

I. Project Title: Ichthyofauna of Cross Mountain Canyon

II. Principal Investigators:

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III. Project Summary:

Little information exists on the fish composition in Cross Mountain Canyon. Researchers are sampling, and have previously sampled, all areas upstream and downstream of the canyon. A broad query (Upper Colorado River Basin Researchers and Desert Fishes Council listservers) returned little knowledge of the fishes in the canyon. Sampling occurred in 1980 with dipnets and seines solely for the collection of chubs (Haynes and Muth 1985). Other species that were collected in or near (<~2 miles) Cross Mountain Canyon include northern pike, Common Carp, Humpback chub, Sand shiner, Brown trout, fathead minnow, Colorado pikeminnow, speckled dace, red side shiner, creek chub, white sucker, bluehead sucker, flannelmouth sucker, razorback sucker, black bullhead, channel catfish, and mottled sculpin (Tyus et al. 1982). Cross Mountain Canyon has been recently proposed as a potential location of humpback chub (Finney 2006). The canyon also contained the highest density of Colorado pikeminnow collected in 1981 relative to other areas sampled in the Yampa River (Prewitt et al. 1982).

IV. Study Schedule: 2007

The canyon was sampled August 14th and 15th (~130 CFS)

V. Relationship to RIPRAP:

Green River Action Plan:

V.A. Measure and document population and habitat parameters to determine status and biological response to recovery actions.

III.A.2.c. Evaluate the effectiveness (e.g., nonnative and native fish response) and develop and implement an integrated, viable active control program.

VI. Accomplishments of FY 2007 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:

Cross Mountain Canyon was difficult to sample. Angling was the most effective method. The use of seines proved difficult and was effective over the limited areas of sandy substrate. Backpack electrofishing captured less than 10 fish in 100 meters of sampling. Areas suitable for dawn/dusk trammel net sets were present, but for safety purposes would require camping on site in the canyon to avoid canyon travel at night.

Despite the afore mentioned limitations, crews captured 17 channel catfish, 116 smallmouth bass, and 5 roundtail chub from angling (Figure 1) and 34 sand shiners and 1 creek chub were captured from seining and backpack electrofishing. Northern pike and common carp were also observed but not captured.

The area remains an area of interest to the authors and should, we believe, be further studied. As mentioned, numerous fish species (some listed) have been collected in the vicinity in the past. Humpback chubs are found in neighboring Yampa Canyon and have traveled into the Little Snake River in the past (Hawkins et al. 2001). Humpback chub have likely been present in Cross Mountain Canyon in the past and may still utilize the area. Colorado pikeminnow also use the canyon. This sampling is an ichthyofauna “snap shot” in time and the canyon needs further sampling.

Cross Mountain Canyon contains some of the most unique habitat in the upper basin. Despite this it has been sparsely sampled and studied. One of the most glaring oversights in this lack of sampling is the recent arrival of large numbers of smallmouth bass in the Yampa River and the subsequent depletion of native fish. Our data and previous data seem to support this phenomenon that begs the question, what was the pre-smallmouth bass fish composition in Cross Mountain Canyon?

VII. Recommendation:

1. Develop a scope of work to thoroughly sample the canyon with trammel nets and boat electrofishing gear

VIII. Project Status:

The project is complete and pending further consideration.

IX. FY 07 Budget Status:

- A. Funds provided: \$0
- B. Funds expended: \$4064
- C. Difference: -0-
- D. Percent of the FY 2007 work completed: 100
- E. Recovery Program funds spent for publication charges: -0-

X. Status of Data Submission:

Data will be sent to the database manager upon completion of the project in 2007. Data are currently being entered in Microsoft™ Excel spreadsheets.

XI. Signed: Sam Finney and Mark Fuller
Principal Investigators

November 8, 2005
Date

XII. Literature Cited

Finney, S. T. 2006. Adult and Juvenile Humpback Chub Monitoring for the Yampa River Population, 2003-2004. Final Report to the Upper Colorado River Basin Recovery Implementation Program, Project No. 133, U.S. Fish and Wildlife Service, Vernal, Utah.

Hawkins, J., T. Modde, and J. Bundy. 2001. Ichthyofauna of the Little Snake River, Colorado, 1995 with notes on movement of humpback chub. Final report to the Recovery Implementation Program for Endangered Fishes in the Upper Colorado River Basin. Larval Fish Laboratory Contribution 125, Colorado State University, Fort Collins.

Haynes, C. M. and R. T. Muth. 1985. Lordosis in Gila, Yampa River, Colorado. Pages 83-86 in E. P. Pister, editor. Proceedings of the Desert Fishes Council. Volumes XIII-XV - A (Thirteenth - Fifteenth Annual Symposia). Desert Fishes Council, Bishop, California.

Prewitt, C. G., B. A. Caldwell, and W. Miller. 1982. Completion report, Yampa-White physical habitat study. In Yampa River Fishes Study Final Report, U. S. Fish and Wildlife Service, Salt Lake City, Utah.

Tyus, H. M., B. D. Burdick, R. A. Valdez, C. M. Haynes, T. A. Lytle, and C. R. Berry. 1982. Fishes of the Upper Colorado River Basin: distribution, abundance, and status. In Fishes of the Upper Colorado River System: Present and Future, Miller, Tyus and Carlson eds. Western Division, American Fisheries Society.

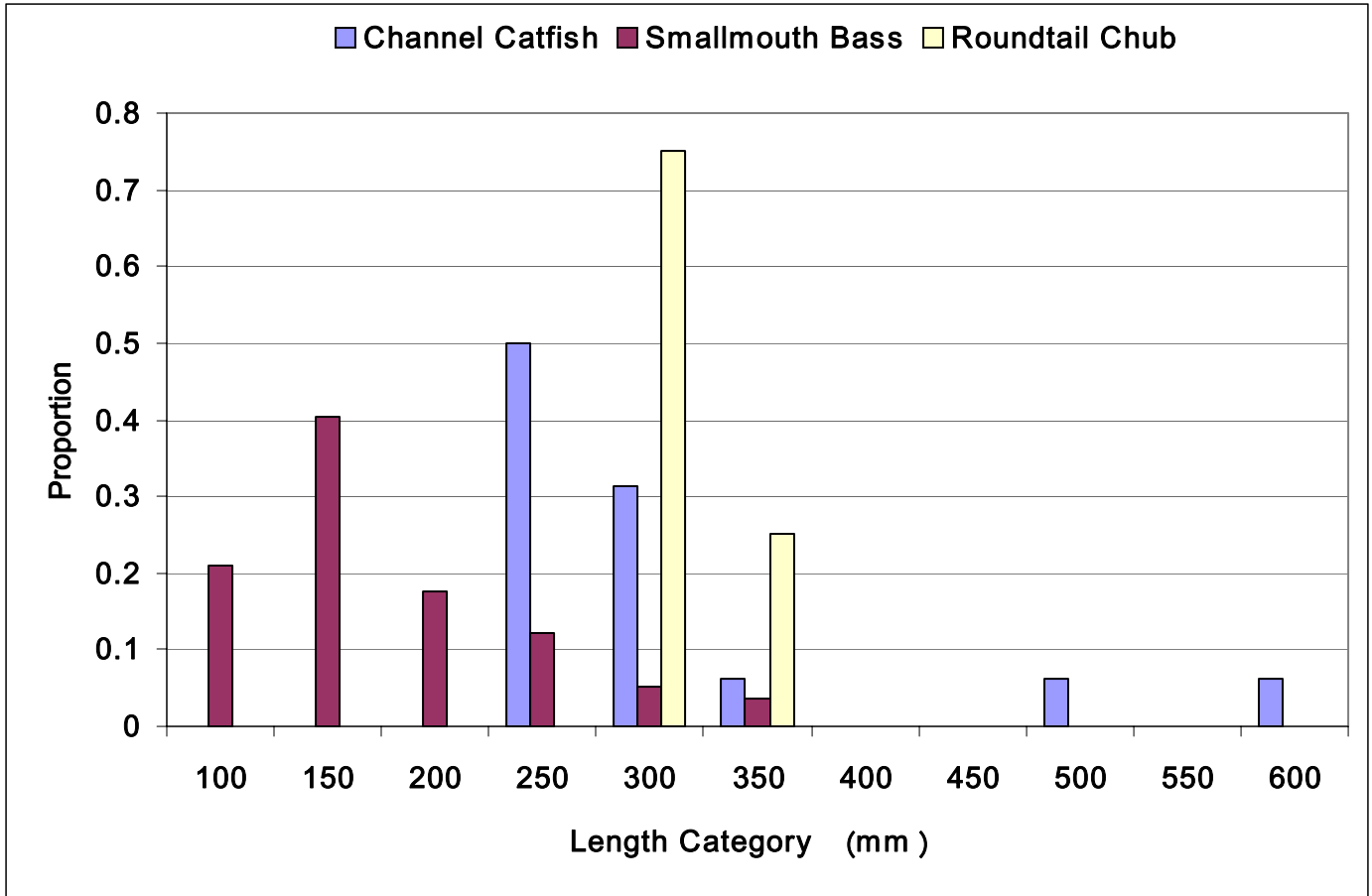


Figure 1—Length frequency of fishes captured in Cross Mountain Canyon, Summer 2007.