

TRUMPETER SWANS

The first successful hatching in captivity of trumpeter swans in North America for at least 50 years has been reported by Resources Minister Alvin Hamilton.

Mr. Hamilton said the five cygnets born at the Delta, Manitoba, Waterfowl Research Station a month ago provide breeding stock that may be used to replenish the small wild trumpeter swan population. The Canadian Wildlife Service, which has been closely associated with the project, is watching their progress closely and may use them to re-stock selected areas within their normal range.

There are now about 1,600 trumpeter swans in North America, 800 in the western U.S. and Alaska and 800 in Western Canada. Their main known breeding ground is in the Peace River region of Alberta.

LAMPREY CONTROL

Concerted efforts to reduce the sea lamprey, the predator which decimated the lake trout stocks in the Great Lakes, are proving successful.

The sea lamprey was discovered in Lake Erie in the 1920's and appeared in increasing numbers in Lake Huron in the 1930's. The commercial catch of lake trout in Lake Huron, which had averaged three million pounds annually before the appearance of the lamprey, dropped to a mere 50,000 pounds in 1946.

In the face of a distinct possibility of losing a valuable fish resource in the Great Lakes, an intensive investigation of the parasite was begun in 1946 in order to determine how it might be controlled. Numerous surveys indicated that the lamprey appeared to spawn exclusively in streams. Accordingly, mechanical barriers equipped with traps were built to prevent the lamprey from reaching the spawning grounds.

However, these barriers, although effective, were never fully efficient as they were difficult to maintain during floods; also it was

found that the lamprey were by-passing damaged installations, and spawning upstream.

The lamprey, which breed extremely rapidly, were beginning by 1946 to make their numbers felt in Lakes Michigan and Superior.

In Lake Michigan the lake trout population had been practically eliminated by 1950. Before the infiltration of the lamprey, Lake Michigan yielded a catch of about six million pounds a year. Lake Superior also suffered drastic losses. In the last six years the catch has declined from 4.5 million pounds to 1.5 million pounds.

ELECTRICAL BARRIER

The first electrical barrier was operated by the U.S. Fish and Wildlife Service in 1951 on the Oqueoc River, Lake Huron. This device produced an electrical field, diverting the lamprey and causing them to be caught in traps, where they could be easily destroyed. Since 1952, modifications and improvements of the first electrical barrier have been used on many streams in the Great Lakes.

The effectiveness of the electrical barriers has been encouraging. Although it is not anticipated that there will be a general decline in the number of lamprey before the spring of 1961 or '62, there is evidence that one barrier-blocked stream is no longer producing lamprey.

CHEMICAL DETERRENT

During the early stages of the application of the electrical barrier method, research was started to discover a chemical which would destroy lamprey larvae, thus not giving them a chance to migrate to the lake where they begin their parasitic life.

Many chemicals were given laboratory test before two were found which were lethal to lamprey larvae but not harmful to other fish. When scientists were satisfied that they had what they were looking for, they selected a number of streams for chemical treatment. Eleven streams in Lake Superior were treated last year, and in only one of them was there any survival of larvae.