

## **Project Summary**

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

**Project Title:** Survey of Lakes in Glacier NP to determine the extent of fish contaminated with mercury

**Type of Project:** Technical Assistance

**Discipline:** Natural Resources

**Funding Agency:** National Park Service

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

**Effective Dates:** 9/15/2007- 12/30/2009

**Funding Amount:** \$10,000

**Investigators and Agency Representative:**

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**Project Abstract:** Glacier National Park will work with The University of Montana to perform a fish survey, with the objective of the work being to detect levels of Hg concentrations in fish tissue in lakes in the park. The State of Montana collected fish in Upper Two Medicine (lake trout) that had elevated levels of methyl mercury, for which they issued a consumption warning in their state regulations. The park would like to survey other selected lakes in other drainages to determine if fish tissue mercury concentrations are high in other locations. The first "product" of this project will be to determine the lakes to be sampled and the number and species of fish to be analyzed. The investigators will select the most appropriate method of analysis, depending on preliminary mercury analysis in representative fish samples. The University of Montana, Environmental Biogeochemistry Lab (EBL), is well equipped to quantify mercury levels in tissues in a wide concentration range, as it has recently acquired two mercury analyzers for both ultra-trace Hg concentrations and somewhat higher levels in sediments and tissues. The University of Montana will work with park staff, USGS staff and a private contractor to select sampling sites, work out field logistics and provide fish tissue samples for analysis to the UM lab. The UM-Geosciences Department staff will provide a final report on the methods and results of the Hg analysis for fish collected at 5-6 lakes in the park.

**Outcomes with Completion Dates:** 1) Chemical analyses of fish tissue for Hg concentrations, 2) All quality assurance data associated with analyses and a (3) Summary report and recommendations.

**Keywords:** fisheries, lake trout, Glacier National Park, mercury, The University of Montana

**For Administrative Use Only:**

Date Annual Report Received:

Date Final Report Received:

Publications, etc. on file: