Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Lake Trout Population Size Estimate for Yellowstone Lake

Discipline: Natural Resources
Type of Project: Research
Funding Agency: National Park Service
Other Partners/Cooperators: Montana State University
Effective Dates: 6/30/2012 – 12/31/2015
Funding Amount: $20,379

Investigators and Agency Representative:
NPS Contact: Todd M. Koel, Supervisory Fisheries Biologist, Yellowstone 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: Jay Rotella, Department of Ecology, Montana State University, P.O. Box 173460, Bozeman, MT 59717-3460; Tel: (406) 994-5676; Fax: (406) 994-3190; rotella@montana.edu

Christopher S. Guy, USGS Montana Cooperative Fishery Research Unit, 301 Lewis Hall, Montana State University, Bozeman, MT 59715; Tel: (406) 994-3491; Fax: (406) 994-7479; cguy@montana.edu

Project Abstract: Non-native species of fish threaten native fishes throughout North America. In Yellowstone National Park, introduced populations of invasive lake trout increasingly threaten native populations of fish including Yellowstone cutthroat trout. Prior to the recent invasion of non-native lake trout, the streams around Yellowstone Lake held thousands more YCT than today. These declines are directly attributed to the invasion and establishment of introduced lake trout. In response, the YNP initiated a project to reduce or eliminate lake trout. To date, results seem promising but underscore the urgency to (1) continue suppression to prevent continued loss of remaining native fish populations but as importantly to (2) evaluate the success of the experimental suppression of lake trout to help improve restoration and preservation of cutthroat trout. This project and numerous others throughout the western United States would greatly benefit from a better understanding of the effectiveness of suppression activities in invasive species research, such as determining the number of spawning adults each year.

Outcomes with Completion Dates:
Preliminary results presented to Yell Lake Science Panel for peer review 30 April 2014
Final Report 31 December 2014

Keywords: Montana State University, Yellowstone National Park, non-native species, lake trout, suppression success