



APPLICATION FOR A SCIENTIFIC RESEARCH AND COLLECTING PERMIT

United States Department of the Interior

National Park Service

All or some of the information you provide may become available to the public.

OMB # 1024-0236
Exp. Date 07/31/2020
Form No. 10-741a

Name of the National Park Service area you are applying to: Whiskeytown	
Type of application: New application	Please enter numbers for permit renewal or modification requests: Previously assigned NPS study number: Previously assigned NPS permit number:

Contact information for the current principal investigator		
Principal investigator: Dr Bruce Bury	Office phone: 541-750-1010	
Mailing address of principal investigator: U.S. Geological Survey 777 NW 9th Street, Suite 400 Corvallis, OR 97330 United States	Alternative phone: Office fax: Office email address: buryb@usgs.gov	
Name of the current institution represented USGS Forest and Rangeland Ecosystem Science Center		
Additional investigators or key field assistants (first name, last name, office phone, office email)		
Name: Donald J. Ashton	Phone: 541-286-8806	Email: ashton.don@gmail.com
Name: Dr David J. Germano	Phone: 661-589-7846	Email: dgermano@csu.edu
Name: Dr Gwendolyn W. Bury	Phone: 541-760-0719	Email: gwen.bury@gmail.com
Name: Dr R Bruce Bury, P.I.	Phone: 541-750-1010	Email: buryb@usgs.gov

Scientific Study Information
Study Title (maximum 300 characters) Status and Trends of Aquatic Amphibians and Reptiles of Whiskeytown National Recreation Area (WHIS)
Purpose of the study (maximum 4000 characters) We want to determine any changes in populations of selected species over time. Most of the effort is to revisit sites sampled at WHIS in 2002-2005. Of particular note, the Carr Fire in 2018 burned across almost all the park. In 2002-2003, we conducted inventories at WHIS. Stream surveys revealed Tailed frogs at the higher elevations on Shasta Bally that reaches 6500 ft elev. We found this unique frog at five sites. They are an isolated mountain-top relict in the park. In 2016, we visited once (with permit) to obtain tail tips for a genetic study of the species in the region. We only found two tadpoles and tissue (small piece of tail tip) revealed them as being in the Shasta clade, an inland highly-distinct group (possibly in a new species). We wish to learn if they survived the Carr Fire of 2018. In 2004-2005, we conducted stream surveys at 10 sites that are all tributaries of Clear Creek (primary water in park). We will determine the occurrence and relative abundance of aquatic herpetofauna following the same standardized methods. Wildfire occurs at different levels so we may discover patches or stretches of waters that had no, light or intensive burning. We will compare those. Also, we will compare general status of populations to non-burned areas we have sampled to the west (e.g., Trinity River and tributaries). However, these are not true controls as they are in different watersheds and objectives of studies varied. Still, it is all we have. In 2004, we caught, marked and released 125 Western pond turtles in WHIS reservoir. We wish to re-trap for turtles in the main arm (Clear Creek) and other arms as available in 2019. We want to learn if any turtles show signs of fire scars or injury. Also, we will try to walk the edges of the arms to see if any nests hatched out. This turtle has eggs and hatchlings overwinter in the nest, and emerge in spring. To our knowledge, no one has surveyed post-fire for nesting in this turtle. We will line up and walk the shore areas. The species often nests in same area, so we if find one or some nests, then we will try to repeat surveys. In 199
Summary of proposed field methods and activities (extract from the study proposal where appropriate - maximum 4000

characters)

We propose to observe and hand capture animals, measure them (e.g., total length) and release immediately. We will attempt to repeat our earlier techniques but selectively as we lack funding as before. First, we will walk prior study plots (mapped and with GPS coordinates) to do a general assessment of habitat conditions and relative abundance of herpetofauna. Then, as time and support allow, repeat prior methods. For the 10 sites with the most data, we will walk for 2 hrs (3 person crew) catching and recording all herpetofauna.

Study Schedule**Initial starting date of the study:**

Oct 20, 2018

Estimated date the entire study may end:

Sep 26, 2019

Field Schedule**Date to begin study within the park this application year:**

Oct 20, 2018

Date to end study within the park this application year:

Sep 08, 2019

Does your study propose to involve any of the following?

Handle Live Vertebrates
T&E Species

Activity Type:

Research

Do you anticipate receiving funding assistance from the U.S. Federal Government for this study? (Yes or No)

Yes

If yes specify the agency(s):

Dept. of Interior - National Park Service

Where will data, maps, photos, etc. (not specimens) reside upon completion of this study?

We will provide a report to WHIS. If sufficient results discovered, we will publish the results (what we do).

Location(s) where you propose activities will take place within the National Park System area(s):

All creeks and streams in park unit that are perennial. Only sections of each water is surveyed and surveys are non-destructive.

Your proposed method of access (vehicles, aircraft, boat, snowmobile, foot, etc.):

Drive to turnouts, and then walk creeks and streams.



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Handling or Collection of Specimens

Would you like to handle or collect specimens? Yes

If you respond "Yes", please complete this entire section of the application (otherwise you may skip the remainder of this section).

Scientific description of collected specimens and/or material originating from such specimens proposed to be loaned to the non-NPS institution identified below (include taxonomic group or name, or type of material; sample size, quantity, frequency, and location):

We have caught, marked and released 125 Western pond turtles in WHIS reservoir. We will continue the same code series (RB Bury sequence).

We will catch, measure (usually just total length) and release animals, as encountered. If tadpoles, we will attempt to capture a small series (20) to measure and release.

We wish to take 5 more tail tips from Tailed frogs for continuation of our genetic studies on the species in the region. We have one manuscript (range wide Calif. to B.C. to MT) close to being submitted to a journal and a follow-up study (Klamath-Siskiyou ecoregion) in preparation and figures are completed. The Shasta clade appears distinct and we consider it important to increase sample size at WHIS to denote potential variation.

Proposed disposition of specimens identified for handling or collection:

Temporarily captured or handled (may include marking) and then released undamaged in place

If you propose that specimens and/or material originating from such specimens be retained permanently, they will become part of National Park Service collections. You may request that such specimens and/or material originating from such specimens be loaned to one or more non-NPS institutions for management. If you do make this request, you accept responsibility for obtaining and submitting to NPS the signature of the official at each proposed repository using the form attached as Appendix A. Note that all specimens collected and material originating from such specimens remain Federal property.

Certification

I certify that this application is accurate and complete. I understand a formal study (research) proposal for new or modified studies must be provided to NPS before this application can be considered. I authorize the National Park Service to seek peer reviews of my proposal.

Signature of principal investigator: _____

Date: _____

For National Park Service use only

Date received

Assigned study number

Assigned permit number

Paperwork Reduction Act Statement: A federal agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. Public reporting for this collection of information form is estimated to average 1.38 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the forms. Direct comments regarding this burden estimate or any aspect of this form to Dr. John G. Dennis, Natural Resources (3130 MIB), National Park Service, 1849 C Street, N.W., Washington, DC 20240.

Privacy Act Notice: Scientific research, education and collecting activities within units of the National Park System that may impact parks invoke a permitting and reporting requirement per regulations at 36 CFR 1.6 (Permits), 36 CFR 2.1 (Preservation of Natural, Cultural and Archeological Resources), and 36 CFR 2.5 (Research Specimens). The National Park Service collects information about permit applicants and permittees to administer and document research, collecting, and reporting activities within parks. The information disclosed on this form is required and may result in denial of permit applications if not provided.

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