



**WASHINGTON OCEAN ACIDIFICATION CENTER
2023 OCEAN ACIDIFICATION SCIENCE SYMPOSIUM
Wisteria Hall, UW Arboretum, Seattle, WA
23 May 2023**

08:00 Arrival and Coffee/Tea

08:30 Welcome and Introduction to Symposium: WOAC Co-directors Terrie Klinger and Jan Newton
Group Introductions: All (name and affiliation only)

Session 1: Ocean Acidification Field Observations

9:00-9:15 *Richard Feely (NOAA PMEL)* - How anthropogenic carbon dioxide uptake and respiration reduce habitat suitability for marine calcifiers along the West Coast of North America

9:15-9:40 *Simone Alin (NOAA PMEL)* - What observations on Washington's outer coast and Salish Sea are teaching us about ocean acidification change through time

9:40-9:55 *Micah Horwith (WA Ecology)* - Larval timing and seasonality in acidification conditions

9:55-10:20 ***Session 1 Discussion (25 min)***

10:20-10:40 Refreshment break and posters (20 min)

Session 2: Advances in Assessing Ocean Acidification and Biological Response

10:40-10:55 *John Sharp (CICOES/PMEL)* - Observation-based mapping of OA in the Pacific Northwest and other US Large Marine Ecosystems

10:55-11:10 *Parker MacCready (UW Ocean)* - New improvements in the LiveOcean modeling system

11:10-11:25 *Jan Newton (UW APL/Ocean/SMEA)* - A regional vulnerability assessment to ocean acidification for the Olympic Coast

11:25-11:45 ***Session 2 Discussion (20 min)***

11:45-12:00 Poster briefs (2 min each)

12:00-12:50 Lunch break and posters (buffet lunch provided) (50 min)

Session 3: Biological Responses to Ocean Acidification I

- 12:50-13:05 *Alexis Fischer (UCAR)* - Drivers of *Pseudo-nitzschia* spp. abundance and toxicity in the Northern California Current System
- 13:05-13:20 *William Cochlan (SFSU)* - Variable impacts of ocean acidification on the growth and toxigenicity of two *Pseudo-nitzschia* species from the California Current Upwelling System
- 13:20-13:35 *Shallin Busch (NOAA NWFSC)* - Response of adult krill to global change
- 13:35-13:50 *Haila Schultz (UW Ocean)* - Mesozooplankton composition and distribution from WOAC cruises 2014-2022

13:50-14:15 ***Session 3 Discussion (25 min)***

14:15-14:40 Refreshment break and posters (25 min)

Session 4: Biological Responses to Ocean Acidification II

- 14:40-14:55 *Paul McElhany (NOAA NWFSC)* - Dungeness Crab in an acidifying ocean: experiments, models, and real-world uncertainty
- 14:55-15:10 *Craig Norrie (UW SAFS)* - Shellfish stress & chromosome copies: Responses of diploid and triploid *Crassostrea gigas* to climate change stressors
- 15:10-15:25 *Brooke Love (WWU)* - The embryos of Pacific herring are resilient to combined acidification and acute warming - but there are limits
- 15:25-15:40 *Terrie Klinger (UW SMEA)* - Biological sensitivities to high-resolution climate change projections in the California Current marine ecosystem

15:40-16:05 ***Session 4 Discussion (25 min)***

Session 5: Looking Forward

- 16:05-16:20 *Liz Perotti (NOAA OAP)* - Priorities, investment, and capacity building in the region - what are our next steps?
- 16:20-16:35 *Brad Warren (Global Ocean Health)* - mCDR: Opportunities & challenges for the OA community

16:35-16:55 ***Session 4 Discussion (20 min)***

16:55-17:00 Closing Remarks: WOAC Co-directors

17:00 Adjourn

Poster Session Titles:

Ali Chase (UW APL) - Phytoplankton in Puget Sound during 2014-2019: HAB species and OA parameters

Maya Garber-Yonts (UW SMEA) - Using time-series eDNA to evaluate harmful algal taxon in Puget Sound

Miranda Roethler (UW SAFS) - Effects of ocean warming and acidification on bull kelp photophysiology

Mary Margaret Stoll (UW Ocean) - A century of change in the California Current: Quantifying the impact of anthropogenic climate change on ocean chemistry

Kate Hewett (UW Ocean) - Hypoxic and corrosive volumes on the shelf in the Northern California Current System

Amelia Ritger (UC Santa Barbara/OCNMS/ONP) - Developing low-cost, simplified, and open source Durafet-based pH instrument electronics

Thanks for attending!

Please find us at <https://oceanacidification.uw.edu/>