

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Foraging Ecology of Threatened Mexican Spotted Owls (<i>Strix occidentalis lucida</i>) in Grand Canyon National Park.
Type of Project: Research /Natural Resources
Funding Agency: National Park Service
Other Partners/Cooperators: Montana State University
Effective Dates: June 1, 2004 - Dec 30, 2007
Funding Amount: \$\$81,625
Investigators and Agency Representative: <u>NPS KEY OFFICIAL:</u> RV Ward, Wildlife Biologist/Program Director, Grand Canyon National Park, PO Box 129, Grand Canyon, AZ 86023, (928) 638-7756, rv.ward@nps.gov <u>PRINCIPAL INVESTIGATOR:</u> David W. Willey, Assistant Professor, Department of Ecology, Montana State University Bozeman, MT 59717, 406-994-5319, willey@montana.edu
Project Abstract: <p>Grand Canyon National Park represents a large and important source population for spotted owls within the Colorado Plateau recovery unit. Maintaining a healthy population of owls in Grand Canyon is not only relevant to local stability, it is integral to the structure of Mexican spotted owls around the region. Not only are spotted owls key indicators of environmental change they are top level predators and have a fundamental role in proper ecosystem functioning. In the current atmosphere of global change and ecosystem level restoration, clearly this threatened species warrants our attention.</p> <p>Of particular interest to park managers and wildlife biologists are the night time foraging patterns of spotted owls that occupy territories in the vicinity of the South Rim visitor developments and nearby proposed management actions on the Kaibab Plateau. In these locations, threats to the owl from human-related activities (e.g., road and trail construction, building construction, prescribed fire treatments) remain virtually unknown but warrant thorough investigation. Persistence of this high profile species may be dependent upon our ability to identify and curtail threats to its habitat and to population growth.</p> <p>The purpose of this project is to collect and report field data on the life history and habitat-use of Mexican spotted owls in the Grand Canyon National Park. Emphasis will be placed on a comparison between territories proximate and distant from high visitor use areas within the Park. Work will include capturing, tagging, and tracking spotted owls as well as providing supervision and training to Park personnel. Field work will be carried out over three field seasons in 2004-2006.</p>
Outcomes with completion dates: List of Products: <ol style="list-style-type: none"> 1. Final Report summarizing all data and project activities, including the life history and habitat-use of spotted owls in Grand Canyon National Park study area (February 1, 2007). 2. Binder with one copy of all field forms and field maps (annually by December 1). 3. Mapped locations of all owl nesting, roosting, and foraging locations (February 1, 2007). 4. UTM radio telemetry locations (home range maps) of spotted owls gathered during nighttime fixes and roost walk in visits (annually by December 1). 5. GIS layers containing home range and foraging locations (annually by December 1). 6. Investigator's Annual Reports each year of project (annually by February 1).
Keywords: Mexican spotted owl, foraging ecology, visitor use, Grand Canyon National Park, Montana State University,
<u>For Administrative use only:</u> Date Annual Report Received: Date Final Report Received: Publications, etc. on file: