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CHAPMAN FORESEES POSSIBLE CONTROL OF SEA LAMPREYS BY ELECTRONIC DEVICES

The U. S. Department of the Interior is seeking to develop radar-type instruments, anti-submarine sound generators, and other electronic devices to electrocute the sea lampreys which have virtually destroyed the lake-trout fishery in most of the Great Lakes.

This became known today with the announcement by Secretary of the Interior Oscar L. Chapman that a contract has been awarded to the Cook Research Laboratories of Chicago, Ill., for the development of lamprey-control devices.

"Preliminary research by the Cook laboratories gives hope of finding methods of controlling the sea lamprey," Secretary Chapman said. "Encouraging news is that the Cook Research Laboratories will have in operation by October 15 an experimental device on Carp Lake River in Michigan for electrocuting downstream-migrating lampreys."

The electrical device on Carp Lake River is designed for killing the young sea lampreys that are moving downstream from their rearing areas in the headwaters of the river. The goal of the Cook laboratories is to develop a device--electromagnetic, sonic or light--which is selective in operation, killing only sea lampreys.

Such a device, or combination of devices and techniques, may be developed by next year, Secretary Chapman continued. Experiments by the Cook laboratories have already progressed to the point that it seems possible that a method of killing the upstream-migrating (or spawning) lampreys without harming spawning game fish can be discovered. This is considered to be the most promising development in sea lamprey control work.

According to Fish and Wildlife Service scientists, who are working with the Cook Research Laboratories in the control program, the sea lamprey has peculiarities which may spell its own destruction. For example, the lamprey migrates at night to spawn in the upper reaches of rivers and streams. Bright underwater lights may confuse the lamprey, making his electrocution easier. Sound waves, produced by sonic generators tuned to the heart beat of lampreys, may also kill them. A combination of these factors may be developed into a positive lamprey-control program.

Desirable game fish may be protected from electrocution devices by their ability to detect and stay away from electric fields. Sea lampreys, on the other hand, will swim right into charged areas and be killed or so severely injured that they will die within a few hours. Sonic or light devices, on the other hand, may repel lampreys but not fishes, enabling game fish to proceed upstream during certain periods when the electrical devices are shut off.

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