

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Movements, habitat use and survival of Greater Sage Grouse in NE Montana
Type of Project: Research
Project Discipline: Natural
Funding Agency: Bureau of Land Management
Other Partners/Cooperators: Parks Canada, Grasslands Provincial Park
Effective Dates: July 2005- January 2009
Funding Amount: \$171,000.00: \$ 20,000 (2008); \$28,000 (2007); \$88,000.00 (2006); \$35,000.00 (2005)
Investigators and Agency Representative (include name, address, phone, email): David Naugle, PI, with collaborators from US (John Carlson, Wildlife Biologist, BLM, Glasgow, MT 59230 406-228-3762; john_carlson@blm.gov) and Canada (Pat Fargey, Species at Risk/Ecosystem Management Specialist Grasslands National Park PO Box 150 Val Marie, Saskatchewan S0N 2T0, 306-298-2166 ext 224; pat.fargey@pc.gc.ca).
Project Abstract: An MS student was just recruited and this project will commence in Spring 2006. This research will be a scoping project to acquire baseline data on sage-grouse populations in silver sagebrush (<i>Artemisia cana</i>) habitats north of the Milk River (north Valley county) in northeast Montana. The goal is to document population parameters, understand local scale habitat relationships, and assess movements of sage-grouse after the breeding season. Little is known of these populations to date, but population estimates for sage-grouse in nearby Saskatchewan, Canada, indicate that <600 individuals remain. We envision a 2-year project where female sage-grouse will be captured on leks and fitted with radio-collars in spring. Marked birds will be monitored during the breeding season to quantify nest success and chick survival, two vital rates that are thought to drive population growth. We also will continue to monitor marked birds during late-summer to document movements of sage-grouse from breeding to their late-summer/fall habitats. Monitoring in late-summer also will enable us to assess mortality risk due to West Nile virus, a new threat to survival of sage-grouse that is known to increase mortality of sage-grouse in landscapes just south of our proposed study sites. Lastly, we are actively exploring collaborative research efforts with the government of Canada because birds in north Valley County, MT, USA, and in south central Saskatchewan, Canada, are likely members of the same population (Pat Fargey, Grasslands National Park, Saskatchewan, Canada).
Objectives: <ol style="list-style-type: none">1) Quantify nest success of greater sage-grouse.2) Quantify chick survival of greater sage-grouse.3) Assess local scale habitat relationships associated with nest success and chick survival.4) Document movements of greater sage-grouse from breeding to late-summer/fall habitats5) Monitor for West Nile virus mortality issues
Outcomes with completion dates (reports, publications, workshops, videos, etc.): Final report will be in Spring 2008.
Keywords: Sage-grouse, <i>Artemisia cana</i> , northeast Montana, nest success, chick survival, West Nile virus, south central Saskatchewan.