**Opportunity Title:** Remote sensing of functional biodiversity
**Opportunity Reference Code:** 0182-NPP-NOV23-JPL-EarthSci

**Organization** National Aeronautics and Space Administration (NASA)

**Reference Code** 0182-NPP-NOV23-JPL-EarthSci

**Application Deadline** 11/1/2023 6:00:59 PM Eastern Time Zone

**Description** Imaging spectroscopy presents a new window on terrestrial ecosystem function and biodiversity, allowing remote sensing to progress from studying greenness to observing a key dimension of diversity on planet earth. New observations span the California drought and vover nearly half the state, Hawaii, India and many other regions and new instruments from the US and Japan will provide global access. We are seeking a postdoctoral fellow to join a new research group focused on integrating remote sensing with ecosystem modeling, biogeography and biodiversity science. The successful applicant will have a background in ecology or geophysics, strong mathematical and statistical skills, and an interest in being on the ground floor of a new space-based observable. Research will include basic discovery science, methods development for new observables and support for new space missions. The team includes several JPL scientists, a group of postdocs with diverse backgrounds and several university collaborators.

References:

Jetz W, Cavender-Bares J, Pavlick R, Schimel D, Davis FW, Asner GP, Guralnick R, Kattge J, Latimer AM, Moorcroft P, Schaepman ME. Monitoring plant functional diversity from space. Nature Plants. 2016 Mar 2;2:16024.

Saatchi, S., Mascaro, J., Xu, L., Keller, M., Yang, Y., Duffy, P., Espírito“Santo, F., Baccini, A., Chambers, J. and Schimel, D., 2015. Seeing the forest beyond the trees. Global Ecology and Biogeography, 24(5), pp.606-610.

Schimel, D., Pavlick, R., Fisher, J.B., Asner, G.P., Saatchi, S., Townsend, P., Miller, C., Frankenberg, C., Hibbard, K. and Cox, P., 2015. Observing terrestrial ecosystems and the carbon cycle from space. Global change biology, 21(5), pp.1762-1776.

Schimel, D.S., G.P. Asner and P. Moorcroft. 2013. Observing changing biodiversity in the Anthropocene. Frontiers in Ecology and the Environment 11: 129–137

**Location:**
Jet Propulsion Laboratory
Pasadena, California

**Field of Science:**Earth Science

**Advisors:**
David Schimel
David.Schimel@jpl.nasa.gov

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626-773-0943

**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/oiir/export-control.

Eligibility is currently open to:

- U.S. Citizens;
- 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

**Eligibility Requirements**

- **Degree:** Doctoral Degree.