

POSTDOCTORAL SCHOLAR: Management stock structure of Pacific cod in the Gulf of Alaska

POSITION: OSU's College of Earth, Ocean, and Atmospheric Sciences invites application for a full-time, 24-month POSTDOCTORAL SCHOLAR. This position is located at the Oregon State University campus in Corvallis, Oregon, USA.

POSITION RESPONSIBILITIES:

We seek a highly motivated researcher to develop and implement a collaborative, interdisciplinary project on Pacific cod in the western Gulf of Alaska (GOA). Pacific cod is a commercially important groundfish in the Western GOA. The stock has recently declined and reached historical low levels that prompted fishery closure in 2020. At the same time the North Pacific and Gulf of Alaska in particular have had a series of unprecedented warm years. A team of scientists at the NOAA Alaska Fisheries Science Center (AFSC) and Oregon State University in Corvallis (Oregon, USA) has been developing studies to understand how changing environmental conditions could affect cod distribution and abundance, physiology, particularly during early life stages, and how these characterizations can be used to better assess stock biomass through a spatial explicit stock assessment.

The overarching goal of this post-doc position is to develop a spatial management model to improve stock assessment and management of Pacific cod in the western GOA. The spatial structure of a population can be defined with different disciplinary lenses, including oceanographic (i.e., based on ocean conditions experienced by different group of individuals), demographic (i.e., rate of changes of individuals), ecological (i.e., variations of life history traits), genetic (i.e., variations of coding and neutral portion of genome), and socio-economic (i.e., based on harvest technologies, cultural links with the resource, and policy boundaries). All of these structures influence the way in which resources are surveyed, their abundance are assessed, and their harvest is managed. Currently the western GOA Pacific cod is assessed and managed as a single stock that is combined with the rest of the GOA, but recent genetic, tagging and oceanographic studies, challenge this assumption. To date, an assessment of how different stock structures influence metrics relevant to management is missing.

The successful candidate will collaborate with scientists at the Oregon State University in Corvallis (Oregon, USA) and NOAA AFSC in Seattle (Washington, USA). Specific goals include 1. Conduct empirical retrospective analyses of Pacific cod over different life history stages 2. Apply a mechanistic model of cod movement and survival during early life-history stages and 3. Quantify scenarios to assess multi-stock configurations for Pacific cod stock assessment in the GOA. Scenarios may include different spatial configurations informed by the previous two objectives.

We pursue applicants with diverse perspectives, who are committed to inclusion, diversity, equity, and open science, and strive for a culture of understanding, respect, long-term engagement, and accountability.

MINIMUM/REQUIRED QUALIFICATIONS

- Doctorate (PhD) in Quantitative Ecology, Statistics, Fisheries Science, Oceanography, Computer Science, Ecology, Natural Sciences or related fields
- Previous experience working in collaborative research projects at the interface of science and management
- Demonstrated experience with population dynamic models, statistics, and analytical software (R)
- A commitment to foster inclusion and working with colleagues from diverse background, cultures, nationalities, and identities

PREFERRED QUALIFICATIONS

- Previous experience working with stock assessment software (e.g., Stock Synthesis), optimization software (ADMB or TMB), oceanographic model output, and open science tools (e.g., GitHub)
- Knowledge of oceanography and ecology
- Records of published research

STIPEND: Salaries for OSU postdoctoral scholar positions start at \$60,000 and increase to \$65,000 based on years of experience after graduation and qualifications. Health insurance for the incumbent is included and additional health insurance for family members is available at reasonable cost. Travel allowance to annual project meetings is also included. For more info about benefits see: <https://gradschool.oregonstate.edu/postdocs/stipends-and-benefits>.

POSITION AVAILABLE: August 1st, 2023

APPLICATION DEADLINE: Until a suitable candidate is found

Please send a cover letter detailing previous relevant academic and research experiences, a CV, and contact info for three references. Send applications to: Lorenzo Ciannelli, lorenzo.ciannelli@oregonstate.edu

For inquiries about the position, please contact Lorenzo Ciannelli (he/him, lorenzo.ciannelli@oregonstate.edu). Oregon State University is an affirmative action/equal opportunity employer.