



April 12-14, 2022 | Woods Hole, MA and Virtual

Daily to Decadal Ecological Forecasting along North American Coastlines

Tuesday, April 12, 2022

Time (EDT)	Agenda	Presenter
6:40-6:55	White Tie Limo shuttle pick-up at Inn on the Square/Holiday Inn/Sands of Time	
7:00	Workshop registration & continental breakfast (Clark 5 Foyer)	
7:30	Virtual room open	
8:00-8:10	Welcome, opening remarks, workshop goals	Workshop organizers
	Session 1: Sources of Regional Predictability Across Timescales	Moderators: Matt Newman and Michelle Gierach
8:10-8:35	Timescales and Mechanisms of Marine Ecosystem Predictability Along the US West Coast	Mike Jacox (NOAA/SWFSC and NOAA/PSL)*
8:35-9:00	Northern US East Coast	Mike Alexander (NOAA/PSL)
9:00-9:25	Arctic and Bering Sea	Mitch Bushuk (UCAR/NOAA GFDL)
9:25-9:50	Gulf of Mexico and Southeast US	Ruoying He (NCSU)
9:50-10:10	Break	
10:10-10:40	Session 1 Spotlight Talks (5 mins. each)	
	Forecasting ENSO impacts on the California Current Ecosystem planktonic food web	Mark Ohman (SIO)*
	North Pacific decadal predictability of subsurface temperature, oxygen, and the metabolic index	Zhuomin Chen (University of Connecticut)*
	Assessing interannual variability of spring phytoplankton bloom and its drivers in the Gulf of Maine using self-	Zhengchen Zang (WHOI)*
	Subseasonal-to-seasonal forecast skill in the California Current System and its connection to coastal Kelvin waves	Dillon Amaya (NOAA/PSL)
	A dynamically downscaled ensemble of future projections for the California Current System	Mercedes Pozo Buil (UC Santa Cruz)
	Planktonic community dynamics on the Northeast US Shelf	Miraflor Santos (WHOI)
10:40-11:10	Q&A and Discussion	
11:10-11:15	Transition to breakout session	
11:15-12:15	Breakout session 1. Regions (45 mins. discussion, 15 mins. create ONE summary slide to share)	

Time (EDT)	Agenda	Presenter
12:15-13:30	Lunch (Clark 5 Foyer)	
	Session 2: Applications/Timescales	Moderators: Andrew Ross and Victoria Coles
13:30-13:55	Fisheries applications at different timescales	Desiree Tommasi (UC Santa Cruz and NOAA/SWFSC)
13:55-14:20	Predicting hypoxic conditions	Sam Siedlecki (University of Connecticut)
14:20-14:45	HAB prediction	Clarissa Anderson (SIO and SCCOOS)
14:45-15:10	Chesapeake Bay application	Marjy Friedrichs (VIMS)
15:10-15:30	Break	
15:30-15:55	Session 2 Spotlight Talks (5 mins. each)	
	Seasonal ocean forecasts promote dynamic management of the Dungeness Crab fishery in Washington and Oregon, USA	Emily Norton (UW/CICOES)*
	An optimal precursor of Northeast Pacific marine heatwaves and central Pacific El Niño events	Antonietta Capotondi (University Colorado/CIRES and NOAA/PSL)
	Using AI to forecast paralytic shellfish poison (PSP) in coastal Maine	Johnathan Evanilla (Bigelow Laboratory)
	Predicting harmful algal blooms in the Chesapeake Bay using empirical habitat models	Dante Horemans (VIMS)
	The continuum of Northeast Pacific marine heatwaves and their relationship to the tropical Pacific	Tongtong Xu (NOAA/PSL)
15:55-16:25	Q&A and Discussion	
16:25-16:30	Transition to breakout session	
16:30-17:30	Breakout session 2. Applications (45 mins. discussion, 15 mins. create ONE summary slide to share)	
17:30-19:00	Reception with hors d'oeuvres and beverages	
19:00	End Day 1	Check logistics page for restaurant recommendations!

Wednesday, April 13, 2022

Time (EDT)	Agenda	Presenter
6:40-6:55	White Tie Limo shuttle pick-up at Inn on the Square/Holiday Inn/Sands of Time	
7:00	Continental breakfast (Clark 5 Foyer)	
7:30	Virtual room open	
8:00-8:30	Welcome and breakout summaries	Breakout moderators
	Session 3: Modeling Capabilities/Challenges	Moderators: Mercedes Pozo Buil and Charlie Stock
8:30-8:55	Global physical and BGC modeling and predictions	Matt Long (NCAR and University of Colorado)
8:55-9:20	Regional modeling using dynamical downscaling	Liz Drenkard (NOAA/GFDL)
9:20-9:45	Empirical and mechanistic modeling of marine ecosystems/fisheries	Colleen Petrik (SIO)
9:45-10:10	Statistical/ML approaches in ecological forecasting	Ethan Deyle (Boston University)

*Remote

Time (EDT)	Agenda	Presenter
10:10-10:30	Break	
10:30-11:05	Session 3 Spotlight Talks (5 mins. each)	
	Enhanced dynamical downscaling of global climate projections to regional scales using Machine Learning	Albert Hermann (UW/CICOES)*
	Coupled ecological and economic models to project climate-induced changes in estuarine habitat and aquaculture production	Lisa Wainger (UMCES)*
	Effects of eddy-driven plankton patchiness on carbon export	Jessica Garwood (Princeton University)
	Oceanic and atmospheric drivers of post-El-Niño chlorophyll rebound in the Equatorial Pacific	Hyunggyu Lim (Princeton University)
	Impact of a bias correction downscaling method for future projections on the California Current Upwelling System	Mercedes Pozo Buil (UC Santa Cruz)
	Probabilistic extreme SST and marine heatwave forecasts in Chesapeake Bay: A forecast model, skill assessment, and potential value	Andrew Ross (NOAA/GFDL)
	Using deep learning to forecast marine fisheries ecosystems in the North Pacific	Gian Giacomo Navarra (Georgia Tech)
11:05-11:35	Q&A and Discussion	
11:35-11:40	Transition to breakout session	
11:40-12:40	Breakout session 3. Forecasting Method (45 mins. discussion, 15 mins. create ONE summary slide to share)	
12:40-14:00	Lunch (Clark 5 Foyer)	
	Session 4: Reanalysis Products and Observations	Moderators: Dillon Amaya and Art Miller
14:00-14:25	Global physical/biogeochemical reanalyses	Dimitris Menemenlis (NASA JPL)
14:25-14:50	Regional reanalyses	Chris Edwards (UC Santa Cruz)
14:50-15:15	Status of data collection and integration across regions	Jake Kritzer (NERACOOS)
15:15-15:40	Observing technologies bridging global to the coastal ocean	Susan Wijffels (WHOI)
15:40-16:05	Satellite observing technologies	Susanne Craig (NASA GSFC)
16:05-16:25	Break	
16:25-16:45	Session 4 Spotlight Talks (5 mins. each)	
	Oceanic drivers of seasonal and interannual winter subsurface temperatures in the Northern California Current System	Sulagna Ray (NOAA NWS)*
	An evaluation of high-resolution ocean reanalyses in the California Current System	Dillon Amaya (NOAA/PSL)
	Seasonal prediction of bottom temperature on the Northeast U.S. continental shelf	Zhuomin Chen (University of Connecticut)
	Combination of numerical modeling and remote sensing at the land-ocean interface	Raphaël Savelli (NASA JPL)

Time (EDT)	Agenda	Presenter
16:45-17:15	Q&A and Discussion	
17:15-17:30	Wrap up	
17:30	End Day 2	Check logistics page for restaurant recommendations!

Thursday, April 14, 2022

Time (EDT)	Agenda	Presenter
6:40-6:55	White Tie Limo shuttle pick-up at Inn on the Square/Holiday Inn/Sands of Time	
7:00	Continental breakfast (Clark 5 Foyer)	
7:30	Virtual room open	
8:00-8:30	Welcome and breakout summaries	Breakout moderators
8:30-8:35	Transition to breakout session	
8:35-9:35	Breakout session 4. Observations (45 mins. discussion, 15 mins. create ONE summary slide to share)	
9:35-9:40	Transition back to plenary for report out	
9:40-10:10	Breakout summaries	Breakout moderators
10:10-10:30	Break	
	Session 5: Discussion of commonalities in future steps that need broader community support	Open discussion
12:00-12:30	Final remarks and next steps	
12:30	Adjourn workshop and lunch (box lunches will be available for grab and go)	
12:40	White Tie Limo Shuttle will start picking up participants in front of the Clark building at 12:30, circling back for a second pickup ~13:00	
13:00	Organizing committee meeting in Clark 507	