Postdoc Scholar - Marine ecology - ESPM The Coastal Climate Resilience Lab - MCECO - ESPM Ecosystem Sciences Div - Carlson Lab
University of California Berkeley

Job Title	Postdoc Scholar - Marine ecology - ESPM The Coastal Climate Resilience Lab - MCECO - ESPM Ecosystem Sciences Div - Carlson Lab
Department	Coastal Climate Resilience Lab
Institution	University of California Berkeley Berkeley, California
Date Posted	Sep. 15, 2025
Application Deadline	10/15/2025
Position Start Date	Available immediately
Job Categories	Post-Doc
Academic Field(s)	Marine/Freshwater Sciences Environmental Sciences/Ecology/Forestry Biology - General
Apply Online Here	https://apptrkr.com/6568987
Apply By Email	
Job Description	

Image not found or type unknown

Postdoc Scholar - Marine ecology - ESPM The Coastal Climate Resilience Lab - MCECO - ESPM Ecosystem Sciences Div - Carlson Lab

Position overview
Salary range: The UC academic salary scales set the minimum pay determined by rank and step at

Postdoc Scholar - Marine ecology - ESPM The Coastal Climate Resilience Lab - MCECO - ESPM Ecosystem Sciences Div - Carlson Lab
University of California Berkeley

appointment. See the following table(s) for the current salary scale(s) for this position https://www.ucop.edu/academic-personnel-programs/_files/2025-26/represented-oct-2025-scales/t23.pdf. A reasonable estimate for this position is $69,073-$77,030.

Percent time: 100%

Anticipated start: Fall 2025

Position duration: 2 years with the possibility of extension based on performance and availability of funding.

Application Window
Open date: September 12, 2025

Next review date: Friday, Sep 26, 2025 at 11:59pm (Pacific Time)
Apply by this date to ensure full consideration by the committee.

Final date: Wednesday, Oct 15, 2025 at 11:59pm (Pacific Time)
Applications will continue to be accepted until this date, but those received after the review date will only be considered if the position has not yet been filled.

Position description

Postdoc Employee - Marine ecology - ESPM
The Coastal Climate Resilience Lab (PI Rachel Carlson, Department of Environmental Science, Policy, and Management) seeks a postdoctoral researcher in the area of marine ecology and ocean optics.

The postdoc will work on the project "Impacts of Extreme Freshwater Events on Marine Freshwater Plumes and Phytoplankton Community Structure", under the guidance of PI Carlson and co-PIs Albert Ruhi (UC Berkeley) and Kelly Hondula (Arizona State University).

Project rationale and scope: Climate change is driving an increase in the frequency and intensity of rainfall anomalies like Extreme Atmospheric Rivers (EARs), leading to freshwater pulses in the ocean and causing major shifts in ocean salinity nearshore. These climate-driven freshwater pulses are increasing in the California Current System, potentially inducing phytoplankton community change and Harmful Algal Blooms (HABs). However, the extent, magnitude, and timing of freshwater plumes in the California Current at present and under future climate change are unknown. The overarching goal of the project is to understand how climate change is poised to alter the dynamics of extreme freshwater

Postdoc Scholar - Marine ecology - ESPM The Coastal Climate Resilience Lab - MCECO - ESPM Ecosystem Sciences Div - Carlson Lab
University of California Berkeley

episodes with regards to their magnitude and timing in the ocean, and link these events to phytoplankton coastal dynamics. Specific project goals are the following:

- Develop the first observational freshwater plume map for the U.S. West Coast during recent extreme runoff events;
- Convert climate scenarios for extreme rainfall into forecasts of future coastal runoff under climate change, and
- Analyze changes in marine ecological (phytoplankton) communities during and after freshwater extremes (low-salinity pulses) at multiple spatial and temporal scales.

Responsibilities:

1. Define specific questions and methods around the effects of freshwater plume exposure on phytoplankton communities.
2. Develop and interpret phytoplankton metrics using multi- and hyperspectral satellite sensors, customized to taxa and water quality typical of the U.S. West Coast. Apply data from ocean color and/or land imaging satellite missions as appropriate (e.g. PACE, Sentinel 3, MODIS, Sentinel 2, Landsat, Planet).
3. Lead time series analysis to identify extreme hydrological events and measure impacts on phytoplankton across time and space.
4. Lead a case study on the above topics in a local region in California (to be identified).
5. Lead data cleaning, quality control, analytical documentation, and SOP development.
6. Prepare manuscripts for publication as lead author.
7. Contribute to lab knowledge exchange and community-building activities. Attend lab meetings in ESPM Oceans and Freshwater groups.

Mentoring
The postdoctoral researcher would be based in the research laboratory of PI Dr. Rachel Carlson on the UC Berkeley campus. They would also be co-mentored by Dr. Albert Ruhi (co-PI, ESPM, Berkeley) and remotely by Dr. Kelly Hondula (Arizona State University). They would receive additional guidance from collaborator Dr. Cynthia Gerlein-Safdi (Civil and Environmental Engineering, Berkeley) and assistance from at least one PhD student. In person work is required, but a hybrid working arrangement may be considered.

The postdoctoral researcher would meet regularly with the PI and the project team, and would participate in regular goal-setting and development plan activities. They would have the opportunity to participate in campus data science, wilderness first aid, faculty development, and other professional development opportunities. They would have the opportunity to guest lecture in the PI's coastal

Postdoc Scholar - Marine ecology - ESPM The Coastal Climate Resilience Lab - MCECO - ESPM Ecosystem Sciences Div - Carlson Lab
University of California Berkeley

ecology class, mentor undergraduate research students, and attend one USA-based conference each year. The PI's group provides a supportive work environment that recognizes and supports people of diverse identities and needs, and prioritizes anti-racist practices and field safety.

Qualifications
Basic qualifications (required at time of application)
PhD (or equivalent international degree) or enrolled in a PhD degree program (or equivalent international degree)

Additional qualifications (required at time of start)
Ph.D. (or equivalent international degree) required by the appointment start date.
No more than three years of post-degree research experience by the start date.

Preferred qualifications

- PhD in marine ecology, environmental science, computational ecology, or related fields.
- Knowledge of phytoplankton biology, ecology, and taxonomy. Experience with temperate nearshore ecosystems and California Current oceanographic dynamics.
- Experience developing and applying ocean color remote sensing algorithms to satellite data, especially for phytoplankton in coastal ecosystems.
- Proficiency in R, Python, and code documentation/metadata creation. Experience with high-performance computing.
- Experience with time series and/or spatial analysis, and statistical modeling.
- Strong record of developing peer-reviewed publications as lead author.
- Proficiency in developing public-facing or outreach materials for scientific products.

Application Requirements

Document requirements

- Curriculum Vitae - Your most recently updated C.V.
- Cover Letter
- Research Statement - Please discuss research accomplishments and proposed plans. This can include, for example, your publication record, awards, presentations, inclusive research practices that promote the excellence of your research, and areas for future research.

Postdoc Scholar - Marine ecology - ESPM The Coastal Climate Resilience Lab - MCECO - ESPM Ecosystem Sciences Div - Carlson Lab
University of California Berkeley

Reference requirements

- 3 required (contact information only)

Apply link: https://aprecruit.berkeley.edu/JPF05114

Help contact: rrcarlson@berkeley.edu

About UC Berkeley

UC Berkeley is committed to diversity, equity, inclusion, and belonging in our public mission of research, teaching, and service, consistent with UC Regents Policy 4400 and University of California Academic Personnel policy (APM 210 1-d). These values are embedded in our Principles of Community , which reflect our passion for critical inquiry, debate, discovery and innovation, and our deep commitment to contributing to a better world. Every member of the UC Berkeley community has a role in sustaining a safe, caring and humane environment in which these values can thrive.

The University of California, Berkeley is an Equal Opportunity employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age, or protected veteran status.

For more information, please refer to the University of California's Affirmative Action and Nondiscrimination in Employment Policy and the University of California's Anti-Discrimination Policy.

In searches when letters of reference are required all letters will be treated as confidential per University of California policy and California state law. Please refer potential referees, including when letters are provided via a third party (i.e., dossier service or career center), to the UC Berkeley statement of confidentiality prior to submitting their letter.

As a University employee, you will be required to comply with all applicable University policies and/or collective bargaining agreements, as may be amended from time to time. Federal, state, or local government directives may impose additional requirements.

As a condition of employment, the finalist will be required to disclose if they are subject to any **final** administrative or judicial decisions within the last seven years determining that they committed any misconduct.

Postdoc Scholar - Marine ecology - ESPM The Coastal Climate Resilience Lab - MCECO - ESPM Ecosystem Sciences Div - Carlson Lab
University of California Berkeley

- "Misconduct" means any violation of the policies or laws governing conduct at the applicant's previous place of employment, including, but not limited to, violations of policies or laws prohibiting sexual harassment, sexual assault, or other forms of harassment or discrimination, as defined by the employer.
- UC Sexual Violence and Sexual Harassment Policy
- UC Anti-Discrimination Policy
- APM - 035: Affirmative Action and Nondiscrimination in Employment

Job location
Berkeley, CA

To apply, visit https://aprecruit.berkeley.edu/JPF05114

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact

N/A
University of California Berkeley
,