

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Spawning Demographics and Early Life History of Bull Trout in Quartz Lake, Glacier National Park, continuation of 2007 project

Type of Project: Research
Discipline: Natural Resources
Funding Agency: National Park Service
Other Partners/Cooperators: Montana State University
Effective Dates: 12/1/2007- 6/30/2010
Funding Amount: \$22,000

Investigators and Agency Representative:

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Project Abstract: The upper Quartz drainage in Glacier NP consists of two glacially carved lakes, Quartz Lake and Cerulean Lake. Combined they have a surface area of 920 acres (Quartz 870 acres; Cerulean 50 acres) with Quartz Lake having a maximum depth of 273 feet. The Quartz drainage flows into the North Fork of the Flathead River which is in the Columbia River Basin. Native species in the Quartz drainage consist of bull trout (listed T&E), west slope cutthroat trout (State Species of Special Concern), mountain whitefish, longnose sucker, largescale sucker, sculpin, and redbelly dace. The only known non-native fish is the lake trout, which were documented in Quartz Lake in 2005 as 3 fish were caught by anglers. To understand the life history of bull trout in this lake the NPS and MSU will collaborate on the following objective:

1. Characterize the spawning areas of bull trout in Quartz Creek between Cerulean and Quartz lakes.
2. Estimate spawning frequency for adult bull trout in Quartz Creek between Cerulean and Quartz lakes.
3. Relate water temperature and gauge height with spawning timing of adult bull trout in Quartz Creek between Cerulean and Quartz lakes.
4. Describe juvenile bull trout use of Quartz Creek.

Outcomes with Completion Dates: All information produced by this project will be provided in electronic format to Glacier National Park. Final products will be in the form of a written report and/or M.S. Thesis. These products will be due by December 31, 2009

Keywords: fisheries, bull trout, life history, Quartz Lake, Glacier National Park, Montana State University