Opportunity Title: USFS Fellowship in Silviculture and Applied Forest Ecology
Opportunity Reference Code: USDA-USFS-2021-0165

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-USFS-2021-0165

How to Apply

Connect with ORISE...on the GO! Download the new ORISE GO mobile app in the Apple App Store or Google Play Store to help you stay engaged, connected, and informed during your ORISE experience and beyond!

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. 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. Applications need at least one recommendation submitted in order to be viewed by the mentor.

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

Application Deadline 8/2/2021 3:00:00 PM Eastern Time Zone

Description

***Applications will be reviewed on a rolling-basis, beginning four weeks from the first date of advertisement and will continue until the opportunity is filled.**

USFS Office/Lab and Location: A postdoctoral research opportunity is available with the U.S. Forest Service (USFS), Pacific Southwest Research Station (PSW) located in Davis, California or Redding, California

Research Project: The USDA Forest Service's Pacific Southwest Research Station (PSW) is seeking a Postdoctoral Fellow with experience in silviculture and applied forest ecology to join a team researching strategies to improve post-fire reforestation and the sustainable management of California forests. The three-component project will leverage new and previously collected data from PSW's long-term experimental plots to provide National Forest managers with updated scientific guidance and decision support tools for Forest Vegetation Simulator (FVS) to aid the planning and monitoring of silvicultural treatments. The project will evaluate: 1) the benefits and trade-offs of competing vegetation control and fertilization for reforestation success under climate change; 2) the influence of tree-species diversity on mixed-conifer forest resistance and resilience to drought, bark beetles, and fire, as well as carbon sequestration and storage; and 3) the differential impacts of three experimental harvesting techniques on forest structural heterogeneity, resilience to drought and bark beetles, and the development of fuels and fire risk. Besides this main project, the Fellow will also have opportunities to participate in new field experiments and may assist in grant writing.

Learning Objectives:

- To better understand how management can be modified to improve long-term reforestation success and mature forest resistance and resilience to disturbance, while increasing carbon sequestration and storage
- To enhance collaborative skills as a member of a scientific team by helping to formulate policy-relevant research questions, plan data collection and analysis, and identify other potentially publishable original research units that apply existing long-term experimental data to contemporary questions
- To gain experience analyzing and modeling inventory data, organizing and securing project data and metadata for use in current and future research, and translating quantitative scientific results into calibration tools for FVS, Climate-FVS, and FVS-Fire and Fuels Extension
- To extend natural resource information-sharing capabilities by collaborating on the preparation of manuscripts for publication in peer-reviewed journals and communicating study results to scientists and

forest managers via meetings, presentations, webinars, and field tours

Mentor: The mentor for this opportunity is Christopher Looney (Christopher.looney@usda.gov). If you have questions about the nature of the research please contact the mentor.

Anticipated Appointment Start Date: Summer/Fall 2021. Start date is flexible and negotiable, and will depend on a variety of factors.

Appointment Length: The appointment will initially be for 2.5 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 commensurate with educational level and experience. The annual stipend will be $68,960, plus a health insurance stipend. A travel and supplies stipend, and computer will also be provided.

Citizenship Requirements: This opportunity is available to U.S. citizens and Lawful Permanent Residents (LPR) 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 at least three years towards a PhD or has received a doctoral degree, preferably in Forestry, Natural Resources, Ecology, Environmental Sciences, or a related field, or has received a doctoral degree and a bachelor's or master's degree in one of the listed fields.

Candidates must have a valid driver's license.

Preferred skills:

- Demonstrated experience in statistical analysis of ecological datasets and data management
- Evidence of scientific and technical writing for peer-reviewed publication
- Experience presenting on natural resource topics to both scientific and general audiences
- Demonstrated understanding of silvicultural methods and treatments at the stand or landscape scales
- Experience conducting ecological field research in forested ecosystems
- Capacity to perform both independently and as part of a team
- Ability to prioritize multiple projects and activities within project deadlines
- Familiarity with FVS or fire modeling is desirable, as is knowledge of climate science as it applies to forest adaptation strategies

Eligibility Requirements

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Doctoral Degree.
- **Discipline(s):**
  - **Environmental and Marine Sciences** (7 👁)
  - **Life Health and Medical Sciences** (8 👁)
  - **Social and Behavioral Sciences** (2 👁)

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Affirmation I certify that I am currently pursuing or have received a doctoral degree, preferably in Forestry, Natural Resources, Ecology, Environmental Sciences, or a related field, or have received a doctoral degree and a bachelor's or master's degree in one of the listed fields.