

INSTITUTE FOR FISHERIES RESEARCH  
UNIVERSITY MUSEUMS  
UNIVERSITY OF MICHIGAN  
ANN ARBOR, MICHIGAN

June 25, 1931

Report No. 64

GENERAL REMARKS ON HATCHERY CONDITIONS

As a result of our recent investigation of diseased conditions at the state hatcheries several reports of a more urgent nature have been sent to the Department. This report, requested by Mr. Westerman on June 13, has been delayed because of other problems which needed immediate attention.

We observe a decided improvement, in general, in all of the hatcheries of the state. It appears to us that this has resulted from the field activities of Mr. A. B. Cook, Jr., Assistant Superintendent of Hatcheries, and from the cooperation which has been given him by the Overseers at the various hatcheries. We regard as especially beneficial the sanitary precautions which are being carried out to some extent in all hatcheries. The adoption of such precautions to the fullest practical extent entails practically no cost; is an easy matter of routine for men working with the fish; can do no harm, and will in our opinion lead to beneficial effects. These, although somewhat difficult to estimate, may be expected to become more tangible after a period of years.

We have two suggestions for major improvements to offer, or to repeat, as we have already mentioned them in previous reports. It is our opinion that an improvement in the water supply of the raceways at Benton Harbor, and in the floor conditions in the new hatchery at Thompson will make for a distinctly increased efficiency and give the fish a more comfortable margin of safety. We repeat our conviction as to the tremendous value of a controlled spring or artesian water supply to the hatcheries and

stress the importance of making every effort to keep head springs free from all fish. The significance of this point is evident when the furunculosis epidemic at Grayling is recalled. This disease is probably causing the loss in the yearling trout at Grayling at the present time and we know that it is responsible for the losses at the Federal cooperative rearing station on Turtle Lake. At both places mentioned above, wild trout with the disease were taken in the streams above the hatchery water supply. The eradication of this dread disease in the hatcheries is now apparently very difficult if not impossible.

We feel that most of the hatcheries have plenty of fish, and that the trout are especially too much crowded at Grayling.

We are not ready to express any flat opinion on the merits of the large hatchery units until they have been in operation for a longer time. When diseases, cost of operation, transportation of fish and food, rearing station problems, etc., are considered, the comparison of the merits of the large unit as against the smaller ones becomes very complicated. Experience of operation will, no doubt, bring out such advantages or disadvantages as may exist.

We see of course that this large unit arrangement makes it possible to use good sources of water, free from contamination, to best advantage. This factor could be made to offset to a large degree the increased chance for widespread disease caused by the greater concentration of fish in the larger units. We are also of the opinion that it would be possible to reduce materially disease and its spread in the large units, by segregating groups of troughs in separate and independent rooms or houses and by assigning men definitely to these units along with all equipment used in carrying out their work. If the water supply is completely controlled and fish handled under rigid conditions to reduce the possibility of disease spread, widespread losses ought to be reduced to a minimum. A quarantine could be imposed on a small unit if a disease broke out there, and the disease would

be confined to that particular building, or room.

In conclusion we may express our opinion that the placing of all the eggs in a few baskets entails dangers. The large units accentuate the need for sanitary precautions, and for able and efficient operation. Of course the fewer units would make it possible to put the best of the overseers in charge of more hatching and rearing.

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