

## Project Highlight – SD State Wildlife Grant

**Project Type**            Research and Monitoring

**Title**    Distribution and monitoring of bat species along the lower Missouri River with emphasis on resident vs. migratory behavior

**In a nutshell**            The Missouri River drainage provides important habitat for bats, particularly during migration. This study examined bat distribution, habitat use, seasonal movements, and migratory patterns along the Missouri River. Techniques included mist-netting, acoustic surveys, and use of radio telemetry.

### **Relevant Species of Greatest Conservation Need**

- northern myotis (*Myotis septentrionalis*)
- silver-haired bat (*Lasionycteris noctivagans*)

**Relevant Habitats**            gallery forests along the Missouri River

**Cooperators**            South Dakota State University (Dr. Scott Pedersen and graduate student Brandon Bales)

### **Purpose**

- determine migratory behaviors/patterns and migratory timing of bats in South Dakota, specifically those that may use the Missouri River drainage as a corridor
- determine the distribution, seasonal activity pattern and habitat selection of bats using the Missouri River drainage

**Timeframe**    2005 - 2007

**Location**    Missouri River in central and southeastern South Dakota

### **Summary or Important Findings**

- 163 individual bats from 7 species were captured.
- Hoary and silver-haired bats are likely summer residents in the area, and western small-footed myotis may be present.
- Gallery forests dominated by plains cottonwoods are important bat habitats in this area.

**Best contact person**            Dr. Scott Pedersen, South Dakota State University

### **More Information**

Bales, B.T. 2007. Regional distribution and monitoring of bats, especially species of conservation concern, along the lower Missouri River in South Dakota. M.S. Thesis, South Dakota State University, Brookings.

Scientific publications resulting from this project:

- Weiming, K. and B. Bales. 2007. Estimation of sampling effort for catching enough bats. *Significance* 4(1):19-21.
- Bales, B.T. 2007. Records of western small-footed myotis in central South Dakota. *Prairie Naturalist* 39(3/4):159-162.