

Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Glacier and perennial snowfield mass balance of Rocky Mountain National Park (ROMO): Historic, Modern and Future

Discipline: Natural
Type of Project: Technical Assistance/Research
Funding Agency: National Park Service
Other Partners/Cooperators: Colorado State University
Student Participation: Yes
Effective Dates: 5/1/2016-4/30/2018
Funding Amount: \$71,754

Investigators and Agency Representative:

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Project Abstract: Small alpine glaciers and perennial snowfields are intrinsically connected to both their immediate alpine and broader downstream ecosystems through the physical and chemical characteristics of the runoff delivered to them. Pronounced atmospheric warming and changing precipitation patterns over recent decades has led to significant changes in glaciers globally (Gardner et al., 2013), thereby altering this glacier-ecosystem relationship. We propose a multi-faceted research project to develop a process-based understanding of modern glacier mass balance in Rocky Mountain National Park (ROMO). This understanding will be developed in the context of historic glacier response and will be used to make informed predictions of future change for improved science-based resource management.

Keywords: Glacier, snowfield, Rocky Mountain National Park, Colorado State University