

68TH ANNUAL
EASTERN PACIFIC OCEAN CONFERENCE

EPOC 2022 PROGRAM

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Timberline Lodge, Mount Hood, Oregon

September 14-17, 2022

EPOC 2022 - PROGRAM SUMMARY

DAY 1: WEDNESDAY, SEPTEMBER 14

4:00 PM		Check-in Begins (<i>Barlow Room</i>)
6:00 PM	- 7:30 PM	Dinner (<i>Cascade Dining Room or Ram's Head Bar</i>)
7:30 PM	- 8:00 PM	Welcome Ceremony (<i>Lobby Patio</i>)
8:00 PM	- 10:00 PM	Fireside Chat, Dr. Gretchen Hofmann (<i>Barlow Room</i>)

DAY 2: THURSDAY, SEPTEMBER 15

7:30 AM	- 8:15 AM	Breakfast (<i>Cascade Dining Room</i>)
8:30 AM	- 11:40 PM	Morning Sessions (<i>Ullman Hall</i>): (S1) Physical forcing of biological marine resources in a changing climate
11:40 PM	- 3:00 PM	Lunch and Free Time (<i>Cascade Dining Room</i>)
3:00 PM	- 5:00 PM	Afternoon Session (<i>Ullman Hall</i>): (S2) Modeling and predicting physical-biological variability in the ocean
5:00 PM	- 7:00 PM	Dinner and Free Time (<i>Cascade Dining Room or Ram's Head Bar</i>)
6:30 PM	- 7:00 PM	Poster Session Setup (<i>Y'Bar</i>)
7:00 PM	- 9:30 PM	Poster Session and Reception (<i>Y'Bar</i>)

DAY 3: FRIDAY, SEPTEMBER 16

7:30 AM	- 8:15 AM	Breakfast (<i>Cascade Dining Room</i>)
8:30 AM	- 12:00 PM	Morning Sessions (<i>Ullman Hall</i>): (S2) Modeling and Predicting Physical-Biological Variability in the Ocean (cont.) (S3) Mesoscale and submesoscale fluxes and dynamics in the Eastern Pacific
12:00 PM	- 3:00 PM	Lunch and Free Time (<i>Cascade Dining Room</i>)
3:00 PM	- 5:20 PM	Afternoon Session (<i>Ullman Hall</i>): (S3) Mesoscale and submesoscale fluxes and dynamics in the Eastern Pacific (cont.)
5:20 PM	- 7:00 PM	Free Time
7:00 PM	- 10:30 PM	Banquet and Entertainment, SambaDa (<i>Ullman Hall</i>)

DAY 4: SATURDAY, SEPTEMBER 17

7:30 AM	- 8:15 AM	Breakfast (<i>Cascade Dining Room</i>)
8:30 AM	- 11:40 AM	Morning Session (<i>Ullman Hall</i>): (S4) General Session
11:40 AM	- 12:30 PM	EPOC Business Meeting (<i>Ullman Hall</i>)
	12:30 PM	End of Meeting

EPOC 2022 - THURSDAY, SEPTEMBER 15

*Student Presenter

8:30 AM	-10:40 AM	Physical forcing of biological marine resources in a changing climate Chairs: Will White and Loo Botsford
	8:30 AM	Introductory Remarks
	8:40 AM	Julia Cheresh* : Characterizing aragonite undersaturation events in the California Current System: biophysical drivers, spatiotemporal variability and implications for monitoring future ecosystem change
	9:00 AM	Sara Hamilton : Using Open Data to Assess Exposure to Multiple Stressors in the California Current
	9:20 AM	Al Hermann : Nested biophysical downscaling of anticipated global change to the Gulf of Alaska
	9:40 AM	Caren Barceló : Physiology, Climate Change, and Species Interactions in the Northeastern Pacific
	10:00 AM	<i>Morning Coffee Break</i>
	10:20 AM	Loo Botsford : How marine reserves can buffer fished populations against climate variability
	10:40 AM	Will White : Monitoring marine reserve networks for resilience in a changing climate
	11:00 AM	Melanie Fewings : Seasonal cycles of subsurface ocean conditions on the continental shelf and slope along the Newport Hydrographic Line, Oregon, USA, during 1997-2021
	11:20 AM	<i>Discussion</i>
11:40 PM	- 3:00 PM	Lunch and Free Time

EPOC 2022 - THURSDAY, SEPTEMBER 15 (CONT.)

*Student Presenter

3:00 PM	- 5:00 PM	Modeling and predicting physical-biological variability in the ocean Chairs: Art Miller and Dillon Amaya
	3:00 PM	Introductory Remarks
	3:10 PM	Dillon Amaya: Dynamical forecasts of coastal upwelling in the California Current System
	3:30 PM	Nathali Cordero Quiros: Future changes in eddy kinetic energy in the California Current system from three downscaled climate projections and potential implications for the ecosystem
	3:50 PM	<i>Afternoon Coffee Break</i>
	4:10 PM	Parker MacCready: What Controls the Estuarine Exchange Flow of the Salish Sea?
	4:30 PM	Elizabeth Brasseale: Effect of seasonal wind stress direction on the source of shelf inflow to the Salish Sea and Columbia River estuary
5:00 PM	- 7:00 PM	Dinner and Free Time
6:30 PM	- 7:00 PM	Poster Session Setup and Introductions
7:00 PM	- 9:30 PM	Poster Session and Hors d'Oeuvre Reception

EPOC 2022 - FRIDAY, SEPTEMBER 16

*Student Presenter

8:30 AM	-10:20 AM	Modeling and predicting physical-biological variability in the ocean (cont.) Chairs: Art Miller and Dillon Amaya
	8:30 AM	Jasen Jacobsen* : Primary Production Response to Internal Tide Generation in an Idealized Numerical Model
	8:50 AM	Jann Paul Mattern : Improving the phytoplankton representation in a complex biogeochemical model of the California Current System
	9:10 AM	Jordyn Moscoso : Controls on zonal phytoplankton community structure in eastern boundary upwelling systems
	9:30 AM	Jonathan Izett : Modeling the Dispersal of the San Francisco Bay Plume over the Northern and Central California Shelf
	9:50 AM	<i>Morning Coffee Break</i>
	10:10 AM	Nerea Lezama-Ochoa : Predicting the future distribution of elasmobranch species in the California Current System
	10:30 AM	<i>Discussion</i>
10:50 AM	-12:00 PM	Mesoscale and submesoscale fluxes and dynamics in the Eastern Pacific Chairs: Delphine Hypolite, Daniel Dauhajre, Saulo Soares, and Jinbo Wang
	10:50 AM	Introductory remarks
	11:00 AM	Ted Strub : The Role of Ekman Transports in Modifying Poleward Flow Around Capes Mendocino and Blanco
	11:20 AM	Alexander Kurapov : Stratification anomalies over the continental slope off Oregon in 2014-2015: remote vs. local forcing mechanisms
	11:40 PM	Daniel Dauhajre : Interactions Between Internal Tidal Bores and Submesoscale Currents on the Continental Shelf
12:00 PM	- 3:00 PM	Lunch and Free Time

EPOC 2022 - FRIDAY, SEPTEMBER 16 (CONT.)

*Student Presenter

3:00 PM	- 5:20 PM	Mesoscale and submesoscale fluxes and dynamics in the Eastern Pacific (cont.) Chairs: Delphine Hypolite, Daniel Dauhajre, Saulo Soares, and Jinbo Wang
	3:00 PM	Ali Reza Payandeh* : Submesoscale Eddies in the Southern California Bight Derived from a Decade of High Frequency Radar Observations
	3:20 PM	Delphine Hypolite : Langmuir circulations transfer kinetic energy from submesoscales and larger scales to dissipative scales
	3:40 PM	Karina Ramos-Musalem : High-frequency variability induced in the Southern California Bight by a wind event in Sebastián Vizcaíno Bay, Baja California
	4:00 PM	<i>Afternoon Coffee Break</i>
	4:20 PM	Erin Broatch* : Mixing in a salinity variance budget of the Salish Sea is controlled by river flow
	4:40 AM	<i>Discussion</i>
5:00 PM	- 7:00 PM	Free Time
7:00 PM	-10:30 PM	Banquet and Entertainment with <i>SambaDa</i>

EPOC 2022 - SATURDAY, SEPTEMBER 17

*Student Presenter

9:00 AM	-11:40 AM	General Session: Oceanography of the Eastern Pacific Ocean Chairs: Will White and Mallarie Yeager
	9:00 AM	Erin Guderian* : Exploring the relative forcing of tropical SST on the Asian monsoon using LIM
	9:20 AM	Danni Du* : A Potential Pathway for the Eastern Tropical Pacific low-frequency SST Anomalies to Modulate the Indian Summer Monsoon Subseasonal Anomalies
	9:40 AM	Kelley McBride* : A juvenile journey: using a highly resolved 3D mooring array to quantify the roles of wind and internal tide forcing on cross-shore larval transport
	10:00 AM	<i>Morning Coffee Break</i>
	10:20 PM	Kerry Nickols : Is there potential for macroalgae to mitigate ocean acidification and hypoxia in situ? Lessons learned from California kelp forests
	10:40 AM	Eric Bjorkstedt : The Trinidad Head Line: 15 years and the future
	11:00 AM	<i>Discussion</i>
11:30 AM	-12:30 PM	EPOC Business Meeting
	12:30 PM	EPOC 2022 is Adjourned

EPOC 2022 - POSTER PRESENTATIONS

*Student Presenter

SESSION 2

Modeling and predicting physical-biological variability in the ocean

Genevieve Clow*

Seeing through the clouds: Quantifying North Pacific surface ocean chlorophyll using a satellite emulator in an Earth system model

Élise Beaudin*

Transport Dynamics Variability during the 2010-2020 Extreme Events in the Northeast Pacific

Anthony Wilson*

What sets Earth's maximum surface temperature?

Chris Edwards

Using In Situ Optical Attenuation Profiles to Estimate Phytoplankton Community Structure

Lyndsey Claassen*

Characterizing water bodies and phytoplankton communities from an autonomous underwater vehicle dataset in Monterey Bay, California

SESSION 3

Mesoscale and submesoscale fluxes and dynamics in the Eastern Pacific

Caitlin Amos

Impacts of assimilating in situ data on cross-shelf vertical structure off the Washington coast

Saulo Soares

Processes damping a California Current eddy

EPOC 2022 - POSTER PRESENTATIONS (CONT.)

SESSION 4

General Session: Oceanography of the Eastern Pacific Ocean

Isabelle Marcus*

Spatial and Temporal Variations of Microplastics within Humboldt Bay, California

Emma Modrick*

Spectral analysis of currents in Humboldt Bay

Candice Cooper*

Characterizing chlorophyll in the Gulf of the Farallones, California, and investigating its relationship to surface currents and sea surface temperature

Brandy Cervantes

Subsurface Temperature Anomalies off Central Oregon During 2014-2021

Melanie Fewings

Making available more than two decades of mooring and ship-based observations from the Newport Hydrographic Line

Noel Pelland

Summer heat balances, advection, and mixing: New observations on the Southeast Bering Sea shelf

Jennifer Fisher

The role of basin and local scale physical processes in regulating Calanus biomass and production

Andrew Mondovi*

Utilizing high-resolution reanalysis to examine compounding extreme events in Northeast Pacific and California Current Large Marine Ecosystem

Allison Moreno

Predicting domoic acid events along the US West Coast