MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS
FISHERIES DIVISION
JOB PROGRESS REPORT

STATE: Montana Project No: F-46-R-4
TITLE: Statewide Fisheries Investigations Job No: III-a
STUDY TITLE: Survey and Inventory of Warmwater Streams
JOB TITLE: Northcentral Montana Warmwater Streams Investigations
PERIOD COVERED: July 1, 1990 through June 30, 1991

ABSTRACT

Warmwater fisheries investigations were conducted on the Missouri River below Morony Dam by MDFWP personnel and EA Engineering, Science, and Technology under contract with Montana Power Company. Separate reports summarize fisheries information collected on this section of the Missouri River during 1990. The advisory group met to request adequate flows for resident and migratory fish in the Marias River below Tiber Reservoir. Stream preservation activities were conducted on 22 projects.

OBJECTIVES AND DEGREE OF ATTAINMENT

1. **To maintain a minimum flow of 500 cfs in the Marias River for habitat enhancement.** Progress made and summarized in this report.

2. **To ensure, within hydrologic constraints, that flows in streams supporting cool/warm water gamefish do not fall below past ten year averages.** Progress made for Marias River and summarized in this report.

3. **To maintain the regions streambanks and channels in their present or improved condition. (State funded).** Progress made and summarized in this report.

4. **Maintain water quality at or above 1983 levels as measured at USGS water quality monitoring stations.** No discharge permit applications or pollution complaints were received for warmwater streams during the report period.

5. **To assess existing sauger, walleye and freshwater drum populations to determine population densities in the Missouri River between Morony Dam and the Marias River.** Progress made and summarized in separate reports.

6. **To maintain sauger populations in the Missouri River to provide 10,000 angler days use annually.** See objective 5 above.

7. **To determine angler use and harvest of fish species and maintain at least the existing quality of the fishery in the lower Marias River.** This objective was canceled.

8. **To increase and diversify angling opportunity in the upper 50 miles of the Marias River and 10 miles of Cut Bank Creek (State funded).** Plans to introduce smallmouth bass and sauger were not pursued because of possible forage limitations. This may occur in the future if the forage situation improves in Lake Elwell.

9. **To determine walleye distribution and angler harvest in the Missouri River between Holter Dam and Great Falls.** Objective achieved in FY89.

10. **To evaluate need and develop fishing access sites on the Missouri River downstream from Morony Dam (State funded).** Objective achieved in FY89.

11. **To acquire public fishing access site on lower Marias River (State funded).** Objective achieved in FY89.

PROCEDURES

Evaluations of plans for water manipulation in Tiber Reservoir and the Marias River below Tiber Dam were made by the advisory board, which includes representatives from the Bureau of Reclamation, sportsman's clubs, county commissioners, landowners, and the Department of Fish, Wildlife, and Parks. Fish populations in the Missouri River were surveyed with an electrofishing boat, equipped with a 220-volt generator, and a Coffelt VVP-15 rectifying unit. Recommendations and alternatives for projects involving stream banks and channels were made through participation in the Stream Protection Act (SPA) and Natural Streambed and Land Preservation Act (SB310).

FINDINGS

Habitat Protection

Eleven applications from Cascade, Fergus, Glacier, Toole, and Teton Counties were reviewed under the Natural Streambed and Land Preservation Act of 1975. One application was processed as a violation. Another eleven application were processed in Teton County on Deep Creek.

Missouri River between Morony Dam and the Marias River

In previous years, we collected information on both game and non-game species by electrofishing the Portage Coulee section. However, our monitoring was canceled in 1990 since EA Engineering, Science, and Technology, Inc. was contracted to conduct fisheries and instream flow studies below Morony Dam to Fort Benton as part of the Montana Power Company's FERC relicensing activities. Objectives of this study included 1) determining spring, summer, and fall fish population and total biomass estimates on several reaches, 2) evaluating the use of this section by pallid sturgeon, and 3) evaluating habitat conditions in the section under different flow regimes as they relate to sauger and other pertinent species' life history requirements. Department personnel were heavily involved in designing the study plans and in reviewing FERC relicensing documents. Montana Power also provided funding to the Department to hire a temporary biologist to oversee and assist in their fisheries studies. Results of this work are reported in Penkal (1990) and Binkley et al. (1991).

DISCUSSION AND RECOMMENDATIONS

The advisory group formed to develop operating guidelines for maintaining sufficient flows in the Marias River below Tiber Dam should continue to work with the Bureau of Reclamation through the Marias Management Committee to maintain adequate flows for spawning sauger and shovelnose sturgeon from the Missouri River. Although no discharge permit applications or pollution complaints were received during the report period, these will be handled on a case by case basis as they arise. The MDFWP will continue to cooperate with MPC's relicensing efforts and studies regarding the Missouri River's fisheries influenced by the Great Falls area hydroelectric projects.

ACKNOWLEDGEMENTS

The authors wish to thank Paul Hamlin, Kelly Smith, Rich Kummer and Russ Penkal for their contributions in data acquisition and analysis. Also, the cooperative effort of the Marias River Management Committee and the Bureau of Reclamation has been instrumental in maintaining desired flows in the Marias River.

LITERATURE CITED

Penkal, R.F. 1990. Fisheries of the Missouri River from Great Falls to Fort Benton and historical discharges of Morony Dam. Montana Department of Fish, Wildlife, and Parks. Great Falls, Montana.

Binkley, K ., A. Olson, C. Bonitz, P. DeVries, and D.W. Reiser. 1991. Fisheries investigations within the Missouri River, Montana below Morony Dam: 1990 studies. EA Engineering, Science, and Technology. Redmond, Washington.

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Date: August, 1991

Principal Fish Species Involved:

Sauger, walleye, smallmouth bass, burbot, lake chub, and longnose dace, freshwater drum, goldeye, longnose sucker, western silvery minnow, shovelnose sturgeon.

Code Numbers Of Waters Referred To In Report:

14-0240	Birch Creek
14-3040	Little Rock Creek
14-3280	Marias River Sec 02 (Upper)
14-3600	Muddy Creek
14-4320	Pondera Coulee
14-	Spring Coulee (Teton)
14-6000	Teton River
15-0440	Big Sandy Creek
16-0140	Arrow Creek
17-6432	Sand Coulee Creek
17-4864	Missouri River Sec. 07
18-3780	McDonald Creek
18-2640	Flatwillow Creek