



**NOAA  
FISHERIES**

## **Project Scientist in Ecological and Climate Data Analysis and Visualization**

The Institute of Marine Sciences [<https://ims.ucsc.edu/>] at the University of California, Santa Cruz (UCSC), working in conjunction with the NOAA National Marine Fisheries Service Southwest Fisheries Science Center (NOAA Fisheries), invites applications for the position of Project Scientist to develop climate-ready management tools and data streams to improve fisheries sustainability and manage protected resources in the North Pacific.

The candidate will work with ecological models built upon and tied to global climate and earth system models, regional ocean models, and observational datasets, and should have strong skills in accessing, downloading, analyzing, and visualizing large data sets. The candidate will operationalize ecological models to produce daily and forecasted outputs, e.g. EcoCast ([https://coastwatch.pfeg.noaa.gov/ecocast/map\\_product.html](https://coastwatch.pfeg.noaa.gov/ecocast/map_product.html)); WhaleWatch ([https://coastwatch.pfeg.noaa.gov/projects/whalewatch2/whalewatch2\\_map.html](https://coastwatch.pfeg.noaa.gov/projects/whalewatch2/whalewatch2_map.html)), and should have a robust analytical skillset and strong skills in computer science, coding, and data management. The individual will participate in research projects to understand how climatic information can support management decision-making across multiple time-scales, e.g. historical predictions, seasonal forecasts, climate projections. Specific research areas may include fisheries bycatch, whale entanglement in fishing gear and ship strike, the effects of short-term and long-term warming on human-wildlife risk, and the design of climate-smart spatial closures and protected areas. These efforts are part of broader interdisciplinary projects aimed at developing improved fisheries management strategies for the California Current System.

Initial appointments are typically for a period of two years. Reappointment may be considered contingent upon the availability of work and appropriate funding. The positions will be supervised by Barbara Muhling in the Fisheries Collaborative Program at the University of California, Santa Cruz and will work closely with NOAA staff at the Southwest Fisheries Science Center in Monterey.

The Institute of Marine Sciences (IMS) is an organized research unit whose mission is to increase knowledge of the world's oceans and inhabitants to better understand their economic importance and the impact people have on them. Through this effort, IMS maintains the responsibility to encourage, develop, and support marine research and education and does this by providing research opportunities, resources, facilities, and support for scientists within the institute and with other marine research institutions.

As part of its mission's efforts, IMS launched the Fisheries Collaborative Program (FCP) to help foster research collaborations between NOAA scientists, UCSC faculty, IMS researchers, and students. The FCP's research activities include field studies, laboratory experiments, modeling, and computational studies involving marine and freshwater species and habitats. Comprehensive studies are being conducted on the ecology and life history of Pacific salmonids and other fishes. FCP research supports the conservation of coastal biodiversity and the sustainable management of fisheries resources.

The position will be based at the NOAA Southwest Fisheries Science Center laboratory in Monterey, California. Applicants should apply through the links below. The position will remain open until filled. For questions, please contact Dr. Barbara Muhling ([Barbara.muhling@noaa.gov](mailto:Barbara.muhling@noaa.gov)), Dr. Heather Welch



([heather.welch@noaa.gov](mailto:heather.welch@noaa.gov)) and/or Dr. Elliott Hazen ([elliott.hazen@noaa.gov](mailto:elliott.hazen@noaa.gov)).

#### ACADEMIC TITLE

Assistant Project Scientist, Associate Project Scientist, or Project Scientist, determined by the qualifications and experience of the selected candidate. Additional information on the qualifications for each rank is available on the recruitment site, on the Academic Personnel [Project Scientist](#) site.

#### SALARY

Commensurate with qualifications and experience. Refer to the individual salary scale for the *Represented Project Scientist Series* in the [UCSC Salary Scales](#).

#### MINIMUM QUALIFICATIONS

Project Scientist:

- Ph.D.; or a M.A./M.S. degree, plus four years' research experience (achieved post award of M.A./M.S. ) that is relevant to the advertised position. Degrees must be in fisheries sciences and management, marine biology and biological oceanography, ocean/marine sciences, oceanography, ecology, evolutionary biology, environmental science, biology, or a related field. Equivalent foreign degrees will be considered.
- Experience contributing to field or laboratory studies (may have been obtained while completing your degree) in the areas of fisheries biology, marine science, oceanography, climate variability, natural resources management, or related field.

#### TEAM PREFERRED QUALIFICATIONS

- Experience developing and leading research analyses
- Experience with analytical tools and data management of massive data sets ("big data") to provide higher levels of interpretive information useful for environmental analysis and oceanographic application
- Knowledge of relevant HDF, NetCDF, raster, vector and database file formats; experience working with spatio-temporal data
- Knowledge of processing satellite and ocean model data
- Knowledge of geospatial analysis, statistical modeling, machine learning, data-driven decision support tools
- Experience fitting and predicting species distribution models (or similar models)
- Knowledge of R statistical software (or other programming language such as Python, Matlab), user centered design, and GUI development.
- Experience with version control using Git, GitHub/GitLab, or other software
- Prior experience writing custom functions in R, or package development
- Experience creating of interactive maps (e.g. leaflet, mapboxapi, mapdeck, mapview, mapgl R packages)

Applicants are not expected to be proficient in all preferred qualifications listed.

#### TERM OF APPOINTMENT

Initial appointments are typically for a period of two years. Reappointment may be considered contingent upon the availability of work and appropriate funding provided.

#### POSITION AVAILABLE

As soon as possible after initial review of the applications.



#### HOW TO APPLY

**Project Scientist:** <https://recruit.ucsc.edu/JPF01660>

Note: This posting is for a general Fisheries Collaborative Program recruiting pool. Application materials submitted to this posting will be reviewed in the context of the requirements for this specific position but may be considered for other position openings as well.

#### DOCUMENTS/MATERIALS

- Cover letter describing your interest in the position and briefly summarizing your qualifications (as they relate to the minimum and team preferred qualifications)
- CV including a list of publications

#### REFERENCE REQUIREMENT

Applicants who meet the requirements and are under serious consideration will need to provide the names and contact information of professional references (a minimum of 3 are required and a maximum of 5 will be accepted). The hiring unit will request confidential letters\* from the references of those applicants prior to moving forward with an appointment request.

\*All letters will be treated as confidential per University of California policy and California state law. For any reference letter provided via a third party (e.g., dossier service, career center, etc.), direct the author to UCSC's confidentiality statement at <http://apo.ucsc.edu/confstm.htm>.

#### RECRUITMENT PERIOD

Full consideration will be given to applications received by November 29<sup>th</sup> when the pool closes.

UCSC is committed to promoting and protecting an environment that values and supports every person in an atmosphere of civility, honesty, cooperation, professionalism, and fairness. UCSC expects that every campus member will practice these Principles of Community <https://www.ucsc.edu/principles-community/>