



Position Description

Brenninkmeyer Postdoctoral Fellow

SUMMARY

The “*Hans Brenninkmeyer Fellowship for Coastal Research*” was established by the family of Hans Brenninkmeyer to support in-depth focus on the most challenging scientific questions facing Buzzards Bay and Vineyard Sound. Hans was a Dutch businessman and philanthropist who married a Buzzards Bay native and raised his family there on Salters Point in Dartmouth. He was an active member of the Board of Directors of the Buzzards Bay Coalition before his untimely death in an automobile accident in 2019. Brenninkmeyer Fellows join the Buzzards Bay Coalition (BBC) as term full-time appointments, to help carry on Han’s commitment to applied science that helps solve current problems as Post-Doctoral Researchers working with BBC staff and scientific advisors at partner academic and research institutions.

The Buzzards Bay Coalition has partnered with the Woodwell Climate Research Center (Woodwell Climate) to seek a Brenninkmeyer Postdoctoral Fellow focused on water quality. The position is expected to be a 2.5 year joint appointment with co-mentors Dr. Christopher Neill (Woodwell Climate) and Dr. Rachel Jakuba (BBC). The Brenninkmeyer Postdoctoral Fellow (Fellow) will support an NSF-funded project that explores how the transition from monitoring water quality with traditional grab sampling to monitoring with continuously-recording sensors influences understanding of water quality, the uses of water quality data, and the engagement of citizen volunteer monitors. The Fellow will conduct analyses of existing long-term water quality data across more than thirty embayments around Buzzards Bay, Massachusetts to examine the multiple and interacting influences of land use, climate, and water and wastewater management. The Fellow will lead efforts to compare long-term water quality data to new data that will be collected by deployment of both stationary and mobile continuously-recording oxygen, salinity, conductivity and temperature sensors. The Fellow will work within a team that includes environmental scientists and technicians, and social scientists, data scientists and students from the University of Massachusetts Amherst. The Fellow will have opportunities to communicate project results and engage with different audiences through in-person and virtual meetings, national conferences, multimedia outreach materials, and website design.

The position offers the opportunity to contribute to the success of two dynamic organizations and have a direct impact on the future of our regional environment; and an outstanding quality of life on the shores of Buzzards Bay.

BACKGROUND

The BBC and Woodwell Climate have collaborated over the last decade on an award-winning Bay-wide monitoring program. The monitoring program pairs measurements of nutrients and chlorophyll made by an academic research laboratory with measurements of basic water quality (dissolved oxygen, temperature, salinity, water clarity) made by well-trained citizen scientists. Chris Neill (Woodwell Climate) is the Chief Scientist of the monitoring program, overseeing the staff and quality assurance of the laboratory measurements performed at the Marine Biological Laboratory. Rachel Jakuba (BBC) oversees the design and execution of the monitoring program, data management, and overall quality assurance of the data.

Woodwell Climate Mission:

The Woodwell Climate Research Center conducts science for solutions at the nexus of climate, people, and nature. We partner with leaders and communities for just meaningful impact to address the climate crisis.

BBC Mission:

The Buzzards Bay Coalition is a nonprofit, membership organization dedicated to the restoration, protection and sustainable use and enjoyment of our irreplaceable Bay and its watershed. The Coalition works to improve the health of the Bay ecosystem for all through education, conservation, research and advocacy.

Responsibilities

Tasks include, but are not limited to:

- Analyze water quality data to determine trends and drivers of estuarine condition;
- Design and oversee field deployment of continuously-recording sensors in multiple estuaries;
- Compare findings from continuous sensors with long-term water quality record and devise new metrics and thresholds for characterizing estuarine health and condition;
- Lead manuscript preparation and publication;
- Prepare data for use in surveys and focus groups to test how different people within watersheds perceive and use continuous compared with traditional water quality data;
- Participate in focus groups with citizens and regulators;
- Present results at relevant conferences and meetings;
- Organize national workshops to examine the dynamics of transitions from traditional to automated water quality data collection;
- Work closely with a team of ecological and social scientists to explain patterns and drivers of water quality, and the dynamics of the advantages and challenges of more automated water quality data collection, to broad audiences.

Qualifications and Experience

- Ph.D. (granted or expected by December 2023) in Earth System Science, Environmental Sciences, Ecology, Geography, Biological Sciences, Computer Science, or a related discipline is required;
- Research experience in aquatic ecosystems is required. Experience organizing and using climate and land use data preferred;

- Ability to analyze ecological data and continuous data generated by dataloggers or environmental sensors;
- Demonstrated record of publication in scientific journals;
- Ability to work as a member of a highly collaborative team, work across disciplines, and interest in contributing to broader science, communication, and policy goals.

Physical Requirements

- Ability to tolerate sustained periods of standing or sitting;
- Ability to communicate;
- Ability to drive to local research sites;
- Ability to bend, kneel and work from small boats;
- Ability to use phone and computers;
- Repetitive movements;
- Air, train, vehicle travel to attend meetings and/or events.

To Apply

To apply, send a cover letter, a complete curriculum vitae, and the names/contact information of three potential recommendation letter writers to Rachel Jakuba, Vice President for Bay Science, at jakuba@savebuzzardsbay.org. In their cover letter, applicants should explain how the project direction fits their expertise, interests, and career goals. The cover letter is limited to 3 single spaced pages with minimum 11 point font. Candidates will be interviewed jointly by BBC and Woodwell staff. Application review will begin December 1, 2023 and continue until the position is filled.

Other Duties

Please note this job description is not designed to cover or contain a comprehensive listing of activities, duties or responsibilities that are required of the employee for this job. Duties, responsibilities and activities may change at any time with or without notice.

AAP/EEO Statements

Buzzards Bay Coalition is proud to be an Equal Opportunity employer. All qualified persons are encouraged to apply and will be considered without regard to race, national origin, gender, gender identity or expression, sexual orientation, disability, age, religion, or veteran status.

Woodwell Climate Research Center is committed to a firm policy in favor of equal employment opportunity and will abide by all applicable state and federal regulations by not discriminating against any applicant or employee on the basis of race, religion, color, creed, sex, age, national origin, citizenship status, marital status, sexual orientation, gender identity and expression, disability or veteran status. Our commitment to equal employment opportunities shall include employment, upgrading, promotion, demotion, transfer, leaves or other absences from work, layoff, compensation and benefits, selection for training or other education, professional opportunities and conflict resolution.

It is also the policy of Woodwell to take affirmative action to employ and to advance in employment, all persons regardless of their status as woman, minority or individuals with disabilities or protected veterans, and to base all employment decisions only on valid job requirements.

Please inform us of any necessary accommodations required during the application process and/or at any time during employment.

September 2023