

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

Lake Clark



Study#: LACL-00082

Permit#: LACL-2022-SCI-0001

Start Date: Jan 01, 2022

Expiration Date: Dec 31, 2022

Coop Agreement#:

Optional Park Code:

Name of principal investigator:

Name: Ms Michelle Toshack

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Name of institution represented:

Adventure Scientists

Additional investigators or key field assistants:

Name: Michelle Toshack

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Study Title:

Wild and Scenic Rivers

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 Quality

Locations authorized:

Research activities will take place in Lake Clark NP and data collection will occur in the the Mulchatna, Chilikadrotna, and Tlikakila Rivers. Exact points for data collection are to be determined, and will be marked by volunteers when collecting data. The permit covers both the field work and the use of the uplands along the river bodies.

Transportation method to research site(s):

Sampling points will be reached by kayak or raft.

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:

Lake Clark National Park and Preserve

Conditions and Stipulations for Research and Collecting Permits

Research applications will be reviewed by the Natural and Cultural Resource Program Managers and Superintendent. Once a research proposal is received and has been deemed to be an appropriate activity in the context of this National Park, the next step in the approval process involves compliance with applicable NPS regulations, policy and law. We have established an integrated compliance process for all proposed research activities. The primary compliance requirements that must be addressed prior to project approval include: potential environmental impacts (NEPA), potential impacts to cultural resources (NHPA Section 106), potential to impact

subsistence activities or the resources upon which they depend (Section 810, Alaska National Interest Lands Conservation Act), and a Minimum Requirement determination for wilderness lands (Section 4(c) of the 1964 Wilderness Act). If you are planning to conduct your work in designated or eligible wilderness within the park, some useful information for planning your work can be found by navigating to <http://www.nps.gov/akso/nature/science/research.cfm> and selecting the link to the Guide to Conducting Wilderness Research in Alaska's National Parks.

Researchers should allow at least three weeks for this review process.

Permittee / principle investigator (PI) will comply with all Federal regulations, including the park compendium (available at <http://www.nps.gov/akso/compendium/index/htm>) and the following specific conditions or restrictions:

- If a proposed project depends upon NPS staff, equipment, aircraft, housing, office space, etc., or otherwise indicates special needs, the NPS ability to accommodate those needs will be considered prior to approval. Please contact Research Coordinator (Buck Mangipane; 907-717-7044; Buck_Mangipane@nps.gov) prior to applying for a permit if your project is dependent upon NPS support.
- All researchers must notify Research Coordinator or a park designated liaison when they expect to be in the park. You may leave a message with Park Dispatch at (907-781-2218).
- While within Lake Clark National Park and Preserve, all food and scented or odorous items must be stored in a manner that is secure from bears and other wildlife. Use of park approved bear-resistant food containers is required for any work or travel within ½ mile of the shoreline of Kontrashibuna Lake, Tazimina Lakes, Telaquana Lake, Turquoise Lake, Upper Twin Lake, Lower Twin Lake, and Crescent Lake, and within ½ mile of the Cook Inlet coastline.
- From May 1st to November 1st of each year, use of functional and active bear resistant electrical fencing is required when camping within ½ mile of the Cook Inlet Coastline of Lake Clark National Park.
- All camping must utilize minimum impact techniques such as Leave No Trace to protect park resources.
- To prevent the spread of invasive plants into the park, clothing and gear, including modes of transportation, camping gear and other equipment, should be free of soil and plant material before entering the park.
- Researchers authorized to collect Natural History specimens for permanent retention must contact the Park Collection Manager (Kathryn Myers 907-644-3631; Kathryn_Myers@nps.gov) for instructions prior to collection of specimens, prior to preparing and submitting catalog data, and prior to submitting specimens and associated records. The researcher will provide the Collection Manager with their contact information.
- The investigator will mail two copies of all project reports to the Research Coordinator. Reports are defined as information, records, publications or other documentation based wholly or in part on data obtained through the permitted research. In addition, each year the investigator is required to submit to the NPS an Investigator Annual Report (IAR), an on-line report of research activities.
- For cultural resources protection, no disturbance of historic or cultural features will occur; no artifacts will be collected; no camping will be done on cultural sites; and if archeological or historic resources are discovered, work will stop at the discovery site, the discovery will be protected as required and the Park Superintendent or Cultural Resource Program Manager will be notified as soon as possible. Information and photographs regarding the location (including GPS coordinates), size, and nature of the discovery should be provided when available.
- The PI is responsible for ensuring that all resource agency regulatory permits, approvals, and authorizations are obtained prior to initiation of field work. The PI is responsible for obtaining permission to access all non-NPS lands, including Alaska Native, private, state and other federal areas.
- Other park-specific permit stipulations will depend upon the specific activities associated with a project, and may be appended to the specific permit.

Contacts:

LACL Dispatch: 907-781-2218

Natural Resource Program Manager / Research Coordinator: Buck Mangipane; 907-717-7044; Buck_Mangipane@nps.gov

Cultural Resource Program Manager: Liza Rupp; 907-644-3648; Liza_Rupp@nps.gov

Chief Ranger: Greg Kouns; 907-644-3647; Greg_Kouns@nps.gov

Collections Manager: Kathryn Myers; 907-644-3631; Kathryn_Myers@nps.gov

Superintendent: Susanne Fleek-Green; 907-644-3627; Susanne_Green@nps.gov

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 field instruments that monitor for dissolved oxygen (DO), pH, temperature, and conductivity. We will utilize FieldKit devices developed by Conservify that meet necessary minimum detection limits for those parameters. FieldKits are equipped with sensory probes made by Atlas Scientific. Probes on FieldKit devices will be calibrated by Adventure Scientists staff before being deployed in the field. 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) collect grab samples following the EPA standard for grab sampling and store them in a cooler; (4) deploy a data logger/sensor for the collection of basic parameters (temp, DO, pH, conductivity) in situ; and (5) conduct a qualitative habitat assessment and take photos.

Recommended by park staff(name and title):

Approved by park official:

Title:

Superintendent

Reviewed by Collections Manager:

Yes ____ No ____

Date Approved:

I Agree To All Conditions And Restrictions Of this Permit As Specified
(Not valid unless signed and dated by the principal investigator)

Michelle Toshack

(Principal investigator's signature)

22 March 2022

(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.