

RM-CESU Completion Report

Project Title: UW-NPS Research Center Research Support, 2012-2013

Park: Grand Teton NP

Project numbers: UWY-167, P12AC10632 and UWY-179, P13AC00395

Effective Dates: May 5, 2012 – 12/31/2016

Amount Funded: \$56,000 in FY12 and FY13

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Project Description: The UW-NPS Grand Teton Research Center cooperative research program includes a shared funding initiative between the University of Wyoming and the National Park Service which provides small research grants for projects conducted within the Greater Yellowstone Area to benefit science and understanding about the parks and surrounding areas. Grand Teton National Park annually provides a 'Research Needs' list on its website and through the UWNPS small grants call for proposals. In response and/or as unsolicited proposals, researchers propose projects to the University of Wyoming. These proposals are reviewed by a panel of University of Wyoming faculty as well as Grand Teton and Yellowstone National Park personnel, and are ranked and selected for grants based on merit, contributions to science, and applicability to park and ecosystem needs. In 2012-2013 the grants fund from GRTE totaled \$56,000. The final reports of the funded projects will be found in the Annual Report of the UW-NPS Research Center.

In addition to small research grants, these GRTE funds, along with matching grants from University of Wyoming all for the hiring of two student interns each summer to be housed at the UW-NPS AMK Ranch campus

During Summer 2013 the following projects were funded:

- Dr. Robert Al-Chokhachy. Montana State University. "Developing a stream temperature monitoring network in GTNP and YNP"
- Dr. Derek Craighead. Beringia South. "Using Genetic Data To Discern the Demographic History of Greater Sage-Grouse in NW Wyoming"
- Dr. Diane Debinski. Iowa State University. "Temporal Trajectories of Reproductive Phenology: A Window into Understanding Climate Change Effects" Dr. Michael Dillon. University of Wyoming. "Seasonal and altitudinal variation in fatty acid composition of native bees"
- Dr. Thomas Hahn. University of California Davis. "Investigating how conifer diversity and availability influence the abundance and biology of the red crossbills"

- Dr. Robert Ricklefs. University of Missouri-St. Louis. "The Effects of a Complex Trophic Structure of Mammalian Host Species on the Ecology of Emerging Infectious Disease"
- Dr. William Ripple. Oregon State University. "Aspen, Elk, Wolves and Trophic Cascades in the Northern Yellowstone: Are aspen recovering since the return of wolves"
- Dr. William Romme. Colorado State University. "Millennial-scale fire and vegetation history in forests of YNP determined through radiocarbon dating of soil charcoal"
- Dr. Scott Shaw. University of Wyoming. "Study of Parasitic Wasp in Association with Mountain Pine Beetle Outbreak"
- Dr. Sarah Spaulding. United States Geological Survey. "Atmospheric deposition of inorganic nitrogen in GTNP: seasonal and millennial impacts on high elevation lakes"
- Dr. Michael Weeks. University of Colorado- Boulder. "Environmental and Cultural History of Jackson Hole Wildlife Park"

Lesson Learned: The pooling of small grant monies from the NPS and the University of Wyoming has allowed the academic community to carry out needed research, on topics of interest to land and resource managers. These types of research projects are either exploratory or on unique topics within the Greater Yellowstone Ecosystem. The AMK Ranch, located in Grand Teton NP allows these researchers and graduate students a base of operations for this research.