

## **Project Summary**

### **Rocky Mountains Cooperative Ecosystem Studies Unit**

**Project Title:** Predicting effects of climate change on native fishes in northern Great Plains streams

**Discipline:** Natural  
**Type of Project:** Research  
**Funding Agency:** Bureau of Reclamation  
**Other Partners/Cooperators:** Montana State University  
**Effective Dates:** 9/13/2012 - 6/30/2014  
**Funding Amount:** \$46,717 [FY13: \$5,875; FY12: \$40,842]

**Investigators and Agency Representative:**

USBR Contact: David Trimpe, Natural Resource Specialist, Montana Area, Office - Bureau of Reclamation, 2900 4<sup>th</sup> Ave, North, Suite 501, Billings, MT 59107; 406-247-7668; dtrimpe@usbr.gov

Investigator: Bob Bramblett, Montana State University, Lewis Hall, 301B, Bozeman, MT 59717; 406-994-4433; bbram@montana.edu

**Project Abstract:** Nesting is a pivotal event in a turtle's life history because all turtles must come to land to nest. Riverine turtles such as the spiny softshell typically nest with the floodplain fairly close to the river. Such nesting habit is created and maintained by river processes such as flood pulses, and the dynamics of sediment, ice and riparian vegetation. The same processes that create and maintain turtle nesting habitat are affected by human processes such as flow regulation, bank stabilization, livestock grazing, and recreation. Effective conservation and management of spiny softshell nest sites.

Objectives of this project include:

1. Documentation of location and timing of nesting by spiny softshells;
2. Measurement of habitat characteristics of spiny softshell nests;
3. Determination of incubation period of spiny softshell nests.

**Outcomes with completions dates:** January 1, 2018

**Keywords:** habitat and movement, spiny softshell turtles, Missouri River, Bureau of Reclamation, Montana State University