Postdoctoral Research Scholar- Assessing drivers of salmon marine survival

Department of Fisheries, Wildlife, and Conservation Sciences
Oregon State University

Pacific salmon populations are a vital resource for freshwater and marine ecosystems, indigenous cultures, and recreational and commercial fisheries. Many threatened and endangered populations are highly vulnerable to climate change, especially due to lower marine survival in a warmer ocean. Lack of information about the mechanisms depressing survival limits our ability to identify management actions that will enhance population resilience.

The Western Regional Action Plan (WRAP) Salmon Marine Survival project aims to improve our understanding of the marine life stage of endangered salmon populations, with the goal of identifying management interventions that can help maintain and recover threatened populations. The project is using a suite of tools and approaches including single-species models, multi-species models of intermediate complexity, and end-to-end ecosystem models to evaluate how climate change, harvest, and predator-prey interactions affect the survival of juvenile and adult salmon in their marine stage.

We invite applications for a full-time Postdoctoral Research Scholar appointment to be held at the Department of Fisheries and Wildlife, Oregon State University. The scholar will focus on developing structural equation models to assess drivers of salmon marine survival. The scholar will have access to a number of extensive NOAA datasets on salmon prey, competitor, and predator species in the Northern California Current, as well as salmon survival estimates from coded wire tag recoveries and pit tag detections. The scholar will be based at Oregon State University but will be co-supervised by research scientists from the NOAA Northwest Fisheries Science Center.

Applicants must have completed all the requirements for their doctoral program (PhD or equivalent), with demonstrated research accomplishments, and publications in the primary research literature. Applicants should have a strong quantitative background, preferably with experience applying state-space models, hidden Markov models, structural equation models, Bayesian methods or similar. Applicants with a demonstrated strong general quantitative background and interest in learning the theory and application of structural equation models will also be considered.

Periodic travel to meet with collaborators will be required, and we anticipate opportunities to participate in fieldwork including long-term monitoring surveys along the coast of Washington and Oregon to collect data on juvenile salmon and their prey.

Appointment: Appointments will be intended for a term of one (1) year, with the possibility for renewal of an additional year, based upon a satisfactory performance review. Salary ($57,000 - $60,000 per year) and full benefits will be commensurate with qualifications of the successful applicant. Start date is negotiable but no later than October 2023. The scholar will be supervised by Joshua Stewart (OSU), James Peterson (OSU / USGS), Lisa Crozier (NOAA NWFSC) and David Huff (NOAA NWFSC).

Application Submission: Applications must include a complete personal resume with details of academic qualifications, electronic copies of two (2) representative scientific publications, and the names and contact information of three (3) individuals who have agreed to provide a
personal and professional recommendation if requested. Email all applications to Joshua Stewart joshua.stewart@oregonstate.edu

**Deadline for applications:** Applications will be accepted starting 6/1/2023 and will close on 7/15/2023 or until the position has been filled.

**Interviews:** All applications will be acknowledged electronically; only those selected for consideration on a short list will be contacted and asked to provide letters of recommendation.