

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Effects of pathways within Grand Teton National Park on avian abundance, distribution, diversity, and productivity of focal species

Discipline: Natural
Type of Project: Research
Funding Agency: National Park Service
Other Partners/Cooperators: University of Wyoming
Effective Dates: 5/1/2007 - 12/1/2011
Funding Amount: \$167,602 (\$86,576 in FY07; \$48,000 in FY08; \$30,000 in FY09; \$3,026 in FY10)

Investigators and Agency Representative:

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Project Abstract: Investigators at the University of Wyoming will work with wildlife staff at Grand Teton National Park to monitor the effects of a new recreational pathway on bird species. Objectives of the research include: (1) Identify avian species using project area habitats before, during, and after pathway construction and use, (2) Quantify the spatial and temporal habitat use of avian species within the project area before, during, and after pathway construction and use, (3) Based on objectives 1 and 2, evaluate the effects of the pathway on avian abundance and community composition and diversity, (4) Document the breeding productivity, site fidelity, and select life history and breeding behavior metrics of focal bird species such as the Brewer's Sparrow (*Spizella breweri*) (a declining, sagebrush-steppe obligate species) before, during and after pathway construction and use. This project will continue for four years, depending on funding.

Outcomes with Completion Dates:

1. March 31, 2008 - 2010 - Annual work plan detailing field protocols, logistics, personnel and schedules. 2007 work plan due May 28, 2007.
2. January 31, 2008 - 2011 - Annual progress report covering analyses and interpretation of data collected the previous summer.
3. June 1, 2011 - Digital databases and analyses; if data are needed prior to this deadline, NPS personnel may request them from the cooperator.
4. June 1, 2011 - Final Report on analyses and interpretation of data collected during the 2007 - 2010

Keywords: pathway construction, avian species, Grand Teton National Park, University of Wyoming, Brewer's sparrow, sagebrush habitats