

Project Highlight – SD State Wildlife Grant

Project Type Research

Title Status and distribution of turtles and turtle nests in southeastern South Dakota

In a nutshell This project was conducted to address a lack of information on annual population changes, nest locations, and breeding success for 3 targeted turtle species in southeastern South Dakota, the False Map Turtle, Smooth Softshell, and Spiny Softshell.

Relevant Species of Greatest Conservation Need

- Smooth Softshell (*Apalone mutica*)
- False Map Turtle (*Graptemys pseudogeographica*)

Relevant Habitats riverine areas of southeastern South Dakota

Cooperators South Dakota State University (Dr. Charles Dieter and graduate student Laura Dixon)

Purpose

- survey waterways in southeastern South Dakota, particularly the Missouri River, to locate and identify turtle nests and locations
- determine characteristics of the identified areas, including occupied niches
- compare habitats occupied to habitats available as nest sites to help in making management recommendations

Timeframe 2005 - 2008

Location southeastern South Dakota

Summary or Important Findings

- Predation rate of active nests was 36%.
- 62 nests of the target species were located, excavated for data collection and recovered in the area between Gavins Point Dam and Ponca State Park.
- Softshell Turtle clutch size averaged 14.5 eggs, and average nest depth was 9.1 cm.
- False Map Turtle clutch size averaged 10.8 eggs, and mean nest depth was 9.9 cm.
- These three species selected (Smooth and Spiny Softshells and False Map Turtle) nesting areas with little or no vegetation and used sites created for Least Tern and Piping Plover nesting habitat, likely indicating a shortage of suitable turtle nesting habitat.

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

More Information

Dixon, L.A. 2009. False map, spiny softshell and smooth softshell turtle nest and nest-site habitat characteristics along the lower stretch of the Missouri National Recreation River in South Dakota. M.S. Thesis, South Dakota State University, Brookings.

Scientific publications resulting from this project:

Dieter, C. D., L. A. Dixon, S. L. Ronningen, and T. Ronningen. 2014. Survey of turtles nesting on the Missouri River on the South Dakota-Nebraska border. *Great Plains Research* 23 (Fall 2014):111-118.