

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Glacier Change at Rocky Mountain National Park
Discipline: Natural Resources - Physical Science
Type of Project: Technical Assistance
Funding Agency: National Park Service
Other Partners/Cooperators: University of Colorado at Boulder and Denver
Effective Dates: 6/15/2005 - 1/1/2007
Funding Amount: \$12,600.00

Investigators and Agency Representative:

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Project Abstract:

Glaciers of the Rocky Mountain National Park are an important landscape feature provides a scenic beauty that attracts visitors from around the globe. Glaciers are also an important feature to the ecology and water resources of the high alpine areas of the park by providing water during the late summer months when rainfall is greatly diminished, seasonal snowpacks have disappeared. Over the years many studies have examined the glaciers of the Park and include published and unpublished reports on glacier extent, variation of paleoglaciers, and inventories of rock glaciers and permafrost features. And most likely studies will be proposed in the future to improve on these past studies. However, there exists no central location where the data are easily accessible from which new studies can draw. Instead each investigator must re-research the same material to draw on for their individual study. Also, much of this material is not readily available to the park visitor, either as personal visit to the Park or in a virtual visit via the world wide web.

Researchers from CU-Boulder and Portland State University will work with ROMO staff to assemble all known information about the glaciers, rock glaciers, and permafrost into a geographic information system (GIS). And we will update the database by acquiring new photographs and imagery. Such a database will not only provide new insight into the rate of glacier change since the Ice Age, but will provide us with a detailed history of glacier change during the historic period. Also this database will be a data repository that can be updated in the future when new data become available. This information will also be summarized for the general public via a website entitled "Glaciers and glacial features of Rocky Mountain National Park".

Outcomes with Completion Dates:

1. A GIS database of glacial information including tagged shape files and lines of glacial features in the Park, historic photographs, and a bibliography.
2. A brief report and a synthesis of glacier extents in the park from all known information in a GIS
3. A website available for hosting by the Park. For one example of this type of deliverable, please see the web page we developed for Mt Rainier National Park at, <http://www.nps.gov/mora/ncrd/glacier/>

Keywords: glacier, permafrost, rock glacier, Rocky Mountain National Park, University of Colorado at Boulder, Portland State University

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