

Project Title: Quantifying and interpreting acoustic resource conditions in National Park units

Task Agreement: **Mods:**

Discipline: Natural

Type of Project: Technical Assistance

Funding Agency: National Park Service

Other Partners/Cooperators: Colorado State University

Student Participation: Yes

Effective Dates: 9/1/2019-5/31/2020

Funding Amount: \$200,121

Investigators and Agency Representative:

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Project Abstract:

Project Goals – The Overall Goals are to provide direct support to park managers by measuring acoustic resource conditions in national parks and analyzing/interpreting the data to help inform park management actions regarding natural sounds, and help identify best practices for reducing noise.

Project Objectives

- analyze acoustic data from 20-25 NPS units annually and publish peer-reviewed reports to support park management (Appomattox Court House National Historic Park, Badlands National Park, Bandelier National Monument, Cabrillo National Monument, Canyonlands National Park, Carlsbad Caverns National Park, Catoclin Mountain Park, Craters of the Moon National Monument and Preserve, Denali National Park, Devil’s Tower National Monument, Gateway National Recreation Area, Gates of the Arctic National Park and Preserve, Golden Gate National Recreation Area, Harpers Ferry National Historical Park, Hawaii Volcanoes National Park, Herbert Hoover National Historic Site, Homestead National Monument of America, Isle Royale National Park, Joshua Tree National Park, Katmai National Park and Preserve, Kenai Fjords National Park, Lake Clark National Park and Preserve, Noatak National Preserve, Olympic National Park, Petroglyph National Monument, Sequoia Kings Canyon National Park, Sitka National Historic Park, Theodore Roosevelt National Park, Washita Battlefield National Historic Site, Wrangle Saint Elias National Park and Preserve, Yellowstone National Park, Yukon Charlie Rivers National Preserve.)
- Engage at least ten undergraduates – including military veterans – in analyzing and interpreting noise and light data, and support a postdoctoral researcher who leads and trains the undergraduate team.
- Rapidly and economically provide parks with condition summaries to inform park administrative actions, identify best practices for reducing noise in parks, and support interpretive rangers
- Provide capacity to trend and compare acoustic monitoring data across regions to document improvements in resource conditions
- Leverage unparalleled university technical capacity, infrastructure and experience with acoustic instrumentation and methods used by NPS
- Optimize use of the only university facility with specific capacity to process and analyze terabytes of park acoustic data.