

# 2021 Humboldt Bay Symposium: Sustainable Blue Economy

September 28-30, 2021; 10:00 a.m. to 2:30 p.m. PT



Thank you to our generous symposium sponsors:



## Day 1 - September 28, 2021; 10 a.m. to 2:30 p.m.

### *Morning Session: Blue carbon, Sediment, and Climate Impacts*

- 10:00-10:05**      **Welcome and Logistics**  
Joe Tyburczy, California Sea Grant; Humboldt State University
- 10:05-10:10**      **Symposium Welcome**  
Ted Hernandez, Wiyot Tribe
- 10:10-10:35**      **Impacts of Climate Change on Estuarine Ecology**  
Tom Suchanek, UC Davis Dept. of Wildlife, Fish and Conservation Biology;  
Coastal and Marine Sciences Institute/Bodega Marine Laboratory
- 10:35-11:00**      **Blue Carbon Storage in California Salt Marshes**  
Lauren Brown, Louisiana Universities Marine Consortium
- 11:00-11:20**      **Salt Marsh Edge Erosion and Retreat in Humboldt Bay**  
Chase Freeman, USGS - Western Ecological Research Center
- 11:20-11:35**      **Geomorphic Response to Changes in Eelgrass Cover in Humboldt Bay**  
Whelan Gilkerson, Merkel & Associates, Inc
- 11:35-11:45**      **Sediment Management Challenges and Opportunities in Humboldt Bay**  
Adam Wagschal, Humboldt Bay Harbor, Recreation and Conservation District
- 11:40-11:55**      **Carbon Implications of Upland Watershed Restoration**  
Mary Ann Madej, Coastal Ecosystems Institute of Northern California
- 11:55-12:00**      **Watersheds as Amplifiers of Climate Change in Humboldt Bay**  
Jenny Curtis, USGS - California Water Science Center
- 12:00-12:30**      **LUNCH**

### *Afternoon Session: Restoration and Ecology*

- 12:30-12:45**      **Are Longfin Smelt Alone in the San Francisco Estuary?**  
Colin Brennan, ICF
- 12:45-12:55**      **Bull Kelp Decline in Northern California**  
Gina Contolini, California Sea Grant; California Department of Fish and Wildlife
- 12:55-1:15**      **Kelp Recovery and Research in California**  
James Ray, California Department of Fish and Wildlife
- 1:15-1:30**      **Collaborative, Landscape-Level Conservation in Humboldt Bay**  
Mike Cipra, Friends of the Dunes
- 1:30-1:35**      **BREAK**
- 1:35-1:50**      **Ocean Ranch Restoration Project – 2021 Updates**  
Natalie Washburn, Ducks Unlimited
- 1:50-2:10**      **Results from Eelgrass and Wasting Disease Monitoring in Humboldt Bay**  
Kevin Landaw, Humboldt State University
- 2:10-2:30**      **Unmanned Aerial Systems and Remote Sensing for Restoration Practitioners**  
Ian Pryor, Stillwater Sciences

## Day 2 - September 29, 2021; 10 a.m. to 2:30 p.m.

### *Morning Session: Sustainable Blue Economy*

- 10:00-10:20**      **Keynote: Sustainable Blue Economy**  
Wade Crowfoot, California Secretary of Natural Resources
- 10:20-11:15**      **Panel: Sustainable Blue Economy**  
**Moderator:** Sharon Kramer, H. T. Harvey & Associates and CEINC  
Julie Benbow, Humboldt County Visitors Bureau  
Stephen Kullmann, Humboldt Bay Harbor, Recreation and Conservation District  
Matt Marshall, Redwood Coast Energy Authority  
John Driscoll, District Representative for Congressman Jared Huffman (CA-2)  
Rick Zechman, Assoc. Dean of HSU College of Natural Resources and Sciences  
Rafael Cuevas Uribe, HSU Department of Fisheries Biology  
Karen Gray, GreenWave
- 11:20-12:00**      **Panel: Development of a Regional Conservation Investment Strategy for Humboldt Bay**  
**Moderator:** Bernadette Clueit, ICF  
Adam Wagschal, Humboldt Bay Harbor, Recreation and Conservation District  
Aaron Gabbe, ICF  
Hank Seemann, Humboldt County Public Works  
Ami Olson, California Department of Fish and Wildlife
- 12:00-12:30**      **LUNCH**

### *Afternoon Session: Restoration and Ecology*

- 12:30-12:50**      **Elk River Estuary and Tidal Enhancement Project**  
Katie Marsolan, City of Eureka
- 12:50-1:00**      **The Jacoby Creek Enhancement Project: Conservation through Community**  
Stephanie Mietz, Jacoby Creek Land Trust
- 1:00-1:20**      **Star Struck: Continental-scale Collapse of Sunflower Sea Stars from Sea Star Wasting Disease and What We Can Do About It!**  
Sarah Gravem, Oregon State University
- 1:20-1:40**      **The White Slough Restoration Project: Rebuilding a Marsh with Imported Fill**  
Conor Shea, U.S. Fish & Wildlife Service
- 1:40-2:00**      **Investigating the Genetic Basis of Resident and Anadromous Life-histories of Coastal Cutthroat Trout and Hybridization with Steelhead**  
Sam Rizza, Stillwater Sciences
- 2:00-2:10**      **South Jacoby Wetland Restoration and Enhancement – Adaptive Management**  
Emily Benvie, City of Arcata — Environmental Services
- 2:10-2:30**      **Ecological Enhancement Through Change in Water Rights**  
Michelle Fuller, Humboldt Bay Municipal Water District

## Day 3 - September 30, 2021; 10 a.m. to 2:30 p.m.

Organized by:



### *Morning Session: Sea Level Rise*

- 10:00-10:10**      **Welcome & Introduction to the Humboldt State University Sea Level Rise Initiative (SLRI)**  
HSU SLRI Co-Chairs: Laurie Richmond, HSU Environmental Science & Management; Adam Canter, Wiyot Tribe-Table Bluff Reservation Natural Resources Department
- 10:10-10:25**      **Humboldt Bay SLR Planning: Past, Present, and Future**  
Aldaron Laird, Environmental Planner; former Co-Chair HSU SLRI
- 10:25-10:35**      **Surf and Turf: How Active Tectonic Processes Contribute to Sea-Level Rise in Coastal Northern California**  
Jason "Jay" R. Patton, P.G., Ph.D., Engineering Geologist, California Geological Survey, Seismic Hazards Program, Tsunami Unit
- 10:35-10:40**      **BREAK**
- 10:40-10:45**      **Exploring Community Knowledge and Perceptions of Flooding and Sea-Level Rise in King Salmon, California**  
Kristina Kunkel, Sea Level Rise Consultant; HSU SLRI Member
- 10:45-10:50**      **Social Science Research on Regional Coordination and Collaboration of Sea Level Rise Planning and Adaptation on Humboldt Bay**  
Kristen Orth-Gordinier, HSU Graduate Student; SLRI Member
- 10:50-10:55**      **Cultural Continuity and Revitalization under SLR**  
Hilanea Wilkinson, Wiyot Tribe – Table Bluff Reservation Natural Resources Department; HSU SLRI Member
- 10:55-11:00**      **Where Do We Go from Here? Sea Level–Rise Risk to a Spent Nuclear Fuel Site on Humboldt Bay**  
Jennifer Marlow, HSU Environmental Science & Management; SLRI Member  
Alexander Brown, HSU Graduate Student; SLRI member
- 11:00-11:05**      **Environmental Resources Engineering Senior Capstone Designs for Sea Level Rise Mitigation on Humboldt Bay**  
Eileen Cashman, Chair of HSU Environmental Resources Engineering Department; SLRI member

- 11:05-11:10**      **Prioritizing Contaminated Sites at Risk from SLR**  
Jen Kalt, Humboldt Baykeeper; SLRI member
- 11:10-11:30**      **Questions**
- 11:30-11:40**      **The Economics of Sea Level Rise in California: with an Application to Humboldt Bay**  
Philip G. King, San Francisco State University, Economics Department
- 11:40-11:50**      **State Policy Update**  
Kip Lipper, Office of the California Senate President pro Tempore
- 11:50-12:00**      **Questions**
- 12:00-12:30**      **LUNCH**
- Afternoon Sessions: Sea Level Rise Planning and Adaptation*
- 12:30-2:00**      **Panel: Regional SLR Planning on Humboldt Bay**  
Humboldt County  
City of Eureka  
City of Arcata  
Humboldt Bay Harbor, Recreation and Conservation District  
Wiyot Tribe - Table Bluff Reservation  
California Coastal Commission
- 2:00-2:20**      **Questions**
- 2:20-2:25**      **Closing Statements**  
Laurie Richmond, HSU Environmental Science & Management  
Adam Canter, Wiyot Tribe - Table Bluff Reservation Natural Resources Department
- 2:25-2:30**      **Closing Statements**  
Joe Tyburczy, California Sea Grant; Humboldt State University