Organization: U.S. Department of Agriculture (USDA)

Reference Code: USDA-USFS-2022-0134

How to Apply:

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. All transcripts must be in English or include an official English translation. Click Here for detailed information about acceptable transcripts.
- A current resume/CV
- Two educational or professional recommendations

If you have questions, send an email to USForestService@orise.orau.gov. Please include the reference code for this opportunity in your email.

Application Deadline: 5/9/2022 3:00:00 PM Eastern Time Zone

Description:

*Applications will be reviewed on a rolling-basis.

Multiple research opportunities are currently available with the United States Department of Agriculture (USDA), U.S. Forest Service (USFS), Pacific Northwest Research Station located in Corvallis, Oregon.

At the heart of the U.S. Forest Service’s mission is their purpose. Everything they do is intended to help sustain forests and grasslands for present and future generations. Why? Because their stewardship work supports nature in sustaining life. This is the purpose that drives the agency’s mission and motivates their work across the agency. It’s been there from the agency’s very beginning, and it still drives them. To advance the mission and serve their purpose, the U.S. Forest Service balances the short and long-term needs of people and nature by: working in collaboration with communities and our partners; providing access to resources and experiences that promote economic, ecological, and social vitality; connecting people to the land and one another; and delivering world-class science, technology and land management.

The FERA Team (Fire and Environmental Research Applications) with the USDA Forest Service, Pacific Northwest Research Station (Corvallis, Oregon) is seeking a highly motivated postdoctoral research fellow to collaborate with scientists and land managers researching relationships between fire and invasive plants in western forests and understanding wildfire risk. Research opportunities for the fellow will be organized around two primary activities: 1) designing and implementing a complex field-based invasion ecology research project, and 2) collaborating with a team to help develop a major state of the science book chapter focused on inter-relationships between fire and invasive plants in the United States, with a focus on western forests. A key role (#1) will be the opportunity to co-lead a new western to potentially national field experiment focused on evaluating the role of plant propagule pressure (via weed pretreatments) and disturbance intensity in understanding plant invasion in forests. Complex interactions between disturbance (fire, thinning or logging), other abiotic factors, biotic processes, propagule pressure, and invasion are rarely studied together. This is a unique opportunity to design and implement a series of novel and complex manipulative experiments and author novel contributions to the literature. The candidate will also have the opportunity to consult extensively with leading experts in the field and local land managers to help design the study. Other opportunities may include collaborating on ongoing projects within the FERA team, such as analyzing wildfire model simulation output, helping with fire science outreach efforts as part of the Joint Fire Science Exchange Network, and grant writing. The fellow will also have an opportunity to develop or participate in new and emerging avenues of research related to fire, invasive plants, and natural resource management.

Under the guidance of a mentor, the fellow will be provided the opportunity to learn the following:

- Enhance their knowledge about invasive plant, fire and disturbance issues in the western US forests while
helping to develop approaches that will facilitate the integration of invasive plant management with fuel management in forests

- Advance science project leadership skills, including project design, experimental design, logistics, field project implementation, and networking with colleagues and partners
- Further develop original research approaches, experimental design, and analysis
- Develop advanced science synthesis skills for a broad topic
- Expand collaborative and networking skills, learn how to conduct co-produced research studies, outcomes, and deliverables
- Gain first-hand knowledge of Forest Service Research & Development science and National Forest System management

**Anticipated Appointment Start Date:** May 2022. Start date is flexible and negotiable, and will depend on a variety of factors.

**Appointment Length:** The appointment will initially be for twenty-four months, 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 commensurate with educational level and experience.

**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 or be currently pursuing a doctoral degree in one of the relevant fields.

**Preferred skills:**

- Strong quantitative skills with demonstrated experience in field based experimental design and statistical analysis including time series of ecological, vegetation, or other quantitative datasets
- Experience with quantitative vegetation or fire models
- Experience developing novel research ideas, questions, and approaches
- A record of publishing scientific articles in peer-reviewed journals, including senior authorship
- Understanding of quantitative ecology, fire and invasion ecology, disturbance ecology and understanding of ecological principles, methods, including forest vegetation treatments (prescribed fire, thinning, invasive plant treatments)
- Experience conducting ecological field research in forested or rangeland ecosystems
- GIS and geospatial analysis skills
- Strong organizational skills and the ability to balance multiple projects simultaneously
- Capacity to work independently and prioritize activities to meet project schedules
- Strong presentation skills and the ability to effectively communicate and work with diverse stakeholders including land managers

**Eligibility**

- **Citizenship:** U.S. Citizen Only
Opportunity Title: USFS Postdoctoral Fellowship in Invasive Plant and Disturbance Ecology

Requirements

- **Degree**: Doctoral Degree received within the last 120 months or currently pursuing.
- **Discipline(s)**:
  - Earth and Geosciences (1)
  - Environmental and Marine Sciences (5)
  - Life Health and Medical Sciences (7)
  - Mathematics and Statistics (11)
  - Other Physical Sciences (12)