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## INSTITUTE FOR FISHERIES RESEARCH

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MICHIGAN DEPARTMENT OF CONSERVATION

COOPERATING WITH THE

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GOLDFISH

If the goldfish were able to write and to interpret its observations, it, more than any other creature, could give us a real picture of family life. It could give us the history of the oriental family for some centuries, the quaint ways of the Chinese and Japanese, the influence of western civilization on their homes and manners, and the true attitude of the people of the one nation toward the other. It could tell us about American family life for a few decades at least—the discussion around the fireplace after first sight of the horseless carriage and in family circles, perhaps, the scenes leading to the divorce court.

Goldfish have been cultivated by humans for a good many years, but they have played a very minor part in Michigan fish conservation. Their relative, the carp, has received immensely more consideration. The reports of the Fish Commission, predecessor to the Conservation Department in handling Michigan's fisheries activities, have little to say regarding this fish.

The report of the State Superintendent of Fisheries for 1877 and 1878 carries the following paragraph:

"At the closing of our eel work at Troy [New York] last June [1878]. we had on hand ten or fifteen empty cans not used in the transportation of eels. We knew of no better use to put these empty cans to, than to avail ourselves of the kind offer of friends in Troy to fill them with Gold Fish for the ponds of the State Hatchery. The fish, ninety odd, were donated to us, and are of a large size, averaging in the neighborhood of a pound each, and are very beautiful specimens of their species. Not one died on the passage. They are remarkably healthy, only three or four having died since coming into our possession. They add very considerably to the attractions of the State Hatchery ponds, and if deemed advisable at any time they can doubtlessly be utilized and their progeny multiplied almost indefinitely. They are of the genus Cyprinius, and are of a prolific habit, very hardy, and capable of living and fattening in waters not only of a high temperature, but in waters of no very great value for the cultivation of other varieties. Their culture where engaged in, is both easy and remunerative."

The goldfish mentioned above are perhaps the first to be introduced into our state. In 1895, 306 were distributed by the Commission and 487 are reported to have been distributed in the following year. Whether these were used primarily in aquaria and private ponds or were released in our natural waters is not indicated in the report. With few exceptions they were distributed in small lots and most of them may have gone into living rooms and back-yard pools. Their presence in our lakes and streams may probably be attributed, partly at least, to the escape of goldfish from ponds or to their release from aquaria.

There is some evidence that goldfish may be injurious in our waters. They undoubtedly compete with the other fish for food and they are of very little value for angling, so their presence in our lakes and streams seems undesirable. There is reason to believe that in some waters they are definitely harmful.

Clear Lake, near Glennie, is reported to have been a good bluegill lake until goldfish were introduced some few years ago. Fishing has been almost worthless since that time. In an effort to restore the angling in this lake the Institute for Fisheries Research, assisted by the Huron National Forest personnel and the Harrisville hatchery, eradicated the fish late last summer. The little 11.3 acre lake contained 166 goldfish per acre, weighing almost a pound each. There were somethousands of sunfish and bluegills, but they were so stunted in growth that very few reached the legal length of six inches. In fact you could have caught all the legal-sized bluegills and sunfish in two acres of water and still would not have had the legal bag limit of 25 fish. The goldfish may not have been responsible for this change from a good fishing lake to a worthless one, but it certainly looks as though they were to blame.

In another effort to improve the fishing, it was decided to drain the pond at the Mason Game Farm and to restock it with desirable fish. Here too the angler would have had little success. Thirty-four goldfish are reported to have been introduced in 1926. When the pond was drained in 1937 a few thousand were present. They, as well as the sunfish and suckers, were decidedly stunted in growth. Food was inadequate for the heavy concentration of fish and very few reached a "catchable" size.

Fortunately the goldfish, even if released in our lakes and streams, would probably not become established in most of our waters. The carp which were distributed freely over most of the state did not survive

except in a relatively few localities. Goldfish have much the same habitat requirements as carp and our clear, cool waters are not well suited for either. In some of our southern Michigan lakes and streams, however, one or both has become well established.

When goldfish are released, they tend to keep their color, but within a very few generations most of the descendants will resemble carp in coloration. The fish have some value as food and are taken in limited quantities by commercial fishermen. The U.S. Bureau of Fisheries reports that in 1936, 60,100 pounds were taken in Ohio and 7,700 pounds in Michigan. These fish were from Lake Erie. The Michigan catch for that year was valued at only fifty-eight dollars.

There is a natural tendency not to want to destroy a pet. When we tire of our goldfish we try to give them away or to release them in some stream or pond "where they will do no harm"--except, perhaps, to spread through the system and compete with our more desirable fish. It would be very much better to let the cat dispose of them. After all, he's had his eye on that particular meal for a long, long time.

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