

## **Project Summary**

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

**Project Title: Ice on the Edge: Global Warming and a New Archeological-Paleontological Research Frontier in the Rocky Mountain Region**

**Discipline:** Cultural  
**Type of Project:** Research  
**Funding Agency:** National Park Service  
**Other Partners/Cooperators:** University of Colorado, Boulder  
**Effective Dates:** 9/1/2009 - 12/31/2010  
**Funding Amount:** \$9,075

**Investigators and Agency Representative:**

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**Project Abstract:** Previous research suggests specific factors affect the likelihood an ice patch was used prehistorically. Example factors include proximity to passes, existing trails and known archeological sites, as well as relative ease of access. At-risk areas for archeological materials can be identified and mapped using a geographic information system (GIS) to aid resource managers in identifying prospective locations where survey should be considered or concentrated. Starting in spring 2010, the PI will use GIS mapping to identify prospective survey locations at ice patches with potential to yield prehistoric or historic items. During the summer of 2010, he and park staff will survey at least two of the identified sites (selected after consultation with the key official and other park staff). Resurveys will be conducted by park staff in successive summers. If objects are located, the park staff will consult with the State Historic Preservation Officer and Native American groups (as deemed necessary by the park), and remove objects for radio carbon dating. The PI will analyze the objects. Then, he will work with the park curator to conserve and preserve any objects found.

**Outcomes with Completion Dates:**

- 1) Quarterly reports due via email to cheri\_yost@nps.gov on June 30, September 30, December 31, March 31 for the duration of the project (field work and object analysis).
- 2) An illustrated and professionally-produced report synthesizing project methods, data, and survey recommendations. It should serve as a manual for park staff to conduct ice patch surveys. Due May 31, 2010.
- 3) advanced GIS model of Rocky Mountain National Park ice patches (provided in park datum and including metadata). Due May 31, 2010.
- 4) a DVD with the report and GIS data. Due May 31, 2010.
- 5) Field instruction on survey methods. Due September 30, 2010.
- 6) up to two objects dated via radio carbon analysis. Due December 31, 2010.

**Keywords:** Rocky Mountain National Park, University of Colorado at Boulder, ice patch, archeology.