

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Climate and Ecological Responses to Climate Change in the Rocky Mountains and Upper Columbia Basin: a Synthesis of the Best Available Science

Discipline: Natural
Type of Project: Technical assistance
Funding Agency: National Park Service
Other Partners/Cooperators: Montana State University
Effective Dates: 1/4/2010 - 6/30/2011
Funding Amount: \$34,486

Investigators and Agency Representative:

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Project Abstract: The goal of this project is to develop a comprehensive and scientifically rigorous synthesis of past, present and future climate in the Rocky Mountains and Upper Columbia Basin, as well as ecological responses to climate change within this geographic area. The synthesis will serve multiple agencies and audiences, but the primary target audience will be the parks in the GRYN, ROMN and UCBN networks, the NPS Inventory and Monitoring Program (I&M) and the Greater Yellowstone Coordinating Committee (GYCC). The synthesis will serve to prepare I&M staff and park managers for selecting climate changes response indicators for long-term monitoring. We will accomplish this goal through the following objectives:

1. Conduct a thorough literature review of climate related information within the geographic domain that encompasses the 12 national parks identified in Figure 1.
2. Hold regular meetings with the Climate Synthesis Steering Committee (CSSC) and NPS I&M Synthesis Workgroup to inform the committees of progress and any adjustments needed to the project.
3. Share preliminary drafts of the synthesis report with the CSSC for review and comment.
4. Provide assistance as needed to Dr. Isabel Ashton (NPS) on the ecological responses portion of the synthesis.
5. Provide a complete draft climate synthesis report by April 5, 2010
6. Provide assistance to NPS science editors during the reformatting of the report into more succinct products for a variety of audiences.
7. Provide a final report and draft manuscript to NPS by June 4, 2010. The target journal for the manuscript will be mutually decided by the Co-PIs and the CSSC.
8. Present the synthesis information at the I&M High Elevation Parks & Climate Change workshop to be held May 4-6, 2010 in Bozeman, Montana.

Outcomes with Completion Dates:

Early January 2010: A meeting of the CSSC and Drs. Dave McWethy and Isabel Ashton will be scheduled to establish specific work objectives and tasks to be completed during the period between January and May 2010.

April 19, 2010: Draft synthesis report submitted to NPS

May 4-6, 2010: Present climate synthesis information at I&M workshop

May 31, 2010: Final synthesis report and draft manuscript submitted to I&M

All final reports other products will be completed by June 30, 2011.

Keywords: Montana State University, National Park Service, Rocky Mountains, Columbia Basin, climate change, climate responses, ecological responses, synthesis