# Project Summary Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Lake Clark National Park and Preserve, Fisheries Population Assessments

Type of Project: Research

Funding Agency: National Park Service
Other Partners/Cooperators: University of Idaho

**Effective Dates:** 8/1/2003 - 3/1/2006

Funding Amount: \$15,745.00

#### Investigators and Agency Representative:

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#### Project Abstract:

Scientific information on contemporary resident species diversity, relative abundance, age and size structure is lacking, yet critically needed in light of recent depressed salmon returns to southwest Alaska. Dramatic declines in salmon returns to the Kvichak/Lake Clark system resulted in Native Alaskan subsistence fishers not meeting annual subsistence needs and will likely result in a corresponding shift toward resident fish species to supplement diets. Fortunately, a thorough study of resident species during a period of high salmon abundance is available (Russell 1980), but contemporary information during the current depressed salmon return is lacking. This study will compare past and present resident fish populations relative to periods of relatively high and low salmon abundance. Research will complement ongoing ecologic and genetic studies of Lake Clark salmon populations, and will provide the National Park Service and Alaska State subsistence managers better information with which to manage subsistence fishery resources.

This agreement benefits the NPS by providing expertise in fisheries population assessment. This information will be used by National Park Service fisheries biologists, resource managers and State fishery managers to examine trends in relation to exploitation patterns. Results have implications for managers and researchers of resident species from salmon influenced systems throughout the Pacific Rim. The work will also provide opportunities for University of Idaho fisheries students to learn more about factors affecting resident and anadromous fish production and ecology.

The policy of the NPS is to conserve park resources and values and to ensure these park resources and values remain unimpaired, and provide for the public enjoyment of these resources and values. (Management Policies of the NPS 1.4.3, 2001). This project supports this policy by providing science for managers and decision-makers.

## Outcomes with Completion Dates:

Final Report due 12/31/2005

**Keywords:** fisheries population estimate, salmon, Lake Clark National Park and Preserve, Alaska, University of Idaho

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Date Annual Report Received: Date Final Report Received: Publications, etc. on file: