

## Project Summary

### Rocky Mountains Cooperative Ecosystem Studies Unit

**Project Title:** Winter Visitor Experiences in Yellowstone National Park: Visitor Perceptions of the Natural Soundscape and of Interactions with Bison

**Discipline:** Social  
**Type of Project:** Research  
**Funding Agency:** National Park Service  
**Other Partners/Cooperators:** University of Montana  
**Effective Dates:** 2/1/2006 - 12/31/2009  
**Funding Amount:** \$108,925 (\$14,794 added in FY08)

#### Investigators and Agency Representative:

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#### Project Abstract:

The most recent study on the wildlife responses to motorized winter recreation concluded that responses of bison, elk, and swan were "relatively infrequent, of short duration, and of minor to moderate intensity. Further, the report stated there was no evidence of population-level effects to ungulates during three decades of motorized use suggesting that the debate regarding the effects of motorized recreation on wildlife is largely a social issue as opposed to a wildlife management issue. Thus, while monitoring has focused on the level of impacts to these factors in an objective sense, an understanding on how these resources are perceived by visitors remains an unanswered and important question. This study is designed to address these knowledge gaps and to provide information that will assist managers in understanding how visitor experiences and perceptions may be affected by different management interventions. Based on observations from the literature and discussions with YNP managers, a range of information is needed to inform a sustainable winter use management regime within Yellowstone National Park.

The phase 1 of the project will result in a full study plan for social science research in Yellowstone related to visitor perception of noise from snowmobiles. The phase 2 study will be conducted during winter 2007-08 in Yellowstone NP and will include a visitor survey at Old Faithful. Sample times will include one 8-10 day period during January, and three-four day periods during February and early March. Visitors will be asked about their trip, and specific encounters with bison, with general question about the natural soundscape and wildlife interactions. Data analysis and interpretation will take place from April-June 2008, with a final report due in late summer.

An additional task was added in late FY 06 to include work by a UM research associate who will analyze the perspectives of snowcoach and snowmobile guides related to the effects of noise on wildlife. This will include a workshop to be held in West Yellowstone in January 2007. Additional funds and time extension were added in FY08 due to the need to publish the survey information in advance in the Federal Register. There is a possibility that additional sampling may need to occur in winter of 2008 - 2009.

#### Outcomes with Completion Dates:

Phase 1A was completed this winter, with the submission of the final proposal for a visitor survey in winter 2007. Final Report is due by August 31, 2009.

**Keywords:** winter use, visitor experience, wildlife, bison, soundscapes, motorized use, snowmobiles, snowcoaches, Yellowstone National Park, University of Montana