Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Statistical Support for Inventory and Monitoring Programs

Discipline: Natural
Type of Project: Technical Assistance
Funding Agency: USGS
Other Partners/Cooperators: Montana State University
Effective Dates: 9/1/2014 – 8/31/2019
Funding Amount: $20,618

Investigators and Agency Representative:
USGS Contact: Kathryn M. Irvine, Northern Rocky Mountain Science Center, 2327 University Way, Suite #2, Bozeman, MT 59715; 406-994-7492; kirvine@usgs.gov

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Project Abstract: Objectives of this project are: 1) Assist in various tasks stemming from the overarching need for robust statistical inferences based on long-term monitoring data. There is a need for routine data analysis and visualization of probabilistically sampled data; 2). Conduct simulation studies to explore effects of design misspecification for ratio estimators, effects of detection bias on ratio estimators for blister rust prevalence in Whitebark Pine, or sample size calculations under different sampling designs for ecological indicators of interest; and 3) Trend modeling of complex survey data as typically encountered with programs trying to collaborate and integrate across geographic boundaries.

Outcomes with completions dates: August 31, 2019

Keywords: Inventory and monitoring, statistical support, USGS, Montana State University