

67TH ANNUAL
EASTERN PACIFIC OCEAN CONFERENCE

EPOC 2021 PROGRAM



Photo courtesy of Christian Arballo

Stanford Sierra Center, Fallen Leaf Lake, California

September 26-29, 2021

EPOC 2021 - PROGRAM SUMMARY

DAY 1: SUNDAY, SEPTEMBER 26

4:00 PM	Check-in Begins (<i>Stanford Room</i>)
6:00 PM - 8:00 PM	Dinner (<i>Dining Room</i>)
8:00 PM - 9:00 PM	Fireside Chat, Loo Botsford (<i>Cathedral Room</i>)
9:00 PM - 11:00 PM	Bonfire Reception (<i>Old Lodge and Front of Lodge</i>)

DAY 2: MONDAY, SEPTEMBER 27

6:00 AM - 7:00 AM	Coffee available at the Stanford Room
7:00 AM - 8:20 AM	Breakfast (<i>Dining Room</i>)
8:30 AM - 12:15 PM	Morning Sessions (<i>Cathedral Room</i>) (S1) Climate Variations and Climate Change in the Eastern Pacific: Marine Heat Waves and More
12:15 PM - 3:00 PM	Lunch and Free Time (<i>Dining Room</i>) → 1:00 PM - 3:00 PM: Boating (<i>Boat Dock</i>) → 1:00 PM - 2:30 PM: Guided Hike (<i>Fountain Deck</i>)
3:00 PM - 6:00 PM	Afternoon Session (<i>Cathedral Room</i>) (S2) Mesoscale to Submesoscale Controls on Biological Productivity within EBUS
6:00 PM - 8:00 PM	Dinner and Free Time (<i>Dining Room</i>)
8:00 PM - 10:00 PM	Reception Part 1 (<i>TBD</i>)

DAY 3: TUESDAY, SEPTEMBER 28

6:00 AM - 7:00 AM	Coffee available at the Stanford Room
7:00 AM - 8:00 AM	Yoga (<i>Angora Room</i>)
7:00 AM - 9:00 AM	Breakfast and Free Time (<i>Dining Room</i>)
9:00 AM - 12:00 PM	Morning Sessions (<i>Cathedral Room</i>) (S5) General Session
12:00 PM - 4:00 PM	Lunch and Free Time (<i>Dining Room</i>) → 1:00 PM - 4:00 PM: Boating (<i>Boat Dock</i>) → 1:00 PM - 3:30 PM: Guided Hike (<i>Fountain Deck</i>)
4:00 PM - 6:30 PM	Afternoon Session (<i>Cathedral Room</i>) (S3) Predictability of Physical-Biological Variations Along the U.S. West Coast
6:30 PM - 8:00 PM	Dinner and Free Time (<i>Dining Room</i>)
8:00 PM - 10:00 PM	Reception, Optional Jam Session (<i>Cathedral Room</i>)

DAY 4: WEDNESDAY, SEPTEMBER 29

6:00 AM - 7:00 AM	Coffee available at the Stanford Room
7:00 AM - 9:00 AM	Breakfast and Free Time (<i>Dining Room</i>)
9:00 AM - 12:00 PM	Morning Session (<i>Cathedral Room</i>) (S4) Science to Action: Advancing Multidisciplinary Ocean Observing in the California Current to Inform Conservation and Management in a Changing Ocean
12:00 PM - 12:30 PM	EPOC Business Meeting (<i>Cathedral Room</i>)
12:30 PM - 1:30 PM	Lunch (<i>Dining Room</i>)

EPOC 2021 - MONDAY, SEPTEMBER 27

- 8:30 AM -12:15 PM** **Climate Variations and Climate Change in the Eastern Pacific: Marine Heat Waves and More**
Chair: Tom Murphee
- 8:30 AM Introductory Remarks
- 8:35 AM **Cristian Swift***: U.S. West Coast Upwelling Variability over the past 3+ Decades
- 9:00 AM **Maria Jose Marin Jarrin***: Temperature variability in the Coos Estuary and its potential links to eelgrass loss
- 9:25 AM **Samuel Mogen***: Ocean biogeochemical signatures of the North Pacific Blob
- 9:50 AM *Morning Coffee Break*
- 10:30 AM **Elise Beaudin***: The role of the Northeast Pacific climate modes on the atmospheric forcing during the 2010-2020 climate extremes
- 10:55 AM **Dillon Amaya**: Are Long-Term Changes in Mixed Layer Depth Influencing North Pacific Marine Heatwaves?
- 11:20 AM **Hui Shi**: Co-occurrence of northeast Pacific marine heatwaves and California drought under climate change
- 11:45 AM *Discussion*
- 12:15 PM- 3:00 PM** **Lunch and Free Time**
Cathedral Room

EPOC 2021 - MONDAY, SEPTEMBER 27 (CONT.)

- 3:00 PM - 6:00 PM** **Mesoscale to Submesoscale Controls on Biological Productivity within EBUS**
Chairs: Daniel McCoy and Jordyn Moscoso*
- 3:00 PM **Andrew Scherer***: Observations of cross-shelf nitrate fluxes over the Oregon continental shelf
- 3:25 PM **Thomas Connolly**: Nonlinear Ekman pumping and coastal upwelling off the Oregon coast
- 3:50 PM **Nathalí Cordero Quirós**: Future Changes in Eddy Kinetic Energy in the California Current Systems
- 4:15 PM *Afternoon Coffee Break*
- 4:40 PM **Victoria Boatwright***: Eddy effects on phytoplankton distributions in the California Current System
- 5:05 PM **Monique Messié**: Krill hotspots in the California Current: environmental drivers and satellite prediction
- 5:30 PM *Discussion*
- 6:00 PM - 8:00 PM** **Dinner and Free Time**
- 8:00 PM -10:00 PM** **Reception Part 1**

EPOC 2021 - TUESDAY, SEPTEMBER 28

9:00 AM -12:00 PM **General Session**

Chairs: Dillon Amaya and Nathalí Cordero Quirós

9:00 AM **Caitlin Amos***: Influence of the El Niño-Southern Oscillation on SST fronts along the west coasts of North and South America

9:25 AM **Maria Jose Marin Jarrin***: Oceanography of the Ecuadorian Sea: current and future research

9:50 AM **Daniel McCoy***: Modeling pathways of Nitrous Oxide Production within the Eastern Tropical South Pacific Oxygen Minimum Zone

10:15 AM *Morning Coffee Break*

10:50 AM **Jordyn Moscoso***: Zonal gradients in plankton size and community composition in the California Current System

11:15 AM **Tamara Schlosser**: The self-stratifying 2020 SoCal red tide

11:40 AM *Discussion*

12:00 PM- 4:00 PM **Lunch and Free Time**

EPOC 2021 - TUESDAY, SEPTEMBER 28 (CONT.)

- 4:00 PM - 6:30 PM** **Predictability of Physical-Biological Variations Along the U.S. West Coast**
Chair: Art Miller
- 4:00 PM **Albert Hermann:** Coupled modes of projected regional change in the Bering Sea from a dynamically downscaling model under CMIP6 forcing
- 4:25 PM **Dillon Amaya:** Subseasonal-to-seasonal forecast skill in the California Current System and its connection to coastal Kelvin waves
- 4:50 PM *Afternoon Coffee Break*
- 5:15 PM **Julia McElhinny*:** Using New Upwelling Indices to Explain Patterns in the Biodiversity of Forage Fish Species in the California Current System
- 5:40 PM **Stephanie Brodie:** Exploring timescales of predictability in species distributions
- 6:05 PM *Discussion*
- 6:30 PM - 8:00 PM** **Dinner and Free Time**
- 8:00 PM -10:00 PM** **Reception, Optional Jam Session**

EPOC 2021 - WEDNESDAY, SEPTEMBER 29

- 9:00 AM -12:00 PM** **Science to Action: Advancing Multidisciplinary Ocean Observing in the California Current to Inform Conservation and Management in a Changing Ocean**
Chair: Jessica Kauzer
- 9:00 AM **Louis Botsford:** Effects of Marine Heat Waves on age-structured populations: impact, return, and continuing variability
- 9:25 AM **Clarissa Anderson:** “Red Tide” 2020 and Why it Made History
- 9:50 AM **Bofu Zheng*:** High-resolution measurements of nitrate and their response to biological and physical processes – a case study in nearshore Southern California
- 10:15 AM *Morning Coffee Break*
- 10:50 AM **Halle Berger*:** Seasonality and Life History Complexity Determine Vulnerability of Dungeness Crab to Multiple Climate Stressors a
- 11:15 AM **Natalie Low:** Integrated data visualizations and decision-support tools for assessment of the California Marine Protected Area network
- 11:40 AM *Discussion*
- 12:00 PM-12:30 PM** **EPOC Business Meeting**
- 12:30 PM** **EPOC 2021 is Adjourned**