

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Genetic Analysis of Mule Deer Connectivity in Montana

Type of Project: Research

Project Discipline: Natural

Funding Agency: USGS

Other Partners/Cooperators: Montana State University

Effective Dates: 9/17/2009 - 8/31/2014

Funding Amount: \$29,939

Investigators and Agency Representative:

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Project Abstract:

The objectives of this proposed research is to use microsatellite DNA to assess the amount of connectivity among mule deer in Montana as a first step toward understanding the potential spread of CWD through Montana. Objectives include:

Short Term:

1. Run 300-400 mule deer samples from 12 target populations using 16 microsatellite loci.
2. Assess the relative amount of population structure in the plains vs. montane habitats, and whether rivers or mountain ridges may inhibit connectivity.

Long Term:

1. Estimate the amount of movement among populations using microsatellite markers while accounting for translocation efforts.
2. Compare the results of host genetic analyses with the results from viral markers and traditional radio-tracking.

Outcomes with completion dates: The final report shall be submitted within 90 days of the end of the project period.

Keywords: Mule deer, Montana, connectivity Chronic Wasting Disease (CWD), USGS, Montana State University