

Opportunity Title: Remote Sensing from Space: NASA Biodiversity and Ecological Conservation Opportunity with the NASA Earth eXchange (NEX)
Opportunity Reference Code: 0145-NPP-JUL25-ARC-EarthSci

Organization National Aeronautics and Space Administration (NASA)

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How to Apply All applications must be submitted in [Zintellect](#)

Please visit the NASA Postdoctoral Program website for application instructions and requirements: [How to Apply | NASA Postdoctoral Program \(orau.org\)](#).

A complete application to the NASA Postdoctoral Program includes:

1. Research proposal
2. Three letters of recommendation
3. Official doctoral transcript documents

Application Deadline 7/1/2025 6:00:59 PM Eastern Time Zone

Description About the [NASA Postdoctoral Program](#)

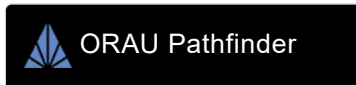
The [NASA Postdoctoral Program \(NPP\)](#) offers unique research opportunities to highly-talented scientists to engage in ongoing NASA research projects at a NASA Center, NASA Headquarters, or at a NASA-affiliated research institute. These one- to three-year fellowships are competitive and are designed to advance NASA's missions in space science, Earth science, aeronautics, space operations, exploration systems, and astrobiology.

Description:

The NASA Earth eXchange (NEX) seeks a post-doctoral fellow to conduct biodiversity and ecological conservation research under NASA's Earth Action framework and in collaboration with the California Sentinel Site Network (CA-SSN), a partnership between the UC Natural Reserve System (UCNRS) and the California Department of Fish and Wildlife (CDFW).

The post-doctoral fellow will conduct original and innovative research that links in-situ biodiversity observations with NASA remote sensing to generate products and insights that enables NASA stakeholders and partners, including CA-SSN, to quantify biodiversity trends, particularly in response to Earth system variability, land-use change, and other shifting environmental conditions and stressors. Integrating in situ data with remotely sensed observations from multiple methods and developing cross-sensor capabilities (e.g., combining SAR and hyperspectral) will be essential for deriving meaningful insights for biodiversity and ecological conservation. Collaborating with CA-SSN's diverse ecosystems will provide invaluable input to NASA's data development process, ensuring that data products are broad enough to support a range of questions while also being capable of delivering actionable insights on the ground through specific use cases.

The fellow will be a part of the NASA Earth eXchange (NEX) and will work



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collaboratively with a team of scientists and engineers who leverage NASA's high-performance computing capabilities to develop new Earth science remote sensing and modeling products, generate long-term downscaled environmental projections, push technological boundaries with Earth System Digital Twins and Foundation Models, and conduct foundational work to advance future satellite missions.

Candidates are strongly encouraged to contact NEX before preparing a proposal to understand what sources of data will be available from NASA and CA-SSN and to ensure their ideas align with the needs and expectations of the partners.

Background information

- The NASA Earth eXchange (NEX), housed at NASA Ames Research Center in Silicon Valley, is a collaborative supercomputing and data analytics platform that improves the availability of Earth science data from NASA missions and other sources, models, analysis tools and research results through a centralized environment that fosters knowledge sharing, collaboration, and innovation.
- The NASA Biological Diversity program supports basic research that advances the understanding of how and why biological diversity is changing. The NASA Ecological Conservation Program focuses on the transfer of research to effective decision support for natural resource management.
- The California Sentinel Site Network (CA-SSN) is a partnership between the UCNRS and the California Department of Fish and Wildlife (CDFW), along with other public and private land partners. With nearly 100 planned biodiversity monitoring locations across the state, the CA-SSN intends to deliver open-access standardized biodiversity and climate data that will support research to advance conservation and resource management solutions. UCNRS will establish roughly 160 long-term monitoring sites across 42 reserves that include examples of most major ecosystems in California.

Field of Science: Earth Science

Advisors:

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Applications with citizens from Designated Countries will not be accepted at this time, unless they are Legal Permanent Residents of the United States. A complete list of Designated Countries can be found at:

<https://www.nasa.gov/oijr/export-control>.

Eligibility is currently open to:

- U.S. Citizens;

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- U.S. Lawful Permanent Residents (LPR);
- Foreign Nationals eligible for an Exchange Visitor J-1 visa status; and,
- Applicants for LPR, asylees, or refugees in the U.S. at the time of application with 1) a valid EAD card and 2) I-485 or I-589 forms in pending status

Questions about this opportunity? Please email npp@oraui.org

Qualifications Candidate must have a PhD in a related field and experience working with remote sensing data. Experience with high-performance computing is desirable, but not required.

Point of Contact [Mikeala](#)

Eligibility Requirements • **Degree:** Doctoral Degree.