

RM CESU Completion Report

Rocky Mountains Cooperative Ecosystem Studies Unit (RM-CESU)

Project Title: Collaborative Ungulate Habitat and Population Monitoring

Project Code: MSU-163 P08AC00067

Type of Project: Technical Assistance

Funding Agency: National Park Service

Partner University: Montana State University

NPS Agreement Technical Representative: Doug Smith, Yellowstone Center for Resources, POB 168, Yellowstone NP, Wyoming, 82190; (307) 344-2242, doug_smith@nps.gov

Principal Investigator: Dr. Robert Garrott, 310 Lewis Hall, Montana State University, Bozeman, MT 59717, (406) 994-2270, rgarrott@montana.edu

Start Date of Project: 8/1/2008

End Date of Project: 6/1/2013

Funding Amount: \$40,000

Project Summary:

Yellowstone NP has developed a collaborative program with Dr. Robert Garrott at the Department of Ecology, Montana State University (MSU) for the purpose of ungulate habitat and population monitoring at YNP. Ungulate monitoring activities included (1) wolf-ungulates dynamics in Yellowstone; (2) monitoring bison trails in central Yellowstone; (3) collection and processing of snow urine samples; (4) monitoring wildlife responses to motorized winter recreation; (5) monitoring snow pack characteristics; (6) ungulate counts and classifications; (7) capturing and handling of ungulates and predators; (8) monitoring of radio-collared ungulates and predators; (9) collection of fecal pellets from bighorn sheep for lungworm monitoring; (10) carcass surveys; and (11) data entry and analyses. University employees may also participate in analyses of data regarding ungulates. The MSU Department of Ecology did the following:

- provided faculty experts and researchers to collaboratively develop, review and implement ungulate habitat and population monitoring and analyses;
- hired student employees to work on tasks identified in the agreement;
- summarized the findings of their research in a book entitled "The ecology of large mammals in central Yellowstone: sixteen years of integrated field studies" which was edited by R. A. Garrott, P.J. White, and F.G.R. Watson and published in 2009 by Elsevier, San Diego, California (ISBN-13: 978-0-12-374174-5).