

SCIENTIFIC RESEARCH AND COLLECTING PERMIT

Grants permission in accordance with the attached general and special conditions

United States Department of the Interior
National Park Service

Grand Teton



Study#: GRTE-00514

Permit#: GRTE-2021-SCI-0014

Start Date: Mar 01, 2021

Expiration Date: Oct 31, 2021

Coop Agreement#:

Optional Park Code:

Name of principal investigator:

Name: Dr Jenelle Dowling

Phone: 4066243320

Email: projects@adventurescientists.org

Name of institution represented:

Adventure Scientists

Additional investigators or key field assistants:

Name: Jenelle Dowling, PhD

Phone: 406-624-3320 x704

Email: jenelle@adventurescientists.org

Name: Michelle Toshack

Phone: 406-624-3320 x704

Email: michelle@adventurescientists.org

Name: Max Littlefield

Phone: 406-624-3320 x704

Email: max@adventurescientists.org

Study Title:

Wild and Scenic Rivers - Snake River, Grand Teton NP

Purpose of study:

We will conduct a nationwide water quality monitoring study on Wild and Scenic River (WSR) segments across 40 states on federal lands. This project will update the water quality status of the majority of rivers across the National Wild and Scenic River system (NWSRS). Adventure Scientists is prepared to provide advisory data to support federal and state agencies in their efforts to implement the Clean Water Act (CWA), which include TMDLs (total maximum daily loads) as well as 303(b) and 303(d) listings. Adventure Scientists has designed the project to meet the priorities and standards of a variety of stakeholders and to ensure data can improve agencies' decision-making capacity. In addition, state water quality agencies have expressed that regular monitoring of all surface waters improve their management ability, which includes updating assessments of impaired waters and collecting data on waters identified as having a good status but with no data to verify those conditions. The multi-level and inter-agency relationships that develop during the life of the project should allow us to better coordinate across groups in response to water quality issues in the NWSRS.

Several states require repeat monitoring and minimum data points to determine the status of surface waters, including rivers, in order to comply with the CWA. Therefore, Adventure Scientists is planning for four years of data collection (until fall/winter 2022) to enable the collection of sufficient data for river segments with significant data gaps/needs (e.g., unassessed and unknown waters). At full scale, volunteers may be deployed in 40 states.

Subject/Discipline:

Water / Hydrology

Locations authorized:

Research activities will take place in Grand Teton National Park and data collection will occur in designated Wild and Scenic reaches of the Snake River. Exact points for data collection are to be determined, and will be marked by volunteers when collecting data.

Transportation method to research site(s):

Sampling sites will be reached on foot where possible, and otherwise by raft or kayak.

Collection of the following specimens or materials, quantities, and any limitations on collecting:

Name of repository for specimens or sample materials if applicable:

NPS General Conditions for Scientific Research and Collecting Permit (available at the RPRS HELP page) apply to this permit. The following specific conditions or restrictions, and any attached conditions, also apply to this permit:

We appreciate your interest in advancing science in Grand Teton National Park and/or the John D. Rockefeller, Jr. Memorial Parkway.

THIS PERMIT SERVES AS YOUR GATE PASS THROUGH 12/31/2021.

You are required to carry your Research Permit with you at all times; it serves as a gate pass for the duration of your fieldwork. Please make copies of this document for each co-investigator and field assistant and have them carry a copy of your Research Permit with them at all times in the park.

COVID PROTOCOLS: Please be advised Grand Teton National Park follows Teton County Health Orders <http://www.tetoncountywy.gov/2064/Current-Health-Orders-and-Guidance> and the President's Executive Order 13991, <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-protecting-the-federal-workforce-and-requiring-mask-wearing/> which requires park visitors, park employees, contractors, and volunteers to wear a mask when 6' social distancing guidelines cannot be followed. "Section 1: Accordingly, to protect the Federal workforce and individuals interacting with the Federal workforce, and to ensure the continuity of Government services and activities, on-duty or on-site Federal employees, on-site Federal contractors, and other individuals in Federal buildings and on Federal lands should all wear masks, maintain physical distance, and adhere to other public health measures, as provided in CDC guidelines." CDC website: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/about-face-coverings.html>

Please make your camping reservations well in advance through www.recreation.gov. This applies to all camping in the park, including backcountry campsites.

By signing this permit, you agree that you are responsible for the research-related activities of your staff. Please ensure that field staff adhere to all conditions of your permit. Field staff must possess a copy of this permit at all times while in the field.

Your research permit does not authorize you to enter closed or restricted areas (service roads, wildlife closure areas, carcass dump sites, bear management areas, wolf den sites, fish spawning areas, bird nesting areas, etc.) unless otherwise specified within this permit.

Report all emergencies by calling 911.

If you need additional information about Grand Teton National Park/John D. Rockefeller, Jr. Memorial Parkway (backcountry permits, maps, and general park information) please visit our website or call (307) 739-3300.

You are required to conduct your research activities out of public view. (Unless otherwise noted in your permit stipulations).

This permit does not authorize the bearer or those that accompany them to conduct commercial filming activities. Commercial film permits must be applied for <http://www.nps.gov/grte/playourvisit/filming.html>.

When you want to share your research results with the media, please contact Grand Teton's Public Affairs Office at GRTE_Public_Affairs_Office@nps.gov.

STIPULATIONS SPECIFIC TO THIS PERMIT:

Approved for: 9 trips, 1 day each, up to 4 people and 4 craft. Where sample locations are accessible by trail or on foot, groups may access sites on foot.

Reaches include: Snake River Headwaters Wild and Scenic River
Bailey Creek (Snake River Headwaters Wild and Scenic River)
Blackrock Creek (Snake River Headwaters Wild and Scenic River)
Buffalo Fork (Snake River Headwaters Wild and Scenic River)
Crystal Creek (Snake River Headwaters Wild and Scenic River)
Granite Creek (Snake River Headwaters Wild and Scenic River)
Gros Ventre River (Snake River Headwaters Wild and Scenic River)
Hoback River (Snake River Headwaters Wild and Scenic River)
Lewis River (Snake River Headwaters Wild and Scenic River)
Pacific Creek (Snake River Headwaters Wild and Scenic River)
Shoal Creek (Snake River Headwaters Wild and Scenic River)
Willow Creek (Snake River Headwaters Wild and Scenic River)
Wolf Creek (Snake River Headwaters Wild and Scenic River)

BACKCOUNTRY PRACTICES

Backcountry/wilderness travel involves considerable risks, especially in winter. Carry survival gear, be trained in and prepared for unexpected overnight stays. Establish and follow trip planning and check-in procedures for field crews. Consult park staff for advice or conditions training in water safety, avalanche hazards, or other risks associated with fieldwork.

Grand Teton National Park/John D. Rockefeller, Jr. Memorial Parkway recommends that all research groups conduct backcountry tracking with all additional investigators or key field assistants. In the event that your research party does not check in or you cannot get a hold of them, please report to the Teton Interagency Dispatch Center at 307-739-3301.

If you are conducting research in the backcountry, we strongly recommend you carry and know how to use bear spray. We recommend a 7.9 ounce can per person carried at all times. We also recommend that you travel in groups and make noise to warn bears of your presence.

Researchers are prohibited from carrying firearms while conducting research, and bringing firearms in government buildings and in government vehicles including but not limited to cars, boats, and aircraft (unless otherwise authorized by the superintendent).

CULTURAL RESOURCES

Cultural resources must not be adversely impacted by your research activities. Ground disturbance (e.g., digging) must be specifically authorized in advance. Report any archaeological findings (artifacts, historical trash, rock cairns) to the park archaeologist at 307-739-3643.

Should archaeological remains be uncovered during the implementation of the proposed project, the crew will leave all artifacts in place and will not remove them from the original location. In addition, the crew will stop working in that immediate area and contact the Cultural Resources Branch Chief at 307-739-3671 or 307-699-2792 for further instruction.

COLLECTING AND CURATION CONDITIONS

Permits that have proposed handling and collecting specimens, and that have signed and submitted an Appendix A Repository form have agreed, regardless of where specimens are kept, that they accession and catalog the items into the National Park Service's catalog system, and must bear National Park Service accession and catalog numbers. For assistance, contact the Curator's Office at 307-739-3494. If specimens collected are destroyed during analysis, you are required to document the destruction with the subject matter expert or the park curator.

If you are authorized to place equipment or plot markers in Grand Teton National Park/John D. Rockefeller, Jr. Memorial Parkway, you are required to GPS and submit their locations. You are also required to label all your equipment with the following information:

Name

Phone#

Research Study #XXXX

Expected retrieval date:

FIELD EQUIPMENT PRACTICES AND PREVENTING CROSS-CONTAMINATION

Before utilizing any wading gear or aquatic sampling equipment ensure that it has been appropriately cleaned, drained and dried; and after use in any 1 water body and before the use in another. You must properly clean the equipment to remove the potential spread of any variety of aquatic invasive species (AIS). If you plan to use watercraft, boats require a Grand Teton National Park sticker please visit: <https://www.nps.gov/grte/planyourvisit/boat.htm> and also require a Wyoming Aquatic Invasive Species sticker issued by the Wyoming Game and Fish Department <https://wgfd.wyo.gov/Fishing-and-Boating/Aquatic-Invasive-Species-Prevention/AIS-Decal>.

DELIVERABLES: CURATED SPECIMENS, DATA, ANNUAL AND FINAL REPORTS

You must complete an Investigator's Annual Report (IAR) via the internet by 3/1/2022 and submit copies of journal articles, theses, and dissertations that resulted from park research activities to the office of Science and Resource Management following NPS report requirement guidelines.

If you have questions regarding your research permit, please call 307-739-3480.

Summary of permitted field methods and activities:

This project empowers Adventure Scientists' volunteer network with the tools, technology, and guidance to collect water quality data across over 13,000 miles of WSRs managed by USFS, BLM, and NPS. Adventure Scientists will leverage its volunteer communities of whitewater rafters and kayakers as well as backpackers, mountain bikers, day-hikers, and trailrunners to collect the necessary data. We will launch the project's first phase as a small-scale nationwide effort, with priority given to the nearly 4000 river miles of unassessed and unknown water quality managed by your agencies. These rivers span 16 of 40 states with WSRs. In the second project phase, Adventure Scientists intends to expand the project scope by prioritizing river segments with significant data gaps as well as those with identified impairments under the CWA. We will also incorporate previously collected data throughout the rivers managed by these three federal agencies.

We will focus on parameters that can be collected via field instruments or observations. Volunteers will deploy Hach probes that monitor dissolved oxygen (DO), pH, temperature, total dissolved solids (TDS), salinity and conductivity. Field equipment will be attended at all times by the volunteer and the volunteer will not be installing or leaving any equipment in the field. While in the field, volunteers will collect both chemical and physical condition data, requiring volunteers to: (1) access pre-selected field sites; (2) mark GPS coordinates and exact time of data collection; (3) deploy a data logger/sensor for the collection of basic parameters (temp, DO, pH, conductivity, TDS, salinity) in situ; and (4) conduct a qualitative habitat assessment and take photos.

Recommended by park staff(name and title):

Gus Smith, Ph.D. - Chief of Science and Resource Mgmt

Reviewed by Collections Manager:

Yes X No

Approved by park official:

Date Approved:

Title:

Chief of Science and Resource Mgmt

I Agree To All Conditions And Restrictions Of this Permit As Specified

(Not valid unless signed and dated by the principal investigator)

Jenelle Bowling

17 Mar 2021

(Principal investigator's signature)

(Date)

THIS PERMIT AND ATTACHED CONDITIONS AND RESTRICTIONS MUST BE CARRIED AT ALL TIMES WHILE CONDUCTING RESEARCH ACTIVITIES IN THE DESIGNATED PARK(S)



GENERAL CONDITIONS For SCIENTIFIC RESEARCH AND COLLECTING PERMIT

United States Department of the Interior
National Park Service

- 1. Authority** - The permittee is granted privileges covered under this permit subject to the supervision of the superintendent or a designee, and shall comply with all applicable laws and regulations of the National Park System area and other federal and state laws. A National Park Service (NPS) representative may accompany the permittee in the field to ensure compliance with regulations.
- 2. Responsibility** - The permittee is responsible for ensuring that all persons working on the project adhere to permit conditions and applicable NPS regulations.
- 3. False information** - The permittee is prohibited from giving false information that is used to issue this permit. To do so will be considered a breach of conditions and be grounds for revocation of this permit and other applicable penalties.
- 4. Assignment** - This permit may not be transferred or assigned. Additional investigators and field assistants are to be coordinated by the person(s) named in the permit and should carry a copy of the permit while they are working in the park. The principal investigator shall notify the park's Research and Collecting Permit Office when there are desired changes in the approved study protocols or methods, changes in the affiliation or status of the principal investigator, or modification of the name of any project member.
- 5. Revocation** - This permit may be terminated for breach of any condition. The permittee may consult with the appropriate NPS Regional Science Advisor to clarify issues resulting in a revoked permit and the potential for reinstatement by the park superintendent or a designee.
- 6. Collection of specimens (including materials)** - No specimens (including materials) may be collected unless authorized on the Scientific Research and Collecting permit.

The general conditions for specimen collections are:

- Collection of archeological materials without a valid Federal Archeology Permit is prohibited.
- Collection of federally listed threatened or endangered species without a valid U.S. Fish and Wildlife Service endangered species permit is prohibited.
- Collection methods shall not attract undue attention or cause unapproved damage, depletion, or disturbance to the environment and other park resources, such as historic sites.
- New specimens must be reported to the NPS annually or more frequently if required by the park issuing the permit. Minimum information for annual reporting includes specimen classification, number of specimens collected, location collected, specimen status (e.g., herbarium sheet, preserved in alcohol / formalin, tanned and mounted, dried and boxed, etc.), and current location.
- Collected specimens that are not consumed in analysis or discarded after scientific analysis remain federal property. The NPS reserves the right to designate the repositories of all specimens removed from the park and to approve or restrict reassignment of specimens from one repository to another. Because specimens are Federal property, they shall not be destroyed or discarded without prior NPS authorization.
- Each specimen (or groups of specimens labeled as a group) that is retained permanently must bear NPS labels and must be accessioned and cataloged in the NPS National Catalog. Unless exempted by additional park - specific stipulations, the permittee will complete the labels and catalog records and will provide accession information. It is the permittee's responsibility to contact the park for cataloging instructions and specimen labels as well as instructions on repository designation for the specimens.
- Collected specimens may be used for scientific or educational purposes only, and shall be dedicated to public benefit and be accessible to the public in accordance with NPS policies and procedures.
- Any specimens collected under this permit, any components of any specimens (including but not limited to natural organisms, enzymes or other bioactive molecules, genetic materials, or seeds), and research results derived from collected specimens are to be used for

scientific or educational purposes only, and may not be used for commercial or other revenue - generating purposes unless the permittee has entered into a Cooperative Research And Development Agreement (CRADA) or other approved benefit - sharing agreement with the NPS. The sale of collected research specimens or other unauthorized transfers to third parties is prohibited. Furthermore, if the permittee sells or otherwise transfers collected specimens, any components thereof, or any products or research results developed from such specimens or their components without a CRADA or other approved benefit-sharing agreement with NPS, permittee will pay the NPS a royalty rate of twenty percent (20 %) of gross revenue from such sales or other revenues. In addition to such royalty, the NPS may seek other damages to which the NPS may be entitled including but not limited to injunctive relief against the permittee.

7. **Reports** - - The permittee is required to submit an Investigator's Annual Report and copies of final reports, publications, and other materials resulting from the study. Instructions for how and when to submit an annual report will be provided by NPS staff. Park research coordinators will analyze study proposals to determine whether copies of field notes, databases, maps, photos, and / or other materials may also be requested. The permittee is responsible for the content of reports and data provided to the National Park Service

8. **Confidentiality** - - The permittee agrees to keep the specific location of sensitive park resources confidential. Sensitive resources include threatened species, endangered species, and rare species, archeological sites, caves, fossil sites, minerals, commercially valuable resources, and sacred ceremonial sites.

9. **Methods of travel** - Travel within the park is restricted to only those methods that are available to the general public unless otherwise specified in additional stipulations associated with this permit.

10. **Other permits** - The permittee must obtain all other required permit(s) to conduct the specified project.

11. **Insurance** - If liability insurance is required by the NPS for this project, then documentation must be provided that it has been obtained and is current in all respects before this permit is considered valid.

12. **Mechanized equipment** - No use of mechanized equipment in designated, proposed, or potential wilderness areas is allowed unless authorized by the superintendent or a designee in additional specific conditions associated with this permit.

13. **NPS participation** - The permittee should not anticipate assistance from the NPS unless specific arrangements are made and documented in either an additional stipulation attached to this permit or in other separate written agreements.

14. **Permanent markers and field equipment** - The permittee is required to remove all markers or equipment from the field after the completion of the study or prior to the expiration date of this permit. The superintendent or a designee may modify this requirement through additional park specific conditions that may be attached to this permit. Additional conditions regarding the positioning and identification of markers and field equipment may be issued by staff at individual parks.

15. **Access to park and restricted areas** - Approval for any activity is contingent on the park being open and staffed for required operations. No entry into restricted areas is allowed unless authorized in additional park specific stipulations attached to this permit.

16. **Notification** - The permittee is required to contact the park's Research and Collecting Permit Office (or other offices if indicated in the stipulations associated with this permit) prior to initiating any fieldwork authorized by this permit. Ideally this contact should occur at least one week prior to the initial visit to the park.

17. **Expiration date** - Permits expire on the date listed. Nothing in this permit shall be construed as granting any exclusive research privileges or automatic right to continue, extend, or renew this or any other line of research under new permit(s).

18. **Other stipulations** - This permit includes by reference all stipulations listed in the application materials or in additional attachments to this permit provided by the superintendent or a designee. Breach of any of the terms of this permit will be grounds for revocation of this permit and denial of future permits.