Ref ID: 71319

MONTANA STATE DEPARTMENT OF FISH AND GAME
FEDERAL AID IN FISH RESTORATION SECTION

HELENA, MONTANA

Job Completion Report
Development Project

State of Montana Name Northwest Montana Fishery Study

Project No. F-24-D-23 Title Statewide Lake & Stream Rehabilitation

PERIOD: May 1, 1959 to March 30, 1960

ABSTRACT:

Loon Lake, in Flathead County, was treated with 525 gallons of rotenone emulsives on September 18, 1959. This treatment was to remove pumpkinseed sunfish, and heavy populations of suckers and squawfish. Kind and amount of toxicant used and methods of application are described. Recommendations are made for restocking the lake with game fish and for evaluating the success of chemical eradication and restocking as a management tool.

OBJECTIVES:

To remove as completely as possible the existing fish population from Loon Lake. To establish a cutthroat trout fishery after detoxification.

TECHNIQUES USED:

On September 18, 1959, Loon Lake was treated with 525 gallons of rotenone emulsives (Pro-noxfish). Three boats with 2-man crews were used in applying the toxicant. Application was accomplished by gravity feeding the toxicant into the prop wash of the outboard. Weedy and seep areas were aprayed by a motor driven pump. Back pack fire pumps were used in inaccessible areas.

FINDINGS:

Loon Lake is located approximately six miles southeast of Bigfork, Lake County, Montana. At the time of rehabilitation there were 57 surface acres, a total of 1550 acre feet of water with a maximum depth of 52 feet. There is no inlet or outlet to this lake and water is supplied by underground seepage and surface run-off.

Shortly after the first spray application, distressed and moribund fish were observed in the shallow areas of the lake. These fish were primarily young of the year pumpkinseed sunfish (Lepomis gibbosus) and largemouth black bass (Micropterus salmoides). As application progressed to the deeper waters, larger specimens of the above mentioned species were observed in distress. In addition, 20 smallmouth bass (Micropterus dolomieui) were recovered. Application time was approximately 8 hours. At the termination of this period some suckers (Catostomus sp.) were is distress. Local residents reported fish in moribund condition several days after application of the toxicant. The species represented in this

later distress were northern squawfish, (Ptychocheilus oergonense). Periodic observations made during the month of October indicated no fish activity.

RECOMMENDATIONS:

1. In June of 1960 cutthroat trout (Salmo clarki), Ashley Lake strain, fry should be introduced in numbers as determined from Montana's stocking table.

2. Periodic creel census coverage should be maintained, to give an estimate of catch per hour of cutthroat trout from this lake.

3. An evaluation should be made on the use of cutthroat as the management fish in this lake. Since there is little chance for natural reproduction, cutthroat should be stocked on a yearly basis for three years prior to the evaluation.

DATA AND REPORTS:

The original data and reports are in the fisheries office of the Fish and Game Headquarters in Kalispell.

Prepared by Boyd R. Opheim

Date April 6, 1960

Approved by George D. Holton
Chief Fisheries Management Biologist