

Coastal Margin Perspectives

Newsletter from the Center for Coastal Margin Observation & Prediction
Fall Edition 2009



Message from Director



Welcome to our new quarterly eNewsletter *Coastal Margin Perspectives* - focusing on coastal margin science, education, and news.

The Center for Coastal Margin Observation and Prediction (CMOP) was formed to create a new paradigm for conducting coastal-margin science. We seek a shift from reactive to anticipatory science –i.e., from “observing and remediating” to “predicting and steering” – by taking advantage of the inherent power of structured integrations of information, methods and people: “collaboratories.”

Coastal margins are sensitive and critical—ecologically, politically, and economically. Society requires a better scientific understanding of the effects of climate and human activity on coastal margins, to positively affect outcomes on environmental sustainability, economic development and public health. Serving as a transformative agent and catalyst for such understanding constitutes the CMOP “grand challenge.”

Coastal Margin Perspectives highlights CMOP activities that are making a difference in river-to-ocean ecosystems. Our first issue brings you stories about a leader being honored; microorganisms signaling change; a coastal

margin collaboratory called SATURN; scientists providing professional development; and students recognized nationally.

We hope you enjoy reading the eNewsletter and pass it along to colleagues and friends.

Cheers,
Antonio Baptista, Ph.D.

CMOP Leadership Award

OHSU and CMOP are pleased to announce Alan Parker, attorney and scholar, as the recipient of the first CMOP Leadership Award. Alan is honored for bringing people together around river-to-ocean ecosystems, climate change effects, and indigenous knowledge systems.



The CMOP Leadership Award honors a contemporary leader whose work in science, technol-

ogy or science-based policy and education has brought indigenous and non-indigenous communities closer in addressing issues of transformative importance to the sustainability of the Pacific Northwest coastal margin.

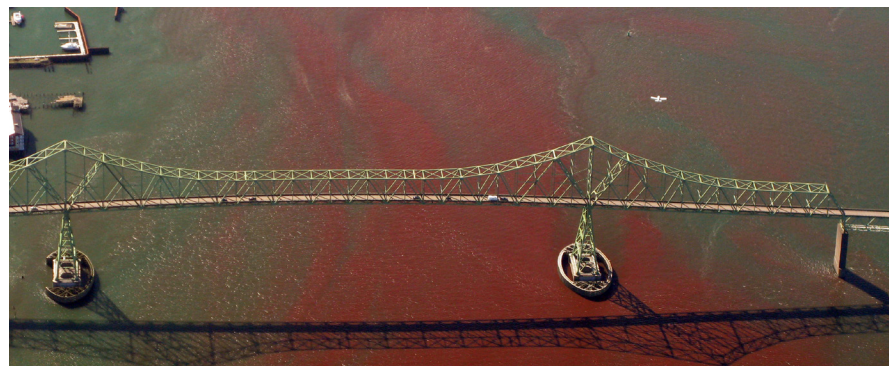
Parker received the award during a dinner and panel discussion titled “Oceans, Climate and Human Health” on October 28, 2009.

Are Microorganisms Signaling Change?

The Columbia River estuary is commonly considered to represent a detritus-driven, heterotrophic ecosystem characterized by low primary productivity due to high turbidity and light limitation, which hinders photosynthesis.

Yet for at least a decade, extensive patches of intense, vivid red-colored water have been anecdotally observed in late summer in the Columbia River estuary.

Lydie Herfort, Ph.D., investigates what organism is responsible for the red-water blooms, why they occur in the estuary while populations of other phytoplankton are not established, and what is the impact of the blooms on the Columbia River estuary ecosystem.



This aerial photograph taken in 2008 shows a Myrionecta rubra bloom in the Columbia River estuary. Photo courtesy of Alex Derr.



CMOP
Center for Coastal
Margin Observation
& Prediction

About CMOP

The Center for Coastal Margin Observation & Prediction (CMOP) advances scientific understanding of the coastal margin environments that sustain much of the world's population. As a multi-institutional National Science Foundation Science and Technology Center, CMOP characterizes complex physical and biogeochemical processes at work in river-to-ocean ecosystems and explores links between environmental and human health.

Contact Us

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News Ideas

Do you have news or announcements for the CMOP community?

Please send news, announcements, feedback, questions, and comments to the editor at schillij@ohsu.edu

A Coastal Margin Collaboratory called SATURN



The Science and Technology University Research Network (SATURN) is CMOP's pioneering "end-to-end" collaboratory linking "sensors-and-models to analysis-and-understanding" for the Columbia River coastal margin.

SATURN enables investigation of scientific hypotheses and quick evaluation and integration of new sensors and models. SATURN outputs include time series at endurance stations ("long-term") and pioneer arrays ("process"), and models that function as a "virtual" Columbia River coastal margin.

Scientists Provide Professional Development for Teachers

Tawnya Peterson, Ph.D., a CMOP assistant professor, recently said she only had a "learner's permit" to speak about K-12 education programs.



Tawnya Peterson examines an algal culture in her lab at Oregon Health & Science University.

Yet, a recent \$900,000 math and science grant will move her to the head of the class in helping enhance ocean and aquatic science teaching in rural communities on the Central Oregon Coast.

The Oregon Department of Education has awarded a Title IIB Math and Science Partnership (MSP) Grant to the Oregon Coast Aquatic and Marine Science Partnership (OCAMP), a collaborative program composed of eight academic, non-profit and government science institutions, including CMOP.

Maier and Smythe receive NSF Graduate Research Fellowship awards

Michelle Maier and Wendy Smythe have each received a prestigious National Science Foundation (NSF) Graduate Research Fellowship Program award.

The NSF program recognizes and supports outstanding graduate students in NSF-supported science, technology, engineering, and mathematics disciplines who are pursuing research-based master's and doctoral degrees in the U.S. and abroad.

Events

Oct. 28
Oceans, Climate and Human Health
OHSU Center for Health & Healing

Nov. 2-5
Estuaries & Coasts in a Changing World
Oral presentations and posters by
CMOP community
Oregon Convention Center

Dec. 15-17
CMOP Workshop
OHSU West Campus

All articles in this issue can be read in their entirety on the CMOP web site at www.stccmop.org