

LAMPREY IN LAKE SUPERIOR
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The lamprey is originally a native of Lake Ontario. They were confined to this lake until the Welland Canal was built and then they gained access to Lake Erie in 1929. The lamprey requires a certain type of stream to spawn in. It has to be fairly fast moving water, with a gravel bottom at the upper part of the stream and a muddy bottom near the river mouth. The lamprey go upstream to spawn in May and June. After the nest, a horse-shoe shaped arrangement of small stones with the open end facing up-stream, is built, the larvae are laid and the adult lamprey die. Approximately two weeks later the young start to develop and they move down-stream to the mud bottom where they burrow into the mud. Here they stay for the next three to five years until they reach the adult stage. In the fall or early spring they move to the lake where they attack the lake fish. At this stage they are from five to seven inches in length. They grow rapidly and by the following September they may have grown to the length of twenty to twenty-five inches. They spend the Fall and Winter in the lake and go up-stream to spawn and die in May or June of the following year. The Department of Lands and Forests, through surveys have found that a lamprey will eat or destroy between thirty and forty pounds of lake trout during it's life span. An average sized stream will contain in the neighbourhood of 25000 young lamprey.

Lake Erie did not have the proper streams for breeding so the lamprey continued through the Great Lakes to Lake St. Clair (Cont. on next col.)

LAMPREY IN LAKE SUPERIOR (Cont.) and Lake Huron. During the period from 1939 to 1945 they overran Lake Huron killing the lake trout and from 1945 to 1950 they cleaned out Lake Michigan. In 1950 the first lamprey were spotted in Lake Superior. They followed along the south Shore of this lake and are now in the process of completely circling Lake Superior by following down the north shore to the point of entry at Sault Ste. Marie.

Electric traps are now being installed in the streams emptying into Lake Superior. These traps are a series of Electrodes placed in the water from shore to shore of a river, near the mouth. They are powered by Hydro or portable gas generators that produce 110 volts. The current is conducted by the water in a path approximately twenty feet wide from shore to shore. The power shocks the lamprey and turns them back downstream, thus preventing them from spawning. The current is felt by fish going up-stream to spawn also. Theoretically the current is supposed to direct the fish into traps below the lamprey trap. The fish are then taken from these traps by Department men and placed in the up-stream side of the electric trap. Unfortunately some of the fish swim too far into the 110 volt area and are killed. This result was put to the Department and they replied that this was very unfortunate indeed, but if by killing a few of the smaller inland fish they could control the lamprey, this would have to continue until a better control method is discovered. It was also stated that once the lamprey kill the larger fish in the area they then start on the smaller fish.

At present the Department is working on a poison made up of a chemical called Toxifien and Carbon-Tet. This mixture when introduced into a stream flows along the bottom of the stream and kills the larvae before they hatch. This is still in the development stage and as yet has not been tried on a large scale.

In closing I would like to bring out the point that this is not a short program but to be successful it must be continued for at least six to eight years in order to kill all the young lamprey now in the stream bottoms. The local clubs and sportsmen can be of great help to the Department by watching and reporting to the nearest office, in our case Pays Platt, the presence of any lamprey in district streams.