

# **Project Completion Report Rocky Mountains Cooperative Ecosystem Studies Unit (RM-CESU)**

**Project Title:** Monitoring assistance, protocol development, database development, and field testing protocols for the Upper Columbia Basin Network

**Project Code:** P08AC00040; UID-25

**Type of Project:** Technical Assistance

**Funding Agency:** National Park Service

**Partner University:** University of Idaho

**NPS Agreement Technical Representative:** Gordon Dicus, Program Manager, NPS Upper Columbia Basin Network, 105 E. Second St, Ste 5, Moscow ID 83843, 208-885-3684, Gordon\_Dicus@nps.gov

**Principal Investigators:** R. Gerald Wright, University of Idaho, PO Box 441136, Moscow ID 83844, 208-882-4166, gwright@uidaho.edu

**Start Date of Project:** September 1, 2008

**End Date of Project:** August 1, 2013

**Funding Amount:** \$145,500

**Project Summary:** Development of long-term monitoring protocols, including appropriate sampling designs, statistical power analysis, data management procedures, and communication products explaining the protocol development process. Products resulting from this project are available online at <http://science.nature.nps.gov/im/units/ucbn/index.cfm> (particularly on the camas, Lemhi penstemon, and integrated water quality monitoring pages).

**Number of students participating in this project:** One undergraduate student participated in the project, completing a Bachelor degree. One graduate student participated in the project, completing a Master of Science degree.

**Lessons Learned from this project:** A sound sampling design and thorough statistical power analysis greatly improves both the establishment of realistic, achievable annual project work schedules and the ability to detect change in response variables that may trigger management actions. Data collection, entry, and storage processes must be clearly defined, including detailed documentation of operating procedures.

**Other RM-CESU agencies or research partners who participated in this project:** None.