

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

Death Valley



Study#: DEVA-00556

Permit#: DEVA-2020-SCI-0012

Start Date: Mar 01, 2020

Expiration Date: Oct 01, 2024

Coop Agreement#:

Optional Park Code:

Name of principal investigator:

Name: Dr Jenelle Dowling

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Email: timber@adventurescientists.org

Name of institution represented:

Adventure Scientists

Additional investigators or key field assistants:

Name: Jenelle Dowling PhD

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Study Title:

Adventure Scientists - 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 2024) 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 Resources

Locations authorized:

Research activities will take place in Surprise Canyon in both Death Valley National Park and Surprise Canyon Wilderness. Data collection will occur in Surprise Canyon Creek. Volunteers will travel along Surprise Canyon Trail to access the streams. Exact points for data collection are to be determined, and will be marked by volunteers when collecting data.

Transportation method to research site(s):

Volunteers will access Surprise Canyon Creek by foot.

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

In situ data measurements permitted only. Destructive sampling and collection of materials not permitted.

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:

Follow all sanitation protocols before entering each aquatic system to ensure all personnel, clothing, gear, and equipment is free of mud, debris, and aquatic invasive species.

Follow all sanitation protocols to ensure all monitoring equipment and personal gear is weed and soil free prior to entering each

section of the park.

As applicable, all stipulations for conducting research in Wilderness must be met. Please see the following resources or contact your park representative. Failure to comply with NPS and federal regulations will result in the suspension of this permit.

<https://wilderness.net/default.php>

<https://wilderness.net/practitioners/minimum-requirements-analysis/default.php>

All collection conditions as stated above are to be strictly followed. No collecting is permitted on or around archaeological sites. If any objects of cultural value (e.g. historic or prehistoric ruins, graves, fossils, or artifacts) are found during the implementation of the project, all necessary steps will be taken to protect them, and the Park Archaeologist (Amanda_Landon@nps.gov) notified immediately. Operations at the site will be suspended until the appropriate mitigation action has been determined. Objects of cultural value will not be moved or collected.

The PI will submit Investigator Annual Reports in the National Park Service Research Permit and Reporting System website:

<https://irma.nps.gov/RPRS>

As part of this permit, the PI will submit Investigator Annual Reports in the National Park Service Research Permit and Reporting System website: <https://irma.nps.gov/RPRS>

After project completion, the PI will provide all data, reports and publications resulting from this study to Death Valley National Park, attention Research Permit Coordinator. The Death Valley NP Curator (Jane_Lakeman@nps.gov) will receive archival quality copies of all field notes, databases, maps, photos, reports, publications, and any other associated project records at the completion of the project for inclusion in the park's archival collections.

At least one week prior to visiting Death Valley National Park, one of the employees listed below will be advised of the locations and the times of the field research. Permit may be revoked if there is no attempt made to contact these personnel.

Richard Friese: Richard_friese@nps.gov (760) 786-3255

Shannon Mazzei: Shannon_Mazzei@nps.gov (760) 786-3204

A COPY OF YOUR RESEARCH PERMIT MUST BE PLACED ON THE DASHBOARD OF EACH RESEARCH VEHICLE WHILE IN THE PARK.

PARK-SPECIFIC CONDITIONS for SCIENTIFIC RESEARCH AND COLLECTING PERMIT

United States Department of the Interior
National Park Service
DEATH VALLEY NATIONAL PARK

1. Notification - Send notification a week before your visit to the NPS personnel identified on your permit. Please include: (1) principal investigator's name, (2) fieldwork activities, (3) locations, (4) dates, (5) vehicle description including year, color, make, model, state, and license number.
2. Interpretive Programs - Scientific information is important to park management and is interesting to park visitors. Therefore, we strongly encourage you to contact Chief of Interpretation Linda Slater at 760 786-3279 to arrange for appropriate transfer of information about your research project to park visitors, interpretive park rangers, and other park staff -- perhaps an evening program at the Visitor Center auditorium, a short article in the park newspaper, or a ten-minute briefing at a staff meeting.
3. Exotics - To avoid the accidental introduction of exotic organisms, if wetlands or muddy sites are visited, shoes and equipment must be cleaned (disinfected with full strength Clorox and air-dried) prior to entering the park and between sites within the park. Heavy equipment must be pressure washed prior to entering the park. Animal feeds must be weed seed free.
4. Hardware - No hardware (field markers, pin flags, stakes, rock cairns, recorders, signs, caches, traps, nets, cameras, weather stations, data loggers, radar reflectors, equipment, etc.) may be left in the park unless specified on the permit. If the site is located in a designated Wilderness area, then a separate documentation and waiver is required. Any such permitted items must be identified with a minimum of (1) the principal investigator's last name, (2) the date of establishment, and (3) the name of the study, e.g., "Darwin, 04 July 2003, Finch Genetics." Unmarked hardware will be removed as abandoned or unknown.
5. Entrance Fee - The researcher named on this permit, and those in the research party, are eligible for a complimentary entrance permit from an entrance station or visitor contact center, upon presentation of this permit, provided that the visit is solely non-

recreational. Camping fees are not waived.

6. Report Unusual Circumstances - Help the park rangers by reporting observed violations, off-road driving, destruction of park resources, locations of exotic plants, burros, rare wildlife, rare plants, and archeological sites.

7. Wilderness - No off-road driving, no wheeled vehicles beyond road, no motorized equipment beyond road, no rock drilling, and no excavation, unless specified on the permit.

8. Leave No Trace - When traveling in wilderness (95% of the park), practice "Leave No Trace" (LNT) outdoor skills and ethics, and teach these to your students. See the LNT web page at www.lnt.org.

a) Plan ahead and prepare.

b) Concentrate use in resistant areas.

c) Avoid places where impact is just beginning.

d) Protect and conserve water resources (don't camp near water).

e) Pack it in, pack it out.

f) Properly dispose of what you can't pack out (dig a shallow hole and bury both feces and toilet paper).

g) Leave what you find.

h) Use only camp stoves (no campfire rock rings).

9. Collection of specimens or materials - 36 CFR 2.5(g) outlines specific conditions that govern specimens and related data. If the permittee or researcher collects specimens that are to be permanently retained - regardless of where they are kept - those specimens must be accessioned and cataloged into the National Park Service (NPS) National Catalog, and must bear official NPS museum labels. Information on specimens must be included in the Investigator's Annual Report (IAR), discussed below under Reports. If specimens are destroyed in analysis, the data resulting from the analyses will be curated permanently in the park museum collection in lieu of the actual specimen.

10. Long-term curation of specimens - If the permittee proposes to curate collections outside Death Valley National Park, the permittee must secure park approval of the designated non-NPS repository in writing, and the designated repository must certify in writing that it will care for the collections in accordance with 36 CFR Part 79. Both approvals must be obtained before specimen collecting begins and must be referenced in the Permit. A repository agreement between the park and the repository must be signed and all loan documents prepared before collections are deposited in the repository. No park collections will be placed in a non-NPS repository without a signed NPS Outgoing Loan agreement. The permittee must contact the Park's curator (see below) for instructions on preparing the proper agreements. Transfers of specimens between repositories must be done under a NPS loan agreement. Trading of Death Valley National Park collections between repositories is prohibited. All specimens, as well as their derivatives and byproducts, shall remain Government property.

11. Cataloging specimens - Unless otherwise noted on the Research Permit, the permittee will catalog each object or specimen collected.

a) Before specimen collecting begins, a Park accession number will be assigned by the Park's Curator and must be referenced in the permit. The accession number must be used on all reports, field records, correspondence, and permit(s) relating to the collection, and, on the label of each specimen or material that will be permanently retained.

b) When specimen collecting is finished, the permittee must contact the Curator to obtain a block of Park catalog numbers for the specimens that will be permanently retained. Specimens that are consumed in the course of analysis or research need not be cataloged. The Curator will have a copy of the permit to which to refer. The permittee will initially provide the Curator with the following information:

I. Park accession number

II. Collection date(s)

III. Number of specimens collected (estimates are acceptable for large collections)

c) The Curator will either provide NPS specimen labels to the permittee, or, will approve the electronic scanning or writing of NPS specimen labels. The Curator will provide instructions for label completion. The labels must be completed in permanent, archival ink and appropriately affixed to specimens or their containers, even if the researcher applied their own or their institution's labels. If the size of the specimen or the container preclude completion of another label, the permittee's label must at minimum include the Park accession and catalog number, in permanent ink, in the following format:

DEVA-1234 (for the accession number, must include a hyphen)

DEVA 99999 (for the catalog number, do not include a hyphen)

Catalog numbers must be referenced in the final report or publication when individual specimens are referred to.

d)The catalog record for each specimen can be either paper or electronic. The Curator will provide catalog instructions and/or worksheets to the permittee or cataloger. If the collection is large, the Curator may send the permittee or cataloger a copy of the NPS National Catalog software (ANCS+), to allow direct data entry. The permittee or cataloger may also submit data in either Microsoft Excel or Access format, but the catalog fields must have the same field attributes as the ANCS+ record (numeric and text format and size). Specimen catalog data must include:

- I.Accession number
- II.Catalog number
- III.Classification
- IV.Specimen Name (scientific and common name)
- V.Quantity or item count
- VI.Collection Site
- VII.Township/Range/Section or UTM Coordinates or Latitude/Longitude (if GPS is used, include the datum)
- VIII.Collector
- IX.Collection Number
- X.Collection Date
- XI.Collection Method (chisel, shovel, net, hand, etc.)
- XII.Identified By and Date
- XIII.Formation (for geology)
- XIV.Period/System (for geology and paleontology)
- XV.Condition
- XVI.Type (if designated)
- XVII.Specimen description
- XVIII.Preservative and/or preparation method

e)Within one (1) year of the final date of collecting, the permittee must submit to the Park Curator:

- I.All specimens that are to be permanently retained in the Park museum collection, their associated labels, and catalog documentation (catalog worksheets and/or electronic data)
- II.Associated catalog documentation (catalog worksheets and/or electronic data) for all specimens that are to be permanently retained in
- III.Copies of all field records (notes, maps, recordings, reports, etc.), printed or copied onto archival or acid-free quality paper
- IV.Copies of final reports or publications

f)If the permittee cannot meet the one-year submission deadline (i.e. specimens are required by the permittee for long-term analyses), please call or write the Curator to make other arrangements. The permittee is responsible for annually reporting the status of their collection analysis and/or cataloging in the IAR. Research and collecting projects are considered complete when most, if not all, of the above conditions are fully met.

g)Researchers are encouraged to contact the Curator s office at any time during this process with any questions that may arise. Curatorial staff is available to help the permittee comply with the terms of their permit and make compliance as easy as possible under current regulations. The Curator's office is located in the Curatorial and Research Facility, Cow Creek, Death Valley National Park. Please contact:

Jane Lakeman
Death Valley National Park
P.O. Box 579
Death Valley, CA 92328
Tel:760 786-3282
Fax:760 786-2169
Email:jane_lakeman@nps.gov

12. Historic Cultural and Archaeological sites. Care shall be taken not to disturb any historic cultural or archaeological sites during the course of the field investigations. When any site is encountered in the field its location shall be noted and that information shall be provided to the park resources management division.

13. Reports. The principal investigator shall complete an IAR by the end of each calendar year in which research, collecting, specimen analysis and/or cataloging activity occurs. When the IAR is submitted, the permittee will include copies of all field notes, databases, maps, photos, and any other material noted on the research permit. Three copies of all scientific and other publications resulting entirely or in part from research and/or collecting through the issuance of this permit will be furnished to the Park Superintendent.

Recommended by park staff(name and title):

Approved by park official:

Title:

Resource Specialist

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)

(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.

