

Opportunity Title: USFS Wilderness Research Fellowship Focused on Prescribed Fire in Wilderness

Opportunity Reference Code: USDA-USFS-2023-0004

Organization U.S. Department of Agriculture (USDA)

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A complete application package consists of:

- An application
- Transcript(s) – For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. Selected candidate must provide proof of completion of the degree before the appointment can start. Click [Here](#) for detailed information about acceptable transcripts.
- A current resume/CV
- Two educational or professional recommendations. At least one recommendation must be submitted in order for the mentor to view your application.

All documents must be in English or include an official English translation.

Application Deadline 3/10/2023 3:00:00 PM Eastern Time Zone

Description *Applications will be reviewed on a rolling-basis.

USFS Office/Lab and Location: A fellowship opportunity is available with the US Department of Agriculture (USDA) Forest Service (USFS) Rocky Mountain Research Station (RMRS) in Missoula, Montana.

The Aldo Leopold Wilderness Research Institute (ALWRI), a program within the USDA Forest Service Rocky Mountain Research Station (RMRS), is the only Federal research group in the United States dedicated to development and dissemination of knowledge needed to steward the 111-million-acre National Wilderness Preservation System (NWPS), all 800+ units managed by two Departments and four agencies, from Puerto Rico to Alaska. We have a long history of conducting and sharing science in support of the NWPS, as well as collaborating with management, tribal, academic, non-governmental organization, community, and other partners within the U.S. and internationally.

Research Project:

Overview:

ALWRI is appointing a Wilderness Research Fellow to conduct research on the challenging topic of prescribed fire in wilderness. This project is collaboration between ALWRI, Western Colorado University, and University of Wyoming. The Wilderness Research Fellow will develop novel research, literature syntheses, scenario-based evaluations, and partner engagement that advances wildfire management in wilderness. In particular, the fellow will explore the benefits, costs, challenges, and opportunities to implementing prescribed fire in wilderness.

Research Problem:



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One of the key tenets of the Wilderness Act is that wilderness remains 'untrammeled', meaning that wilderness should not be subject to manipulations that hinder natural forces. The default strategy for most fires in wilderness remains suppression, which is clearly a form of trammeling. Fires are allowed to burn in the absence of fire suppression in only a handful of wilderness areas. The consequences of fire exclusion are well documented, one of which being that forests are less resistant and resilient to a range of disturbances, including the inevitable fire that cannot be suppressed. Therefore, in addition to trammeling, fire suppression also negatively impacts the 'natural' character of wilderness because of the longer term and indirect consequence of altered vegetation and fire regime characteristics.

Prescribed fire is commonly used outside of wilderness to make forests more resistant and resilient to wildfire. Yet, because prescribed fire is a management action and may be considered inconsistent with the Wilderness Act (trammeling), it is less-commonly implemented within wilderness (though this varies among managing agencies).

Given that many wilderness ecosystems are negatively affected by fire-suppression's longer-term effects (i.e. low resilience to the inevitable fire), perhaps it is time for the wilderness community to revisit the use of prescribed fire. We ask several questions: why are we willing to aggressively suppress fire in wilderness, but we are less willing to put fire back into the system through management actions? Is it possible that aggressive fire suppression causes more short- and long-term damage to wilderness character than prescribed fire? Because Indigenous peoples regularly and purposely ignited fire in many regions prior to Euro-American colonization, does wilderness management need to accommodate prescribed fire in order to sustain the historical role of fire in these systems? We will appoint a Wilderness Research Fellow to take on this issue and clearly articulate the benefits, costs, challenges, and barriers of implementing prescribed fire in wilderness.

Research Activities

The Wilderness Research Fellow will focus on prescribed fire in the context of wilderness management. This project will evaluate the benefits, costs, and challenges of implementing prescribed fire in wilderness through research, syntheses, literature reviews, scenario-based evaluations, and partner engagement. Collaborating with research scientists and faculty from ALWRI (Dr. Sean Parks), Western Colorado University (Dr. Jonathan Coop), and University of Wyoming (Dr. Melanie Armstrong), the research will be co-produced with tribal partners and managers from the Forest Service, Bureau of Land Management, Fish and Wildlife Service, and National Park Service to ensure relevance. As such, a key role for the Wilderness Research Fellow will be building effective relationships with agency personnel and other partners. The appointment is located at the ALWRI office on the University of Montana campus in Missoula, Montana. See the ALWRI website [here](#) and the RMRS website [here](#).

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Learning Objectives:

- Interact, communicate, and collaborate with agency scientists, wilderness managers, and other partners.
- Assemble technical information and analyze, interpret, and disseminate data to wilderness managers.
- Develop innovative and effective science communication skills for outreach and tech transfer.
- Present findings at conferences, through webinars, and in a general technical report or a peer-reviewed journal.

Mentor: The mentor for this opportunity is Sean Parks (sean.parks@usda.gov). If you have questions about the nature of the research, please contact the mentor.

Anticipated Appointment Start Date: **May 2023.** Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for two to three years but may be extended upon recommendation of USFS and is contingent on the availability of funds.

Level of Participation: The appointment is full-time.

Participant Stipend: The participant will receive a monthly stipend equal to \$50,000 to 70,000/year commensurate with educational level and experience. **We will cover 75% of medical insurance.**

Citizenship Requirements: This opportunity is available to U.S. citizens only.

ORISE Information: This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and USFS. Participants do not become employees of USDA, USFS, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE.

Questions: Please visit our [Program Website](#). After reading, if you have additional questions about the application process please email USForestService@orise.orau.gov and include the reference code for this opportunity.

Qualifications The qualified candidate should have received a master's or doctoral degree in one of the relevant fields or be currently pursuing one of the degrees with completion by June 30, 2023. Degree must have been received within the past three years.

Preferred Skills:

- The Wilderness Research Fellow should demonstrate proficiency in

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wilderness policy, prescribed fire and/or wildfire, historical and/or cultural fire regimes/ecology, oral and written communication, writing, and partner engagement.

- The official title (e.g. Wilderness Research Fellow) is negotiable.

Eligibility

- **Citizenship:** U.S. Citizen Only

Requirements

- **Degree:** Master's Degree or Doctoral Degree received within the last 36 months or anticipated to be received by 6/30/2023 11:59:00 PM.

- **Overall GPA:** 3.25

- **Discipline(s):**

- **Communications and Graphics Design** ([1](#))
- **Environmental and Marine Sciences** ([5](#))
- **Life Health and Medical Sciences** ([2](#))
- **Social and Behavioral Sciences** ([3](#))