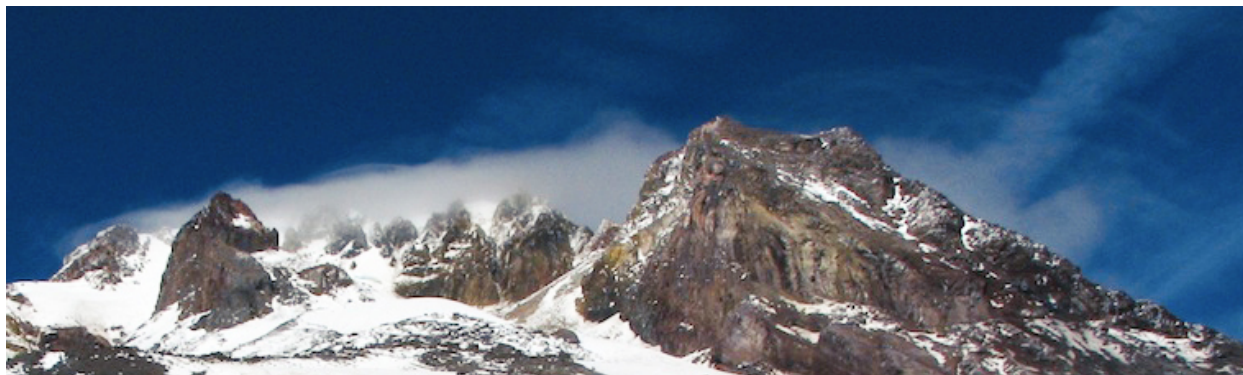


59TH ANNUAL EASTERN PACIFIC OCEAN CONFERENCE
EPOC 2012 PROGRAM



Timberline Lodge, Mt. Hood, OR
19-22 September 2012

Co-chairs: Sarah Giddings & Dave Sutherland
EPOC President: Albert Hermann
EPOC Treasurer: Noel Pelland

Please contact Sarah (sarahgid@uw.edu, 510.406.4574) with any questions

EPOC 2012 PROGRAM - AT A GLANCE

Wednesday, 19 September

- 1600 - on Arrival & check-in
- 1800 Dinner in the dining room/ Rams Head (included in Lodging package)
- 1900 Fireside Chat, Dr. Bill Peterson (Theatre/ Barlow Room, included with registration)
-

Thursday, 20 September

- 730 - 815 Breakfast in the Cascade dining room (included in lodging package)
- 820 - 1200 Morning Session (Ullman Hall*, 1000-1020 coffee break): *How does basin-scale variability affect the connectivity of the California Current System (CCS): Its currents and ecosystems?* (Chairs: Chris Mooers and Bill Peterson)
- 1200 - 1600 Lunch and afternoon free time (lunch included in lodging package)
- 1600 - 1800 Afternoon Session (1545 snacks served): *Upwelling intensification: fact or fiction?* (Chairs: Bill Sydeman and Marisol Garcia-Reyes)
- 1800 - 1820 Poster introductions
- 1820 - 1900 Free time
- 1900 - 2200 Poster Session & hors d'oeuvre reception, Raven's Nest (included with registration)
-

Friday, 21 September

- 730 - 815 Breakfast in the Cascade dining room (included in lodging package)
- 820 - 1200 Morning Session (1000-1020 coffee break): *General Session* (Chairs: Jeff Paduan and Jim Lerczak)
- 1200 - 1600 Lunch and afternoon free time (lunch included in lodging package)
- 1600 - 1800 Afternoon Session (1545 snacks served): *Deoxygenation and acidification in waters of the Eastern Pacific* (Chairs: Samantha Siedlecki and Ryan Rykaczewski)
- 1800 - 1930 Free time
- 1930 - 2230 Banquet & Entertainment, Ullman Hall (included with the registration)
-

Saturday, 22 September

- 730 - 815 Breakfast in the Cascade dining room (included in lodging package)
- 820 - 1200 Morning Session (1000-1020 coffee break): *Nearshore physics and biology* (Chairs: Kerry Nickols and Brock Woodson)
- 1200 - 1300 Business meeting and lunch (included with the registration)

EPOC closes

**unless otherwise noted, most of the conference will be held in Ullman Hall*

EPOC 2012 PROGRAM - Thursday, 20 September talks

Morning Session: *How does basin-scale variability affect the connectivity of the California Current System (CCS): Its currents and ecosystems?*

Chairs: Chris Mooers and Bill Peterson

- 820 **Parker MacCready (UW):** Modeling internal wave generation and propagation on the NE Pacific shelf
- 840 **Pavel A. Fayman (OSU):** Interannual variability in the northwest Pacific coastal ocean affected by basin-scale processes
- 900 **Dudley Chelton (OSU):** Satellite Measurements of Mesoscale Eddies and Associated Air-Sea Interaction in the California Current System
- 920 **Brian Beckman (NOAA):** Variation in marine growth of juvenile salmon: relations to the NPGO and PDO
- 940 **Albert J. Hermann (NOAA):** A model-based examination of multivariate physical modes in the eastern and western Gulf of Alaska

1000 - 1020 *BREAK*

- 1020 **Jennifer Fisher (OSU):** Basin-scale versus local-scale drivers of copepod community dynamics in the northeast Pacific
- 1040 **Curtiss Davis (OSU):** Eight years of Phytoplankton and Columbia River Plume dynamics from MERIS data
- 1100 **Raphael Kudela (UCSC):** Are Red Tides Linked to Basin Scale Oscillations?
- 1120 **Art Miller (Scripps):** Application of a data-assimilation model to variability of Pacific sardine spawning and survivor habitats with ENSO in the California Current System
- 1140 **Ariane Verdy (Scripps):** State Estimate and sensitivity for the California Current System

1200 - 1600 *BREAK - lunch & afternoon free time, snacks served starting at 1545*

Afternoon Session: *Upwelling intensification: fact or fiction?*

Chairs: Bill Sydeman and Marisol Garcia-Reyes

- 1600 **Marisol Garcia-Reyes (Farrallon Inst):** Geostrophic and measured winds: on trends, similarities and differences
- 1620 ***Keith Leffler (PSU):** An Examination of Long-Term Upwelling Intensity and Transition Dates on the Oregon/Washington Coast
- 1640 **Brian Wells (NOAA):** Coastal turbulence, upwelling, and wind shear time series examined 1946-2012: Extending Schwing and Mendelssohn (1997)
- 1700 **James A. Johnstone (UW):** A history of NE Pacific SST and atmospheric circulation, 1900-2011
- 1720 **Ryan Rykaczewski (Princeton):** Response of upwelling winds to a warming climate: IPCC model projections
- 1740 **Andrew Thomas (UMaine):** 13-year Trends in California Current Chlorophyll Concentrations

EPOC 2012 PROGRAM - Friday, 21 September talks

Morning Session: *General Session*

Chairs: Jeff Paduan and Jim Lerczak

- 820 **Jun-Hong Liang (UCLA):** The impact of high-frequency mountain gap winds on the northeastern tropical Pacific
- 840 ***Cheryl Harrison (UCSC):** The role of filamentation and eddy-eddy interactions in marine larval accumulation and transport
- 900 **Jeffrey Paduan (NPS):** Improved statistical prediction of surface currents based on historic HF-radar observations
- 920 **Angelica Pena (IOS):** Plankton ecosystem dynamics on a coupled physical-biological model of the Strait of Georgia
- 940 **Murray Levine (OSU):** The Annual Cycle of Temperature on the Oregon Shelf at NH-10

1000 - 1020 *BREAK*

- 1020 **Stefan Talke (PSU):** Mean sea-level, tidal properties, and extreme events in Astoria, OR from 1853-present
- 1040 ***Piero Mazzini (OSU):** Freshwater observations from underwater gliders off the Oregon coast during fall-winter
- 1100 **Carlos Moffat (UConcepcion):** Warm water supply to a rapidly retreating Patagonian Glacier
- 1120 **Leslie Rosenfeld (MBARI):** An Update on CeNCOOS, the Central and Northern California Ocean Observing System
- 1140 **Richard Dewey (UVic):** VENUS: An Update on Observatory Expansions

1200 - 1600 *BREAK - lunch & afternoon free time, snacks served starting at 1545*

Afternoon Session: *Deoxygenation and acidification in waters of the Eastern Pacific*

Chairs: Samantha Siedlecki and Ryan Rykaczewski

- 1600 **Jay Peterson (OSU):** Seasonal and interannual variability in the extent of hypoxia in the northern California Current from 1998 – 2011
- 1620 **Alexander van Geen (LDEO):** Variations in ocean hypoxia and thermocline depth over the past 120 years inferred from sediment 15N/14N at three sites along the western margin of North America
- 1640 **Jeffrey Abell (HSU):** Documenting the frequency and intensity of exposure to aragonite corrosive water on the northern California continental shelf
- 1700 **Bill Crawford (DFO):** Trends in oxygen on constant-density surfaces of the Northeast Pacific Ocean
- 1720 **Antonio Baptista (OHSU):** Estuarine hypoxia and acidification in the Columbia River
- 1740 **Samantha Siedlecki (UW):** Seasonal Oxygen Decline in an upwelling regime – A closer look at oxygen variation in the Pacific Northwest

EPOC 2012 PROGRAM - Saturday, 22 September talks

Morning Session: *Nearshore physics and biology*

Chairs: Kerry Nickols and Brock Woodson

- 820 **Fabian Tapia (UConcepcion):** Influence of mesoscale atmospheric forcing and local thermal regimes on recruitment variability of kelp crabs (*Taliepus dentatus*) at two intertidal sites in central Chile
- 840 **Falk Feddersen (Scripps):** Surfzone eddies in strong alongshore currents: Forced or Instabilities?
- 900 **Melissa Omand (WHOI):** Episodic vertical nutrient fluxes and nearshore phytoplankton blooms in Southern California
- 920 **Steven Morgan (UC-Davis):** Differential transport across the surf zone of reflective and dissipative shores as a determinant of larval supply
- 940 ***Ata Suanda (OSU):** Contrasting regimes of high-frequency internal wave activity on the Oregon inner shelf

1000 - 1020 *BREAK*

- 1020 ***Robert Arthur (Stanford):** Field and Numerical Investigation of Nearshore Internal Bores
- 1040 **Karina Nielsen (SSU):** Synoptic forcing and local scale dynamics of surfzone phytoplankton in the northern California Current Ecosystem over 9 years and 8 degrees of latitude
- 1100 **John Ryan (MBARI):** Aggregation of plankton: perspectives from a thinking / sampling AUV
- 1120 ***Kate Adams (OSU):** Who's driving – physics or biology? Interannual variation of near-bottom continental shelf dissolved oxygen during upwelling
- 1140 **Olav Ormseth (NOAA):** Nearshore fish ecology and oceanography in the Gulf of Alaska: internal dynamics and external connections

* indicates students

EPOC 2012 PROGRAM - Thursday, 20 September Poster Session

How does basin-scale variability affect the connectivity of the California Current System (CCS): Its currents and ecosystems?

- **Frank Aikman (NOAA, 1) presented by Chris Mooers:** Development of a National Ocean Service West Coast Operational Forecast System
- **Susan Allen (UBC, 2):** Hindcast of the Timing of the Spring Phytoplankton Bloom in the Strait of Georgia, 1968-2010
- **Eric P. Bjorkstedt (NOAA, 3):** Copepods, connectivity, and curly currents: observations of a potential transport barrier in the northern California Current
- **David Jay (PSU, 4):** Decadal and Sub-Decadal Scale Fluctuations in Pacific Tides – Local or Regional or ?
- **Alan Shanks (UO, 25):** Predicting the Commercial Catch of Dungeness Crabs from the Annual Return of Their Larvae
- **Andrew Thomas (UMaine, 5):** Satellite views of Pacific chlorophyll and physical variability: comparisons of basin-scale with eastern boundary current patterns and links to climate indices

Upwelling intensification: fact or fiction?

- **Nikolay P. Nezlin (SCCWRP, 6):** Upwelling-driven near-shore phytoplankton blooms in the Southern California Bight
- **Stephen Pierce (OSU, 7):** Upwelling-season winds off Oregon: long-term increase in variability, not strength?

General Session

- ***Kerstin Cullen (UMaine, 8):** Temporal and spatial variability of chlorophyll and turbidity on the Alaska shelf: links to dominant forcing
- **Leah Feinberg (OSU, 9):** A synthesis of reproductive rates for *Euphausia pacifica* from several regions of the Northeastern Pacific Ocean
- ***Nicholas Foukal (UMaine, 10):** Satellite-measured phytoplankton phenology in the California Current: time and space patterns and a comparison of metrics
- **Sarah Giddings (UW, 11):** The influence of the Columbia River Plume on transport to the nearshore region and along-coast estuaries
- **Albert Hermann (UW, 12):** Interactive 3D exploration of biophysical model projections for the Bering Sea
- **Jeffrey Paduan (NPS, 13):** Improved statistical prediction of surface currents based on historic HF-radar observations
- ***Noel Pelland (UW, 14):** Oceanographic Conditions, Movement, and Diving Behavior in Pelagic Winter Habitat of the Adult Female Northern Fur Seal (*Callorhinus ursinus*)

EPOC 2012 PROGRAM - Thursday, 20 September Poster Session CONTINUED

Deoxygenation and acidification in waters of the Eastern Pacific

- ***Ben Moore-Maley (UBC, 15):** The effects of physical processes on pH in the Strait of Georgia
- ***David Munro (UW, 16):** Multi-decadal record of net biological production in the Southern California Current System based on dissolved O₂ and nutrient budgets

Nearshore Physics and Biology

- ***Megan Demcak (HSU, 17):** A comparison of the Eel River Submarine Canyon to a typical northern California shelf during an upwelling and a non-upwelling event
- **Todd Mitchell (UW, 18):** Chlorophyll distributions and variability along the North American West Coast
- **Kerry J. Nickols (UC-Davis, 19):** Spatial differences in larval abundance within the coastal boundary layer and adjacent to the surfzone
- **Travis O'Brien (LBL, 20):** Sea surface temperatures drive coastal fog variability but not the long-term trend
- **Curtis Roegner (NOAA, 21):** Surface distribution of brachyuran megalopae and ichthyoplankton in the Columbia River plume during transition from downwelling to upwelling conditions
- **Sherry E. Scott (MU, 22):** Analyzing upwelling flow via individual trajectory complexity
- **Alan Shanks (UO, 24):** Surf zone hydrodynamics and the delivery of larvae to the shore
- **Matthew Spydell (Scripps, 23):** Determination of Surfzone Lagrangian Stochastic model parameters from Eulerian measurements

EPOC 2012 PROGRAM - Additional EPOC scientists

John Allen (OSU)

*Rosalie Bauer (HSU)

Peter Bromirski (UCSD)

Christine Cass (HSU)

*Laxmikant Dhage (OSU)

Colin Duncan (OSU)

*Julianne Fernandez (HSU)

Sean Hayes (NOAA)

Mike Kosro (OSU)

*Jennifer Lavell (HSU)

*Amanda Nelson (HSU)

Jan Newton (UW APL)

*Michael Porter (HSU)

*Salvador Ramirez (HSU)

*Dylan Rode (HSU)

Roger Samelson (OSU)

*Brett Stacy (HSU)

Ted Strub (OSU)

Sarah Ann Thompson (Farallon Institute)

Nick Tufillaro (OSU)

*Madalyn Walker (HSU)

*Jessica Wilson (HSU)

* indicates students