

Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Ecology of Wild Horses and Burros in the Rocky Mountain Region and Western USA

Discipline: Natural
Type of Project: Technical Assistance/Research
Funding Agency: USGS
Other Partners/Cooperators: Colorado State University
Student Participation:
Effective Dates: 09/01/2016 - 08/31/2017
Funding Amount: \$418,106.00

Investigators and Agency Representative:

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Project Abstract: Objectives include:

1. Evaluating behavior and ecology of geldings among a breeding population
Project goal: To quantify the effects of sterilization by testicular removal (gelding) on the behavior and ecology of male free-roaming horses, both by comparing the same individual pre- and post-treatment, and by comparing effects on population growth with a paired control population. This will be the first study of gelded horses in a wild herd and will provide information useful to management of wild horse populations.

2. Evaluating behavior, demography, and ecology of spayed free-roaming mares
Project goal: To evaluate the effects of spaying female horses on their behavior, ecology and short term demography and population growth rates, by comparing the same individuals pre- and post-treatment and with controls, and by comparing effects on population growth with a paired un-treated population. This will be the first study of the effects of spaying on the behavior and spatial ecology of wild horses and will provide information useful to management of wild horse populations.

3. Population demography and ecology of wild horses in two sentinel herds in the western United States
Project goal: To conduct a descriptive study of the core demographic parameters of two wild horse populations inhabiting different ecosystems (with different environmental conditions) in order to provide empirical data for population modeling, to improve management of wild horses, and to contribute to a better understanding of the ecology of the species.

4. Demography of two wild burro populations in the western USA
Project goal: To conduct a descriptive study of the demographic parameters of two wild burro populations inhabiting different ecosystems to provide empirical data for population modeling, to improve management of wild burros, and to contribute to a better understanding of the ecology of the species.

5. Developing and testing aerial survey techniques for wild burros
Project goal/FY17 goal: To test existing population estimation techniques, and identify and develop new population estimation techniques for burros that can be applied widely across their range. This research will enable more precise population estimation from aerial surveys for wild burros, thereby informing their management.

Keywords: Wild horse, burro, ecology, western Us, Rocky Mountains, USGS, Colorado State University