Opportunity Title: USGS Early to Mid-Holocene Hydroclimate and Vegetation Change from Southwestern Alaska
Opportunity Reference Code: DOI-USGS-2026-40

Organization U.S. Department of the Interior (DOI)

Reference Code DOI-USGS-2026-40

How to Apply ***To submit your application, scroll to the bottom of this opportunity and click APPLY.***

A complete application 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. Click here for detailed information about acceptable transcripts.
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional recommendations.

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

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!"

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

USGS Office/Lab and Location: A research opportunity is currently available with the U.S. Geological Survey (USGS) located in Reston, Virginia.

The USGS mission is to monitor, analyze, and predict current and evolving dynamics of complex human and natural Earth-system interactions and to deliver actionable intelligence at scales and timeframes relevant to decision makers. As the Nation's largest water, earth, and biological science and civilian mapping agency, USGS collects, monitors, analyzes, and provides science about natural resource conditions, issues, and problems.

Research Project: Southwestern Alaska, underlain by discontinuous and warm (~0ºC) permafrost, is sensitive to changing sea-ice regimes and storms that are increasingly leading to flooding and erosion. Together with warming atmospheric temperatures and changing precipitation regimes, permafrost is increasingly vulnerable to thaw. Buried ice wedge networks and peat deposits near Bethel, Alaska were recently uncovered, allowing for opportunities to study early to mid-Holocene hydroclimate, vegetation, and permafrost environments. This study will use a multiproxy approach to reconstruct past changes to atmospheric temperature and precipitation seasonality using oxygen and deuterium stable isotopes, pollen, and plant macrofossils.

The project will be lab-based, using techniques from soil science, paleoclimate science, and geochemistry to measure bulk density, organic matter content, elemental concentrations, and stable isotopes (oxygen and

deuterium) from both peat cellulose and pore water. Some data analysis and data management will be involved. There will also be opportunities to learn additional lab techniques, including pollen extraction, plant macrofossil analysis, and charcoal analysis to be able to link physical properties and proxies for atmospheric conditions (cellulose oxygen isotopes, pore water isotopes) to changing vegetation and environmental conditions through time.

Learning Objectives: You will be introduced to a broad range of lab analyses and will be able to hone lab skills in a federal science lab. In addition to the new lab skills gained through the project, you will also be introduced to a broad range of science taking place at the USGS National Center through seminars and other interactions.

Mentor: The mentor for this opportunity is Miriam Jones (miriamjones@usgs.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: June 15, 2026. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for 10 weeks, but may be renewed upon recommendation of DOI and is contingent on the availability of funds.

Level of Participation: The appointment is full time.

Participant Stipend: Stipend rates may vary based on numerous factors, including opportunity, location, education, and experience. If you are interviewed, you can inquire about the exact stipend rate at that time and if selected, your appointment offer will include the monthly stipend rate.

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 USGS. Participants do not become employees of USGS, 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: If you have questions about the application process please email USGS@orau.org and include the reference code for this opportunity.

zintellect
climb higher

Opportunity Title: USGS Early to Mid-Holocene Hydroclimate and Vegetation Change from Southwestern Alaska
Opportunity Reference Code: DOI-USGS-2026-40

Qualifications The qualified candidate should be currently pursuing or have received a bachelor's or master's degree in the one of the relevant fields. Degree must have been received within the past four years, or anticipated to be received by 6/1/2029.

Point of Contact Rachel

Eligibility Requirements

- **Degree:** Bachelor's Degree or Master's Degree received within the last 48 months or anticipated to be received by 6/1/2029 12:00:00 AM.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12)
  - **Communications and Graphics Design** (2)
  - **Computer, Information, and Data Sciences** (17)
  - **Earth and Geosciences** (21)
  - **Engineering** (28)
  - **Environmental and Marine Sciences** (14)
  - **Life Health and Medical Sciences** (49)
  - **Mathematics and Statistics** (11)
  - **Physics** (16)
  - **Science & Engineering-related** (2)