

## **Project Summary**

### **Rocky Mountains Cooperative Ecosystem Studies Unit**

**Project Title:** Rehabilitation of Clear Creek Fish Trap, Weir, and Spawning Habitat for Yellowstone Cutthroat Trout

**Discipline:** Natural Resources

**Type of Project:** Technical Assistance

**Funding Agency:** National Park Service

**Other Partners/Cooperators:** Montana State University

**Effective Dates:** 9/1/2009 - 12/31/2011

**Funding Amount:** \$180,000

**Investigators and Agency Representative:**

NPS Contact: **Todd M. Koel**, Ph.D., *Supervisory Fisheries Biologist*, Center for Resources, Fisheries and Aquatic Sciences Program, P.O. Box 168, Yellowstone National Park, WY 82190; 307-344-2281; todd\_koel@nps.gov

Investigator: John Varley, Big Sky Institute, 107 AJM Johnson Hall, Montana State University, Bozeman, MT 59717; 406-994-5320, john\_varley@montana.edu

**Project Abstract:** Over decades the Clear Creek weir has altered flow regimes and changed adjacent stream channel morphology. Because of this, complete resolution of the problems now plaguing the stream will require study and recommendations/plan development by individuals with expertise in fluvial geomorphology and engineering. New technology exists for counting cutthroat trout without the use of a permanent weir structure in the stream. By use of external experts the park plans to restore the ability to assess the cutthroat trout spawning migration, while at the same time restoring critical spawning habitats.

This project will occur at a critical time in the overall effort to conserve the Yellowstone Lake Ecosystem. An aggressive effort is planned 2009-2014 to remove one-half million nonnative, predatory lake trout. Restoring the Clear Creek spawning habitats and the ability to count/handle cutthroat trout will allow park managers to quantitatively assess the benefits of this action for the cutthroat trout spawning population both during the period of heightened lake trout removal and for several future decades.

**Outcomes with Completion Dates:** Due Date for Final Report and/or Other Products: 31 December 2010

**Keywords:** cutthroat trout, weir, fish traps, stream restoration, Clear Creek, Yellowstone National Park, Big Sky Institute, Montana State University