

Project Highlight – SD State Wildlife Grant

Project Type Research

Title An evaluation of habitat use and requirements for grassland bird species of greatest conservation in central and western South Dakota

In a nutshell Grassland birds have some of the highest rates of decline of any bird groups. Three questions were considered in this project. What are the habitat requirements of grassland birds in this area? How are these birds influenced by grazing intensity and exotic plant species? What are the local habitat (patch size) and landscape-level needs of grassland birds in this region?

Relevant Species of Greatest Conservation Need

- Baird's sparrow (*Ammodramus bairdii*)
- Le Conte's sparrow (*Ammodramus leconteii*)
- Sprague's pipit (*Anthus spragueii*)
- chestnut-collared longspur (*Calcarius ornatus*)
- lark bunting (*Calamospiza melanocorys*)

Relevant Habitats mixed-grass prairie

Cooperators Dakota State University (Dr. Kristel Bakker) and South Dakota State University (Dr. Charles Dieter and graduate student Mitchell Greer)

Purpose

- describe local vegetational habitat requirements of species of greatest conservation need (SGCN) and Level I and Level II priority grassland bird species
- describe habitat associations for SGCN and Level I and Level II priority grassland bird species
- identify patch and landscape level habitat requirements for SGCN and Level I and Level II priority grassland bird species

Timeframe 2006 - 2009

Location central and northcentral South Dakota

Summary or Important Findings

- Increased coverage of grasslands by exotic species negatively impacted chestnut-collared longspur, western meadowlark, grasshopper sparrow and lark bunting and positively affected bobolink.
- Management recommendations emphasized the importance of preserving and restoring grassland habitat patches of at least 250 acres with minimal amounts of exotic species, little or no woody edge and close proximity of grassland areas to each other.

- Habitat loss due to exotic species invasion and woody vegetation incursion into grasslands may be as detrimental to grassland birds as habitat loss.

Best contact person Dr. Kristel Bakker, Dakota State University or Dr. Charles Dieter, South Dakota State University

More information

- Greer, M.J. 2009. An evaluation of habitat use and requirements for grassland bird species of greatest conservation need in central and western South Dakota. M.S. Thesis, South Dakota State University, Brookings.
- Greer, M.J., K.K. Bakker, and C.D. Dieter. 2016. Grassland bird response to recent loss and degradation of native prairie in central and western South Dakota. *Wilson Journal of Ornithology* 128(2):278-279.