

Topics at the nexus of climate change, fisheries, and blue foods

A webinar series highlighting the impact of climate change on fisheries and aquaculture and the communities who depend on them

June 2024 Webinar: Monitoring and modeling ocean ecosystem changes

June 27: US East Coast Time 13:00 (UTC-4) // San Francisco, CA 10:00 (UTC-7)

Presentations

Presentation 1: Olympic Region Harmful Algal Bloom (ORHAB) Partnership

The Olympic Region Harmful Algal Bloom (ORHAB) Partnership shares knowledge with local communities on the Olympic Peninsula of the Washington State coast, empowering tribal and state managers to make scientifically-based decisions about managing and mitigating harmful algal bloom (HAB) impacts on coastal fishery resources. The ORHAB Partnership was conceived in June 1999 by local residents and coastal communities in response to seemingly random closures of shellfish harvest due to outbreaks of marine biotoxins including paralytic shellfish toxins and domoic acid. Sharing a common need to better understand the underlying dynamics of these disruptive events, a regional partnership was formed of tribal and non-tribal community leaders, businesses, and state and federal resource managers and researchers.

For more information: [Olympic Region Harmful Algal Bloom \(ORHAB\) Partnership](#)

Webinar Presenter: **Dr. Vera Trainer** is the Marine Program Director & Research Scientist with the Olympic Natural Resources Center. In her role, she directs the ORHAB Partnership. Dr. Trainer is an affiliate associate professor in the School of Aquatic and Fishery Sciences at the University of Washington and conducted research for almost three decades during her tenure as an oceanographer with the National Oceanic and Atmospheric Administration. Her current research on harmful algal blooms focuses on the assessment of climatic factors that influence toxic bloom development and intensity. She has led international comparative approaches to study the intensity, geographical distribution and toxicity of harmful algal blooms that have increased our understanding of environmental stressors that promote these events across the North Pacific. She has also led efforts aboard NOAA ships to map toxic blooms and has participated in numerous research cruises as principal investigator.

For more information:

- [ORHAB: Olympic Region Harmful Algal Blooms](#)
- *References:*
 - [Varanasi et al. 2021, Taking the Long View for Oceans and Human Health Connection through Community Driven Science](#)
 - [Trainer and Suddleson 2005, Monitoring Approaches for Early Warning of Domoic Acid Events in Washington State](#)
 - [McCabe et al. 2023, The Pacific Northwest Harmful Algal Blooms Bulletin](#)

Presentation 2: Future Seas

Future Seas is a collaborative, interdisciplinary effort to explore potential impacts of climate change on U.S. west coast fisheries and to evaluate strategies for managing those impacts. A suite

of dynamical, statistical, and conceptual models is being applied to explore future scenarios in an “end-to-end” framework spanning physical changes to socio-economic consequences, and to evaluate uncertainty associated with individual elements of the modeling framework. Future Seas is funded by the NOAA Climate Program Office’s Climate and Fisheries Adaptation (CAFA) program and the NOAA Fisheries Office of Science and Technology.

Webinar Presenter: [Dr. Barbara Muhling](#) is a research scientist at the University of California, Santa Cruz, based at the NOAA Southwest Fisheries Science Center. She completed her PhD in Perth, Australia, and did her postdoc on the spawning dynamics of tunas in the Gulf of Mexico and Caribbean Sea, through the NOAA Southeast Fisheries Science Center in Miami, Florida. Her current research focuses on the distribution and ecology of pelagic fishes in the California Current System, and the broader North Pacific. She is particularly interested in how these species may respond to environmental variability and climate change, as well as the potential impacts of shifting species distributions on fisheries and fishing communities. She is a member of the CLIOTOP Scientific Steering Committee, and has co-chaired working groups on climate change and species distributions through PICES and NOAA.

For more information:

- [Future Seas: A Physics-to-Fisheries Management Strategy Evaluation for the California Current System](#)

This webinar series is jointly hosted by the UN Ocean Decade Programs [Blue Food Futures](#), [Fisheries Strategies for Changing Oceans and Resilient Ecosystems \(FishSCORE\)](#), [Sustainability, Predictability, and Resilience of Marine Ecosystems \(SUPREME\)](#), and [Sustainability of Marine Ecosystems through Global Knowledge Networks \(SmartNet\)](#).

This webinar series highlights current efforts and challenges along the spectrum of the climate-fisheries nexus. Presentations and discussions will range from data-driven efforts being undertaken around the world to better understand oceanographic and biological changes affecting fisheries, to how the results can be used to inform fisheries management, aquaculture, and sustainable food decisions, to the many ways people and broader communities are being impacted by and adapting to the way these changes impact marine ecosystems and marine resource use.



Blue Food Futures

