

Postdoctoral Scholar Position in Fisheries Science and Ecosystem Modeling

The University of California, Santa Cruz, in collaboration with the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Services, seeks a Postdoctoral Scholar in Fisheries Science/Ecosystem Modeling. The postdoctoral scholar will work in partnership with two other postdoctoral scholars, one focused on management strategy evaluation and one on socio-economics. The project involves a multidisciplinary team of federal and academic collaborators from UC Santa Cruz, NOAA Fisheries Science Centers (Northwest, Southwest, and Pacific Islands), and CSIRO (Australia) and is part of the Future Seas Project (<https://future-seas.com/>). The Postdoctoral scholar will conduct ecosystem modeling to assess performance of current and alternative management strategies for coastal pelagic species (CPS) in the California Current under a changing climate, shifting forage species composition, and varying predator populations.

Much of the ecosystem modeling will involve the Atlantis framework (<https://research.csiro.au/atlantis/>, Fulton et al. 2011; Audzijonyte et al. 2019). Atlantis has been applied to the California Current to consider aspects of ecosystem-based management, including impacts of fisheries and harvesting options, ocean acidification, and catch shares. The Atlantis code base is maintained by project collaborators at CSIRO (Australia), and has been applied to over 30 systems worldwide. The California Current Atlantis model simulates full ecosystem dynamics, incorporating information from ROMS oceanographic models, and using that to drive dynamics of interacting predator and prey groups within a three-dimensional domain.

The Postdoctoral Scholar will be responsible for a) further developing the existing California Current Atlantis ecosystem model to improve ecological dynamics of CPS and to test relevant management questions b) incorporating downscaled future climate/ocean projections and species distributions into the Atlantis model, and c) testing the performance of existing and proposed fisheries management strategies, using the Atlantis model coupled with climate related shifts in the dynamics of forage fish, their predators, and the CPS fleet dynamics.

The anticipated start date for the position is November 1, 2020 (negotiable). Initial appointments are for 1 year, with reappointment up to three years pending performance review and funding availability. Applications should be submitted by September 1, 2020 to ensure full consideration but the positions will remain open until filled.

BASIC QUALIFICATIONS: Ph.D. in Quantitative Ecology, Fisheries Science, Biology, Zoology, Biological Oceanography, Mathematics, Statistics, Computer Science, or related discipline; knowledge of modeling ecosystem dynamics and/or fisheries population dynamics; strong quantitative skills; proficiency with statistics and data analysis; some familiarity programming languages such as C++, R, MATLAB, or Python; willingness to collaborate with other postdoctoral researchers, students, and NOAA and University scientists; demonstrated ability to summarize scientific findings in the form of written manuscripts and oral presentations.

PREFERRED QUALIFICATIONS: Experience developing and ideally leading research analyses; experience with marine ecosystem modeling; familiarity with climate/oceanographic models and data; familiarity with fish population dynamics or fisheries management; knowledge of multivariate and spatial statistics.

LOCATION: Seattle, Washington OR La Jolla, California (telework at onset upon request).

TRAVEL: The scholar will be expected to travel for one-week trips, up to four times per year, to attend project meetings and conferences.

TO APPLY: Submit as a single PDF: (1) a letter of application that addresses how you meet the basic and preferred qualifications, (2) a curriculum vitae, (3) one to three representative publications, and (4) names and contact information of three references. Applications can be sent directly to Isaac Kaplan (Isaac.Kaplan@noaa.gov) and Desiree Tommasi (Desiree.Tommasi@noaa.gov). Please specify in your email that you are applying for the Fisheries Science/Ecosystem Modeling position.

The University of California is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability, age, or protected veteran status. UC Santa Cruz is committed to excellence through diversity and strives to establish a climate that welcomes, celebrates, and promotes respect for the contributions of all students and employees.