

# Award Number: P14AC00952

**Project Number**: USUCP-73

**CFDA #:** 15.945

**Park/NPS Unit: Bryce Canyon National Park**

**Title of Project: Protect Visitor Experience, Health and Historic Structures via Wildlife Exclusion at Bryce Canyon – Phase 2**

**Administered through the:**  Colorado Plateau Cooperative Ecosystem Studies Unit Cooperative Agreement Number H1200-09-0005

**CESU Partner: Utah State University**

**PROJECT CONTACTS:**

**Principal Investigator:** *Dr. Nicole Frey, Extension Assistant Professor, Utah State University, 5230 Old Main Hill, Logan, UT 84322, Phone:435-586-1924, Fax: 435-865-8605; email: nicki.frey@usu.edu [mailing address: Biology Dept, SUU; 351 W. University Blvd., Cedar City, UT 84720]*

**Partner Administrative Contact*:*** *Clinton Hortin, Contract Administrator, Sponsored Programs, Office of Research and Graduate Studies, Utah State University, 1415 Old Main Hill, Logan, UT 84322-1415, 435.797.9089 (phone), 435.797.3543 (fax), clinton.hortin@usu.edu*

**NPS Certified ATR:** *Katie Johnson, Natural Resources Specialist, Bryce Canyon National Park, 435-834-4751 (phone), 435-834-4703 (fax), katie\_a\_johnson@nps.gov*

**NPS Technical Expert:** *Katie Johnson, Natural Resources Specialist, Bryce Canyon National Park, 435-834-4751 (phone), 435-834-4703 (fax), katie\_a\_johnson@nps.gov*

**FUNDING INFORMATION:**

**Amount Funded: $24,020**

**NPS Account Numbers (amounts in parentheses): PX.P0189480B.00.1 ($24,020)**

**Fund Source (e.g., ONPS, FLREA, CRPP, CESU, etc.): Concession Franchise Fees**

[x] NPS Funding

[ ]  Is this funded using a reimbursable account number? If yes, IMR contracting needs a copy of the Interagency Agreement.

**PROJECT DATES:**

**Start Date: April 1, 2014**

**End Date: March 31, 2016**

**NPS Administrative Contacts**

**Interim CESU Coordinator: Todd Chaudhry**, National Park Service/CPCESU, NAU P.O. Box 5765, Flagstaff, AZ 86011, 928-523-6638, Fax: 928-523-2014; todd\_chaudhry@nps.gov

**Intermountain Region Administrative Contact:** Kelly Adams, Grants and Agreements Specialist, National Park Service, 12795 West Alameda Pkwy, Lakewood, CO 80228 Phone: 303-969-2303 Fax: 303-969-2992 Email: Kelly\_adams@nps.gov

**FEDERAL FINANCIAL REPORTS SCHEDULE:**

***Federal Financial Reports*** (Check as required for project based on spending plan, period of performance, risk, cooperator history, etc.)

{ } Quarterly { } Semi-annually {X} Annually {X} Final

**Project SCHEDULE AND TECHNICAL REPORT DEADLINES:**

List all technical reports and products in sequential order as required in the scope (more lines and milestones can be added as needed):

*Project Start Date* – April 1, 2014

*Technical progress reports –* { } Quarterly { } Semi-annually {X} Annually

(Check as needed from PI to monitor progress of specific project. Content should be addressed in the scope.)

*Investigator’s Annual Report (IAR)* – December 31, 2014

*Database, Collections/Specimens, Archives, and Maps provided to the NPS ATR or Technical Expert* – March 1, 2017 (at the end of the 3rd year of study)

*Draft Executive Summary Report* – January 1, 2015

*Final Report for Phase 2 (Executive Summary of Work Performed during Phase 2)* – March 15, 2015

*Project End Date* – March 31, 2016

*Final SF425 FFR* must be submitted within 90 days of project end date

**PAYMENTS**

**2 CFR PART 215.22*:*** Cash advance (drawdown) to recipient organization shall be limited to the minimum amounts needed and be timed to be in accordance with the actual immediate cash requirements of the recipient organization in carrying out the purpose of the approved program or project. The timing and amount of cash advances shall be as close as is administratively feasible to the actual disbursements by the recipient organization for direct program or project costs and the proportionate share of any allowable indirect costs.

**2 CFR PART 215.25 (8)(e)(1):** Incur pre-award costs 90 calendar days prior to award or more than 90 calendar days with the prior approval of the Federal awarding agency. All pre-award costs are incurred at the recipient’s risk. (i.e. the Federal awarding agency is under no obligation to reimburse such costs if for any reason the recipient does not receive an award or if the award is less than anticipated and inadequate to cover such costs.)

**CESU REQUIRED PRODUCTS (may be different from those products required by the ATR – See Statement of Work for Products required by the NPS unit):**

The Principal Investigator will prepare a brief report abstract suitable for public distribution and two hard copies and an electronic version (in PDF file format) of the final report and mail all toJudy Bischoff, National Park Service, CPCESU, NAU P.O. Box 5765, Flagstaff, AZ 86011. Please be sure to include the project number (e.g.; NAU-###, UMT-###, UAZDS-###) and the P number on the cover page of the final report.

**PROJECT ABSTRACT:**

This project represents Phase 2 of an expanded research effort based on an initial pilot study investigating wildlife use of historic structures at Bryce Canyon National Park, as well as development of a comprehensive protocol to conduct safe and effective wildlife exclusions on historic structures. Several species and groups of wildlife, including rodents, ringtails, bats, badgers, and others, have been seen inside and around historic structures in Bryce’s Cultural Landscape Districts (near the Bryce Lodge and Deluxe cabins, as well as other historic structures). For a three year period (2013 – 2016) this project will support an investigation of animal use and movements in and around historic structures with a focus on capturing and radio-tracking ringtail, as well as develop strategies to relocate and exclude wildlife safely from buildings of historic and park administrative interest. Additionally, the project will investigate human-wildlife interactions in high use areas in the park and develop outreach and interpretive materials for park and concession staff and NPS visitors on safe and appropriate interactions with wildlife.

**Scope of Work:**

Ringtails will be captured at several historic buildings in Bryce Canyon National Park, using baited live traps. These animals will be ear-marked for visual identification and collared with a VHF radio-collar. The captured animal will be released at a pre-determined distance from the building. The animal will be radio-tracked on a minimum of a weekly basis until the animal disappears, the collar battery dies, or the animal returns to a building. Radio-tracking data will be collected, to be used to determine range and movement patterns in and surrounding historic structures. Additionally, remote cameras will be installed in natural and human-made areas to assess ringtail movement.

Second, we will use this information as well as trail camera and track plot surveys to calculate a population estimate and determine ringtail distribution. Third, using this information, we will create outreach documents (factsheets, operating procedures, etc. ) for Bryce Canyon National Park management and maintenance staff, other NPS units, and townspeople of surrounding areas that might also having negative ringtail (or other wildlife) experiences. Finally, we would like to host a workshop to train park staff, park visitors, and local community members on how to safely live with wildlife, focusing on small and medium sized mammals. We will exhibit the information we’ve gathered from the radio-tracking, trail cameras and track plots to illustrate the distribution and diversity of mammalian wildlife at Bryce Canyon and other similar habitats.

**COOPERATIVE AGREEMENTS OR TASK AGREEMENTS INVOLVING COOPERATORS WORKING ON-SITE**

**Background**

In cooperative agreements or task agreements with universities where the university utilizes interns, student employees, research associates (RAs) or cooperators on-site (hereafter called “cooperator personnel”), these cooperator personnel sometimes work on government sites in close proximity to federal employees. It is illegal (without specific statutory authority) for federal employees to directly supervise the cooperator personnel or any university employees or for the students or other university employees to supervise federal employees. When cooperator personnel are working on an NPS site, it is important that there is a clear distinction between students and federal employees.

**Office Environment and Vehicles**

* The office space of the cooperator personnel and NPS personnel should be clearly labeled (Name and NPS or University affiliation on office or cubicle space).
* Cooperator personnel should be listed separately from NPS personnel in telephone lists, other identification or organizational rosters, and publication credits.
* Cooperator personnel should not receive “all-employee” e-mail or other communications intended for NPS personnel (unless it relates directly to the work the cooperator is doing for the NPS). When the e-mail does relate to the work being done, a copy of the same e-mail message should be sent to the University or cooperator’s supervisor.
* Cooperator personnel may use NPS e-mail systems when the communication relates directly to the work the cooperator is doing for the NPS. The e-mail addresses of the cooperator personnel must include a label associated with their NPS e-mail address that identifies the cooperator’s status (i.e., “Linda Webb, Cooperator” would be the label associated with the e-mail address, linda\_webb@contractor.nps.gov). Doing so clearly identifies this individual each time they send an e-mail message using the NPS system, and it identifies their status as a research associate, student intern or student employee in the e-mail directory.
* Unless stipulated in the agreement, cooperator personnel should not drive government vehicles.
* Unless stipulated in the agreement, cooperator personnel should not ride as a passenger in a government vehicle. When this is planned as part of the agreement, an appropriate amount of liability insurance should be negotiated.
* Prior written approval by the Park Superintendent or Center Manager must be obtained in order for a task to allow cooperator personnel to drive or ride in government vehicles.

**Supervision and Scheduling**

* Each task must specify the university’s/cooperator’s supervisor for the cooperator personnel.
* Unless stipulated in the agreement, NPS staff should not set hours for cooperator personnel, specify where the work should be done, or conduct performance appraisals. National Park Service staff may give performance feedback to the cooperator personnel supervisor.
* Cooperator personnel should report leave, scheduling, and other related issues to the university or cooperator’s supervisor, not to NPS employees. The supervisor of the cooperator personnel should then communicate with the NPS. National Park Service employees cannot directly supervise cooperator personnel on a day-to-day basis. Work should be given to the cooperator personnel (via the cooperator’s supervisor) on a “task basis.” Cooperators should work without NPS supervision to accomplish each task, although technical consultations and cooperation is permissible.
* The Cooperator will be responsible for any disciplinary action needed to correct student employee conduct or performance problems. The NPS agreements technical representative will inform the university/cooperator’s supervisor of any conduct or performance problems.
* The Cooperator will remove student employees from their positions if they fail to improve performance or address conduct issues.
* The NPS will review and provide feedback to students or interns regarding work assignments.
* The NPS will inform the cooperator of conduct or performance problems with cooperator personnel so that the university can counsel employees and correct the performance problems.
* The NPS will recommend to the cooperator dismissal of cooperator personnel based on conduct or performance issues.
* The Cooperator will hire students, interns or RAs to work on NPS tasks identified in the agreement. Hiring will be conducted in consultation with the NPS Agreements Technical Representative (ATR).
* The Cooperator will: pay students, interns or RAs for hours they have worked in support of the agreement.

**Representation and Communication**

* Cooperator personnel cannot in any way represent themselves to the public as NPS employees.
* Cooperator personnel are required to wear visible identification at all times.

**Other Issues**

* Cooperator personnel should not list an NPS affiliation on publications, but rather should list the cooperative agreement under which the work was performed.
* Cooperator personnel should not be invited to official NPS “social” events.
* Cooperator personnel will follow the local policy of the facility when federal facilities are closed due to early release for holidays, snow days, etc.

**OUTCOMES – these outcomes reflect a 3-Year study on wildlife use of historic structures. At the end of the Year 2 study, an Executive Summary will be submitted to provide an update on efforts to date.**

* Data to develop written protocols and guidelines for safe and effective wildlife relocations that do not negatively impact visitor opportunities to view wildlife in their natural habitat.
* Data to develop an effective wildlife exclusion plan for key historic structures in the park including the Bryce Canyon Lodge, Deluxe Cabins and Sunrise Camper Store.
* Interpretive materials and programs will be produced in collaboration with interpretive rangers to improve human knowledge of the impacts of human-wildlife interactions on the safety of the wildlife.
* Information gathered regarding human-wildlife interactions will be published, and used to improve scientific knowledge regarding the expectations and knowledge of humans regarding what is a SAFE wildlife encounter.
* Data gathered and analyzed regarding ground squirrel foraging will be published and increase the public’s awareness of the effects of the availability of human food on natural foraging behaviors of wildlife.
* Data will assist graduate and undergraduate students with the development of observation skills, database management, statistical analysis and results interpretation, including students from Utah State University and Southern Utah University.
* Outputs may be used to assist any and all county, state and national park managers to improve positive human-wildlife interactions and discourage interactions that harm wildlife.

**PRODUCTS - these products reflect a 3-Year study on wildlife use of historic structures. At the end of the Year 2 study, an Executive Summary will be submitted to provide an update on efforts to date. Final products will be submitted after the end of Year 3. In the event that funding is not available to conclude the 3rd year of study, the products listed below will be delivered, as appropriate, to conclude this study.**

* Documentation of wildlife intrusion in all Deluxe Cabins, Standard Cabins and the Bryce Lodge via a spreadsheet database (Excel or Access) including photographs, damage assessments and construction/exclusion needs per building.
* Development of a protocol for sealing historic structures against ringtails and similar wildlife.
* Development of a protocol for translocating ringtail, and other wildlife such as woodrats, chipmunks, and bats, from historic structures into suitable habitat within the park. Protocol will include a safety (Job Hazard) analysis.
* Maps showing locations of radio-tracked ringtails for public display and interpretation values.
* Information presented to the appropriate staff to improve and update Bryce Canyon natural resources webpage improvements including information on ringtails, small mammals, and human-wildlife interactions.
* Development of a public presentation on the impact of human food on ground squirrel foraging.
* Development of a presentation on the different experiences and expectations of visitors to Bryce Canyon National Park, as regards wildlife and wildlife encounters.
* Publication of findings in a peer-reviewed (or NPS-focused) journal.

**BUDGET: *See Attached Excel Spreadsheet for Budget for Year 2 of the project.***

PLEASE NOTE that this funding is for the second phase of the project. It is expected that funds will be available in FY2015 for phase 3 of this project, subject to availability and project approval.