, and their numbers seem to me to be beyond conception. While there I fished in the Gallatin and its tributaries, the Madison and its tributaries, also the Yellowstone and its tributaries. I found, to my surprise, an abundant supply of grayling as well as trout in these rivers. I also found another kind of fish equally as gamy as either a trout or the grayling, known in that country and called by the people a whitefish. This fish in shape was very similar to the grayling, having the same dorsal fin far back on the fish as the grayling only not so large, and not having such variety of color as the fin of the grayling has; and one marked peculiarity of this fish is that its mouth is the exact shape of that of the sucker. The flesh of this fish is equal to that of the trout, if not superior, and one among the few fish that it has been my fortune to find which was fat enough to cook itself. While there I heard one other name for this fish. I met a man on the Yellowstone River who told me that the correct name of the fish was the "sterlet" or "steret"; how he spelled the name I do not know; I spell it to you simply to pronounce the name he gave the fish. This fish is found in the Yellowstone, Gallatin, and Madison Rivers. While the grayling was very plentiful in the Madison and Gallatin and their tributaries, I did not find any in the Yellowstone.

I have hoped for a long time to be able to give you definite information in regard to my efforts in the propagation of whitefish in the inland lakes in the State of Michigan. In a previous communication to you I gave the names of lakes and localities where I planted whitefish and the number so planted. I have received from parties residing in the vicinities of those lakes several well-developed whitefish weighing from 8 to 10 ounces, and I have recently been informed by a reliable gentleman who lives near Klinger Lake, Saint Joseph County, Michigan, one of the lakes where I planted fish, that one was speared there this fall weighing 3 pounds. I regret exceedingly that I was unable to procure the fish for examination. I am, however, soon to make some thorough experiments in these lakes to demonstrate whether or not these fish have grown and multiplied, and I will most gladly, when this is done, give you the result.

TOLEDO, OHIO, *November 26, 1882.*