Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Assessing the Ecological Content and Context of the National Park System

Type of Project: Research

Funding Agency: National Park Service

Other Partners/Cooperators: University of Idaho, USGS

Effective Dates: August 1, 2004 – December 30, 2006

Funding Amount: $$102,600

Investigators and Agency Representative:

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Project Abstract:

The overall objective of this research is to assess the ecological content and context of the national park system at multiple spatial scales by quantifying the level of representation, redundancy and resiliency of natural resources. On a national level, our objectives are to determine the level of representation of biological and geophysical features, quantify the spatial and temporal patterns of broad-scale external threats influencing matrix permeability and consistency and determine relationships among matrix integrity, geophysical and political features across the coterminous US. At the regional level, our objectives are to determine the spatial relationships and potential biological corridors between national parks and other protected areas and combine gradient analysis with landscape metrics to quantify the effective area of the landscapes that contain parks. Lastly, at the local level, our objective is to forecast changes in selected parks as a result of predicted changes and/or current trends in external threats. Both Phase 1 and Phase 2 have been funded.

The results of this project will provide context for many issues identified in the Natural Resource Challenge and will directly address both the level of protection of natural resources provided by preserving lands within the park system and the condition of resources outside of park boundaries. Our research will provide valuable information to managers for assessing the ecological relationship of lands within and surrounding existing parks as well as proposed additions to, or acquisition of, new parks, protected areas or partnerships. In addition, these results will aid cooperative planning efforts with other agencies and facilitate communication with the general public

Outcomes with completion dates:

Results will be published in peer-reviewed journals, presented at professional and public meetings and electronic versions of compiled and created data will be provided to the National Park Service.

Progress Report I – October 2004
Progress report 2 – May 2005
Progress report 3 – October 2005
Final report – May 2006

Keywords: ecological content, ecological context, national park system, spatial analysis, biological features, geophysical features, temporal analysis, University of Idaho, National Park Service, Natural Resource Challenge

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