

**Opportunity Title:** USFS Fellowship in Assisted Migration and Silviculture for Reforestation

**Opportunity Reference Code:** USDA-USFS-2023-0178



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

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**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. 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** 8/4/2023 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) within the Pacific Southwest Research Station located in either Davis or Placerville, California.

The Postdoctoral/ Post-Master's Fellow will be based at the Pacific Southwest Research Station locations in Davis or Placerville, but will participate in both locations, as well as on a number of National Forests across California, Oregon and Washington. The Fellow will have access to a well-equipped molecular genetics laboratory, a greenhouse, and multiple field sites. They will interact with both genetics and silviculture researchers in California, Oregon and Washington.

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.

**Research Project:** The USDA Forest Service's Pacific Southwest Research Station (PSW) is seeking a Post Masters or a Post Doctoral research fellow to join a team researching genetic and silviculture strategies to improve post-fire reforestation and sustain California forests under climate change. This multi-component effort will use a combination of field and greenhouse research to provide land managers with updated scientific guidance on reforestation under climate change. This project will investigate: 1) post-fire reforestation across an experimental network-assessing and evaluating where to plant, what to plant and how to plant it in California, Oregon, and Washington (this fellowship will focus on California), and 2) Using already established provenance tests to examine the relationship between climate of origin and planting location. These two projects will work with existing out-plantings and involve the establishment of a new network of genetics-silviculture planting experiments, as well as greenhouse studies. Besides these two main projects, the

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fellow will also have opportunities to pursue new avenues of research including, but not limited to long-term datasets and may assist in grant writing.

**Learning Objectives:**

- To better understand how genetics and silvicultural management can be combined to improve reforestation success and future forest resilience under climate change.
- To enhance collaborative skills as a member of a scientific team by helping to formulate policy-relevant research questions, plan, implement, monitor, and analyze field studies, and identify other potential avenues for research applying existing long-term data.
- To cultivate greenhouse plant culturing skills.
- To gain experience analyzing and modeling, organizing, and securing project geospatial information, data, metadata for use in current and future research.
- 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 Jessica Wright ([jessica.w.wright@usda.gov](mailto:jessica.w.wright@usda.gov)). If you have questions about the nature of the research, please contact the mentor.

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

**Appointment Length:** The appointment will initially be for one year 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, Lawful Permanent Residents (LPR), and foreign nationals. Non-U.S. citizen applicants should refer to the [Guidelines for Non-U.S. Citizens Details](#) page of the program website for information about the valid immigration statuses that are acceptable for program participation.

**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](mailto:USForestService@orise.orau.gov) and include the reference code for this opportunity.

**Qualifications**

The qualified candidate should have received a masters or doctoral degree (master's degree not required if Ph. D. received) in one of the relevant fields (e.g. Forestry, Genetics, Natural Resources, Plant Sciences, Ecology, Environmental Sciences, Biology), or should be currently pursuing one of the degrees to be received before June 15, 2023. Degree must have been received within the last five years.

Successful candidates need to be able to hike 3 miles carrying 20 pounds and enjoy the outdoors and rugged natural landscapes. The mentors for this fellowship are committed to providing an opportunity that will help the fellow pursue a career in research in Forestry, Genetics or related fields in academics or government agencies.

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While few candidates would necessarily have this full breadth of experience, preference will be given to candidates having among the following skills:

- Demonstrated experience in statistical analysis of ecological datasets and data management
- Experience with geospatial data collection and management, including fluency in ArcGIS
- Experience conducting ecological field research
- Experience with greenhouse studies
- Capacity to perform both independently and as part of a team
- Ability to prioritize multiple projects and activities within project deadlines
- Knowledge of climate science as it applies to forest ecology and management under climate change

All candidates must have a valid driver's license.

**Eligibility  
Requirements**

- **Degree:** Master's Degree or Doctoral Degree received within the last 60 months or anticipated to be received by 6/15/2023 12:00:00 AM.
- **Discipline(s):**
  - **Life Health and Medical Sciences** (9 )