Original: Fish Division
cc: Education-Game
Mr. R. S. Marks \_ 10.2/-44

Mr. W. F. Carbine

## INSTITUTE FOR FISHERIES RESEARCH Institute for Fish. Research

DIVISION OF FISHERIES

## MICHIGAN DEPARTMENT OF CONSERVATION COOPERATING WITH THE

UNIVERSITY OF MICHIGAN

ALBERT S. HAZZARD, PH.D. DIRECTOR

over

October 25, 1944

ADDRESS University Museums Annex Ann Arbor, Michigan

REPORT NO. 966

AN EXAMINATION OF CADILLAC AND MITCHELL LAKES (WEXFORD COUNTY)

TO DETERMINE SUCCESS OF WALLEYED PIKE SPAWNING

by

W. F. Carbine and G. N. Washburn

When the fisheries survey on Cadillac and Mitchell Lakes was concluded the recommendation was made (Report No. 767) that walleye fry plantings should be discontinued during 1942 and 1943. Therefore, since 1941 no plantings of walleye fry have been made in these lakes.

On November 12, 1943, the writers spent a full day seining these lakes.

No walleyed pike were taken during the seining operations. The weather

was very unfavorable for gill netting.

On September 1 and 2, 1914 we again made an attempt to secure young walleyes. Two gill nets were set in Mitchell Lake on September 1 in from 8 to 12 feet of water. These nets were lifted at dusk the same day but walleyes were not present so the nets were left in overnight.

We did not attempt to do any seining during the day because the writers' experience has shown that walleyes are seldom taken in this type of gear during the day. Because of rain and high wind we were unable to seine on the night of September 1.

On the morning of September 2 when the gill nets were lifted the following fish were taken: 7 walleyed pike ranging in length from 10 1/8 to 15 3/4 inches; 13 perch ranging in length from 5 to 11 inches; and one common sucker. Because we had obtained several small walleyes we decided

.

not to set any nets in Cadillac Lake because both Mitchell and Cadillac Lakes are connected.

Three of the walleyes (10 1/8, 10 5/8 and 11 1/2 inches in length) were in their third summer of life (two annuli) and were young of 1942. As no walleye fry were planted in 1942, these three fish resulted from natural reproduction. The other four walleyes were much older than the above-mentioned three fish and could have been introduced by the plantings that were made previous to 1942. This is definite proof that walleyes are spawning successfully in Lake Mitchell. The number of small walleyes taken in the nets is not impressive but indicates a good population of young fish considering that only about fifty feet of mesh in the experimental gill net used in the set could be expected to take fish of this size.

A letter dated May 9, 1944 received by Harry Gaines, Executive Secretary of Michigan United Conservation Clubs from Mr. Glen Eardly, President of the Cadillac Big Game Club, would imply that these lakes contain many walleyes from 12 to 14 inches in length since the Club voted to request the M.U.C.C. to recommend decreasing the size limit on walleyes to 12 inches because many fish of this size were hooked and killed.

Mr. Erdly did not mention Cadillac and Mitchell lakes specifically but since the Club is particularly interested in these lakes it is assumed that he was referring to them. A letter from Mr. H. A. Johnson dated October 7, 1944 supports this assumption.

Red Cornell reported many 12 to 13 inch walleyes caught in Mitchell and Cadillac. Conservation Officer Rettig also stated that many undersized walleyes are taken by fishermen in these lakes.

Since natural reproduction is now supplying an abundance of walleyes of the 12 to 13 inch size, resumption of fry planting with this species is not recommended.

The catch of perch of various sizes also proves that this species is propagating successfully so that no further plantings should be required.

## Recommendations

It is recommended that no walleyes be planted in Mitchell and Cadillac Lakes during 1945 and 1946. An attempt should be made in either 1945 or 1946, or in both years if possible, to obtain further samples of walleyes from these lakes. Gill netting should be resorted to and some night seining should be attempted. These checks should require at least two days and nights and possibly longer. (Whether the checks are made or not depends entirely upon the time that the few remaining members of the Institute have.) Some young of the year should be taken if possible.

INSTITUTE FOR FISHERIES RESEARCH

By W. F. Carbine and G. N. Washburn

Report approved by A. S. Hazzard
Report typed by V. M. Andres