F-78-R-2 IV-a
Region 2

MONTANA FISH, WILDLIFE & PARKS

FISHERIES DIVISION
JOB PROGRESS REPORT

STATE:	MONTANA	PROJECT TITLE:	STATEWIDE FISHERIES INVESTIGATIONS
PROJECT NO.:	F-78-R-2	STUDY TITLE:	SURVEY AND INVENTORY OF WARMWATER LAKES
JOB NO.:	IV-a	JOB TITLE:	NORTHWEST MONTANA WARMWATER LAKES

PROJECT PERIOD: JULY 1, 1995 THROUGH JUNE 30, 1996

ABSTRACT

Warmwater fisheries habitat was maintained through existing statutes and laws. Habitat structure was added to regional lakes by local clubs and Department personnel to benefit differing age classes of largemouth bass. Illegal transplants of fish to new waters continues to be a very serious problem jeopardizing many established fisheries. The regional fisheries biologist for the lower Clark Fork area was refilled in September of 1996 by Pat Saffel after the retirement of Joe Huston in October of 1995.

BACKGROUND

There are approximately 60 waters within Northwest Montana that provide warmwater fishing opportunities. Interest in warmwater fishing is increasing and pressure exceeds approximately 40,000 mandays annually. The common regional warmwater species are largemouth bass (*Micropterus salmoides*), smallmouth bass (*Micropterus dolomieui*), northern pike (*Esox lucius*), yellow perch (*Perca flavescens*), pumpkinseed (*Lepomis gibbosus*), and burbot (*Lota lota*).

Warmwater fish in Northwest Montana are primarily managed on a self-sustaining basis. Exception to this includes supplemental stocking of largemouth bass to provide genetic diversity to existing populations, and recruitment enhancement stocking into Noxon Rapids Reservoir on the lower Clark Fork River. Fish are obtained from the Miles City State Hatchery. Waters with surplus, stunted populations of largemouth are utilized to collect and transfer fish to other waters with limited recruitment with assistance from area bass clubs.

Increasing fishing pressure will require additional improved access sites to ensure continued public access. Growth and development on warmwater lakeshores and watersheds continues to impact water quality, quantity, and aquatic habitat. Where shoreline cover is limited, structure enhancement is utilized to improve conditions.

Illegal introductions of non-indigenous species to new waters continues to be a very serious problem. Yellow perch and northern pike are typically the species discovered after illegal transplanting. Other species also include white crappie (*Pomoxis annularis*), goldfish (*Carassius auratus*), pumpkinseed (*Lepomis gibbosus*), and largemouth bass.

Joe Huston, the regional fisheries biologist for the lower Clark Fork, retired in October of 1995. This position remained vacant until September of 1996, when Pat Saffel filled the position. During this period, area objectives were not completely attained due to the position vacancy.

OBJECTIVES AND DEGREE OF ATTAINMENT

Activity 1 - Survey and Inventory
Objective: To survey and monitor the characteristics and trends of fish populations, angler harvest and preferences, and to assess habitat conditions in selected waters.

This objective was attained on the following regional waters: Abbot Lake, Church Slough, Echo Lake, Fennon Slough, Horseshoe Lake, Island Lake, Lake Mary Ronan, Loon Lake, Peterson Lake, Swan Lake, Tally Lake, and Whitefish Lake.

Activity 2 - Fish Population Management
Objective: To implement fish stocking programs and/or fish eradication actions to maintain fish populations at levels consistent with habitat conditions and other limiting factors.

This objective was attained. The Miles City Hatchery provided the region with young-of-the-year largemouth bass. These fish originated from a diverse background and were utilized to infuse genetic diversity into existing populations in Noxon Rapids Reservoir.

A draft management plan on the Thompson Chain-of-Lakes was completed. Fish, Wildlife & Parks Commission adoption is expected during fiscal year 1997.

Activity 3 - Technical Guidance
Objective: To review projects by government agencies and private parties which have the potential to affect fisheries resources, provide technical advice or decisions to mitigate effects on these resources, and provide landowners and other private parties with technical advice and information to sustain and enhance fisheries resources.

This objective was attained. Fisheries personnel commented on projects that had potential to affect warmwater fisheries.

Fish habitat was enhanced through placement of artificial structures in numerous warmwater lakes. Structures typically consisted of Christmas tree bundles, root wads, or wooden pallets. All structures complied with a Corps 404 permit secured for this purpose. Area bass clubs assisted with the work.

Activity 4 - Aquatic Education

Objective: To enhance the public's understanding, awareness, and support of the state's fishery and aquatic resources and to assist young people to develop angling skills and to appreciate the aquatic environment.

This objective was attained. Fishery personnel gave numerous talks to sportsperson groups and the media to promote understanding and support for warmwater fishery programs. Special emphasis was given to the extent and impacts of illegal fish introductions.

Several Youth Angler Education Classes and Kid's Fishing Clinics were conducted or attended.

A FWP video entitled, "Illegal Fish Tails," was created and released in the spring of 1996. The video outlines some regional and statewide problems with illegal introductions.

PROCEDURES

Standard floating and sinking monofilament gill nets 125-feet long by 6-feet deep were used for fish collection. Nets contained 25-foot panels of 3/4, 1, 1 1/2, 1 3/4, and 2-inch bar mesh. One-hundred foot by 6-foot beach seines were used primarily for juvenile fish collection. An 18-foot jon boat with boom mounted electrodes operating on a Coffelt VVP-IIC electrofishing box powered with 110 volt current was also used for sampling. We weighed and measured collected fish and extracted scales and stomach samples for future analysis. A list of waters with available species has been progressively compiled and updated (Appendix A).

Water quality and aquatic habitat were protected or enhanced by participation in the Natural Streambed and Land Preservation Act (NSLPA), the Lakeshore Protection Act (LPA), the Army Corps of Engineers (COE) 404 permit program, and Montana Pollution Discharge Elimination System (MPDES). Proposed projects were reviewed and mitigative measures recommended where appropriate.

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RESULTS AND DISCUSSION

Species Introductions

Field monitoring and data collection was completed for selected waters under the project. Bass transplants were not made during the project period. The discovery of whirling disease may preclude future transplants.

Noxon Rapids Reservoir received 42,000 young-of-the-year largemouth bass from Miles City Hatchery to improve genetic diversity and enhance recruitment. Production from Miles City was extremely limited for bass due to walleye demands.

Illegal introductions continue to plague fish management within the region. An updated list (enclosed) identifies regional waters presently containing illegal introductions.

Access

During the period, Plum Creek Timber Company announced the future sale of their lands with water-related development potential. Waters with their highest priority at this time include: Ashley Lake, Lake Mary Ronan, Little Bitterroot, Island Lake, and Thompson Chain-of-Lakes. Sale of these lands will convert ownership to a private status likely denying future public access. The Department began immediate negotiations with Plum Creek in an attempt to maintain key access points where feasible. This effort is ongoing.

Habitat Protection and Enhancement

Lakeshore protection applications, some requiring Department recommendations for mitigation, were processed through regional county agencies. Comments were submitted on Corps of Engineers (COE) 404 permits for regional lakes and streams. NSLPA permits were reviewed and recommendations made.

Fish populations were enhanced and habitat loss mitigated by enlisting the aid of Washington Water Power, USFS, Western Montana Bassmasters, Echo Lake Bassmasters, Clark Fork Bass Anglers, Noxon Rod and Gun Club and other local groups to procure and install bass habitat structures.

RECOMMENDATIONS

There is an increasing demand for baseline population and habitat data on the 114 warmwater lakes within the region. As time allows we need to collect population indices for prioritized waters. This information will help create appropriate management strategies for regional warmwater lakes.

The number of bass fishermen and interest among them is ever increasing. Tournament requests, requests for special regulations, and concern over specific fisheries continue to come in at a greater frequency. Complaints about illegal spear fishing are also more frequent as are complaints about mortality or injury to fish during tournaments. A more conservative policy will need to be evaluated that will reduce potential impacts from the above issues.

Habitat enhancement structures in specific waters will need additional evaluation.

A more extensive genetic sample of regional bass populations would be desirable. This would identify populations needing additional genetic diversity that could be infused through stocking.

Illegal introductions of warmwater fish is causing severe impacts to many fisheries. Education and increased enforcement of existing statutes are needed to further discourage illegal transplants.

Prepared by: Scott Rumsey
Date: September 12, 1996