

Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Long-term monitoring of white-tailed ptarmigan at Rocky Mountain National Park: understanding the population decline and potential for recovery

Discipline: Natural

Type of Project: Research/Technical Assistance

Funding Agency: National Park Service

Other Partners/Cooperators: Colorado State University

Student Participation: Yes, Graduate Students

Effective Dates: 4/1/2016 to 3/30/2017

Funding Amount: \$24,271

Investigators and Agency Representative:

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Project Abstract: The white-tailed ptarmigan (*Lagopus leucura*) has been petitioned for listing under the Endangered Species Act (ESA) with a decision expected in 2017. Information gained from this proposal will help inform the listing decision. The Trail Ridge ptarmigan population experienced a severe decline from the mid-1970s to 1999 (Wang et al. 2002). In response to this decline, our research group re-initiated population surveys and banding in 2010. This work indicates that spring densities and reproductive performance have remained extremely low through 2015, and both population measures are less than 1/3rd of their historic highs observed in the 1970s (Wann et al. 2011-2013, NPS Investigator's Annual Reports; Wann et al. In review.).

Where possible, we will use radio-telemetry to continue monitoring hens previously collared that still have active radio-collars on them from 2015. We have a few new radio-collars available, and may replace collars on birds whose batteries are likely to fail this spring. This will allow us to gain some additional insights on nests selection and tracking nest and chick survival, where resources would allow

Keywords: White-tailed ptarmigan, monitoring, populations, Rocky Mountain National Park, Colorado State University