

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Pilot Study for Investigations into Cultural-Natural Landscapes and Ecological Patch Islands in Forest Canyon Pass, Rocky Mountain National Park

Discipline: Interdisciplinary

Type of Project: Research

Funding Agency: National Park Service

Other Partners/Cooperators: University of Northern Colorado

Effective Dates: 9/27/2007- 12/31/2009

Funding Amount: \$11,000

Investigators and Agency Representative:

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Investigator: Robert Brunswig, University of Northern Colorado, School of Social
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Project Abstract: Forest Canyon Pass contains one of the most archeologically diverse sites in Rocky Mountain National Park. Its cultural occupations range over 11,000 years, from the Late Ice Age to when historically documented tribes were removed from the region in the late 19th Century. Forest Canyon is set within a geographic "cross-roads" landscape encompassing the conjunction of three major passes (Forest Canyon, Milner, and Fall River passes) and headwaters of three major rivers; the Deer Creek branch of the Colorado River (Milner Pass), the Cache la Poudre River (Milner Pass), Fall River (Fall River Pass), and Forest Canyon Pass (the Big Thompson River). Archaeological and historic evidence has shown Forest Canyon Pass served as a place of transit and temporary shelter for hundreds of Native American generations. The pass' high density patch microenvironments of low terraces and benches, glacial kames and moraines, rich fens, wet meadow, and perennial spring-fed streams are believed to have been home to summer and fall hunting base camps for nearby higher elevation game drives for millennia.

The pilot study will consist of cultural, modern and prehistoric ecological research components. A selected area within the Forest Canyon headwaters landscape, consisting of subalpine forest, hummocks, and wet fens, will be subjected to archeological survey, a botanical and faunal sampling survey, and sediment coring of a wet fen for paleoenvironmental reconstruction. The survey area, ca. 160 acres, will be mapped, along with its cultural and more prominent natural resources, at sub-meter resolution using a survey-grade GPS unit. GPS spatial data will be downloaded into a Geographic Information System (GIS) project for map projection and analysis. Field data-collection for the archeological and paleoenvironmental (sediment coring) tasks will occur in June and July, 2007 over a period of 10 days and be conducted by the project's two Principal Investigators, Dr. Robert Brunswig (Archeologist) and Dr. James Doerner (Paleo-geographer). Dr. Brunswig will conduct the GPS mapping survey with assistance of UNC students. Jeff Connor, ROMO Resource Staff, will conduct a faunal and avian study, Ms. Leanne Benton, Park Ranger/Botanist, will do a sample botanical survey. From September 2007 to August 2008, data from the field studies will be analyzed, synthesized, and a final report produced. Dr. David Diggs, UNC GIS specialist, will assemble field GPS spatial data and available GIS environmental and 1 m resolution aerial photography geo-referenced background map layers into a GIS project for mapping and correlation analysis (modeling).

Outcomes with Completion Dates:

1. Quarterly reports due via email on June 30, September 30, December 31, March 31 for the duration of the project.
2. Due May 1, 2009: An illustrated and professionally produced report synthesizing study results from the cultural and natural resource components and a summary describing the assessed utility of the approach for similar future projects, including development of a follow-up, full scale Forest Canyon "Patch-Ecology" research program.

3. Due May 1, 2009: Digital files (on DVD) including the final GIS project model and associated databases.
4. Due June 30, 2009: One page summary of the project, produced by the park, with the assistance and technical review by the investigators, to be distributed to internal and external park audiences. Due June 30, 2009

Keywords: Rocky Mountain NP, University of Northern Colorado, archeology, Forest Pass, GIS, patch ecology

For Administrative Use Only:

Date Annual Report Received:

Date Final Report Received:

Publications, etc. on file: