E Komo Mai – Welcome!

2·0·1·4 OCEAN SCIENCES MEETING

23–28 February 2014

Hawaii Convention Center
Honolulu, Hawaii, USA

Sponsored by the American Geophysical Union, the Association for the Sciences of Limnology and Oceanography, and The Oceanography Society

AGU American Geophysical Union

ASLO Association for the Sciences of Limnology and Oceanography

The Oceanography Society

www.sgmeet.com/osm2014

This is the 17th Ocean Sciences Meeting.

This joint meeting is an international gathering co-sponsored by the American Geophysical Union (AGU), the Association for the Sciences of Limnology and Oceanography (ASLO), and The Oceanography Society (TOS).

The meeting includes over 5,000 oral and poster presentations, stimulating plenary talks and a refreshing keynote on Sunday evening by National Geographic Explorer, Elizabeth Kapu'uwailani Lindsey. Plenaries have been scheduled on Tuesday and Thursday mornings following the first set of concurrent sessions, to allow some time for session participants to "reenergize" and get excited by topics that may be outside their daily interaction. The speakers are primed to present their material to a broad audience of ocean scientists, so all of the talks should be of interest to all participants.

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We encourage you to use the meeting website and mobile app for all current information and to navigate the meeting.

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#2014OSM is the official hashtag of 2014 OSM.

Changes to the scientific program will also be published on an addendum that will be posted on message boards.

Contents

E Komo Mai!

Welcome to the 2014 Ocean Sciences Meeting

On behalf of the program committee, we welcome you to the 2014 Ocean Sciences Meeting.

The meeting includes over 5,000 oral and poster presentations, stimulating plenary talks and a refreshing keynote on Sunday evening by National Geographic Explorer, Elizabeth Kapu'uwailani Lindsey. Plenaries have been scheduled on Tuesday and Thursday mornings following the first set of concurrent sessions, to allow some time for session participants to "reenergize" and get excited by topics that may be outside their daily interaction. The speakers are primed to present their material to a broad audience of ocean scientists, so all of the talks should be of interest to all participants.

We hope that you find the meeting exciting, informative and relevant.

Meeting Co-Chairs,

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Meeting Organizers

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AGU Staff

Please! No recording of individual talks or sessions.

Audio taping, videotaping, or photographing of presentations is not allowed at the meeting.

Thank you for your cooperation.

Keynote and Plenary Lectures and Presentations

Sunday, February 23, 2014

6:00 – 7:30 pm, Kalakaua Ballroom

Elizabeth Kapu'uwailani Lindsey, National Geographic Explorer

Bringing the Wisdom of the "Elders" Together with Modern Science for the Future of the Environment

Elizabeth Kapu'uwailani Lindsey is the first Polynesian explorer and female Fellow in the history of the National Geographic Society. She is an internationally recognized expert in the field of cultural intelligence – a holistic system of knowledge and wisdom based on indigenous science.

Lindsey serves as an advisor to world leaders and global institutions, including such boards is the Tibet fund for his Holiness the Dalai Lama and the United Nations ambassadors Islands First.

In 2010 she received the Visionary Award from the United Nations for her contributions in intercultural engagement and understanding. A humanitarian who created scholarships in India, the former Miss Hawaii is also an award-winning filmmaker who has received numerous honors, including the prestigious CINE Eagle Award. Elizabeth continues to explore ways in which cultural intelligence addresses 21st century challenges. She has been interviewed on NPR, CBS,

National Geographic, the L.A. Times and others, regarding her work.

Her keen insights and first-hand accounts from around the world have made her keynote addresses an inspiring call to action. A sought after speaker in the United States, Europe, Asia and the Pacific, her audiences have included: Oxford University, Harvard University, Stanford University, TED, the YPO/WPO, the American Museum of Natural History and the Smithsonian.

Her work will provide a cultural record for future generations. Lindsey's expeditions take her to some of the most remote regions of the world. She recently returned from a solo, three-month journey around the world where she documented fragile cultures, including the Moken who are sea nomads.

Lindsey, who holds a doctorate specializing in ethnonavigation, credits her lifelong commitment to indigenous elders who have influenced her, most importantly Pius "Mau" Piailug, a navigator-priest from the Micronesian island of Satawal. Mau also was the teacher of navigators Nainoa Thompson, Shorty Bertlemann and others.

"As a child I was cared for by three old Hawaiian women while my parents worked," says Elizabeth. These elders were revered in our community for their mastery in ancient traditions. They told me that I would travel far to keep the voices of the ancestors alive and that it would take the wisdom of these elders to return the world to balance."

Tuesday, February 25, 2014

10:30 am – 12:30 pm, Kalakaua Ballroom

Robert H. Richmond, Pacific Biosciences Research Center, Kewalo Marine Laboratory, University of Hawaii at Manoa

Coral Reefs, Climate Change and Atomic Bombs

Abstract: Coral reefs worldwide are in decline as a result of human-induced disturbance, ranging from the common and chronic stressors of overfishing, coastal sedimentation and pollution to the absurd and acute: vaporization from nuclear testing. Global climate change is and will continue to be responsible for extensive reef losses through the associated problems of temperature-induced mass coral bleaching events, increased storm intensity and frequency, ocean acidification and sea level rise. To address human impacts in the hope of allowing coral reefs to persist into the future, it is necessary to both diagnose and treat the underlying problems at multiple levels over space (local, regional and global scales) and time. Emerging technologies in the areas of proteomics, genomics and transcriptomics provide new tools for better understanding relationships between stressors and coral reef responses with a higher level of resolution in determining the contributions of individual stressors in a multi-stressor system. Better bridging of science to policy development, implementation and evaluation is needed to insure a legacy of functional coral reefs of high economic, ecological and cultural value for future generations.

Speaker Biography: Dr. Bob Richmond is a Research Professor and Director of the University of Hawaii's Kewalo Marine Laboratory. He received a Ph.D. in Biological Sciences from the Department. of Ecology and Evolution, SUNY at Stony Brook in 1983 and subsequently spent two years as a postdoctoral fellow at the Smithsonian Tropical Research Institute in Panama, 18 years on the faculty of the University of Guam Marine Laboratory, and has been a Research Professor at the Pacific Biosciences Research Center, University of Hawaii at Manoa since 2004. He has spent his professional career studying coral reef ecosystems in the Caribbean and the Pacific, including the Virgin Islands, the Grenadines, the Galapagos Islands, Hawaii, Japan and, for over 30 years, in Micronesia. He is the President of the International Society for Reef Studies, the Science Advisor to the All-Islands Committee of the U.S. Coral Reef Task Force and a science advisor for the Joint Ocean Commission Initiative. He is both an Aldo Leopold Fellow in Environmental Leadership (2004), and a Pew Fellow in Marine Conservation (2006). He works closely with community-based organizations, elected and traditional leaders and stakeholders, and has trained over 50 Pacific Islanders in his laboratory over the years. His research interests include coral reef ecology, marine conservation biology, ecotoxicology, bridging science to management and policy, and the integration of traditional ecological knowledge with modern approaches to resource use and protection. His childhood fascination with "Dr. Doolittle" helped inspire his approach to studying coral reefs by "listening" to corals and other reef creatures through the use of ecological indicators and molecular biomarkers.

Panel Discussion: "Why aren't they listening?"

A facilitated discussion addressing public attitudes about climate and environmental sciences, negative influences on public attitudes, recognition of need for more effective communication, and communication to politicians and the public.

Moderated by Richard Harris, National Public Radio with panelists: Edward Maibach (George Mason University), Christine O'Connell (State University of New York, Stony Brook), and Jerry Schubel (Aquarium of the Pacific)

Richard Harris – Moderator National Public Radio

Award-winning journalist Richard Harris reports on science and the environment for NPR's newsmagazines, including Morning Edition and All Things Considered. Harris, who joined NPR in 1986, has traveled to all seven continents for NPR. His reports have originated from Timbuktu, the South Pole, the Galapagos Islands, Beijing during the SARS epidemic, the center of Greenland, the Amazon rain forest and the foot of Mt. Kilimanjaro (for a story about tuberculosis).

In 2010, Harris' reporting uncovered that the blown-out BP oil well in the Gulf of Mexico was spewing out far more oil than asserted in the official estimates. He also traveled to Japan to cover the nuclear aftermath of the 2011 tsunami.

Harris has covered climate change for decades. He reported from the United Nations climate negotiations, starting with the Earth Summit in Rio de Janeiro in 1992, followed by Kyoto in 1997 and Copenhagen in 2009. Harris was a major contributor to NPR's award-winning 2007-2008 "Climate Connections" series.

Over the course of his career, Harris has been the recipient of many prestigious awards. Those include the American Geophysical Union's 2013 Presidential Citation for Science and Society. He shared the 2009 National Academy of Sciences Communication Award and was a finalist in 2011. In 2002, Harris was elected an honorary member of Sigma Xi, the scientific research society. Harris shared a 1995 Peabody Award for investigative reporting on NPR about the tobacco industry. Since 1988, Harris has won three journalism awards from American Association for the Advancement of Science.

Before joining NPR, Harris was a science writer for the San Francisco Examiner. From 1981 to 1983, Harris was a staff writer at The Tri-Valley Herald in Livermore, California, covering science, technology, and health issues. Under the auspices of the American Association for the Advancement of Science, Harris spent the summer of 1980 as a Mass Media Science Fellow reporting on science issues for The Washington (DC) Star. Harris is co-founder of the Washington, D.C., Area Science Writers Association, and is past president of the National Association of Science Writers. He serves on the board of the Council for the Advancement of Science Writing.

A California native, Harris returned to the University of California-Santa Cruz in 2012 to give a commencement address at Crown College, where he had given a valedictory 30 years before. He earned a bachelor's degree in biology with highest honors.

Christine O'Connell
Alan Alda Center for Communicating Science, Stony Brook University

Dr. Christine O'Connell is a science communication professional working for the Alan Alda Center for Communicating Science in Stony Brook University's School of Journalism. O'Connell is a marine and environmental scientist with an extensive interdisciplinary background in policy, outreach, and communication. O'Connell was trained in improvisation by Alan Alda, and works on improving scientific communication to the public and scientific outreach to the community. Her goal is to work towards strengthening the connections between science, society, and policy. Her scientific research focuses on coastal and marine spatial planning (CMSP), ecosystem-based management (EBM), waste management, conservation planning, and ecosystem services. O'Connell has taught environmental communication and conservation classes at several universities and now teaches graduate courses on "Distilling your message," for the Alda Center. She also coordinates and speaks at national workshops and manages The Flame Challenge, an international contest that asks scientists to communicate complex science in ways that would interest and enlighten an 11-year-old. O'Connell has organized collaborations across academia, government, and the community – including an initiative between the humanities and sciences at Stony Brook called The Coastlines Initiative. She was instrumental in coordinating the Scientific Advisory Committee for the New York Ocean and Great Lakes Ecosystem Conservation Council, where she helped write the final EBM scientific research priorities report for NY State. She also worked closely with the NY Department of Environmental Conservation on its Ocean Action Plan and was part of the Jamaica Bay Watershed Protection Plan Advisory Committee. Prior to her academic career, O'Connell worked in the fields of environmental advocacy, community organizing, and public policy. She has been involved with organizing national environmental and political campaigns with Green Corps, and teaching community groups in New York City how to refine their message to talk to politicians, raise money, and organize their communities with Partnerships for Parks and City Parks Foundation. She is experienced in scientific outreach, government relations, coalition building, lobbying, campaign planning, social marketing, and communication coaching. Dr. O'Connell received her Ph.D. in Marine and Atmospheric Sciences at Stony Brook University and her B.S. in Natural Resources from Cornell University in 1999.

Edward Maibach
Director of Mason's Center for Climate Change Communication

Dr. Edward Maibach is a University Professor at George Mason University and the Director of Mason's Center for Climate Change Communication. Leveraging three decades of experience as a communication and social marketing practitioner and scholar, Ed's research focuses on public engagement in climate change mitigation and adaptation. Ed currently co-chairs the Engagement & Communication Working Group of the National Climate Assessment Development and Advisory Committee, and he previously served as Associate Director of the National Cancer Institute, Worldwide Director of Social Marketing at Porter Novelli, and Chairman of the Board for Kidsave International. Ed earned his PhD in communication science at Stanford University and his MPH at San Diego State University.

Jerry R. Schubel
President and CEO, Aquarium of the Pacific

Dr. Jerry Schubel has been president and CEO of the Aquarium of the Pacific since 2002. He is president and CEO Emeritus of the New England Aquarium and from 1974-1994 was Dean of Stony Brook University's Marine Sciences Research Center. For three of those years he served as the University's provost and is Distinguished Service Professor emeritus. Prior to 1974, Dr. Schubel was an adjunct professor, research scientist and associate director of The Johns Hopkins University's Chesapeake Bay Institute. Dr. Schubel holds a Ph.D. in oceanography from Johns Hopkins University. He received an honorary doctorate from the Massachusetts Maritime Academy in 1998. He has worked throughout his professional life at the interfaces of science management-policy on issues dealing with the ocean with an emphasis on the coastal ocean. Dr. Schubel has published more than 225 scientific papers and has written extensively for general audiences. He is a member of NOAA Science Advisory Board and is a member of the Science Advisory Panel for California's Ocean Protection Council. He chaired the National Sea Grant Review Panel; the NRC's Marine Board; and the Ocean Research and Resources Advisory Panel (ORRAP). He is a former member of EPA's Science Advisory Board, the Census of Marine Life U.S. National Committee and the National Science Foundation's Education and

Human Resources Advisory Committee. At the Aquarium of the Pacific, he created the Aquatic Forum that brings together scientists, policy-makers and stakeholders to explore alternative ways of dealing with important, complex, and often controversial environmental issues facing California and the nation. He also directs the Aquarium's Marine Conservation Research Institute.

Thursday, February 27, 2014

10:30 am – 12:30 pm, Kalakaua Ballroom

Roger T. Hanlon
Senior Scientist, Marine Biological Laboratory, Woods Hole, Massachusetts; Professor (MBL), Ecology and Evolutionary Biology, Brown University, Rhode Island

Optical Magic: How Cephalopods Sense and Manipulate Light to Produce Rapid Adaptive Camouflage and Communication

Abstract: Nature has evolved elegant solutions for manipulating ambient light to produce dramatic and colorful animal behavior. Nowhere is the diversity and speed of change in visual appearance better developed than in squid, octopus, and cuttlefish, all of which use rapid adaptive coloration to fight, attract mates, confuse prey and avoid predators. He will present new discoveries and some simplifying principles of how these refined biological systems operate. First, he will illustrate many of these complex visual behaviors with field video. Then he will present experimental data showing how cuttlefish visually perceive complex backgrounds and swiftly produce an appropriate camouflage pattern. Next he will demonstrate how spectrometers and new HyperSpectral Imagers allow us to measure ambient light and analyze animal patterns and colors "in the eye of the beholder." Finally, Dr. Hanlon will describe details of the biophotonic skin structures and their control mechanisms that enable such remarkable visual diversity.

Speaker Biography: Roger Hanlon is Senior Scientist at the Marine Biological Laboratory in Woods Hole, Massachusetts and Professor (MBL) of Ecology and Evolutionary Biology at Brown University. He is a diving biologist who uses digital imagery (stills, video, hyperspectral) to analyze rapid adaptive camouflage and communication in cephalopods (squid, octopus, cuttlefish) and fishes. He was trained in marine sciences at Florida State University and the University of Miami and studied sensory ecology as a postdoctoral fellow at Cambridge University. Recently his laboratory has focused on a highly multidisciplinary effort to quantify animal camouflage, touching subjects as varied as visual perception, psychophysics, neuroscience, behavioral ecology, image analyses, computer vision, and art. Collaborations with materials scientists and engineers aim to develop new classes of materials that change appearance based on the pigments and reflectors in cephalopod skin. Active public outreach featuring these charismatic marine animals has been conducted recently with NOVA, BBC, Discovery, NatGeo, TEDx, and NYT. Dr. Hanlon's career path seems to have been determined by fate; as a teenager scuba diving in Panama, he came across an octopus on a coral reef and he has been fascinated with them ever since.

Mary Jane Perry
University of Maine, Walpole, Maine

Looking Forward to Looking Back on 50 Years of Autonomous Robotic Ocean Sensing

Abstract: Documenting change in the physical, biological, and chemical parameters of the ocean is essential for understanding, predicting and testing how the ocean will respond to climate forcing. This requisite demands persistent observations on appropriate temporal and spatial scales. Rapidly advancing technologies for mobile autonomous sensing offer the promise of a continuous, distributed and coordinated presence in the global ocean that is capable of sampling at the relevant scales. It is now possible to measure key biogeochemical parameters and abundances at multiple trophic levels for weeks to months to years, although some types of measurements are still in development and testing. This talk will focus primarily on interdisciplinary studies with floats and gliders, highlighting scientific advances, technological achievements, roles of collaboration, and lessons learned that are leading to improved deployment strategies and sensor calibrations. The oceanographic community has made tremendous advances in autonomous sensing since Hank Stommel's early vision of sampling the ocean's interior with gliders (1989; Oceanography 2: 22), the ALPS workshop (2003, http://www.geo-prose.com/ALPS/), and L&O's special issue on autonomous platforms (2008, Limnol. Oceanogr. 53: 2057). While not yet halfway toward 50 years of autonomous sensing, progress to date is impressive. To paraphrase Walter Munk, 'every time we look at the ocean in a new way, we learn something new.' The pace of new discovery with autonomous vehicles continues to accelerate; the view back should be spectacular.

Speaker Biography: Mary Jane Perry's long-term goal is to understand the mechanisms responsible for the variability in phytoplankton biomass, primary production, and species composition. She started her oceanographic career by studying the role of phosphate availability in controlling phytoplankton biomass and production in the subtropical Central North Pacific and was one of the first to diagnosis intermittent phosphorus limitation. Although she retains her interest in nutrient dynamics, her focus shifted to the interaction of phytoplankton and light in the ocean, and the use of optical methods to study phytoplankton. Perry started this phase of her career with a study of the photoadaptive changes in the absorption cross section of photosystem I in marine phytoplankton. Specific research projects have included the variability in the photosynthetic quantum yield; the use of flow cytometry to study phytoplankton photoadaptive states and vertical mixing; the development of immunological methods to determine concentrations of photosynthetic components; and a variety of direct and inverse methods to determine the phytoplankton absorption coefficient. More recently she has been involved in autonomous sensing of phytoplankton from gliders and floats. She was the PI on a NOPP project that lead to the development of the widely-used miniaturized fluorometer for autonomous platforms, AKA the ECO Puck. She has participated in a number of cruises in both the north Atlantic and Pacific oceans and has served on many national and international panels and steering committees. She is a TOS Fellow and founder of the long-running summer graduate course in Optical Oceanography.

Meeting Schedule

All events are at the Convention Center unless noted otherwise.

Saturday, 22 February

8:00 am-05:00 pm ASLO Board Meeting-Hilton Hotel

Sunday, 23 February

8:00-10:00 am Storymaker Workshop, Part #1-313 C
8:00 am-5:00 pm ASLO Board Meeting-Hilton Hotel
7:00 am-6:00 pm Bering Sea Project-301 AB
8:00 am-5:00 pm Effective Communication & Team Building-319 AB
8:00 am-5:00 pm Science Education for EC-318 AB
8:00 am-5:00 pm Ecology Infectious Marine Diseases-317 AB
8:00 am-5:00 pm 2YC Oceanography Teaching-316 C
8:00 am-4:00 pm TRACERS Data Workshop-316 B
9:00 am-5:00 pm Keys to Proposing, Conducting, and Presenting-314
10:00 am-5:00 pm OSNAP Meeting -Room 316 A
1:00-4:00 pm Linking Social-Ecological Science-313 B
1:00-3:00 pm The Connection Storymaking Presentation-313 C
2:00-3:30 pm Sloan Research Fellowships in Ocean Sciences-313 A
3:30-4:30 pm ASLO Minority Program Student and Mentor Meeting-308 AB
4:30-5:30 pm Student Worker Training-Meet in Registration Area
12:00-5:00 pm Poster Set-up-Exhibit Hall
1:00-9:00 pm Registration-HCC Lobby-Outside Exhibit Hall I, II, III
1:00-9:00 pm Speaker Ready Room Open- 340
1:00-9:00 pm Presentation Room Open- 339
6:00-7:30 pm Opening Session and Keynote Presentation– Kalakaua Ballroom
Presentation: Elizabeth Kapu'uwailani Lindsey, *Bringing the Wisdom of the "Elders" Together with Modern Science for the Future of the Environment*
7:30-9:00 pm Opening Reception-Rooftop Pavilion

Monday, 24 February

7:00– 8:00 am Mentor Breakfast-Kalakaua Ballroom A
7:00 am-9:00 pm 5K Fun Run Check-in -Level 3 (near escalators)
8:00 am-4:00 pm Concurrent Sessions-Various Rooms
10:00 am-6:00 pm Press Room-302 B
10:00 am-7:00 pm Exhibits Open-Exhibit Hall I.II, III
10:00-10:30 am Coffee Break-Exhibit Hall I, II, III
12:30-2:00 pm Lunch (on your own)
12:45-1:45 pm GEARS Workshop -DECONSTRUCT-318 AB
12:45-1:45 pm The Ethics of Idea Sharing in a Connected World-311
12:45-1:45 pm Workshop-Coordinating Biomanipulation Studies-316 C
12:45-1:45 pm Workshop-Snap it up-304 AB
12:45-1:45 pm Town Hall-Writing Skills-317 AB
12:45-1:45 pm Town Hall-International Quality controlled Ocean Database-301 AB
12:45-1:45 pm Town Hall-Discussion on Coupled Air/Sea Satellite Mission-312
12:45-1:45 pm NSF Town Hall-314
4:00 -6:00 pm Poster Session-Exhibit Hall I, II, III
4:00-5:00 pm Beer Break-Exhibit Hall I, II, III
6:00-7:30 pm Early Career Mixer-Kalakaua Ballroom C
6:00-7:30 pm Student Mixer-Kalakaua Ballroom AB
6:30-9:30 pm Workshop-Data at Your Fingertips-313 A
6:30-8:30 pm Workshop-Open Ocean Hypoxia-318 AB
6:30-8:30 pm Student Communications Workshop -Communication to the Public, Final Wrap-Up Session-319 AB
6:30-9:30 pm Town Hall-Ocean Science Development of Ocean Univ. of China-313 C
6:30-9:30 pm Town Hall-Optimizing Data Return From the OOI-313 B
6:30-9:30 pm Town Hall-ASLO Home Videos-312
6:30-9:30 pm Town Hall-Dual Careers: Challenges and Opportunities-314
6:30-9:30 pm National Geographic Marine Debris Art Expedition-316 A

Tuesday, 25 February

7:00-8:00 am TOS Networking Breakfast-Kalakaua Ballroom A
7:00 am-9:00 pm 5K Fun Run Check-in -Level 3 (near escalators)
8:00-10:00 am Concurrent Sessions-Various Rooms
10:00 am-6:00 pm Press Room-302 B
10:00-10:30 am Coffee Break-Kalakaua Ballroom Foyer
10:30 am-12:00 pm Plenary Session--Kalakaua Ballroom
Presentations: Robert Richmond, *Coral Reefs, Climate Change and Atomic Bombs, and* Panel Discussion, *Why aren't they listening?*
12:00-7:00 pm Exhibits Open-Exhibit Hall I.II, III
12:30-2:00 pm Lunch (on your own)
12:45-1:45 pm GEARS Workshop -DECONSTRUCT-Room 318 AB
12:45-1:45 pm Sail with Norseman Maritime Workshop-316 A
12:45-1:45 pm Workshop -Learn About Funding to Support Undergrad Education-316 B
12:45-1:45 pm GEOTRACES Intermediate Data Product Town Hall– Room 319 AB
12:45-1:45 pm ASIRI working group-315
12:45-1:45 pm Town Hall -Framework for Ocean Observing-Implementation-317 AB
12:45-1:45 pm National Oceanographic Data Center Town Hall-304 AB
12:45-1:45 pm Town Hall -Doing Good with Your Science: Get Involved!-311
12:45-1:45 pm AGU Ocean Science Section Executive Committee Meeting-325 B
2:00-4:00 pm Concurrent Sessions-Various Rooms
4:00 - 6:00 pm Poster Session-Exhibit Hall I, II, III
4:00-5:00 pm Beer Break-Exhibit Hall I, II, III
6:30-7:30 pm NOPP Excellence in Partnering Award Presentation -311
6:30-7:30 pm ASLO Business Meeting-317 AB
6:30-8:00 pm JGR-Oceans Editorial Board Reception-325 A
6:30-8:30 pm Philanthropic Investment in Ocean Research-313 C
6:30-8:30 pm Workshop -Turbulence Measurements with Doppler-301 AB
6:30-8:30 pm NRC Decadal Survey of Ocean Sciences Town Hall Input-319 AB
6:30-8:30 pm Town Hall -Mariana Trench Marine National Monument-Vents Unit-318 AB
6:30– 8:30 pm Town Hall -Marine Ecosystem Model Intercomparison Project-313 A
6:30-8:30 pm NRC Decadal Survey of Ocean Sciences Town Hall Input-319 AB
6:30-8:30 pm Town Hall -New CLIVAR Research Foci on Oceans & Climate-312

6:30-9:30 pm	Vitals Planning Meeting-304 AB
6:30-9:30 pm	Success in Broadening Participation-313 B
8:00pm-12:00 am	Jam Session -Offsite at Mai Tai Bar, Ala Moana shopping center

Wednesday, 26 February

6:00 am	Ocean Sciences 5K Fun Run
7:00-8:00 am	Meet your Agency Program Manager Breakfast #1-Kalakaua Ballroom A
8:00 am-4:00 pm	Concurrent Sessions-Various Rooms
10:00 am-6:00 pm	Press Room-302 B
10:00 am-7:00 pm	Exhibits Open-Exhibit Hall E
10:00-10:30 am	Coffee Break-Exhibit Hall I, II, III
10:30 am-12:30 pm	Award Talk Session
12:30-2:00 pm	Lunch (on your own)
12:45-1:45 pm	GEARS Workshop -LEARN 319 AB
12:45-01:45 pm	Town Hall -Beyond the Redfield Ration-301 AB
12:45-01:45 pm	Workshop-Positive Factors that Impact Success in STEM-313 C
12:45-01:45 pm	Outreach Through Social Media –Student Workshop-311
12:45-01:45 pm	Workshop -Collaborating with Schmidt Ocean Institute & MSTF-304 AB
12:45-01:45 pm	Town Hall -Decadal Hydrogrphic Survey-313 B
12:45-01:45 pm	Town Hall -Using Ocean Observatories in the NE Pacific to Advance Science-314
12:45-01:45 pm	AGU OSS Strategic Planning Meeting-319 AB
12:45-01:45 pm	Workshop-Discover and Utilize Ocean Data from PO.DAAC-313 A
4:00 -6:00 pm	Poster Session-Exhibit Hall I, II, III
4:00-5:00 pm	Beer Break-Exhibit Hall I, II, III
6:30-7:30 pm	Echoview Workshop-317 AB
6:30-7:30 pm	Workshop -The Use of Profiling Floats Integrated with Bio-geochemical Sensors to Reveal Upper Ocean Processes-315
6:30-7:30 pm	North Atlantic Observing System town hall-311
6:30-8:30 pm	University of Delaware Reception-319 AB
6:30-8:30 pm	NOAA's Efforts on Marine Microbes Sciences-Room 316 B
6:30-8:30 pm	K-12 Student Science Symposium-318 AB
6:30-8:30 pm	Workshop -Effective Practices for Communicating OA-312
6:30-8:30 pm	MISST for JOOS Workshop-313 B
6:30-8:30 pm	Fellowships & Grant Writing Workshop for Graduate Students-313 A
6:30-8:30 pm	Workshop-Facilitating Classroom Innovation-313 C
6:30-9:30 pm	Workshop-Perspective Particle Flux-314
6:30-9:30 pm	US IOOS HF Radar Meeting-316 A
6:30-9:30 pm	Coral Research Community-316 C
6:30-9:30 pm	SISS working group meeting-325 A

Thursday, 27 February

7:00-8:00 am	Meet your Agency Program Manager Breakfast #2-Kalakaua Ballroom A
8:00-10:00 am	Concurrent Sessions-Various Rooms
10:00-10:30 am	Coffee Break-Kalakaua Ballroom Foyer
10:00 am-6:00 pm	Press Room-302 B
10:30 am-12:00 pm	Plenary Session-Kalakaua Ballroom Presentations– Mary Jane Perry, *Looking Forward To Looking Back On 50 Years of Autonomous Robotic Ocean Sensing,* and Roger Hanlon, *Optical magic: how cephalopods sense and manipulate light to produce rapid adaptive camouflage and communication*
12:00-7:00 pm	Exhibits Open-Exhibit Hall I.II, III
12:30-2:00 pm	Lunch (on your own)
12:30-2:00 pm	TOS Business Meeting-304 AB
12:45-1:45 pm	GEARS Workshop -BUILD & BROADEN-318 AB
12:45-1:45 pm	SCOR Working Group 139-311
12:45-1:45 pm	"PACE: NASA's Next Generation Ocean Color Mission"-313 A
12:45-1:45 pm	Ocean Science Clean Up SCUBA Dive-Off-site
12:45-1:45 pm	TOS Council Meeting -306 B
12:45-1:45 pm	Towards Harmonization of Oceanic Nutrient Data-312
2:00-4:00 pm	Concurrent Sessions-Various Rooms
4:00 -6:00 pm	Poster Session-Exhibit Hall I, II, III
4:00-5:00 pm	Beer Break-Exhibit Hall I, II, III
6:30-8:30 pm	Humrous Science: a Comical Look at Ourselves-301 AB
6:30-8:30 pm	The Future of Ocean Science Education—Hosted by COSEE-318 AB
6:30-8:30 pm	A Forum on Traditional Marine Resource Management-313 A
6:30-8:30 pm	Acceleration EU-US Research Cooperation-311
6:30-8:30 pm	Satellite PFT Algorithm Intercomparison Meeting-319 AB
6:30-8:30 pm	EXPORTS Planning Town Hall-313 C
6:30-8:30 pm	C-MORE Reunion-312
7:00-9:00 pm	Poster & Exhibit Teardown

Friday, 28 February

7:00-8:00 am	Meet your Agency Program Manager Breakfast #3-Kalakaua Ballroom A
8:00 am-12:00 pm	Poster & Exhibit Teardown
8:00 am-4:00 pm	Concurrent Sessions-Various Rooms
10:00-10:30 am	Coffee Break-Ballroom Foyer
12:30-2:00 pm	Lunch (on your own)
12:30-2:00 pm	2016 OSM Chairs Lunch-325 A
12:45-1:45 pm	Coaching Science -Room 318 AB
4:00-9:00 pm	Global Ocean Carbon Synthesis Project-325 B

Daily Functions (Monday–Friday)

7:00 am-5:00 pm	Registration-HCC Lobby-Outside Exhibit Hall I, II, III (Friday 4:00 pm)
7:00 am-7:00 pm	Family Room-322 A (Friday 4:00 pm)
7:00 am-7:00 pm	Speaker Ready Room Open- 303 AB (Friday 4:00 pm)
7:00 am-7:00 pm	Presentation Room Open- 305 AB (Friday 4:00 pm)
7:00 am-7:00 pm	RPM Challenge Room-309 (Friday 4:00 pm)
7:00 am-7:00 pm	Student Presentation Judging Room-307 AB (Friday 4:00 pm)
7:00 am-10:00 pm	ASLO Minority Program Room-308 AB (Friday 4:00 pm)
7:30 am-6:30 pm	Child Care Room Open-337 (Friday 4:30 pm)

OSM 2014 Tutorial Talk Sessions

Well-crafted tutorials are a desirable aspect of highly interdisciplinary science meetings; they provide an opportunity to learn about the central questions, results and methods on topics outside of one's area of expertise and can be a vehicle for students and early-career attendees to get quickly up-to-speed on some of the topics and collaborations they might undertake in the future.

Tutorials may be on broadly-interesting late-breaking results, on unanswered questions within an emerging field, on new technologies or methodologies available to ocean scientists, or areas of ocean application or policy that provide an improved research foundation. What makes a talk a tutorial rather than a research presentation is that it reaches outside the specific work of an individual or group, and tries to reach a broad audience of non-specialists with material that gives an overview with new insights and opportunities to the listeners. It is intended to inform those outside the subject area being described.

Session 175A

Monday, 24 February 2014
Room 310 Theater, 2:00 – 4:00 pm

Session organizer(s):
Lynne Talley, UCSD, Scripps Institute of Oceanography, ltalley@ucsd.edu
Eric Itsweire, National Science Foundation, eitsweir@nsf.gov

2:00 Rintoul, S. R.; IPCC Lead Authors, Chapters 3, 10 and 13; Bindoff, N. L.; AN OVERVIEW OF THE IPCC 5TH ASSESSMENT REPORT, HIGHLIGHTING THE OCEAN'S ROLE IN CLIMATE CHANGE (Abstract ID:15678)

2:20 Bindoff, N. L.; Rintoul, S. R.; Talley, L. D.; UNDERSTANDING THE IPCC WG1 FIFTH ASSESSMENT REPORT: USING DETECTION AND ATRIBUTION METHODS TO EVALUATE AND UNDERSTAND HUMAN INFLUENCE IN THE OCEANS (Abstract ID:16090)

2:40 Xie, S. P.; UNDERSTANDING THE IPCC WG1 FIFTH ASSESSMENT REPORT: PROBING OCEAN'S ROLE IN REGIONAL CLIMATE CHANGE (Abstract ID:15573)

3:00 Johnson, G. C.; Merrifield, M. A.; Nerem, R. S.; UNDERSTANDING THE IPCC WG1 FIFTH ASSESSMENT REPORT: OCEAN HEAT UPTAKE AND SEA LEVEL CHANGE (Abstract ID:13643)

3:30 Rhein, M.; Feely, R. A.; Masson-Delmotte, V.; Sabine, C.; Rintoul, S.; UNDERSTANDING THE IPCC WG1 FIFTH ASSESSMENT REPORT: OCEAN AND CARBON IN PAST, PRESENT, AND FUTURE (Abstract ID:13861)

Session 175B

Tuesday, 25 February 2014
Room 310 Theater, 2:00 – 4:00 pm

Session organizer: Jon Sharp, University of Delaware, jsharp@udel.edu

2:00 Kostka, J. E.; Huettel, M.; BIOGEO-OMICS: UTILIZING BIOGEOCHEMISTRY AND –OMICS DATA TO DETERMINE THE FATE AND IMPACTS OF OIL FROM THE DEEPWATER HORIZON SPILL IN GULF OF MEXICO ECOSYSTEMS. (Abstract ID:15296)

2:30 Gibson, G. A.; AN INTRODUCTION TO MARINE ECOSYSTEM MODELING (Abstract ID:15669)

3:00 Cullen, J. J.; OCEAN COLOR, PRIMARY PRODUCTIVITY, AND THE FOUNDATIONS OF BIO-OPTICAL ECOLOGY: CHARLES S. YENTSCH AND THE ARC OF INTERDISCIPLINARY OCEANOGRAPHY (Abstract ID:13278)

3:30 Floge, S. A.; Wilson, W. H.; BEYOND THE LYTIC CYCLE: THE HIDDEN REALM OF PERSISTENT VIRUS INFECTIONS IN MARINE MICROBIAL ECOLOGY (Abstract ID:16741)

Session 175C

Wednesday, 26 February 2014
Room 310 Theater, 2:00 – 4:00 pm

Session organizer: Scott Harper, scott.l.harper@navy.mil

2:00 Johnson, K. S.; Claustre, H.; Sarmiento, J. L.; TOWARD A GLOBAL OCEAN BIOGEOCHEMICAL OBSERVING SYSTEM BASED ON PROFILING FLOATS (Abstract ID:13372)

2:30 Lilly, J. M.; Olhede, S. C.; Sykulski, A. M.; Elipot, S.; Waterman, S. N.; NEW DIRECTIONS IN OCEANOGRAPHIC TIME SERIES ANALYSIS (Abstract ID:16619)

3:00 MacKinnon, J. A.; DIAPYCNAL MIXING IN THE OCEAN INTERIOR: A REVIEW OF RECENT RESULTS (Abstract ID:17222)

3:30 Gnanadesikan, A.; Pradal, M. A.; DISPERSION,DIFFUSION AND CONFUSION: WHY MESOSCALE MIXING MATTERS AND WHAT WE STILL NEED TO LEARN ABOUT IT (Abstract ID:15147)

Session 175D

Thursday, 27 February 2014
Room 310 Theater, 2:00 – 4:00 pm

Session organizer: Tom Drake, tom.drake@navy.mil

2:00 Filippelli, G. M.; OCEAN SCIENCE, POLICY, AND INTERNATIONAL DIPLOMACY: A LOOK FROM INSIDE THE U.S. DEPARTMENT OF STATE (Abstract ID:14213)

2:30 Buesseler, K. O.; FUKUSHIMA AND OCEAN RADIOACTIVITY (Abstract ID:16275)

3:00 Chen, S. S.; SUPERSTORM SANDY: AN IDEAL TUTORIAL FOR INTEGRATED IMPACT FORECASTING USING COUPLED ATMOSPHERE-WAVE-OCEAN-SURGE MODELS (Abstract ID:17856)

3:30 Greene, C. H.; FOSSIL FUEL JUNKIES, CLIMATE CHANGE, OCEAN ACIDIFICATION, AND GLOBAL BIOGEOCHEMICAL ENGINEERING (Abstract ID:13015)

Session 175E

Friday, 28 February 2014
Room 310 Theater, 2:00 – 4:00 pm

Session organizer: Mel Briscoe, mel@briscoe.com

2:00 Schmitt, R. W.; THE OCEANS AND THE GLOBAL WATER CYCLE (Abstract ID:13574)

2:30 Lovenduski, N. S.; CARBON IN THE SOUTHERN OCEAN: KNOWN KNOWNS AND KNOWN UNKNOWNS (Abstract ID:16562)

3:00 Boetius, A.; THE CHANGING ARCTIC OCEAN: ECOLOGICAL EFFECTS OF WARMING AND SEA ICE MELT (Abstract ID:16774)

3:30 Mills, K. E.; Pershing, A. J.; CLIMATE CHANGE AND ADAPTATION PLANNING FOR MARINE FISHERIES: AN ASSESSMENT FRAMEWORK AND RESEARCH NEEDS (Abstract ID:15167)

Award Lectures Session

Wednesday, 26 February 2014
Room 310, 10:30 am -12:30 pm

The AGU Sverdrup Award Lecture

The Harald Ulrik Sverdrup Lecture honors the life and work of geophysicist, Harald Sverdrup. The Sverdrup Lecturer is selected for exemplifying Harald Sverdrup's work with outstanding contributions to the basic science of the atmosphere and the oceans and/or unselfish service promoting cooperation in atmospheric and oceanographic research.

We congratulate this year's winner:

Dennis A. Hansell, RSMAS, University of Miami, USA

Dr. Hansell is professor in the Division of Marine & Atmospheric Chemistry at the UM Rosenstiel School of Marine and Atmospheric Science. He served as chairman of the United States Carbon Cycle Scientific Steering Group from 2010 through 2013. Widely published and cited, Dr. Hansell's research interests are in the biogeochemistry of marine carbon and the major nutrients, with a particular focus on the role of marine dissolved organic matter in elemental cycling. He investigates biogeochemical processes in the open ocean and polar seas, using observational approaches such as process studies, time-series, and hydrographic surveys. Dr. Hansell's lecture will focus on progress in scientific understanding of the dynamics of organic material dissolved in the ocean, one of Earth's major reservoirs of carbon.

The ASLO G. Evelyn Hutchinson Award

The ASLO G. Evelyn Hutchinson Award honors a limnology and oceanography scientist who has made considerable contributions to knowledge, and whose future work promises a continuing legacy of scientific excellence.

The G. Evelyn Hutchinson Award has been presented annually since 1982 to recognize excellence in any aspect of limnology or oceanography. The award is intended to symbolize the quality and innovations toward which the society strives and to remind its members of these goals. In lending his name to the award, Hutchinson asked that recipients be scientists who had made considerable contributions to knowledge, and whose future work promised a continuing legacy of scientific excellence.

We congratulate this year's winner:

Gerhard J. Herndl, Department of Marine Biology, University of Vienna

Prof. Gerhard J. Herndl is recognized for his contributions to the development of oceanography and aquatic microbial ecology, for broadening our understanding of the interactions between microbes and marine biogeochemical cycles, for spearheading the exploration of the dark ocean, and for his excellence and dedication to training and community service.

The TOS Munk Award Lecture

The Walter Munk Award is granted jointly by The Oceanography Society, the Office of Naval Research and the Office of the Oceanographer of the Navy. Recipients are selected based on their:

- Significant original contributions to the understanding of physical ocean processes related to sound in the sea
- Significant original contributions to the application of acoustic methods to that understanding
- Outstanding service that fosters research in ocean science and instrumentation contributing to the above.

We congratulate the most recent recipient of The Munk Award:

Dr. W. Steven Holbrook, Professor of Geophysics, University of Wyoming, and Adjunct Scientist, Physical Oceanography Department, Woods Hole Oceanographic Institution.

Steve Holbrook is honored as the father of the new field of "Seismic Oceanography". His use of low frequency seismic reflection profiling to image the water column has provided quantitative and novel insights into the structure and dynamics of internal waves, eddies and mixing processes. With his innate and relentless curiosity, he has provided unprecedented views of the internal workings of the ocean. His generous collegiality has also been a stimulus to the formation of an interdisciplinary seismic oceanography community.

Poster Sessions

Poster sessions will take place Monday through Thursday from 4:00 to 6:00 pm in the Exhibit Hall. Sessions are arranged in the poster hall according to primary session category. In addition, attempts have been made to group sessions according to secondary session category Signs showing poster cluster topics and numbers for direction are hanging in the exhibit hall as well as on signs throughout the hall.

A Guide to Finding Posters

In keeping with recent Ocean Sciences meetings, we have made every effort to make the posters accessible and an ideal forum for present-

ing research results. The posters and exhibitor's booths are available on Monday through Thursday in the exhibit hall. On the meeting web page under Travel/Maps is a Poster Hall and Exhibits map. On the map, the 16 clusters (categories) of sessions are indicated with the large letters A-P and the poster boards are indicated as lines with hatch marks through them to indicate individual boards with two poster spaces each on the front and back. Between the poster boards in A, P, F on one side and J, G, I, E on the other are the exhibitors' booths shown as groups of squares.

The poster boards have been placed in the hall with posters on both sides. On the map, the posters are numbered starting in the upper left hand side of the hall. The boards are numbered starting with 1, going down the front side of the boards to 40 at the bottom of the front of that column. Then from bottom to top on the back side (numbers 41-80); the second column of poster boards starts with number 81 at the top on the front. This continues up and down the poster boards to the last one on the back side of the board in the upper right side of the hall (3262).

Also, the 16 categories of sessions are listed on web page under Program and Agenda/Session List. They are used to organize the poster and oral sessions. In the Exhibit Hall, the categories are grouped (shown on the map) with signs hanging from the ceiling. In the program, you can find the category and find that session within it to guide you to that session.

To minimize congestion, sessions within each cluster (category) are spread out for presentation over the four days and within each session, posters will be presented in one-hour time slots on the day for presentation. Each poster has a number and from 4:00-5:00 pm, the even number posters will be presented and from 5:00-6:00 pm, the odd number posters will be presented. The exhibit hall will close on Monday-Thursday at 7:00 pm, so it is possible to view and discuss posters after the formal two-hour presentation periods and at any other time that the hall is open during those four days (Monday and Wednesday 10:00 am-7:00 pm; Tuesday and Thursday 12:00-7:00 pm).

The poster hall map is located on the inside back cover of this program.

Poster Session Receptions

Daily receptions will be held in the exhibit/poster area from 4:00 to 6:00 p.m. This includes a beer break from 4:00 to 5:00 p.m.

Auxiliary Meetings, Workshops and Town Hall Meetings

Sunday, 23 February 2014

Bering Sea Project - Open Science Meeting

Sunday, 23 February 2014, 7:00 am – 6:00 pm
Room 301 AB
Thomas Van Pelt - tvanpelt@nprb.org

This is an Open Science Meeting to (1) communicate results of the 2007-2013 Bering Sea Project, and (2) engage the community working in related disciplines and regions. This BSP-OSM will include topics within the broad scope of the Bering Sea Project-- to "understand the impacts of climate change and dynamic sea ice cover on the eastern Bering Sea ecosystem"— as well as related work from disciplines not included in the program, other research programs, and other subarctic regions.

Storymaker Workshop, Part #1- Communication to the Public – For Graduate Students

Sunday, 23 February 2014, 8:00 – 10:00 am
Room 313 C
Jon Sharp- jsharp@udel.edu

This workshop is limited to those graduate students who have pre-registered. Participants in this workshop have been working with the S-Team of Randy Olson and Brian Palermo prior to the meeting. They will split into two groups for one hour sessions on story line (with Randy) and on improv exercises (with Brian) and then switch to the other. This is the first part of a series of workshop sessions to be followed in Sunday afternoon with "The Connection Storymaking Presentation" (which is open to everyone) and a final one hour session on Monday evening.

2YC Oceanography Teaching Resources and Practices

Sunday, 23 February 2014, 8:00 am - 5:00 pm
Room 316 C
Jan Hodder - jhodder@uoregon.edu

This workshop will explore successful models for teaching oceanography to non-majors and majors at community colleges. Organizers will focus on validated and effective practices, including but not limited to using on-line data, the role of visualizations and in-class demos, interactive activities, active learning, and engaging students in research. The workshop will also include a discussion of student learning outcomes. Participants will be given an opportunity to share resources.

Effective Communication and Team-Building Workshop

Sunday, 23 February 2014, 8:00 am – 5:00 pm
Room 319 AB
Michele Guannel - mguannel@hawaii.edu

This workshop is organized by a committee of graduate students, post-docs, and staff for the Center for Microbial Oceanography: Research and Education (C-MORE) members and alumni. Participants will work together to develop interpersonal skills, address impacts of bias on communication, and hone strategies for professional conflict mediation.

Science Education for Early Career Scientists

Sunday, 23 February 2014
8:00 am – 5:00 pm
Room 318 AB
Janice McDonnell - mcdonnel@marine.rutgers.edu

The GEARS Workshop: The Centers for Ocean Sciences Education Excellence (COSEE) facilitates partnerships between scientists and education professionals to work toward the improvement of public ocean science literacy. Join us for hands-on demonstrations and discussions on the following skills, organized into four, interconnected gears:#1: Deconstruct Your Science, #2: Understand How People Learn, #3: Build Effective Communication Techniques, #4: Broaden the Reach of Your Science.

Ecology of Infectious Marine Disease RCN Workshop

Sunday, 23 February 2014, 8:00 am - 5:00 pm
Room 317 AB
Drew Harvel- cdh5@cornell.edu

The Ecology of Infectious Marine Disease RCN is a highly interdisciplinary project that seeks solutions to sustaining ocean health under the pressure of climate change and other anthropogenic threats. This RCN will also integrate social and economic dimensions of these issues by evaluating perceptions of human risk from marine disease and climate change and enumerating the economic impact on fisheries.

TRACERS Data Workshop

Sunday, 23 February 2014, 9:00 am - 4:00 pm
Room 316 B
Dennis Hansell - dhansell@rsmas.miami.edu

This is a closed meeting of scientists involved in the Ross Sea project entitled "TRACERS", conducted in early 2013 on the RVIB Nathanial B. Palmer.

Early Career Workshop Keys to Proposing, Conducting, and Presenting

Sunday, 23 February 2014, 9:00 am – 5:00 pm
Room 314
Jennifer Ramarui - jenny@tos.org

Four topics of interest to early career scientists and others will be covered in one-hour segments during this workshop. Practical guidance will be provided on "proposal writing and the review process", "cruise planning for chief scientists," "how to get your work published in international scientific journals," and "effective presentations at scientific conferences." Participants may attend as few or as many presentations as desired. A lunch break is scheduled from 12:00 - 2:00 pm.

OSNAP PI Meeting

Sunday, 23 February 2014, 10:00 am - 5:00 pm
Room 316 A
Susan Lozier - mslozier@duke.edu

OSNAP (Overturning in the Subpolar North Atlantic Program)is an international program focused on the measure of the AMOC in the subpolar North Atlantic. This meeting will focus on plans for the deployment of instruments in the summer of 2014.

The Connection Storymaking Presentation

Sunday, 23 February 2014, 1:00 – 4:00 pm
Room 313 C
Jon Sharp- jsharp@udel.edu

Around 2008, fellow ocean scientist, Jon Sharp, declared "'we as an environmental sciences community are doing a lousy job at communicating with the public". So, he went to Hollywood for help. Randy Olson, a scientist turned filmmaker, has been working with our community since, and in the past few years has developed a storymaking team. Initially, they worked with those of you making short videos to explain your science to lay audiences. They recently expanded with their workshop called Connection Storymaking. We hosted the workshop at last year's ASLO winter meeting. They have also conducted it for the Center of Disease Control, National Park Service, US Fish and Wildlife, and other organizations. We would now like to bring some of the same advice to a larger audience with the The Connection Storymaking presentation at the 2014 Ocean Sciences Meeting. Randy Olson and Brian Palermo (Hollywood actor and acting instructor) will present narrative and improv in a series of short talks, exercises and games. So if you are in Honolulu on Sunday, come learn about the Connection Storymaking.

Linking Social-Ecological Science in Ocean Policy

Sunday, 23 February 2014, 1:00 – 4:00 pm
Room 313 B
Carlie Wiener - cwiener@hawaii.edu

This workshop will provide a forum to explore how social-ecological thinking can inform five critical policy areas: coral reef conservation, marine protected areas, community-based fisheries management, endangered species management, and monitoring/ocean observing. We aim to assess how better integration of social and natural sciences can inform science-based management, in a workshop format. It is expected that these discussions will advise the development of a paper submitted for publication.

Sloan Research Fellowships in Ocean Sciences

Sunday, 23 February 2014, 2:00 – 3:30pm
Room 313 A
Hosted by Mitch Sogin and Barbara Block

In 2014, the Alfred P. Sloan Foundation will award $50,000 fellowships to eight early-career scientists in Ocean Sciences. These Fellows represent our next generation of top scholars in ocean science. SRF selection committee members Drs. Mitchell Sogin and Barbara Block will provide information about prior awardees and the nomination process. They will also inform the ocean sciences community about this important and prestigious new program and address questions about eligibility.

Monday, 24 February 2014

Mentor/Mentee Networking Breakfast

Monday, 24 February 2014, 7:00 – 8:00 am
Kalakaua Ballroom A
Jennifer Ramarui - jenny@tos.org

An opportunity for attendees participating in the mentoring program to get acquainted and plan activities for the week while enjoying a relaxed meal. This event will be held at the Honolulu Convention Center before oral presentations begins.

GEARS Lunchtime Workshop Series - DECONSTRUCT: Deconstruct your Research and Share your Pathway to Science!

Monday, 24 February 2014, 12:45 - 1:45 pm
Room 318 AB
Annette deCharon - annette.decharon@maine.edu

Deconstruct your science. In this workshop you will learn and apply concept mapping skills to help you: 1) visually represent your science in a "bigger picture" context, 2) simplify your research goals and communicate them to others, and 3) share your pathway to becoming a scientist. Concept mapping will help you in writing collaborative proposals, improving your presentations, and focusing your science on questions of societal significance. Lunch will be provided to the first 50 participants.

Snap It Up

Monday, 24 February 2014, 12:45 - 1:45pm
Room 304 AB
Jonathan Sharp - jsharp@udel.edu

The Hollywood team of Randy Olson, Dorie Barton, and Brian Palermo will attend several talks during the day on Monday and then report with suggestions for improvements at the workshop.

NSF Town Hall

Monday, 24 February 2014, 12:45 - 1:45pm
Room 314
Debbie Bronk - dbronk@nsf.gov

A Town Hall to update the community on recent news from the National Science Foundation.

International Quality Controlled Ocean Database

Monday, 24 February 2014, 12:45 - 1:45pm
Room 301 AB
Rebecca Cowley - Rebecca.Cowley@csiro.au

Attendees of the recent IQUOD workshop will lead a discussion of the need for a definitive set of uniformly quality controlled ocean profile data.

Co-Ordinating Complex Bio-Manipulation Studies

Monday, 24 February 2014, 12:45 - 1:45pm
Room 316 C
Philip Boyd - philip.boyd@utas.edu.au

This meeting will capitalize on the wide attendance of OSM2014 of scientists interested in studying the effects complex environmental change on ocean biota using environmental manipulation experiments. We currently have a SCOR proposal on this topic pending and wish to have a preliminary meeting of the investigators named in this proposal, and others (attending OSM2014) who would like to contribute to this discussion.

Writing Skills, Science Communication and Climates

Monday, 24 February 2014, 12:45 - 1:45pm
Room 317 AB
Mathew Stiller-Reeve - mathew.reeve@uni.no
http://climatesnack.com/ocean-sciences/

We have to write well to communicate our science and engage with our target audience. Besides some natural talents, most of us have to learn technique and improve our skills as we go. Our panel will share their stories and views on how they developed as writers and how important writing is for science communication. We will then introduce a new community-based approach called ClimateSnack. ClimateSnack shows that if we want to hone our writing skills, doing it together beats going it alone. Lunch boxes will be provided to the first 75 particpants.

Discussion on Coupled Air/Sea Satellite Mission

Monday, 24 February 2014, 12:45 - 1:45pm
Room 312
Mark Bourassa - mbourassa@fsu.edu

Community input is sought for science objectives of a satellite mission focused on air/sea coupling (surface winds, SSTs, boundary-layer interaction, and cloud coupling). Key proposed features of the proposed mission high resolution surface vector winds from a dual frequency scatterometer (10km at Ku-band and 5km at Ka-band with traditional processing techniques) and an AMSR2-like radiometer with additional channels sensitive to ice. Discussion will follow a presentation.

Storymaker Workshop, Part #3 - Communication to the Public, Final Wrap-Up Session

Monday, 24 February 2014, 6:30 - 8:30pm
Room 319 AB
Jonathan Sharp - jsharp@udel.edu

This workshop is limited to the pre-registered graduate students And is the final session with Randy Olson and Brian Palermo of the multistep workshop. Participants in this workshop will be split into two groups for final 1-hour sessions.

Improving Our Understanding of Open-Ocean Hypoxia

Monday, 24 February 2014, 6:30 -8:30pm
Room 318 AB
Anand Gnanadesikan- gnanades@jhu.edu

The inability of today's climate models to simulate hypoxia motivates a joint study of the physics and biogeochemistry of the oxygen minimum zone. Participants are invited to provide input for a scoping study to be presented to funding agencies.

Ocean Science Development of Ocean University of China

Monday, 24 February 2014, 6:30 - 8:30 pm
Room 313 C
Qinyu Liu - liuqy@ouc.edu.cn

Ocean University of China (OUC) will celebrate its 90th anniversary in October 2014. This town hall will introduce the history of OUC, its recent achievements in ocean science research and education, as well as its blueprint for ongoing and future development. The meeting will also highlight OUC's plan for international collaborations and recruiting talented scientists in ocean science and technology and will serve as a reunion event for overseas alumni.

Data at Your Fingertips

Monday, 24 February 2014, 6:30 - 9:30 pm
Room 313 A
Steve Diggs - sdiggs@ucsd.edu

EarthCube is a direct and proactive federal funding agency response to the data deluge that is on the increase due to technological advances from the sensor to the user in all of the geosciences in general, and marine sciences in particular. The challenge facing geosciences has become how to discover, integrate, and analyze existing discipline-specific data, large or small, in order to advance necessary interdisciplinary research. Current EarthCube activities are working towards integrate these rapidly growing data streams and technologies into an open, adaptable, sustainable framework for data-intensive, multi-disciplinary geoscience research compatible with high-performance computing, large and small data sets, scalable software, and modeling.

Optimizing Data Return from the OOI

Monday, 24 February 2014, 6:30 - 9:30pm
Room 313 B
Julie Farver - jfarver@oceanleadership.org

Join an open forum town hall discussion on optimizing data from the Ocean Observatories Initiative (OOI). Discussion topics will include sensor calibration procedures, sensor cross-calibration, data management approaches, and incremental approaches for data quality as we enter the operational phase of the project. A panel of program experts will use examples of OOI data returned from initial deployments to illustrate data opportunities as well as data issues to address.

Dual Careers: Challenges and Opportunities

Monday, 24 February 2014, 6:30 - 9:30 pm
Room 314
Colleen Mouw - cbmouw@mtu.edu

Many scientists are in a dual-career relationship. The opportunities and challenges this presents will be highlighted at this town hall sponsored by MPOWIR (Mentoring Physical Oceanography Women to Increase Retention). Dr. Kelly Ward, an expert in gender equality will discuss statistics on dual career couples and her research on managing two careers. A panel of oceanographic community members will share their strategies and experiences in finding opportunity, hiring and balancing two careers and respond to questions from participants. Light refreshments will be provided.

ASLO Home Videos

Monday, 24 February 2014, 6:30 - 9:30pm
Room 312
Bob Chen - bob.chen@umb.edu

The ASLO Image Library will be expanding its capacity by accepting videos in addition to still images. With over 40 million views of its images, the ASLO image library serves as a unique resource for educators and scientists worldwide. At this town hall, come grab a soft drink and some popcorn and view 10 second to 5 minute videos and provide feedback on what videos should be included in the ASLO image library.

National Geographic Marine Debris Art Expedition

Monday, 24 February 2014, 6:30 - 9:30 pm
Room 316 A
Kurt Byers - kurt@norsemanmaritime.com

Gyre: Creating Art from a Plastic Ocean: In this 20-minute video, National Geographic journeys along the remote Alaskan coast in search of—garbage. A team of scientists and artists investigates the buildup of marine debris washing out of the great gyres in the Pacific Ocean. The artists created art from marine debris. The artworks have been assembled into a traveling exhibit which debuted earlier this month at the Anchorage Museum of History and Art.

The Center for Ocean Solutions Networking Meeting

Monday, 24 February 2014, 6:30 - 9:30pm
Room 315
Laura Good - lhgood@stanford.edu

This is a small gathering and networking opportunity for OSM participants from the Center for Ocean Solutions in Monterey, California, graduate program.

Tuesday, 25 February 2014

TOS Networking Breakfast

Tuesday, 25 February 2014, 7:00 - 8:00 am
Kalakaua Ballroom A
Jennifer Ramarui - jenny@tos.org

Members of The Oceanography Society (TOS) and invited guests will honor newly selected TOS Fellows as well as the most recent recipient of the Walter Munk Award. While breakfast is being served, attendees will also have the opportunity to network with colleagues and participants in the OSM mentoring program.

GEARS Lunchtime Workshop Series - DECONSTRUCT: Telling Stories About Your Science

Tuesday, 25 February 2014, 12:45 - 1:45 pm
Room 318 AB
Ari Daniel - ashapiro@whoi.edu

Stories are our currency of communication and memory. You will learn how to frame your science using storytelling techniques. You will learn how to use stories to engage your audience and help them understand your science. You will hear some examples, and get to try it yourself. Ari Daniel is a freelance radio and multimedia reporter. His work has appeared on public radio outlets including The World, Radiolab, and All Things Considered. Lunch is provided to the first 50 participants.

Framework for Ocean Observing – Implementation

Tuesday, 25 February 2014, 12:45 - 1:45 pm
Room 317 AB
Maciej Telszewski - m.telszewski@ioccp.org

Based on an agreement achieved at the OceanObs'09 Conference a Framework for Ocean Observing (FOO) was developed and published in 2012. The FOO organizes the observing system around the societal requirements driving observations, which output data that then feedback to societal benefit, the source of the requirements. This event will provide an update on developments within 3 Panels of the FOO, and focus on the Panel for Biogeochemistry and Essential Ocean Variables that are proposed.

GEOTRACES Intermediate Data Product

Tuesday, 25 February 2014, 12:45 - 1:45 pm
Room 319 AB
Robert Anderson - boba@ldeo.columbia.edu

The GEOTRACES program will publicly release its first data product. The nature of the data to be made available, the data policy, and the procedure to access the data will be described. GEOTRACES (www.geotraces.org) is an international study of the marine biogeochemical cycles of trace elements and their isotopes. 618 stations (49 cruises) have been sampled resulting in 800 data sets. A question and answer session will follow a presentation of selected results and new data visualization tools.

AGU Ocean Science Section Executive Committee

Tuesday, 25 February 2014, 12:45 - 1:45 pm
Room 325 B
James Murray - jmurray@u.washington.edu

This will be a working meeting over lunch.

ASIRI working group

Tuesday, 25 February 2014, 12:45 - 1:45 pm
Room 315
Jennifer MacKinnon- jmackinn@ucsd.edu

Air-Sea Interactions in the Northern Indian Ocean (ASIRI) is an ONR-funded project tasked with better understand upper ocean physics in the Bay of Bengal. Two pilot cruises were held in Autumn 2013. Many of the involved scientists (representing 10 different institutions) will be present at the Ocean Sciences meeting, and this will be an opportunity to meet and coordinate ongoing analysis. Other OSM attendees interested in the project are welcome.

Learn About Funding to Support Undergrad Education

Tuesday, 25 February 2014, 12:45 - 1:45 pm
Room 316 A
Jill Singer- singerjk@buffalostate.edu

This session provides current information about the NSF-Division of Undergraduate Education programs, with special attention to the program(s) replacing the TUES (Transforming Undergraduate Education in STEM) program. The TUES program supported a wide-range of activities aimed at improving the undergraduate geography and geoscience curriculum for majors and non-majors. The session is open to anyone that is involved in teaching undergraduates and faculty from 2YC are encouraged to attend.

Doing Good with Your Science: Get Involved!

Tuesday, 25 February 2014, 12:45 - 1:45 pm
Room 311
Julia Galkiewicz- jgalkiewicz@agu.org

Community-inspired science is the idea that communities are more likely to use science they've asked for and helped develop. Learn about competing demands for community resources and why communities might not trust scientific experts. Join a discussion on putting your skills and knowledge to work to help your community embrace and use science. You'll leave with an action plan to develop relationships with people in your community, and a network of other scientists going through the same process.

National Oceanographic Data Center Town Hall

Tuesday, 25 February 2014, 12:45 - 1:45 pm
Room 304 AB
Andrew Allegra - Andy.Allegra@noaa.gov

This town hall is for both current & future users of NODC data products and services. We will provide an update to the Ocean and Coastal Community on recent enhancements and new products at NOAA's National Oceanographic Data Center. We hope to interact with the audience and gather feedback. NODC manages the world's largest collection of freely available oceanographic data and provides end-to-end services for satellite, in situ, model, video, and other types of ocean data and information.

Sail with Norseman Maritime

Tuesday, 25 February 2014, 12:45 - 1:45 pm
Room 316 A
Kurt Byers- kurt@norsemanmaritime.com

Norseman Maritime, based in Seattle, operates two state-of-the-art research vessels, the R/V Norseman (108 ft) and the R/V Norseman II (115 ft). An internationally recognized oceanographer calls Norseman "the gold standard" in medium-size research ship operations. Enjoy a short presentation followed by Q&A with Norseman General Manager and Captain, Bart Campbell, and Bosun's Mate, Scotty Hameister.

ASLO Business Meeting

Tuesday, 25 February 2014, 6:30 - 7:30 pm
Room 317 AB
John Downing, ASLO President- business@aslo.org

This is the ASLO annual society business meeting but all attendees-members and nonmembers are invited to come, have drink and a few snacks and learn more about ASLO.

NOPP Excellence in Partnering Award Presentation

Tuesday, 25 February 2014, 6:30 – 7:30pm
Room 311
John Hollister - john.hollister@qinetiq-na.com

During this time, awards will be presented to winning PI, and co-PIs.

Turbulence Measurements with Doppler Instrumentation

Tuesday, 25 February 2014, 6:30 - 8:30 pm
Room 301 AB
Peter Rusello - pj@nortekusa.com
www.nortekusa.com/turbulenceWorkshop

Doppler instruments are used to measure turbulence in a variety of environments. This workshop will feature speakers from diverse research areas which demonstrate the use of acoustic Doppler instrumentation to effectively measure turbulence. Talks will focus on technical principles and canonical measurement situations. Researchers and students from all areas are encouraged to attend. The primary goal is to encourage interaction between various fields measuring turbulence with Doppler instrumentation.

Philanthropic Investment in Ocean Research

Tuesday, 25 February 2014, 6:30 - 8:30 pm
Room 313 C
Raechel Waters - RaechelW@PGAFamilyFoundation.org

Over recent years philanthropic support for ocean research has significantly increased in tandem with emerging global threats and reduced public funding; however, much remains to be learned towards improving ocean health. The Paul G. Allen Family Foundation is pleased to present the winning concept of the Foundation's "Ocean Challenge: Mitigating Acidification Impacts," followed by a panel discussion of broad philanthropic interests, priorities and funding opportunities. Refreshments provided.

NRC Decadal Survey of Ocean Sciences Town Hall

Tuesday, 25 February 2014, 6:30 - 8:30pm
Room 319 AB
Deborah Glickson - dglickson@nas.edu

The National Research Council is undertaking a Decadal Survey of Ocean Sciences for NSF, which will review the current state of knowledge, identify compelling scientific questions for the next decade, analyze infrastructure needed to address these questions vs. the current

NSF portfolio, and identify opportunities to maximize value of NSF investments. The Town Hall will engage the community on its views for ocean research in the next decade.

Marine Ecosystem Model Intercomparison Project

Tuesday, 25 February 2014, 6:30 - 8:30pm
Room 313 A
Taka Hirata - tahi@ees.hokudai.ac.jp

Scientists are increasingly being asked to communicate the "broader impacts" of their work. We will explore a suite of new online resources for scientists aimed at helping you develop a BI statement that will satisfy NSF Criterion II and fulfill your interest in communicating your science. Learn about the important points to include in your BI statement and tips on selecting potential audiences, identifying appropriate collaborators, and developing activities that achieve broader impacts.

Mariana Trench Marine National Monument-Vents Unit

Tuesday, 25 February 2014, 6:30 - 8:30pm
Room 318 AB
Eric Breuer - eric.breuer@noaa.gov

A town hall to provide an open forum to discuss research needs for the Vents Unit of the Marinas Trench Marine National Monument (MTMNM).

New CLIVAR Research Foci On Oceans & Climate

Tuesday, 25 February 2014, 6:30 – 8:30pm
Room 312
Valery Detemmerman - vdetemmerman@wmo.int

Come share your ideas with the CLIVAR community. CLIVAR is the WCRP project on Oceans and Climate: Variability, Predictability and Change. Change is in the air within both US and international CLIVAR. Both have new structures and redefined science foci and strategies for wider community involvement (www.clivar.org, www.usclivar.org). We are looking to host a lively discussion, focusing on how you can get involved and contribute to CLIVAR.

JGR-Oceans Editorial Board Meeting

Tuesday, 25 February 2014, 6:30 - 9:30 pm
Room 325 A
Jeanette Panning - jpanning@agu.org

An invitation only meeting for the editors and associate editors of JGR-Oceans.

Vitals Planning Meeting

Tuesday, 25 February 2014, 6:30 - 9:30 pm
Room 304 AB
Brad Deyoung - bdeyoung@mun.ca

The team working in the Labrador Sea on air-sea gas exchange will meet to make field plans for the upcoming year and to share information about scientific progress of the project.

Wednesday, 26 February 2014

"Meet your Agency Program Manager" Networking Breakfast #1

Wednesday, 26 February 2014, 7:00 – 8:00 am
Ballroom A
Jennifer Ramarui - jenny@tos.org

Early career scientists are often counseled to "get to know your program managers." These breakfast events provide participants with an opportunity to meet and interact with U.S. federal agency program managers in an informal setting. Program managers from the major U.S. funding agencies supporting ocean sciences, including NSF, NASA, NOAA and ONR, will participate in these events. There is no fee to attend, but registration is required in order to match program managers with small groups of participants each day. The list of all participating Federal Agency representatives is available on the registration website: https://www.surveymonkey.com/s/NetworkingBreakfasts.

GEARS Lunchtime Workshop Series - LEARN: What's the Relationship Between Understanding the Science of Climate Change and Making Conservation Based Decisions?

Wednesday, 26 February 2014, 12:45 - 1:45 pm
Room 319 AB
Catherine Halversen - chalver@berkeley.edu

How deeply do people need to understand the science of climate change before they are activated to do something about it? We address this question by discussing how people learn and how we make decisions, and considering how a deeper understanding of the human mind is helpful for communicating science. This interactive workshop will explore the relationship between understanding and conservation-based decision-making, around climate change. Lunch is provided to the first 50 participants.

Beyond the Redfield Ratio

Wednesday, 26 February 2014, 12:45 - 1:45 pm
Room 301 AB
James Elser - j.elser@asu.edu

This event is open to all those interested in advancing our understanding of C:N:P ratios in oceanography. We seek to explore interest in a follow-up workshop for our ASLO special session and to gather ideas about possibilities for developing programmatic research concepts related to oceanography beyond Redfield.

Decadal Hydrographic Survey

Wednesday, 26 February 2014, 12:45 - 1:45 pm
Room 313 B
Bernadette Sloyan - Bernadette.Sloyan@csiro.au

We are currently undertaking the decadal (2012 -2023) hydrographic survey. This town hall meeting, sponsored by GO-SHIP and IOCCP, will provide a community update on the status of the current decadal survey, and, seek feedback from the community regarding (1) the current plans, (2) data availability and suggestions for improvements to data access, (3) connections and contributions to related large-scale ocean projects, and (4) emerging issues that the global survey should consider.

Discover and Utilize Ocean Data from PO.DAAC

Wednesday, 26 February 2014, 12:45 - 1:45 pm
Room 313 A
Jessica Hausman - Jessica.K.Hausman@jpl.nasa.gov

The Physical Oceanography Distributed Active Archive Center (PO.DAAC) is the archive, distribution, and user/science services center for NASA's satellite oceanographic data. We will provide an overview of PO.DAAC's expansive data holdings and showcase its rich set of search, visualization and sub setting capabilities through a series of live demonstrations of the PO.DAAC portal, web interfaces, and web services. PO.DAAC scientists and developers will be on hand to answer related questions.

Using Ocean Observatories in the NE Pacific to Advance Science

Wednesday, 26 February 2014, 12:45 - 1:45 pm
Room 314
Leslie Elliott - elliottl@uvic.ca

Join a town hall discussion on how you can advance your specific scientific needs and research by utilizing data currently streaming from the Ocean Networks Canada ocean observatory and in the future when the Ocean Observatories Initiative become operational in 2015. Program experts from both organizations will provide data demonstrations and be available to take your questions during this town hall

Positive Factors that Impact Success in STEM

Wednesday, 26 February 2014, 12:45 - 1:45 pm
Room 313 C
Allyson Fauver - afauver@ibparticipation.org

Explore the positive factors that reduce barriers to participation and enable individuals to succeed and persist in STEM fields and careers. Learn how to implement strategies and practices that broaden participation and support diversity in your programs or work, personal, and/or academic environments. Food for this luncheon workshop will be provided to the first 50 participants. Co-sponsored by the Institute for Broadening Participation (IBP) and the COSEE - Ocean Systems.

Collaborating with Schmidt Ocean Institute & MSTF

Wednesday, 26 February 2014, 12:45 - 1:45 pm
Room 304 AB
Allison Miller - amiller@schmidtocean.org

This workshop is an information sharing session about Schmidt Ocean Institute and the Marine Science & Technology Foundation. Schmidt Ocean Institute owns & operates R/V Falkor for oceanographic research and selects projects conducted onboard via a competitive process. The Marine Science & Technology Foundation supports R&D of innovative ocean technology projects that transform observations, exploration, and information sharing. Future opportunities & organizational priorities and goals will be shared.

AGU Ocean Sciences Section Strategic Planning

Wednesday, 26 February 2014, 12:45 - 2:45 pm
Room 325 B
James Murray - jmurray@u.washington.edu

A working meeting to discuss strategic planning by the Ocean Science Section.

The Use of Profiling Floats Integrated with Bio-Geochemical Sensors

Wednesday, 26 February 2014, 6:30 – 7:30 pm
Room 315
David Murphy - dmurphy@seabird.com

Bio-geochemical sensors integrated into Argo mission capable profiling floats offer a powerful new tool for the investigation of oceanographic processes. This workshop presents analytical techniques covering bio-geochemical sensors that are available for these platforms with a focus on data handling, visualization and QA/QC. We will present examples of particulate carbon dynamics and Upper Ocean mixing from floats operating off Hawaii and in the Western Mediterranean and Labrador Seas.

Effective Practices for Communicating OA

Wednesday, 26 February 2014, 6:30 – 8:30 pm
Room 312
Jennifer Bennett - jennifer.bennett@noaa.gov

The field of ocean acidification (OA) research is rapidly expanding. Many educators, communicators and scientists are working together to effectively communicate ocean acidification science, raising awareness of our ocean's changing ocean chemistry and understanding of the impacts of this change. Current projects & opportunities to join ongoing efforts will be presented. Please come prepared to discuss stories that are emerging from recent scientific findings and community responses to OA.

University of Delaware Alumni, Faculty, & Student Reception

Wednesday, 26 February 2014, 6:30 - 8:30 pm
Room 319 AB
Tracy Willman - twillman@udel.edu

A reception for alumni, faculty, and students.

K-12 Student Science Symposium

Wednesday, 26 February 2014, 6:30 - 8:30 pm
Room 318 AB
George Matsumoto - mage@mbari.org

A special evening session of K-12 student posters and educator activities. This evening session will be the culmination of several different programs, (e.g. science fair entries, classroom research experiments, teacher expo, and student art contest) and can include submissions from any students/educators.

North Atlantic Observing System

Wednesday, 26 February 2014, 6:30 - 7:30 pm
Room 311
Susan Lozier - mslozier@duke.edu

Building upon the UK-US RAPID-MOCHA-WBTS array deployed since 2004, the addition of several programs will create a basin-wide observing system focused primarily, but not exclusively, on the meridional overturning circulation and the ocean's uptake and transport of heat, freshwater, oxygen and carbon. These programs include US/UK/Germany/Netherlands/Canada OSNAP, Canadian VITALS and European NACLIM. Information on the individual and collective goals of these programs will be discussed.

MISST for IOOS Workshop

Wednesday, 26 February 2014, 6:30 - 8:30 pm
Room 313 B
Chelle Gentemann - gentemann@remss.com

The Multi-sensor Improved Sea-Surface Temperature (MISST) for IOOS project objectives are to (1) improve and continue generation of satellite SST data and SST analyses in the Group for High Resolution Sea Surface Temperature (GHRSST) Data Specification GDS format; (2) distribute and archive these data; and (3) use this improved SST data in applications targeted for the Integrated Ocean Observing System (IOOS).

Facilitating Classroom Innovation

Wednesday, 26 February 2014, 6:30 - 8:30pm
Room 313 C
Jill Singer - singerjk@buffalostate.edu

Information on NSF-DUE programs, with attention to program(s) replacing TUES. TUES supported activities aimed at improving undergraduate geoscience curriculum for majors and non-majors. A new solicitation should be available early 2014 and new program likely will support activities aimed at department/institutional change, expanding evidence-based practices, building communities of adopters of effective practices, and faculty development. Session will provide resources for preparing proposals.

SISS Working Group Meeting

Wednesday, 26 February 2014, 6:30 – 9:30 pm
Room 325 A
Jacqueline Boutin - jb@locean-ipsl.upmc.fr

At the SMOS-Aquarius science workshop, the Satellite & In Situ Salinity (SISS) Working Group (WG) was established. A large part of the participants to this WG will attend the 'Ocean Salinity and Water Cycle Variability and Change' session organized at the Ocean science meeting. The major goal of this WG is to improve our understanding of the link between satellite remotely -sensed salinity and in situ sea surface salinity.

US IOOS HF Radar Meeting

Wednesday, 26 February 2014, 6:30 - 9:30 pm
Room 316 A
Jack Harlan - jack.harlan@noaa.gov

An opportunity to discuss IOOS HF radar funding, operations and procedures. Also, much of the meeting will be devoted to presentations on technical aspects of HF radar rather than applications.

Echoview Workshop

Wednesday, February, 26 2014, 6:30 - 7:30 pm
Room 317 AB
Briony Hutton - briony@echoview.com

Echoview is the industry-standard scientific software for processing data from echosounders and sonars. In this workshop we'll showcase Echoview's latest features, including bottom classification, depth compensation, multibeam background removal and more, and then open up the floor for questions. Whether beginner or seasoned veteran, these workshops are a great way to engage directly with the Echoview team, meet fellow acousticians, and play an active role in the global hydroacoustics family.

Perspectives on Particle Flux

Wednesday, 26 February 2014, 6:30 - 9:30 pm
Room 314
Allison Smith - kas3@princeton.edu

Technological developments such as optical sensors and sediment traps have enabled quantification of particle formation and attenuation. Still, little is known about the processes determining depth-specific spatial and temporal variability in particle aggregation, decomposition, consumption, remineralization, and sinking speed. With this knowledge, we will have an enhanced ability to create predictive models. This workshop aims to share experiences and initiate discussions for future directions.

Coral Research Community

Wednesday, 26 February 2014, 6:30 - 9:30 pm
Room 316 C
Emilie Dassié- edassie@ldeo.columbia.edu

Thursday, 27 February 2014

"Meet your Agency Program Manager" Networking Breakfast #2

Thursday, 27 February 2014, 7:00 – 8:00 am
Kalakaua Ballroom A
Jennifer Ramarui - jenny@tos.org

Early career scientists are often counseled to "get to know your program managers." These breakfast events provide participants with an opportunity to meet and interact with U.S. federal agency program managers in an informal setting. Program managers from the major U.S. funding agencies supporting ocean sciences, including NSF, NASA, NOAA and ONR, will participate in these events. There is no fee to attend, but registration is required in order to match program managers with small groups of participants each day. The list of all participating Federal Agency representatives is available on the registration website: https://www.surveymonkey.com/s/NetworkingBreakfasts

GEARS Lunchtime Workshop Series - BUILD & BROADEN: The Broader Impact Wizard, Step-By-Step Instructions on How to Write Criterion II

Thursday, 27 February 2014, 12:45 - 1:45 pm
Room 318 AB
Janice McDonnell - mcdonnel@marine.rutgers.edu

Scientists are increasingly being asked to communicate the "broader impacts" of their work. We will explore a suite of new online resources for scientists aimed at helping you develop a BI statement that will satisfy NSF Criterion II and fulfill your interest in communicating your science. Learn about the important points to include in your BI statement and tips on selecting potential audiences, identifying appropriate collaborators, and developing activities that achieve broader impacts.

PACE: NASA's Next Generation Ocean Color Mission

Thursday, 27 February 2014, 12:45 - 1:45 pm
Room 313 A
Carlos Del Castillo - carlos.e.delcastillo@nasa.gov

A town hall about a new NASA Ocean Observing satellite mission.

SCOR Working Group 139

Thursday, 27 February 2014, 12:45- 1:45 pm
Room 311
Sylvia Sander - sylvia.sander@otago.ac.nz

The SCOR WG 139's focus is on organic ligands as a key control on trace metal biogeochemistry in the ocean. This lunch time meeting is aiming at members of the scientific community interested in hearing what this SCOR working group has achieved in the first half of its 4-year term. It will also give the opportunity to become involved in actions planned for the coming 2 years, such as intercalibration cruises, publications and a ligand database.

Towards Harmonization of Oceanic Nutrient Data

Thursday, 25 February 2014, 12:45 - 1:45 pm
Room 312
Michio Aoyama - maoyama@mri-jma.go.jp

A major challenge for the monitoring of planet Earth will be the accurate observation of variability and trends to both the full ocean water column in particular with respect to carbon and dissolved nutrients. In this workshop, we particularly would like input on how to establish mechanisms to harmonize the quality of oceanic nutrient data, in order to detect and quantify trends in nutrient levels which might affect the supply of nutrients to the upper ocean.

C-MORE Summer Course Networking Event

Thursday, 27 February 2014, 6:30 - 8:30 pm
Room 312
Daniela Bottjer - dbottjer@hawaii.edu

For 8 years the Center for Microbial Oceanography: Research and Education has offered an international summer course "Microbial Oceanography: From Genomes to microbes." Over 100 graduate students and Post-docs from around the world have participated and we would like to use the 2014 Ocean Sciences Meeting as venue for previous summer course participants and faculty who lectured to meet, gather & talk about science and how participating in the summer course has impacted their careers! This workshop will be used to coordinate research and activities for this project.

EXPORTS Planning Town Hall

Thursday, 27 February 2014, 6:30 – 8:30 pm
Room 313 C
David Siegel - david.siegel@ucsb.edu

We will discuss plans for a NASA field campaign, EXport Processes in the Ocean from RemoTe Sensing (EXPORTS). The goal of EXPORTS is to quantify the strength and efficiency of the ocean's biological pump from satellite and autonomous observations. The draft science and implementation plan for EXPORTS will be discussed and community inputs will be considering in the final plan submitted to NASA.

The Future of Ocean Science Education—Hosted by COSEE

Thursday, 27 February 2014, 6:30 - 8:30 pm
Room 318 AB
Bob Chen - bob.chen@umb.edu

This town hall will introduce the evolution of COSEE from the NSF-Funded National Centers of Ocean Science Education Excellence to the independent Consortium for Ocean Science Exploration and Engagement (COSEE). A panel of ocean science and education professionals will begin the discussion which will focus on future opportunities and directions for national and international ocean science education. Consortium representatives will describe the new organization and its mission and objectives.

Satellite PFT Algorithm Intercomparison meeting

Thursday, 27 February 2014, 6:30 - 8:30 pm
Room 319 AB
Taka Hirata - tahi@ees.hokudai.ac.jp

Satellite Phytoplankton Algorithm Intercomparison Project is a program endosed by International Ocean Colour Corrdinating Groups (IOCCG). The project compares several satellite algorithms to detect and quantify Phytoplankton Functional Types (PFTs).

Humorous Science: a Comical Look at Ourselves

Thursday, 27 February 2014, 6:30 - 8:30 pm
Room 301 AB
Peter Franks - pfranks@ucsd.edu, Jules S. Jaffe

This independent, evening session will be devoted to finding the humor in science, and presenting a lighter side of ourselves and our research to our colleagues. 15-minute satirical presentations will expose the humorous underbelly of our field in the vein of "The Onion," the "Annals of Improbable Research," or "The Far Side" cartoons. Talks will marry the keen observational powers of the scientist and humorist to show how alternate interpretations of facts can lead to fascinating and humorous conclusions.

Accelerating EU-US Research Cooperation

Thursday 27, February 2014, 6:30 - 8:30 pm
Room 311
Lynn Van Fleit - Lvanfleit@diplomacymatters.org

With a $95 Billion budget, Horizon 2020 is the EU's NEW 2014-2020 funding program for research and innovation. Building on the success of transatlantic cooperation in prior funding programs, it is FULLY OPEN to international participation.

A Forum on Traditional Marine Resource Management

Thursday, 27 February 2014, 6:30 - 8:30pm
Room 313 A
Eric Tong - etong@hawaii.edu

This science cafe convenes a panel of academics, resource managers, fishers, and cultural practitioners to explore traditional marine resource management in the Pacific. This event is hosted by Hawaiian Islands Science, a Native Hawaiian graduate student initiative promoting dialogue between Hawaiians and the scientific community. This is part of a series of cafes addressing issues at the intersection of science and community, conducted in the spirit of a'o aku, a'o mai (to teach and be taught).

Friday, 28 February 2014

"Meet your Agency Program Manager" Networking Breakfast #3

Friday, 28 February 2014, 7:00 – 8:00 am
Kalakaua Ballroom A
Jennifer Ramarui - jenny@tos.org

Early career scientists are often counseled to "get to know your program managers." These breakfast events provide participants with an opportunity to meet and interact with U.S. federal agency program managers in an informal setting. Program managers from the major U.S. funding agencies supporting ocean sciences, including NSF, NASA, NOAA and ONR, will participate in these events. There is no fee to attend, but registration is required in order to match program managers with small groups of participants each day. The list of all participating Federal Agency representatives is available on the registration website: https://www.surveymonkey.com/s/NetworkingBreakfasts.

Coaching Science: How to Improve Your Teaching

Friday, 28 February 2014, 12:45 - 1:45 pm
318 AB
Bob Chen - bob.chen@umb.edu

In order to build new knowledge in a diversity of learner, scientists need to understand how people learn. Millions of kids learn to play youth sports, and some simple but powerful coaching techniques can be applied to your teaching of science. Do science. Practice science. Have fun. Allow students to make mistakes and learn from each other. Adopt a slanty line for assessment of learning gains. This workshop will explore the similarities between teaching science and coaching sports.

Global Ocean Carbon Synthesis Project

Friday, 28 February 2014, 4:00 - 9:00 pm
Room 325 B
Nicolas Gruber - nicolas.gruber@env.ethz.ch

We are in the process of synthesizing the global ocean carbon data from the repeat hydrography program in order to estimate the accumulation of anthropogenic CO2 since the WOCE era. This project started in 2009 and we would like to use the opportunity provided at OS to bring the participants together to advance the synthesis.

Saturday, 1 March 2014

Eco-DAS Symposium Reunion

Saturday, 1 March 2014
Off-site
Paul Kemp - paulkemp@hawaii.edu

The purpose of this one-day workshop is to bring together past participants in the Ecological Dissertations in the Aquatic Sciences symposium series.

Social Events

Opening Welcome Mixer Reception

Sunday, 23 February 2014, 7:30 – 9:00 pm
Rooftop Pavilion -HCC, Level 4

A unique welcome to Honolulu and to the 2014 Ocean Sciences Meetings will be held on Sunday, 23 February 2014 on the Rooftop Pavilion at the Hawai'i Convention Center. Conference registration will be open prior to the reception to allow you to pick up your conference materials. Light hors d'oeuvres and a cash bar.

Jam Session

Tuesday, 25 February 2014, 8:00 pm to midnight
Mai Tai Bar, Ala Moana Shopping Center
Greg Cutter- gcutter@odu.edu

This event will be an opportunity to enjoy the musical talents of fellow scientists. Having occurred during the 2010 and 2012 meetings, quite a following has developed among both musicians and audience members. Relax at the jam session and spend time in a variety of ways - visiting with colleagues or performing with other scientists-musicians and providing an entertaining evening for everyone. Musicians are invited to bring musical instruments and join the performance.

1st Ocean Sciences 5K Fun Run

Wednesday, 26 February 2014, 6:00 am
Ala Moana Park, located along the shore just west of the conference hotels and the Hawai'i Convention Center.
Steven Ackleson- steve@saoceans.com.

Head west along Ala Moana Blvd and the park will be on the right just after passing over the canal. Race packets, including a running shirt, a timing chip, and directions to Ala Moana Park, will be available for pickup on the third floor of the conference center, Monday and Tuesday.

Special Opportunities for Students

Outstanding Student Presentation Awards

AGU, TOS, and ASLO are co-sponsoring awards for outstanding posters and oral presentations by students at the 2014 Ocean Sciences Meeting. Awards will be given for the most outstanding posters and talks presented by students at the 2014 Ocean Sciences Meeting.

Student Social Mixer

Monday, 24 February 2014, 6:00 - 7:30 pm
Kalakaua Ballroom AB

An informal student social mixer will be held on Monday evening following the scientific sessions. Senior scientists will be invited to attend and meet with students on an informal basis. Beverages and snacks will be available. All students are invited to attend.

Storymaker Workshops

Part #1 - Communication to the Public – For Graduate Students
Sunday, 23 February 2014, 8:00 – 10:00 am
Room 313 C

Part #3 - Communication to the Public, Final Wrap-Up Session
Monday 24 February 2014, 6:00 – 8:30 pm
Room 319 AB

Limited to those graduate students who have pre-registered – registration filled. Participants in this workshop have been working with the S-Team of Randy Olson and Brian Palermo prior to the meeting. They will split into two groups for one hour sessions on story line (with Randy) and on improv exercises (with Brian) and then switch to the other. This is the first part of a series of workshop sessions to be followed in Sunday afternoon with "The Connection Storymaking Presentation" (which is open to everyone) and a final one hour session on Monday evening.

The Ethics of Idea Sharing in a Connected World

Monday, 24 February 2014, 12:45 – 1:45 pm
Room 311

Science is all about sharing ideas, data, and results to advance our collective understanding. However through sharing our ideas we have the potential to encounter a myriad of ethical problems involving ownership of ideas, copyright, data use, and authorship. This workshop will provide a toolbox for you to gracefully resolve these issues by providing resources, and guiding discussion of the ethics of ideas and information in science.

Outreach Through Social Media

Wednesday, 26 February 2014, 12:45 - 1:45 pm
Room 311

Do you use social media? (Yes, you do.) Want to learn more about effective ways to communicate about science and your research with the public? (Yes, you do!) This workshop is designed to teach you successful strategies for communicating science to the general public through social media, blogging, and traditional methods.

Fellowships and Grant Writing for Graduate Students

Wednesday, 26 February 2014, 6:30 – 8:30 pm
Room 313 A

Thinking of applying for a graduate fellowship or research grant? Don't know where to start, or how to be successful? Or do you not know much about them and want to know more? This workshop will provide valuable information about the what, why, and how of graduate fellowships and grant applications, including tips to help students strengthen applications for study and research, as well as evaluation of examples of good and bad proposals.

Student & Early Career Professional Career Center and Lounge

Monday – Thursday
Exhibit Hall

Fostering communication among students and early career professionals and providing information about career opportunities is an important part of this meeting. An area of the exhibit hall has been reserved for a Student/Early Career Lounge, allowing attendees to meet each other in a fun, relaxed setting. This area will also host the Career Bulletin Board, where prospective employers are invited to post job announcements and students and early career professionals are invited to post a one-page résumé.

OSM Meeting Mentoring Program

The OSM Meeting Mentoring Program (MMP) builds on a successful first effort at the February 2013 ASLO Aquatic Sciences Meeting. Mentors will be matched with two to three mentees based on level of education/career and area of research interest. Almost 700 student and early career OSM registrants have indicated an interest in being mentored at the meeting. Please encourage your colleagues to participate!
ASLO Multicultural Program

Since its start in 1990 the ASLO Multicultural Program has brought over 850 diverse undergraduate and graduate students to the annual ASLO and OSM meetings. Many have gone on for advanced degrees and several have served on the ASLO BOD and various committees. The program features a pre-conference dinner and field trip, meeting-mentors to help guide the students, a student-symposium, and various other activities. The goal of the program is to increase the human diversity of aquatic scientists. This year 91 students will participate. For more information, please contact Dr. Benjamin Cuker by email: Benjamin.Cuker@hamptonu.edu.

Special Opportunities Early Career Participants

Early Career Mixer

Monday, 24 February 2014, 6:00 to 7:30 pm
Kalakaua Ballroom

Please join your Early Career Colleagues for this informal event. Beverages and snacks will be available and all early career registrants are encouraged to attend. No prior registration is required.

Student & Early Career Lounge

Monday – Thursday
Exhibit Hall

Fostering communication among students and early career professionals and providing information about career opportunities is an important part of this meeting. An area of the exhibit hall has been reserved for a Student/Early Career Lounge, allowing attendees to meet each other in a fun, relaxed setting. This area will also host the Career Bulletin Board, where prospective employers are invited to post job announcements and students and early career professionals are invited to post a one-page résumé.

GEARS Lunchtime Workshop Series

Scientists are increasingly asked to communicate the "broader impacts" of their work. With the threat of a declining scientific workforce and waning public literacy on ocean and environmental science issues, the time is now for stepping up our efforts to promote ocean literacy

through effective communication.

Although there is no single approach for creating a successful integrated research and education plan, this workshop will build the foundation for attendees to think creatively about how their research will impact their education goals and, conversely, how their education activities will feed back into their research. When research and education are effectively interconnected, the process of discovery can help stimulate learning and the resulting research communicated to a broader audience.

Keys to Proposing, Conducting, Presenting and Publishing your Research (Workshops)

Sunday, February 23, 2014
Room 314

Four topics of interest to early career scientists and others will be covered in one-hour segments during this workshop. Practical guidance will be provided on "proposal writing and the review process", "cruise planning for chief scientists," "how to get your work published in international scientific journals," and "effective presentations at scientific conferences." Participants may attend as few or as many presentations as desired. A lunch break is scheduled from 12 – 2 pm.
Must be pre-registered to attend

9:00 to 10:20 am
A Primer to Proposal Writing, Merit Review and Research Funding
Led by Eric Itsweire, National Science Foundation and Paula Bontempi, National Aeronautics and Space Administration

This workshop will cover the various factors that come into play to develop a great idea into a funded project: Should I do it alone or seek collaborators? Which agency and/or program(s) might be the best home for my proposal? Who is the audience for my proposal: experts in the field, the larger scientific community, the funding agency's program managers? How do I structure my proposal to get my message across effectively? How are funding decision made? Examples for several U.S. funding agencies will be discussed and ample time will be reserved for questions and answers. Participants who would like more detailed information about a specific research program or funding agency are encouraged to sign up for one of the breakfast meetings with U.S. funding agencies' program managers.

10:20 to 10:40 am: Break with refreshments

10:40 am to 12:00 pm
Key Elements to Planning and Conducting an Oceanographic Expedition
Led by Jon Alberts, UNOLS and Clare Reimers, Oregon State University

Congratulations! All your hard work in writing your research proposal has paid off and you are ready to begin planning the details of your oceanographic research program. There are many steps to be aware of in this process. This workshop will focus on the most important responsibilities of a chief scientist of an oceanographic voyage. From the initial proposal budget to post cruise reporting, we will cover the critical elements that are hallmarks of a successful program at sea. Discussion items will include developing a cruise plan with ship and technical support groups, working up cruise timelines, identifying the required composition of your science party, understanding user-supplied versus a vessel's scientific equipment, research clearances, environmental permitting, data dissemination, and post cruises assessments, to name a few. This workshop will be led by members of the oceanographic community with decades of experience in research at sea, oceanographic project planning, and assistance of scientists preparing to carry out expeditions. We encourage you to participate in this informative workshop. A question and answer session will follow.

12:00 to 2:00 pm: Lunch on your own for networking

2:00 to 3:20 pm
Great presentations! Effectively Presenting your Research to Different Audiences
Led by Tracy Wiegner and Steven Colbert, University of Hawaii at Hilo

Come and learn how to give a great presentation. This workshop will cover basics on developing a presentation and delivering it effectively to different audiences. Specifically, it will cover: presentation structure, effective slide layouts (font to figure), writing and delivering presentation scripts, and adjusting presentations for different audiences. Participants are encouraged to bring their presentations for review.

3:20 to 3:40 pm: Break with refreshments

3:40 to 5:00 pm
The Secrets of Publishing your Article in International Journals
Led by Eric Des Barton, CSIC, Spain, Editor-in-chief for JGR Oceans.

The editorial and review processes along the road to publication are described in general terms. The construction of a well-prepared article and the manner in which authors may maximize the chances of success at each stage of the process towards final publication are explored. The most common errors and ways of avoiding them are outlined. Typical problems facing an author writing in English, especially as a second language, including the need for grammatical precision and appropriate style, are discussed. Additionally, the meaning of plagiarism, self-plagiarism and duplicate publication is explored. Critical steps in manuscript preparation and response to reviews are examined. Finally, the relation between writing and reviewing is outlined, and it is indicated how becoming a good reviewer helps in becoming a successful author.

Dual Careers: Challenges and Opportunities

Monday, February 24, 2014, 6:30 – 9:30 pm
Room 314

Many scientists are in a dual-career relationship. The opportunities and challenges this presents will be highlighted at this town hall sponsored by MPOWIR (Mentoring Physical Oceanography Women to Increase Retention). Dr. Kelly Ward, an expert in gender equality will discuss statistics on dual career couples and her research on managing two careers. A panel of oceanographic community members will share their strategies and experiences in finding opportunity, hiring and balancing two careers and respond to questions from participants. Light refreshments will be provided.

"Meet your Agency Program Manager" Networking Breakfasts

Wednesday, February 26, Thursday, February 27, and Friday, February 28, 2014, 7:00 - 8:00 am
Kalakaua Ballroom A

Early career scientists are often counseled to "get to know your program managers." These breakfast events provide participants with an oppor-

tunity to meet and interact with U.S. federal agency program managers in an informal setting. Program managers from the major U.S. funding agencies supporting ocean sciences, including NSF, NASA, NOAA and ONR, will participate in these events. There is no fee to attend, but registration is required in order to match program managers with small groups of participants each day. The list of all participating Federal Agency representatives is available on the registration website: https://www.surveymonkey.com/s/NetworkingBreakfasts.

Oral Presentations

Prior to the start of the meeting, speakers received an email from PSAV with login instructions to submit their presentations online. Submissions will also be accepted on-site in the Presentation Room, Room 305 AB at the Hawai'i Convention Center, and you also can upload to the Web site throughout the conference.

Presentation Room

All speakers must check in at the Presentation Room, Room 305 AB, preferably the day before your session to preview your presentation.

Presentation Room Hours of Operation:

Sunday, 23 February 2014: ..... 1:00 to 9:00 pm
Monday, 24 February 2012: ..... 7:00 am to 7:00 pm
Tuesday, 25 February 2012: ..... 7:00 am to 7:00 pm
Wednesday, 26 February 2012: ..... 7:00 am to 7:00 pm
Thursday, 27 February 2012: ..... 7:00 am to 7:00 pm
Friday, 28 February 2012: ..... 7:00 am to 4:00 pm

If you are checking in on the day of your session, please come by at least four hours prior to the start of your session. PSAV technicians will assist with the upload of your files and provide the opportunity to preview and/or edit the presentation as necessary. If you are unavoidably delayed, you must still go directly to the Presentation Room. Do not bring a laptop or other media device to the session room.

Speaker Ready Room

A speaker ready/practice room is available in 303 AB. It will be open during all hours of the meeting including Sunday from 1:00 to 9:00 pm, Monday through Thursday from 7:00 am to 7:00 pm and on Friday from 7:00 am to 4:00 pm. You may practice or review your presentation in this room.

Additional Information

Security: Speakers are required to provide identification in order to submit their presentation as well as to access it in the Presentation Room. Recording devices such as cameras are not permitted in the Presentation Room. All presentation files are deleted at the end of the conference, unless permission has been granted to the conference association to retain the presentation files.

Poster Presentations

There will be four posters displayed per board (two per side), therefore posters must be no larger than 44.5 inches high x 45.5 inches wide. If your poster exceeds these specifications, it may be subject to removal. Posters will adhere to the boards using push pins that will be provided.

Posters will be displayed in specific session groupings for the entire meeting to maximize opportunities for viewing. Specific times for interactions with the presenters will be assigned at times not in conflict with oral presentations.

Poster numbers are included in this program. Poster presenters also were notified of their poster number and the assigned time and day for presenting their poster in advance of the meeting Each poster presenter will be scheduled to stand for one hour by his/her poster on the day to which you are assigned. If your poster number is an even number, you will present during the first hour (4:00 to 5:00 p.m.). If your poster number is an odd number, you will present during the second hour (5:00 to 6:00 p.m.). This time will be to answer questions and participate in discussion about your poster. Past experience has shown that this at-poster interaction time is a highly valued way to describe one's work and to meet face-to-face with those interested in it. Of course, a presenter can also discuss his/her poster with interested individuals whenever the exhibit hall is open.

Poster Set-up: ..... Sunday, 23 February, 12:00 to 5:00 pm.
Poster Sessions: ..... Monday through Thursday, 24 February through 27 February, 4:00 to 6:00 pm in the Exhibit/Poster Hall
Posters on Display: ..... Monday and Wednesday, 10:00 am to 7:00 pm. Tuesday and Thursday, 12:00 to 7:00 pm
Poster Teardown: ..... Thursday, 27 February, from 7:00 to 9:00 pm or on Friday, 28 February, from 8:00 am to 12:00 pm.

Important note regarding poster presentations: The convention decorator may discard posters if the presenting author does not dismantle them according to tear-down instructions and times.

ePosters: Technology Networks and Ocean Sciences Meeting Partnership

We have partnered with Technology Networks Ltd and their site ePosters ("The Online Journal of Scientific Posters") to allow display of the OSM posters on-line and allow legacy display after the meeting.

Those 2014 OSM participants who are making poster presentations are encouraged to go to ePosters (http://www.eposters.net/sponsor/ocean-sciences-meeting-2014) and submit their poster for display at that site; there is no charge for this.

OSM 2014 Supporters

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Meetings Manager
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Association for the Sciences of Limnology and Oceanography (Booth #E1002)

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The Oceanography Society (Booth #E1003)

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Exhibitors

Exhibits will be open in the Exhibit Hall on the following days and times:

Monday, 24 February ..... 10:00 am to 7:00 pm.
Tuesday, 25 February ..... 12:00 to 7:00 pm.
Wednesday, 26 February ..... 10:00 am to 7:00 pm.
Thursday, 27 February ..... 12:00 to 7:00 pm.

ACSA (Booths #E49 & E50)

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American Meteorological Society (Booth #E18)

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Bigelow Laboratory for Ocean Sciences (Booth #E2)

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Centers for Ocean Sciences Education Excellence (Booth #E31)

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GHRSST – Group for Higher Resolution

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Ocean Opportunities (Booth #E16)
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Oceanic Imaging Consultants, Inc. (Booth #E105)
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Pacific Gyre, Inc. (Booth #E65)

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Email: Ed.Urban@scor-int.org

Scripps Institution of Oceanography (Booth #E58)

9500 Gilman Drive MC 0210
La Jolla, CA 92103 USA
Contact: Donna Stout
Phone: 858-534-5604
Email: dstout@ucsd.edu

Sea-Bird Scientific (Booths #E11, E12, E13 & E14)

13431 NE 20th Street
Bellevue, WA 98005 USA
Contact: Calvin Lwin
Phone: 425-643-9866, Fax: 425-643-9954
Email: jrodriguez@seabird.com, Website: www.sea-birdscientific.com

SEAL Analytical, Inc. (Booth #E26)
Mequon Technology Center
10520-C Baehr Rd.
Mequon, WI 53092 USA
Contact: Jeanne Kimble
Phone: 262-241-7900, Fax: 262-241-7970
Email: jkimble@seal-us.com, Website: www.seal-analytical.com

Sequoia Scientific, Inc. (Booth #E21)
2700 Richards Road, Suite 107
Bellevue, WA 98005 USA
Contact: Ole Mikkelsen
Phone: 425-641-0944, Fax: 425-643-0595
Email: ole.mikkelsen@sequoiasci.com, Website: www.sequoiasci.com

SOEST Laboratory for Analytical Biogeochemistry (Booth #E70)
University of Hawaii
1000 Pope Rd
Honolulu, HI 96822 USA
Contact: Rebecca Briggs
Phone: 808-956-5878
Email: briggs@hawaii.edu

Sinauer Associates, Inc. Publishers (Booth #E111)
PO Box 407
23 Plumtree Road
Sunderland, MA 01375 USA
Contact: Marie Scavotto
Phone: 413-549-4300, Fax: 413-549-1118
Email: scavotto@sinauer.com

Springer Science+Business Media B.V. (Booth #E81)
Earth Sciences and Geography
PO Box 17
AA Dordrecht 3300 The Netherlands
Contact: Robert Doe
Phone: +31-78-6576188
Email: Robert.doe@springer.com

State Key Laboratory of Estuarine and Coastal Sciences (SKLEC) (Booth #E46)
BZhongshan N. Rd. 3663
Shanghai 200062 China
Contact: Xiuzhen Li
Phone: +86-21-62233002, Fax: +86-21-62546441
Email: xzLi@sklec.ecnu.edu.cn, Website: http://english.sklec.ecnu.edu.cn/

Sunburst Sensors, LLC (Booth #E104)
1226 W. Broadway
Missoula, MT 59802 USA
Contact: James Beck
Phone: 406-532-3246
Email: jim@sunburstsensors.com

Sutron Corporation (Booth #E6)
22400 Davis Drive
Sterling, VA 20164 USA
Contact: Patricia Hagerty
Phone: 703-406-2800
Email: patriciah@sutron.com, Website: sutron.com

Student & Early Career Lounge
Teledyne RD Instruments (Booth #E56)
14020 Stowe Drive
Poway, CA 92064 USA
Contact: Gail Lamangan
Phone: 858-842-2600
Email: gail.lamangan@teledyne.com

Texas A&M University College of Geosciences (Booth #E20)
Oceanography and Meteorology Building
3142 TAMU
College Station, TX 77843 USA
Contact: Eliana Mijangos
Phone: 979-845-3651
Email: elianamijangos@yahoo.com

Texas A&M University – Corpus Christi (Booth #E112)
6300 Ocean Drive
Unit 5844
Corpus Christi, TX 78412 USA
Contact: Linda Villarreal
Phone: 361-825-3881
Email: linda.villareal@tamucc.edu

The Nature Conservancy (Booth #E76)
Palmyra Program
923 Nuuanu Avenue
Honolulu, HI 96817 USA
Contact: Laurie Moore
Phone: 808-587-6282
Email: lmoore@tnc.org

The Sexton Corporation (Booth #E63)
2130 Davcor St. SE
Salem, OR 97302 USA
Contact: Amy Clark
Phone: 503-371-6239
Email: amy@thesextonco.com

Thermo Fisher Scientific (Booth #E19)
355 River Oaks Parkway
San Jose, CA 95134 USA
Contact: Lora Pada
Phone: (408) 965-6143 Office; Cell: (408) 386-8275
Email: lora.pada@thermofisher.com

Turner Designs (Booth #E22)

845 Maude Avenue
Sunnyvale, CA 94085 USA
Contact: Tom Brumett
Phone: 408-749-0994, Fax: 408-749-0998
Email: sales@turnerdesigns.com, Website: www.turnerdesigns.com

Unisense (Booth #E23)

Tueager 1
Aarhus DK-8200 Denmark
Contact: Thomas Rattenborg
Phone: +45-8944-9500, Fax: +45-8944-9549
Email: mha@unisense.com, Website: www.unisense.com

University National Oceanographic (Booth #E74)

Laboratory System
215 South Ferry Rd
Box 32
Narragansett, RI 02882 USA
Contact: Annette DeSilva
Phone: 401-874-6825, Fax: 401-874-6167
Email: office@unols.org

University of Chicago Press (Booth #E79)

1427 E 60th Street
Chicago, IL 60637 USA
Contact: Eric DeTratto
Phone: 773-834-7201
Email: edetratto@uchicago.edu

University of Colorado (Booth #E60)

Cooperative Institute for Research
In Environmental Sciences
UCB 449
Boulder, CO 80309 USA
Contact: Susan Lynds
Phone: 303-492-1714
Email: susan.lynds@colorado.ed

University of Massachusetts-Dartmouth (Booth #E54)

School for Marine Science & Technology
SMAST/UMassD
706 S. Rodney French Blvd.
New Bedford, MA 02744 USA
Contact: Frank Smith
Phone: 508-910-6347, Fax: 508-999-8197
Email: flsmith@umassd.edu

University of South Florida (Booth #E93)

College of Marine Science
140 7th Avenue
St. Petersburg, FL 33701-5016 USA
Contact: David Naar
Phone: 727-510-9806, Fax: 727-553-1189
E-Mail Address: naar@usf.edu

Woods Hole Oceanographic Institution (Booth #E17)

Carriage House, MS #49
Woods Hole, MA 02543 USA
Contact: Janet Fields
Phone: 508-289-2950
Email: jfields@whoi.edu, Website: www.whoi.edu/apo

Xylem Inc – Anderaa – SonTek – YSI (Booths #E72 & E73)

1725 Brannum Lane
Yellow Springs, OH 45387 USA
Contact: Peter Bornhorst
Phone: 937-767-7241
Email: pbornhorst@ysi.com

Media/Press Information

Media Contact

Mary Catherine Adams
Office Phone: 202-777-7530
Email: mcadams@agu.org

Onsite Press Room

Press Room – Room 302 B
Hours: Monday – Thursday, 24-27 February 2014, 10:00 am – 6:00 pm

Media Registration Eligibility

Eligibility for media registration is limited to the following persons:

- Working press employed by bona fide news media outlets who regularly report news on the earth sciences. These registrants must present a press card, business card, or a letter from an editor of a recognized news media outlet assigning you to cover 2014 OSM.
- Freelance science journalists and science bloggers who present evidence of three (3) bylined news reports in the earth sciences intended for the general public and published in 2012 – 2014.
- Creators of long-form stories or compositions about earth sciences, such as books/feature-length documentary films, who are currently working on one or have published at least one in 2012-14.
- •Public information/press officers of scientific societies, educational institutions, and government agencies.

Scientists who will be presenting at the meeting and who are also reporting from the meeting for bona fide news media outlets may be issued News Media credentials at the discretion of 2014 OSM Press Office Staff. Everyone who presents at the meeting must also register for the meeting and pay the appropriate fee as a presenter.

Representatives of publishing houses, the business side of news media, political action committees or similar, and for-profit corporations must register at the main registration desk at the meeting and pay the appropriate fees, regardless of possession of any of the above credentials; they will not be accredited as News Media at the meeting. All press badges will be issued solely at the discretion of the 2014 OSM Press Office.

Conference Registration and Check In

Registration and check in for the meeting will be available all week in the lobby area on the first floor of the Hawai'i Convention Center. Please check in upon your arrival at the meeting in order to receive your name badge and other important materials and information.

Registration Hours:

Sunday, 23 February 2014 ..... 1:00 to 9:00 pm
Monday, 24 February through
Thursday, 27 February 2014..... 7:00 am to 5:00 pm
Friday, 28 February 2014 ..... 7:00 am to 4:00 pm

In order to facilitate easier check in at the meeting, it is very important that you bring a copy of the email confirmation that you received when you registered. This will allow us to locate your name badge quickly and efficiently.

Additional Participant and Attendee Information

Receipts and Letters of Participation

Your registration confirmation that was emailed to you when you registered for the meeting will serve as your receipt. In keeping with our conservation efforts, we will not provide printed receipts to attendees on site at the meeting. If you have misplaced your original receipt and need another copy, you may print your own receipt by going to: http://www.sgmeet.com/osm2014/userlogon.asp. You may also log in and print your particpation letter following the meeting.

Concessions

808 coffees café

3rd floor center concourse between rooms 313 and 316.

Coffee/continental breakfast items/snacks, espressos and specialty coffee drinks. Specialize in Hawaii coffees. Hours:

Sunday, 23 February 2014 ..... Closed
Monday through Friday 24- 28 February 2014 ..... 6:45 am – 1:00 pm

Conference Level

3rd floor at the top of the escalators between rooms 301 and 311.

Pastries, fruits, yogurt, hot/cold beverages, Lunch items include salads, sandwiches, lunch plates, curry bowls, candies/snacks. Hours:

Sunday, 23 February 2014 .....7:30am - 2:00pm
Monday through Thursday, 24-27 February 2014 .....6:45am - 2:00pm
Friday, 28 February 2014 .....6:45am - 1:00pm

Lobby Level

Exhibit level outside halls 2 and 3.

Lunch items to include salads, sandwiches, lunch plates, curry bowls, candies/snacks/chips, hot/cold beverages. Hours:

Sunday, 23 February 2014 ..... Closed
Monday through Thursday, 24-27 February 2014 ..... 10:00am - 2:00pm
Friday, 28 February 2014 ..... Closed

Breaks and Refreshments

Breaks with coffee service will be available Monday through Friday mornings from 10:00-10:30. Monday's and Wednesday's break will be in the Exhibit Hall I, II, III and Tuesday's , Thursday's, and Friday's break will be held in the Ballroom Foyer. Monday through Thursday afternoon breaks will feature free beer (while supplies last) and will be in the Exhibit Hall for the first hour of the poster session. This is no afternoon break on Friday.

Messages

Message boards will be located outside the Exhibit/Poster Hall. Feel free to post messages, CVs, job opportunities, as well as to check these boards if you are expecting a message during the meeting.

Hawai'i Convention Center Business Center

The Business Center is located on the 3rd level, across from room 301. This is a full service business center offering the following services: computer usage, Color & B/W copies and prints, Faxing, Scanning, Office Supplies, various paper supplies, Postcards and Gifts and FedEx and UPS shipping.

WiFi Internet

Complimentary wireless service will be available from noon on Sunday, 23 February, through the conclusion of the meeting on Friday. This service will be available throughout the convention center.. There will be adequate service for all participants via multiple access points but, access may be limited at times due to the number of users on the Internet at any one point.

Connect to "OSM 2014;" no password or ID required.

ATM Machines at Hawai'i Convention Center

The official currency of the United States is the dollar, denoted by USD ($). There are three (3) Automatic Teller Machines (ATM) at the Hawai'i Convention Center; two (2) located in the Lobby and one (1) on Level 3

Additional ATM locations throughout Honolulu may be found at http://visa.via.infonow.net/locator/global/jsp/SearchPage.jsp for Visa and www.mastercard.us/cardholder-services/atm-locator.html for MasterCard.

Check Cashing

Western Union
435 Atkinson Dr Suite B
Honolulu, Hawaii 96814
(A half of a block away from the Hawaii Convention Center)
Regular Store Hours:
Monday-Saturday: 9:00 am - 8:00 pm
Sunday: Closed

A concierge service is available at the HCC during meeting hours to assist you with information about Honolulu.

Hawai'i Convention Center Parking

To access parking at the convention center enter the Hawai'i Convention Center Parking Garage while driving east towards Waikiki Beach on Kalakaua Avenue. Exit via automatic gate.

Parking Fee: $10 per entry. No in & out privileges, No overnight parking.

Transportation

Most of the conference hotels are within walking distance of the HCC. In order to continue to meet our environmental goals, no shuttle service is provided.

Special Needs

If you have a disability or limitation that may require special consideration in order to fully participate in the meeting, please contact the OSM Business Office to see how we can accommodate your needs. Call 254-776-3550 or contact us via e-mail at osm2014@sgmeet.com. You may also go to the conference registration desk at the Hawai'i Convention Center during the meeting as well.

Emergencies/Hawai'i Convention Center First Aid

First Aid will be available during the following dates and times for your comfort and resource.

There will be a Registered Nurse staffing First Aid. The Room is on the 3rd Floor between Room 318 and Room 319. You may contact the Nurse at any time by Dialing ' 0 ' on any House Phone in the Convention Center. The Nurse carries a Security Radio so it is possible to respond any where needed within the Facility. This would be your resource for Comfort Needs such as Band aids or Tylenol while in the Convention Center as well as Emergency Assistance.

Sunday, 23 February 2014..... 5:00 - 10:00 pm
Monday, 23 February 2014..... 7:00 am - 10:00 pm
Tuesday, 23 February 2014 ..... 7:00 am - 9:00 pm
Wednesday, 23 February 2014..... 7:00 am - 9:00 pm
Thursday, 23 February 2014..... 7:00 am - 9:00 pm
Friday, 23 February 2014..... 7:00 am - 4:00 pm

Family Room

There will be a family room in Room 322 A at the Hawai'i Convention Center. This is a room where you may go to relax with your children if you bring them to the convention center. Please keep in mind that this is not a room for child care and no service is offered in this room. You may not leave children unattended.

Child Care Information

While you are attending the Ocean Sciences Meeting, your children can enjoy their own convention camp, CAMP 2014 OSM, organized by ACCENT on Children's Arrangements, Inc., a national company specializing in children's activities. This is a complete morning to early evening entertainment program packed with activities for children ages six months to 12 years. Children will participate in age-appropriate activities, including arts and crafts projects and active games in a safe, nurturing, and educational environment. The high ratio of caregiver to child (1:2 for children six to 11 months; 1:3 for children 12 months to two years; 1:5 for children three to five years; and 1:8 for children six to 12 years) ensures that campers receive lots of personal attention. Drop-ins accepted as space allows.

Program costs include morning and afternoon snacks and juice, entertainment, and craft materials. Lunch is not included. However, a lunch can be purchased when registering, or parents can send or bring a lunch to their child. Hours:

Monday through Thursday, 24-27 February 2014 ..... 7:30 am - 6:30 pm
Friday, 28 February 2014 ..... 7:30 am - 4:30 pm

General Information

For more information on the 2014 Ocean Sciences Meeting, address all correspondence and questions regarding registration, conference logistics, and hotel accommodations to:

2014 Ocean Sciences Meeting
5400 Bosque Boulevard, Suite 680
Waco, Texas 76710-4446
Phone: 254-776-3550, Fax: 254-776-3767
E-mail: osm2014@sgmeet.com

If your questions pertain to the program, please contact one of the meeting chairs. If you need information regarding content of a particular session, please contact the appropriate session organizer.

Schedule At A Glance – Monday

	301 AB	304 AB	310 Theater	311	312	313 A	313 B	313 C	314	315
08:00 08:15 08:30 08:45 09:00 09:15 09:30 09:45	125: The many faces of the marine N cycle	132: Undergraduate ocean science education in the 21st century: an exploration of successful practices	157: Habitat Modeling and Ecosystem Based Resource Management	033: Ocean Acidification in Coastal Environments	082: Sediment Delivery, Transport and Deposition in Aquatic Environments	048:Ocean primary productivity: Variability and influence	026: Biological and physical controls of particle dynamics and fluxes in the mesopelagic layer of the ocean: Current understanding and future directions	039: Ocean Circulation Variability and Air-Sea Interactions in the Western Pacific and Eastern Indian Ocean	037: Dynamics of Coupled Processes in the Ocean: A tribute to the career of Dr. James Murray	020: Exploration of ocean circulation variability through Argo, satellite altimetry and other observations and assimilations
10:00 10:15	MORNING BREAK									
10:30 10:45 11:00 11:15 11:30 11:45 12:00 12:15	125: The many faces of the marine N cycle	132: Undergraduate ocean science education in the 21st century: an exploration of successful practices	157: Habitat Modeling and Ecosystem Based Resource Management	033: Ocean Acidification in Coastal Environments	082: Sediment Delivery, Transport and Deposition in Aquatic Environments	048:Ocean primary productivity: Variability and influence	130: Interactions of pelagic or benthic organisms with turbulent water flow	039: Ocean Circulation Variability and Air-Sea Interactions in the Western Pacific and Eastern Indian Ocean	114: Application of natural and anthropogenic radionuclides to the study of ocean processes	020: Exploration of ocean circulation variability through Argo, satellite altimetry and other observations and assimilations
12:30 12:45 1:00 1:15 1:30 1:45	LUNCH WORKSHOPS &TOWN HALLS									
2:00 2:15 2:30 2:45 3:00 3:15 3:30 3:45	125: The many faces of the marine N cycle	70: Policy Impacts of Ocean Research: Communicating Science to Decision-makers	Tutorials Session 175A	033: Ocean Acidification in Coastal Environments	082: Sediment Delivery, Transport and Deposition in Aquatic Environments	048: Ocean primary productivity: Variability and influence	015: Physical-biological interactions in mesoscale eddies: governing processes and implications for the marine ecosystem	039: Ocean Circulation Variability and Air-Sea Interactions in the Western Pacific and Eastern Indian Ocean	114: Application of natural and anthropogenic radionuclides to the study of ocean processes	020: Exploration of ocean circulation variability through Argo, satellite altimetry and other observations and assimilations
4:00 4:15 4:30 4:45 5:00 5:15 5:30 5:45 6:00 6:15	POSTER SESSION AND RECEPTION (Kamehameha Hall III) Poster sessions: 013, 015, 020, 022, 026, 030, 032, 033, 037, 039, 043, 048, 062, 064, 070, 082, 085, 088, 098, 103, 105, 108, 110, 114, 118, 120, 125, 127, 128, 130, 132, 140, 148, 151, 157, 158, 164 (Hall will remain open until 7:00 p.m.)									
6:30 6:45 7:00 7:15 7:30 7:45 8:00 8:15	WORKSHOPS &TOWN HALLS									
8:30 8:45 9:00										

316 A	316 B	316 C	317 AB	318 AB	319 AB	320 Theater	323 ABC	Ballroom ABC	
032: Examining connectivity in marine populations, from unicells to metazoans, using novel and integrated approaches	The Science of Plastic Marine Debris and other Anthropogenic Influences	158: Measuring and modeling internal waves and the turbulence cascade: a tribute to David Tang	085: Towards a Global Ocean Biogeochemical Observing System Based on Profiling Floats and Gliders	064: Surface Ocean Lower Atmosphere Study (SOLAS): Advances and Impacts of Ocean Derived Aerosols and Atmospheric Nutrient Inputs	062: Linking Molecular 'Omics' Measurements to Develop Conceptual and Computational Models of Ocean Microbial Ecology, Diversity and Biogeochemistry		072: The Southern Ocean and Its Role in the Climate System: Observations and Modeling of Physical and Biogeochemical Processes		08:00 08:15 08:30 08:45 09:00 09:15 09:30 09:45
MORNING BREAK									10:00 10:15
032: Examining connectivity in marine populations, from unicells to metazoans, using novel and integrated approaches	The Science of Plastic Marine Debris and other Anthropogenic Influences	158: Measuring and modeling internal waves and the turbulence cascade: a tribute to David Tang	108: Synthesis and modeling of global-scale marine planktonic ecosystems and plankton functional types	030: Wind-generated waves and storm surge from meteorological activity	013:Biogeo-Omics: Utilizing Biogeochemistry and -Omics Data to Unravel the Metabolic Pathways and Environmental Controls of Hydrocarbon Biodegradation		072: The Southern Ocean and Its Role in the Climate System: Observations and Modeling of Physical and Biogeochemical Processes		10:30 10:45 11:00 11:15 11:30 11:45 12:00 12:15
LUNCH WORKSHOPS &TOWN HALLS									12:30 12:45 1:00 1:15 1:30 1:45
022: Scaling up individual processes to ecosystem levels in an era of global change	088: Climate-mediated oceanographic drivers and trophic interactions in high latitude marginal seas: observations, modeling, and syntheses and consequences for commercial fisheries	158: Measuring and modeling internal waves and the turbulence cascade: a tribute to David Tang	148: Effects of climate variability on marine biophysical interactions and ecosystems dynamics	128: Microbial Interactions in Oceans and Human Health	043: Biogenic trace gases in the surface ocean: from source to flux		072: The Southern Ocean and Its Role in the Climate System: Observations and Modeling of Physical and Biogeochemical Processes		2:00 2:15 2:30 2:45 3:00 3:15 3:30 3:45
POSTER SESSION AND RECEPTION (Kamehameha Hall III) Poster sessions: 013, 015, 020, 022, 026, 030, 032, 033, 037, 039, 043, 048, 062, 064, 070, 082, 085, 088, 098, 103, 105, 108, 110, 114, 118, 120, 125, 127, 128, 130, 132, 140, 148, 151, 157, 158, 164 (Hall will remain open until 7:00 p.m.)									4:00 4:15 4:30 4:45 5:00 5:15 5:30 5:45 6:00 6:15
WORKSHOP &TOWN HALLS									6:30 6:45 7:00 7:15 7:30 7:45 8:00 8:15
									8:30 8:45 9:00

Schedule At A Glance – Tuesday

	301 AB	304 AB	310 Theater	311	312	313 A	313 B	313 C	314	315
08:00 08:15 08:30 08:45 09:00 09:15 09:30 09:45	093: Coasts in Crisis: Sea Level Rise and Inundation and the Need for Adaptation	028: Marine Renewable Energy Research, Development, Evaluation, and Policy	054: The dynamics of the Madden-Julian Oscillation (DYNAMO), multi-scale ocean-atmosphere interaction, and numerical simulation of coupled ocean-atmosphere processes	033: Ocean Acidification in Coastal Environments	082: Sediment Delivery, Transport and Deposition in Aquatic Environments	111: New insights into microbial community metabolism and coupled biogeochemical cycling in oxygen-deficient marine waters	007: The Role of the Oceans in Climate Change on Interannual, Decadal and Century-Long Time-Scales from Marine Proxy Archives	010: Physical and biogeochemical ocean modeling: development, assessment and applications	050: Arctic in Rapid Transition (ART): Impacts of Climate Change on the Ecology, Biogeochemistry, and Biological Carbon Pump of the Arctic Ocean	058: Mesoscale ocean processes and their representation in earth system models
10:00 10:15	MORNING BREAK									
10:30 10:45 11:00 11:15 11:30 11:45 12:00 12:15	PLENARY SESSION (Ballroom ABC) Robert H. Richmond, "Coral Reefs, Climate Change and Atomic Bombs" and Panel Discussion: "Why aren't they listening?" moderated by Richard Harris, National Public Radio with panelists: Edward Maibach, Christine O'Connell, and Jerry Schubel									
12:30 12:45 1:00 1:15 1:30 1:45	LUNCH WORKSHOPS &TOWN HALLS									
2:00 2:15 2:30 2:45 3:00 3:15 3:30 3:45	093: Coasts in Crisis: Sea Level Rise and Inundation and the Need for Adaptation	045: Sea-ing connections: Ocean science as a catalyst to inspire the next wave of young (preK-16) scientists and keep students engaged within and outside the classroom.	Tutorials Session 175 B	021: Ocean Acidification and Coral Reefs: The Importance of Cooperative Research and the Integrated Ocean Observing System (IOOS)	035: Optics and Light in the Particle-Laden Coastal Ocean	111: New insights into microbial community metabolism and coupled biogeochemical cycling in oxygen-deficient marine waters	007: The Role of the Oceans in Climate Change on Interannual, Decadal and Century-Long Time-Scales from Marine Proxy Archives	010: Physical and biogeochemical ocean modeling: development, assessment and applications	050: Arctic in Rapid Transition (ART): Impacts of Climate Change on the Ecology, Biogeochemistry, and Biological Carbon Pump of the Arctic Ocean	058: Mesoscale ocean processes and their representation in earth system models
4:00 4:15 4:30 4:45 5:00 5:15 5:30 5:45 6:00 6:15	POSTER SESSION AND RECEPTION (Kamehameha Hall III) Poster sessions: 003, 007, 008, 009, 010, 021, 028, 035, 038, 045, 050, 054, 058, 059, 060, 069, 072, 074, 075, 077, 082, 084, 087, 093, 096, 097, 111, 122, 123, 154, 159, 160, 166, 172, 174 (Hall will remain open until 7:00 p.m.)									
6:30 6:45 7:00 7:15 7:30 7:45 8:00 8:15	WORKSHOPS &TOWN HALLS									
8:30 8:45 9:00	Off-Site Evening Activity (JAM SESSION) 8:00 pm to 12:00 am									

316 A	316 B	316 C	317 AB	318 AB	319 AB	320 Theater	323 ABC	Ballroom ABC	
059: Illuminating the Deep Ocean: Limits to Understanding, Observation Requirements, and Overcoming the Challenges	060: Submarine Groundwater Discharge - from Ridge to Reef: Groundwater Evolution, Climate, Land-Use, Coastal Hydrology and Marine Biogeochemical Impacts	069: Marine Microbial Ecology: The relative role of dispersal, interactions, associations and other ecological processes in structuring microbial communities	123: The molecular chemistry and microbial biology of marine dissolved organic matter (DOM) composition and cycling	096: Ocean and Climate Change Science: Engaging Scientists in Educating the Public	075: A holistic approach to marine eco-systems biology, major results and perspectives for research and education		072: The Southern Ocean and Its Role in the Climate System: Observations and Modeling of Physical and Biogeochemical Processes		08:00 08:15 08:30 08:45 09:00 09:15 09:30 09:45
MORNING BREAK									10:00 10:15
PLENARY SESSION (Ballroom ABC) Robert H. Richmond, "Coral Reefs, Climate Change and Atomic Bombs" and Panel Discussion: "Why aren't they listening?" moderated by Richard Harris, National Public Radio with panelists: Edward Maibach, Christine O'Connell, and Jerry Schubel									10:30 10:45 11:00 11:15 11:30 11:45 12:00 12:15
LUNCH WORKSHOPS &TOWN HALLS									12:30 12:45 1:00 1:15 1:30 1:45
059: Illuminating the Deep Ocean: Limits to Understanding, Observation Requirements, and Overcoming the Challenges	060: Submarine Groundwater Discharge - from Ridge to Reef: Groundwater Evolution, Climate, Land-Use, Coastal Hydrology and Marine Biogeochemical Impacts	069: Marine Microbial Ecology: The relative role of dispersal, interactions, associations and other ecological processes in structuring microbial communities	123: The molecular chemistry and microbial biology of marine dissolved organic matter (DOM) composition and cycling	097: Breaking Boundaries: The role of science communication and outreach in promoting healthy oceans	008: Revising Biogeochemical Stoichiometry: The Oceans Beyond Redfield on a Changing Planet		072: The Southern Ocean and Its Role in the Climate System: Observations and Modeling of Physical and Biogeochemical Processes		2:00 2:15 2:30 2:45 3:00 3:15 3:30 3:45
POSTER SESSION AND RECEPTION (Kamehameha Hall III) Poster sessions: 003, 007, 008, 009, 010, 021, 028, 035, 038, 045, 050, 054, 058, 059, 060, 069, 072, 074, 075, 077, 082, 084, 087, 093, 096, 097, 111, 122, 123, 154, 159, 160, 166, 172, 174 (Hall will remain open until 7:00 p.m.)									4:00 4:15 4:30 4:45 5:00 5:15 5:30 5:45 6:00 6:15
WORKSHOPS &TOWN HALLS									6:30 6:45 7:00 7:15 7:30 7:45 8:00 8:15
Off-Site Evening Activity (JAM SESSION) 8:00 pm to 12:00 am									8:30 8:45 9:00

Schedule At A Glance – Wednesday

	301 AB	304 AB	310 Theater	311	312	313 A	313 B	313 C	314	315
08:00 08:15 08:30 08:45 09:00 09:15 09:30 09:45	166: Aquatic biology	100: Environmental variability and climate change: linking environmental variation and organism responses across scales	144: Viruses in the sea - the molecular engineers and architects of plankton communities	159: CLIVAR: Ocean and Atmosphere Variability, Predictability and Change	124: Boundary currents, eddies, and water mass transformation at high latitudes	173: New conceptual and experimental approaches to investigate the effects of multiple environmental drivers on ocean biota	079: Rising Sea Level: Contributions and Future Projections	042: Optical Remote Sensing of Freshwater, Estuarine, and Coastal Environments: Water Quality and other Applications	003: Advances in Coastal Ocean Modeling, Observations, and Prediction	058: Mesoscale ocean processes and their representation in earth system models
10:00 10:15	MORNING BREAK									
10:30 10:45 11:00 11:15 11:30 11:45 12:00 12:15	166: Aquatic biology	100: Environmental variability and climate change: linking environmental variation and organism responses across scales	AWARDS SESSION	159: CLIVAR: Ocean and Atmosphere Variability, Predictability and Change	124: Boundary currents, eddies, and water mass transformation at high latitudes	142: Understanding and simulating ENSO in past, present and future climates	079: Rising Sea Level: Contributions and Future Projections	042: Optical Remote Sensing of Freshwater, Estuarine, and Coastal Environments: Water Quality and other Applications	003: Advances in Coastal Ocean Modeling, Observations, and Prediction	058: Mesoscale ocean processes and their representation in earth system models
12:30 12:45 1:00 1:15 1:30 1:45	LUNCH WORKSHOPS &TOWN HALLS									
2:00 2:15 2:30 2:45 3:00 3:15 3:30 3:45	041: Advances in the understanding of uncultivated microbes and development of model systems for marine microbial ecology	053: Coral Microbiology: Partners and Pathogens	Tutorials Session 175 C	159: CLIVAR: Ocean and Atmosphere Variability, Predictability and Change	124: Boundary currents, eddies, and water mass transformation at high latitudes	142: Understanding and simulating ENSO in past, present and future climates	081: Climate Impacts on Living Marine Resources	042: Optical Remote Sensing of Freshwater, Estuarine, and Coastal Environments: Water Quality and other Applications	003: Advances in Coastal Ocean Modeling, Observations, and Prediction	099:Proxy Records for Understanding Coastal and Oceanic Processes and Their Preservation in Present and Past
4:00 4:15 4:30 4:45 5:00 5:15 5:30 5:45 6:00 6:15	POSTER SESSION AND RECEPTION (Kamehameha Hall III) Poster sessions: 001, 003, 016, 027, 040, 041, 042, 044, 046, 047, 053, 058, 063, 066, 073, 079, 081, 092, 099, 100, 102, 107, 124, 139, 142, 144, 149, 156, 159, 167, 170, 173 (Hall will remain open until 7:00 p.m.)									
6:30 6:45 7:00 7:15 7:30 7:45 8:00 8:15	WORKSHOPS &TOWN HALLS									
8:30 8:45 9:00										

316 A	316 B	316 C	317 AB	318 AB	319 AB	320 Theater	323 ABC	Ballroom ABC	
102: The Chukchi Sea Region: Physical Forcing and Ecosystem Response in the Pacific Arctic	040: Antarctic marginal seas and shelf/slope processes: physical and biological variability, controls, and links to larger scales	001: Upper Ocean Turbulent Fields and Their Variability: temperature, salinity, energy	123: The molecular chemistry and microbial biology of marine dissolved organic matter (DOM) composition and cycling	066: Collaborations and Partnerships in Ocean Research and Education	074: Estuaries, what are they good for? A tribute to the work of Dr. Jonathan H. Sharp		073: Ocean salinity and water cycle variability and change		08:00 08:15 08:30 08:45 09:00 09:15 09:30 09:45
MORNING BREAK									10:00 10:15
102: The Chukchi Sea Region: Physical Forcing and Ecosystem Response in the Pacific Arctic	040: Antarctic marginal seas and shelf/slope processes: physical and biological variability, controls, and links to larger scales	001: Upper Ocean Turbulent Fields and Their Variability: temperature, salinity, energy	092: From VERTEX to GEOTRACES: honoring Ken Bruland's contributions to marine biogeochemical cycles	066: Collaborations and Partnerships in Ocean Research and Education	074: Estuaries, what are they good for? A tribute to the work of Dr. Jonathan H. Sharp		073: Ocean salinity and water cycle variability and change		10:30 10:45 11:00 11:15 11:30 11:45 12:00 12:15
LUNCH WORKSHOPS &TOWN HALLS									12:30 12:45 1:00 1:15 1:30 1:45
102: The Chukchi Sea Region: Physical Forcing and Ecosystem Response in the Pacific Arctic	040: Antarctic marginal seas and shelf/slope processes: physical and biological variability, controls, and links to larger scales	001: Upper Ocean Turbulent Fields and Their Variability: temperature, salinity, energy	092: From VERTEX to GEOTRACES: honoring Ken Bruland's contributions to marine biogeochemical cycles	016: Using evaluation in ocean sciences education and workforce development: What does the evidence show?	047: Natural and anthropogenic changes in Coastal Ecosystems and their impact on human welfare		073: Ocean salinity and water cycle variability and change		2:00 2:15 2:30 2:45 3:00 3:15 3:30 3:45
POSTER SESSION AND RECEPTION (Kamehameha Hall III) Poster sessions: 001, 003, 016, 027, 040, 041, 042, 044, 046, 047, 053, 058, 063, 066, 073, 079, 081, 092, 099, 100, 102, 107, 124, 139, 142, 144, 149, 156, 159, 167, 170, 173 (Hall will remain open until 7:00 p.m.)									4:00 4:15 4:30 4:45 5:00 5:15 5:30 5:45 6:00 6:15
WORKSHOPS &TOWN HALLS									6:30 6:45 7:00 7:15 7:30 7:45 8:00 8:15
									8:30 8:45 9:00

Schedule At A Glance – Thursday

	301 AB	304 AB	310 Theater	311	312	313 A	313 B	313 C	314	315
08:00 08:15 08:30 08:45 09:00 09:15 09:30 09:45	044: East Asian Marginal Seas: sea surface temperature variability and ocean-atmosphere process	024: ASLO Multicultural Program Student Symposium	091: Advances in approaches to monitoring the occurrence, distribution, and behavior of top predators	027: Nearshore Processes	005: Air-Sea Gas Exchange	139: Advances in ocean technology; autonomous instrument development and applications	081: Climate Impacts on Living Marine Resources	017: Shedding light on phytoplankton biogeography	156: Circulation, Mixing and Deep Water Formation in the Deep Basins of the North Atlantic and on the Adjacent Continental Shelves	161: HABS and Invasive Species
10:00 10:15	MORNING BREAK									
10:30 10:45 11:00 11:15 11:30 11:45 12:00 12:15	PLENARY SESSION (Ballroom ABC) Roger T. Hanlon, "Optical magic: how cephalopods sense and manipulate light to produce rapid adaptive camouflage and communication " and Mary Jane Perry, "Looking Forward To Looking Back On 50 Years of Autonomous Robotic Ocean Sensing"									
12:30 12:45 1:00 1:15 1:30 1:45	LUNCH WORKSHOPS &TOWN HALLS									
2:00 2:15 2:30 2:45 3:00 3:15 3:30 3:45	044: East Asian Marginal Seas: sea surface temperature variability and ocean-atmosphere process	078: Ecology of Infectious Marine Disease in a Changing Climate	Tutorials Session 175 D	027: Nearshore Processes	005: Air-Sea Gas Exchange	139: Advances in ocean technology; autonomous instrument development and applications	049: Station ALOHA: Celebrating 25 years of sustained ocean observations	046: Bio-physical controls on the initiation and development of the spring phytoplankton bloom	156: Circulation, Mixing and Deep Water Formation in the Deep Basins of the North Atlantic and on the Adjacent Continental Shelves	161: HABS and Invasive Species
4:00 4:15 4:30 4:45 5:00 5:15 5:30 5:45 6:00 6:15	POSTER SESSION AND RECEPTION (Kamehameha Hall III) Poster sessions: 002, 005, 011, 012, 014, 017, 018, 023, 024, 025, 027, 036, 049, 051, 052, 055, 056, 057, 068, 071, 078, 080, 086, 090, 091, 094, 095, 101, 112, 113, 116, 117, 119, 131, 133, 137, 143, 147, 153, 161, 169 (Hall will remain open until 7:00 p.m.)									
6:30 6:45 7:00 7:15 7:30 7:45 8:00 8:15	WORKSHOPS &TOWN HALLS									
8:30 8:45 9:00										

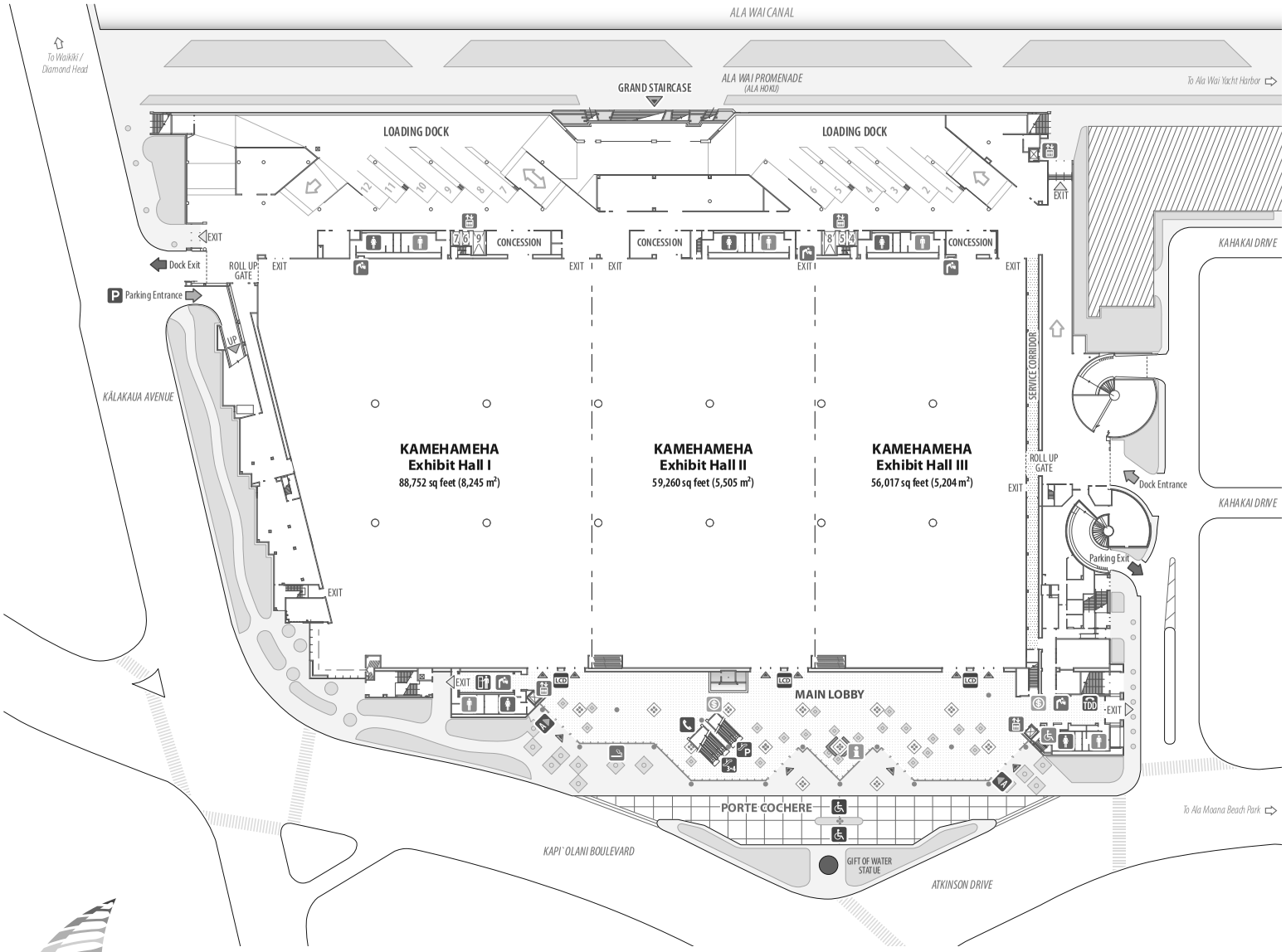
316 A	316 B	316 C	317 AB	318 AB	319 AB	320 Theater	323 ABC	Ballroom ABC	
063: Changes in the global ocean carbon cycle: From observations to models	107: Tides and ocean mixing: past, present, future	170: Ecosystems: processes, assessment, and management	055: Comparing Physical Processes in Large Lakes and Shallow Seas	116: Advances in approaches to assess metal-binding organic ligands and perspectives on the impacts of ligands on metal-biota interactions in the oceans	149: Aquatic microbial eukaryotes: from genomes to ecosystems	025: Physical-biological interactions in coral reefs: a tribute to Marlin Atkinson	073: Ocean salinity and water cycle variability and change		08:00 08:15 08:30 08:45 09:00 09:15 09:30 09:45
MORNING BREAK									10:00 10:15
PLENARY SESSION (Ballroom ABC) Roger T. Hanlon, "Optical magic: how cephalopods sense and manipulate light to produce rapid adaptive camouflage and communication " and Mary Jane Perry, "Looking Forward To Looking Back On 50 Years of Autonomous Robotic Ocean Sensing"									10:30 10:45 11:00 11:15 11:30 11:45 12:00 12:15
LUNCH WORKSHOPS &TOWN HALLS									12:30 12:45 1:00 1:15 1:30 1:45
063: Changes in the global ocean carbon cycle: From observations to models	107: Tides and ocean mixing: past, present, future	167: Ocean Policy and Resource Management including Marine Agronomy and Aquaculture	169:Watersheds, lakes, rivers, estuaries 169:Watersheds, lakes, rivers, estuaries	018: Advancing the frontiers of the Si cycle in terrestrial, coastal, and open ocean ecosystems	143: Fram Strait - New insights into physical and biological processes in the Atlantic gateway to the Arctic Ocean and their linkages to climatic changes		147: Passive and Active Electromagnetic Remote Sensing of Air-Water Interfaces		2:00 2:15 2:30 2:45 3:00 3:15 3:30 3:45
POSTER SESSION AND RECEPTION (Kamehameha Hall III) Poster sessions: 002, 005, 011, 012, 014, 017, 018, 023, 024, 025, 027, 036, 049, 051, 052, 055, 056, 057, 068, 071, 078, 080, 086, 090, 091, 094, 095, 101, 112, 113, 116, 117, 119, 131, 133, 137, 143, 147, 153, 161, 169 (Hall will remain open until 7:00 p.m.)									4:00 4:15 4:30 4:45 5:00 5:15 5:30 5:45 6:00 6:15
WORKSHOPS &TOWN HALLS									6:30 6:45 7:00 7:15 7:30 7:45 8:00 8:15
									8:30 8:45 9:00

Schedule At A Glance – Friday

	301 AB	304 AB	310 Theater	311	312	313 A	313 B	313 C	314	315
08:00 08:15 08:30 08:45 09:00 09:15 09:30 09:45	095: River plumes and buoyancy-driven shelf circulation	024: ASLO Multicultural Program Student Symposium		027: Nearshore Processes	137: North Atlantic ocean dynamics: from natural fluctuations to externally forced response	080: Biogeochemistry of Trace Elements and their Isotopes	036: An integrated view of Agulhas Science: Past, present and future	094: Consequences of fluid stirring and mixing: from organisms to ecosystems	119: Highly nonlinear internal waves and bores in shallow water	112: Tropical Cyclone-Ocean Interactions: from Weather to Climate
10:00 10:15	MORNING BREAK									
10:30 10:45 11:00 11:15 11:30 11:45 12:00 12:15	095: River plumes and buoyancy-driven shelf circulation	068: Understanding biogeochemical and ecosystem responses to natural and human-induced interactions, drivers and pressures in coastal regions		027: Nearshore Processes	137: North Atlantic ocean dynamics: from natural fluctuations to externally forced response	080: Biogeochemistry of Trace Elements and their Isotopes	086: Tsunami Research: Recent Advances in Instrumentation and Modeling	133: Dynamic physical and ecological drivers of marine metapopulation connectivity	119: Highly nonlinear internal waves and bores in shallow water	112: Tropical Cyclone-Ocean Interactions: from Weather to Climate
12:30 12:45 1:00 1:15 1:30 1:45	LUNCH WORKSHOPS &TOWN HALLS									
2:00 2:15 2:30 2:45 3:00 3:15 3:30 3:45	095: River plumes and buoyancy-driven shelf circulation	068: Understanding biogeochemical and ecosystem responses to natural and human-induced interactions, drivers and pressures in coastal regions	Tutorials Session 175 E	027: Nearshore Processes	137: North Atlantic ocean dynamics: from natural fluctuations to externally forced response	080: Biogeochemistry of Trace Elements and their Isotopes	023: Mechanisms of biogeochemical variability in the global oceans	014: Physical processes along reef-protected coastlines: current observations and future predictions	131: Submarine canyons: oceanographic conditions, geological features, and ecological settings	112: Tropical Cyclone-Ocean Interactions: from Weather to Climate
4:00 4:15 4:30 4:45 5:00 5:15 5:30 5:45 6:00 6:15 6:30 6:45 7:00 7:15 7:30 7:45 8:00 8:15 8:30 8:45 9:00										

316 A	316 B	316 C	317 AB	318 AB	319 AB	320 Theater	323 ABC	Ballroom ABC	
012: Oceanic submesoscale processes	056: Insights into marine ecosystem dynamics from acoustic techniques	071: Frontiers of oceanographic data and methods	113: Big Data, Including Ocean Climate Data: Data Availability, Techniques, and Applications	153: Using Compound-Specific Stable Isotope Analysis to Advance Population and Community Ecology	052: Current perspectives on trophic ecology: utilization of complementary tracer methods	025: Physical-biological interactions in coral reefs: a tribute to Marlin Atkinson	057: Small bugs with a big impact: linking plankton ecology with ecosystem processes		08:00 08:15 08:30 08:45 09:00 09:15 09:30 09:45
MORNING BREAK									10:00 10:15
012: Oceanic submesoscale processes	056: Insights into marine ecosystem dynamics from acoustic techniques	071: Frontiers of oceanographic data and methods	113: Big Data, Including Ocean Climate Data: Data Availability, Techniques, and Applications	117: Benthic-pelagic coupling and exchange across the sediment-water interface	101: Ecology and management of semi-enclosed seas	025: Physical-biological interactions in coral reefs: a tribute to Marlin Atkinson	057: Small bugs with a big impact: linking plankton ecology with ecosystem processes		10:30 10:45 11:00 11:15 11:30 11:45 12:00 12:15
LUNCH WORKSHOPS &TOWN HALLS									12:30 12:45 1:00 1:15 1:30 1:45
012: Oceanic submesoscale processes	002: Understanding Coupled Human-Natural Systems: Multi-disciplinary Approaches for Addressing Sustainability of the Marine Environment	071: Frontiers of oceanographic data and methods	090: Data Assimilation and Uncertainty Quantification in Ocean Modeling	051: Shedding light on the dark ocean: biogeochemistry and microbial oceanography of the pelagic realm of the deep sea	011: Mapping, monitoring and managing mesophotic reefs: Scientific insights and technologies to address coral resource management challenges		057: Small bugs with a big impact: linking plankton ecology with ecosystem processes		2:00 2:15 2:30 2:45 3:00 3:15 3:30 3:45
									4:00 4:15 4:30 4:45 5:00 5:15 5:30 5:45 6:00 6:15 6:30 6:45 7:00 7:15 7:30 7:45 8:00 8:15 8:30 8:45 9:00

Convention Center Map – Level 1/Exhbit & Poster Hall



Level 1

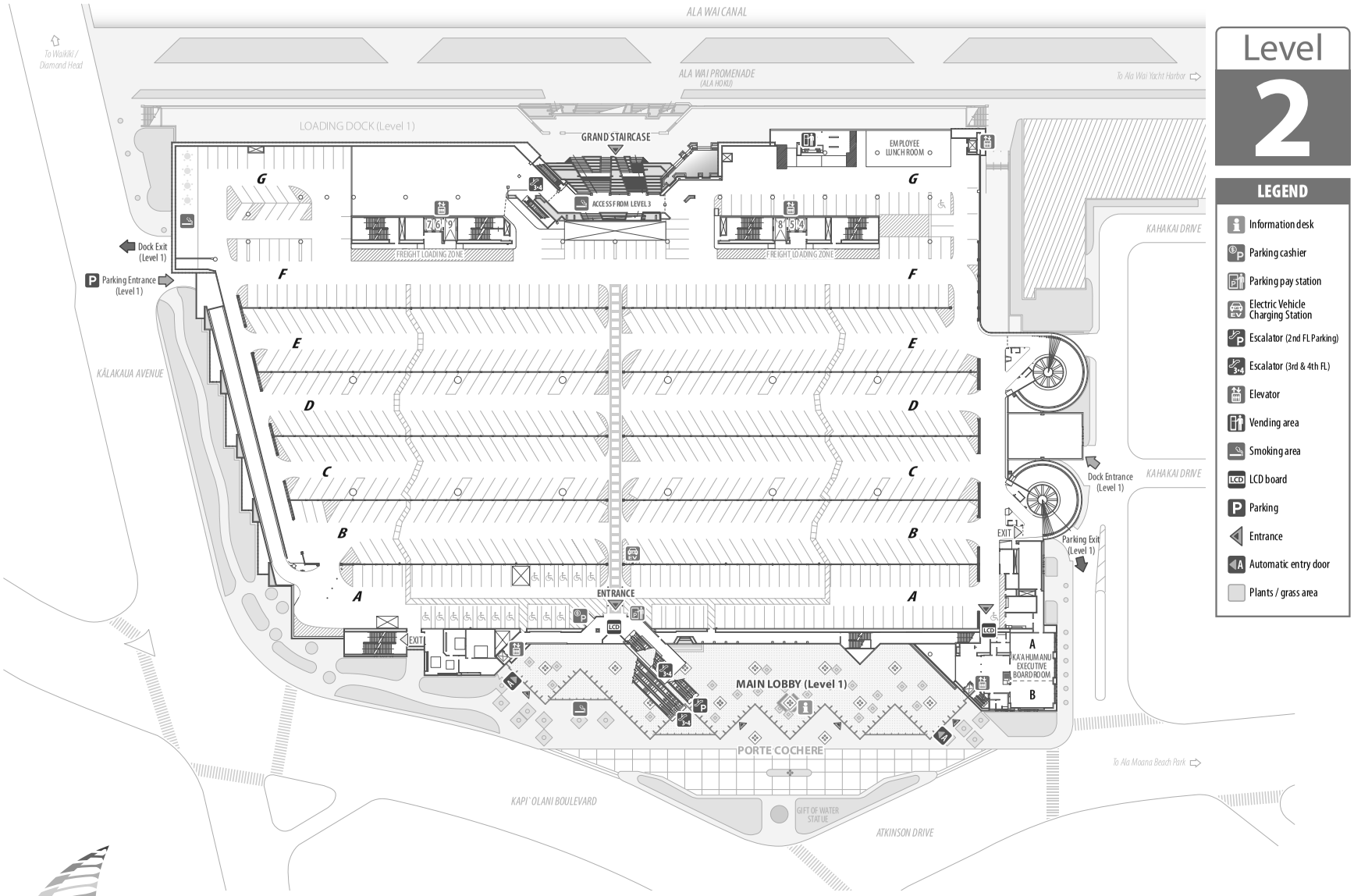
LEGEND

- Information desk
- Escalator (2nd FL Parking)
- Escalator (3rd & 4th FL)
- Elevator
- Restroom (Men)
- Restroom (Women)
- Restroom (Universal)
- Pay phone
- TDD / Pay phone
- ATM
- Vending area
- Water fountain
- Smoking area
- LCD board
- Parking
- Entrance
- Automatic entry door
- Plants / grass area
- Walkway
- Crosswalk
- Service corridor
- Accessible Passenger Loading Zone

HAWAI'I CONVENTION CENTER

1 EXHIBIT HALL / LOBBY

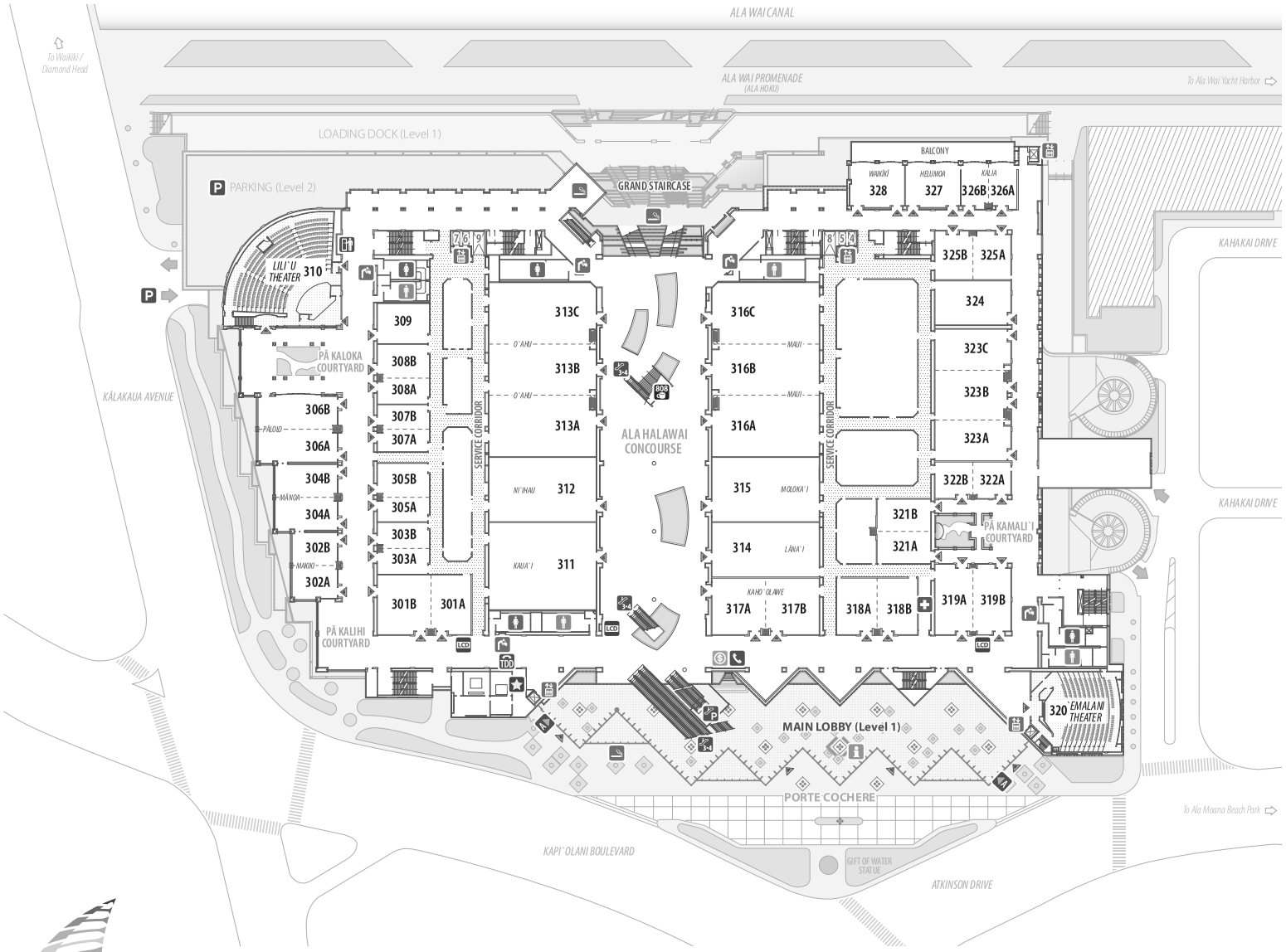
Convention Center Map – Level 2/Parking



HAWAI'I CONVENTION CENTER

2 PARKING

Convention Center Map – Level 3/Meetign Rooms



Level 3

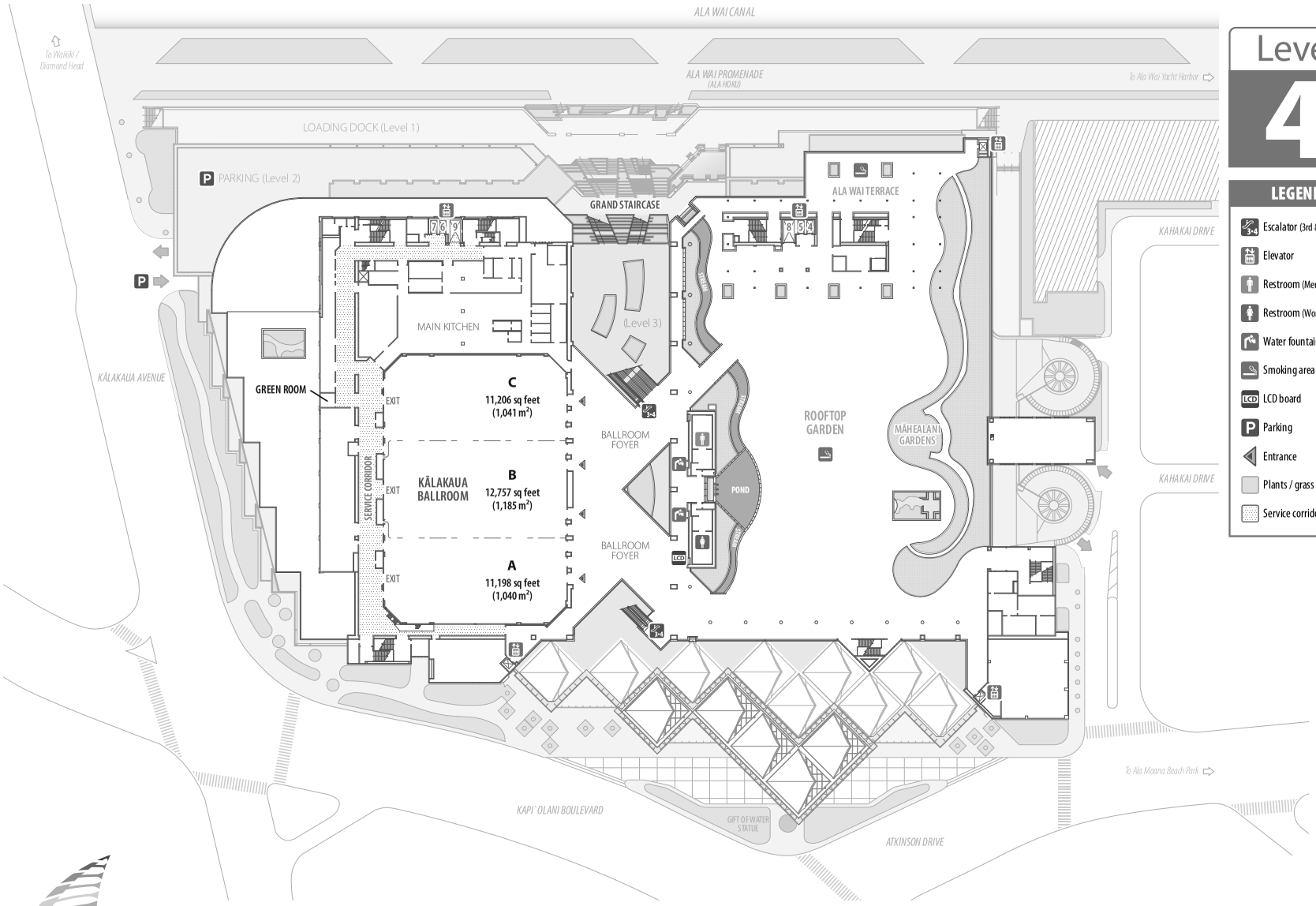
LEGEND

- Information desk
- Business center
- 808 Coffees Café
- First aid
- Escalator (2nd FL Parking)
- Escalator (3rd & 4th FL)
- Elevator
- Restroom (Men)
- Restroom (Women)
- Pay phone
- TDD / Pay phone
- ATM
- Vending area
- Water fountain
- Smoking area
- LCD board
- Parking
- Entrance
- Automatic entry door
- Plants / grass area
- Service corridor

HAWAI'I CONVENTION CENTER

3 MEETING ROOM / THEATERS

Convention Center Map – Level 4/Ballroom



HAWAI'I CONVENTION CENTER

4 BALLROOM / ROOF TOP GARDEN

MONDAY

2/24/2014 Orals

175A Tutorials

Chair(s): Lynne Talley, ltalley@ucsd.edu
Eric Itsweire, eitsweir@nsf.gov

Location: 310 Theater

14:00 Rintoul, S. R.; IPCC Lead Authors, chapters 3, 10 and 13, .; **Bindoff, N. L.**: AN OVERVIEW OF THE IPCC 5TH ASSESSMENT REPORT, HIGHLIGHTING THE OCEAN'S ROLE IN CLIMATE CHANGE

14:15 **Bindoff, N. L.**; Rintoul, S. R.; Talley, L. D.: UNDERSTANDING THE IPCC WG1 FIFTH ASSESSMENT REPORT: USING DETECTION AND ATRIBUTION METHODS TO EVALUATE AND UNDERSTAND HUMAN INFLUENCE IN THE OCEANS

14:30 **Xie, S. P.**: UNDERSTANDING THE IPCC WG1 FIFTH ASSESSMENT REPORT: PROBING OCEAN'S ROLE IN REGIONAL CLIMATE CHANGE

15:00 **Johnson, G. C.**; Merrifield, M. A.; Nerem, R. S.: UNDERSTANDING THE IPCC WG1 FIFTH ASSESSMENT REPORT: OCEAN HEAT UPTAKE AND SEA LEVEL CHANGE

15:30 **Rhein, M.**; Feely, R. A.; Masson-Delmotte, V.; Sabine, C.; Rintoul, S.: UNDERSTANDING THE IPCC WG1 FIFTH ASSESSMENT REPORT: OCEAN AND CARBON IN PAST, PRESENT, AND FUTURE

013 Biogeo-Omics: Utilizing Biogeochemistry and -Omics Data to Unravel the Metabolic Pathways and Environmental Controls of Hydrocarbon Biodegradation

Chair(s): Joel Kostka, joel.kostka@biology.gatech.edu
Andreas Teske, teske@email.unc.edu
Samantha Joye, mjoye@uga.edu

Location: 319 AB

10:30 **Joye, S. B.**; Kleindienst, S.; Crespo-Medina, M.; Grim, S.; Sogin, M.: THE ROLE OF THE RARE BIOSPHERE IN PELAGIC HYDROCARBON DEGRADATION DURING THE DEEPWATER HORIZON OIL SPILL

10:45 **Redmond, M. C.**; Swan, B. K.; Woyke, T.; Stepanauskas, R.; Valentine, D. L.: STABLE ISOTOPE PROBING AND SINGLE CELL GENOMICS IDENTIFY HYDROCARBON OXIDIZING COLWELLIA AND CYCLOCLASTICUS ACTIVE DURING THE DEEPWATER HORIZON OIL SPILL

11:00 **Jeffrey, W. H.**; Morrison, T. E.; Vaughan, P. P.; Chen, H.; McKenna, A. A.: THE ROLE OF PHOTOCHEMISTRY IN DETERMINING THE EFFECTS OF MC252 SURROGATE OIL ON MICROBIAL GROWTH

11:15 **Hollander, D. J.**; Romero, I. C.; Schwing, P.; Brooks, G.; Kosta, J.: DISENTANGLING THE ROLES OF RIVER DISCHARGE, PRODUCTIVITY, OIL BURNING & DISPERSANT ON THE MARINE OIL-SNOW DEPOSITION (MOSSFA) EVENT FOLLOWING THE DWH BLOWOUT

11:30 **Mason, O. U.**; Jansson, J. K.: RESPONSE OF SEDIMENT MICROBIAL COMMUNITY TO DEEPWATER HORIZON OIL SPILL

11:45 **Overholt, W. A.**; Rodriguez-R, L. M.; Konstantinidis, K. T.; Huettel, M.; Kostka, J. E.: A SUCCESSION IN MICROBIAL POPULATIONS PARALLELS THE EVOLUTION OF HYDROCARBON CHEMISTRY IN GULF OF MEXICO BEACH SANDS

12:00 **Zhou, J.**; Van Nostrand, J. D.; Maxwell, M.; Hou, A.: RESPONSE OF FUNCTIONAL MICROBIAL COMMUNITIES TO THE DEEPWATER HORIZON OIL SPILL AND CHEMICAL DISPERSANT EXPOSURE

12:15 **Aeppli, C.**; Nelson, R. K.; Kinnaman, F. S.; Valentine, D. L.; Reddy, C. M.: IDENTIFICATION OF MICROBIAL AND ABIOTIC OIL DEGRADATION PROCESSES USING HIGH-RESOLUTION GAS CHROMATOGRAPHY AND STABLE ISOTOPES

015 Physical-Biological Interactions In Mesoscale Eddies: Governing Processes and Implications for the Marine Ecosystem

Chair(s): Annette Samuelsen, annette.samuelsen@nersc.no
Solfrid Saetre Hjollo, solfrid.hjollo@imr.no
Carol Ladd, carol.ladd@noaa.gov

Location: 313 B

14:00 **Angel-Benavides, I. M.**; Garcia, C. A.: SURFACE CHLOROPHYLL ANOMALIES INDUCED BY MESOSCALE EDDIES IN THE SOUTH ATLANTIC SUBTROPICAL GYRE

14:15 **Suga, T.**; Inoue, R.; Kouketsu, S.; Honda, M.: WESTERN NORTH PACIFIC INTEGRATED PHYSICAL-BIOGEOCHEMICAL OCEAN OBSERVATION EXPERIMENT: NUTRIENT INPUTS AND PRIMARY PRODUCTION IN A SUBTROPICAL CYCLONIC EDDY

14:30 **Olson, E. M.**; McGillicuddy, D. J.; Davis, C. S.; Dyhrman, S. T.; Waterbury, J. B.: PHYSICAL AGGREGATION OF BUOYANT *TRICHODESMIUM* SPP. COLONIES THROUGH EDDY/WIND INTERACTION: OBSERVATIONS AND MODELING

14:45 **Waite, A. M.**; Jeffs, A.; Stemmann, L.; Beckley, L. E.; Thompson, P. A.: ROCK LOBSTER LARVAL TROPHIC LEVEL IS IMPACTED BY NITRATE RELEASE FROM COASTALLY TRAPPED PARTICLES WITHIN A MESOSCALE EDDY IN THE EASTERN INDIAN OCEAN

15:00 **Simons, R. D.**; Nishimoto, M. M.; Washburn, L.; Brown, K. S.; Siegel, D. A.: RETENTION OF JUVENILE FISH IN A COASTAL MESOSCALE EDDY: FIELD OBSERVATIONS AND THREE-DIMENSIONAL MODELING

15:15 **Sánchez Velasco, L.**; Lavín , M. F.: THREE-DIMENSIONAL DISTRIBUTION OF FISH LARVAE IN A CYCLONIC EDDY IN THE GULF OF CALIFORNIA DURING THE SUMMER

15:30 **Kline, T. C.**: MESOSCALE EDDIES MAY DRIVE INTER-ANNUAL VARIABILITY IN OCEAN SURVIVAL OF PINK SALMON, ONCORHYNCHUS GORBUSCHA

15:45 **Moss, J. H.**; Trudel, M.; Beckman, B.; Crawford, W.: BENEFITS OF LIVING LIFE ON THE EDGE: ENHANCED GROWTH AND FORAGING OPPORTUNITIES FOR JUVENILE SALMON INHABITING THE MARGINS OF THE SITKA EDDY

020 Exploration of Ocean Circulation Variability Through Argo, Satellite Altimetry and Other Observations and Assimilations

Chair(s): Bo Qiu, bo@soest.hawaii.edu
Dean Roemmich, droemmich@ucsd.edu
Ichiro Fukumori, ichiro.fukumori@jpl.nasa.gov
Steve Piotrowicz, steve.piotrowicz@noaa.gov

Location: 315

08:00 **Stendardo, I.**; Rhein, M.; Klein, B.; Roessler, A.: A NEW APPROACH FOR INVESTIGATING SALINITY VARIABILITY IN THE NORTH ATLANTIC THROUGH SYNERGETIC ANALYSIS OF ARGO FLOATS AND SATELLITE ALTIMETRY DATA

08:15 **Billheimer, S. J.**; Talley, L. D.; Fratantoni, D. M.: ANNUAL CYCLE AND DESTRUCTION OF SUBTROPICAL MODE WATER IN THE WESTERN NORTH ATLANTIC

08:30 **Frajka-Williams, E.**; McCarthy, G.; Meinen, C. S.; Johns, W. E.: USING SATELLITE AND IN SITU OBSERVATIONS TO DETERMINE THE SOURCE OF THE WEAKENING DWBC AT 26N

08:45 **Candela, J.**; Ochoa, J.; Sheinbaum, J.; Lopez, M.; Perez, P.: A TALE OF TWO STRAITS

09:00 **Sato, O. T.**; Polito, P. S.: THE PROCESS OF FORMATION AND DISSIPATION OF SOUTH ATLANTIC SUBTROPICAL MODE WATERS

09:15 **Goni, G. J.**; Dong, S.; Bringas, F.: VARIABILITY OF THE SOUTH ATLANTIC MERIDIONAL OVERTURNING CIRCULATION

09:30 **Makowski, J. K.**; Chambers, D. P.: UNDERSTANDING TRANSPORT VARIABILITY OF THE ANTARCTIC CIRCUMPOLAR CURRENT USING OCEAN BOTTOM PRESSURE

09:45 **Bowen, M. M.**; Sutton, P.; Roemmich, D.: EVALUATING MEAN DYNAMIC TOPOGRAPHY IN BOUNDARY CURRENTS AND THE USE OF ARGO FLOAT TRAJECTORIES

10:30 **Piecuch, C. G.**: ROSSBY WAVES OBSERVED BY SATELLITE GRAVITY IN THE TROPICAL PACIFIC

10:45 **Cole, S. T.**; Owens, W. B.: MIXING LENGTH AND HORIZONTAL DIFFUSION FROM ARGO OBSERVATIONS IN THE PACIFIC OCEAN

11:00 **Qiu, B.**; Rudnick, D.; Chen, S.; Kashino, Y.; Sasaki, H.: NEW SUBTHERMOCLINE OCEAN CIRCULATION FEATURES IN THE TROPICAL PACIFIC OCEAN REVEALED BY THE ARGO AND OKMC PROFILING FLOAT PROGRAMS

11:15 **Cornuelle, B. D.**; Gopalakrishnan, G.; Rudnick, D. L.: STATE ESTIMATION AND PREDICTION IN THE BIFURCATION REGION EAST OF THE PHILIPPINES.

11:30 **Yuan, D.**; Zhang, Z.; Chu, P. C.; Dewar, W. K.: GEOSTROPHIC CIRCULATION IN THE TROPICAL NORTH PACIFIC OCEAN BASED ON ARGO PROFILES

11:45 **Zilberman, N.**; Roemmich, D.; Gille, S.: MERIDIONAL TRANSPORT IN THE SOUTH PACIFIC: ASSESSING SAM RELATED VARIABILITY

12:00 **Na, H.**; Kim, K.; Minobe, S.; Sasaki, Y. N.: DECADAL VARIABILITY OF THE UPPER-OCEAN HEAT CONTENT IN THE NORTHWESTERN PACIFIC AND ITS RELATIONSHIP WITH THE KUROSHIO EXTENSION VARIABILITY

12:15 **Nonaka, M.**; Hosoda, S.; Sasai, Y.; Sasaki, H.: SUBSURFACE TEMPERATURE STRUCTURE CHANGE IN ASSOCIATION WITH NEGATIVE PACIFIC DECADAL OSCILLATION SINCE THE LATE 2000S

14:00 **von Schuckmann, K.**; Sallée, J. B.; Chambers, D.; Le Traon, P. Y.; Cabanes, C.: CONSISTENCY OF THE CURRENT GLOBAL OCEAN OBSERVING SYSTEMS FROM AN ARGO PERSPECTIVE

14:15 **Gray, A. R.**; Riser, S. C.: A GLOBAL ANALYSIS OF SVERDRUP BALANCE USING ABSOLUTE GEOSTROPHIC VELOCITIES FROM ARGO

14:30 **Liang, X.**; Wunsch, C.: ESTIMATION OF THE GLOBAL OCEAN VERTICAL VELOCITY

14:45 **Masuda, S.**; Doi, T.; Osafune, S.; Sugiura, N.: IMPROVED OCEAN STATE ESTIMATION BY USING A 4 DIMENSIONAL VARIATIONAL APPROACH

15:00 **Lyman, J. M.**; Johnson, G. C.: EFFECTS OF CLIMATOLOGY TEMPERATURE SHIFTS ON ESTIMATIONS OF GLOBAL OCEAN HEAT CONTENT

15:15 **Forget, G.**; Ponte, R.: OBSERVED REGIONAL SEA LEVEL VARIABILITY AND ITS LARGE SCALE COMPONENTS

15:30 **Cheng, L.**; Zhu, J.: THE IMPACTS OF OCEAN SUBSURFACE OBSERVATION SYSTEM ON ESTIMATING GLOBAL OCEAN HEAT CONTENT

15:45 **Lumpkin, R.**; Johnson , G.; Flament , P.: A NEW GLOBAL SURFACE CURRENT CLIMATOLOGY, WITH APPLICATION TO THE HAWAIIAN ISLAND REGION

022 Scaling Up Individual Processes to Ecosystem Levels In An Era of Global Change

Chair(s): Sophie J McCoy, mccoy@uchicago.edu
Andrew J Pershing, andrew.pershing@maine.edu
Laurent Seuront, laurent.seuront@univ-lille1.fr
Nicholas A Kamenos , nick.kamenos@glasgow.ac.uk
Frederic Maps, frederic.maps@bio.ulaval.ca

Location: 316 A

14:00 **McCoy, S. J.**: EFFECTS OF OCEAN ACIDIFICATION ON CORALLINE ALGAE: INTEGRATING EXPERIMENTS, HISTORICAL DATA, AND MODELS ACROSS PHYSIOLOGICAL, POPULATION, AND ECOSYSTEM LEVELS

14:15 **Botsford, L. W.**; Dedrick, A. G.: SCALING UP THE EFFECTS ON INDIVIDUAL MARINE ORGANISMS TO THEIR POPULATION CONSEQUENCES AND BEYOND

14:30 **Record, N. R.**; Pershing, A. J.; Maps, F.: A DYNAMICAL SYSTEMS LINK BETWEEN TRAITS AND COMMUNITIES

14:45 **Neuheimer, A. B.**; Hartvig, M.; Heuschele, J.; Hylander, S.; Kiørboe, T.: PATTERNS OF ADULT AND PROGENY SIZE IN THE OCEAN: FROM ROTIFERS TO WHALES.

15:00 **Stamieszkin, K.**; Pershing, A. J.; Record, N. R.: USING COPEPOD PHYSIOLOGY AND BIOGEOGRAPHY TO UNDERSTAND VARIABILITY IN THE BIOLOGICAL CARBON PUMP

15:15 **Chen, B.**; Landry, M. R.; Huang, B.; Liu, H.: DOES WARMING ENHANCE THE EFFECT OF MICROZOOPLANKTON GRAZING ON MARINE PHYTOPLANKTON IN THE OCEAN?

15:30 **Hirst, A. G.**; Glazier, D. S.; Atkinson, D.: SHAPE-SHIFTING PELAGIC INVERTEBRATES RESOLVE MAJOR CONTRADICTIONS IN METABOLIC SCALING

15:45 **Mills, K. E.**; Pershing, A. J.: DRAWING UPON METABOLIC THEORY TO FORECAST FISH COMMUNITY CHARACTERISTICS IN A CHANGING CLIMATE

026 Biological and Physical Controls of Particle Dynamics and Fluxes In the Mesopelagic Layer of the Ocean: Current Understanding and Future Directions.

Chair(s): Richard B. Rivkin, rrivkin@mun.ca
Roger Francois , rfrancoi@eos.ubc.ca
Louis Legendre, legendre@obs-vlfr.fr

Location: 313 B

08:00 **Jackson, G. A.**; Checkley, D. M.; Dagg, M.: FACTORS AFFECTING PARTICLE FLUX IN THE UPPER 100 M OF THE OCEAN

08:15 **Siegel, D. A.**; Buesseler, K. O.; EXPORTS Planning Team, .: EXPORTS: SCIENCE PLAN FOR A NASA FIELD CAMPAIGN FOR QUANTIFYING THE BIOLOGICAL PUMP FROM SATELLITE OBSERVABLES

08:30 **Guidi, L.**; Legendre, L.; Uitz, J.; Stemmann, L.; Henson, S. A.: A NEW LOOK AT OCEAN CARBON REMINERALIZATION AND SEQUESTRATION COMBINING WATER-COLUMN AND SATELLITE DATA

08:45 **Dagg, M. J.**; Jackson, G. A.; Checkley, D. M.: FECAL PELLETS FROM LARGE ZOOPLANKTON IN MONTEREY BAY AND COASTAL CALIFORNIA.

09:00 **Iversen, M. H.**: DO IN SITU MEASUREMENTS OF SETTLING AGGREGATES TELL US WHAT WE THINK THEY DO?

09:15 **McDonnell, A. M.**; Gruber, N.: SPATIAL AND TEMPORAL DISPLACEMENT OF SINKING PARTICLE FLUXES AND REMINERALIZATION

09:30 **Laurenceau, E. C.**; Trull, T. W.; Davies, D. M.; De La Rocha, C. L.; Blain, S.: AGGREGATION PROCESSES AND PHYTOPLANKTON MORPHOLOGY IN THE CONTROL OF EXPORT FLUXES FROM NATURALLY IRON-FERTILISED WATERS NEAR THE KERGUELEN PLATEAU.

09:45 **Legendre, L.**; Rivkin, R. B.; Guidi, L.; Uitz, J.: DOES THE MICROBIAL CARBON PUMP HAVE BIOGEOCHEMICAL SIGNIFICANCE IN THE GLOBALLY CHANGING OCEAN?

030 Wind-Generated Waves and Storm Surge From Meteorological Activity

Chair(s): Oceana Puananilei Francis, oceanaf@hawaii.edu
Kwok Fai Cheung, cheung@hawaii.edu

Location: 318 AB

10:30 **Ardhuin, F.**; Roland, A.; Filipot, J.: EXTREME SEA STATES: CALIBRATION OF OCEAN WAVE HINDCASTS WITH SEISMIC NOISE RECORDS

10:45 **Naohisa Takagaki, N.**; Koji Iwano, K.; Satoru Komori, S.: STATISTICAL PROPERTIES OF WIND WAVES GENERATED IN EXTREMELY-HIGH WIND CONDITION

11:00 **Cox, C. S.**: DISTORTION OF THE VISCOUS SUBLAYER OF WIND OVER GRAVITY-CAPILLARY WAVES: WIND STRESS AND WAVE GROWTH

11:15 **Webb, A.**; Fox-Kemper, B.; Flyer, N.: A MESHLESS APPROACH TO GLOBAL OCEAN WAVE MODELING

11:30 **Deike, L.**; Popinet, S.: INFLUENCE OF SMALL SCALE STRUCTURE ON SURFACE WAVE DISSIPATION

11:45 **Melville, W. K.**; Fedorov, A. V.: THE EQUILIBRIUM DYNAMICS AND STATISTICS OF WIND DRIVEN GRAVITY-CAPILLARY WAVES

12:00 **Neumeier, U.**; Ruest, B.; Bismuth, E.; Dumont, D.: MODELING FUTURE WAVE CLIMATES IN THE GULF OF ST. LAWRENCE, INFLUENCE OF SEA ICE REDUCTION

12:15 **Francis, O. P.**; Panteleev, G. G.; Stroh, J.; Yaremchuk, M.: TOWARD A RELIABLE WAVE HINDCAST IN THE PACIFIC SECTOR OF THE ARCTIC OCEAN

MONDAY

032 Examining Connectivity In Marine Populations, From Unicells to Metazoans, Using Novel and Integrated Approaches

Chair(s): Tatiana Rynearson, rynearson@mail.uri.edu
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Erica Goetze, egoetze@hawaii.edu
Derek Hogan, james.hogan@tamucc.edu

Location: 316 A

08:00 **Blanco-Bercial, L.**; Bucklin, A.; O'Neill , R. J.: NEW VIEW OF POPULATION GENETICS OF ZOOPLANKTON: RAD-SEQ ANALYSIS REVEALS POPULATION STRUCTURE OF THE N ATLANTIC PLANKTONIC COPEPOD *CENTROPAGES TYPICUS*

08:15 **Peijnenburg, K.**; Liu, S.; Le Parco, Y.; Marlétaz, F.: MITOGENOMICS REVEALS EXTREME GENETIC DIVERSITY IN CHAETOGNATHS

08:30 **Osborn, K. J.**; Bush, S. L.; Wirshing, H. H.; Walz, K. R.; Robison, B. H.: CONNECTIVITY OF MESO- AND BATHYPELAGIC INVERTEBRATE COMMUNITIES

08:45 **Chen, G.**; Rynearson, T.: POPULATION GENETIC VARIATION AND CONNECTIVITY OF THE MARINE DIATOM *THALASSIOSIRA GRAVIDA* IN THE 2008 NORTH ATLANTIC BLOOM EXPERIMENT

09:00 **Mino, S.**; Nakagawa, S.; Makita, H.; Miyazaki, J.; Sawabe, T.: BIOGEOGRAPHY AND POPULATION GENETICS OF DEEP-SEA VENT CHEMOLITHOAUTOTROPHS INFERRED FROM MULTI-LOCUS SEQUENCE ANALYSIS (MLSA)

09:15 **Baco-Taylor, A. R.**; Etter, R.; Ribeiro, P.; Beerli, P.; von der Heyden, S.: A SYNTHESIS OF DISPERSAL DISTANCES IN DEEP-SEA FAUNA INFERRED FROM GENETIC DATA: IMPLICATIONS FOR CONNECTIVITY AND MPA DESIGN

09:30 **Iacchei, M.**; Bird, C. E.; Goetze, E.; Toonen, R. J.: KINSHIP METRICS PROVIDE INSIGHT INTO THE MURKY POPULATION GENETIC DATASETS OF HIGH GENE-FLOW POPULATIONS

09:45 **Bird, C. E.**: PATTERNS OF SELECTION ALONG A DEPTH GRADIENT IN HAWAIIAN 'OPIHI (CELLANA SPP.)

10:30 **Torda, G.**; Willis, B. L.; Lundgren, P.; van Oppen, M. J.: ASSESSMENT OF CONTEMPORARY CONNECTIVITY IN CORALS BY GENETIC ASSIGNMENT OF RECRUITS

10:45 **Santos, A. M.**; Bartilotti , C.; Garrido, S.; Peliz , A.; dos Santos, A.: LARVAL TRANSPORT AND RETENTION IN THE NORTHERN CANARY CURRENT UPWELLING SYSTEM

11:00 **Nanninga, G. B.**; Zhan, P.; Saenz-Agudelo, P.; Hoteit, I.; Berumen, M. L.: EMPIRICAL EVIDENCE FOR A SINK POPULATION IN A CORAL REEF FISH

11:15 **Young, E. F.**; De Bruyn, M.; Tysklind, N.; Murphy, E. J.; Carvalho, G. R.: OCEANOGRAPHIC INFLUENCES ON THE POPULATION GENETIC STRUCTURE OF ANTARCTIC FISHES

11:30 **Hrycik, J. M.**; Chassé, J.; Wells, M. G.; Ruddick, B. R.; Taggart, C. T.: DISPERSAL KERNEL ESTIMATION: COMPARISONS OF EMPIRICAL AND MODELLED PARTICLE DISPERSION IN COASTAL MARINE AND LAKE SYSTEMS

11:45 **Hogan, J. D.**; McIntyre, P. B.; Blum, M. J.; Gilliam, J. F.; Bickford, N.: CONSEQUENCES OF ALTERNATIVE DISPERSAL STRATEGIES IN A PUTATIVELY AMPHIDROMOUS FISH

12:00 **Stanley, R. E.**; Bradbury, I. R.; Snelgrove, P. V.; DiBacco, C.; Thorrold, S.: SPATIAL VARIATION IN OTOLITH GEOCHEMISTRY OF JUVENILE ATLANTIC COD, *GADUS MORHUA*, IN COASTAL NEWFOUNDLAND: ENVIRONMENTAL AND BIOLOGICAL DRIVERS

12:15 **Ceriani, S. A.**; Roth, J. D.; McClellan, C. M.; Haas, H. L.; Weishampel, J. F.: MODELING AND MAPPING ISOTOPIC PATTERNS IN THE NORTHWEST ATLANTIC DERIVED FROM THE LOGGERHEAD TURTLE

033 Ocean Acidification In Coastal Environments

Chair(s): Jeremy T. Mathis, jeremy.mathis@noaa.gov
Richard A. Feely, richard.a.feely@noaa.gov

Location: 311

08:00 **Hofmann, G. E.**; Kelly, M. W.: STUDYING ADAPTIVE CAPACITY IN COASTAL MARINE INVERTEBRATES: A FIRST CUT

08:15 **White, M. M.**; Drapeau, D. T.; Lubelczyk, L. C.; Bowler, B. C.; Balch, W. M.: CALCIFICATION OF AN ESTUARINE COCCOLITHOPHORE INCREASES UNDER INCREASED PCO_2

08:30 **Saderne, V.**; Fietzek, P.; Aßmann, S.; Hiebenthal, C.; Martz, T. A.: IN-SITU CONTINUOUS RECORDING OF THE CARBONATE CHEMISTRY INTERACTIONS BETWEEN MUSSEL AND SEAGRASS BEDS SUBJECTED TO UPWELLING EVENTS USING PH AND PCO2 SENSORS

08:45 **Miller, J. J.**; Bascom, D.; Friedman, C.; McElhany, P.: EFFECT OF ELEVATED CO2 ON LARVAE OF DUNGENESS CRAB (CANCER MAGISTER)

09:00 **TOMAS, F.**; MARTINEZ-CREGO, B.; HERNÁN, G.; SANTOS, R.: CONTRASTING EFFECTS OF OCEAN ACIDIFICATION, EUTROPHICATION AND HERBIVORY ON SEAGRASS - HERBIVORE INTERACTIONS

09:15 **Walkup, S.**; Correa, J.; Ayón, P.; Ledesma, J.; Checkley, Jr. , D.: THE DISTRIBUTION AND ABUNDANCE OF PERUVIAN ANCHOVETA (*ENGRAULIS RINGENS*) EGGS AND LARVAE IN RELATION TO PCO_2

09:30 **Thomsen, J.**; Stapp, L.; Haynert, K.; Wegner, M.; Melzner , F.: SENSITIVITY AND ADAPTATION POTENTIAL OF MYTILUS EDULIS TO OCEAN ACIDIFICATION: A MULTI-GENERATIONAL STUDY

09:45 **MacLeod, C. D.**: HOW WILL OCEAN ACIDIFICATION AFFECT THE FREE-LIVING STAGES OF MARINE PARASITES?

10:30 **Hagens, M.**; Slomp, C. P.; Meysman, F.; Borges, A. V.; Middelburg, J. J.: HYPOXIA AND BIOGEOCHEMICAL PROCESSES CONCURRENTLY IMPACT ACIDIFICATION IN A SEASONALLY STRATIFIED COASTAL MARINE LAKE

10:45 **Yeakel, K. L.**; Andersson, A. J.; Bates, N.; Noyes, T.; Collins, A.: FIVE-YEAR TIME-SERIES OF SEAWATER CO_2 CHEMISTRY REVEALS ACIDIFICATION OF THE BERMUDA CORAL REEF PLATFORM

11:00 **Horwitz, R.**; Fine, M.: HIGH CO2 DETRIMENTALLY AFFECTS TISSUE REGENERATION OF RED SEA CORALS

11:15 **Dulaiova, H.**; Fuleky, P.; Berg, C.: ACIDIFICATION RATES IN HAWAIIAN COASTAL WATERS

11:30 **Cyronak, T. J.**; Schulz, K. G.; Santos, I. R.; Eyre, B. D.: THE CHANGING CARBONATE CHEMISTRY OF CORAL REEFS: IMPLICATIONS FOR THE FUTURE OF REEF FORMATION

11:45 **Ashworth, J.**; Orellana, M. V.; Lee, A.; Armbrust, E. V.; Baliga, N. S.: MULTIFACTORIAL RESPONSES TO INCREASED CO_2 IN *T. PSEUDONANA*: POTENTIAL IMPACTS OF OCEAN ACIDIFICATION ON DIATOM CARBON AND NUTRIENT CYCLING

12:00 **Ingels, J.**; Dashfield, S.; Widdicombe, S.; Stahl, H.; Blackford, J.: MEIO- AND MICRO-BENTHIC RESPONSE TO CO2 RELEASE IN COASTAL SEDIMENTS: INVESTIGATING IMPACTS OF POTENTIAL LEAKAGE IN CCS SYSTEMS

12:15 **CURRIE, A. R.**; STAHL, H.: RATES OF BENTHIC DENITRIFICATION AND ANAMMOX UNDER PRESENT AND FUTURE OCEAN ACIDIFICATION AND TEMPERATURE CONDITIONS

14:00 **Salisbury, J.**; Vandemark, D.; Hunt, C. W.; Sabine, C.; Musielewicz, S.: FACTORS CONTRIBUTING TO VARIABILITY IN PCO2 AND CALCITE MINERAL SATURATION STATE IN A SENSITIVE COASTAL ECOSYSTEM

14:15 **Siedlecki, S. A.**; Hermann, A.; Bond, N.; Alin, S.; Feely, R.: HYPOXIA AND OCEAN ACIDIFICATION OF THE COASTAL WATERS OF THE PACIFIC NORTHWEST: EVALUATION OF SEASONAL PREDICTIONS OF HYPOXIA AND PH

14:30 **Alin, S. R.**; Feely, R. A.; Newton, J. A.; Krembs, C.; Devol, A.: ATTRIBUTION OF CORROSIVE BOTTOM-WATER CONDITIONS TO OCEAN ACIDIFICATION AND OTHER ESTUARINE DRIVERS IN PUGET SOUND: AN UPDATED ANALYSIS

14:45 **Ianson, D.**; Allen, S. E.; Moore-Maley, B.; Johannessen, S.; MacDonald, R.: VULNERABILITY OF A SEMI- ENCLOSED ESTUARINE SEA TO OCEAN ACIDIFICATION

15:00 **Newton, J. A.**; Willis, Z.; Jewett, L.; Feely, R.: OCEAN ACIDIFICATION OBSERVING SYSTEMS: LOCAL TO GLOBAL

15:15 Phillips, J. C.; **McKinley, G. A.**; Bootsma, H. A.; Sterner, R. W.; Urban, N. R.: CO2-INDUCED ACIDIFICATION OF THE LAURENTIAN GREAT LAKES

15:30 **Montserrat, F.**; Meysman, F. J.: MITIGATION OF OCEAN ACIDIFICATION IN COASTAL SYSTEMS THROUGH ENHANCED MINERAL WEATHERING

15:45 **Murray, J. W.**; Lessard, E.; Morris, R.; Kodner, R.; Foy, M.: IMPACTS OF OCEAN ACIDIFICATION ON FOOD-WEB STRUCTURE: A MESOCOSM EXPERIMENT (APRIL 2013) IN HIGH CO2 WATERS OF NATURAL ORIGIN AT THE UW FHL

037 Dynamics of Coupled Processes In the Ocean: A Tribute to the Career of Dr. James Murray

Chair(s): Laurie Balistrieri, balistri@usgs.gov
Kathryn Kuivila, kkuvilia@usgs.gov
Hans Jannasch, jaha@mbari.org

Location: 314

08:00 **Santschi, P. H.**; Chuang, C. Y.; Xu, C.; Zhang, S.; Schwehr, K. A.: BIOPOLYMERS AS CARRIERS OF NATURAL AND ANTHROPOGENIC RADIONUCLIDES IN THE ENVIRONMENT

08:15 **Brewer, P. G.**; Hofmann, A. F.; Peltzer, E. T.; Ussler, W.: EVALUATING MICROBIAL CHEMICAL CHOICES: THE OCEAN CHEMISTRY BASIS FOR THE COMPETITION BETWEEN USE OF O2 OR NO3 AS AN ELECTRON ACCEPTOR

08:30 **Emerson, S. R.**; Hamme, R. C.; Tempest, K. E.: MECHANISMS OF BUBBLE-PRODUCED OXYGEN SUPERSATURATION DETERMINED BY INERT GASES AND A NEW TRACER, ΔN₂*/AR

08:45 **Konovalov, S. K.**; Murray, J. W.: ACIDIFICATION OF THE BLACK SEA OXIC/ANOXIC WATER COLUMN

09:00 **Oldham, V. E.**; Owings, S. M.; Jones, M.; Tebo, B. M.; Luther, G. W.: EVIDENCE FOR THE PRESENCE OF STRONG MN(III)-BINDING LIGANDS IN THE WATER COLUMN OF THE CHESAPEAKE BAY

09:15 **Benitez-Nelson, C. R.**; McParland, E.; Opseth, A.; Taylor, G. T.; Thunell, R. C.: PHOSPHORUS CYCLING ACROSS THE OXIC/ANOXIC INTERFACE OF THE CARIACO BASIN

09:30 **Miller, L. G.**; Baesman, S. M.; Oremland, R. S.: DISSIMILATORY PERCHLORATE REDUCTION LINKED TO CRYPTIC AEROBIC METHANE OXIDATION VIA CHLORITE DISMUTASE.

09:45 **Dunne, J. P.**: TOP TEN SCIENCE LESSONS FROM MY PHD ADVISOR APPLIED TO EARTH SYSTEM MODELING

039 Ocean Circulation Variability and Air–Sea Interactions In the Western Pacific and Eastern Indian Ocean

Chair(s): Kentaro Ando, andouk@jamstec.go.jp
Christopher Maes, Christophe.Maes@ird.fr
Bo Qiu, bo@soest.hawaii.edu
Yukio Masumoto, masumoto@eps.s.u-tokyo.ac.jp

Location: 313 C

08:00 **Nagura, M.**; McPhaden, M. J.: MOMENTUM BUDGET OF THE WYRTKI JETS

08:15 **McPhaden, M. J.**; Nagura, M.: INDIAN OCEAN DIPOLE INTERPRETED IN TERMS OF RECHARGE OSCILLATOR THEORY

08:30 **WANG, J.**; Yuan, D.: ROLES OF WESTERN AND EASTERN BOUNDARY REFLECTIONS IN THE INTERANNUAL SEA LEVEL VARIATIONS DURING THE INDIAN OCEAN DIPOLE EVENTS

08:45 **DU, Y.**; ZHANG, Y.: AQUARIUS AND SMOS OBSERVED SEA SURFACE SALINITY VARIATIONS IN THE EQUATORIAL INDIAN OCEAN ASSOCIATED WITH THE IOD

09:00 **Horii, T.**; Mizuno, K.; Nagura, M.; Miyama, T.; Ando, K.: SEASONAL AND INTERANNUAL VARIATION IN THE CROSS-EQUATORIAL MERIDIONAL CURRENTS OBSERVED IN THE EASTERN INDIAN OCEAN

09:15 **Kataoka, T.**; Tozuka, T.; Behera, S. K.; Yamagata, T.: ON THE MECHANISM OF LOCALLY AMPLIFIED NINGALOO NIÑO

09:45 **ZHOU, L.**; Murtugudde, R.: OCEAN IMPACT ON THE ONSET OF INDIAN SUMMER MONSOON

10:30 Brown, J. N.; Langlais, C.; Maes, C.; Sen Gupta, A.; **Graham, F.**: SIMULATIONS OF THE EDGE OF THE WESTERN PACIFIC WARM POOL IN CMIP5, AND THE IMPLICATIONS FOR CLIMATE CHANGE AND ENSO DYNAMICS.

10:45 **Liu, Q.**; Wang, L.; Xu, L.; Xie , S. P.: RESPONSE OF MODE WATER AND SUBTROPICAL COUNTERCURRENT IN THE NORTH PACIFIC TO GREENHOUSE GAS AND AEROSOL FORCING

11:00 **Yamanaka, G.**; Tsujino, H.; Nakano, H.; Hirabara, M.: DECADAL VARIABILITY OF THE SUBTROPICAL CELL AND THE SEA SURFACE HEIGHT IN THE TROPICAL PACIFIC REVEALED BY A HISTORICAL OGCM SIMULATION

11:15 **Han, W.**; Meehl, G. A.; Hu, A.; Alexander, M. A.; Yamagata (and other coauthors), T.: INTENSIFICATION OF DECADAL (10-20YR) SEA LEVEL VARIABILITY IN THE WESTERN TROPICAL PACIFIC DURING RECENT DECADES

11:30 **England, M. H.**; McGregor, S.; Spence, J. P.; Meehl, G. A.; Timmermann, A.: RECENTLY INTENSIFIED PACIFIC OCEAN WIND-DRIVEN CIRCULATION AND THE ONGOING WARMING HIATUS

11:45 **Zhuang, W.**; Qiu, B.; Du, Y.: LOW-FREQUENCY WESTERN PACIFIC OCEAN SEA LEVEL AND CIRCULATION CHANGES DUE TO THE CONNECTIVITY OF THE PHILIPPINE ARCHIPELAGO

12:00 **Qu, T.**; Song, Y. T.; Maes, C.: SEA SURFACE SALINITY AND BARRIER LAYER VARIABILITY IN THE EQUATORIAL PACIFIC

12:15 **Singh, A.**; Brown, J. N.: RELATIONSHIPS BETWEEN BARRIER LAYER VARIABILITY AND ENSO RECHARGE/DISCHARGE IN THE WESTERN PACIFIC WARM POOL REGION

14:00 **Kessler, W. S.**; Davis, R. E.; Sherman, J. T.: GLIDER-MEASURED SOLOMON SEA TRANSPORT TIME SERIES

14:15 **marin, F.**; fuda, J. L.; durand, F.: TIME VARIABILITY OF THE EAST CALEDONIAN CURRENT

14:30 **Steinberg, C. R.**; McAllister, F.; Rigby, P.; Munoz Mas, C.; Tonin, H.: Q-IMOS MONITORING OF THE WESTERN BOUNDARY CURRENTS OF THE CORAL SEA AND GREAT BARRIER REEF EXCHANGES

14:45 **Gordon, A. L.**; Flament, P.; Villanoy, C. L.: LAMON BAY: KUROSHIO BIRTH AND THE NEC BIFURCATION

15:00 **Lee, C. M.**; Ma, B.; Lien, R. C.; Rainville, L.; Yang, K. C.: ORIGINS OF THE KUROSHIO AND MINDANAO CURRENTS: GLIDER-BASED OBSERVATIONS OF THE KUROSHIO IN THE VICINITY OF LUZON STRAIT

15:15 **Ma, B. B.**; Lien, R.; Lee, C. M.: EFFECT OF EDDIES ON THE KUROSHIO TRANSPORT AT THE ENTRANCE OF LUZON STRAIT

15:30 **McClean, J. L.**; Yulaeva, E. V.; Delman, A. S.: EDDY-MEAN FLOW INTERACTIONS IN THE LOW LATITUDE KUROSHIO CURRENT IN AN EDDYING GLOBAL OCEAN MODEL

15:45 **Schonau, M. C.**; Rudnick, D. L.: STRUCTURE AND VARIABILITY OF THE NORTH EQUATORIAL CURRENT AND MINDANAO CURRENT: GLIDER OBSERVATIONS

043 Biogenic Trace Gases In the Surface Ocean: From Source to Flux

Chair(s): Sam Wilson, stwilson@hawaii.edu
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Laura Farias, lfarias@profc.udec.cl

Location: 319 AB

14:00 **Arévalo-Martínez, D. L.**; Bange, H. W.; Kock, A.; Körtzinger, A.; Steinhoff, T.: NITROUS OXIDE IN THE EASTERN TROPICAL SOUTH PACIFIC OCEAN

14:15 **Zhang, G.**; Zhang, J.; Liu, S.; Cao, X.; Ma, X.: DISSOLVED METHANE AND NITROUS OXIDE IN THE EAST CHINA SEA: DISTRIBUTIONS AND FLUXES

14:30 **Rehder, G.**; Werner, J.; Lenz, S.; Bange, H. W.; Quadfasel, D.: TRACE GAS DISTRIBUTION AND FLUXES IN THE BENGUELA UPWELLING SYSTEM

14:45 **Capelle, D. W.**; Tortell, P. T.; Hawley, A. K.; Torres-Beltran, M.; Hallam, S. J.: MONTHLY TIME SERIES OF WATER COLUMN N_2O AND CH_4 IN SAANICH INLET, BC; A SEASONALLY ANOXIC FJORD

15:00 **Liu, Y.**; Thornton, D. C.; Yvon-Lewis, S. A.; Bianchi, T. S.; Shields, M.: MARINE DISSOLVED ORGANIC MATTER (DOM) COMPOSITION DRIVES THE PRODUCTION AND CHEMICAL SPECIATION OF BROMINATED VERY SHORT-LIVED SUBSTANCES

15:15 **Hepach, H.**; Quack, B.; Raimund, S.; Fuhlbruegge, S.; Bracher, A.: PROCESSES CONTRIBUTING TO HALOCARBON EMISSIONS FROM THE TROPICAL OCEAN

15:30 **Stemmler, I.**; Hense, I.: BROMOFORM IN THE OPEN OCEAN

15:45 **Johnson, M. T.**; Bell, T. G.; Paulot, F.; Woodward, M.: SURFACE OCEAN AMMONIUM DYNAMICS: TOWARDS AN IMPROVED ESTIMATE OF GLOBAL MARINE AMMONIA EMISSIONS

048 Ocean Primary Productivity: Variability and Influence

Chair(s): David Nicholson, dnicholson@whoi.edu
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Laurie Juranek, ljuranek@coas.oregonstate.edu
Toby Westberry, westbert@science.oregonstate.edu

Location: 313 A

08:00 **Pan, B.**; Moore, J. K.: ANALYSIS OF THE VARIATIONS IN PHYTOPLANKTON BLOOMS IN THE VICINITY OF KERGUELEN PLATEAU

08:15 **Lopes, C.**; Kucera, M.; Mix, A. C.: GLACIAL-INTERGLACIAL CHANGES IN PRIMARY PRODUCTIVITY AND ORGANIC CARBON BURIAL EFFICIENCY IN THE NORTHEAST PACIFIC

08:30 **Briggs, N. T.**; Perry, M. J.; Cetinic, I.; D'Asarao, E.; Rehm, E.: DIEL CYCLES OF OXYGEN AND BEAM ATTENUATION MEASURED BY A LAGRANGIAN FLOAT YIELD ACCURATE, AUTONOUMOUS ESTIMATES OF PRIMARY PRODUCTIVITY.

08:45 **Smith, T. A.**; Jolliff, J. K.; Walker, N. D.: TROPICAL CYCLONE CHLOROPHYLL-A PRODUCTION IN A FULLY-COUPLED AIR-SEA-BIOLOGY MODEL

09:00 **Dudeja, G.**; Henson, S.; Challenor, P.; Beaulieu, C.: DETECTION OF GLOBAL WARMING IN SATELLITE RECORDS OF OCEAN PRODUCTIVITY WITH AN OPTIMAL FINGERPRINT METHOD

09:15 **Gnanadesikan, A.**; Dunne, J. P.; Msadek, R.: EVALUATING THE LINK BETWEEN ATLANTIC MULTIDECADAL VARIABILITY AND PHENOLOGICAL VARIBILITY IN TWO EARTH SYSTEM MODELS

09:30 **Foukal, N. P.**; Thomas, A. C.: BIOGEOGRAPHY AND PHENOLOGY OF SATELLITE-MEASURED PHYTOPLANKTON SEASONALITY IN THE CALIFORNIA CURRENT

09:45 Lozier, M. S.; **Dave, A. C.**: EXAMINING THE GLOBAL RECORD OF INTERANNUAL VARIABILITY IN STRATIFICATION AND MARINE PRODUCTIVITY IN THE LOW-LATITUDE AND MID-LATITUDE OCEAN

10:30 **Juranek, L. W.**: GLOBAL VARIABILITY IN THE GROSS TO NET PRIMARY PRODUCTION RATIO: PHYSIOLOGICAL DRIVERS, METHOD BIASES, AND UNCERTAINTIES

10:45 **Palevsky, H. I.**; Lockwood, D. E.; Armstrong, E. J.; Quay, P. D.: GROSS PRIMARY PRODUCTION AND NET COMMUNITY PRODUCTION RATES ACROSS THE NORTH PACIFIC FROM TRIPLE OXYGEN ISOTOPES AND OXYGEN/ARGON DISSOLVED GAS RATIOS

11:00 **Prokopenko, M. G.**; Yeung, L. Y.; Haskell, W. Z.; Brix, H.; Stanley, R.: LINKING BIOLOGICAL PRODUCTION AND HYDROGRAPHY IN THE TRANSITION ZONE BETWEEN COASTAL UPWELLING AND SUBTROPICAL GYRE IN THE EASTERN TROPICAL S. PACIFIC (ETSP)

11:15 **Stanley, R. H.**; McGillicuddy, D. J.; Sandwith, Z. O.: SUBMESOSCALE BIOLOGICAL HOTSPOTS: INSIGHTS FROM A HIGH RESOLUTION TOWED OXYGEN PROFILER AND FROM SURFACE O2/AR RATIOS

11:30 **Teeter, L.**; Hamme, R. C.; Ianson, D.; Bianucci, L.: CAN NET COMMUNITY PRODUCTION BE ACCURATELY ESTIMATED FROM OXYGEN/ARGON RATIOS IN COASTAL UPWELLING ZONES? A MODELLING STUDY.

11:45 **Primeau, F. W.**; Emerson, S. W.: ON THE SENSITIVITY OF THERMOCLINE OXYGEN CONCENTRATION TO CHANGES IN SPATIAL PATTERNS OF NET COMMUNITY PRODUCTION

12:00 **Bror Jonsson, B. F.**; Salisbury, J.; Mahadevan, A.: EPISODICITY IN PHYTOPLANKTON DYNAMICS ON REGIONAL AND GLOBAL SCALES

12:15 **Munro, D. R.**; Lovenduski, N. S.; Stephens, B. B.; Sweeney, C.; Arrigo, K. R.: ESTIMATES OF NET COMMUNITY PRODUCTION IN THE SOUTHERN OCEAN BASED ON TIME SERIES OBSERVATIONS OF NUTRIENTS AND DISSOLVED INORGANIC CARBON IN DRAKE PASSAGE

14:00 **Stukel, M. R.**; Ducklow, H. W.; Schofield, O.; Erickson, M. E.; Strebel, S.: THE BALANCE OF NEW AND EXPORT PRODUCTION IN THE BISMARCK STRAIT, WESTERN ANTARCTIC PENINSULA

14:15 **Halsey, K. H.**; Jones, B. M.; Behrenfeld, M. J.; Milligan, A. J.: PHYTOPLANKTON PRIMARY PRODUCTION EFFICIENCIES ARE STRONGLY INFLUENCED BY SPECIES-SPECIFIC PHOTOSYNTHETIC ELECTRON UTILIZATION STRATEGIES

14:30 **Young, J. N.**; Tortell, P. D.; Morel, F. M.: RUBISCO IN COLD SEAS

14:45 **Goldman, J. A.**; Tortell, P. D.; Morel, F. M.; Bender, M. L.: PRIMARY PRODUCTION AND RESPIRATION IN COLD WATERS: INSIGHTS FROM MEASUREMENT IN THE WEST ANTARCTIC PENINSULA

15:00 **Bachman, B. E.**; Lomas, M. W.; Richardson, T. L.: PICOPLANKTON RULE! FROM THE LABRADOR TO THE SARGASSO SEA: SIZE-FRACTIONATED AND GROUP-SPECIFIC RATES OF PRIMARY PRODUCTIVITY

15:15 **Morison, F.**; Menden-Deuer, S.: EARLY SPRING PHYTOPLANKTON DYNAMICS IN THE SUBPOLAR NORTH ATLANTIC: THE INFLUENCE OF HETEROTROPHIC-PROTIST HERBIVORY

15:30 **Browning, T. J.**; Bouman, H. A.; Moore, C. M.: SATELLITE-DETECTED FLUORESCENCE: DECOUPLING NON-PHOTOCHEMICAL QUENCHING FROM IRON STRESS SIGNALS IN THE SOUTH ATLANTIC AND SOUTHERN OCEAN

15:45 Macey, A. I.; Ryan-Keogh, T. J.; Richier, S.; Moore, C. M.; **Bibby, T. S.** : PHOTOSYNTHETIC PROTEIN STOICHIOMETRY AND PHOTOPHYSIOLOGICAL RESPONSES OF PHYTOPLANKTON COMMUNITIES TO IRON STRESS IN THE HIGH LATITUDE NORTH ATLANTIC

062 Linking Molecular 'Omics' Measurements to Develop Conceptual and Computational Models of Ocean Microbial Ecology, Diversity and Biogeochemistry

Chair(s): John R. Moisan, John.R.Moisan@nasa.gov
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Benjamin Twinning, btwining@bigelow.org
Patricia Yager, pyager@uga.edu

Location: 319 AB

08:00 **Jack, . A.**; Peter, .; Nicole, .: MODELING MICROBIAL COMMUNITIES USING OMICS DATA

08:15 **Reed, D. C.**; Breier, J. A.; Jiang, H.; Klausmeier, C. A.; Dick, G. J.: COUPLED MICROBIAL-GEOCHEMICAL DYNAMICS IN A MODEL DEEP-SEA HYDROTHERMAL PLUME

08:30 **Saito, M. A.**; McIlvin, M.; Moran, D. M.; Lamborg, C. H.; DiTullio, G.: INTERSECTION OF NUTRIENT LIMITATION BIOMES IN THE EQUATORIAL PACIFIC OCEAN AS DETECTED BY QUANTITATION OF PROTEOMIC BIOMARKERS

08:45 **Jenkins, B. D.**; Chappell, P. D.; Wallace, J. R.; Whitney, L. P.: FOLLOWING IRON LIMITATION ACROSS OCEAN GRADIENTS: PAIRING GENETIC FINGERPRINTING OF DIATOM COMMUNITY COMPOSITION WITH MOLECULAR INDICATORS OF IRON STATUS

09:00 **Kujawinski, E. B.**; Carozza, J.; Johnson, W.; Kido Soule, M. C.; Longnecker, K.: INSIGHTS INTO CARBON CYCLING ALONG LINE-P FROM INTEGRATION OF MICROBIAL METABOLOMICS AND DISSOLVED ORGANIC MATTER COMPOSITION

09:15 **Zielinski, B. L.**; Coles, V. J.; Satinsky, B.; Yager, P. L.; Paul, J. H.: PATTERNS OF MICROEUKARYOTIC GENE EXPRESSION PARALLEL BIOGEOCHEMICAL MEASUREMENTS IN THE AMAZON RIVER PLUME

09:30 **Snow, J. T.**; Metodiev, M.; Geider, R.; Moore, C. M.; Bibby, T. S.: RESOURCE ALLOCATION IN TRICHODESMIUM SP.: LINKING QUANTITATIVE PROTEOMICS AND INTRACELLULAR STOICHIOMETRY TO DEFINED DIAZOTROPHIC PROVINCES

09:45 **Poulson-Ellestad, K. L.**; Nunn, B.; Jones, C. M.; Fernandez, F. M.; Kubanek, J.: COMBINING PROTEOMICS AND METABOLOMICS TO UNRAVEL COMPETITIVE INTERACTIONS BETWEEN MARINE PHYTOPLANKTON

064 Surface Ocean Lower Atmosphere Study (SOLAS): Advances and Impacts of Ocean Derived Aerosols and Atmospheric Nutrient Inputs

Chair(s): William L. Miller, bmiller@uga.edu
David J. Kieber, djkieber@esf.edu

Location: 318 AB

08:00 **Galgani, L.**; Piontek, J.; Engel, A.: THE GEL-LIKE NATURE OF THE SEA-SURFACE MICROLAYER DURING THE 2012 ARCTIC SEA-ICE MINIMUM

08:15 Bureekul, S.; Murashima, Y.; Furutani, H.; **Uematsu, M.**: BIOGEOCHEMICAL –ENRICHMENT IN SEA-SURFACE MICROLAYER

08:30 **George, .**; Bernard, F.; Ciararu, R.; Rossignol, S.: AIR-SEA EXCHANGE DRIVEN BY LIGHT: FUNCTIONALIZED VOCS AND PARTICLE FORMATION

08:45 **Orellana, M. V.**; Caballero, J.; Lee, A. M.; Leck, C.; Matrai, P. A.: FINGERPRINTING THE CLOUDS

09:00 **Lewis, E. R.**; Senum, G.; Schwartz, S. E.; Gao, Y.: AEROSOL NUMBER CONCENTRATION AND SIZE DISTRIBUTION IN THE MID-LATITUDE EASTERN NORTH PACIFIC

09:15 **Volkamer, R.**; Apel, E.; TORERO Science team, .: FIELD EVIDENCE THAT MARINE ORGANIC CARBON IMPACTS THE COMPOSITION OF THE TROPICAL FREE TROPOSPHERE

09:30 **Kieber, D. J.**; Keene, W. C.; Frossard, A. A.; Long, M. S.; Russell, L. M.: COUPLED OCEAN-ATMOSPHERE LOSS OF REFRACTORY MARINE DISSOLVED ORGANIC MATTER

09:45 **Manuela van Pinxteren, .**; Hartmut Herrmann, .: GLYOXAL AND METHYLGLYOXAL IN ATLANTIC SEAWATER AND MARINE AEROSOL PARTICLES

070 Policy Impacts of Ocean Research: Communicating Science to Decision-Makers

Chair(s): Kevin Wheeler, kwheeler@oceanleadership.org
Adrienne Sponberg, sponberg@aslo.org

Location: 304 AB

14:00 **Beth Turner, .**; Michael Dowgiallo, .: CATAPULTS, FERRIES AND BRIDGES: MOVING OCEAN SCIENCE RESULTS TO APPLICATIONS

14:15 Abeles, A.; **Erickson, A. L.**; Deans, N. L.; Martone, R. G.; Kappel, C. V.: THE TIDE FLOWS BOTH WAYS: COMMUNICATING SCIENCE TO POLICY AND POLICY TO SCIENCE

14:30 **Eddebbar, Y. A.**; Gallo, N.: THE OCEAN IN THE INTERNATIONAL CLIMATE POLICY FORUM

14:45 **Westley, M. B.**: THE LONDON CONVENTION, OCEAN FERTILIZATION AND LEGITIMATE SCIENTIFIC RESEARCH

15:00 Coughlin, R. A.; Barbee, M.; Fletcher, C.; Iwamoto, M.; Schaubach, M.; **Potemra, J. T.**: BUILDING A BETTER MOUSETRAP (I.E. WEB MAP).

15:15 **Fassbender, A.**; Bushinsky, S. M.; Maloney, A.; Newsom, E.: UNDERSTANDING THE USE OF SCIENCE IN WASHINGTON STATE CLIMATE LEGISLATION

15:30 **Majkut, J. D.**; Sarmiento, J. L.; Froelicher, T. L.: OCEAN CARBON FEEDBACKS AND CLIMATE POLICY

15:45 **O'Donnell, M. J.**; Knight, E.; Meyer, R.; Boehm, A. B.: GETTING THE QUESTIONS RIGHT: THE ROLE OF BOUNDARY ORGANIZATIONS IN ADVANCING UNDERSTANDING OF OCEAN ACIDIFICATION AND HYPOXIA

072 The Southern Ocean and Its Role In the Climate System: Observations and Modeling of Physical and Biogeochemical Processes

Chair(s): Igor Kamenkovich, ikamenkovich@rsmas.miami.edu
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Paul Holland, pahol@bas.ac.uk

Location: 323 ABC

08:00 **Messias, M.**; Mills, B. J.; Wadley, M.; Mackey, N.; Watson, A. J.: DIAPYCNAL MIXING IN THE SCOTIA SEA AND IN THE ARGENTINE BASIN FROM THE DIMES TRACER RELEASE EXPERIMENT

08:15 **Merrifield, S. T.**; St. Laurent, L. C.; Owens, W. B.; Centurioni, L. R.: TURBULENCE IN FRONTAL REGIONS IN THE SOUTHERN OCEAN

08:30 **Sheen, K. L.**; Naveira Garabato, A. C.; Brearley, J. A.; Meredith, M. M.; Smeed, D. A.: CLIMATIC MODULATION OF SOUTHERN OCEAN ABYSSAL MIXING

08:45 **Wang, J.**; Mazloff, M. R.; Gille, S. T.: TRACER TRANSPORT IN A SOUTHERN OCEAN STATE ESTIMATE

09:00 **Song, H.**; Marshall, J.; Follows, M. J.; Dutkiewicz, S.; Long, M. C.: STUDYING THE ROLE OF EDDIES IN SOUTHERN OCEAN VENTILATION

09:15 **Morrison, A. K.**; Saenko, O. A.; Hogg, A. M.; Spence, P.: THE ROLE OF EDDIES IN SOUTHERN OCEAN HEAT UPTAKE

09:30 **Watts, D. R.**; Tracey, K. L.; Donohue, K. A.; Chereskin, T. K.: FOUR-YEAR OBSERVATIONS OF EDDY HEAT AND MOMENTUM FLUXES ON A SECTION ACROSS DRAKE PASSAGE

09:45 **Gent, P. R.**: CLIMATE MODEL RESPONSE TO CHANGING SOUTHERN HEMISPHERE WINDS

10:30 **Gille, S. T.**; Chereskin, T. K.: CHARACTERIZING SCALES OF VARIABILITY IN DRAKE PASSAGE

10:45 **Le Sommer, J.**; Dufour, C. O.; Zika, J. D.; Gehlen, M.; Orr, J.: THE ROLE OF STANDING MEANDERS IN COMPENSATING CHANGES IN WIND DRIVEN OVERTURNING IN THE SOUTHERN OCEAN.

11:00 **Zajaczkovski, U.**; Gille, S. T.; Mazloff, M. R.: EDDIE GENERATION AND DECAY IN THE SOUTHERN OCEAN

11:15 **Wilson, C.**: OCEAN STORM TRACKS, EDDY PARAMETERIZATION AND THE ROLE OF NONLINEAR INTRINSIC VARIABILITY IN SOUTHERN OCEAN DYNAMICS

11:30 **Hogg, A. M.**; Meredith, M. P.; Chambers, D.; Abrahamsen, E. P.; Hughes, C. W.: RECENT TRENDS IN THE SOUTHERN OCEAN EDDY FIELD AND ANTARCTIC CIRCUMPOLAR CURRENT

11:45 **Marshall, D. P.**; Munday, D. R.; Allison, L. C.; Hay, R. J.; Johnson, H. L.: GILL'S MODEL OF THE ANTARCTIC CIRCUMPOLAR CURRENT, REVISITED

12:00 **Ferrari, R.**; Adkins, J.; Burke, A.; Jansen, M.; Stewart, A.: THE OCEAN CIRCULATION AND STRATIFICATION AT THE LAST GLACIAL MAXIMUM

12:15 WOLFE, C. L.; **Cessi, P.**: SALT FEEDBACK IN THE ADIABATIC OVERTURNING CIRCULATION

14:00 **Meredith, M. P.**; Venables, H. J.; Stammerjohn, S. E.; Leng, M. J.; Ducklow, H. W.: SPATIAL AND TEMPORAL CHANGES IN THE FRESHWATER INPUTS TO THE OCEAN WEST OF THE ANTARCTIC PENINSULA

14:15 **Michael Schodlok, .**; Ala Khazendar, .: ON THICKNESS CHANGES OF ANTARCTIC GLACIERS/ICE SHELVES ASSOCIATED WITH POLYNYA FORMATION

14:30 **Haumann, F. A.**; Muennich, M.; Frenger, I.; Gruber, N.: SEA-ICE FRESHWATER FLUX: AN IMPORTANT DRIVER OF RECENT SOUTHERN OCEAN SALINITY CHANGES

14:45 **Stewart, K.**; Haine, T.: FLAVORS OF SOUTHERN OCEAN STRATIFICATION

15:00 **Firing, Y. L.**; Boening, C.; Watkins, M. M.; Wiese, D.: INTERANNUAL VARIABILITY IN OCEAN TEMPERATURE AND WEST ANTARCTIC MASS CHANGE

15:15 **Chang, C.**; Johnson, N. C.: AN ANALYSIS OF OPPOSING TRENDS IN ANTARCTIC SEA ICE DIPOLE FROM OBSERVATIONAL DATA

15:30 **Herraiz–Borreguero, L.**; Coleman, R.; Rintoul, S. R.; Allison, I.; Craven, M.: INTERACTION BETWEEN MODIFIED CIRCUMPOLAR DEEP WATER AND THE AMERY ICE SHELF, EAST ANTARCTICA

15:45 **Yuan, X.**; Sambrotto, R.; Stammerjohn, S.; Björk, G.; Wahlin, A.: SPATIAL VARIABILITY OF GLACIAL MELTWATER ON THE AMUNDSEN SEA SHELF

082 Sediment Delivery, Transport and Deposition In Aquatic Environments

Chair(s): J. P. Walsh, walshj@ecu.edu
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Nathan Hawley, nathan.hawley@noaa.gov
Andrea S. Ogston, ogston@ocean.washington.edu

Location: 312

08:00 **Scheu, K.**; Fong, D.; Monismith, S.; Fringer, O.: SEASONAL VARIABILITY OF SEDIMENT DEPOSITION INTO A LARGE ALPINE LAKE

08:15 **Hawley, N.**; Redder, T.; Beletsky, R.; Verhamme, E.; Beletsky, D.: WAVES, ICE AND SEDIMENT TRANSPORT IN SAGINAW BAY

08:30 **Williams, J. R.**; Dellapenna, T. M.; Lee, G. H.: IMPACTS OF ANTHROPOGENIC ALTERATIONS ON THE YEONGSAN ESTUARY, SOUTH KOREA

08:45 **Lee, G.**; Shin, H.; Williams, J.; Dellapenna, T.: FLOC DISCHARGE AND SEDIMENT ACCUMULATION AT ALTERED MACRO-TIDAL YEONGSAN ESTUARY OF KOREA

09:00 **Andersen, T. J.**; Markussen, T. N.; Lund-Hansen, L. C.; Nielsen, M. H.; Lam, N. N.: FLOCCULATION IN THE WATER COLUMN OR AGGREGATION AT THE BED – CASE STUDY FROM NHA PHU BAY, VIETNAM

09:15 **Yang, Z.**; Zhang, X.; Bi, N.; Wang, H.; Fan, D.: DAM-REGULATION DOMINATED RIVER REGIME: EROSION PHASE OF THE EVOLUTION OF THE YELLOW RIVER LOWER REACHES AND IMPACT ON ITS ESTUARY

09:30 **WANG, H.**; WANG, A.; BI, N.; ZENG, X.; XIAO, H.: SEASONAL DISTRIBUTION OF SUSPENDED SEDIMENT IN THE BOHAI SEA, CHINA

09:45 **Liu, P.**: FATES OF ASIAN RIVER-DERIVED SEDIMENTS TO THE SEA: LARGE VS. SMALL RIVERS

10:30 **Nowacki, D. J.**; Ogston, A. S.; Nittrouer, C. A.; Souza-Filho, P. W.; Asp, N. E.: TIDAL-CHANNEL FLOW AND SEDIMENT TRANSPORT IN ENVIRONMENTS INFLUENCED BY THE TIDAL AMAZON RIVER, BRAZIL

10:45 **Horner-Devine, A. R.**; Pietrzak, J. D.; Souza, A.; Henriquez, M.; Meirelles, S.: CROSS-SHORE SEDIMENT TRANSPORT DUE TO NEAR-SHORE FRONTAL PROCESSES IN THE RHINE REGION OF FRESHWATER INFLUENCE

11:00 **Liu, X.**; Wang, M.: STUDY OF RIVER RUNOFF EFFECT ON SUSPENDED SEDIMENT PROPERTIES IN TURBID COASTAL WATERS USING SATELLITE OCEAN COLOR DATA AND MODEL SIMULATIONS

11:15 **Downing-Kunz, M. A.**; Schoellhamer, D. H.: CHARACTERISTICS OF SEDIMENT DELIVERY THROUGH THE TIDAL REACH OF AN ESTUARINE TRIBUTARY OF THE SAN FRANCISCO BAY

11:30 **Cheriton, O. M.**; Storlazzi, C. D.; McPhee-Shaw, E. E.; Rosenberger, K. J.; Shaw, W. J.: UPWELLING REBOUND, EPHEMERAL SECONDARY PYCNOCLINES, AND THE CREATION OF A NEAR-BOTTOM WAVE GUIDE: IMPLICATIONS FOR SHELF SEDIMENT RESUSPENSION AND TRANSPORT

11:45 **Alexander, C. R.**; Kidwell, S. M.: PATTERNS OF CONTINENTAL MARGIN SEDIMENTATION FROM PT. DUME TO OCEANSIDE, CALIFORNIA

12:00 **Hanna, A. J.**; Allison, M. A.; Bianchi, T. S.; Goff, J. A.; Marcantonio, F.: AN EXAMINATION OF MODERN AND LATE HOLOCENE SEDIMENTATION IN SIMPSON LAGOON, ALASKA

12:15 **Denommee, K. C.**; Bentley, S. J.: CLINOTHEM MECHANICS ON THE MUDDY SOUTHWEST LOUISIANA SHELF

14:00 **Ridderinkhof, W.**; de Swart, H. E.; van der Vegt, M.; Alebregtse, N. C.; Hoekstra, P.: THE EFFECT OF THE TIDAL BASIN GEOMETRY ON THE NET SEDIMENT TRANSPORT IN A TIDAL INLET

14:45 **Li, M. Z.**; Prescott, R. H.; Wu, Y.; King, E. L.; Han, G.: SEDIMENT TRANSPORT PROCESSES AND BEDFORM MOBILITY DURING MAJOR STORMS ON GRAND BANKS

15:00 **Li, Y.**; Li, D.; Yin, X.; Wang, A.; Li, H.: IMPACT OF TYPHOON MORAKOT ON SUSPENDED PARTICLE SIZE DISTRIBUTIONS ON THE EAST CHINA SEA INNER SHELF

15:15 **Lu, K. F.**; Chen, S. N.: THE EFFECT OF OSCILLATORY AMBIENT CURRENTS ON THE SPREADING OF HYPERPYCNAL RIVER OUTFLOWS

15:30 **Ralston, D. K.**; Warner, J. C.; Geyer, W. R.; Wall, G. R.: SEDIMENT TRANSPORT IN A TIDAL RIVER AND ESTUARY DURING EXTREME DISCHARGE EVENTS

15:45 **Goni, M. A.**; Lerczak, J. A.; Smith, L.; Lemagie, E.; Helm, J.: SEDIMENT AND PARTICULATE ORGANIC MATTER TRANSPORT DYNAMICS ACROSS A SMALL MOUNTAINOUS RIVER ESTUARY DURING WINTER FLOOD CONDITIONS – ALSEA BAY, OREGON

085 Towards A Global Ocean Biogeochemical Observing System Based On Profiling Floats and Gliders

Chair(s): CLAUSTRE Herve, claustre@obs-vlfr.fr
Johnson Kenneth, johnson@mbari.org

Location: 317 AB

08:00 **Testor, P.**; Bosse, A.; Houpert, L.; D'Ortenzio, F.; Lavigne, H.: PHYSICAL-BIOGEOCHEMICAL COUPLING OBSERVED BY GLIDERS AND PROFILING FLOATS IN THE NORTH-WESTERN MEDITERRANEAN SEA OVER A SEASONAL CYCLE

08:15 Hardman-Mountford, N.; Greenwood, J.; **Trull, T.**: USING MODELS TO OPTIMIZE THE DESIGN OF ROBOTIC BIO-FLOAT ARRAYS

08:30 **Dall'Olmo, G.**; Mork, K. A.: CARBON EXPORT BY SMALL-PARTICLES AS REVEALED BY BIO-ARGO FLOATS IN THE NORWEGIAN SEA

08:45 **XING, X.**; CLAUSTRE, H.; WANG, H.; POTEAU, A.; D'ORTENZIO, F.: SEASONAL DYNAMICS IN COLORED DISSOLVED ORGANIC MATTER IN THE MEDITERRANEAN SEA: PATTERNS & DRIVERS

09:00 **Estapa, M. L.**; Durkin, C. A.; Valdes, J.; Buesseler, K. O.: CARBON FLUX FROM BIO-OPTICAL PROFILING FLOATS: A SIDE-BY-SIDE COMPARISON TO NEUTRALLY-BUOYANT SEDIMENT TRAPS

09:15 **Bushinsky, S. M.**; Emerson, S. R.; Riser, S. C.; Swift, D.: ACCURATE OXYGEN FROM SELF-CALIBRATING PROFILING FLOATS IN THE WESTERN AND NORTHEASTERN PACIFIC

09:30 **Plant, J. N.**; Johnson, K. S.; Swift, D.; Riser, S. C.: MEASURING NET COMMUNITY PRODUCTION IN THE SOUTHERN OCEAN WITH BIOCHEMICAL SENSORS ON PROFILING FLOATS

09:45 **Bittig, H. C.**; Körtzinger, A.; Claustre, H.: SUB-SURFACE PRODUCTION IN THE ATLANTIC SUBTROPICAL GYRES - HOW BIOGEOCHEMICAL FLOATS YIELD ESTIMATES OF THE O2 AND NO3 CYCLE ON SUB-ANNUAL SCALES.

088 Climate-Mediated Oceanographic Drivers and Trophic Interactions In High Latitude Marginal Seas: Observations, Modeling, and Syntheses and Consequences for Commercial Fisheries

Chair(s): Carin Ashjian, cashjian@whoi.edu
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Mike Sigler, mike.sigler@noaa.gov
Phyllis Stabeno, phyllis.stabeno@noaa.gov

Location: 316 B

14:00 **Zhang, J.**; Banas, N.; Campbell, R.; Panteleev, G.; Woodgate, R.: OCEANIC RESPONSE TO RECENT CHANGES IN ATMOSPHERIC AND SEA ICE FORCING IN THE BERING SEA SHELF

14:15 **Sambrotto, R. N.**: RAPID DIATOM GROWTH AT ICE EDGES IN THE EASTERN BERING SEA PRODUCES ISOTOPIC AND NUTRIENT SIGNATURES APPLICABLE TO ECOLOGICAL FLUXES

14:30 **Eisner, L. B.**; Farley, E. V.; Gann, J.; Ladd, C.; Mordy, C. W.: PHYTOPLANKTON BIOMASS AND PRODUCTION, PHYSICAL DRIVERS AND POTENTIAL IMPACTS ON FISHERIES DURING SUMMER IN THE EASTERN BERING SEA

14:45 **Stoecker, D. K.**; Weigel, A.; Lomas, M.: MICROZOOPLANKTON-ABUNDANCE, BIOMASS, CONTRIBUTION TO CHLOROPHYLL AND GRAZING IN THE EASTERN BERING SEA IN SUMMER

15:00 **Durbin, E. G.**; Casas, M. C.: EARLY REPRODUCTION BY CALANUS GLACIALIS IN THE NORTHERN BERING SEA: THE ROLE OF SEA ICE AS REVEALED BY MOLECULAR ANALYSIS

15:15 **Coyle, K. O.**; Gibson, G. A.; Pinchuk, A. I.: POTENTIAL MECHANISMS OF CLIMATE INFLUENCE ON SURVIVAL OF LARGE CALANUS ON THE EASTERN BERING SEA SHELF

15:30 **Bi, H.**; Yu, H.; Pinchuk, A.; Harvey, R.: ESTIMATING GROWTH RATE OF EUPHAUSIIDS IN THE EASTERN BERING SEA USING INDIVIDUAL-BASED MODELS

15:45 **Holsman, K. K.**; Aydin, K.; Ianelli, J.: USING MULTI-SPECIES MODELS TO PREDICT CLIMATE-CHANGE IMPACTS ON BERING SEA (AK) FISHERIES.

108 Synthesis and Modeling of Global-Scale Marine Planktonic Ecosystems and Plankton Functional Types

Chair(s): Scott Doney, sdoney@whoi.edu
Meike Vogt, meike.vogt@env.ethz.ch

Location: 317 AB

10:30 **Stock, C. A.**; Dunne, J. P.; John, J. G.: REVISITING RYTHER: THE GLOBAL TRANSFER OF ENERGY FROM PHYTOPLANKTON TO FISH

10:45 **Vogt, M.**; O'Brien, C.; Brun, P.; Zimmermann, N. E.; Gruber, N. P.: PRESENT AND FUTURE PLANKTON BIOGEOGRAPHY IN THE GLOBAL OCEAN

11:00 **Hirata, T.**; Kostadinov, T.; Hardman-Mountford, N.; Brewin, R.: SATELLITE VIEWS OF PHYTOPLANKTON FUNCTIONAL TYPES: SATELLITE PFT ALGORITHM INTERCOMPARISON

11:15 **Vallina, S. M.**; Follows, M. J.; Dutkiewicz, S.; Montoya, J. M.; Loreau, M.: GLOBAL RELATIONSHIP BETWEEN PHYTOPLANKTON DIVERSITY AND PRODUCTIVITY IN THE OCEAN: KILLING-THE-WINNER

11:30 **Hashioka Taketo, T.**; Vogt Meike, M.; Hirata Takafumi, T.; Yamanaka Yasuhiro, Y.; Doney Scott, S. C.: POTENTIAL IMPACTS OF GLOBAL WARMING ON PHYTOPLANKTON COMPETITION PROJECTED BY DIFFERENT GLOBAL ECOSYSTEM MODELS.

11:45 **Sailley, S. F.**; Polimene, L.; Mitra, A.: EFFECT OF ZOOPLANKTON GRAZING SELECTIVITY ON PHYTOPLANKTON COMPOSITION.

12:00 **Asch, R. G.**; Long, M. C.: VARIATIONS IN PHYTOPLANKTON PHENOLOGY ACROSS THE NORTH PACIFIC HINDCASTED WITH THE COMMUNITY EARTH SYSTEM MODEL 1.0 (CESM1)

12:15 **Rivero-Calle, S.**; Gnanadesikan, A.; Del Castillo, C. E.; Balch, W.; Guikema, S.: WHY DO CPR COCCOLITHOPHORES SEEM TO BE INCREASING IN THE NORTH ATLANTIC IN THE LAST 50 YEARS? IS THE NORTH ATLANTIC BECOMING THE NEXT BLACK SEA?

114 Application of Natural and Anthropogenic Radionuclides to the Study of Ocean Processes

Chair(s): Matt Charette, mcharette@whoi.edu
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Nuria Casacuberta, ncasacuberta@phys.ethz.ch
Ken Buesseler, kbuesseler@whoi.edu

Location: 314

10:30 **Yukio/Masumoto, Y.**; participants to the comparison project, .: OCEANIC DISPERSION MODEL INTERCOMPARISON: THE FUKUSHIMA CASE

10:45 **Charette, M. A.**; Breier, C.; Kanda, J.; Nishikawa, J.; Buesseler, K. O.: SUBMARINE GROUNDWATER DISCHARGE AS A SOURCE OF RADIOACTIVITY TO THE OCEAN FROM THE FUKUSHIMA NUCLEAR POWER PLANT

11:00 **Yoshida, S.**; Jayne, S. R.; Macdonald, A. M.; Buesseler, K.: OBSERVATIONAL EVIDENCE FOR FUKUSHIMA RADIONUCLIDE SIGNALS IN THE NORTH PACIFIC TWO YEARS AFTER THE RELEASE

11:15 **Smith, J. N.**; Brown, R. M.: TIME SERIES MEASUREMENTS OF THE ARRIVAL OF FUKUSHIMA ^{137}CS ON LINE P IN THE EASTERN NORTH PACIFIC OCEAN

11:30 **Tsubono, T.**; Tsumune, D.; Aoyama, M.; Hirose, K.; BRYAN, F. O.: DISTRIBUTION OF CAESIUM-134 IN THE NORTH PACIFIC OCEAN FOR SEVERAL YEARS AFTER THE FUKUSHIMA DAI-ICHI NUCLEAR POWER PLANT ACCIDENT BY EDDY RESOLVING MODEL

11:45 **Belharet, M.**; Estournel, C.; Charmasson, S.: NEW APPROACH FOR THE MODELLING OF RADIOCESIUM IN PELAGIC FOOD CHAIN IN THE NORTHWESTERN PACIFIC AFTER THE FUKUSHIMA ACCIDENT

12:00 **Honda/Makio, M. C.**; Kawakami/Hajime, H.: SINKING VELOCITY OF PARTICULATE RADIOCESIUM DERIVED FROM THE FUKUSHIMA DAIICHI NUCLEAR POWER PLANT ACCIDENT

12:15 **Otosaka, S.**; Kato, Y.: RADIOCESIUM DERIVED FROM THE FUKUSHIMA DAI-ICHI NUCLEAR POWER PLANT ACCIDENT IN SEABED SEDIMENTS: INVENTORIES AND THEIR TEMPORAL CHANGE

14:00 **Kenna, T. C.**; Masqué, P.: ANTHROPOGENIC RADIONUCLIDES IN THE ATLANTIC OCEAN: RESULTS FROM U.S. GEOTRACES NORTH ATLANTIC ZONAL TRANSECT GA03

14:15 **Casacuberta, N.**; Christl, M.; Vockenhuber, C.; Walther, C.; Van-der-Loeff, M. R.: DISTRIBUTION OF ^{236}U, ^{129}I AND ^{240}PU/^{239}PU RATIOS IN ARCTIC OCEAN WATERS

14:30 **Henderson, G. M.**; Deng, F.; Scott, P.; Thomas, A. L.: CONTROLS ON ^{232}TH, ^{230}TH, AND ^{231}PA IN THE SOUTH ATLANTIC: ASSESSING PALEO-CIRCULATION AND DUST-FLUX PROXIES

14:45 **Anderson, R. F.**; Hayes, C. T.; Huang, K. F.; Lu, Y.; Moran, S. B.: ENHANCED SCAVENGING OF ^{231}PA AND ^{230}TH IN BENTHIC NEPHELOD LAYERS

15:00 **Baskaran, M.**; Church, T. M.; Stewart, G.; Rigaud, S.: CONTRASTING SCAVENGING OF PO-210 AND PB-210 AT HYDROTHERMAL AND BENTHIC LAYER INTERFACES DURING THE GEOTRACES NORTH ATLANTIC SECTION TRANSECT

15:15 **Villa-Alfageme, M.**; de Soto, F.; Le Moigne, F.; Ceballos, E.; Henson, S.: GEOGRAPHICAL AND SEASONAL VARIATION IN SINKING PARTICLE VELOCITIES IN THE NORTH ATLANTIC

15:30 **Hammond, D. E.**; Haskell, W. Z.; Prokopenko, M. G.; Berelson, W. M.: A DUAL-TRACER APPROACH TO CALCULATE UPWELLING VELOCITY AND PARTICLE EXPORT IN THE SOUTHERN CALIFORNIA BIGHT

15:45 **van Beek, P.**; Souhaut, M.; Moore, W.; De Oliveira, J.; Jeandel, C.: THE RADIUM QUARTET (223RA, 224RA, 226RA, 228RA) IN THE PLUME OF THE AMAZON RIVER

125 The Many Faces of the Marine N Cycle

Chair(s): Silvia Newell, sen@bu.edu
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Laura Bristow, lbristow@biology.sdu.dk
Behzad Mortazavi, bmortazavi@ua.edu

Location: 301 AB

08:00 **Il-Nam/Kim, .**; Kitack/Lee, .; Tae-Wook, .: INCREASING ANTHROPOGENIC NITRATE IN THE NORTH PACIFIC OCEAN:

08:15 **Simon Yang, S.**; Nicolas Gruber, .: ON THE ROLE OF STABILIZING FEEDBACKS IN THE DEGLACIAL MARINE NITROGEN CYCLE

08:30 **Gradoville, M. R.**; White, A. E.; Böttjer, D.; Church, M. J.; Letelier, R. M.: DIVERSITY TRUMPS ACIDIFICATION: NO CO_2 ENHANCEMENT OF N_2 FIXATION BY THE*TRICHODESMIUM* COMMUNITY AT STATION ALOHA

08:45 **Snoeijs, P.**; Farías, L.; Díez, B.; Sylvander, P.: NITROGEN FIXATION AT THE NORTH POLE

09:00 **Landrum, J. P.**; Altabet, M. A.; Montoya, J. P.: CONCENTRATIONS AND SOURCES OF NITROGEN IN SUSPENDED PARTICLES AND MESOZOOPLANKTON IN THE SUBTROPICAL NORTH ATLANTIC OCEAN BASIN

09:15 **Montoya, J. P.**; Weber, S. C.; Padilla, C. C.; Joye, S. B.: DEEPWATER N_2-FIXATION IN THE NORTHERN GULF OF MEXICO: SPILLS AND SEEPS CONNECT THE N AND C CYCLES

09:30 **Gier, J.**; Sommer, S.; Loescher, C.; Schmitz-Streit, R.; Treude, T.: MICROBIAL BENTHIC NITROGEN FIXATION INSIDE AND BELOW THE PERUVIAN OXYGEN MINIMUM ZONE

09:45 **Fulweiler, R. W.**; Heiss, E. M.; Newell, S.; LeCleir, G. R.; Wilhelm, S. R.: ASSESSING ACETYLENE IMPACTS ON MARINE SEDIMENT N-FIXERS

10:30 **Fawcett, S. E.**; Lomas, M. W.; Ward, B. B.; Sigman, D. M.: Co-occuring Nitrate Assimilation and Nitrification in the Sargasso Sea's Twilight Zone

10:45 **Widner, B.**; Mulholland, M. R.; Mopper, K.; Bernhardt, P.: NEW INSIGHTS INTO REDUCED NITROGEN: THE ROLE OF CYANATE IN THE MARINE NITROGEN CYCLE

11:00 **Smith, J. M.**; Chavez, F. P.; Francis, C. A.: AMMONIUM UPTAKE BY PHYTOPLANKTON REGULATES NITRIFICATION IN THE SUNLIT OCEAN

11:15 **Damashek, J.**; Francis, C. A.: POPULATIONS DYNAMICS OF AMMONIA-OXIDIZING ARCHAEA AND BACTERIA DURING ESTUARINE PHYTOPLANKTON BLOOMS: HOW FIERCE IS THE FIGHT FOR AMMONIUM?

11:30 **Francis, C. A.**; Lund, M. B.; Smith, J. M.; Lee, J. A.; Beman, J. M.: MOLECULAR CHARACTERIZATION OF PLANKTONIC N-CYCLING MICROBIAL COMMUNITIES IN THE GULF OF CALIFORNIA AND EASTERN TROPICAL NORTH PACIFIC OCEAN

11:45 **Wan, X.**; Xu, M.; Wu, Y.; Zheng, Z.; Kao, S.: ISOTOPIC SIGNATURE OF N2O AND ITS EMISSION FROM A EUTROPHICATED COASTAL BAY IN SOUTHERN CHINA

12:00 **Kock, A.**; Bange, H. W.: HYDROXYLAMINE AS A TRACER FOR NITRIFICATION IN MARINE ENVIRONMENTS

12:15 **Taillefert, M.**; Hui, L.: KEY GEOCHEMICAL FACTORS REGULATING MN(IV)-CATALYZED ANAEROBIC NITRIFICATION IN COASTAL MARINE SEDIMENTS

14:00 **Bowen, J. L.**; Kearns, P. J.: NITROGEN CYCLING IN THE COASTAL ZONE: SYNTHESIZING DATA ON THE AFFECT OF ANTHROPOGENIC NUTRIENT SUPPLY ON NITROGEN CYCLING MICROBES IN COASTAL SYSTEMS

14:15 **Schaefer, S. C.**; Brandes, J. A.; Alber, M.: INVESTIGATING SOURCES OF NITROGEN IN THE ALTAMAHA RIVER, GEORGIA BASED ON CONCENTRATIONS AND STABLE ISOTOPES OF NO3

14:30 **Bourbonnais, A.**; Altabet, M. A.; Charoenpong, C.; Stramma, L.; Bange, H. W.: BIOGENIC N_2 CONCENTRATIONS AND STABLE NITROGEN AND OXYGEN ISOTOPE DYNAMICS OF DISSOLVED N_2, NITRATE AND NITRITE ASSOCIATED WITH EDDIES

14:45 **daniele bianchi, .**; Andrew Babbin, .; Eric Galbraith, .: ENHANCEMENT OF ANAMMOX BY THE EXCRETION OF DIEL VERTICAL MIGRATORS

15:00 **Sollai, M.**; Hopmans, E. C.; Schouten, S.; Keil, R. G.; Sinninghe Damsté, J. S.: INTACT POLAR LIPIDS AS INDICATORS OF N-CYCLING IN THE EASTERN TROPICAL NORTH PACIFIC OXYGEN MINIMUM ZONE

15:15 **Hardison, A. K.**; Giblin, A.; Rich, J. J.: ENVIRONMENTAL CONTROLS ON ANOXIC NITRATE REDUCTION PATHWAYS IN TEMPERATE COASTAL SEDIMENTS

15:30 **Veraart, A. J.**; Marchant, H. K.; Strous, M.: DENITRIFICATION, STEP-BY-STEP. PROCESS RATES OF THE DENITRIFICATION SUB-REACTIONS IN PERMEABLE SEDIMENTS.

15:45 **Wankel, S. D.**; Ziebis, W.; Lehmann, M. F.; Wenk, C.: IMPRINT OF THE NITROGEN CYCLE ON DEEP SUBSURFACE AUTOTROPHY

128 Microbial Interactions In Oceans and Human Health

Chair(s): Erin K. Lipp, elipp@uga.edu
Sandra McLellan, mclellan@uwm.edu

Location: 318 AB

14:00 **Boehm, A. B.**; Sassoubre, L. M.; Maraccini, P. A.: SUNLIGHT INACTIVATION OF ENTERIC BACTERIA IN SEAWATER: INSIGHTS ON RATES AND MECHANISMS FROM THE FIELD, LAB, AND MODELS

14:15 Rowe, J.; **Jiang, S.**: INTERACTIONS OF BACTERIAL MICROBIOME WITH BLOOM FORMING MARINE DIATOM PSEUDO-NITZCHIA

14:30 **Satoshi Ishii, .**; Takamitsu Nakamura, .; Ayano Kobayashi, .; Daisuke Sano, .; Satoshi Okabe, .: QUANTIFICATION OF MULTIPLE ENTERIC PATHOGENS IN COASTAL WATER ENVIRONMENTS BY USING MICROFLUIDIC QUANTITATIVE PCR

14:45 **Davis, J.**; Fricke , W. F.; Hamann, M. T.; Hill, R. T.: BACTERIAL SYMBIOSIS OF THE HAWAIIAN SEA SLUG *ELYSIA RUFESCENS*

15:00 **Eren, A. M.**; Amaral-Zettler, L. A.; Sogin, M. L.; McLellan, S. L.: DISSECTING OTUS INTO MORE ECOLOGICALLY MEANINGFUL UNITS WITH OLIGOTYPING: EXAMPLES OF HOST-SPECIFICITY AND MICROBIAL SOURCE TRACKING

15:15 **Yan Boucher, .**; Paul Kirchberger, C.; Fabini Orata, .; Tania Nasreen, .; Martin Polz, F.: EXPLORING MARINE RESERVOIRS OF THE CHOLERA PATHOGEN

15:30 Sabino, R.; Nevers, M.; Solo-Gabriele, H.; Whitman, R. L.; **Brandão, J. C.**: ROUTINE SCREENING OF HARMFUL MICROORGANSIMS IN BEACH SANDS SHOULD BE IMPLEMENTED: IMPLICATIONS TO PUBLIC HEALTH

15:45 Bienfang, P.; DeFelice, S.; Floresquintana, H.; Goodman, C.; **Wong, E.**: CIGUATOXIN DISTRIBUTION AMONG BODY PARTS OF THE TROPICAL REEF CARNIVORE CEPHALOPHOLIS ARGUS

130 Interactions of Pelagic Or Benthic Organisms with Turbulent Water Flow

Chair(s): Jeannette Yen, jeannette.yen@biology.gatech.edu
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Mimi Koehl, cnidaria@berkeley.edu
Don Webster, dwebster@ce.gatech.edu
Luca van Duren, luca.vanduren@deltares.nl

Location: 313 B

10:30 **Wagner, G. L.**; Young, W. R.; Lauga, E.: STRATIFIED MIXING BY MICROORGANISMS

10:45 **Fuchs, H. L.**; Gerbi, G. P.; Hunter, E. J.; Christman, A. J.; Diez, F. J.: HYDROMECHANICAL SENSING AND BEHAVIOR BY OYSTER LARVAE IN TURBULENCE AND WAVES

11:00 **Webster, D. R.**; Young, D. L.; Yen, J.: *ACARTIA TONSA* RESPONSE TO BURGERS VORTEX: DECONSTRUCTING TURBULENCE-COPEPOD INTERACTIONS

11:15 **Sutherland, K. R.**; Costello, J. H.; Colin, S. P.; Dabiri, J. O.: AMBIENT FLUID MOTIONS INFLUENCE SWIMMING AND FEEDING BY THE CTENOPHORE *MNEMIOPSIS LEIDYI*

11:30 **Seuront, L.**; Stanley, H. E.: ANOMALOUS DIFFUSION AND MULTIFRACTALITY ENHANCE MATING ENCOUNTERS IN THE TURBULENT OCEAN

11:45 **Koehl, M.**: BEHAVIOR AND ADHESION OF SETTLING MARINE LARVAE IN TURBULENT PULSES OF WATER FLOW

12:00 **Gaylord, B.**; Hodin, J.; Ferner, M. C.: TURBULENT SHEAR SPURS SETTLEMENT IN SEA URCHIN AND SAND DOLLAR LARVAE VIA A PREVIOUSLY UNRECOGNIZED PATHWAY

12:15 Quinn, N.; **Ackerman, J. D.**: EFFECTS OF NEAR-BED TURBULENCE ON SETTLEMENT AND RESUSPENSION OF FRESHWATER MUSSEL LARVAE

132 Undergraduate Ocean Science Education In the 21st Century: An Exploration of Successful Practices

Chair(s): Jan Hodder, jhodder@uoregon.edu
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Allison Beauregard, beaurega@nwfsc.edu
Annette deCharon, annette.decharon@maine.edu
Janice McDonnell, mcdonnel@marine.rutgers.edu

Location: 304 AB

08:00 **Wiese, K.**; Mogk, D.; Bruckner, M.; St. John, K.; Trujillo, A.: TEACHING INTRODUCTORY OCEANOGRAPHY: AN ON THE CUTTING EDGE WORKSHOP REPORT

08:15 **Hewlett, J. A.**: THE COMMUNITY COLLEGE UNDERGRADUATE RESEARCH INITIATIVE

08:30 **Martin, J. M.**; Berquist, P.; LeMay, L.: SUCCESSES IN LEARNING OUTSIDE THE LABORATORY: AN EXAMPLE FROM THOMAS NELSON COMMUNITY COLLEGE, HAMPTON, VA

08:45 **Glenn, S.**; Schofield, O.; Kohut, J.: LEVERAGING OCEAN OBSERVATORIES AND WEB-BASED EDUCATIONAL TOOLS FOR SUSTAINED UNDERGRADUATE RESEARCH IN OCEAN SCIENCE

09:00 **Miller, S. A.**: STUDENTS AS CITIZEN SCIENTISTS IN AN INTRODUCTORY OCEANOGRAPHY COURSE: MARINE DEBRIS MONITORING AND ADVOCACY

09:15 **Halversen, C.**; Tran, L. U.: REDEFINING THE COLLEGE LECTURE: FACILITATING DISCUSSIONS IN UNDERGRADUATE SCIENCE COURSES

09:30 **Newby, S. G.**: THE SEMI-FLIPPED CLASSROOM: BRINGING THE APPLICATION OF LECTURE INFORMATION TO A COMMUNITY COLLEGE THROUGH SHORT, IN-CLASS, GROUP ACTIVITIES

09:45 **Woodall, D. W.**; Cruz, J.; Truxall, C. W.; Macfie, C.: JUMPING INTO THE DEEP-END OF THE OCEAN: ADVENTURES IN EXPERIENTIAL EDUCATION VIA PROJECT-BASED LEARNING

10:30 **Lutz, R. V.**; Golden, B. W.; Balinsky, M.: THE USE OF ARGUMENTATION DRIVEN INQUIRY (ADI) LESSONS TO ENGAGE STUDENTS IN INTRODUCTORY OCEANOGRAPHY CLASSES

10:45 **Cifuentes, L.**; Sharp, K. H.: ENGAGING LEARNERS IN THOUGHT-PROVOKING CONVERSATIONS ABOUT SCIENTIFIC ADVANCEMENTS: A NOVEL INSTRUCTIONAL DESIGN MODEL

11:00 **Frashure, K. M.**; Abukhidejeh , K.: INNOVATIVE AND DEVELOPMENTAL PROGRAMMING FOR UNDER-PREPARED COMMUNITY COLLEGE STUDENTS WITH DIVERSE BACKGROUNDS MAJORING IN STEM FIELDS

11:15 **Davidson, E. R.**; Ewing, N. R.: POWER UP! GIVING UNDERGRADUATES THE TOOLS TO MAKE IT IN THE OCEAN SCIENCE WORKFORCE

11:30 **Brassell, S. C.**: INTEGRATED WEB-BASED EXERCISES FOR INTERACTIVE LEARNING IN INTRODUCTORY OCEANOGRAPHY

11:45 **Webster, D. R.**; Majerich, D. M.: FLIPPIN' FLUID MECHANICS – IMPROVED STUDENT ENGAGEMENT AND LEARNING VIA WEB-BASED APPLICATIONS

12:00 **Johnson, Z. I.**: UNLOCKING THE POTENTIAL OF SMARTPHONES TO ENABLE OCEAN SCIENCE EDUCATION

12:15 Goodwin, D. S.; **Schell, J. S.**; Siuda, A. N.: THE REWARDS OF INTERDISCIPLINARY TEACHING IN STEM COURSES: FROM STUDENT TO INSTITUITION

140 The Science of Plastic Marine Debris and Other Anthropogenic Influences

Chair(s): Erik Zettler, ezettler@sea.edu
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Linda Amaral-Zettler, amaral@mbl.edu

Location: 316 B

08:00 **Hafner, J.**; Maximenko, N.: STORY OF MARINE DEBRIS FROM THE 2011 TSUNAMI IN JAPAN IN MODEL SIMULATIONS AND OBSERVATIONAL REPORTS

08:15 Lavender Law, K.; **Moret-Ferguson, S. E.**; Zettler, E. R.; DeForce, E.; Proskurowski, G.: A SYNOPTIC LOOK AT EASTERN PACIFIC MICROPLASTIC DEBRIS: 11-YEARS OF CONSISTENT MONITORING

08:30 **Bochow, M.**; Keuck, V.; Franke, J.; Siegert, F.; Laforsch, C.: CONTAMINATION OF AQUATIC ECOSYSTEMS WITH PLASTIC DEBRIS: GLOBAL AND LOCAL MONITORING USING REMOTE SENSING METHODS

08:45 **Hardesty, B. D.**; Lawson, T. J.; van der Velde, T.; Lansdell, M.; Wilcox, C. V.: ESTIMATING SOURCES OF MARINE DEBRIS AT A CONTINENTAL SCALE FROM COASTAL SURVEYS

09:00 **Wilcox, C.**; Hardesty, D.; van Sebille, E.: A GLOBAL RISK ASSESSMENT FOR MARINE DEBRIS IMPACTS ON SEABIRDS

09:15 **Brandon, J. A.**; Goldstein, M. C.: LONG-TERM AGING AND DEGRADATION OF MICROPLASTIC PARTICLES: COMPARING NATURAL AND EXPERIMENTAL WEATHERING PATTERNS

09:30 **Lanners, T.**; Bochow, M.; Oswald, S. E.; Kaufmann, H.: ANALYZING WATER SAMPLES USING CLOSE-RANGE IMAGING SPECTROSCOPY: EVIDENCE AND QUANTIFICATION OF MICROPLASTICS DISCHARGE FROM A SEWAGE PLANT OUTLET

09:45 **Padula, V. M.**; Hu, M. E.; Causey, D.: PLASTICS, PHTHLATES, AND PCB CONTAMINATION OF SEABIRDS FROM THE ALEUTIAN ISLANDS

10:30 **Amaral-Zettler, L. A.**; Boyd, G.; Slikas, B.; Zettler, E. R.; Mincer, T. J.: COMPARATIVE MICROBIAL COMMUNITY STRUCTURE AND BIOGEOGRAPHY OF ATLANTIC AND PACIFIC "PLASTISPHERE" COMMUNITIES

10:45 **Zettler, E. R.**; Morrall, C.; Proskurowski, G.; Mincer, T. J.; Amaral-Zettler, L. A.: MICROBIAL SUCCESSION ON PLASTIC MARINE DEBRIS: DEVELOPMENT OF THE "PLASTISPHERE" COMMUNITY.

11:00 **Mincer, T. J.**; Guzzetta, V. S.; Slikas, B.; Zettler, E. R.; Amaral-Zettler, L. A.: INVESTIGATION OF MICROBIAL ADHERENCE AND VIRULENCE FACTORS ASSOCIATED WITH OPEN-OCEAN DERIVED PLASTIC MARINE DEBRIS: VIBRIO BACTERIA AS A MODEL SYSTEM

11:15 **Perez, X.**; Roberson, L.; Diaz, L.: SPATIAL AND TEMPORAL DISTRIBUTION OF EMERGING CONTAMINANTS IN THE SAN JUAN BAY ESTUARY, PUERTO RICO

11:30 **Bonito, L. T.**; Nicklisch, S.; Hamdoun , A.; Sandin, S. A.: SPATIAL PATTERNS OF MODERN POLLUTANTS IN TUNA: A GLOBAL ASSESSMENT

11:45 **Simmons, C. C.**; Jaward, F. M.; Van Vleet, E. S.: DEPOSITIONAL HISTORY OF POLYBROMINATED DIPHENYL ETHERS IN A DATED SEDIMENT CORE FROM TAMPA BAY, FL.

12:00 **Kurtz, A. E.**; Reiner, J. L.; West, K. L.; Jensen, B. A.: AN INITIAL SURVEY OF PERFLUORINATED COMPOUNDS IN HAWAIIAN CETACEANS

12:15 **Goksøyr, A.**; Yadetie, F.; Eide, M.; Hogstrand, C.; Karlsen, O. A.: INTEGRATIVE ENVIRONMENTAL GENOMICS: MECHANISMS UNDERLYING CONTAMINANT INDUCED TOXICITY IN COD (GADUS MORHUA)

148 Effects of Climate Variability On Marine Biophysical Interactions and Ecosystems Dynamics

Chair(s): Cecile S. Rousseaux, Cecile.S.Rousseaux@nasa.gov
Michelle Gierach, Michelle.Gierach@jpl.nasa.gov

Location: 317 AB

14:00 **Rousseaux, C. S.**; Gregg, W. W.: INTERANNUAL VARIATION IN PHYTOPLANKTON CLASS-SPECIFIC PRIMARY PRODUCTION AT A GLOBAL SCALE

14:15 **Gierach, M. M.**; Messié, M.; Lee, T.; Karnauskas, K. B.; Radenac, M. H.: BIOPHYSICAL RESPONSES NEAR EQUATORIAL ISLANDS IN THE WESTERN PACIFIC OCEAN DURING EL NIOO/LA NIAA TRANSITIONS

14:30 **Radenac, M. H.**; Messie, M.; Leger, F.; Bosc, C.: A VERY OLIGOTROPHIC ZONE OBSERVED FROM SPACE IN THE EQUATORIAL PACIFIC WARM POOL

14:45 **Karnauskas, K. B.**; Cohen, A. L.; Gove, J. M.: AN UNDERCURRENT OF CHANGE: ASSESSING POTENTIAL NATURAL MITIGATION OF OCEAN WARMING AT THE U.S. PACIFIC REMOTE ISLANDS MARINE NATIONAL MONUMENT

15:00 **Schollaert Uz, S.**; Busalacchi, A. J.; Smith, T. M.; Brown, C. W.; Carton, J. A.: STATISTICALLY RECONSTRUCTED CHLOROPHYLL PATTERNS DURING 50 YEARS OF SARDINE AND ANCHOVY REGIMES IN THE TROPICAL PACIFIC

15:15 **Santos, A. L.**; McKinley, G. A.; Lovenduski, N. S.: CHLOROPHYLL-*A* VARIABILITY DUE TO THE WEAKENING NORTH ATLANTIC NUTRIENT STREAM

15:30 **Raitsos, D. E.**; Yi, X.; Platt, T.; Racault, M. F.; Brewin, R. J.: MONSOON OSCILLATIONS REGULATE GREENNESS OF THE RED SEA

15:45 **Cohen, A. L.**; Oppo, D. W.; Henson, S.: THE ROLE OF BASIN-SCALE CLIMATE VARIABILITY IN THE DEMISE OF THE CARIBBEAN REEFS

157 Habitat Modeling and Ecosystem Based Resource Management

Chair(s): Mitchell Roffer, roffers@bellsouth.net
John Manderson, john.p.manderson@gmail.com

Location: 310 Theater

08:00 **Boustany, A. M.**; Roberts, J. J.; Dunn, D. D.; Halpin, P. N.: THE EFFECTS OF SPATIAL RESOLUTION ON MARINE SPECIES HABITAT MODELING AND THE IMPLICATIONS FOR PREDICTING SPECIES DISTRIBUTIONS IN A FUTURE OCEAN

08:15 **Spillman, C. M.**; Hobday, A. J.; Hartog, J. R.; Eveson, P.: DYNAMICAL SEASONAL FORECASTING TO SUPPORT THE MANAGEMENT OF WILD SOUTHERN BLUEFIN TUNA FISHERIES IN AUSTRALIA

08:30 Manderson, J. P.; **Kohut, J. T.**: HABITAT MODELS CAN BE USED IN COASTAL OCEAN OBSERVING SYSTEMS TO GUIDE PROCESS BASED STUDIES INFORMING ECOSYSTEM ASSESSMENTS

08:45 **Muhling, B.**; Walter, J.; Lamkin, J.; Roffer, M.; Li, Y.: HABITAT MODELING FOR HIGHLY MIGRATORY ATLANTIC FISH SPECIES: APPLICATIONS AND CHALLENGES

09:00 **Danner, E.**; Chao, Y.; Chai, F.; Chavez, F.; Nisbet, R.: FROM RIVERS TO THE OCEAN: USING HABITAT MODELS TO UNDERSTAND AND PREDICT VARIATIONS IN CENTRAL CALIFORNIA SALMON

09:15 **Winship, A. J.**; Rankin, R. W.; Kinlan, B. P.; Caldow, C.: PREDICTIVE HABITAT MODELING OF MARINE BIRD DISTRIBUTIONS TO INFORM SPATIAL PLANNING AND RISK ASSESSMENT

09:30 **Roberts, J. J.**; Jones, H. M.; Halpin, P. N.: HERE BE DRAGONS: EXTENDING MARINE MAMMAL DENSITY MODELS TO DISTANT UNSURVEYED REGIONS USING HABITAT SUITABILITY MODELS BUILT FROM HISTORIC SIGHTINGS

09:45 **Briscoe, D. K.**; Best, B. D.; Peckham, S. H.; Foley, D. G.; Lavaniegos, B.: PREDICTIVE HABITAT USE OF JUVENILE LOGGERHEAD SEA TURTLES (CARETTA CARETTA) OFF BAJA CALIFORNIA, MEXICO

10:30 **Ma, H.**; Townsend, H.; Zhang, X.; Christensen, V.: MODELING TROPHIC AND HABITAT IMPACTS ON BLUE CRAB POPULATION IN THE CHESAPEAKE BAY

10:45 **Breece, M. W.**; Oliver, M. J.; Dunton, K. J.; Fox, D. A.: USING SATELLITES AND AUVS IN AN INTEGRATED OCEAN OBSERVATORY TO IDENTIFY ATLANTIC STURGEON HABITAT

11:00 **Fiedler, P. C.**; Redfern, J. R.; Félix, F.: PREDICTION AND EXPLANATION OF WHALE DISTRIBUTIONS WITH PRESENCE-ONLY DATA

11:15 **Huff, D. D.**; Yoklavich, M. M.; Love, M. S.; Watters, D. L.; Lindley, S. T.: ENVIRONMENTAL FACTORS THAT INFLUENCE THE DISTRIBUTION, SIZE, AND BIOTIC RELATIONSHIPS OF CHRISTMAS TREE CORALS IN THE SOUTHERN CALIFORNIA BIGHT

11:30 **Townsend, H. M.**: WATER QUALITY, HABITAT AND FISHERIES MODEL LINKAGES TO EXPLORE RESOURCE MANAGEMENT STRATEGIES

11:45 **Weijerman, M.**; Fulton, E. A.; Kaplan, I. C.; Brainard, R. E.: CORAL REEFS IN CRISIS: A CORAL REEF ECOSYSTEM MODEL AS A MANAGEMENT DECISION SUPPORT TOOL

12:00 **Palacios, D. M.**; Mate, B. R.; Bailey, H.; Irvine, L.; Bograd, S. J.: USING SATELLITE TRACKING AND HABITAT MODELING TO INFER BLUE WHALE DISTRIBUTION AND MOVEMENT BEHAVIOR IN THE EASTERN NORTH PACIFIC

12:15 **Lamkin, J.**; Muhling, B.; Roffer, M.; Gerard, T.; Malca, E.: USING HABITAT MODELS TO LOCATE ALTERNATIVE BLUEFIN TUNA SPAWNING GROUNDS IN THE ATLANTIC AND WESTERN CARIBBEAN.

158 Measuring and Modeling Internal Waves and the Turbulence Cascade: A Tribute to David Tang

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08:00 **Ramp, S. R.**; Yang, Y. J.; Reeder, D. B.; Bahr, F. L.: MODE-2 INTERNAL WAVE GENERATION ON THE NORTHERN HENG-CHUN RIDGE

08:15 **Ren-Chieh Lien, .**; Frank Henyey, .; Barry Ma, .; Yiing Jang Yang, .: LARGE-AMPLITUDE INTERNAL SOLITARY WAVES OBSERVED IN THE NORTHERN SOUTH CHINA SEA: PROPERTIES AND ENERGETICS

08:30 **Ko, D. S.**; Allard, R.; Jacobs, G. A.; Broome, R.; Hawkins, J.: INTERNAL WAVE PREDICTION AND AN ALARM SYSTEM FOR THE SOUTH CHINA SEA

08:45 **Yang, Y. J.**; Tang, T. Y.; Jan, S.: OBSERVATIONS OF INTERNAL SOLITARY WAVES IN THE KUROSHIO NORTHEAST OF TAIWAN

09:00 **Vlasenko, V. I.**; Stashchuk, N. M.; Inall, M. E.: THREE DIMENSIONAL DYNAMICS OF BAROCLINIC TIDES IN THE CELTIC SEA ON THE RESULTS OF IN-SITU OBSERVATIONS AND NUMERICAL MODELING

09:15 **Martini, K. I.**; Simmons, H. L.; Hutchings, J. K.: ARCTIC INTERNAL WAVES: SEASONAL CYCLES AND TRENDS

09:30 **Zhao, Z.**; Alford, M. H.; Girton, J. B.; Rainville, L.; Simmons, H.: GLOBAL INTERNAL TIDES FROM MULTI-SATELLITE ALTIMETRY

09:45 **Dalziel, S. B.**: SCATTERING OF INTERNAL GRAVITY WAVES

10:30 **Nash, J. D.**; Moum, J. N.; MacKinnon, J. A.: DIRECT QUANTIFICATION OF THE LARGE-SCALE DISTRIBUTION OF MIXING USING TEMPERATURE VARIANCE FROM SHIPBOARD CTD

10:45 **Whalen, C. B.**; Jennifer MacKinnon, J. A.; Talley, L. D.: TWO OBSERVATIONAL PERSPECTIVES ON EDDIES, INTERNAL WAVES, AND TURBULENT DIAPYCNAL MIXING

11:00 **Jones, N. L.**; Bluteau, C. E.; Rayson, M. D.; Fringer, O. B.; Ivey, G. N.: INTERNAL TIDE MIXING ON THE AUSTRALIAN NORTHWEST CONTINENTAL SHELF AND SLOPE

11:15 **Shearman, R. K.**; Lee, C. M.; St. Laurent, L.; Shroyer, E. L.; Simmons, H.: OBSERVATIONS OF A KUROSHIO INTRUSION AND ASSOCIATED MIXING IN THE SOUTH CHINA SEA

11:30 **Sun, O. M.**; Jayne, S. R.; St. Laurent, L. C.; Polzin, K. L.: ON 'Q' AND THE LOCALNESS OF INTERNAL TIDE DISSIPATION

11:45 **Gemmrich, J.**; Klymak, J.: ENERGY DISSIPATION OF LOW-MODE INTERNAL WAVES IN THE MID-SLOPE REGION OF LARGE SCALE TOPOGRAPHY

12:00 **Mater, B. D.**; Venayagamoorthy, S. K.: A UNIFYING FRAMEWORK FOR PARAMETERIZING STABLY STRATIFIED TURBULENCE

12:15 **Umlauf, L.**; Moum, J. N.; Smyth, W. D.: CONVECTIVE MIXING AND MIXING EFFICIENCY IN TURBULENT BOTTOM BOUNDARY LAYERS INDUCED BY INTERNAL WAVES

14:00 **St. Laurent, L.**; Simmons, H.; Fu, K.; Wang, Y.: THE KUROSHIO CURRENT, INTERNAL WAVES AND TURBULENCE IN THE LUZON STRAIT

14:15 **Park, J.**; Farmer, D.: EFFECTS OF KUROSHIO INTRUSIONS ON NONLINEAR INTERNAL WAVES IN THE SOUTH CHINA SEA

14:30 **Whitt, D. B.**; Thomas, L. N.: NEAR-INERTIAL WAVE SURF ZONE IN STRONG FRONTS

14:45 **Simmons, H. L.**; St. Laurent, L. C.; Lee, C. M.; Shearman, R. K.; Shroyer, E. L.: SUBMESOSCALE STRUCTURE IN THE NORTHERN SOUTH CHINA SEA DURING LATE WINTER MONSOON CONDITIONS

15:00 **Labreuche, P.**; Le Sommer, J.; Staquet, C.: INTERACTION OF INTERNAL LEE WAVES WITH INERTIAL OSCILLATIONS : A ROUTE TO MIXING IN THE DEEP SOUTHERN OCEAN

15:15 **Peacock, T.**; Ghaemsaidi, S. J.; Dauxois, T.; Joubaud, S.; Odier, P.: THE PROPAGATION OF INTERNAL WAVES EXCITED BY THE MIXED LAYER

15:30 **Buijsman, M. C.**; Legg , S.; Klymak, J. M.; Kang, D.: NONLINEAR INTERNAL WAVE GENERATION AND DISSIPATION AT THE DOUBLE RIDGE IN LUZON STRAIT

15:45 **Sarkar, S.**; Jalali, M.; Rapaka, N.: FROM WAVES TO TURBULENCE AT A MODEL RIDGE

2/24/2014 Posters

013 Biogeo-Omics: Utilizing Biogeochemistry and -Omics Data to Unravel the Metabolic Pathways and Environmental Controls of Hydrocarbon Biodegradation

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1 **Simister, R. L.**; Willis, E. L.; White, H. K.: DIVERSITY OF OIL-DEGRADING MICROBES AND ALKANE HYDROXYLASE (ALKB) GENES IN DEEP-SEA ENVIRONMENTS IMPACTED BY THE DEEPWATER HORIZON OIL SPILL

2 **Austin, R. N.**: ALKANE OXIDIZING ENZYMES IN THE MARINE ENVIRONMENT: WHAT WE CAN LEARN FROM INTEGRATING BIOCHEMISTRY, MICROBIOLOGY, AND OMIC DATABASES.

3 **Baskerville, T. C.**; Sarkodee-Adoo, J.; Jeffrey, W. H.; Chanton, J.; Cherrier, J.: ASSESSING THE IMPACT OF THE DEEPWATER HORIZON OIL SPILL ON INDIGENOUS BACTERIAL COMMUNITIES: A BIOGEOCHEMICAL AND MOLECULAR APPROACH

4 **Mishra, S.**; Wefers, P.; Treude, T.: PETROLEUM DEGRADATION IN NATURAL MARINE SEDIMENTS: CHANGES IN BIOGEOCHEMICAL GRADIENTS AND COMPOSITION OF HYDROCARBONS

5 Wemheuer, B.; Klempert, P.; Voget, S.; Simon, M.; **Daniel, R.**: DIVERSITY AND ACTIVITY OF MARINE BACTERIOPLANKTON COMMUNITIES IN THE SOUTHERN OCEAN

6 **Babcock-Adams, L. C.**; Joye, S. B.; Medeiros, P. M.: TRACKING OIL TRANSFORMATIONS IN THE GULF OF MEXICO SEDIMENTS AFTER THE 2010 MACONDO BLOWOUT USING BIOMARKER RATIOS

7 **Rogers, D. R.**; Bose, A.; Adams, M. M.; Joye, S. B.; Girguis, P. R.: GEOMICROBIOLOGICAL LINKAGES BETWEEN SHORT-CHAIN ALKANE CONSUMPTION AND SULFATE REDUCTION RATES IN SEEP SEDIMENTS

8 **Kostka, J. E.**; Huettel, M.; Snell, T.; Brooks, G.; Hollander, D.: THE RESPONSE OF BENTHIC MICROBIAL COMMUNITIES IN THE GULF OF MEXICO TO THE DEEPWATER HORIZON OIL DISCHARGE: FROM SHALLOW COASTAL SANDS TO THE DEEPSEA.

9 **Brooks, G. R.**; Larson, R. A.; Reichart, G. J.; Chanton, J. P.; Kostka, J. E.: SEDIMENTATION PULSE IN THE NE GULF OF MEXICO FOLLOWING THE 2010 DWH BLOWOUT

10 **Elser, J.**; Lee, Z.; Dupont, C.; Siefert, J.; Souza, V.: EFFECTS OF NUTRIENT ENRICHMENT AND N:P STOICHIOMETRY ON MICROBIAL COMMUNITY STRUCTURE IN AN ANCIENT (VERY) SHALLOW REMNANT SEA AT CUATRO CIENEGAS, MEXICO.

11 **Chen, H.**; Aeppli, C.; Rodgers, R. P.; Marshall, A. G.; McKenna, A. M.: NATURAL SEEPS VERSUS HUMAN SPILL: CHARACTERIZATION AND COMPARISON OF DWH WEATHERED OIL WITH NATURAL PETROLEUM SEEPS BY FT-ICR MASS SPECTROMETRY

12 **Fatland, D. R.**; Stubbins, A.; Dittmar, T.: A BIOGEOCHEMISTRY DATA SYSTEM FOR MS AND OTHER SPECTRAL DOM ANALYSIS

015 Physical-Biological Interactions In Mesoscale Eddies: Governing Processes and Implications for the Marine Ecosystem

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894 **Gaube, P.**; McGillicuddy, D. J.; Chelton, D. B.; Behrenfeld, M. J.; Strutton, P. G.: REGIONAL VARIATIONS IN THE INFLUENCE OF MESOSCALE OCEAN EDDIES ON NEAR-SURFACE CHLOROPHYLL

895 **Zhou, F.**; Shapiro, G.; Wobus, F.: SHELF-DEEP SEA EXCHANGES IN THE NORTH-WESTERN BLACK SEA

896 Parada, C.; **Ladd, C.**: MESO- AND SUBMESOSCALE EDDIES IN THE GULF OF ALASKA: ARE THEY REGULATING EARLY LIFE STAGES OF WALLEYE POLLOCK SURVIVAL?

897 **Guastella, L. A.**; Roberts, M. J.: DYNAMICS AND INFLUENCE OF THE DURBAN BREAKAWAY EDDY ON THE EAST COAST OF SOUTH AFRICA

898 **Chenillat, F.**; Franks, P. J.; Rivière, P.; Capet, X.; Blanke, B.: PLANKTONIC ECOSYSTEMS IN COASTAL EDDIES: COMBINING EULERIAN AND LAGRANGIAN MODEL ANALYSES

899 McKiver, W.; **Vichi, M.**; Lovato, T.; Masina, S.; Storto, A.: IMPACT OF RESOLVED PHYSICAL DYNAMICS ON GLOBAL MARINE BIOGEOCHEMISTRY: THE GREENSEAS PROJECT EXPERIENCE

900 **Hozumi, A.**; Jones, B. H.: RED SEA'S WHALE SHARK AGGREGATION ENCOURAGED BY SHALLOW PYCNOCLINE BIOLOGICAL HOTSPOT

901 Zarokanellos, N.; Jones, B.; **Raitsos , D.**; PAPADOPOULOS , V.: CHARACTERIZATION OF THE MESOSCALE EDDY OF THE NORTH CENTRAL RED SEA

902 **Liu, X.**; Jones, B. H.; Kiefer, D. A.; Zarokanellos, N.; Teng, Y.: ASSESSING THE EFFECT OF VERTICAL DYNAMICS ON PHYTOPLANKTON DISTRIBUTION IN THE CENTRAL RED SEA: A MODELING APPROACH

903 **Brandão, M. C.**; Freire, A. S.: MEROPLANKTON DISTRIBUTION AND ITS RELATIONSHIP TO MESOSCALE HYDROLOGICAL STRUCTURES AT THE SOUTH BRAZIL SHELF

904 **Repollo, C. A.**; Flores-Vidal, X.; Flament, P.; Villanoy, C. L.: HIGH FREQUENCY DOPPLER RADAR (HFDR) OBSERVATIONS OF A CYCLONIC EDDY IN THE LEE OF PANAY, PHILIPPINES DURING THE NORTHEAST MONSOON

910 **Wakamatsu, T.**; Tanaka, Y.; Ishizaki, H.; Ishikawa, Y.: DETECTION OF THREE-DIMENSIONAL LAGRANGIAN COHERENT STRUCTURES IN THE OYASHIO-KUROSHIO TRANSITION ZONE USING THE OCEAN DATA ASSIMILATION SYSTEM

911 **Pietri, A.**; Karstensen, J.; Krahmann, G.; Schütte, F.: CHARACTERIZING THE FRONTAL STRUCTURE OF MESOSCALE EDDIES – A COMBINED SATELLITE/GLIDER APPROACH

912 **Samuelsen, A.**; Hjøllo, S. S.; Ladd, C.; Godø, O. R.; Johannessen, J. A.: A MULTI-METHOD APPROACH TO LINKING MESOSCALE STRUCTURES TO DISTRIBUTION OF BIOMASS OF HIGHER TROPHIC LEVELS

913 **Karstensen, J.**; Schütte, F.; Pietri, A.; Fiedler, B.; Brandt, P.: DEAD-ZONE EDDIES IN THE OXYGEN MINIMUM ZONE OF THE TROPICAL EASTERN NORTH ATLANTIC OCEAN

914 **Trasviña-Castro/Armando, .**; Gaxiola-Castro/Gilberto, .; González-Rodríguez/Eduardo, .; Zaitsev/Oleg, .: COASTAL JETS, GULF OF CALIFORNIA EDDIES AND CHLOROPHYLL PULSES AT THE CABO PULMO NATIONAL PARK, MXXICO

915 **Monger, B. C.**: SEASONAL VARIABILITY OF EDDY IMPACT ON LOCAL SURFACE CHLOROPHYLL AND SEA SURFACE TEMPERATURE FIELDS DERIVED FROM SATELLITE OBSERVATIONS

916 **He, R.**; Li, Y.: IMPACT OF MESOSCALE EDDIES ON THE GULF STREAM AND SHELF ECOSYSTEM IN THE SOUTHEASTERN UNITED STATES

020 Exploration of Ocean Circulation Variability Through Argo, Satellite Altimetry and Other Observations and Assimilations

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2166 **Smith, S. R.**; Jacobs, G. A.; Helber, R. W.; Carrier, M. J.; Spence, P. L.: THE IMPACT OF VELOCITY DATA ASSIMILATION FROM DRIFTERS USING THE NAVY COUPLED OCEAN 3D VARIATIONAL DATA ASSIMILATION SYSTEM (NCODA-VAR)

2219 **Cowley, R.**; Cheng, L.; Wijffels, S.; Boyer, T.; Kizu, S.: REMOVING BIASES IN EXPENDABLE BATHYTHERMOGRAPH (XBT) DATA.

2220 **Chen, Z.**; Wu, L.: SEASONAL VARIATION OF THE SOUTH EQUATORIAL CURRENT BIFURCATION IN THE PACIFIC

2221 **Tekuramori, T.**; Ueno, H.: TEMPERATURE INVERSIONS IN THE EASTERN SUBTROPICAL NORTH PACIFIC

2222 **Nadiga, B. T.**; Casper, W. R.; Jones, P. W.: ENSEMBLE-BASED GLOBAL OCEAN DATA ASSIMILATION AND IMPROVEMENTS IN HINDCAST SKILL

2223 **Kosempa, M. G.**; Chambers, D.: GEOSTROPHIC TRANSPORT IN THE SOUTHERN OCEAN BY COMBINING SATELLITE ALTIMETRY AND TEMPERATURE/SALINITY PROFILE DATA

2224 **Knudsen, P.**; Andersen, O. B.: COMBINING A GLOBAL GOCE DERIVED MDT WITH IN-SITU OBSERVATION FOR REGIONAL ENHANCEMENT OF THE MEAN DYNAMIC TOPOGRAPHY.

2225 **Sperrevik, A. K.**; Christensen, K. H.; Rörhs, J.: ASSIMILATION OF HF RADAR CURRENTS IN AN EDDY RESOLVING MODEL

2226 **Castellanos, P.**; Campos, E. J.: TROPICAL-SUBTROPICAL CONNECTIONS: A NUMERICAL APPROXIMATION IN THE SOUTH ATLANTIC OCEAN

2227 **Liu, Y.**; Minnett, P. J.: EVIDENCE LINKING SEA-SURFACE TEMPERATURE SIGNALS TO CHANGES IN THE ATLANTIC MERIDIONAL OVERTURNING CIRCULATION

2228 **Lebedev, K. V.**; Sarkisyan, A. S.: ARGO PRODUCTS DEVELOPED AT THE P.P.SHIRSHOV INSTITUTE OF OCEANOLOGY

2229 **Rykova, T. A.**; Oke, P. R.: A COMPARISON OF THE THREE-DIMENSIONAL STRUCTURE OF THE WESTERN BOUNDARY CURRENT EDDIES

2230 **Shibata, Y.**; Suga, T.; Toyama, K.: INTERANNUAL VARIATIONS OF ANNUAL SUBDUCTION RATE AND LOW POTENTIAL VORTICITY WATER DISTRIBUTION IN THE NORTH PACIFIC

2231 **Wagawa Taku, .**; Kuroda Hiroshi, .; Ito Shin-ichi, .; Kakehi Shigeho, .; Yamanome Takeshi, .: FLOW FIELDS AND DISTRIBUTIONS OF WATER PROPERTIES IN THE SANRIKU COASTAL AREA

2232 **Jo, Y.**: SEA SURFACE HEIGHT PHASE CHANGES DERIVED FROM NONLINEAR SEA SURFACE HEIGHT ANOMALY

2233 **Chandanpurkar, H. A.**; Reager, J. T.; Famiglietti, J. S.: HOW MUCH CONTINENTAL FRESHWATER DO GLOBAL OCEANS RECEIVE? INTERCOMPARISON OF FOUR GLOBAL CONTINENTAL DISCHARGE ESTIMATES

2234 **Kuragano, T.**; Fijii, Y.; Toyoda, T.; Usui, N.; Kamachi, M.: OCEAN MASS VARIATIONS CAUSED BY BAROTROPIC RESPONSE TO SEASONALLY VARYING ATMOSPHERIC FORCING

2235 **Nishikawa, S.**; Ishikawa, Y.; Masuda, S.: IMPACTS OF ARGO DATA ON THE REPRESENTATION OF NORTH PACIFIC SUBTROPICAL MODE WATER USING A 4D-VAR COUPLED DATA ASSIMILATION SYSTEM

2236 **Hosoda, S.**; Nonaka, M.: IMPACT OF SUBSURFACE TEMPERATURE VARIATION ON SEA SURFACE TEMPERATURE AND NET SURFACE HEAT FLUX OVER SHARP SEASONAL THERMOCLINE

2237 **Takashi Setou, .**; Hiroshi Kuroda, .; Tomonori Azumaya, .; Shin-ichi Itoh, .; Shigeho Kakehi, .: OBSERVATION IMPACT ON AN EDDY-RESOLVING OCEAN FORECAST SYSTEM BASED ON ROMS

2238 **PARENT, L.**; FERRY, N.; Barnier, B.; GARRIC, G.; GREINER, E.: GLOBAL EDDY-PERMITTING OCEAN REANALYSES AND SIMULATIONS OF THE PERIOD 1992 TO PRESENT

2239 **Bricaud Clement, .**; Garric Gilles, .; Drillet Yann, .; Parent Laurent, .; Ferry Nicolas, .: GLOBAL OCEANIC THERMO-HALINE WARMING TREND IN AN EDDY-PERMITTING REANALYSIS CONTEXT

2240 **Rusciano, E.**; Speich, S.: INTEROCEAN EXCHANGE OF THE INTERMEDIATE WATERS BETWEEN THE PACIFIC, INDIAN AND ATLANTIC OCEAN, SOUTH OF 15SS.

2241 Yoon, S. T.; **Chang, K. I.**: HEAT CONTENT VARIATIONS DUE TO STRENGTHENING AND WEAKENING OF COLD AND WARM CURRENTS IN THE SOUTHWESTERN EAST/JAPAN SEA

2243 **Kurczyn, J. A.**; Pérez, P.; García, J.; Candela, J.; López, M.: SEASONAL CHARACTERISTICS OF THE OCEAN CURRENTS AND WATER MASSES OFF BAHAA DE TODOS SANTOS, BAJA CALIFORNIA.

2244 **Janzen, C. D.**; Murphy, D.: IMPROVING ARGO FLOAT DATA: STEPS TOWARD IMPLEMENTING ONBOARD CELL THERMAL MASS CORRECTIONS

2245 **Pozo Buil, M.**; Di Lorenzo, E.; Bograd, S.: SUBSURFACE OCEAN CLIMATE VARIABILITY AND CONTROLS ON NORTHEAST PACIFIC UPWELLING

2246 **Lankhorst, M.**; Send, U.; Rudnick, D.; Cornuelle, B.: OBSERVATIONS AND STATE ESTIMATES OF THE CIRCULATION IN THE SOUTHERN CALIFORNIA CURRENT SYSTEM

2299 **Sheinbaum, J.**; Athie, G.; Romero, A.; Ochoa , J.; Candela, J.: THE FLOW THROUGH YUCATAN CHANNEL: FOLKLORE, FICTION AND FACT.

2300 Volkov, D. L.; **Landerer, F. W.**: NON-SEASONAL FLUCTUATIONS OF THE ARCTIC OCEAN MASS OBSERVED BY GRACE

2301 **Dohan, K.**; Early, J.: INERTIAL OSCILLATIONS IN TIME DEPENDENT WIND-DRIVEN SURFACE CURRENTS

2302 **Dong, S.**; Baringer, M. O.; Goni, G. J.; Garzoli, S. L.: MODEL-DATA DIFFERENCES IN THE SEASONAL VARIATIONS OF THE SOUTH ATLANTIC MOC

022 Scaling Up Individual Processes to Ecosystem Levels In An Era of Global Change

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2489 **Dornberger, L.**; Ainsworth, C.: IMPLEMENTATION OF NEW SPATIAL FORCING FUNCTIONS IN THE ATLANTIS MODELING FRAMEWORK TO ACCURATELY REPRESENT OIL SPILL IMPACTS IN THE GULF OF MEXICO

2490 **Oliver, M. J.**; Irwin, A.; Moline, M. A.; Fraser, W.; Patterson, D.: ADPLIE PENGUIN FORAGING LOCATION PREDICTED BY TIDAL REGIME SWITCHING IN A CHANGING CLIMATE

2491 **Schopmeyer, S. A.**; Lirman, D.: REEF RESTORATION AND CORAL PROPAGATION OF THE ENDANGERED GENUS ACROPORA IN THE CARIBBEAN: TIME TO SCALE UP!!

2492 **Curran, M. C.**; Sherman, M. B.: THE EFFECT OF THE PARASITE PROBOPYRUS PANDALICOLA ON THE SURVIVAL TIME OF THE GRASS SHRIMP PALAEMONETES PUGIO DURING STARVATION AT TWO DIFFERENT TEMPERATURES

2493 **Hunt, J. N.**; Wilson, W. H.; Countway, P. D.: ENHANCEMENT OF LIPID PRODUCTION IN MICROALGAE BY DODECANE ADDITION AND NITRATE LIMITATION

2494 **Kamenir, Y.**: STEADY PATTERNS OF COMMUNITY STRUCTURE

2495 **Morganti, T.**; Coma, R.; Serrano, E.; Ribes, M.; Yahel, G.: EFFECTS OF NATURAL TEMPERATURE FLUCTUATIONS ON IN SITU PUMPING OF SPONGES SPECIES IN THE MEDITERRANEAN SEA

2496 **Banas, N. S.**; Zhang, J.; Campbell, R. G.: LINKING CLIMATE TO BERING SEA FISHERIES RECRUITMENT VIA A NEW, TRAIT-BASED COPEPOD LIFE HISTORY MODEL

2497 **Pierson, J. J.**; Nidzieko, N. J.; Roman, M. R.; Elliott, D. E.; Fitzgerald, C.: COPEPODS IN THE DEAD ZONE: THE ROLES OF BEHAVIOR AND PHYSICS IN CONTROLLING COPEPOD POPULATION DYNAMICS IN HYPOXIC SYSTEMS

2498 **Anderson, C. R.**; Edwards, C. A.; Goebel, N. L.; Kudela, R. M.: A MECHANISTIC APPROACH TO FORECASTING DOMOIC ACID PRODUCTION IN COASTAL CALIFORNIA

2507 **Fields, D. M.**; Browman, H. I.; Twining, B. S.: COPEPODS INTESTINES: 10^21 MICROBIOREACTORS OF GLOBAL OCEAN PROCESSES

2508 **Furby, K. A.**; Smith, J. E.; Sandin, S.: SAFETY IN NUMBERS: HOW COLONIAL GROWTH ALLOWS RECOVERY AFTER A BLEACHING EVENT IN THE CENTRAL PACIFIC

2509 **Hale, R.**; Jacques, R.; Solan, M.; Tolhurst, T.: VISUALISATION OF MARINE BENTHIC BIOGENIC STRUCTURES AND PARTICLE TRANSPORT

2510 **Freytes-Ortiz, I. M.**; Stallings, C. D.: MUSSEL HEART RATE AS A SHORT-TERM PHYSIOLOGICAL RESPONSE TO ACUTE STRESSORS

2511 **Gleiss, A. C.**; Morgan, D. L.; Whitty, J. M.; Fossette, S.; Hays, G. C.: SEASONALLY CONTRASTING PHYSIOLOGICAL AND ECOLOGICAL PERFORMANCE QUESTION THE "WARMER-IS-BETTER" HYPOTHESIS FOR JUVENILE FISH

2512 **Kahn, A. S.**; Yahel, G.; Tunnicliffe, V.; Leys, S. P.: GLASS SPONGES REQUIRE STRONG CURRENTS AND PRODUCTIVE WATERS TO SUPPORT INTENSE GRAZING AND FORM REEFS IN DEEP WATER

026 Biological and Physical Controls of Particle Dynamics and Fluxes In the Mesopelagic Layer of the Ocean: Current Understanding and Future Directions.

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1032 **Hwang, J.**; Kim, M.; Rho, T.; Lee, T.; Kang, D. J.: SINKING PARTICULATE ORGANIC CARBON FLUX IN THE SOUTHWESTERN EAST SEA (JAPAN SEA)

1033 **Hillaire-Marcel, C.**; Ghaleb, B.; Yashayaev, I.: NEPHELOID PLUMES ALONG THE LABRADOR SLOPE AND THEIR RECORDING BY U & TH-SERIES ISOTOPES IN THE WATER COLUMN

1034 **Buesseler, K. O.**; Siegel, D. A.; EXPORTS Planning Team, .: EXPORTS: IMPLEMENTATION PLAN FOR A NASA FIELD CAMPAIGN FOR QUANTIFYING THE BIOLOGICAL PUMP FROM SATELLITE OBSERVABLES

1035 **Kiko, R.**; Hauss, H.; Schwarzkopf, F.; Brandt, P.; Stemmann, L.: ATLANTIC EQUATORIAL MARINE SNOWFALL AND DEEP PARTICLE MAXIMA

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030 Wind-Generated Waves and Storm Surge From Meteorological Activity

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1001 **Grieser, J.**; Zhao, Q.; Maskell, J.; Rodney, J. T.; Bruneau, N.: A TYPHOON STORM SURGE MODEL FOR JAPAN

1002 **Shope, J. B.**; Storlazzi, C. D.; Erikson, L. H.; Hegermiller, C. A.: MODELED CHANGES IN EXTREME WAVE CLIMATES AND RUNUP FOR US AND US-AFFILIATED PACIFIC ISLANDS DURING THE 21ST CENTURY

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1007 **Repina, I. A.**; Titov, V. M.: THE DYNAMIC AND STRUCTURE WIND WAVES DURING STRONG OFFSHORE WIND FROM REMOTE SENSING DATA

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032 Examining Connectivity In Marine Populations, From Unicells to Metazoans, Using Novel and Integrated Approaches

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2605 **Wood, S.**; Paris, C. B.; Ridgwell, A.; Hendy, E. J.: GOING WITH THE FLOW? MODELLING CORAL DISPERSAL IN A CHANGING OCEAN

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2686 **Anstead, K. A.**; Schaffler, J. J.; Jones, C. M.: COAST-WIDE NURSERY AREA CONTRIBUTION TO THE ADULT POPULATION OF ATLANTIC MENHADEN BREVOORTIA TYRANNUS

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2690 **Kajajian, A.**; Schaffler, J. J.; Jones, C. M.: OTOLITH CHEMISTRY: PITFALLS AND INSIGHTS IN ITS USE FOR THE STUDY OF SUMMER FLOUNDER POPULATION STRUCTURE

033 Ocean Acidification In Coastal Environments

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2561 **Chou, W.**; Gong, G.; Hung, C.; Wu, Y.: CARBONATE MINERAL SATURATION STATES IN THE EAST CHINA SEA: PRESENT CONDITIONS AND FUTURE SCENARIOS

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2630 **Davis, C. V.**; Hill, T. M.; Jahncke, J.: SEASONAL ABUNDANCE OF PLANKTIC FORAMINIFERA FROM NEAR SHORE PLANKTON TOWS IN THE CALIFORNIA CURRENT UPWELLING SYSTEM

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2640 **Matsushita, W.**; Wada, S.; Ishii, M.; Hama, T.: SEASONAL CHANGE IN CARBONATE SYSTEM AND ITS CONTLOLLING FACTORS OFF THE COAST OF SHIMODA IN JAPAN

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2650 **Heiko Brenner, H.**; Ulrike Braeckman, .; Marie Le Guitton, .; Filip Meysman, .: ALKALINITY RELEASE FROM SEDIMENTS AND IMPACT ON THE WATER COLUMN CO2 SYSTEM IN THE NORTH SEA

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2661 **Friederich, G. E.**; Chavez, F. P.; O'Reilly, T. C.; McGill, P. R.; Wahl, C.: DEVELOPMENT, TESTING AND DEPLOYMENT OF AUTONOMOUS OCEAN ACIDIFICATION INSTRUMENT PACKAGES IN A COASTAL UPWELLING SYSTEM

2662 **Page, H. N.**; Yeakel, K.; Jokiel, K.; Rodgers, K.; Andersson, A. J.: DIEL TRENDS IN NET COMMUNITY CALCIFICATION AND PRODUCTION RATES FOR DIFFERENT BENTHIC COMMUNITIES EXPOSED TO AMBIENT AND ACIDIFIED SEAWATER

2663 **Bénard, R.**; Levasseur, M.; Scarratt, M.; Mucci, A.; Tremblay, J. E.: IMPACTS OF OCEAN ACIDIFICATION ON PHYTOPLANKTONIC COMMUNITIES OF ESTUARINE AND COSTAL REGIONS OF CANADA

2664 Love, B. A.; **O'Brien, C. E.**; Bulthuis, D.: EXTREME PCO_2 VARIABILITY IN A MACROTIDAL EEL GRASS MEADOW MEDIATED BY TIDAL AND DIURNAL CYCLES

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2732 **Pérez-Pérez, N. M.**; Smith, S.; Reckenbeil, B. A.; Stoneman, A.; Ozbay, G.: THE EFFECTS OF OCEAN ACIDIFICATION ON THE EARLY LIFE STAGES OF IMPORTANT COMMERCIALLY SPECIES IN THE EAST COAST OF THE UNITED STATES

2733 **King, A. L.**; Wikfors, G. H.; Milke, L. M.; Jenkins, B. D.; Meseck, S. L.: EFFECTS OF OCEAN ACIDIFICATION ON PHYTOPLANKTON IN CULTURES AND FIELD-COLLECTED COASTAL ASSEMBLAGES

2734 **Abell, J. T.**; Bjorkstedt, E. P.; Dickson, A. G.; Fabry, V. J.: DOCUMENTING PRESENT-DAY VARIABILITY IN ARAGONITE SATURATION STATE ON THE NORTHERN CALIFORNIA CONTINENTAL SHELF

2735 **Barbero, L.**; Wanninkhof, R.: CLIMATOLOGY OF PCO2 AND ARAGONITE SATURATION STATE IN THE GULF OF MEXICO

2736 **Steppe, C. N.**; Breitburg, D.; Burrell, R.; Keppel, A. G.: THE EFFECTS OF CO-VARYING DIEL CYCLING HYPOXIA AND PH ON GAMETOGENESIS IN THE EASTERN OYSTER *CRASSOSTREA VIRGINICA*

037 Dynamics of Coupled Processes In the Ocean: A Tribute to the Career of Dr. James Murray

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2113 **Barrett, P. M.**; Resing, J. A.; Buck, N. J.; Landing, W. M.: DECADAL COMPARISON OF THE DISTRIBUTION OF PARTICULATE TRACE ELEMENTS IN THE TOP 1000 M OF THE NORTH ATLANTIC OCEAN ALONG CLIVAR SECTION A16N: 2003–2013

2114 **Liu, K. K.**; Dai, M.; Tseng, C. M.; Sui, C. H.; Oey, L. Y.: COUPLING BETWEEN SOUTH CHINA SEA THROUGHFLOW AND BIOGEOCHEMICAL CONDITIONS IN THE NORTHERN SOUTH CHINA SEA

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2190 **Moore, J. K.**: THE EFFICIENCY OF THE BIOLOGICAL PUMP: INSIGHTS FROM A GLOBAL OCEAN MODEL

039 Ocean Circulation Variability and Air–Sea Interactions In the Western Pacific and Eastern Indian Ocean

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2740 **Kim, E.**; Jeon, D. C.; Shin, C. W.; Kim, D. G.: VARIATION OF THE SOUTHERN SUBTROPICAL COUNTERCURRENT RELATED TO SEA SURFACE HEIGHT AND EDDY IN THE NORTHWEST TROPICAL PACIFIC

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2815 **Ng, B.**; Cai, W.; Walsh, K.: NONLINEAR INDIAN OCEAN DIPOLE FEEDBACKS AND THEIR RESPONSE TO A WARMING CLIMATE IN THE CMIP5 MULTIMODEL ENSEMBLE

2816 **Mensah, V.**; Jan, S.: FLOW PATTERN AND MIXING OF THE KUROSHIO INTERMEDIATE WATERS EAST OF TAIWAN

2817 **Nyadjro, E. S.**; McPhaden, M. J.: VARIABILITY OF SURFACE AND SUBSURFACE ZONAL CURRENTS IN THE EASTERN TROPICAL INDIAN OCEAN

2818 Shu, Y.; **Xue, H.**; Wang, D.; Chai, F.; Yao, J.: THE SOUTH CHINA SEA MERIDIONAL OVERTURNING CIRCULATION DERIVED FROM THE GLOBAL REANALYSIS DATA GLBA0.08

2819 **Hristova, H. G.**; Kessler, W. S.; McWilliams, J. C.; Molemaker, M. J.: ON EDDY DISTRIBUTION AND SEASONALITY IN THE SOUTHWEST TROPICAL PACIFIC OCEAN

2820 **Yang, H.**; Wu , L.: LOW-FREQUENCY VARIABILITY OF THE SOUTH CHINA SEA CIRCULATION UNDER SEASONAL WIND FORCING

2821 **Sen Jan, .**; Vigan Mensah, .; Ming-Da Chiou, .; Tien-Hsia Kuo, .; Ming-Hui Chang, .: MEASUREMENTS OF THE KUROSHIO HYDROGRAPHY AND TRANSPORT AT 23.75°N

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2826 **Pequignet, C.**; Macdonald, H. S.; Book, J. W.; Jones, N. L.; Ryan, R. J.: SPATIAL AND TEMPORAL VARIABILITY OF THE REGIONAL-SCALE CIRCULATION ON THE AUSTRALIAN NORTH WEST SHELF

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2828 **Wang, W.**; Zhu, X.: REVISITING ANNUAL MEAN AND SEASONAL CYCLE OF DEEP MERIDIONAL OVERTURNING CIRCULATION OF THE INDIAN OCEAN

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2831 **Mahajan, S.**; Saravanan, R.; Chang, P.; Hsieh, W.: AEROSOLS AND AIR-SEA THERMODYNAMIC INTERACTIONS OVER THE WESTERN PACIFIC WARM POOL REGION.

2832 **Chen, G.**; Han, W.; Li, Y.; Wang, D.: DYNAMICS OF THE EQUATORIAL UNDERCURRENT AND ITS INTERANNUAL VARIABILITY IN THE INDIAN OCEAN

2833 **Acosta, R. P.**; Goldner, A.; Herold, N.; Huber, M.: DOES THE TIBETAN PLATEAU PLAY AN IMPORTANT ROLE ON THE UPWELLING SYSTEMS IN THE ARABIAN SEA AND BAY OF BENGAL?

2834 **Kölling, J.**; Lankhorst, M.; Send, U.; Davis, R.; Kessler, W.: SIMULTANEOUS OBSERVATIONS OF THE FLOW THROUGH THE SOLOMON SEA WITH GLIDERS AND END-POINT MOORINGS

2836 **Napitu, A. M.**; Gordon, A. L.: THE SEA SURFACE TEMPERATURE RESPONSE WITHIN THE INDONESIAN SEAS TO STRONG MJO EVENTS

2889 **Ueki, .**; Ando, .: DETECTION OF PACIFIC TROPICAL WATER BEHAVIOR BY TAUT-LINE MOORINGS IN THE WESTERN EQUATORIAL PACIFIC

2890 **Hsin, Y.**: SEASONALITY OF CENTRAL POSITION AND INTENSITY OF THE SURFACE KUROSHIO EAST OF TAIWAN

2891 **Duan, A.**; Hu, W.; Wu, G.: IMPACT OF SUB-DAILY AIR-SEA INTERACTION ON SIMULATING INTRASEASONAL OSCILLATIONS OVER THE TROPICAL ASIAN MONSOON REGION

043 Biogenic Trace Gases In the Surface Ocean: From Source to Flux

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23 **Kang, J.**; Woo, H.; Koo, B.; Lee, J.; Jeong, K.: ROLE OF BENTHIC FAUNAL BURROWS IN METHANE FLUX MEASUREMENTS FROM TIDAL FLAT SEDIMENTS

24 **Bange, H. W.**; Team of M91, .: BIOGENIC TRACE GASES IN THE UPWELLING REGION OFF PERU

25 **Yang, G. P.**; Zhang , H. H.; Zhuang, G. C.: TEMPORAL AND SPATIAL VARIABILITY AND SEA-TO-AIR FLUX OF DIMETHYLSULFIDE (DMS) IN THE CHINA SEAS: KEY CONTROLLING FACTORS

26 **Schweers, J.**; Bange, H. W.; Loescher, C.; Schmitz-Streit, R.; Treude, T.: PRODUCTION OF METHANE AND NITROUS OXIDE IN SEDIMENTS FROM ECKERNFOERDE BAY (BALTIC SEA)

27 **Omori, Y.**; Tanimoto, H.; Inomata, S.; Kameyama, S.; Suzuki, K.: EVALUATION OF USING UNFILTERED SEAWATER FOR UNDERWAY MEASUREMENT OF DIMETHYL SULFIDE IN THE OCEAN BY ONLINE MASS SPECTROMETRY

28 **Zhang, H. H.**; Zhang, S. H.; Wang, X.; Yang, G. P.: SPATIAL VARIABILITY OF BIOGENIC SULFUR COMPOUNDS AND ITS RELATION WITH PHYTOPLANKTON IN THE YELLOW SEA AND THE EAST CHINA SEA DURING SUMMER

29 **Laperriere, S. M.**; Fox, R. J.; Lee, D. Y.; Cornwell, J. C.; Santoro, A. E.: THE CHESAPEAKE BAY AS A POTENTIAL SINK FOR ATMOSPHERIC NITROUS OXIDE DURING STRATIFIED SUMMER CONDITIONS

30 **Sun, J.**; Thrash, J. C.; Qian, Y.; Qian, M. C.; Giovannoni, S. J.: DMSP METABOLISM IN SAR11 PELAGIC MARINE BACTERIA

31 **Ferrón, S.**; Wilson, S. T.; del Valle, D. A.; Karl, D. M.: METHANE SOURCES IN THE UPPER OCEAN AT STATION ALOHA

32 **Wilson, S. T.**; Del Valle, D. A.; Segura-Noguera, M.; Karl, D. M.: NITRIFIER-DENITRIFICATION AS A SOURCE OF NITROUS OXIDE IN THE LOWER EUPHOTIC ZONE OF THE OLIGOTROPHIC NORTH PACIFIC SUBTROPICAL GYRE AT STATION ALOHA

33 **Farias, L.**; Besoain, V.: AN ANALYSIS OF TEN YEARS OF A BIOGEOCHEMICAL TIME SERIES IN A COASTAL UPWELLING AREA OFF CENTRAL CHILE

34 **Schulz-Bull, .**; Orlikowska, .; Stolle, .: DYNAMICS OF HALOCARBONS IN SURFACE WATERS OF THE BALTIC SEA

35 **DiTullio, G. R.**; Lee, P. A.; Cyronak, T.; Kendrick, B. J.; Riseman, S. F.: DMSP CELL QUOTAS FROM FLOW CYTOMETRICALLY-SORTED PHYTOPLANKTON FROM DIVERSE OCEANIC REGIONS

36 **Magen, C.**; Finke, N.; Komada, T.; Burdige, D. J.; Chanton, J. P.: PRODUCTION OF METHANE IN THE UPPER WATER COLUMN OF THE OPEN OCEAN ASSOCIATED WITH THE CHLOROPHYLL MAXIMUM

37 **Charoenpong, C. N.**; Bristow, L. A.; Altabet, M. A.: ENHANCEMENT OF ISOTOPE RATIO MASS SPECTROMETRY MEASUREMENTS OF N_2/AR RATIOS AND $<^{15}N_2$ THROUGH O_2 REMOVAL

38 **Klein, N. J.**; Gomez-Consarnau, L.; Cutter, L. S.; Sanudo-Wilhelmy, S. A.: PRODUCTION OF HALOCARBONS IN MARINE HETEROTROPHIC BACTERIAL CULTURES

048 Ocean Primary Productivity: Variability and Influence

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2951 **Steele, D. J.**; Airs, R. L.; Kimmance, S. A.; Franklin, D. J.: CELL VIABILITY AND CHLOROPHYLL ALTERATION IN EUKARYOTE PHYTOPLANKTON; EXPLORING THE RELATIONSHIP BETWEEN CELL PIGMENTS AND CELL DEATH.

2953 **Lee, S. H.**; Kang, S. H.; Whitledge, T. E.: SMALL PHYTOPLANKTON CONTRIBUTION TO TOTAL PRIMARY PRODUCTION IN THE CHUKCHI SEA

2954 Fruendt, B.; **Waniek, J. J.**: RETRIEVING PAST CHLOROPHYLL A FIELD FROM TEMPERATURE FIELD IN THE OLIGOTROPHIC SUBTROPICAL OCEANS

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2957 **Munoz, E.**; Lindsay, K.: ENSEMBLE VARIANCE OF SIMULATED PRIMARY PRODUCTION IN THE INDIAN OCEAN

2958 **Frances Rivera, N.**; Alejandro Carrera, .; Angelie Cartagena , R.; Nicole Fuentes, .; Miguel Sastre, P.: SHORT-TERM CHANGES IN THE PLANKTONIC COMMUNITY COMPOSITION IN LAGUNA GRANDE, PUERTO RICO, AT THE ONSET OF THE RAINY SEASON, FROM APRIL 4 TO MAY 27, 2011

2994 **Gong, X.**; Gao, H. W.; Shi, J.; Yao, X. H.: THE NUTRITIVE AND PHOTOSYNTHESIS IN SUBSURFACE CHLOROPHYLL MAXIMUM LAYER IN THE NORTHERN SOUTH CHINA SEA

2995 **Son, S.**; Wang, M.; Harding, L. W.: SATELLITE-MEASURED NET PRIMARY PRODUCTION IN THE CHESAPEAKE BAY FROM MODIS AND VIIRS

2996 **Olhsson, E.**; Powell, T. M.: CAPTURING EVENT-DRIVEN RIVERINE NUTRIENT DELIVERY TO COASTAL OCEAN BIOLOGY THROUGH MESOSCALE MODELING

2997 **Kwon, B.**; Khim, J.: THE SHORT-TERM EFFECT OF HIGH CO2 CONCENTRATION ON BENTHIC MICROALGAL PRODUCTION

2998 **Vaillancourt, R. D.**; Marra, J.; Lance, V.; Hargreaves, B.: NITROGEN AVAILABILITY AND LIGHT INTENSITY SIMULTANEOUSLY CONTROL PHOTOSYNTHETIC QUANTUM YIELD IN THE STRATIFIED OCEAN

2999 **de Oca, M.**; Reichert, M. H.; Johnson, Z. I.: THE MAGNITUDE AND REGULATION OF *PROCHLOROCOCCUS* AND *SYNECHOCOCCUS* PRIMARY PRODUCTION IN THE NORTHERN PACIFIC OCEAN

3000 **Lee, Y. J.**; Matrai, P. A.; Friedrichs, M. A.; Saba, V. S.: PRIMARY PRODUCTIVITY ALGORITHM ROUND ROBIN FOR THE ARCTIC OCEAN

3001 **Yao, F.**; Hoteit, I.: THERMOCLINE REGULATED SURFACE CHLOROPHYLL BLOOMS IN THE GULF OF ADEN

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3027 **Hynes, A. M.**; Binder, B. J.: TUNING DAILY RHYTHMS: PARAMETER OPTIMIZATION FOR AN INDIVIDUAL-BASED MODEL OF DIEL CYCLES IN*PROCHLOROCOCCUS*

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3030 **Li, Z.**; Cassar, N.: ESTIMATION OF GLOBAL NET COMMUNITY PRODUCTION BASED ON *IN-SITU* O_2/AR MEASUREMENTS AND REMOTELY SENSED PROPERTIES

3031 **Meyerink, S. W.**; Ellwood, M.; Strzepek, R.: VARIATIONS IN SILICON UPTAKE KINETICS AND NUTRIENT STOICHIOMETRY IN THREE DIATOM SPECIES AS A RESULT OF CHRONIC IRON LIMITATION

3032 **Haskell II, W. Z.**; Prokopenko, M. G.; Hammond, D. E.; Stanley, R. H.; Berelson, W. M.: EXPLORING THE EFFECT OF UPWELLING ON ECOSYSTEM EXPORT EFFICIENCY IN SOUTHERN CALIFORNIA USING THE CONCENTRATION AND ISOTOPIC COMPOSITION OF DISSOLVED OXYGEN

3033 **Pan, X.**: SPATIAL AND SEASONAL VARIATIONS IN PRIMARY PRODUCTION IN THE NORTHERN SOUTH CHINA SEA

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3080 **Liu, L.**; Lee, Z. P.: A STUDY ON THE IMPACT OF HOURLY CLOUD INFORMATION ON THE ESTIMATION OF MULTI-DAY PRIMARY PRODUCTION

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3082 **Reifel, K. M.**; Graff, J. R.; Dall'Olmo, G.; Behrenfeld, M. J.: MEASURING PHYTOPLANKTON BIOMASS IN THE FIELD: OLD ESTIMATES AND NEW METHODS

3083 **Kranz, S. A.**; Morel, F. M.; Tortell, P. D.: INORGANIC CARBON ACQUISITION BY ANTARCTIC PHYTOPLANKTON DURING A SPRING BLOOM

3084 **Schuback, N.**; Maldonado, M. T.; Tortell, P. D.: FRRF AS A TOOL TO ASSESS PHYTOPLANKTON PHOTO-PHYSIOLOGY, PRIMARY PRODUCTIVITY AND COMMUNITY COMPOSITION – FIELD STUDIES IN THE SUBARCTIC NE PACIFIC

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3087 **Ghisolfi, R. D.**; Da Silva, M. P.; Servino, R. N.; Santo, F. T.; Fernandes, M.: THE INFLUENCE OF LOCAL DYNAMICS ON THE SEASONAL VARIABILITY OF CHLOROPHYLL-A OVER THE ROYAL-CHARLOTTE AND ABROLHOS BANK – BRAZIL - WESTERN ATLANTIC OCEAN

3088 **Mulholland, M. R.**; Bernhardt, P. W.; Mannino, A.; Hyde, K.: SEASONAL AND INTERANNUAL VARIABILITY IN NITROGEN UPTAKE IN THE MIDDLE ATLANTIC BIGHT AND GULF OF MAINE

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3138 **Leung, S. W.**; Marinov, I.; Cabre, A.: A SOUTHERN ANNULAR MODE (SAM) DRIVEN PHYTOPLANKTON PRODUCTIVITY RESPONSE TO 21STCCENTURY CLIMATE CHANGE IN THE SOUTHERN OCEAN ACROSS THE CMIP5 MODEL SUITE

3139 **Kinkade, D. B.**; Allison, M. D.; chandler, C. L.; Groman, R. C.; Galvarino, C.: ACCESS TO MARINE PRIMARY PRODUCTION DATA AND METADATA IN THE BCO-DMO REPOSITORY

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MONDAY

062 Linking Molecular 'Omics' Measurements to Develop Conceptual and Computational Models of Ocean Microbial Ecology, Diversity and Biogeochemistry

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149 **Johnson, W. M.**; Kido Soule, M. C.; Kujawinski, E. B.: COUPLING TARGETED AND UNTARGETED METABOLOMICS TO UNDERSTAND THE IMPACT OF CARBON SUBSTRATE ON THE METABOLISM OF *RUEGERIA POMEROYI*

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154 **Szul, M. J.**; Silbaugh, M.; Johnson, Z. I.; Campagna, S.; Zinser, E.: METABOLOMIC ASSESSMENT OF INORGANIC CARBON ASSIMILATION BY PHYTOPLANKTON IN THE N. PACIFIC OCEAN

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156 **Rocap, G.**; Nunn, B. L.; Reistetter, E. N.; Saunders, J. K.; Moore, L. R.: PHOSPHORUS STRESS RESPONSES IN PROCHLOROCOCCUS: INSIGHTS FROM PROTEOMICS

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160 **Morris, R. M.**; Nunn, B. A.: SHIFTING PATTERNS OF MICROBIAL PROTEIN EXPRESSION ACROSS A PERSISTENT OCEANOGRAPHIC "HOT SPOT" IN THE NORTH PACIFIC

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162 **Chivian, D.**; Meyer, F.; Stevens, R.; Arkin, A. P.: KBASE MICROBIAL COMMUNTIES: AN INTEGRATED KNOWLEDGEBASE FOR PREDICTIVE BIOLOGY AND ENVIRONMENTAL RESEARCH

064 Surface Ocean Lower Atmosphere Study (SOLAS): Advances and Impacts of Ocean Derived Aerosols and Atmospheric Nutrient Inputs

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1201 **Chen, Y.**; Zhu, L.; Xu, Z.; Wang, F.: MAY AMMONIUM INDUCE THE BLOOM OF DINOFLAGELLATE IN THE EAST CHINA SEA?

1202 **Gao, H. W.**; Liu, Y.; Shi, J. H.; Yao, X. H.: IMPACT OF ASIAN DUST ON THE GROWTH OF PHYTOPLANKTON IN THE SOUTHERN YELLOW SEA: RESPONSES OF CHLOROPHYLL IN TWO INCUBATION EXPERIMENTS

1203 **Kontradowitz, S.**; Brévière, E.: SURFACE OCEAN – LOWER ATMOSPHERE STUDY (SOLAS)

1204 **Qi, J. H.**; Shi, J. H.; Gao, H. W.: ATMOSPHERIC DRY AND WET DEPOSITION OF NITROGEN SPECIES AND ITS IMPLICATION FOR PRIMARY PRODUCTIVITY IN COASTAL REGION OF THEYELLOW SEA, CHINA

1205 **Elizabeth/Asher, C.**; John/Dacey, W. H.; Philippe/Tortell, D.: CONCENTRATIONS AND TURNOVER RATES OF DIMETHYLSULFIDE (DMS) IN COASTAL AND OFFSHORE WATERS OF THE SUBARCTIC PACIFIC DURING SUMMER 2010- 2011

1206 **Lu, X.**; Hu, Y.: OCEAN SURFACE AND SUBSURFACE STUDIES FROM SPACE-BASED LIDAR MEASUREMENTS

1207 **Tesdal, J. E.**; Christian, J. R.; Monahan, A. H.; von Salzen, K.: THE INFLUENCE OF OCEANIC DMS ON MARINE AEROSOL AND ITS RADIATIVE EFFECTS

1208 Teng, H.; Shank, L. M.; Ting, H.; Hinz, D.; **Johansen, A. M.**: CHEMICAL COMPOSITION OF SIZE-FRACTIONATED AEROSOLS COLLECTED OVER THE EQUATORIAL PACIFIC OCEAN: FERROUS IRON AND RELATED COMPOUNDS

1209 **Naoe, R.**; Takeda, S.; Tamura, K.: EAST-WEST GRADIENT OF ATMOSPHERIC NITROGEN DEPOSITION OVER THE SUBARCTIC NORTH PACIFIC DURING SUMMER

1210 Altieri, K. E.; **Hastings, M. G.**; Peters, A.; Sigman, D. M.: IT'S NOT ALL POLLUTION: NEW INSIGHTS INTO THE OCEAN AS A SOURCE OF ATMOSPHERIC N IN THE NORTH ATLANTIC REGION

1311 **Langmann, B.**; Hudy, A.; Hort, M.: ON THE CONTRIBUTION OF VOLCANIC ASH MOBILIZATION BY WIND TO SURFACE OCEAN FERTILIZATION

1312 **D ANNA/Barbara, .**; SELLEGRI/Karine, .; Marchand/Nicolas, .; Sempéré/Richard, .; Mas/Sebastien, .: MARINE PRIMARY AEROSOL IN THE MEDITERRANEAN ATMOSPHERE: PHYSICAL AND CHEMICAL PROPERTIES FROM A MESOCOSM STUDY

1313 **Souza, R. B.**; Pezzi, L. P.: IN SITU OCEAN-ATMOSPHERE OBSERVATIONS IN THE BRAZIL-MALVINAS CONFLUENCE (BMC) REGION: A DECADE OF EFFORTS BY BRAZIL

1314 **Tanaka, K.**: INTER-OCEAN SCALE METEOROLOGICAL SYSTEMS RESULTED IN METEOTSUNAMI OVER THE EAST CHINA SEA

1315 **Langmann, B.**; Hudy, A.; Hort, M.: ON THE CONTRIBUTION OF VOLCANIC ASH MOBILIZATION BY WIND TO SURFACE OCEAN FERTILIZATION

070 Policy Impacts of Ocean Research: Communicating Science to Decision-Makers

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1536 **Landrum, J. P.**: THE SCIENCE OF MARINE DEBRIS: GUIDING PREVENTION AND MANAGEMENT

1537 **Burston, J. M.**; Ware, D.; Tomlinson, R.: INTERPRETATION OF PROBABILISTIC OUTPUT OF TROPICAL CYCLONE STORM TIDE FORECASTING FOR EMERGENCY MANAGEMENT

1538 **Schopmeyer, S. A.**; Liehr, G. A.; Lirman, D.; Serafy, J. E.; Browder, J. A.: DEVELOPING AND COMMUNICATING METRICS OF RESTORATION SUCCESS FOR THE COASTAL LAGOONS OF SOUTH FLORIDA AT THE INTERSECTION OF SCIENCE, MANAGEMENT, AND POLICY

1539 **Johnson, S.**; Fox, D. A.; Wetherbee, B. M.: BRIDGING THE GAP BETWEEN HUMANS AND SHARKS TO BUILD A CONSERVATION PLAN FOR SAND TIGERS (*CARCHARIAS TAURUS*) IN DELAWARE BAY

1540 **Frias-Torres, S.**: FROM MONSTER TO FRIEND: CHANGING PERCEPTIONS OF FLORIDA DECISION-MAKERS ON GOLIATH GROUPERS

1566 Nixon, M. E.; **Norton, E. L.**: OFFSHORE BATHYMETRIC AND BACKSCATTER DATA FOR OCEAN SPATIAL PLANNING IN MAINE

1567 **Antia, A. N.**; Schmidt, J. O.: PREPARING YOUNG SCIENTISTS FOR THE POLICY IMPACTS OF THEIR RESEARCH

1568 **Vigness-Raposa, K. J.**; Ellison, W. T.; Frankel, A. S.; Southall, B. L.: PARAMETRIC MODELING OF THE EXPOSURE OF MARINE MAMMALS TO UNDERWATER SOUND FROM ANTHROPOGENIC SOURCES: 20 YEARS OF RESEARCH AND REGULATIONS

1569 **Hannides, A. K.**: OCEANOGRAPHIC RESEARCH IN SUPPORT OF EUROPEAN UNION MARINE PROTECTION LEGISLATION IN THE EXTENSIVE EEZ OF AN ISLAND MEMBER-STATE

1570 **Bauer, J.**; Rose, K.: NOVEL GEOVISUALIZATION APPROACH TO SIMULTANEOUSLY COMMUNICATE SPATIAL TRENDS AND UNCERTAINTY ASSOCIATED WITH DISCONTINUOUS DATASETS

082 Sediment Delivery, Transport and Deposition In Aquatic Environments

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15 **Choi, J.**; Yang, H.; Park, Y.: GOCI FOR THE TEMPORAL DYNAMICS OF KOREAN COASTAL WATER

16 **Ge, J.**; Ding, P.; Guo, W.; Zheng, D.; Kong, Y.: NUMERICAL SIMULATION OF COHESIVE MUD SUSPENSION IN HIGH-CONCENTRATED TIDAL CHANNEL OF THE CHANGJIANG ESTUARY

17 **Brown, J. M.**; Amoudry , L. O.; Souza, A. J.; Rees, J.: ESTUARINE PARTICLE TRACKING – DIVERGENCE IN SEDIMENT PATHS

18 **Arenas, V. E.**; Menanteau, L.: THOUSANDFOLD SEDIMENT DELIVERY, PORT DEVELOPMENT AND CORAL REEF CONSERVATION: THE 500 YEARS VERACRUZ DILEMMA.

19 **ALBUQUERQUE, Ana Luiza, .**; BELEM, Andre L., .; CAPILLA, Ramsés, .: PARTICLE FLUXES AND SOURCE CHARACTERIZATION ON A WESTERN BOUNDARY UPWELLING SYSTEM IN SOUTHEASTERN BRAZIL: SEDIMENT TRAP EXPERIMENTS

20 **Woo, H.**; Cho, J.; Lee, Y.; Kang, J.; Choi, J.: LONG-TERM CHANGES OF SEDIMENTARY ENVIRONMENTS AT THE SOUTHERN KANGHWA TIDAL FLAT, WEST COAST OF KOREA

21 **Guo, Z.**; Hu, L.: DISPERSAL AND FATE OF YELLOW RIVER-DERIVED SEDIMENTS IN THE BOHAI SEA INFERRING FROM ORGANIC GEOCHEMICAL TRACERS

22 **Pritchard, M.**; Green, M. O.; MacDonald, I.: SEDIMENT TRANSPORT IN A LARGE NATURAL HARBOR AND INTERCONNECTING ESTUARINE SYSTEM: THE KAIPARA HARBOUR, NEW ZEALAND

59 **Cho, H.**; Lee, Y.; Kim, S.; Ahn, S.; Choi, H.: SEDIMENT PROVENANCE OF SOUTHWESTERN CHEJU ISLAND MUD USING PRINCIPAL COMPONENT ANALYSIS

60 **Song, D.**; Wang, H.: SUSPENDED SEDIMENT TRANSPORT IN THE DEEPWATER NAVIGATION CHANNEL OF THE YANGTZE RIVER ESTUARY IN DRY SEASON 2009

61 **Bi, N. S.**; Wang, H. J.; Yang, Z. S.: RECENT CHANGES IN THE EROSION-ACCRETION PATTERNS OF THE ACTIVE HUANGHE (YELLOW RIVER) DELTA LOBE BY HUMAN ACTIVITIES

62 **Zhang, H. Y.**; Zhao, L.; Sun, Y.: CONTRIBUTION OF SEDIMENT OXYGEN DEMAND TO THE HYPOXIA OFF THE CHANGJIANG ESTUARY

63 Bosman, A.; Madricardo, F.; **Remia, A.**; Correggiari, A.; Romagnoli, C.: FIRST MORPHOLOGICAL MAPPING OF THE PO DELTA (NORTH ADRIATIC SEA) FROM THE ULTRA HIGH-RESOLUTION MULTIBEAM BATHYMETRY AND BACKSCATTER DATA

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66 **Jiang, X.**; Ning, J.; Sui, J.; Xu, B.; Yu, Z.: REDOX SENSITIVE TRACE ELEMENTS (U, CR, V) AND THEIR RESPONSE TO THE REDOX CONDITIONS IN THE PORE WATER OF SEDIMENT ALONG THE COAST OF EAST CHINA SEA

95 **McSweeney, J.**; Wilkin, J.; Chant, R.: BIOGEOCHEMICAL RESPONSES TO SEDIMENT DYNAMICS AND LIGHT LIMITATION IN THE DELAWARE ESTUARY

96 **Carlin, J. A.**; Dellapenna, T. M.: EVENT SEDIMENTATION ON A SUBAQUEOUS DELTA: UNDERSTANDING THE INTERPLAY OF SEDIMENT SUPPLY AND REMOBILIZATION IN SHAPING THE GROWTH OF AN ANTHROPOCENE DELTA

97 **Johnson, K. W.**; Dellapenna, T. M.: EVIDENCE OF CONSTRUCTIONAL RAVINEMENT ON A TRANSGRESSIVE BARRIER COAST: STORM GENERATED MORPHOLOGY PRESERVED ON THE INNER SHELF OF THE NORTHWEST GULF OF MEXICO

98 **Smith, B.**; Silliman, J.: THE DEPOSITIONAL HISTORY OF OSO BAY; A SOUTH TEXAS TIDAL FLAT

99 **Lee, A. J.**: IMPACTS OF SUMMER STORM ACTIVITY ON SEAFLOOR FEATURES OFFSHORE FROM FOLLY BEACH, SOUTH CAROLINA, USA.

100 **Niemistö, J. P.**; Joensuu, M.; Virkkala, N.: SEDIMENT RESUSPENSION AND NUTRIENT DYNAMICS IN THE SHALLOW AREAS OF THE BALTIC SEA – IMPLICATIONS OF CLIMATE CHANGE

101 **Takagawa, T.**; Sato, S.; Nagasaka, Y.; Yamanaka, Y.: USING RADIO FREQUENCY IDENTIFICATION TAGS TO INVESTIGATE GRAVEL TRANSPORT ON A SAND-GRAVEL MIXED BEACH

102 Correggiari, A.; **Miserocchi, S.**; Tesi, T.; Albertazzi, S.; Iacovone, V.: LINKING DELTAIC SEDIMENTATION AND THE POLLUTION HISTORY: AN INTEGRATED APPROACH IN THE PO RIVER DELTA, ITALY

085 Towards A Global Ocean Biogeochemical Observing System Based On Profiling Floats and Gliders

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1771 **Johnson, K. S.**; Riser, S. C.: DECOUPLING OF NUTRIENT, CARBON AND OXYGEN CYCLES IN THE NORTH ATLANTIC: FIVE YEARS OF PROFILING FLOAT OBSERVATIONS NEAR BATS

1772 **Pasqueron de Fommervault, O.**; Taillandier, V.; D'Ortenzio, F.; Lavigne, H.; Migon, C.: MONITORING OF DEEP CONVECTION AND PHYTOPLANKTON BLOOM PROCESSES IN THE NORTH WESTERN MEDITERRANEAN SEA USING BIOGEOCHEMICAL PROFILING FLOATS

1773 **Beck, M. R.**; Comeau, A. J.; Davis, R. F.; Pye, J. D.; Cullen, J. J.: INCREASING THE ACCURACY OF AUTONOMOUS, FLUORESCENCE-BASED ESTIMATES OF CHLOROPHYLL-A: A BIO-OPTICAL APPROACH

1774 **Sakamoto, C. M.**; Johnson, K. S.; Coletti, L. J.; Swift, D.; Riser, S.: A NORTH PACIFIC BIOGEOCHEMICAL OBSERVING SYSTEM USING PROFILING FLOATS

1775 **Poteau, A.**; Schmechtig, C.; Obolensky, G.; D'Ortenzio, F.; Claustre, H.: GENERATING A CONSISTENT DATASET OF BIOGEOCHEMICAL PROFILES ACQUIRED BY BIO-ARGO FLOATS.

1776 **Claustre, H.**; Tallandier, V.; Obolensky, G.; Vellucci, V.; Gentili, B.: CHARACTERIZATION AND BIOGEOCHEMICAL IMPACT OF INTENSE SUMMER DCM IN THE NORTHWESTERN MEDITERRANEAN: A MULTI-INSTRUMENTED GLIDER AND PROFILING FLOAT APPROACH.

1777 **Jannasch, H. W.**; Johnson, K. S.; Coletti, L. J.; Elrod, V.; Takeshita, Y.: PRESSURE TOLERANT DURAFET PH SENSORS ON APEX PROFILING FLOATS

1778 Besson, F.; Taillandier, V.; Obolensky, G.; **Claustre, H.**: FIRST TRANSECTS OF THE GLIDER *SEAEXPLORER*: DATA QUALITY CONTROL AND INTERCOMPARISON WITHIN THE MEDITERRANEAN OCEAN OBSERVING SYSTEM

1779 **Uchida, H.**; Sato, K.; Hosoda, S.: LABORATORY CALIBRATION OF OPTODE-BASED OXYGEN SENSORS FOR PROFILING FLOATS

1780 **Edouard Leymarie, .**; Christophe Penkerc'h, .; Hervé Claustre, .; David Antoine, .: PROVAL : A NEW PROFILING FLOAT DEDICATED TO VALIDATION OF OCEAN COLOR REMOTE SENSING OBSERVATIONS

1781 The GROOM consortium, .; **Schauer, U.**: GLIDERS FOR RESEARCH, OCEAN OBSERVATION AND MANAGEMENT - GROOM

1782 **Gomez-Ibanez, D.**; McCartney, K.; German, C.; Yoerger, D.; Breier, J.: RECENT ADVANCES IN GEOCHEMICAL AND BIOLOGICAL SAMPLING INSTRUMENTATION: FROM REMOTE AND AUTONOMOUS VEHICLES TO THE CLIO BIOGEOCHEMICAL PROFILER.

1799 Fiedler, B.; Fietzek, P.; Silva, P.; Karstensen, J.; **Körtzinger, A.**: CLOSING GAPS: INVESTIGATING THE MARINE CARBON CYCLE USING AUTONOMOUS MOBILE PLATFORMS

1800 **Walsh, I. D.**; Murphy, D. J.; Mitchell, T. O.: SLOPE TO BASIN AND VERTICAL PARTICLE TRANSPORT DYNAMICS MEASURED WITH A PROFILING BIOGEOCHEMICAL FLOAT

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1802 **Hamilton, C. M.**; Bishop, J. K.; Wood, T. j.: CARBON FLUX EXPLORER: QUANTIFYING THE COMPOSITION, VERTICAL DISTRIBUTION, AND DIURNAL VARIABILITY OF SEDIMENTATION IN THE SANTA CRUZ BASIN

1803 **Checkley, D. M.**; Jackson, G. A.; Dagg, M. J.; Forrest-Baldini, J.: IMAGING PARTICLES FROM AUTONOMOUS PROFILING FLOATS: THE SOLOPC AND THE FUTURE

088 Climate-Mediated Oceanographic Drivers and Trophic Interactions In High Latitude Marginal Seas: Observations, Modeling, and Syntheses and Consequences for Commercial Fisheries

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1134 **Cokelet, E. D.**: WATER MASSES OF THE EASTERN BERING SEA SHELF

1135 **Pinchuk, A. I.**; Coyle, K. O.; Eisner, L. B.; Napp, J. M.: CLIMATE-INDUCED VARIABILITY IN CALANUS SPP. DEVELOPMENT AND SPAWNING IN THE EASTERN BERING SEA

1136 **Pleuthner, R. L.**; Harvey, H. R.: DISTINCT FEEDING STRATEGIES IN TWO SPECIES OF BERING SEA EUPHAUSIIDS DOCUMENTED BY MULTIPLE LIPID BIOMARKERS

1137 **Walston, J. M.**; Gibson, G. A.; Walsh, J.: EVALUATION OF EXTREME EVENTS OVER THE BERING SEA SIMULATED BY THE COMMUNITY CLIMATE SYSTEM MODEL, VERSION 4

1138 **Deibel, D.**; Saunders, P.: SEASONAL PHENOLOGY OF APPENDICULARIAN TUNICATE POPULATIONS IN THE NORTHWATER POLYNYA

1145 **Gibson, G. A.**; Hermann, A. J.; Hedstrom, K.; Curchitser, E. N.: A MODELING STUDY TO EXPLORE ON-SHELF TRANSPORT OF OCEANIC ZOOPLANKTON IN THE EASTERN BERING SEA

1146 **Campbell, R. G.**; Gelfman, C.; Dennis, M.; McCoy, I.; Ashjian, C. J.: POPULATION GENETICS OF THE *CALANUS GLACIALIS/MARSHALLAE* SPECIES COMPLEX IN THE BERING AND WESTERN ARCTIC SEAS

1147 **Ortiz, I.**; Aydin, K.; Hermann, A.; Gibson, G.: SEASONAL FISH GROWTH AND MORTALITY DURING COLD AND WARM YEARS IN THE EASTERN BERING SEA

1148 **Trahanovsky, K. A.**; Whitledge, T. E.: TWELVE YEARS OF OBSERVED SPRING NUTRIENT LEVELS IN THE NORTHERN GULF OF ALASKA: 1998-2010

1149 **Laurel, B. J.**; Spencer, M.; Copeman, L. A.: GROWTH RATES OF JUVENILE ARCTIC COD (BOREOGADUS SAIDA) AND SAFFRON COD (ELEGINUS GRACILIS) IN A WARMING OCEAN

098 Lipids As Tracers of Organic Matter Pathways In Marine Ecosystems

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266 **Horstmann-Dehn, L.**; George, C.; Oliveira, A.: YOU ARE WHAT YOU EAT? DIFFERENTIAL DIGESTION AND MODIFICATION OF FATTY ACIDS IN THE ALIMENTARY TRACT OF BOWHEAD WHALES

267 **Schollmeier, T.**; Iken, K.; Oliveira, A.: EVALUATION OF THE EXTRACTION EFFICIENCY OF TWO SOLVENT SYSTEMS USING ACCELERATED SOLVENT EXTRACTION

268 **Connelly, T. L.**; McClelland, J. W.; Crump, B. C.; Kellogg, C. T.; Dunton, K. H.: DISTINCT SEASONALITY IN SOURCES AND COMPOSITION OF PARTICULATE ORGANIC MATTER IN ARCTIC LAGOONS AS REVEALED BY FATTY ACID PROFILES AND BULK STABLE ISOTOPES

269 **Cui, X.**; Bianchi, T. S.; Savage, C.: COMPARISONS OF LIPIDS WITH OTHER PROXIES IN TRACING TERRESTRIAL ORGANIC MATTER IN SEDIMENTS: A CASE STUDY IN FIORDLAND, NEW ZEALAND

270 **Campbell-Swarzenski, P.**; Prouty, N. G.; Mienis, F.; Ross, S. W.: LIPID BIOMARKERS TRACK CHANGING ORGANIC MATTER LOADS TO GULF OF MEXICO DEEP-WATER CORALS

271 **BODIN, N.**; Pethybridge, H.: SPATIO-TEMPORAL AND INTER-SPECIFIC VARIABILITY IN LIPID AND FATTY ACID TRACERS IN FORAGE FISHES FROM THE NW MEDITERRANEAN

272 **Regula-Whitefield, C. M.**; Hardy, S. M.; Oliveira, A. C.: TAXONOMIC COMPOSITION AFFECTS PHYTODETRITUS NUTRITIONAL VALUE, WITH CONSEQUENCES FOR EGG PRODUCTION IN A DEPOSIT-FEEDING SEA CUCUMBER

273 **Taylor, K. A.**; Harvey, H. R.: LIPIDS AS TRACERS OF FEEDING HISTORY ACROSS MULTIPLE TROPHIC LEVELS IN THE ALASKAN NEPTUNE WHELK (*NEPTUNEA* SPP.)

274 **Del Angel-Rodríguez, J. A.**; Parrish, C. C.; Gómez-Gutiérrez, J.: VARIABILITY IN FOOD QUALITY IN SUBTROPICAL KRILL NYCTIPHANES SIMPLEX IN DIFFERENT HYDROGRAPHIC REGIMES OF THE GULF OF CALIFORNIA REVEALED BY FATTY ACID

275 **Drazen, J. C.**; Choy, C. A.; Neuheimer, A.; Phleger, C. F.; Nichols, P. D.: EXAMINING THE HAWAIIAN PELAGIC FOOD WEB FROM THE EPIPELAGIC TO THE MESOPELAGIC USING FATTY ACID BIOMARKERS

276 **Parrish, C. C.**; Nichols, P. D.; Young, J. W.: DIRECT DETERMINATION OF FATTY ACIDS IN FISH TISSUE IN ORDER TO DEFINE AND THEN QUANTIFY TOP PREDATOR TROPHIC CONNECTIONS IN THE SOUTHWESTERN PACIFIC

277 **Belyaev, N. A.**; Ponyaev, M. S.: ORGANIC MATTER ON GEOCHEMICAL BORDERS IN THE KARA SEA.

278 **Hunter, J. E.**; Brandsma, J.; Moore, C. M.; Attard, G. S.; Mills, R. A.: LIPID REMODELLING BY THE DIATOM THALASSIOSIRA PSEUDONANA UNDER PHOSPHORUS STARVATION – NEW INSIGHTS INTO PHYTOPLANKTON METABOLISM AND CANDIDATE BIOMARKERS

279 **Mayor, D. J.**; Sharples, C. J.; Webster, L.; Walsham, P.; Lacaze, J. P.: FOOD AND PHYSIOLOGY INFLUENCE THE FATTY ACID SIGNATURES OF TISSUES FROM THE DEEP-SEA FISH, *CORYPHAENOIDES ARMATUS*

280 **Hardy, S. M.**; Dissen, J. N.; Oliveira, A.: DETRITAL FOOD QUALITY AND QUANTITY AS PREDICTORS OF COMMUNITY STRUCTURE ON THE BEAUFORT SEA CONTINENTAL SLOPE

297 **Thurber, A. R.**; Welsh, R.: MICROBIAL-ANIMAL COMPETITION IN THE COLD: CARBON CYCLING IN A HIGH ANTARCTIC INFAUNAL FOOD WEB

103 Biogoechemistry of Permeable Environments

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2191 **Kessler, A. J.**; Glud, R. N.; Cardenas, M. B.; Cook, P. L.: COUPLED NITRIFICATION-DENITRIFICATION IS INHIBITED IN PERMEABLE SEDIMENTS

2192 **Huettel, M. H.**; Berg, P.; Brignole, P.: OXYGEN FLUXES IN CARBONATE CORAL REEF SANDS MEASURED WITH THE EDDY CORRELATION TECHNIQUE

2195 **Ahmerkamp, S.**; Winter, C.; Kuypers, M. M.; Holtappels, M.: MODELLING THE INTERACTION OF MIGRATING RIPPLES AND PRESSURE DRIVEN ADVECTIVE POREWATER FLOW

2196 **Ding, H.**; Sui, W.; Sun, C.; Sun, L.; Yang, G.: DEGRADATION OF LIPIDS IN SEASONAL HYPOXIA SEDIMENT-SEAWATER INTERFACE

2197 **Albright, A. T.**; Reimers, C. E.; Özkan-Haller, H. T.; Berg, P.: MODELING EDDY CORRELATION BIASES CREATED BY VELOCITY SENSITIVITIES OF CLARK-TYPE OXYGEN MICROELECTRODES UNDER WAVES

2198 **Marchant, H. K.**; Lavik, G.; Holtappels, M.; Kuypers, M. M.: COMPLEX NITROGEN CYCLING IN EUTROPHIED COASTAL SANDS

2199 **Savidge, W. B.**; Wilson, A. M.; Woodward, G. L.: USING TEMPERATURE TIME SERIES TO MODEL TIME-VARYING POREWATER EXCHANGE IN A SANDY CONTINENTAL SHELF SEDIMENT

2200 **Mendes, S. D.**; Duncombe, R.; Valentine, D. L.: MICROBIAL OXIDATION OF ETHANE WITHIN SEEP SEDIMENT AT COAL OIL POINT, SANTA BARBARA, CA

2201 **Charbonnier, C.**; Anschutz, P.; Abril, G.; Deirmendjian, L.; Lecroart, P.: BIOGEOCHEMISTRY IN PERMEABLE SANDY SEDIMENTS OF ULTRA HIGH-ENERGY TIDAL BEACHES: DIC AND CO2 RELEASE ALONG THE SUBTERRANEAN ESTUARY

2202 **mariotti, g.**; Perron, J. T.; Gao, Y.; Klepac-Ceraj, V.; Bosak, T.: HYDRODYNAMIC AND CHEMICAL CONTROLS ON MICROBIAL MAT GROWTH IN SANDY COASTAL ENVIRONMENTS

2203 **Vink, S.**; Kerr, J.: BIOGEOCHEMISTRY OF PERMEABLE STREAMBED SEDIMENTS

2204 **Hannides, A. K.**; Glazer, B. T.; Sansone, F. J.: MICROPHYTOBENTHIC PRIMARY PRODUCERS IN CALCAREOUS SANDS: ABUNDANCE, DIVERSITY AND FUNCTION

105 Real-Time Data, Technology, and Engineering for Ocean Science Education and Outreach

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1725 Uitz, J.; **Scheurle, C.**; Lavigne, H.; de Fommervault, O.; Sauzede, R.: "ADOPT A FLOAT": AN INITIATIVE DESIGNED FOR MIDDLE SCHOOL STUDENTS TO FOLLOW THE VOYAGE OF A BIO-ARGO PROFILING FLOAT AND SHARE EXPERIENCES WITH OCEANOGRAPHERS

1726 **Pasqueron de Fommervault, O.**; Sauzède, R.; Scheurle, C.; Claustre, H.; D'Ortenzio, F.: VOYAGE OF A PROFILING FLOAT: A SCIENTIFIC ADVENTURE TOLD TO YOUNG PEOPLE

1727 **Wienders, N.**; Hole, L. R.; Ippolito, T.; Field, M.; Peddie, D.: THE SAILBUOY EXPERIMENT

1728 **Hotaling, L. A.**: SENSE IT: STUDENT-CREATED WATER QUALITY SENSORS

1729 **Iwamoto, M. M.**; Maurer, J.; Brown, D.: USING REAL-TIME DATA IN THE CLASSROOM WITH THE PACIFIC ISLANDS OCEAN OBSERVING SYSTEM (PACIOOS) VOYAGER

1730 **Poteau, A.**; Claustre, H.; Schmechtig, C.; Scheurle, C.: A USER-FRIENDLY APPROACH TO VISUALIZE DATA RELATING "SCIENCE" AND "OUTREACH"

1756 **Lemon, D. D.**; Dewey, R. K.; Clarke, M. R.: LOW POWER MULTI-FREQUENCY SONAR FOR NEAR REAL TIME LONG-TERM OBSERVATIONS OF VOLUME BACKSCATTER

1757 **Bliss, A. C.**; Bell, E. V.; Thomas, C.; Spence, L. L.; Hathaway, T. K.: USING ELEMENTARY BASIC OBSERVATION BUOYS (EBOBS) AND REMOTELY OPERATED VEHICLES FOR ELEMENTARY STUDENTS (ROVES) TO SPARK 3RD – 5TH GRADE INTERESTS IN STEM

1758 **Scheurle, C.**; Claustre, H.; Uitz, J.; Sciandra, A.; MOM team, .: "MON OCPAN & MOI" – AN OUTREACH CONCEPT PARTICULARLY DEDICATED TO THE YOUTH.

1759 **Goodwin, M. H.**; McCormick, A.; Sheek, R.: CONNECTING OCEAN SCIENCE TECHNOLOGY AND ENGINEERING ACROSS THE CURRICULUM

1760 **Chao, Y.**; Zhang, H.; Farrara, J.: A REAL-TIME DRIFTER TRAJECTORY FORECAST TOOL FOR EDUCATION AND OUTREACH

1761 **Crowley, M. F.**; Glenn, S. M.; McDonnell, J.; Lichtenwalner, C. S.; deCharon, A.: THE OOI EDUCATION AND PUBLIC ENGAGEMENT TEAM: REAL-TIME OCEAN DATA COMING SOON TO AN UNDERGRADUATE CLASSROOM NEAR YOU

1762 **Kohut, J. T.**; Lichtenwalner, C. S.; Florio, K.; Gardner, K.; Linder, C.: RESEARCH AND EDUCATION IN THE ANTARCTIC: SCIENTISTS SHARE THEIR RESEARCH EXPERIENCE IN REAL-TIME WITH MIDDLE SCHOOL TEACHERS AND STUDENTS

1763 **Lichtenwalner, C. S.**; McDonnell, J.; Mills, M.; Crowley, M. F.; Glenn, S. M.: EDUCATIONAL VISUALIZATION: SUPPORTING STUDENT KNOWLEDGE DEVELOPMENT WITH ONLINE INTERACTIVE OCEAN DATA TOOLS

1764 **Schofield, O. M.**; Richter, K.; Glenn, S. M.; McDonnell, J.: DEVELOPING A RANGE OF OCEAN ACIDIFICATION LEARNING TOOLS

1765 Dewey, R.; **Davidson, E.**; Ewing, N.; Juniper, K.: OCEAN NETWORKS CANADA: USING REAL-TIME DATA IN EDUCATIONAL RESOURCES TO BRING OCEAN SCIENCE TO STUDENTS

1766 **Kochevar, R. E.**; Krumhansl, R.; Brown, C.; Krumhansl, K.; Block, B. A.: ANALYZING OCEAN TRACKS: A MODEL FOR STUDENT ENGAGEMENT IN AUTHENTIC SCIENTIFIC PRACTICES USING DATA

1767 **Mills, M. P.**; Lichtenwalner, C. S.; McDonnell, J.; Crowley, M.; Glen, S.: DEVELOPING ONLINE TOOLS TO SUPPORT THE VISUALIZATION OF OCEAN DATA FOR EDUCATIONAL APPLICATIONS

1768 **Hams, J. E.**: USING REAL-TIME DATA FROM PROJECT DYNAMO TO ENGAGE GENERAL EDUCATION STUDENTS AND PROMOTE OCEAN SCIENCE EDUCATION AT A TWO-YEAR COLLEGE

1769 **Apple, J. K.**; Casper, N. J.: USING ONLINE DATA AS A TOOL FOR BUILDING STUDENT-LED INQUIRY AND HYPOTHESIS DRIVEN RESEARCH INTO UNDERGRADUATE AND GRADUATE COURSES

1770 **Gil, L.**; Watson, .: IMPROVING THE LEARNING EXPERIENCE OF MUSEUM VISITORS: EXAMINING DIFFERENT TYPES OF EXPERIENCE IN THE GENOME: UNLOCKING LIFE'S CODE EXHIBIT

108 Synthesis and Modeling of Global-Scale Marine Planktonic Ecosystems and Plankton Functional Types

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3089 **Chang, C. W.**; Miki, T.; Shiah, F. K.; Sastri, A. R.; Hsieh, C. H.: LINKING SECONDARY STRUCTURE OF INDIVIDUAL SIZE DISTRIBUTION WITH NONLINEAR SIZE-TROPHIC LEVEL RELATIONSHIP IN FOOD WEBS

3090 **Taniguchi, D.**; Franks, P.; Poulin, F. J.: PLANKTONIC BIOMASS SIZE SPECTRA: AN EMERGENT PROPERTY OF SIZE-DEPENDENT PHYSIOLOGICAL RATES, FOOD WEB DYNAMICS, AND NUTRIENT REGIMES

3091 **de Mora, L.**; Butenschön, M.; Allen, J. I.: VALIDATING THE NEMO-ERSEM GLOBAL OCEAN MODEL USING MAREDAT AND WOD DATASETS WITHIN THE IMARNET FRAMEWORK

3092 **Kostadinov, T. S.**; Milutinovic, S.; Hirata, T.; Marinov, I.; Maritorena, S.: MULTI-SENSOR PHYTOPLANKTON FUNCTIONAL TYPES FROM SPACE: TOWARDS A GLOBAL CLIMATE DATA RECORD

3093 **Garcia-Comas, C.**; Sastri, A. R.; Ye, L.; Gong, G. C.; Hsieh, C. h.: PREDATOR AND PREY SIZE DIVERSITY EFFECTS ON BIOMASS TRANSFER EFFICIENCY IN PLANKTONIC ECOSYSTEMS

3094 **Rodríguez-Ramos, T.**; Marañón, E.; Cermeño, P.: THE LATITUDINAL GRADIENT OF DIVERSITY DOES NOT APPLY TO PHYTOPLANKTON IN THE ATLANTIC OCEAN

3095 **Zhou, M.**; Zhu, Y.; Quéguiner, B.; Carlotti, F.; Zhang, Y.: A CONTINUUM SIZE SPECTRUM MODEL FOR MARINE PLANKTON

3096 **Barton, A. D.**; Irwin, A. J.; Finkel, Z. V.; Stock, C. A.: ESTIMATING THE RESPONSE OF NORTH ATLANTIC PHYTOPLANKTON COMMUNITIES TO CLIMATE CHANGE

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110 The Use of Noble Gases and Other Transient Tracers to Study Fluid Transport In the Oceans and At Their Boundaries

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429 **Tanhua, T.**; Stöven, T.; Schneider, A.; Roether, W.: RECENT CHANGES IN THE VENTILATION OF THE MEDITERRANEAN SEA CONSTRAINED BY CFCS, SF6, TRITIUM AND HE-3 DATA.

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511 **Hsu, F.**; Huh, C.; Chen, W.; Gao, A.; Su, C.: VARIABILITY OF WATER-MASS MIXING AND CIRCULATION IN THE TAIWAN STRAIT ELUCIDATED FROM RADIUM ISOTOPES

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594 **Wu, J. W.**; Zheng, J.; Dai, M. H.; Huh, C. A.; Chen, W. F.: ISOTOPIC COMPOSITION AND DISTRIBUTION OF PU IN NORTHERN SOUTH CHINA SEA SEDIMENTS REVEALED CONTINUOUS RELEASE AND TRANSPORT OF PU FROM THE MARSHALL ISLANDS

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118 Extreme Oceanographic Events: Windows to the Climate Future?

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120 Integrative Taxonomy of Marine Animals: Progress, Prospects and Pitfalls

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3202 **Grossmann, M. M.**; Lindsay, D. J.; Collins, A. G.: THE COMBINATION OF MORPHOLOGICAL AND GENETIC DATA SHEDS LIGHT ON DECADE-OLD TAXONOMIC MYSTERIES IN CNIDARIAN SIPHONOPHORES.

3203 **Vicente, J.**; Zea, S.; Blasiak, L.; Hill, R. T.: STRUCTURAL AND MICROBIAL ASPECTS OF A SPECIALIZED SPONGE SYMBIOSIS BETWEEN PLAKORTIS AND XESTOSPONGIA FROM CRYPTIC HABITATS OF THE CARIBBEAN

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125 The Many Faces of the Marine N Cycle

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2273 **Jacob, J.**; Dähnke, K.; Sanders, T.: A CASE STUDY OF NITRIFICATION AND NITRITE ISOTOPE FRACTIONATION IN A MAJOR GERMAN RIVER

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2396 **Chen Hung-Yu, .**; Wang Wei, .: THE COMPOSITION AND FLUX OF WATER-SOLUBLE ORGANIC NITROGEN IN THE ATMOSPHERIC DRY AND WET DEPOSITIONS OVER THE SOUTHERN EAST CHINA SEA

2397 **Laverock, B.**; Mclaughlin, J.; van de Kamp, J.; Bodrossy, L.; Abell, G.: INTERACTIONS IN THE COASTAL N CYCLE: AMMONIA OXIDISERS, CARBON AND PRIMARY PRODUCTIVITY IN SEDIMENTS FROM TROPICAL WESTERN AUSTRALIA

2398 **Böttjer, D.**; Viviani, D.; Karl, D. M.; Letelier, R. M.; Church, M. J.: NO EVIDENCE FOR ENHANCED CARBON OR DINITROGEN FIXATION UNDER ELEVATED SEAWATER PCO2 IN THE NORTH PACIFIC SUBTROPICAL GYRE

2399 **Sommer, S.**; Dale, A. W.; Gier, J.; Lomnitz, U.; Dengler, M.: BENTHIC NITROGEN CYCLING ACROSS PERUVIAN OXYGEN MINIMUM ZONE SURFACE SEDIMENTS

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2403 **Na, T. H.**; Hyun, J. H.; Kim, B.; Choi, A.; Thamdrup, B.: N_2 PRODUCTION THROUGH DENITRIFICATION AND ANAMMOX IN THE ULLEUNG BASIN, EAST SEA

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2406 **Newell, S. E.**; McCarthy, M. J.; Gardner, W. S.; Fulweiler, R. W.: DISENTANGLING SEDIMENT N_2 FLUXES: A CALL FOR RE-EVALUATING THE COASTAL MARINE N BUDGET

2407 **Peters, B. D.**; Buchwald, C.; Knapp, A. N.; Casciotti, K. L.: TRACKING NITRATE ISOTOPES ALONG DENSITY SURFACES IN THE EASTERN TROPICAL SOUTH PACIFIC

2408 **Treibergs, L. A.**; Granger, J.; Dabundo, R. C.; Karsh, K. L.: ENZYME LEVEL N AND O ISOTOPE EFFECTS OF DISSIMILATORY NITRATE REDUCTION

2409 **Tolar, B. B.**; Wallsgrove, N. J.; Aluwihare, L. I.; Popp, B. N.; Hollibaugh, J. T.: ELEVATED AMMONIA OXIDATION RATES IN ANTARCTIC CIRCUMPOLAR DEEP WATER VERSUS WINTER WATER

2410 **Chang, B. X.**; Widner, B.; Jayakumar, A.; Ward, B. B.; Mulholland, M. R.: NITROGEN FIXATION IN THE EASTERN TROPICAL PACIFIC OXYGEN MINIMUM ZONES

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127 Biogeochemistry, Ecological Dynamics and Phytoplankton Controls In the Costa Rica Dome

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3194 **Ballance, L. T.**; Redfern, J. V.; Fiedler, P. C.; Pitman, R. L.: THE COSTA RICA DOME AS A CETACEAN SPECIES RICHNESS HOTSPOT: OCEANOGRAPHIC DRIVERS AND CONSERVATION LESSONS

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3245 **Chappell, P. D.**; Moffett, J. W.; Cyr, H. A.; Vedamati, J.; Jenkins, B. D.: TRACE METAL-SILICATE CO-LIMITATION OF DIATOMS IN THE COSTA RICA DOME

3246 **Selph, K. E.**; Landry, M. R.; Taylor, A. G.; Gutiérrez-Rodríguez, A.; Taniguchi, D. A.: PICOPHYTOPLANKTON POPULATION ABUNDANCES AND GROWTH DYNAMICS DURING SUMMER 2010 IN THE COSTA RICA DOME AREA OF THE EASTERN PACIFIC

3247 **Firing, E.**; Hummon, J.: COSTA RICA DOME: PHYSICAL CONTEXT OF THE FLUZIE CRUISE IN JUNE-JULY 2010

3248 **Marinov, I.**; Cabre, A.; Lingbin, C.; Bernardello, R.: OXYGEN MINIMUM ZONES (OMZ) ACROSS THE CMIP5 MODELS: 21ST CENTURY CLIMATE-DRIVEN CHANGES

128 Microbial Interactions In Oceans and Human Health

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391 **Fisher, J. C.**; Levican, A.; Eren, A. M.; Figueras, M. J.; McLellan, S. L.: PREVALENCE AND DIVERSITY OF ARCOBACTER IN SEWAGE AND AQUATIC ENVIRONMENTS

392 **Abaya, L.**; Wiegner , T.; Weisz, C.; Adolf, J.: A GEOSPATIAL ANALYSIS OF MICROBIAL POLLUTION WITHIN HILO BAY, HAWAI'I

397 **Drummond, K. M.**; McKenzie, K. A.; Edwards, K. L.; Cox, T. M.; Frischer, M. E.: A PREVIOUSLY UNDESCRIBED DOMINANT COMPONENT OF THE COMMON BOTTLENOSE DOLPHIN TURSIOPS TRUNCATUS MICROBIOME IS A NOVEL FUSOBACTERIUM

398 **Petitpas, C. M.**; Turner, J. T.; Keafer, B. A.; Anderson, D. M.: COMMUNITY GRAZING IMPACT ON A TOXIC BLOOM OF *ALEXANDRIUM FUNDYENSE* IN THE NAUSET MARSH SYSTEM, CAPE COD, USA

399 **Feng, Z.**; Reniers, A.; Haus, B. K.; Solo-Gabriele, H. M.; Kelly, E. A.: WHAT WE LEARNED FROM TEN YEARS OF WATER QUALITY MONITORING THROUGH THE FLORIDA HEALTHY BEACHES PROGRAM?

400 **Yan, T.**; Zhang, Q.; Cui, H.; Feng, F.: THE IMPACT OF NON-AQUEOUS MATRICES (SOIL, SAND AND SEDIMENT) ON COASTAL WATER BACTERIOLOGICAL QUALITY

401 Newton, R. J.; **McLellan, S. L.**: THE BACTERIAL FOOTPRINT OF A CITY ON COASTAL WATERS

402 **Nuss, E.**; Powell, B. S.; Steward, G.; Nigro, O.: PREDICTING PATHOGENIC BACTERIA IN COASTAL WATERS

470 Wong, M.; **Kirs, M.**: APPLICATION AND CHARACTERIZATION OF HUMAN POLYOMAVIRUS AS A HUMAN SEWAGE MARKER IN HAWAII

471 **Weisz, C. J.**; Wiegner, T.; Abaya, L.; Adolf, J.; Awaya, J.: TEMPORAL GEOSPATIAL ANALYSES OF MICROBIAL POLLUTION PATTERNS: A TOOL FOR IMPROVED WATER QUALITY MONITORING AND WATERSHED MANAGEMENT

472 **Lipp, E. K.**; Trtanj, J.: *VIBRIO* AS A MARINE INDICATOR FOR CLIMATE CHANGE AND HEALTH RISK?

130 Interactions of Pelagic Or Benthic Organisms with Turbulent Water Flow

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1166 **Du Clos, K. T.**; Jumars, P. A.: MODELING THE FLOW FIELDS AROUND ACTIVE FILTER FEEDERS

1167 **Tinoco, R. O.**; Coco, G.: ON THE ONSET OF SEDIMENT MOTION AND RESUSPENSION IN THE PRESENCE OF RIGID CYLINDERS

1168 Katz, J.; **Nayak, A. R.**; Li, C.; Kiani, B.: EFFECT OF A THIN LAYER OF FISH ON TURBULENCE AND FLOW STRUCTURE IN THE INNER PART OF THE CONTINENTAL SHELF BOTTOM BOUNDARY LAYER

1169 Wilson, M.; Webster, D.; **Weissburg, M.**: EXPERIMENTS IN THE ESTUARINE INTERTIDAL: ADVICE FOR FIELD BIOLOGISTS

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1232 **Pender-Healy, L. A.**; Nagel, K. M.; Kim, P.; Yen, J.: MATE OR PREY? MECHANORECEPTION MEDIATES REACTIONS IN THE FRESHWATER COPEPOD SPECIES,*HESPERODIAPTOMUS SHOSHONE*

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1234 **Luo, E. Y.**; Wheeler, J. D.; Helfrich, K. R.; Anderson, E. J.; Mullineaux, L. S.: EFFECTS OF LIGHT AND TURBULENCE ON SWIMMING BEHAVIOR OF LARVAL EASTERN OYSTER (*CRASSOSTREA VIRGINICA*)

1235 **True, A. C.**; Webster, D. R.; Weissburg, M. J.; Yen, J.: SHEAR-INDUCED BEHAVIORAL RESPONSES OF EMINENTLY-SETTLING BRACHYURAN CRAB LARVAE ELUCIDATE SELECTIVE TIDAL STREAM TRANSPORT (STST) PHENOMENA

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132 Undergraduate Ocean Science Education In the 21st Century: An Exploration of Successful Practices

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1965 **McDonnell, J. D.**; Lichtenwalner, C. S.; Ferraro, C.; Glenn, S.: DEVELOPING PROBLEM BASED LEARNING WITH UNDERGRADUATES USING A WEB-BASED LAB LESSON BUILDER SOFTWARE TOOL

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2015 **Cheung, I. S.**: LUNAR FORCES, EDIBLE SEA VAMPIRES AND OTHER CURIOSITIES OF THE SEA: ENGAGING FIRST YEAR STUDENTS IN MARINE SCIENCES AND UNDERGRADUATE RESEARCH IN THE CLASSROOM

140 The Science of Plastic Marine Debris and Other Anthropogenic Influences

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1635 **Laforsch, C.**; Imhof, H. K.; Ivleva, N. P.: BEYOND THE OCEAN: CONTAMINATION OF FRESHWATER ECOSYSTEMS WITH MICROPLASTIC PARTICLES

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1637 Bao, M.; **Bao, X.**; Yu, H.; Ding, Y.: EFFECTS OF TIDAL FLAT RECLAMATION ON TIDAL DYNAMICS IN WENZHOU SHOAL, CHINA

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1647 **Haugland, B. T.**; Bolam, S. G.; Sweetman, A. K.: FAUNAL COLONIZATION OF SUBMARINE MINE TAILINGS: AN INTERTIDAL EXPERIMENT TO INVESTIGATE THE INFLUENCE OF SEDIMENT ORGANIC CARBON CONTENT

1648 **Verlis, K. M.**; Wilson, S. P.; Matthews, B.; Campbell, M. L.; Nevin, O. T.: SEABIRDS AND MARINE DEBRIS OF THE GREAT BARRIER REEF, AUSTRALIA

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1651 **Gorsky, G.**; Bruzaud, S.; Berline, L.; Domontet, B.; Elineau, A.: MONITORING FLOATING PLASTIC FRAGMENTS IN THE LIGURIAN SEA, NW MEDITERRANEAN.

1652 **Juhl, A. R.**; O'Mullan, G. D.; Mellendorf, M.; Aumack, C. F.: QUANTIFYING WATER COLUMN SINKING RATES OF SUSPENDED MATTER AND FECAL INDICATOR BACTERIA

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1732 **DIMINO, T. F.**; HENDERSON, N.; CHRISTIAN , A. D.: THE EFFECTS OF LAND USE/LAND COVER ON AQUATICMACRO INVERTEBRATE COMMUNITIES IN THE NEPONSET RIVER WATERSHED

1733 **Olsen, L. M.**; Hernandez, K. L.; Ardelan, M. V.; Iriarte, J. L.; Olsen, Y.: EFFECT OF AMMONIUM ADDITION ON THE MICROBIAL FOOD WEB STRUCTURE AND COMMUNITY COMPOSITION OF THE OSMOTROPHS IN THE COMAU FJORD IN SOUTHERN CHILE

1734 **Agustin, A. E.**; Potemra, J. T.; Merrifield, M. A.: MARINE DEBRIS DEPOSITION RATES AT THE NORTHWESTERN HAWAIIAN ISLANDS RELATIVE TO FORCING FACTORS

1735 **Richard, H. L.**; Carpenter, E. J.: SEASONAL AND SPATIAL CHANGES IN MICROPLASTIC DEBRIS IN A NATIONAL PARK LAGOON

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1737 **Duhaime, M. B.**; Oberbeckmann, S.: CROSS-OCEAN PLASTIC MICROBIOME DYNAMICS: TOWARDS A GLOBAL VIEW OF OCEAN PLASTIC BIOFILM COMMUNITY STRUCTURE AND FUNCTION

1738 **Hansen, J.**; Hearty, P.; Ruedy, R.; Sato, M.; Bauer, M.: IMPACT OF INCREASING ICE MELT ON OCEAN CIRCULATION AND STORMS

1739 **James, R. A.**; Camp, L. A.; Savva, L.; davidson, J.; Lemchak, K.: FLUX OF MARINE DEBRIS ON SEA TURTLE NESTING BEACHES AND THE IMPACTS OF SMALL-SCALE STORMS, LITTLE CAYMAN ISLAND

148 Effects of Climate Variability On Marine Biophysical Interactions and Ecosystems Dynamics

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2888 **Gregg, W.**; Rousseaux, C.: IMPROVING THE REPRESENTATION OF THE RESPONSE OF GLOBAL OCEAN CHLOROPHYLL TO CLIMATE VARIABILITY: COMBINING IN SITU DATA, SATELLITE DATA, AND MODELS

2913 **Brady, R. X.**; Rykaczewski, R. R.: CONSEQUENCES OF SHIFTING HIGH PRESSURE ZONES ON FUTURE COASTAL UPWELLING

2914 **XU, Y.**; Ba, Q.: ECOSYSTEM RESPONSES TO GLOBAL CHANGE IN THE PACIFIC OCEAN MODEL

2915 **Chiba, S.**; Di Lorenzo, E.; Davis, A.; Keister, J. E.; Taguchi, B.: LARGE-SCALE CLIMATE CONTROL OF ZOOPLANKTON TRANSPORT AND BIOGEOGRAPHY IN THE KUROSHIO-OYASHIO EXTENSION REGION

2916 **Palamara, L.**; Manderson, J.; Kohut, J.; Curchitser, E.; Kang, D.: VARIABILITY IN THERMAL HABITAT DYNAMICS FOR A PELAGIC FORAGE FISH ESTIMATED BY COUPLING A THERMAL NICHE MODEL TO A HYDRODYNAMIC OCEAN MODEL

2917 **Allen, J. G.**; Siegel, D. A.; Nelson, N. B.: AN ASSESSMENT OF OPTICAL AND BIOGEOCHEMICAL MULTI-DECADAL TRENDS IN THE SARGASSO SEA

2962 **Watanabe, T.**; Igeta, Y.; Takayama, K.: EFFECTS OF CLIMATE CHANGE ON MARINE ECOSYSTEM IN THE JAPAN SEA

2963 **Levine, N. M.**: THE IMPACT OF SMALL-SCALE PHYSICAL VARIABILITY ON LARGE-SCALE CARBON CYCLING AND ECOSYSTEM DYNAMICS

2964 **Romanou, A.**; Romanski, J.; Schmidt, G. A.: RESPONSE OF THE OCEAN CARBON UPTAKE TO DIFFERENT MODES OF NATURAL VARIABILITY

151 Microbial Growth Factors In the Sea: Characterizing Their Importance At the Molecular to Ecosystem Level

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551 **del Valle, D. A.**; Martínez-García, S.; Suffridge, C.; Cutter, L.; Sañudo-Wilhelmy, S. A.: THE ROLE OF B1 AND OTHER B-VITAMINS AT THE OLIGOTROPHIC STATION ALOHA DURING NATURAL AND INDUCED BLOOM CONDITIONS

552 **Heal, K. R.**; Truxal Carlson, L.; Ingalls, A. E.; Coyote, W.; Stahl, D. A.: MICROBIAL CONTRIBUTION TO THE DISSOLVED VITAMIN POOL IN COASTAL WASHINGTON

553 **Kazamia, E.**; Helliwell, K. E.; Grant, M. A.; Cicuta, P.; Smith, A. G.: A MODEL SYSTEM DEMONSTRATES THAT ALGAE ACQUIRE VITAMIN B12 DIRECTLY FROM BACTERIA.

554 **Hogle, S. L.**; Brahamsha, B.; Barbeau, K. A.: AN OUTER MEMBRANCE RECEPTOR CRITICAL FOR EXOGENOUS HEME UTILIZATION IN A MARINE *ROSEOBACTER*

555 **Monteverde, D. R.**; Cutter, L.; Chong, L.; Berelson, W.; Sanudo-Wilhelmy, S.: POTENTIAL SEDIMENTARY FLUX OF B-VITAMINS TO THE WATER COLUMN OF SANTA MONICA BASIN, CA

556 **Suffridge, C. P.**; Cutter, L. S.; Webb, E. A.; Sanudo-Wilhelmy, S. A.: ESTABLISHING B-VITAMIN QUOTAS IN PHYTOPLANKTON: THE DEVLOPMENT OF A TECHNIQUE TO SIMULTANEOUSLY DETERMINE PARTICULATE B-VITAMIN CONCENTRATIONS IN SEAWATER

557 **Cohen, N. R.**; Marchetti, A.: INFLUENCE OF IRON AND EXTERNAL BIOTIN ON BIOTIN METABOLISM IN A MARINE DIATOM

558 **Paz-Yepes, J.**; Palenik, B.: GRAZING ON MARINE *SYNECHOCOCCUS* BY NEW MARINE HETEROTROPHIC NANOFLAGELLATES ISOLATES

559 **Helliwell, K. E.**; Collins, S.; Kazamia, E.; Smith, A. G.: UNRAVELLING THE EVOLUTIONARY FORCES THAT SHAPE THE VITAMIN B_{12} REQUIREMENTS OF ALGAE

560 **Paerl, R. W.**; Palenik, B.; Azam, F.: EQUIPPED TO DEAL WITH SCARCITY: EXAMINING THE B1 PHYSIOLOGY OF A VITAMIN B1 AUXOTROPHIC*ALPHAPROTEOBACTERIUM*

561 **Alegado, R. A.**; Betin, V.; Beemelsmanns, C.; Clardy, J.; King, N.: BACTERIAL SPHINGOLIPID SIGNALING IN CHOANOFLAGELLATES

562 **Case, R. J.**: A BACTERIAL SYMBIONT THAT SHAPES THE LIFE HISTORY OF ITS TINY HOST, EMILIANA HUXLEYI

640 **Webb, E. A.**; Gómez-Consarnau, L.; Suffridge, C. P.; Sanudo-Wilhelmy, S. A.: GENOMIC VIEW OF THE SOURCES AND SINKS OF MARINE B VITAMINS

157 Habitat Modeling and Ecosystem Based Resource Management

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1936 **Xu, B.**; Zhang, C.; Xue, Y.; Ren, Y.; Chen, Y.: OPTIMIZATION OF SAMPLING EFFORT FOR A FISHERY-INDEPENDENT SURVEY WITH MULTIPLE OBJECTIVES

1937 **Pennino, M. G.**; Kaplan, D.; Ménard, F.; Aumont, O.; Romanov, E. V.: EFFECTS OF ENVIRONMENTAL DATA QUALITY ON THE PERFORMANCE OF SPECIES DISTRIBUTION MODELS.

1938 **Sun, P.**; Liang, Z.; He, X.; Tang, Y.; Huang, L.: FISHING SELECTIVITY INDUCED THE CHANGES ON AGE STRUCTURE AND SIZE AT AGE OF HAIRTAIL (TRICHIURUS LEPTURUS) IN THE EAST CHINA SEA, CHINA

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1940 **Sei-Ichi Saitoh, .**; Xun Zhang, .; Toru Hirawake, .; Satoshi Nakada, .; Yoichi Ishikawa, .: DISSEMINATION OF POTENTIAL FISHING ZONE PREDICTION MAP OF JAPANESE COMMON SQUID IN THE COASTAL WATER, SOUTHWESTERN HOKKAIDO, JAPAN

1941 **Alabia, I. D.**; Saitoh, S.; Igarashi, H.; Ishikawa, Y.; Awaji, T.: EFFECTS OF ENVIRONMENTAL AND CLIMATE VARIABILITY ON SUMMER POTENTIAL HABITAT OF NEON FLYING SQUID IN CENTRAL NORTH PACIFIC

1942 **Georgian, S. E.**; Shedd, W.; Cordes, E. E.: RESOLVING BIOGEOGRAPHIC PATTERNS IN THE DEEP SEA: USING REMOTELY SENSED DATA TO PREDICT THE LOCATIONS OF SPATIALLY RARE BUT ECOLOGICALLY VITAL CORALS

1943 **Rincón-Díaz, M. P.**; Ortíz-Rosa, S.; Gould, W. A.: IDENTIFYING SUITABLE HABITATS FOR THE RED HIND GROUPER (EPINEPHELUS GUTTATUS) IN THE PUERTO RICAN ARCHIPELAGO BASED ON THE STRUCTURAL COMPLEXITY OF HABITATS

1944 **Anderson, M. R.**; Gregory, R. S.: STATIC AND DYNAMIC HABITAT FEATURES AS DETERMINANTS OF COD RECRUITMENT OFF NEWFOUNDLAND

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1947 **Golet, W. J.**; Record, N. R.; Lehuta, S.; Galuardi, B.; Cooper, A. B.: THE EFEFCT OF PHYSICAL CHANGES ON THE LIFE HISTORY OF PELAGIC SPECIES IN THE GULF OF MAINE

1948 **Almodovar Acevedo, L.**; Hasan, M.; Townsend, H. M.; Stevens, B. G.: DEVELOPING A HABITAT SUITABILITY MODEL FOR BLACK SEA BASS IN THE CHESAPEAKE BAY

1949 **Pardo, M. A.**; Gerrodette, T.; Beier, E.; Gendron, D.; Redfern, J.: A HIERARCHICAL BAYESIAN FRAMEWORK TO INFER CETACEAN POPULATION DENSITY: THE ROLE OF WATER-COLUMN STRUCTURE

1950 **Carswell, T. K.**; Costa, M. P.; Young, E. L.; Sweeting, R. M.; Gower, J.: SATELLITE IMAGERY TO DETERMINE SPRING PHYTOPLANKTON BLOOM DYNAMICS FOR FISHERIES MANAGEMENT IN THE STRAIT OF GEORGIA, CANADA.

1951 **Sommers, L. A.**; Stanton, T. P.; Shaw, W.: MEASURING OPEN WATER FRACTION AND FLOE SIZE DISTRIBUTION IN THE ARCTIC OCEAN ICE PACK USING HIGH RESOLUTION SATELLITE IMAGES

1952 **Heupel, E. E.**; Auster, P. J.: USE OF BATHYMETRIC PROXIES TO PREDICT THE LOCATION OF VULNERABLE MARINE SPECIES, COMMUNITIES, HABITATS AND ECOSYSTEMS IN DATA POOR REGIONS.

158 Measuring and Modeling Internal Waves and the Turbulence Cascade: A Tribute to David Tang

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1342 **Zhang, W. G.**; Duda, T. F.; Udovydchenkov, I. A.: DISTRIBUTED SOURCE PHYSICS OF INTERNAL TIDE HORIZONTAL BEAM PATTERNS NEAR SHELFBREAK CANYONS

1343 **Karimpour, F.**; Venayagamoorthy, S. K.: IMPROVED RANS MODELING OF STABLY STRATIFIED WALL-BOUNDED TURBULENT FLOWS

1344 **Chou, S. H.**; Luther, D. S.; Guiles, M. D.; Carter, G. S.; Decloedt, T.: AN EMPIRICAL INVESTIGATION OF NONLINEAR ENERGY TRANSFER FROM THE M_2 INTERNAL TIDE TO DIURNAL WAVE MOTIONS IN THE KAUAI CHANNEL, HAWAII

1345 **da Silva, J. C.**; Buijsman, M. C.; Magalhaes, J. M.: THE GENERATION OF MODE-1 AND MODE-2 NONLINEAR INTERNAL WAVES ON THE UPSTREAM SIDE OF A LARGE SILL OF THE MASCARENE RIDGE (INDIAN OCEAN).

1346 **Tanaka, Y.**; Hibiya, T.; Sasaki, H.: GLOBAL ESTIMATES OF INTERNAL WAVE ENERGY FLUX RADIATING FROM GEOSTROPHIC FLOWS BASED ON A HIGH-RESOLUTION NUMERICAL MODEL

1373 **Hibiya/Toshiyuki, .**; Furuichi/Naoki, .; Robertson/Robin, .: ASSESSMENT OF FINE-SCALE PARAMETERIZATIONS OF TURBULENT DISSIPATION IN THE VICINITY OF DEEP OCEAN MIXING HOTSPOTS

1374 **WANG, J.**; LI, X. Y.; ZHANG, X. D.; SUN, M. L.: THE NUMERICAL SIMULATION OF INTERNAL WAVE PROPAGATION AT MALIN SHELF

1375 **Dossmann, Y.**; Paci, A.; Auclair, F.: TOPOGRAPHICALLY INDUCED INTERNAL SOLITARY WAVES IN A PYCNOCLINE: A COUPLED NUMERICAL AND EXPERIMENTAL STUDY.

1376 **Köhler, J.**; Mertens, C.; Walter, M.; Rhein, M.; Kanzow, T.: TEMPORAL VARIABILITY IN THE INTERNAL WAVE FIELD AND VERTICAL MIXING: THE INFLUENCE OF STRONG CURRENTS

1377 **Stephenson, G. R.**; Hopkins, J. E.; Green, J. M.: STORMS MODIFY BAROCLINIC ENERGY FLUX IN THE CELTIC SEA

1378 **Grisouard, N.**; Thomas, L. N.: CRITICAL REFLECTION OF INERTIAL WAVES OFF THE SEA SURFACE AT OCEAN FRONTS

1379 **Nam, S.**; Lankhorst, M.; Send, U.: INTERACTION OF INTERNAL TIDES WITH MESOSCALE CIRCULATION IN THE UPPER TROPICAL WESTERN ATLANTIC: OBSERVATIONS FROM LONG (10+ YRS) TIME SERIES

1418 **Musgrave, R. C.**; MacKinnon, J. A.; Pinkel, R.; Nash, J.; Waterhouse, A. F.: TIDALLY DRIVEN TURBULENCE OVER TOPOGRAPHY ABOVE THE TURNING LATITUDE

1419 **Hosegood, P. J.**; van Haren, H.: HIGH RESOLUTION MEASUREMENTS OF TURBULENT CONVECTION GENERATED BY INTERNAL WAVES RADIATING FROM THE BASE OF A SLOPE CURRENT

1420 **Ansong, J. K.**; Arbic, B. K.; Simmons, H. L.; Alford, M. H.; Timko, P. G.: GEOGRAPHICAL DISTRIBUTION OF DIURNAL AND SEMIDIURNAL PARAMETRIC SUBHARMONIC INSTABILITY IN A GLOBAL OCEAN CIRCULATION MODEL

1421 **Pickering, A.**; Alford, M.; Rainville, L.; Buijsman, M. C.; Nash, J.: TIDALLY-FORCED TURBULENCE ON A SLOPE IN LUZON STRAIT

1422 **Müller, M.**; Arbic, B. K.; Richman, J. G.; Shriver, J. F.; Wallcraft, A. J.: NON-LINEAR INTERACTIONS OF INTERNAL TIDES IN A HIGH RESOLUTION OCEAN CIRCULATION AND TIDE MODEL

1423 **Chiu, C.**: FLUCTUATIONS IN THE ACOUSTIC ARRIVAL STRUCTURE OF A LOW-FREQUENCY SIGNAL TRANSMITTED THROUGH THE NORTHEASTERN SOUTH CHINA SEA BASIN

1424 **Waterhouse, A. F.**; Kelly, S.; MacKinnon, J. A.; Alford, M.; Simmons, H.: GLOBAL PATTERNS OF INTERNAL WAVE GENERATION AND DIAPYCNAL MIXING: IMPORTANCE OF THE SLOPES

1449 **Robertson, R.**; Kobashi, D.: LATITUDE EFFECTS ON INTERNAL TIDES AND TIDAL MIXING

1450 **Soares, S. M.**; Richards, K. J.; Natarov, A.: NEAR INERTIAL WAVES IN THE TROPICAL INDIAN OCEAN: ENERGY FLUXES, DISSIPATION AND A WAY TO PREDICT THEM

1451 **Tsai, Y.**; Tang, T.; Ko, D.; Wang, J.; Yang, Y.: EDDY EFFECTS ON SUBTIDAL CURRENTS IN THE SOUTHERN OPENING OF TAIWAN STRAIT

1452 **Ito, K.**; Nakamura, T.: VORTEX AND INTERNAL WAVES INTERACTIONS

1453 **Thurnherr, A. M.**; St. Laurent, L. C.; Richards, K. J.; Toole, J. M.; Kunze, E.: FINESCALE VERTICAL KINETIC ENERGY, TURBULENCE AND MIXING

1454 **Kelly, S. M.**; Lermusiaux, P. F.; Haley, P. J.: INTERNAL-TIDE INTERACTIONS WITH THE SHELFBREAK FRONT AND GULF STREAM

1455 **Haji, M. N.**; Peacock, T.; Johnston, S.; Carter, G.: SCATTERING OF THE LOW-MODE INTERNAL TIDE AT THE LINE ISLANDS RIDGE

1496 **Tahvildari, N.**; Peacock, T.; Fringer, O. B.: A PARAMETRIC STUDY OF NONLINEAR AND NONHYDROSTATIC EFFECTS ON INTERNAL TIDE GENERATION OVER A SUBMERGED RIDGE

1497 **Pinkel, R.**; Lucas, A. J.; Musgrave, R.; Buijsman, M.; Klymak, J.: ENERGETIC LEE WAVES AND MIXING IN LUZON STRAIT

1498 **Nguyen, S.**; Pinkel, R.; Smith, J. A.: A CLOSE-UP OBSERVATION OF HIGH FREQUENCY INTERNAL WAVES DURING EQUATORMIX EXPERIMENT

1499 **Natarov, A.**; Richards, K. J.: OBSERVATIONS AND MODELING OF UPPER OCEAN MIXING IN THE WESTERN EQUATORIAL PACIFIC

164 Deep Sea Geology

Chair(s): Kelly Rose, kelly.rose@netl.doe.gov

Location: Kamehameha Hall III

443 **Wang, S. H.**; Yan, W.; Chen, Z.: THE GEOCHEMICAL RECORDS OF GAS HYDRATE DISSOCIATION AND SEAFLOOR METHANE EMISSIONS FROM THE SOUTH CHINA SEA

444 **Di Pengfei, .**; Feng Dong, .; Chen Duofu, .: IN SITU AND ON-LINE MEASUREMENT OF GAS FLUX OF HYDROCARBON SEEPS ON THE NEAR-SHORE SEAFLOOR OF THE LINGTOU PROMONTORY, NORTHERN SOUTH CHINA SEA

445 **Kioka, A.**; Ashi, J.: GLOBAL CENSUS OF OFFSHORE MUD VOLCANOES: WHAT DO THEY TELL US?

446 **Hearn, C. K.**; Homola, K. L.; Johnson, H. P.: SURFICIAL PERMEABILITY OF THE AXIAL VALLEY SEAFLOOR: ENDEAVOUR SEGMENT, JUAN DE FUCA RIDGE

447 **Fujii, M.**; Okino, K.; Honsho, C.; Mochizuki, N.: MAGNETIC CHARACTERS OF HYDROTHERMAL VENT FIELDS AND SUBMARINE LAVA FLOWS IN A BACK-ARC SPREADING ENVIRONMENT

448 **Shu-Kun Hsu, .**; Ching-Hui Tsai, .; Shiao-Shan Lin, .; Song-Chuen Chen, .: SEABED STRUCTURES OF THE SUBDUCTION COMPLEX FROM DEEP-TOW SURVEYS IN THE NORTHERNMOST MANILA SUBDUCTION ZONE

449 **Hart, L. A.**; Tominaga, M.; Tivey, M. A.; Kinsey, J. C.; Sager, W. W.: GRAVITY ANOMALY INVESTIGATION ON THE FORMATION AND EVOLUTION OF THE HAWAIIAN JURASSIC QUIET ZONE UPPER OCEANIC LITHOSPHERE

450 **Clarke, S.**; Hubble, T.; Airey, D.; Yu, P.; Ward, S.: MORPHOLOGY OF AUSTRALIA'S EASTERN CONTINENTAL SLOPE AND RELATED TSUNAMI HAZARD

451 **Lee, G. S.**; Kim, G. Y.; Seo, Y. K.: THE RELATIONSHIP BETWEEN DIAGENESIS AND PHYSICAL PROPERTIES OF SEDIMENTS IN THE SHIKOKU BASIN; PRELIMINARY RESULTS

479 Fischer, D.; Mogollon, J. M.; Strasser, M.; Pape, T.; **Kasten, S.**: EARTHQUAKE-INDUCED METHANE MIGRATION THROUGH THE GAS HYDRATE STABILITY ZONE IN THE SUBDUCTION REGIME OFFSHORE PAKISTAN

480 **Shulga, N. A.**; Peresypkin, V. I.: ORIGIN OF HYDROTHERMAL DEPOSITS ORGANIC MATTER IN THE MID-ATLANTIC RIDGE AND EAST PACIFIC RISE

482 **Pester, N. J.**; Schaen, A. T.; Seyfried, W. E.: EXPERIMENTAL CALIBRATION OF SALINITY EFFECTS ON QUARTZ SOLUBILITY IN NEAR-CRITICAL SOLUTIONS: IMPLICATIONS FOR HYDROTHERMAL CIRCULATION IN MID-OCEAN RIDGES

483 **Glazer, B. T.**; Rogers, K.; Hannides, A.; Sturm, A.: DIVERSITY OF MICROBIAL HABITATS AND BIOGEOCHEMICAL PROCESSES AT LOIHI SEAMOUNT

484 **Sturm, A.**; Toner, B. M.; Girguis, P. R.; Huber, P. A.; Glazer, B. T.: AEROBIC AND MICROAEROPHILIC CARBON-IRON-MANGANESE INTERACTIONS IN SUBSEAFLOOR HYDROTHERMAL FLUIDS AT NORTH POND, MID-ATLANTIC RIDGE

485 **Rose, K.**; Bauer, J.; Disenhof, C.; Mark-Moser, M.: ANALYSIS OF SPATIAL PATTERNS AND TRENDS OF SUBSURFACE GEOLOGY IN THE GULF OF MEXICO TO IMPROVE OFFSHORE HYDROCARBON PRODUCTION RISK ASSESSMENTS

487 **Moghimi, S.**; Wilson, G.; Özkan-Haller , T.; Haller, M. C.; Farquharson , G.: AN EFFECTIVE METHOD FOR BATHYMETRY ESTIMATION OF A TIDAL INLET: THE ROLE OF WAVE AND CURRENT INTERACTION

2/25/2014 Orals

175B Tutorials

Chair(s): Jon Sharp, jsharp@udel.edu

Location: 310 Theater

14:00 **Kostka, J. E.**; Huettel, M.: BIOGEO-OMICS: UTILIZING BIOGEOCHEMISTRY AND –OMICS DATA TO DETERMINE THE FATE AND IMPACTS OF OIL FROM THE DEEPWATER HORIZON SPILL IN GULF OF MEXICO ECOSYSTEMS.

14:30 **Gibson, G. A.**: AN INTRODUCTION TO MARINE ECOSYSTEM MODELING

15:00 **Cullen, J. J.**: OCEAN COLOR, PRIMARY PRODUCTIVITY, AND THE FOUNDATIONS OF BIO-OPTICAL ECOLOGY: CHARLES S. YENTSCH AND THE ARC OF INTERDISCIPLINARY OCEANOGRAPHY

15:30 **Floge, S. A.**; Wilson, W. H.: BEYOND THE LYTIC CYCLE: THE HIDDEN REALM OF PERSISTENT VIRUS INFECTIONS IN MARINE MICROBIAL ECOLOGY

007 The Role of the Oceans In Climate Change On Interannual, Decadal and Century-Long Time-Scales From Marine Proxy Archives

Chair(s): Jens Zinke, jens.zinke@uwa.edu.au
Steffen Hetzinger, shetzinger@geomar.de
Miriam Pfeiffer, pfeiffer@geol.rwth-aachen.de
Tsuyoshi Watanabe, nabe@mail.sci.hokudai.ac.jp

Location: 313 B

08:00 **McGregor, H. V.**; Fischer, M. J.; Phipps, S. J.; Gagan, M. K.; Woodroffe, C. W.: CENTRAL PACIFIC CORAL EVIDENCE FOR PAST EL NIOO-SOUTHERN OSCILLATION VARIABILITY AND SEASONAL-SCALE CHANGE

08:15 **Corrège, T.**; Saint-Lu, M.; Braconnot, P.; Lazareth, C. E.; Le Cornec, F.: INTERACTION BETWEEN ENSO AND THE SPCZ IN DIFFERENT CLIMATE STATES: CORAL DATA AND MODEL RESULTS

08:30 **Alpert, A.**; Cohen, A.; Oppo, D.; Solow, A.; Brainard, R.: CENTRAL EQUATORIAL PACIFIC RECORDS OF EQUATORIAL UNDERCURRENT VARIABILITY

08:45 **Nurhati, I. S.**; Cahyarini, S. Y.; Boyle, E. A.: CORAL RECORDS OF SEA-SURFACE TEMPERATURE, SALINITY AND DENSITY IN WESTERN INDONESIA: IMPLICATIONS TO 20TH CENTURY INDONESIAN THROUGHFLOW VARIATIONS

09:00 **Bolton, A.**; Goodkin, N. F.: CORAL RADIOCARBON VARIABILITY DURING THE LAST 500 YEARS IN THE SOUTH CHINA SEA

09:15 **Batista, C. F.**; Ravelo, A. C.; Hill, T. M.; Guilderson, T.; McCarthy, M. D.: CENTURY-SCALE RECORDS OF CALIFORNIA CURRENT ECOSYSTEM VARIABILITY FROM BULK AND CSIA 15N/14N RECORDS OF DEEP-SEA GORGONIAN CORAL

09:30 **Fietzke, J.**; Ragazzola, F.; Halfar, J.; Dietze, H.; Foster, L. C.: IMAGING OF BORON ISOTOPES VIA LA-MC-ICPMS FOR PH RECONSTRUCTION IN CRUSTOSE CORALLINE RED ALGAE ON SEASONAL TO CENTENNIAL TIMESCALES

09:45 **Beierlein, L.**; Dima, M.; Schöne, B. R.; Salvigsen, O.; Brey, T.: A PRONOUNCED 11-YEAR OSCILLATION IN HIGH ARCTIC MARINE BIVALVE SHELLS DURING THE EARLY HOLOCENE CLIMATE OPTIMUM.

14:00 **Rosenheim, B. E.**; Wang, S.; Fernandez, A.; Karnauskas, K. B.; Swart, P. K.: PROXIES AND OBSERVATIONS OF TEMPERATURE AND SALINITY CHANGE DIFFER IN THE CARIBBEAN 1900-2000: A CHALLENGE TO MODELERS, OCEANOGRAPHERS, AND PALEOCEANOGRAPHERS

14:15 **Kilbourne, K. H.**; Xu, Y.; Pearson, S.: RECONSTRUCTING MEDIEVAL CLIMATE IN THE TROPICAL NORTH ATLANTIC WITH OVERWASH-DEPOSITED CORALS FROM ANEGADA, BRITISH VIRGIN ISLANDS

14:30 **Sano, Y.**; Hori, M.; Takahata, N.; Shirai, K.; Watanabe, T.: MIDDLE HOLOCENE DAILY LIGHT CYCLE RECORDED IN THE SR/CA RATIOS OF A FOSSIL GIANT CLAM SHELL

14:45 **Tangri, N.**; Dunbar, R.; Linsley, B.; Mucciarone, D.: TROPICAL PACIFIC CLIMATE DYNAMICS AS CAPTURED IN A CONTINUOUS 500 YEAR CORAL RECORD FROM AMERICAN SAMOA

15:00 **Ortega, C. C.**; Vargas, G.; Rojas, M.; Pantoja, S.; Lange, C.: ENHANCED HYDROLOGIC IMPACT OF INTERDECADAL ENSO-LIKE VARIABILITY ON THE SEMIARID COAST OF CHILE SINCE THE 19TH CENTURY

15:15 **Maher, N.**; England, M. H.; Sen Gupta, A.: HISTORICAL PATTERNS OF SURFACE WARMING HIATUS PERIODS, AND FUTURE PROJECTIONS

15:30 **Zinke, J.**; Feng, M.; Xie, S. P.; Lough, J.; McCulloch, M. T.: LEEUWIN CURRENT VARIABILITY (WESTERN AUSTRALIA) SINCE A.D. 1795 - A FOOTPRINT OF PAST LA NIÑA

15:45 **Dunbar, R. B.**; Pekar, S.; Jimenez Espejo, F.; Crosta, X.; Morgenstern, U.: AN ULTRA-HIGH RESOLUTION ISOTOPIC AND TRACE ELEMENT RECORD HOLOCENE CLIMATE CHANGE IN EAST ANTARCTICA: IODP EXP 318 HOLE 1357 – THE ADLLIE BASIN

008 Revising Biogeochemical Stoichiometry: the Oceans Beyond Redfield On A Changing Planet

Chair(s): Mark A. Altabet, maltabet@umassd.edu
Jim Elser, j.elser@asu.edu
Dave Karl, David Karl

Location: 319 AB

14:00 **Mouginot, C.**; Lee, E. A.; Van Mooy, B. A.; Martiny, A. C.: RESOURCE ALLOCATION BY MARINE SYNECHOCOCCUS IN RESPONSE TO DIFFERENT NUTRIENT SUPPLY RATIOS

14:15 **Turner, C. B.**; Wade, B. D.; Meyer, J. R.; Lenski, R. E.: CHANGES IN THE NITROGEN AND PHOSPHORUS CONTENT OF BACTERIA DURING A 50,000 GENERATION EVOLUTION EXPERIMENT

14:30 **Daines, S. J.**; Clark, J. R.; Lenton, T. M.: MULTIPLE ENVIRONMENTAL CONTROLS ON PHYTOPLANKTON GROWTH STRATEGIES DETERMINE ADAPTIVE RESPONSES OF THE N:P RATIO

14:45 **Galbraith, E. D.**: MISSING THE FOREST FOR THE N:P? A SIMPLE MODEL FOR COMMUNITY STOICHIOMETRY

15:00 **Talarmin, A.**; Lomas, M. W.; Martiny, A. C.: LONG-TERM VARIABILITY OF ELEMENTAL RATIOS OF MARINE PARTICULATE ORGANIC MATTER

15:15 **Martin, P.**; Dyhrman, S. T.; Lomas, M. W.; Poulton, N.; Van Mooy, B.: MARINE MICROBIAL RESPONSE TO LOW PHOSPHORUS RESULTS IN ACCUMULATION AND ENHANCED CYCLING OF POLYPHOSPHATE IN THE SARGASSO SEA

15:30 **Somes, C. J.**; Oschlies, A.: THE INFLUENCE OF NON-REDFIELD DISSOLVED ORGANIC MATTER CYCLING ON THE GLOBAL OCEANIC FIXED NITROGEN BUDGET

15:45 **Altabet, M. A.**; Charoenpong, C.; Bourbonnais, A.; Bange, H. W.; Stramma, L.: TESTING RICHARDS STOICHIOMETRY FOR FIXED N-LOSS TO N_2 IN A PERU OMZ EDDY

010 Physical and Biogeochemical Ocean Modeling: Development, Assessment and Applications

Chair(s): Michael Bates, m_bates@mit.edu
Stephen Griffies, stephen.griffies@noaa.gov
Baylor Fox-Kemper, baylor@brown.edu
Todd Ringler, todd.ringler@mac.com

Location: 313 C

08:00 **Soufflet, Y.**; Marchesiello, P.; Capet, X.; Jouanno, J.; Debreu, L.: EFFECTIVE RESOLUTION: ENERGY BUDGET OF AN IDEALIZED BAROCLINIC JET

08:15 **Young, W. R.**: THE TWA FORMULATION AND EDDY PARAMETERIZATION

08:30 **Bates, M. L.**; Marshall, J. C.; Tulloch, R.; Ferrari, R.; Scott, J. R.: A MESOSCALE EDDY CLOSURE BASED ON MIXING LENGTH THEORY AND SUPPRESSION BY STEERING LEVEL EFFECTS

08:45 **Cooper, F. C.**; Zanna, L.; Palmer, T. N.: STOCHASTIC PARAMETRISATION OF SUB-GRID SCALE OCEAN EDDIES

09:00 **Viebahn, J.**; Dijkstra, H. A.: A PHYSICS-BASED STOCHASTIC APPROACH TO PARAMETERIZING UNRESOLVED SCALES IN OCEAN MODELS

09:15 **Fox-Kemper, B.**: READY TO RESOLVE: SUBGRID PARAMETERIZATION FOR TOMORROW'S CLIMATE MODELS

09:30 **Pearson, B. C.**; Grant, A. L.; Belcher, S. E.; Polton, J. A.: UNRAVELLING LANGMUIR TURBULENCE

09:45 **Belcher, S. E.**; Grant, A. L.: TOWARDS A NEW MODEL FOR THE OCEAN SURFACE BOUNDARY LAYER

14:00 **Eden, C.**; Olbers, D.; Czeschel, L.: A FRAMEWORK FOR ENERGETICALLY CONSISTENT OCEAN MODELS.

14:15 **Burchard, H.**; Eden, C.; Gräwe, U.; Klingbeil, K.; Mohammadi-Aragh, M.: QUANTIFICATION OF SPURIOUS DISSIPATION AND MIXING IN OCEAN MODELS – DISCRETE VARIANCE DECAY IN A FINITE-VOLUME FRAMEWORK

14:30 **Nurser, A. J.**; Zika, J. D.: OCEANIC FLOW IN TEMPERATURE-SALINITY-AGE SPACE

14:45 **Manizza, M.**; Keeling , R. F.; Nevison, C. D.: SEASONAL CYCLES IN ATMOSPHERIC POTENTIAL OXYGEN (APO) AND AR/N2 RATIO AS A CONSTRAINT ON OCEAN BIOGEOCHEMICAL MODELS.

15:00 Ueckermann, M. P.; **Lermusiaux, P. F.**; Haley, P. J.; Mirabito, C.: HIGH ORDER HYBRID DISCONTINUOUS GALERKIN REGIONAL PHYSICAL-BIOGEOCHEMICAL OCEAN MODELING

15:15 **Bardin, A. M.**; Primeau, F. W.; Lindsay, K.: A FAST TRACER-EQUILIBRIUM SOLVER FOR EVALUATING DEEP OCEAN VENTILATION WITH NATURAL RADIOCARBON, APPLIED TO THE COMMUNITY EARTH SYSTEM MODEL OCEAN COMPONENT

15:30 **Adcroft, A.**: REPRESENTATION OF TOPOGRAPHY BY POROUS BARRIERS

15:45 **LEMARIE, F.**; DEBREU, L.; MADEC, G.; HONNORAT, M.; MOLINES, J. M.: STABILITY CONSTRAINTS FOR OCEANIC NUMERICAL MODELS: IMPLICATIONS FOR THE FORMULATION OF SPACE-TIME DISCRETIZATIONS

021 Ocean Acidification and Coral Reefs: the Importance of Cooperative Research and the Integrated Ocean Observing System (IOOS)

Chair(s): Eric H. De Carlo, edecarlo@soest.hawaii.edu
Adrienne Sutton, Adrienne.sutton@noaa.gov
Dwight K. Gledhill, dwight.gledhill@noaa.gov
Michael S. Tomlinson, mtomlins@hawaii.edu

Location: 311

14:00 **Tilbrook, B.**; Nojiri, Y.; Neill, C.; Veness, T.: SEAWATER CARBONATE CHEMISTRY AND OCEAN ACIDIFICATION ON THE GREAT BARRIER REEF

14:15 **De Carlo, E. H.**; Drupp, P. S.; Thompson, R.; Mackenzie, F. T.; Musielewics, S.: MULTIPLE YEARS OF BUOY BASED CO2-CARBONIC ACID SYSTEM AND WATER QUALITY MONITORING ACROSS CORAL REEF SETTINGS IN HAWAII: WHAT HAVE WE LEARNED?

14:30 **Noakes, S. E.**; Gleason, D. F.; Cai, W. J.: OCEAN ACIDIFICATION TIME-SERIES MOORING AT GRAYS REEF NATIONAL MARINE SANCTUARY

14:45 **Kealoha, A. k.**; Winn, C. D.; Kahng, S.; Alin, S. R.; Kosaki, R.: CARBON SYSTEM DYNAMICS WITHIN THE PAPAHNNAUMOKUKKEA MARINE NATIONAL MONUMENT

15:00 **Brainard, R. E.**; Young, C.; Timmers, M.; Cohen, A.; Price, N.: MONITORING ECOLOGICAL IMPACTS OF OCEAN ACIDIFICATION ON PACIFIC CORAL REEFS

15:15 **Eyre, B. D.**; Cyronak, T.; Santos, I. R.; Drupp, P.; De Carlo, E.: DISSOLUTION OF CORAL REEF CACO3 SEDIMENTS: OVERLOOKED AND FORGOTTEN IN OCEAN ACIDIFICATION RESEARCH

15:30 **Cordes, E. E.**; Lunden, J. J.; Morrison, C. L.; Moyer, R. P.; Roberts, H. H.: INTEGRATING OCEANOGRAPHY, RADIOMETRIC DATING, GEOCHEMICAL PROXIES, PHYSIOLOGY, AND GENETICS TO UNDERSTAND A DEEP-WATER CORAL'S RESPONSE TO OCEAN ACIDIFICATION

15:45 **Büscher, J.**; Form, A.; Riebesell, U.: ANTAGONISTIC IMPACTS OF OCEAN ACIDIFICATION AND OCEAN WARMING ON THE COLD-WATER CORAL *LOPHELIA PERTUSA* – A LONG-TERM MULTIFACTORIAL APPROACH

028 Marine Renewable Energy Research, Development, Evaluation, and Policy

Chair(s): Grace Chang, gchang@msi.ucsb.edu
Andy Lanier, Andy.Lanier@state.or.us
Craig Jones, cjones@seaengineering.com
Jean Thurston, jean.thurston@boem.gov

Location: 304 AB

08:00 **Costa, B.**; Kendall, M.; Pittman, S.; Kinlan, B.; Bauer, L.: A BIOGEOGRAPHIC ASSESSMENT OF THE MAIN HAWAIIAN ISLANDS

08:15 **Comfort, C.**; Ostrander, C.; McManus, M.; Karl, D.; Luther, D.: MONITORING OCEAN CHANGES IN RESPONSE TO SEAWATER AIR CONDITIONING IN HONOLULU, HI

08:30 **Goldfinger, C.**; Lockett, D.; Romsos, C.; Havron, A.; Henkel, S.: PREDICTING BENTHIC INVERTEBRATE DISTRIBUTION: GIS-LINKED BAYESIAN BELIEF NETWORKS FOR MARINE SPATIAL PLANNING

08:45 **Schroeder, D. M.**; Scarborough-Bull, A.; Helix, M. E.: ENVIRONMENTAL RESEARCH FOR WIND AND WAVE ENERGY IN THE PACIFIC REGION: AN UPDATE FROM THE BOEM STUDIES PROGRAM

09:00 **Ludewig, E.**; Pohlmann, T.: ON THE EFFECT OF OFFSHORE WIND FARMS ON OCEAN DYNAMICS

09:15 **Magalen, J. M.**; Jones, C. A.; Roberts, J. D.; Chang, G.: QUANTIFYING SEDIMENT MOBILIZATION RISK RESULTING FROM WEC ARRAY INSTALLATION

09:30 **Neill, S. P.**; Hashemi, M. R.; Lewis, M. J.: THE ROLE OF TIDAL ASYMMETRY IN CHARACTERIZING THE TIDAL ENERGY RESOURCE OF ORKNEY

09:45 **Muglia, M.**; Seim, H.; Edge, B.: A GULF STREAM HYDROKINETIC ENERGY RESOURCE ASSESSMENT FOR NORTH CAROLINA

033 Ocean Acidification In Coastal Environments

Chair(s): Jeremy T. Mathis, jeremy.mathis@noaa.gov
Richard A. Feely, richard.a.feely@noaa.gov

Location: 311

08:00 **Peterson, W. T.**; Peterson, J. O.; Fisher, J. L.; Feinberg, L.; Bednarsek, N.: DECLINES IN ABUNDANCE OF THE PTEROPOD, LIMACINA HELICINA, IN THE OREGON UPWELLING ZONE: DUE TO PRESENCE OF WATERS UNDERSATURATED WITH RESPECT TO ARAGONITE?

08:15 **Chan, F.**; Chavez, F. P.; Hill, T.; Blanchette, C. A.; McManus, M.: WIDESPREAD DETECTION OF COASTAL OCEAN ACIDIFICATION ACROSS THE CALIFORNIA CURRENT SYSTEM

08:30 **Rose, J. M.**; Blanchette, C. A.; Sanford, E.; Raimondi, P. T.; Menge, B. A.: RELATIVE INFLUENCE OF UPWELLING-DRIVEN OCEAN ACIDIFICATION ON GROWTH OF THE CALIFORNIA MUSSEL, MYTILUS CALIFORNIANUS, ALONG THE CALIFORNIA CURRENT SYSTEM

08:45 **Leinweber, A.**; Shipe, R. F.; Gruber, N.: IS OCEAN ACIDIFICATION CAUSING A SHIFT IN SUMMER PHYTOPLANKTON COMMUNITY COMPOSITION IN SANTA MONICA BAY, CA?

09:00 **Takeshita, Y.**; Frieder, C. A.; Navarro, M.; Ballard, J. R.; Kram, S.: DRIVERS OF PRESENT AND UNCERTAINTIES IN FUTURE CO2 AND O2 ALONG THE SAN DIEGO MARGIN

09:15 **Reum, J. C.**; Alin, S.; Bednarsek, N.; Feely, R.; Hales, B.: CARBONATE CHEMISTRY COVARIATION WITH TEMPERATURE AND OXYGEN IN COASTAL REGIONS: IMPLICATIONS FOR THE DESIGN OF OCEAN ACIDIFICATION EXPERIMENTS

09:30 **Hill, T. M.**; Gaylord, B. P.; Miller, S. H.; Kroeker, K. J.; Hosfelt, J. D.: THE COASTAL MOSAIC OF OCEAN ACIDIFICATION: UPWELLING, FRESHWATER INPUT AND GEOGRAPHIC INFLUENCE WITHIN THE CALIFORNIA CURRENT

09:45 **Gravinese, P. M.**; Foy, M.; Lessard, E.; Murray, J. W.: THE EFFECTS OF ELEVATED PCO2 ON MICROZOOPLANKTON BIOMASS, ABUNDANCE, AND COMMUNITY STRUCTURE – A MESOCOSM STUDY IN THE SALISH SEA

035 Optics and Light In the Particle-Laden Coastal Ocean

Chair(s): Christopher R. Sherwood, csherwood@usgs.gov
Alex Nimmo-Smith, alex.nimmo.smith@plymouth.ac.uk
Paul Hill, paul.hill@dal.ca
Emmanuel Boss, emmanuel.boss@maine.edu

Location: 312

14:00 **Twardowski, M. S.**; Sullivan, J. M.: SCATTERING OF LINEARLY POLARIZED LIGHT BY OCEANIC PARTICLE FIELDS

14:15 **Wollschläger, J.**; Grunwald, M.; Röttgers, R.; Petersen, W.: CONTINUOUS ABSORPTION MEASUREMENTS OF SEAWATER CONSTITUENTS – AN INTEGRATING CAVITY APPROACH

14:30 **Churnside, J. H.**; Donaghay, P. L.; Weidemann, A.; Sullivan, J.; Marchbanks, R.: LIDAR PROFILES OF THE AQUATIC ENVIRONMENT

14:45 **Hurley, A. J.**; Hill, P. S.; Milligan, T. G.; Law, B. A.: METHODS FOR ESTIMATING APPARENT DENSITY OF SEDIMENT IN SUSPENSION USING OPTICS

15:00 **Pawlak, G.**; Moline, M. A.; Terrill, E.; Colin, P. L.: RELATING HYDRODYNAMICS WITH ACOUSTICAL AND OPTICAL CHARACTERISTICS FOR A FRINGING REEF: NGADARAK REEF, PALAU

15:15 **Sherwood, C. R.**; Boss, E.; Verney, R.: INFERRING PARTICLE POPULATIONS FROM OPTICAL AND ACOUSTIC PROFILES IN THE BOTTOM BOUNDARY LAYER

15:30 **Stavn, R. H.**; Zhang, X.; Falster, A. V.; Gray, D. J.; Gould, R. W.: PARTICULATE MINERAL AND ORGANIC MATTER IN THE COASTAL OCEAN: PURSUING BIOGEO-OPTICAL CLOSURE

15:45 **Cunningham, A.**; Mitchell, C.: PARTICLE-MEDIATED VARIATIONS IN REMOTE SENSING REFLECTANCE AND THEIR BIOGEOCHEMICAL INTERPRETATION.

045 Sea-Ing Connections: Ocean Science As A Catalyst to Inspire the Next Wave of Young (PreK-16) Scientists and Keep Students Engaged Within and Outside the Classroom.

Chair(s): Kanesa Duncan Seraphin, kanesa@hawaii.edu
Franklin A. Newton , fanewt@udel.edu
Michele Guannel , mguannel@hawaii.edu
Lauren Kaupp, kaupp@hawaii.edu
John Mitchell, john@digitalbus.org
Joanna Philippoff , philippo@hawaii.edu

Location: 304 AB

14:00 Kermish-Allen, R. D.; **Deese, H. E.**; Thompson, R.; Arnold, S.: GETTING KIDS EXCITED ABOUT OCEAN SCIENCE THROUGH TECHNOLOGY-ENABLED PLACE-BASED EDUCATION

14:15 **Bell, E. V.**; Thomas, C. J.; Thomas, C. J.; Weiss, B. A.; Bliss, A. C.: THE SOUTH CAROLINA AMAZING COAST PROGRAM: USING OCEAN SCIENCE CONCEPTS TO ADDRESS NEXT GENERATION SCIENCE STANDARDS IN THE 3RD – 5TH GRADE CLASSROOM

14:30 **Kuwahara, J. L.**: MOLAMA MOKAUEA: DEVELOPING A SENSE OF PLACE AND INTEREST IN SCIENTIFIC INVESTIGATION WITH MIDDLE SCHOOL STUDENTS, AIDED BY A WA'A AND AN 80 MICRON MESH

14:45 **Philippoff, J. K.**; Kaupp, L. J.; Seraphin, K. D.: TEACHING SCIENCE AS INQUIRY AQUATIC PROFESSIONAL DEVELOPMENT PROGRAM: INTEGRATING THE OCEAN INTO MIDDLE AND HIGH SCHOOL SCIENCE CLASSROOMS OF ALL DISCIPLINES

15:00 **Hunter-Thomson, K. I.**; Saba, G. K.: OCEAN ACIDIFICATION, KRILL, AND KANSAS: SCIENTISTS SHARE RESEARCH EXPERIENCE IN ANTARCTICA TO INSPIRE HIGH SCHOOL TEACHERS AND STUDENTS

15:15 **Beaulieu, S. E.**; Spargo, A.; Brickley, A.; Emery, M.; Patterson, K.: USING SPHERICAL DISPLAYS TO INSPIRE STUDENTS AND PUBLIC AUDIENCES TO LEARN ABOUT DEEP OCEAN PROCESSES AND EXPLORATION

15:30 **Matsumoto, G. I.**: EARTH: GETTING REAL DATA INTO THE CLASSRROM

15:45 **Masura, J. E.**: OCEANS FULL OF TRASH: SCIENTIFIC INQUIRY THROUGH POP NEWS

050 Arctic In Rapid Transition (ART): Impacts of Climate Change On the Ecology, Biogeochemistry, and Biological Carbon Pump of the Arctic Ocean

Chair(s): Ilka Peeken, ilka.peeken@awi.de
Stefan Sievert, ssievert@whoi.edu
Timothy Eglinton, timothy.eglinton@erdw.ethz.ch
Susumu Honjo, shonjo@whoi.edu
Monika Kedra, kedra@iopan.gda.pl
Jeremy T. Mathis, jeremy.mathis@noaa.gov

Location: 314

08:00 **Tremblay, J. E.**; Bergeron, M.: CONTRASTED SHIFTS IN NITRATE-BASED AND DIATOM PRODUCTION BETWEEN INTERIOR AND OUTFLOW SHELVES IN THE CANADIAN ARCTIC (1997- 2011)

08:15 **Walker, S. A.**; Amon, R. M.; Stedmon , C. A.: VARIATIONS IN HIGH LATITUDE FLUORESCENT DISSOLVED ORGANIC MATTER: A COMPARISON OF LARGE ARCTIC RIVERS

09:00 **Lalande, C.**; Nöthig, E. M.; Bauerfeind, E.: EXPORT FLUXES OF BIOGENIC MATTER IN THE SIBERIAN ARCTIC OCEAN

09:15 **Roy, V.**; Iken, K.; Tremblay, J. E.; Gosselin, M.; Archambault, P.: BENTHIC FOOD-WEB RESPONSES TO MARINE BIOLOGICAL PRODUCTIVITY AND DEPTH ACROSS THE CANADIAN ARCTIC

09:30 **Gao, Z.**; Chen, L.; Sun, H.: DISTRIBUTIONS OF PCO2 AND THEIR DECADAL CHANGES IN THE BERING SEA AND THE WESTERN ARCTIC OCEAN

09:45 **Peeken, I.**; Bakker, K.; Fernández Méndez, M.; le Guitton, M.; Uhlig, C.: WILL SEA-ICE THINNING AS IN 2012 PROMOTE SEA-ICE ALGAE GROWTH?

14:00 **MacGilchrist, G. A.**; Naveira Garabato, A. C.; Tsubouchi, T.; Bacon, S.; Torres-Valdés, S.: THE ARCTIC OCEAN CARBON SINK

14:15 **Evans, W.**; Mathis, J. T.; Cross, J. N.; Frey, K.; Bates, N.: A SYNTHESIS OF ARCTIC COASTAL OCEAN SEA-AIR CO2 FLUXES SURROUNDING THE CANADA BASIN

14:30 **Levasseur, M.**; Galindo, V.; Gourdal, M.; Mundy, C. J.; Gosselin, M.: CONTRIBUTION OF ICE AND UNDER-ICE BLOOMS TO THE VERNAL PRODUCTION OF DIMETHYLSULFIDE IN THE ARCTIC

14:45 **Michel, C.**; Underwood, G. J.; Meisterhans, G.; Niemi, A.: RESPONSE OF ARCTIC SURFACE WATER MICROBIAL COMMUNITIES TO SEA ICE CARBOHYDRATE ENRICHMENT

15:00 **Kaiser, K.**; Amon, R.; Benner, R.: CHEMICAL CHARACTERISTICS AND DECOMPOSITION OF DISSOLVED ORGANIC MATTER (DOM) IN THE EURASIAN BASIN OF THE ARCTIC OCEAN

15:15 **Watanabe, E.**; Kishi, M. J.; Harada, N.; Onodera, J.; Terui, T.: EDDY-INDUCED LATERAL BIOLOGICAL PUMP IN THE WESTERN ARCTIC BASIN

15:30 **Ardyna, M.**; Babin, M.; Gosselin, M.; Devred, E.; Tremblay, J. E.: PHYTOPLANKTON PHENOLOGY IN A CHANGING ARCTIC OCEAN

15:45 **Tedesco, L.**; Vichi, M.; Miettunen, E.; An, B. W.: SEA ICE BIOGEOCHEMISTRY: FROM PROCESS STUDIES TO LARGE SCALE APPLICATIONS

054 The Dynamics of the Madden-Julian Oscillation (DYNAMO), Multi-Scale Ocean-Atmosphere Interaction, and Numerical Simulation of Coupled Ocean-Atmosphere Processes

Chair(s): Weiqing Han, whan@colorado.edu
Kelvin Richard, rkelvin@hawaii.edu
Toshiaki Shinoda, toshiaki.shinoda@tamucc.edu

Location: 310 Theater

08:00 **Jensen, T. G.**; Shinoda, T.; Chen, S.; Flatau, M.: AIR-SEA INTERACTION, EQUATORIAL DYNAMICS AND MIXED LAYER RESPONSE IN THE INDIAN OCEAN DURING DYNAMO

08:15 **Moum, J. N.**; de Szoeke, S. P.; Smyth, W. D.; Edson, J. B.; DeWitt, H. L.: AIR-SEA INTERACTIONS FROM WESTERLY WIND BURSTS DURING THE NOVEMBER 2011 MJO IN THE INDIAN OCEAN

08:30 **Fu, J. X.**; Lee, J. Y.; Hsu, P. C.; Wang, W. Q.; Wang, B.: QUANTIFY THE EFFECT OF SST-FEEDBACK ON MJO FORECASTING DURING THE DYNAMO/CINDY PERIOD

08:45 **Li, Y.**; Han, W.; Shinoda, T.; Wang, C.: WINTERTIME INTRASEASONAL SST VARIABILITY IN THE TROPICAL SOUTH INDIAN OCEAN: IMPACT OF THE OCEAN INTERANNUAL VARIATION

09:00 **Masson, S.**; Berthet, S.; PULSATION team, .: UPSCALING PROCESSES IN A MULTI-SCALE OCEAN-ATMOSPHERE COUPLED MODEL

09:15 **de Szoeke, S. P.**; Edson, J.; Fairall, C. W.; Moum, J. N.; Brewer, W. A.: AIR-SEA INTERACTION ON THE EQUATOR DURING DYNAMO

09:30 **Bryan, F. O.**; Tomas, R.: SCALE DEPENDENCE OF OCEAN-ATMOSPHERE COUPLING

09:45 **Renault, L.**; Lemarié, F.; Hall, A.; Deutsch, C.; McWilliams, J.: AIR-SEA INTERACTIONS AND BIOGEOCHEMICAL RESPONSE OVER THE CALIFORNIAN CURRENT SYSTEM: A NUMERICAL STUDY USING COUPLED AND UNCOUPLED SIMULATIONS

058 Mesoscale Ocean Processes and Their Representation In Earth System Models

Chair(s): Mehmet Ilicak, mehmet.ilicak@noaa.gov
Ryan Rykaczewski, rykaczer@mailbox.sc.edu
Nikolai Maximenko, maximenk@hawaii.edu
Ali Belmadani, abelmadani@dgeo.udec.cl
Detlef Stammer, detlef.stammer@zmaw.de

Location: 315

08:00 **Jansen, M. F.**: ENERGETICALLY CONSISTENT SUB-GRID EDDY PARAMETERIZATION FOR EDDY PERMITTING OCEAN MODELS

08:15 **Hallberg, R.**: USING A RESOLUTION FUNCTION TO REGULATE PARAMETERIZATIONS OF OCEANIC MESOSCALE EDDY EFFECTS

08:30 **Aluie, H.**; Hecht, M. W.; Vallis, G. K.: NONLINEAR SCALE INTERACTIONS AND ENERGY PATHWAYS IN THE OCEAN

08:45 **Ringler, T.**; Maddison, J.; Marshall, D.: ANALYZING OCEAN MESOSCALE DYNAMICS USING THE ELIASSEN-PALM FLUX TENSOR

09:00 **Tailleux, R.**: ENERGY CONSTRAINTS ON MESO-SCALE EDDY PARAMETERISATIONS

09:15 **Byrne, D.**; Frenger, I.; Papritz, L.; Münnich, M.; Gruber, N.: MESOSCALE ATMOSPHERE-OCEAN COUPLING ENHANCES WIND ENERGY TRANSFER FROM THE ATMOSPHERE TO THE OCEAN.

09:30 Klocker, A.; **Abernathey, R. P.**: RELATIONSHIP BETWEEN MESOSCALE EDDY SIZE, PHASE SPEED, AND DIFFUSIVITY: AN OBSERVATIONAL STUDY

09:45 **Echevin, V.**; Colas, F.; Masson, S.; Berthet, S.; Debreu, L.: OCEANIC UPSCALING PROCESSES FROM THE PERU-CHILE UPWELLING SYSTEM TO THE TROPICAL PACIFIC OCEAN

14:00 **Hecht, M. W.**; Vallis, G. K.; Weijer, W.: EDDY TRANSPORT IN THE SOUTHERN OCEAN: RESOLUTION-DEPENDENT PARTITIONING OF TRANSPORT BETWEEN TRANSIENT AND STANDING EDDIES

14:15 **Rudnick, D. L.**; Gopalakrishnan, G.; Cornuelle, B. D.: CYCLONIC EDDIES IN THE GULF OF MEXICO: OBSERVATIONS BY UNDERWATER GLIDERS AND SIMULATIONS BY A REGIONAL MODEL

14:30 **Delman, A. S.**; McClean, J. L.; Sprintall, J.; Talley, L. D.; Jayne, S. R.: EDDY-MEAN FLOW INTERACTION AND ITS INTERANNUAL VARIABILITY IN THE KUROSHIO EXTENSION

14:45 **Lilly, J. M.**; Olhede, S. C.; Early, J. J.; Sykulski, A. M.: AN EDDY ATLAS FROM LAGRANGIAN FLOATS

15:00 **Ishiyama, H.**; Ueno, H.; Inatsu, M.: GLOBAL DISTRIBUTION OF MERGERS AND SPLITS OF MESOSCALE EDDIES

15:15 **Souza, J.**; Powell, B. S.: THE OCEAN SURFACE VORTICITY BALANCE IN HAWAII FROM A REGIONAL REANALYSIS

15:30 **Beron-Vera, F. J.**: PRACTICAL APPLICATIONS OF GEODESIC THEORY OF LCS

15:45 **Colas, F.**; Lemarié, F.; Oerder, V.; Masson, S.; Berthet, S.: MODELING STUDIES OF OCEAN-ATMOSPHERE COUPLING AT THE OCEANIC MESOSCALE

059 Illuminating the Deep Ocean: Limits to Understanding, Observation Requirements, and Overcoming the Challenges

Chair(s): Dr. Eric Lindstrom, eric.j.lindstrom@nasa.gov
Prof. Dr. Antje Boetius, antje.boetius@awi.de
Dr. Rik Wanninkhof, Rik.Wanninkhof@noaa.gov
Dr. Gregory Johnson, Gregory.C.Johnson@NOAA.gov

Location: 316 A

08:00 **Johnson, G. C.**; Lyman, J. M.; Purkey, S. G.: A STRAW PLAN FOR DEEP ARGO: ABYSSAL TEMPERATURE SIGNALS AND SAMPLING IMPLICATIONS OF NOISE ESTIMATES FROM OCEANOGRAPHIC SECTION DATA.

08:15 **Snow, K.**; Hogg, A. M.; Downes, S. M.; Sloyan, B. M.: MODELLING OF ANTARCTIC BOTTOM WATER OVER OWS

08:30 **Sloyan, B. M.**; Wijffels, S. E.; Tilbrook, B.; Katsumata, K.; Murata, A.: DEEP OCEAN CHANGES AT THE WESTERN BOUNDARY OF THE SOUTH PACIFIC OCEAN

08:45 **Purkey, S. G.**; Johnson, G. C.: WARMING, FRESHENING, AND CONTRACTION OF ANTARCTIC BOTTOM WATER BETWEEN THE 1980S AND 2000S

09:00 **Alford, M. H.**; Carter, G. S.; Girton, J. B.; Mickett, J. B.; Voet, G.: THE SAMOAN PASSAGE ABYSSAL MIXING EXPERIMENT: OVERVIEW AND RESULTS FROM AN ABYSSAL PROCESS EXPERIMENT

09:15 **Santiago-Mandujano, F. E.**; Firing, E.; Gum, J.; Howe, B.; Lukas, R. B.: STRONG ABYSSAL DYNAMICS CAPTURED BY THE ALOHA CABLED OBSERVATORY

09:30 **Gardner, W. D.**; Richardson, M. J.; Mishonov, A. V.; Biscaye, P. E.: GLOBAL DISTRIBUTION AND INTENSITY OF DEEP-WATER BENTHIC NEPHELOID LAYERS – WHAT SATELLITES, FLOATS AND GLIDERS DON'T SEE

09:45 **Butler, R.**; Howe, B. M.; JTF Science and Society Committee, .: 'GREEN' SUBMARINE TELECOMMUNICATION CABLES TO MONITOR GLOBAL CHANGE AND TSUNAMIS IN THE DEEP OCEAN

14:00 **Robison, B. H.**; Reisenbichler, K. R.; Sherlock, R. E.: ILLUMINATING THE BATHYPELAGIC: FIRST STEPS TOWARD PREDICTING THE FUTURE

14:15 **Dr. Brandt, A.**: ILUMINATING AND UNDERSTANDING ABYSSAL MARINE LIFE – LIMITS, GAPS AND REQUIREMENTS

14:30 **Sharuga, S. M.**; Benfield, M. C.: AN APPROACH FOR EVALUATING DEEP-SEA BENTHIC MEGAFAUNAL COMMUNITY CHARACTERISTICS IN THE NORTHERN GULF OF MEXICO USING INDUSTRIAL ROVS

14:45 **Putts, M. R.**; Kelley, C. D.; Trusdell, F. A.; Sanchez, J. A.; Kahng, S. E.: RECOLONIZATION AND COMMUNITY SUCCESSION OF DEEP-WATER PRECIOUS CORALS IN RESPONSE TO DISTURBANCE

15:00 **Henthorn, R. G.**; Sherman, A. D.; McGill, P. R.; Hobson, B. W.; Smith, K. L.: EVOLVING METHODS ENABLING CONTINUOUS LONG-TERM DEEP-OCEAN OBSERVATIONS IN THE NORTHEASTERN PACIFIC

15:15 **Morris, K. J.**; Ruhl, H. A.; AESA Project Team, .: AUTONOMOUS ECOLOGICAL SURVEYING OF THE ABYSSAL DEEP-SEA USING PHOTOGRAPHY, ACOUSTIC MAPPING AND SAMPLING.

15:30 **Gallo, N. D.**; Levin, L. A.; Cameron, J.; Hardy, K. R.; Bartlett, D. H.: NOVEL INSIGHTS INTO HADAL TRENCH ECOLOGY FROM THE *DEEPSEA CHALLENGE*EXPEDITION

15:45 **Boetius, A.**; German, C.: DYNAMIC DEPTHS: OBSERVING RESPONSES OF SEAFLOOR LIFE TO NATURAL AND ANTHROPOGENIC DISTURBANCES

060 Submarine Groundwater Discharge – From Ridge to Reef: Groundwater Evolution, Climate, Land-Use, Coastal Hydrology and Marine Biogeochemical Impacts

Chair(s): Steven Colbert, colberts@hawaii.edu
Henrieta Dulaiova, hdulaiov@hawaii.edu
Craig R. Glenn, glenn@soest.hawaii.edu
Jason Adolf, jadolf@hawaii.edu

Location: 316 B

08:00 **Moore, W. S.**; Charette, M. A.; Henderson, P. B.; Morris, P. J.: THE 228RA INVENTORY IN THE UPPER 1 KM OF THE ATLANTIC OCEAN DURING THE PAST THREE DECADES

08:15 **Gonneea, M. E.**; Charette, M. A.: SEASONAL NUTRIENT DYNAMICS WITHIN A SANDY SUBTERRANEAN ESTUARY

08:30 **Li Huang, L.**; Natasha Dimova, .; Geoffrey Tick, .; John Ellis, .; Chunmiao Zheng, .: NITRATE LOADINGS VIA SUBMARINE GROUNDWATER DISCHARGE TO THE GULF OF MEXICO: A CASE STUDY FROM THE ALABAMA COAST

08:45 **El-Kadi, A. I.**; Tecca, N. P.; Tillery, S.: MODELING WATER FLOW AND NUTRIENT TRANSPORT IN TWO CONTRASTING SITES IN WEST HAWAII ISLAND

09:00 **McAllister, S. M.**; Barnett, J. M.; Luther III, G. W.; Michael, H. A.; Chan, C. S.: INTERPLAY BETWEEN IRON- AND SULFUR- CYCLING MICROBIAL COMMUNITIES AND GEOCHEMISTRY ALONG ECOSYSTEM GRADIENTS IN THE INTERTIDAL MIXING ZONE OF A BEACH AQUIFER

09:15 **Chaillou/Gwenaëlle, .**; Couturier / Mathilde, .; Tommi-Morin / Gwendoline, .; Rao / Alexandra, .: TRANSPORTS AND TRANSFORMATIONS OF TERRESTRIAL CARBON THROUGH A NORTHERN SANDY BEACH

09:30 **Wiegner, T. N.**; Carlson, K.; Johnson, E.; Adolf, J. E.; Mokiao-Lee, A.: SUBMARINE GROUNDWATER DISCHARGE ELICITS A BIOLOGICAL RESPONSE IN HAWAIIAN COASTAL WATERS

09:45 **Adolf, J. E.**; Wiegner, T.; Walker, J. K.; Johnson, E.; Gamiao, S.: SUBMARINE GROUNDWATER DISCHARGE (SGD) MODIFIES DISTRIBUTIONS OF PHYTOPLANKTON AND BACTERIA ALONG THE WEST COAST OF HAWAII ISLAND

14:00 **Swarzenski, P. W.**; Kroeger, K. D.; Smith, C. G.; Fackrell, J.; Storlazzi, C. D.: TRACERS, PROCESSES, AND ASSOCIATED IMPACTS OF SUBMARINE GROUNDWATER DISCHARGE IN HAWAII: EXAMPLES FROM MAUI, HAWAII, AND OAHU.

14:15 **Kelly, J. L.**; Glenn, C. R.; Dulaiova, H.: INTEGRATION OF AERIAL THERMAL INFRARED AND RADON SURVEYS TO INVESTIGATE GROUNDWATER DISCHARGE TO PEARL HARBOR, OAHU, HAWAII

14:45 **Glenn, C. R.**; Whittier, R. B.; Fackrell, J. K.; Waters, C. A.; Kelly, J. L.: THE WEST MAUI MULTI-TRACER INJECTION PROJECT: MODELING AND MONITORING LAND-SEA FLOW, THROUGH THE SUBTERRANEAN ESTUARY AND OUT INTO THE SEA

15:00 **Burnett, W. C.**; Chanyotha , S.; Kranrod, C.: PROSPECTING FOR GROUNDWATER DISCHARGE IN THE CANALS OF BANGKOK VIA RADON AND THORON

15:15 **Kim, J.**; Cable, J. E.; Kolker, A. S.; Johannesson, K. H.; Breaux, A. M.: USING THE SPATIAL AND TEMPORAL RESPONSE OF RN-222 TO RIVER STAGE TO UNDERSTAND GROUNDWATER INPUTS TO THE MISSISSIPPI RIVER DELTA

15:30 Palmore, C. D.; Fackrell, J.; Prouty, N. G.; Swarzenski, P. W.; **Johannesson, K. H.**: RARE EARTH ELEMENT (REE), NUTRIENT, AND TRACE METAL CYCLING IN SUBTERRANEAN ESTUARIES OF THE KONA COAST, HAWAII

15:45 **Michael, H. A.**; Sawyer, A. H.; Kroeger, K. D.; Russoniello, C. J.; Konikow, L. F.: STRATIGRAPHIC CONTROLS ON SUBMARINE GROUNDWATER DISCHARGE, GROUNDWATER-SURFACE WATER MIXING, AND ASSOCIATED CHEMICAL FLUXES TO AN ESTUARY

069 Marine Microbial Ecology: the Relative Role of Dispersal, Interactions, Associations and Other Ecological Processes In Structuring Microbial Communities.

Chair(s): Zackary Johnson, zij@duke.edu
Dana Hunt, dana.hunt@duke.edu
Linda Amaral-Zettler, amaral@mbl.edu

Location: 316 C

08:00 **Orsi, W. D.**; Worden , A. Z.; Swalwell, J. E.; Santoro, A. E.: INTERACTIONS BETWEEN MARINE EURYARCHAEOTA AND PICOEUKARYOTES IN THE CENTRAL CALIFORNIA CURRENT

08:15 **Baker, L. J.**; Kemp, P. F.: ARE DIATOM-BACTERIAL ASSOCIATIONS STABLE AND PREDICTABLE?

08:30 Landa, M.; Monchy, S.; Blain, S.; **Obernosterer, I.**: RESPONSES OF HETEROTROPHIC BACTERIAL DIVERSITY TO PHYTOPLANKTON BLOOMS INDUCED BY NATURAL IRON-FERTILIZATION: IS DOM A DRIVING FACTOR?

08:45 **Sison-Mangus, Marilou, P.**; Jiang, Sunny, .; Tran Kevin, N.; Kudela, Raphael, M.: FACTORS THAT INFLUENCE THE ASSOCIATION BETWEEN MARINE DIATOM*PSEUDO-NITZSCHIA* AND THEIR BACTERIAL ASSOCIATES

09:00 **Cram, J. A.**; Parada, A. E.; Fuhrman, J. A.: RESPONSE OF MICROBIAL COMMUNITIES TO RELIEF OF TOP DOWN PRESSURE BY VIRUSES AND GRAZERS VIA DILUTION

09:15 **Motegi, C.**; Nagata, T.; Uchimiya, M.; Nishino, S.; Babin, M.: FREE-LIVING AND ATTACHED BACTERIAL COMMUNITY COMPOSITION IN THE WESTERN ARCTIC OCEAN INFERRED FROM RIBOSOMAL RNA

09:30 Yung, C. M.; Davis, K. M.; Ward, C. S.; Johnson, Z. I.; **Hunt, D. E.**: EVIDENCE FOR THERMAL ADAPTIVE TRADE-OFFS IN CLOSELY-RELATED BACTERIAL STRAINS FROM A TEMPERATE, COASTAL TIME SERIES

09:45 **Yeh, Y. C.**; Shiah, F. K.; Gong, G. C.; Hsieh, C. H.: SCALE DEPENDENCE OF DOMINANT PROCESSES IN DETERMINING THE BACTERIAL METACOMMUNITY STRUCTURE IN THE EAST CHINA SEA

14:00 **Björkman, K. M.**; Doggett, J. K.; Church, M. J.; Karl, D. K.: DIFFERENTIAL RESPONSE TO LIGHT INTENSITY IN ^{14}C-BICARBONATE VERSUS ^{3}H-LEUCINE INCORPORATION BY PROCHLOROCOCCUS AT STATION ALOHA.

14:15 **Rouco Molina, M.**; Olson, E.; McGillicuddy, D.; Waterbury, J. B.; Dyhrman, S. T.: *TRICHODESMIUM* SP. CLADE DISTRIBUTIONS IN THE NORTH ATLANTIC OCEAN

14:30 **Whittaker, K. A.**; Rynearson, T. A.: INTERNATIONAL RELATIONS?: EXPLORING GLOBAL POPULATION STRUCTURE AND DISPERSAL IN THE MARINE DIATOM THALASSIOSIRA ROTULA

14:45 **Simon, M.**; Wemheuer, B.; Giebel, H. A.; Billerbeck, S.; Daniel, R.: HIGHLY PRODUCTIVE AND ACTIVE BACTERIOPLANKTON COMMUNITIES IN THE SOUTH SHETLAND ISLANDS REGION OF THE SOUTHERN OCEAN IN AUSTRAL FALL

15:00 **Tominack, S. A.**; Moss, J. A.; Riesenfeld, C.; Jeffrey, W. H.; Snyder, R. A.: SPATIAL AND TEMPORAL VARIATIONS IN THE COMMUNITY STRUCTURE OF MARINE ARCHAEA IN THE NORTHEASTERN GULF OF MEXICO

15:15 **Diez, B.**; Sanhueza, C.; Polz, M.; Farias, L.; Snoeijs, P.: BACTERIAL COMMUNITY STRUCTURE IN THE ARCTIC OCEAN

15:30 **Lindh, M. V.**; Sjöstedt, J.; Ekstam, B.; Legrand, C.; Pinhassi, J.: ECOLOGICAL PATTERNS WITHIN SPATIO-TEMPORAL FLUCTUATIONS OF MARINE BACTERIOPLANKTON

15:45 **Pasulka, A. L.**; Levin, L. A.; Steele, J. A.; Landry , M. R.; Orphan, V. J.: PROTISTAN DISTRIBUTION AND DIVERSITY PATTERNS IN RESPONSE TO HABITAT HETEROGENEITY WITHIN DEEP-SEA METHANE SEEP ECOSYSTEMS

072 The Southern Ocean and Its Role In the Climate System: Observations and Modeling of Physical and Biogeochemical Processes

Chair(s): Igor Kamenkovich, ikamenkovich@rsmas.miami.edu
Sarah Gille, sgille@ucsd.edu
Joellen Russell, jrussell@email.arizona.edu
Alberto Naveira Garabato, acng@noc.soton.ac.uk
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Andrew Thompson, andrewt@caltech.edu
Ivana Cerovecki, icerovecki@ucsd.edu
Paul Holland, pahol@bas.ac.uk

Location: 323 ABC

08:00 **Armour, K. C.**; Marshall, J.; Donohoe, A.; Scott, J.: MECHANISMS OF DELAYED SOUTHERN OCEAN WARMING

08:15 **Ridder, N. N.**; England, M. H.: REVERSING OF THE SOUTHERN HEMISPHERE WESTERLY WIND LINK TO NADW FORMATION IN A COUPLED CLIMATE MODEL

08:30 **Downes, S.**; Farneti, R.; Uotila, P.; Griffies, S.; Marsland, S.: THE EVOLUTION OF SOUTHERN OCEAN WATER MASSES IN COORDINATED OCEAN-ICE REFERENCE EXPERIMENTS PHASE II (CORE-II)

08:45 **Hutchinson, D. K.**; England, M. H.; Hogg, A. M.: INTERHEMISPHERIC ASYMMETRY IN GLOBAL WARMING: THE ROLE OF OCEAN HEAT TRANSPORT

TUESDAY

09:00 **Russell, J. L.**; Goodman, P. J.: PROJECTIONS OF THE OCEAN'S ROLE IN CLIMATE: HEAT AND CARBON UPTAKE BY THE SOUTHERN OCEAN IN CMIP5

09:15 **Langlais, C.**; Rintoul, S.; Zika, J.; Lenton, A.; Matear, R.: RESPONSE OF THE ANTARCTIC CIRCUMPOLAR CURRENT TO INTERANNUAL WIND FORCING AND IMPLICATIONS FOR CARBON SEQUESTRATION

09:30 **Gomez, R.**; Lo Monaco, C.; Metzl, N.; Lourantou, A.: DECADAL CHANGE IN PH EVALUATED IN SUBANTARCTIC MODE WATER FROM OBSERVATIONS COLLECTED IN THE SOUTHERN INDIAN OCEAN

09:45 Huhn, O.; **Rhein, M.**; Hoppema, M.; van Heuven, S.: REDUCED VENTILATION AND CARBON STORAGE OF WEDDELL SEA DEEP AND BOTTOM WATER

14:00 **Williams, N. L.**; Feely, R. A.; Sabine, C. L.: QUANTIFYING ANTHROPOGENIC CARBON INVENTORY CHANGES IN THE SOUTHERN OCEAN

14:15 **Strutton, P. G.**: THE IMPACT OF THE SOUTHERN ANNULAR MODE ON AIR-SEA CO2 FLUXES IN THE SOUTHERN OCEAN

14:30 **Blain, S.**; Quéguiner, B.; KEOPS2 Team, .; OISO Team, .: RESPONSE OF THE SOUTHERN OCEAN TO LARGE SCALE NATURAL IRON FERTILIZATION (KERGUELEN REGION)

14:45 **Tagliabue, A.**; Sallee, J.; Bowie, A. R.; Levy, M.; Boyd, P. W.: TOWARDS RECONCILING SEASONAL IRON SUPPLY AND BIOLOGICAL UTILISATION IN THE SOUTHERN OCEAN

15:00 **Bernardello, R.**; Marinov, I.; Palter, J. B.; Galbraith, E. D.; Cabre, A.: IMPACT OF SOUTHERN OCEAN DEEP CONVECTION ON NATURAL AND ANTHROPOGENIC CARBON UPTAKE AND STORAGE IN EARTH SYSTEM MODELS.

15:15 **Ito, T.**; Takano, Y.; Deutsch, C.: WIND-BUOYANCY DICHOTOMY OF THE SOUTHERN OCEAN CARBON STORAGE

15:30 **Lauderdale, J. M.**; Naveira Garabato, A. C.; Oliver, K. I.; Follows, M. J.; Williams, R. G.: SOUTHERN OCEAN CIRCULATION, OCEAN CARBON RESERVOIRS AND ATMOSPHERIC CO_2

15:45 **Sallee, .**; Roy, .: PRESENT-DAY SOUTHERN OCEAN CARBON SEQUESTRATION, AND FUTURE CHANGES OF SURFACE UPTAKE

075 A Holistic Approach to Marine Eco-Systems Biology, Major Results and Perspectives for Research and Education

Chair(s): Lars Stemmann, stemmann@obs-vlfr.fr
Chris Bowler, cbowler@biologie.ens.fr
Emmanuel Boss, emmanuel.boss@maine.edu
C. de Vargas, vargas@sb-roscoff.fr
Hiroyuki Ogata, Education Academy of Computational Life Sciences

Location: 319 AB

08:00 **Sudek, S.**; Everroad, R. C.; Limardo, A. J.; Worden, A. Z.: DIVERSITY OF EUKARYOTIC AND CYANOBACTERIAL PICOPHYTOPLANKTON IN THE NORTHEASTERN PACIFIC

08:15 Christaki, U.; Kormas, K. K.; Sime-Ngando, T.; Viscogliosi, E.; **Monchy, S.**: WINTER-SUMMER SUCCESSION OF UNICELLULAR EUKARYOTES IN A MESO-EUTROPHIC COASTAL SYSTEM

08:30 **Romagnan, J. B.**; Guidi, L.; Legendre, L.; Stemmann, L.; Gorsky, G.: REVISITING PLANKTONIC ECOLOGICAL SUCCESSION USING A NOVEL WHOLE PLANKTON DATA SERIES

08:45 **Bowler, C.**; Malviya, S.: GLOBAL PATTERNS OF DIATOM DIVERSITY IN THE PHOTOSYNTHETICALLY PRODUCTIVE EUPHOTIC ZONE

09:00 **Ogata, H.**; Villar, E.; Grimsley, N.; Hingamp, P.: QUANTIFYING LARGE DNA VIRUSESE IN MARINE ECOSYSTEMS

09:15 **Sullivan, M. B.**: LINKING VIRUSES TO THEIR HOSTS: POPULATION AND GENOME-BASED VIRAL ECOLOGY THROUGH VIRAL-TAGGED AND COMMUNITY METAGENOMICS

09:30 **Karp-Boss, L.**; Stemmann, L.; Guidi, L.; Picheral, M.; Gorsky, G.: COUPLING OF BIOMASS AND SIZE SPECTRA IN THE PLANKTON: PRELIMINARY RESULTS FROM A GLOBAL EXPEDITION.

09:45 Follows, M. J.; **Dutkiewicz, S.**; Frazier, J.; Jahn, O.; TARA Oceans Consortium, .: INTERPRETING THE DIVERSITY AND BIOGEOGRAPHY OF PHYTOPLANKTON WITH AN OCEAN MODEL

082 Sediment Delivery, Transport and Deposition In Aquatic Environments

Chair(s): J. P. Walsh, walshj@ecu.edu
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Kehui Xu, kxu@lsu.edu
Nathan Hawley, nathan.hawley@noaa.gov
Andrea S. Ogston, ogston@ocean.washington.edu

Location: 312

08:00 **Xu, K.**; Mickey, R. C.; Harris, C. K.; Hetland, R. D.: SHELF SEDIMENT TRANSPORT DURING HURRICANES KATRINA AND RITA

08:15 **Miles, T. N.**; Glenn, S.; Schofield, O.; Kohut, J.; Seroka, G.: SEDIMENT TRANSPORT IN HURRICANE SANDY

08:30 **Hale, R. P.**; Ogston, A. S.; Walsh, J. P.: IN-SITU OBSERVATION OF WAVE-SUPPORTED FLUID MUD ON THE CONTINENTAL SHELF

08:45 **Fruergaard, M.**; Andersen, T. J.; Johannessen, P. N.; Nielsen, L. H.; Pejrup, M.: LARGE-SCALE COASTAL IMPACT INDUCED BY A CATASTROPHIC STORM

09:00 **Moriarty, J. M.**; Kao, S. J.; Lee, T. Y.; Harris, C. K.: VARIATIONS IN RIVERINE FLUXES OF SUSPENDED MATTER DURING TYPHOONS: THE JHUOSHUEI RIVER, TAIWAN

09:15 **Tamura, T.**; Sawai, Y.; Ikehara, K.; Hara, J.; Nakashima, R.: SHALLOW-MARINE DEPOSITS OF THE 2011 TOHOKU EARTHQUAKE TSUNAMI, SENDAI BAY, NORTHEASTERN JAPAN

09:30 **Miller, E. J.**; Dellapenna, T. M.; Kuehl, S. A.: HIGH-RESOLUTION SEDIMENT RECORDS OF COPPER RIVER DISCHARGE, VOLCANISM AND SIESMICITY FROM PRINCE WILLIAM SOUND, ALASKA, USING XRF CORE SCANNING

09:45 **Orpin, A. R.**; Mountjoy, J. J.; Alexander, C. R.: THE UNSTABLE KAIKOURA CANYON, EASTERN NEW ZEALAND: AN ACTIVE CONDUIT FOR TECTONIC AND CLIMATIC EVENT-TRIGGERED SEDIMENT TRANSPORT ON A VERY NARROW SHELF

093 Coasts In Crisis: Sea Level Rise and Inundation and the Need for Adaptation

Chair(s): S Jeffress Williams, jwilliams@usgs.gov
Charles Lemckert, c.lemckert@griffith.edu.au
John Brock, jbrock@usgs.gov
Kwok Fai Cheung, cheung@hawaii.edu

Location: 301 AB

08:00 **Sweet, W.**; Zervas, C.; Gill, S.; Park, J.: HURRICANE SANDY INUNDATION PROBABILITIES: YESTERDAY, TODAY AND TOMORROW

08:15 **Orton, P. M.**; Vinogradov, S. V.; Blumberg, A. F.; Georgas, N.: HYDRODYNAMIC MAPPING OF FUTURE COASTAL FLOOD HAZARDS AND PROTECTIONS FOR NEW YORK CITY

08:30 **LI, N.**; Roeber, V.; Cheung, K. F.: THE IMPACT OF SEA LEVEL RISE ON STORM-INDUCED COASTAL INUNDATION IN HAWAII

08:45 **Wang, T.**; Yang, Z.; Leung, L. R.; Taraphdar, S.; Hibbard, K. A.: A MODELING STUDY OF HURRICANE-INDUCED COASTAL INUNDATION AND ITS IMPACTS TO COASTAL ENERGY INFRASTRUCTURE IN THE GULF OF MEXICO

09:00 **Goodwin, I. D.**; Freeman, R.; Morlock, T.: A CENTENNIAL – SCALE VIEW OF WAVE CLIMATE CHANGE IMPACTS ON SHOREFACE AND SHORELINE STABILITY ALONG DRIFT-ALIGNED COASTS

09:15 **Serafin, K. A.**; Méndez, F. J.; Espejo, A.; Camus, P.; Ruggiero, P.: GENERATION OF LOCAL CLIMATE INDICES FOR IMPROVED ESTIMATES OF EXTREME TOTAL WATER LEVELS IN THE NE PACIFIC

09:30 **Barnard, P. L.**; Short, A. D.; Harley, M. D.; Allan, J.; Banno, M.: MULTI-DECADAL PATTERNS OF PACIFIC OCEAN PHYSICAL FORCING AND COASTAL RESPONSE

09:45 **Gallien, T. W.**; O'Reilly, W. C.; Flick, R. E.; Guza, R. T.: ANTHROPOGENIC FLOOD CONTROL BERMS IN SOUTHERN CALIFORNIA: MITIGATION FOR SEA LEVEL RISE?

14:00 **Moritz, H. P.**; White, K. D.; Simm, J.; Gouldby, B.; Smith, T.: CORPS OF ENGINEERS APPROACH AND PROGRESS TOWARD CLIMATE AND SEA LEVEL CHANGE ADAPTATION AT THE PROJECT LEVEL

14:15 **Gesch, D. B.**: ACCOUNTING FOR VERTICAL UNCERTAINTY AND OTHER BEST PRACTICES FOR ELEVATION-BASED SEA-LEVEL RISE VULNERABILITY ASSESSMENTS

14:30 **Eversole, D. N.**; Cheung, K. F.; Fletcher, C.; Kim, K.: SEA-LEVEL RISE COASTAL INUNDATION RISK AND VULNERABILITY ASSESSMENT FOR HONOLULU, HAWAII. A NEW GENERATION OF COASTAL INUNDATION MAPS FOR LAND USE PLANNING.

14:45 **Kane, H. H.**; Fletcher, C. H.; Frazer, L. N.; Barbee, M. M.: DEVELOPING TOOLS TO ASSESS THE VULNERABILITY OF PACIFIC ISLAND WETLANDS TO SEA-LEVEL RISE

15:00 **Giese, G. S.**; Borrelli, M.; Mague, S. T.; Adams, M. B.; Smith, T. L.: APPLICATION OF A SIMPLE GEOMORPHIC MODEL TO CAPE COD COASTAL CHANGE

15:15 **Barber, D. C.**; Kegel, T. S.; Herman, C. H.: PAST AND PRESENT INUNDATION EPISODES ALONG THE US EAST COAST (NORTH CAROLINA AND NEW JERSEY): IMPLICATIONS FOR SEA-LEVEL ADAPTATION.

15:30 **Hegermiller, C. A.**; Erikson, L. H.; Barnard, P. L.; Mendez, F. J.; Reguero, B.: PROJECTED MIGRATION OF PACIFIC BASIN EXTREME WAVE GENERATION REGIONS AND FUTURE WAVE CLIMATE OF THE U.S. WEST COAST

15:45 **McInnes, K. L.**; Hoeke, R. K.; O'Grady, J.; Colberg, F.: CLIMATE CHANGE IMPACTS ON TROPICAL CYCLONES AND EXTREME SEA LEVELS: EXAMPLES FOR FIJI AND SAMOA

096 Ocean and Climate Change Science: Engaging Scientists In Educating the Public

Chair(s): James Yoder, jyoder@whoi.edu
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Gail Scowcroft, gailscow@mail.uri.edu
Don Boesch, boesch@umces.edu

Location: 318 AB

08:00 **Chan, K.**; Stern, S.; Anderson, J.: COMMUNICATING OCEAN AND CLIMATE CHANGE: ROLE OF AND BENEFITS FOR SCIENTISTS IN THE COMMUNITY OF PRACTICE

08:15 **Coleman, D. F.**; Scowcroft, G.; Knowlton, C.; Matis, K.; McMillan, W.: THE UNKNOWN OCEAN - LIVE INTERACTIVE EDUCATIONAL PROGRAMMING UTILIZING SHIP-TO-SHORE TELEPRESENCE TECHNOLOGY

08:30 **Morin, H. B.**; Scowcroft, G. A.; Knowlton, C. W.; Ginis, I.: HURRICANE SCIENCE AND EDUCATION: USING ONLINE TOOLS TO ENGAGE SCIENTISTS, EDUCATORS, STUDENTS, AND THE PUBLIC

08:45 **Romano, C.**; Hayward, J.: EVALUATION ENHANCES LEARNING ABOUT EFFECTIVENESS

09:00 **Chen, R. F.**; Douglas, E.; Lustick, D.; Lohmeier, J.; Rabkin, D.: CLIMATE CHANGE EDUCATION ON THE T: USING ADVERTISING STRATEGIES FOR DISSEMINATING SCIENTIFIC RESEARCH

09:15 **Cooper, S. K.**; Kurtz, K.; Collins, J.: CONNECTING SCIENTISTS AND EDUCATORS THROUGH SHIP-TO-SHORE SCIENCE: AN INFORMAL SCIENCE PROGRAM BRINGING THE EXCITEMENT OF SCIENCE AND ADVENTURE TO THE PUBLIC

09:30 **Nigella, H. M.**; Zmarzly, D.; Peach, C. L.: FEELING THE HEAT: SUCCESSES AND CHALLENGES IN TRANSLATING CLIMATE SCIENCE FOR THE PUBLIC

09:45 **Knowlton, C. W.**; Scowcroft, G.; Coleman, D. F.: OCEAN SCIENTISTS AND AQUARIUM AUDIENCES: INCREASING OCEAN LITERACY THROUGH OCEAN EXPLORATION

097 Breaking Boundaries: the Role of Science Communication and Outreach In Promoting Healthy Oceans

Chair(s): Christine O'Connell, christine.oconnell@stonybrook.edu
Marianne McNamara, mcnamam@sunysuffolk.edu

Location: 318 AB

14:00 **Schubel, J. R.**: A BETTER WAY OF COMMUNICATING SCIENCE TO THE PUBLIC?

14:15 **Cherrier, J.**; Kelley, B.: MULTIDISCIPLINARY TECHNIQUES IN MARINE SCIENCE, POLICY AND COMMUNICATION: TRAINING THE NEXT GENERATION OF AQUATIC SCIENTISTS

14:30 **O'Connell, C. A.**; Bass, E.; Lantz-Gefroh, V.: PUTTING YOURSELF INTO YOUR SCIENCE: TECHNIQUES TO HELP SCIENTISTS CONNECT

14:45 **Tankersley, R. A.**; Lopez-Duarte, P. C.; Bourexis, P.: TRAINING MODEL FOR EFFECTIVE PRESENTATION SKILLS DEVELOPMENT FOR OCEAN SCIENTISTS

15:00 **Shapiro, A. D.**; Bernstein, W.; Kripke, L.: OCEAN CIRCULATION BETWEEN ARTISTS, SCIENTISTS AND THE PUBLIC

15:15 **Victoria Hill, .**; Jenifer Alonzo, .; Stephen Burgin, .; Fred Dobbs, .: SCIENCE ALLIANCE LIVE! SCIENTIFIC AWARENESS THROUGH THEATRE

15:30 **Wheeler, L.**; Dustan, P.: DIVING WITH A PURPOSE

15:45 **Lemus, J. D.**: SEAHARMONY: AN INNOVATIVE FORUM FOR COLLABORATIVE NETWORKING

111 New Insights Into Microbial Community Metabolism and Coupled Biogeochemical Cycling In Oxygen-Deficient Marine Waters

Chair(s): Klaus Jürgens, klaus.juergens@io-warnemuende.de
Steven J. Hallam, shallam@mail.ubc.ca

Location: 313 A

08:00 **Bristow, L. A.**; Ganesh, S.; Larsen, M.; Stewart, F. J.; Thamdrup, B.: SIZE FRACTIONATED PROCESS RATES AND OMICS OF KEY NITROGEN CYCLING PROCESSES IN A MARINE OXYGEN MINIMUM ZONE

08:15 **Suter, E. A.**; Scranton, M. I.; Tong, L.; Astor, Y.; Taylor, G. T.: PARTITIONING OF SULFUR CYCLING BETWEEN PARTICLE-ASSOCIATED AND FREE-LIVING ORGANISMS IN THE CARIACO BASIN

08:30 **Johnston, D. T.**; Gill, B. C.; Masterson, A.; Beirne, E.; Berelson, W.: QUANTIFYING THE CRYPTIC OMZ S CYCLE

08:45 **Shah, V.**; Morris, R. M.: CULTIVATION OF THE SUP05 CLADE

09:00 **Frey, C.**; Hietanan, S.; Jürgens, K.; Labrenz, M.; Voss, M.: INFLUENCE OF OXYGEN INTRUSIONS ON CHEMOAUTOTROPHIC DENITRIFICATION AND ITS ISOTOPE FRACTIONATION OF SULFURIMONAS GOTLANDICA

09:15 **Babbin, A. R.**; Jayakumar, A.; Ward, B. B.: RAPID NITROUS OXIDE CONSUMPTION IN THE EASTERN TROPICAL NORTH PACIFIC

09:30 **Murillo, A. A.**; Belmar , L. G.; Ramírez-Flandes, S.; Venegas , C. M.; Ulloa, O.: IDENTITY AND FUNCTIONAL DIVERSITY OF THE CO2-FIXERS MICROORGANISMS IN A SEASONAL OMZ COASTAL SYSTEM

09:45 **Lee, D. Y.**; Crump, B. C.; Eggleston, E. M.; Hewson, I.; Cornwell, J. C.: SIGNIFICANT CHEMOAUTOTROPHIC CONTRIBUTION TO ESTUARINE CARBON BALANCES IN A SEASONALLY STRATIFIED ANOXIC ESTUARY

14:00 **Taylor, G. T.**; Scranton, M. I.; Podlaska, A.; Suter, E. A.; Muller-Karger, F. E.: DYNAMICS IN THE CARIACO BASIN: ANALOGUE FOR EXPANDING OXYGEN MINIMUM ZONES?

14:15 **Löscher, C. R.**; Schunck, H.; Neulinger, S. C.; Bange, H. W.; Schmitz, R. A.: BIOGEOCHEMICAL CONTROLS ON THE MARINE NITROGEN CYCLE IN THE OXYGEN MINIMUM ZONE OFF PERU

14:30 **Schwenck, S. M.**; Brum, J. R.; Stewart, F. J.; Sullivan, M. B.: WHEN THE OXYGEN MINIMUM ZONE AND EUPHOTIC ZONE COLLIDE, VIRAL COMMUNITIES ARE ALTERED

14:45 **Edgcomb, V. P.**; Pachiadaki, M.; Kormas, K.; Torres Beltran, M.; Hallam, S.: MICROBIAL EUKARYOTIC COMMUNITY STRUCTURE AND DYNAMICS IN A SEASONALLY ANOXIC FJORD, SAANICH INLET

15:00 **Sangita Ganesh, -.**; Laura A. Bristow, .; Bo Thamdrup, .; Frank J. Stewart, .: METATRANSCRIPTOMICS IDENTIFIES METABOLIC PARTITIONING AMONG MICROBIAL SIZE-FRACTIONS IN A MARINE OXYGEN MINIMUM ZONE

15:15 **Neulinger, S. C.**; Löscher, C. R.; Schunck, H.; LaRoche, J.; Schmitz, R. A.: META^{2}GENOMICS - AN INTEGRATED VIEW ON MICROBIAL COMMUNITIES OF THE EASTERN TROPICAL SOUTH PACIFIC OXYGEN MINIMUM ZONE

15:30 **Jürgens, K.**; Berg, C.; Bruckner, C. G.; Labrenz, M.; Schweder, T.: CHEMOLITHOAUTOTROPHIC MICROBES AS BIOGEOCHEMICAL KEY PLAYERS IN PELAGIC REDOXCLINES OF THE BALTIC SEA

15:45 **Hawley, A. K.**; Pasa-Tolic, L.; Kuypers, M. M.; Crowe, S.; Hallam, S. J.: COUPLED BIOGEOCHEMICAL CYCLING AND DYNAMICS OF NITROGEN LOSS PROCESSES IN A SEASONALLY ANOXIC FJORD

123 The Molecular Chemistry and Microbial Biology of Marine Dissolved Organic Matter (DOM) Composition and Cycling

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Craig Carlson, carlson@lifesci.ucsb.edu
Ed Delong, delong@mit.edu

Location: 317 AB

08:00 **Steinberg, D. K.**; Ducklow, H. W.; Luria, C. M.: PRODUCTION OF DISSOLVED ORGANIC MATTER BY ANTARCTIC ZOOPLANKTON AND ITS EFFECT ON BACTERIA PRODUCTION

08:15 **Wear, E. K.**; Carlson, C. A.; Windecker, L. A.; Brzezinski, M. A.; Nelson, C. E.: BIOAVAILABILITY OF DIATOM EXUDATE INDUCED BY NUTRIENT LIMITATION INFLUENCED BY BOTH PHYTOPLANKTON SPECIES AND LIMITING NUTRIENT IDENTITY (NITROGEN VS. SILICA)

08:30 **Pedler, B. E.**; Aluwihare, L. I.; Azam, F.: ALTERATION AND EFFICIENT REMOVAL OF AMBIENT MARINE DISSOLVED ORGANIC CARBON BY A SINGLE MARINEALTEROMONAS STRAIN

08:45 **Lechtenfeld, O. J.**; Hertkorn, N.; Shen, Y.; Witt, M.; Benner, R.: MICROBIAL METABOLISM RAPIDLY GENERATES CHEMICALLY-COMPLEX DISSOLVED ORGANIC MATTER

09:00 **Liu, S.**; Liu, Z.: COMPARING PEPTIDE HYDROLYSIS RATES BETWEEN PLAIN PEPTIDES AND THEIR ANALOGS IN THE NORTHERN GULF OF MEXICO

09:15 **Becker, J. W.**; Repeta, D. J.; Rappé, M. S.; Berube, P. M.; DeLong, E. F.: TRANSCRIPTIONAL PROFILING OF MARINE BACTERIA CULTURED IN THE PRESENCE OFPROCHLOROCOCCUS-DERIVED DISSOLVED ORGANIC MATTER

09:30 **Sosa, O. A.**; Gifford, S.; Repeta, D.; DeLong, E. F.: ISOLATION AND GROWTH OF DIVERSE MARINE BACTERIA ENRICHED WITH NATURAL HIGH-MOLECULAR-WEIGHT DISSOLVED ORGANIC MATTER

09:45 **Longnecker, K.**; Futrelle, J.; Coburn, E.; Breier, C. F.; Kujawinski, E. B.: USING METABOLOMICS TO CHARACTERIZE ORGANIC MATTER FROM MARINE PHYTOPLANKTON

14:00 **DeVries, T. J.**; Primeau, F. W.; Deutsch, C. A.: QUANTIFYING AND COMPARING THE MICROBIAL AND BIOLOGICAL CARBON PUMPS IN THE OCEAN

14:15 Xie, H.; **Zafiriou, O. C.**; Najjar, R. G.; Nelson, N. B.; Goldstone, J.: ARE MODELED RATES OF PHOTOPRODUCTION OF CO FROM CDOM AND ITS MICROBIAL OXIDATION OVERESTIMATED BY TWO-FOLD? CONSTRAINTS FROM THREE IN-SITU INCUBATION METHODS

14:30 **Hansman, R. L.**; Dittmar, T.; Herndl, G. J.: MICROBES AND THE MOLECULAR COMPOSITION OF DOM IN THE DEEP NORTHEAST ATLANTIC OCEAN

14:45 **Seibt, M.**; Dittmar, T.; Niggemann, J.: MOLECULAR GEOGRAPHY OF DISSOLVED ORGANIC MATTER IN THE SOUTHERN OCEAN

15:00 **Walker, B.**; Beaupré, S.; Guilderson, T.; McCarthy, M.; Druffel, E.: EVIDENCE FOR QUANTIFIABLE SIZE-AGE-COMPOSITION RELATIONSHIPS WITHIN MARINE ORGANIC MATTER

15:15 Nelson, N. B.; **Gauglitz, J. M.**: TRENDS IN DOM FLUORESCENCE REVEAL DIVERSITY AND DIAGENESIS IN DOM IN THE GLOBAL OCEAN

15:30 **SHEN, Y.**; Benner, R.: DISSOLVED ORGANIC MATTER COMPOSITION REFLECTS ECOSYSTEM PRODUCTIVITY

15:45 **Powers, L. C.**; Miller, W. L.; Enright, J. K.; Babcock-Adams, L. C.: PROBING THE PHOTOCHEMICAL REACTIVITY OF DEEP OCEAN REFRACTORY CARBON: A LESSON FROM SUPEROXIDE AND HYDROGEN PEROXIDE KINETICS

2/25/2014 Posters

003 Advances In Coastal Ocean Modeling, Observations, and Prediction

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Yi Chao, ychao001@gmail.com

Location: Kamehameha Hall III

677 **Brooks, D. A.**: MODELING THE CIRCULATION IN A RIVER-DOMINATED MESOTIDAL ESTUARY: THE KENNEBEC RIVER OF CENTRAL MAINE.

678 **Gregg, M. C.**: MIXING OVER ROUGH TOPOGRAPHY

679 **Whitefield, J.**; Winsor, P.; McClelland, J.: INFLUENCE OF A HIGH SPATIAL RESOLUTION ARCTIC/SUB-ARCTIC RIVER DISCHARGE AND TEMPERATURE FORCING ON MODELLED NEARSHORE HYDROGRAPHY AND SEA ICE CONDITIONS

680 **Yosuke Igeta, Y. I.**; Keiichi Yamazaki, K. Y.; Tatsuro Watanabe, T. W.: AMPLIFICATION OF COASTAL-TRAPPED WAVES RESONATLY GENERATED BY WIND AROUND THE SADO ISLAND, JAPAN

681 **Kuroda, H.**; Setou, T.; Aoki, K.: DEVELOPMENT OF A SUBMESOSCALE MODEL OF THE KUROSHIO SOUTH OF JAPAN BASED ON A SCALE-SELECTIVE DATA ASSIMILATION METHOD

682 **Jacox, M. G.**; Moore, A. M.; Edwards, C. A.; Fiechter, J.: UPWELLING VARIABILITY IN THE CALIFORNIA CURRENT SYSTEM FROM A HISTORICAL ANALYSIS WITH ROMS 4D-VAR DATA ASSIMILATION

683 **Bo/Hong, .**; Jian/Shen, .; Hongzhou/Xu, .: LINKING DYNAMICS OF TRANSPORT TIMESCALE AND VARIATIONS OF HYPOXIA IN THE CHESAPEAKE BAY

684 **Burston, J. M.**; Symonds, A. M.; Scheel, F.: VALIDATION OF D-FLOW FLEXIBLE MESH FOR NUMERICAL SIMULATION OF STORM SURGE FROM TROPICAL CYCLONES

685 **Kim, J. W.**; Woo, S. B.; Yoon, B. I.; Song, J. I.: NUMERICAL STUDY OF VARIABILITY OF NET VOLUME TRANSPORT ACCORDING TO FRESHWATER DISCHARGE AT SIX CROSS SECTIONS IN YEOUNGSAN RIVER ESTUARY, SOUTH KOREA

686 **Wihsgott, J. U.**; Palmer, M. R.: MODELLING PYCNOCLINE TURBULENCE IN LIVERPOOL BAY

711 **Gan, J. P.**; Liu, Z. Q.; Ho, S. H.; Liang, L. L.: CROSS-ISOBATH GEOSTROPHIC TRANSPORT (CGT) IN THE CHINA SHELF SEAS

712 **Besio, G.**; Enrile, F.; Magaldi, M. G.; Mantovani, C.; Cosoli S, Gerin S, Poulain , P. M.: RELIABILITY OF LCS DETECTION DEPENDING ON HF-RADAR VELOCITY DATASET

713 **Staneva, J.**: WAVE-, HYDRO- AND SEDIMENT- DYNAMICS IN THE GERMAN AND WADDEN SEAS: A FOCUS ON OBSERVATIONS AND NUMERICAL MODELLING

714 **Markovic, M.**; Klein, B.; Mikolajewicz, U.; Gröger , M.; Matthis, M.: INFLUENCE OF NAO ON SEA SURFACE TEMPERATURE, SALINITY AND DENSITY STRATIFICATION OF NORTH SEA AND NORTH ATLANTIC: RESULTS FROM MPI-OM A1B SCENARIO SIMULATIONS

715 **Bayer, S. R.**; Wahle, R. A.; Brady, D. C.; Brooks, D. A.; Jumars, P. A.: SCALE OF FERTILIZATION SUCCESS IN AN EXPLOITED BROADCAST SPAWNER: FROM AN INDIVIDUAL TO AN ESTUARY

716 **Combes, V.**; Matano, R.: A TWO-WAY NESTED SIMULATION OF THE OCEANIC CIRCULATION IN THE SOUTHWESTERN ATLANTIC

717 **Muller, A. C.**; Muller, D. L.: FORECASTING HYPOXIC VOLUME USING A WAVELET BASED NEURAL NETWORK MODEL

718 **Teel, E. N.**; Seegers, B. N.; Jones, B. H.: EXAMINING COASTAL DYNAMICS IN THE SOUTHERN CALIFORNIA BIGHT WITH THE STATISTICAL ANALYSIS OF IN-SITU GLIDER DATA

719 **Le Henaff, M.**; Kourafalou, V. H.; Morel, Y.; Lumpkin, R.: INTENSIFICATION OF THE LOOP CURRENT FRONTAL EDDIES IN THE GULF OF MEXICO: MODEL RESULTS CONFRONTED TO SURFACE DRIFTER OBSERVATIONS

720 **Tak, Y. J.**; Cho, Y. K.; Seo, G. H.; Kim, C. S.: TOWARD AN IMPROVED SST SIMULATION USING A NET HEAT FLUX CORRECTION SCHEME IN MARGINAL SEAS

721 **Cho, K.**; Park, K.; Hyun, S.; Lim, E.; Han, C.: IMPACT OF MULTPLE CONSECUTIVE TYPHOONS ON KOREAN COASTAL WATERS

722 **Kwak, M.**; Cho, Y.: OVERLAP OF TIDAL WAVES PROPAGATING OPPOSITE DIRECTION IN A NARROW CHANNEL

723 **Gu, B. H.**; Woo, S. B.; Kim, S. I.; Kim, M. S.: APPLICATION OF OPTIMAL INTERPOLATION TO ADCP DATA IN THE IEODO OF KOREA USING FVCOM

724 **Yoon, B. I.**; Woo, S. B.: THE CHARACTERISTIC OF ALONG CHANNEL SALINITY DISTRIBUTION IN MACRO TIDAL ESTUARY, GYEONGGI BAY, SOUTH KOREA: FIELD MEASUREMENT AND NUMERICAL MODEL RESULTS

007 The Role of the Oceans In Climate Change On Interannual, Decadal and Century-Long Time-Scales From Marine Proxy Archives

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3063 **Ge, Q.**: EAST ASIAN WINTER MONSOON RECORDS FROM THE MUD AREA, NORTHERN SHELF OF THE SOUTH CHINA SEA OVER THE LAST 3 KA

3064 **Hetzinger, S.**; Pfeiffer, M.; Dullo, W. C.; Zinke, J.; Garbe-Schönberg, D.: A REDUCTION IN CORAL EXTENSION RATE AND A BASELINE SHIFT IN STABLE ISOTOPIC COMPOSITION: REACTION TO EL NINO-INDUCED CORAL BLEACHING?

3065 **Prouty, N. G.**; Storlazzi, C. D.; McCutcheon, A. L.; Cohen, A.; Jenson, J. W.: HISTORIC IMPACT OF WATERSHED CHANGE AND SEDIMENTATION TO REEFS ALONG WESTERN GUAM

3066 **von Reumont, J.**; Hetzinger, S.; Garbe-Schönberg, D.; Manfrino, C.: ASSESSING THE INFLUENCE OF SEA SURFACE TEMPERATURE ON CORAL GROWTH AND SR/CA: A REPLICATION STUDY FROM THE CAYMAN ISLANDS

3067 **Butler, P. G.**; Scourse, J. D.: ARAMACC: ADVANCING THE USE OF ANNUALLY-RESOLVED AND ABSOLUTELY-DATED SHELL-BASED PALAEOCEANOGRAPHIC RECORDS FOR THE NORTH ATLANTIC REGION

3068 **Böll, A.**; Gaye, B.: SEA SURFACE TEMPERATURE VARIATIONS IN THE NORTHEASTERN ARABIAN SEA AS A RECORDER FOR ASIAN CLIMATE VARIABILITY DURING THE LAST TWO MILLENNIA

3069 **McCutcheon, A. L.**; Raymundo, L. J.; Jenson, J. W.; Prouty, N. G.: TESTING THE SR/CA PROXY FOR SST RECONSTRUCTION IN THE CORAL *PORITES LUTEA* IN GUAM, USA

3070 **Shirai, K.**; Schöne, B. R.; Miyaji, T.; Radarmacher, P.; Krause Jr, R. A.: ASSESSMENT OF THE MECHANISM OF ELEMENTAL INCORPORATION INTO BIVALVE SHELLS (ARCTICA ISLANDICA) BASED ON ELEMENTAL DISTRIBUTION AT THE MICROSTRUCTURAL SCALE

3071 **Heinze, M.**; Ilyina, T.: IMPACTS ON THE OCEAN CARBON CYCLE DURING THE PALEOCENE-EOCENE THERMAL MAXIMUM – AN EARTH SYSTEM MODEL STUDY

3072 **Tems, C. E.**; Berelson, W. M.: A COMPARATIVE HIGH-RESOLUTION STUDY OF &DELTA 15N IN LAMINATED SEDIMENTS AS A PROXY FOR FLUCTUATIONS IN THE INTENSTIY OF OXYGEN MINIMUM ZONES

3073 **Bojarski, A. J.**; Delong, K. L.; Quinn, T. M.; Taylor, F. W.: ASSESSING MILLIMETER-SCALE SR/CA VARIABILITY WITHIN A *PORITES LUTEA* CORALLITE FAN STRUCTURE FOR IMPROVING CORAL-BASED CLIMATE RECONSTRUCTIONS

3074 **Sanchez, S. C.**; Charles, C. D.; Carriquiry, J. D.; Villaescusa, J. A.: NATURAL VARIABILITY OF THE NORTH PACIFIC GYRE OSCILLATION EXPRESSED IN A CLARION ISLAND CORAL

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3075 **Carroll, M. L.**; Ambrose, W. G.; Locke, W. L.: PAN-SVALBARD DECADAL GROWTH RATE VARIABILITY AND ENVIRONMENTAL REGULATION IN THE ARCTIC BIVALVE SERRIPES GROENLANDICUS

3076 **Flores-Aqueveque, V.**; Alfaro, S.; Vargas, G.; Rutllant, J.: EOLIAN PARTICLES IN MARINE LAMINATED SEDIMENTS FOR UPWELLING FAVORABLE-SOUTHERLY WINDS RECONSTRUCTIONS IN THE EASTERN BOUNDARY HUMBOLDT CURRENT SYSTEM

3077 **Watanabe, T.**; Miyaji, T.; Yamazaki, A.; Inoue, M.; Sowa, K.: CORAL MULTIPLE PROXY APPROACH TO EVALUATE THE IMPACT OF COASTAL LAND USE ON REEF ENVIRONMENTS AND CORAL GROWTH

3141 **Cobb, R. M.**; DeLong, K. L.; Richey, J. N.; Flannery, J. A.: CALIBRATION OF CORAL SR/CA VARIATIONS AND GROWTH RATES IN *MONTASTRAEA FAVEOLATA*COLONIES IN VERACRUZ, MEXICO

3142 Amini, M.; **Jacob, D. E.**; Shirai, K.; Watanabe, T.; Weis, D.: THE POTENTIAL OF TRIDACNA SHELLS AS A MICROANALYTICAL REFERENCE MATERIAL FOR BIOGENIC CARBONATE

3143 **Li, S.**; Jing, Y.; Luo, F.: THAT THE ATLANTIC MULTIDECADAL OSCILLATION (AMO) LEADS CHINA SURFACE AIR TEMPERATURES ALSO EXISTS IN THE PRE-INDUSTRIAL PERIOD

3144 **Ohmori, K.**; Watanabe, T.: SEASONAL TO DECADAL CLIMATE SIGNALS IN SKELETAL GROWTH AND TRACE ELEMENTS OF THE PACIFIC SCLEROSPONGES

3145 **Pfeiffer, M.**; Takayanagi, H.; Cahyarini, S. Y.; Watanabe, T.; Garbe-Schoenberg, D.: CORAL SR/CA RECORDS FROM ENGGANO ISLAND (INDONESIA): PROXY RECORDS OF IOD-INDUCED UPWELLING AND MEAN SST IN THE EASTERN INDIAN OCEAN

3146 **Schubert, B. A.**; Jahren, A. H.: RECONSTRUCTION OF ATMOSPHERIC CARBON DIOXIDE LEVELS DURING CARBON ISOTOPE EXCURSION EVENTS

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3148 **Hirons, A. C.**; Knecht, R.; Potter, C. W.; Gomez, J.: PALEOCEANOGRAPHIC PRODUCTIVITY RECONSTRUCTIONS USING MARINE MAMMAL BONE COLLAGEN

3149 **Taniguchi, N. K.**; Martins, A. M.; Sousa, S. H.; Chiessi, C. M.: CHANGES IN TERRIGENOUS SEDIMENT INPUT TO THE BRAZILIAN EQUATORIAL MARGIN AS A RESPONSE TO CLIMATE CONDITIONS DURING THE MIDDLE AND LATE HOLOCENE

3150 **Lund, D. C.**: NEGATIVE CARBON ISOTOPIC EXCURSIONS ON GLACIAL TERMINATIONS: IS THE LATEST EVIDENCE CONSISTENT WITH AN ABYSSAL OCEAN SOURCE?

3151 **King, T. M.**; Fitzgerald, P. C.; Black, D. E.; Cochran, J. K.: THE INFLUENCE OF BIOGENIC SILICA ON $^{231}PA/^{230}TH$ IN SEDIMENTS FROM THE BERMUDA RISE AS A PROXY FOR PALEOCIRCULATION

3152 **Fernandez, A.**; Rosenheim, B. E.; Lapen, T.; Rasmus, A.: EXPLORING CHANGES IN THE WIND-DRIVEN CIRCULATION OF THE ATLANTIC OCEAN USING RADIOCARBON ARCHIVED IN CORALS AND SCLEROSPONGES.

3153 **Jones, W. A.**; Checkley Jr, D. M.: VARIABILITY IN THE SANTA BARBARA BASIN FISH ASSEMBLAGE IN THE LAST TWO MILLENNIA INFERRED FROM THE FOSSIL OTOLITH RECORD

3154 **Junium, C. K.**; Expedition 342 Scientists, .: A NEW OCEANIC ANOXIC EVENT 2 RECORD FROM THE CENTRAL NORTH ATLANTIC, IODP EXPEDITION 342, NEWFOUNDLAND DRIFTS: TEMPORAL TRANSIENCE OF BLACK SHALE DEPOSITION.

3155 **Liu, H.**; Wang, C.; Lee, S.; Enfield, D.: INHOMOGEOUS INFLUENCE OF ATLANTIC WARM POOL ON UNITED STATES PRECIPITATION

3156 **DeLong, K. L.**; Quinn, T. M.; Taylor, F. W.; Lin, K.; Shen, C. C.: INSIGHTS FROM CORAL ISOTOPIC AND STRONTIUM-CALCIUM RATIO RECORDS FROM THE SOUTHWEST TROPICAL PACIFIC SINCE 1649 CE

3169 **Nakamura, N.**; Kayanne, H.; McClanahan, T. R.; Behera, S. K.; Yamagata, T.: FOOTPRINTS OF IOD AND ENSO IN THE KENYAN CORAL RECORD

008 Revising Biogeochemical Stoichiometry: the Oceans Beyond Redfield On A Changing Planet

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2021 **Ishizu, M.**; Richards, K. J.: THE RELATIONSHIP BETWEEN OXYGEN, NITRATE AND PHOSPHATE IN THE WORLD OCEAN BASED ON POTENTIAL TEMPERATURE

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2023 **Zimmerman, A. E.**; Martiny, A. C.; Lomas, M. W.; Allison, S. D.: PHOSPHATE SUPPLY EXPLAINS VARIATION IN NUCLEIC ACID ALLOCATION BUT NOT C:P STOICHIOMETRY IN THE WESTERN NORTH ATLANTIC

2024 **Tohidi Farid, H.**; Schulz, K.; Erler, D.; Rose, A.: INTERRELATED INFLUENCE OF FE AND LIGHT ON GROWTH RATE AND FE, P, N AND C IN CONTINUOUS CULTURES OF TRICHODESMIUM IMS101 AND CROCOSPHAERA WH0401

2025 Reynolds, S.; **Mahaffey, C.**; McCarthy, A.: VARIATION IN PHOSPHORUS ACQUISITION STRATEGIES BY TRICHODESMIUM IN THE ATLANTIC OCEAN

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2029 **Letscher, R. T.**; Moore, J. K.: NON-REDFIELD DOM DYNAMICS AND PREFERENTIAL REMINERALIZATION OF DISSOLVED ORGANIC PHOSPHORUS IN THE GLOBAL OCEAN

2030 **Liu, H.**; Yin, K.; Harrison, P. J.: BACTERIAL NUTRIENT REMINERALIZATION EFFICIENCY OF PHYTOPLANKTON ORGANIC MATTER

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2037 **Teng, Y.**; Primeau, F. W.; Moore, K.; Martiny, A. C.; Lomas, M. W.: IMPACT OF NON-REDFIELD PARTICULATE MATTER EXPORT ON INORGANIC NUTRIENT DISTRIBUTIONS IN THE OCEAN

2038 **Needoba, J. A.**; Peterson, T. D.; Lerczak, J. A.; Watson, S.: ECOLOGICAL SIGNIFICANCE OF PHOSPHORUS TRANSFORMATIONS AT THE RIVER-OCEAN INTERFACE OF THE COLUMBIA RIVER ESTUARY

2039 **Dugdale, R.**; Fuller, J.; Wilkerson, F.; Parker, A. E.: VARIATIONS IN RATIOS OF N:P:SI UPTAKE IN MARINE PHYTOPLANKTON AS A FUNCTION OF ENVIRONMENTAL CONCENTRATIONS AND THEIR EFFECTS ON CARBON DRAWDOWN.

2040 **Mine, A. H.**; Alex, S.; Coleman, M. L.; Colman, A. S.: PHOSPHORUS REGENERATION IN THE WAKE OF CELL LYSIS

2041 **Litchman, E.**; De Tezanos Pinto, P.; Klausmeier, C. A.: DIVERSITY OF COMPETITIVE OUTCOMES BETWEEN A NITROGEN-FIXER AND A NON-FIXER AND THE EXTENSION OF THE NITROGEN-FIXERS' COMPETITIVE NICHE

2042 **Popendorf, K. J.**; Duhamel, S.: MICROBIAL PHOSPHORUS DYNAMICS IN THE OLIGOTROPHIC GULF OF MEXICO

2043 **Mills, M. M.**; Brown, Z. W.; Lowry, K. E.; Pickart, R. S.; Arrigo, K. R.: THE IMPACT OF LOW PHYTOPLANKTON NO3:PO4 UTILIZATION RATIOS ON GEOCHEMICAL ESTIMATES OF DENITRIFICATION ON THE CHUKCHI SHELF, ARCTIC OCEAN

009 Scientific and Societal Benefits From Integrated Coastal Ocean Observations and Networked Marine Laboratories

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1871 **Washburn, L.**; Ohlmann, C.; Ellis, D.; Schofield, O.; Moline, M.: OBSERVATIONS OF POLEWARD FLOWS AROUND THE BIO-GEOGRAPHIC BOUNDARY AT PT. CONCEPTION, CA USING OCEAN OBSERVING SYSTEM TECHNOLOGIES

1872 **Liu, Y.**; Weisberg, R. H.; Merz, C. R.: ASSESSMENT OF CODAR AND WERA HF RADARS IN MAPPING CURRENTS ON THE WEST FLORIDA SHELF

1873 **Kerkering, H. A.**; Iwamoto, M.; Ostrander, C.: PACIOOS: PROVIDING OCEAN INFORMATION AND BUILDING COLLABORATIONS TO BRING YOU A SAFE PACIFIC EXPERIENCE

1874 **Kuska, G. F.**; Thoroughgood, C. A.; Moore, P.; Schroeder, M.: THE MY MARACOOS FISHING APP: AN IOOS SUCCESS STORY OF USER-DRIVEN PRODUCT DEVELOPMENT AND STRONG INSTITUTIONAL PARTNERSHIPS

1875 **Wright, V. M.**: OBSERVATIONS OF A TROPICAL ECOSYSTEM: AN EVALUATION OF SPATIAL VARIABILITY IN OCEAN MEASUREMENTS TO BUILD AN EFFECTIVE REGIONAL COASTAL OCEAN OBSERVING SYSTEM

1876 **Daugharty, M. K.**; Garfield, N. T.: ORIGINS OF WATER, EXPLORATORIUM, CENTRAL SAN FRANCISCO BAY

1877 **Mullins-Perry, R. L.**; DiMarco, S. F.; Walpert, J.; Dreger, K.; Knap, A.: INVESTIGATING HYDROGRAPHIC VARIABILITY IN THE WESTERN GULF OF MEXICO USING AUTONOMOUS UNDERWATER VEHICLES

1899 **Sebens, K. P.**: THE BIOLOGY PROBLEM: MARINE LABORATORIES FACILITATE LONG-TERM STUDIES OF BENTHIC COMMUNITY DYNAMICS

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1901 **Moltmann, T.**; Proctor, R.; Donoghue, S.: THE INTEGRATED MARINE OBSERVING SYSTEM: OBSERVATIONS TO SUPPORT RESEARCH AND APPLICATIONS IN THE COASTAL ZONE

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1905 **dos Santos, F. A.**; Fragoso, M. R.; Pellegrini, J. C.; Marques da Cruz, L. M.; Adissi, F.: THE FIRST CAMPAIGNS OF PROJETO AZUL: GLIDERS, PROFILING FLOATS AND SURFACE DRIFTERS IN THE SOUTH BRAZIL BIGHT

1906 **Juniper, S. K.**; McLean, S. D.; Pirenne, B.; Flagg, R. M.; Bui, A. O.: FIRST RESULTS FROM A REAL-TIME CABLED OBSERVATORY IN THE CANADIAN ARCTIC OCEAN

1907 **Terrill, E. J.**; Harlan, J.; Hazard, L. L.; Otero, M.: HIGH FREQUENCY RADAR NETWORK (HFRNET) PARTNERSHIPS AT REGIONAL, NATIONAL, AND GLOBAL SCALES

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1910 **Leinen, M. S.**; Davis, M.; Baptista, A.; Hanisak, D.: OUR GLOBAL ESTUARY: AN EMERGING INITIATIVE TO BUILD AN AGREEMENT ON STRATEGY FOR SCIENCE-BASED ESTUARINE OBSERVATION AND PREDICTION NETWORKS

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1912 **Wallace, D. W.**; Gall, N.; Pelot, R.: MEOPAR: CANADA'S MARINE ENVIRONMENTAL OBSERVATION, PREDICTION AND RESPONSE NETWORK OF CENTRES OF EXCELLENCE

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1914 Virmani, J. I.; Cherr, G.; Crosby, M.; Davies, N.; **Klump, V.**: IS THE U.S. NATIONAL NETWORK OF MARINE LABORATORIES AT RISK?

1986 Bundy, M. H.; **Porter, D. E.**: NOAA NERRS SYSTEM-WIDE MONITORING PROGRAM: AN OBSERVING SYSTEM THAT MEETS OCEAN, COASTAL, AND LAND-BASED RESEARCH AND MANAGEMENT NEEDS

010 Physical and Biogeochemical Ocean Modeling: Development, Assessment and Applications

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661 **Yang, D.**; Chamecki, M.; Meneveau, C.: WILL SURFACE OIL PLUMES TRAVEL DOWNWIND OR CROSSWIND? - A COMBINED EFFECT OF LANGMUIR TURBULENCE AND EKMAN TRANSPORT

662 Xu, S. Z.; **Zhang, Y.**; Huang, X. M.; Xu, F. H.: GPU ACCELERATION OF PRINCETON OCEAN MODEL

663 **Johnson, R. J.**; Hyder, P.; Evans, D. G.; Koffi, U.; Bates, N. R.: ASSESSMENT OF REANALYSIS AND OPERATIONAL NUMERICAL MODELS IN THE SARGASSSO SEA TO HELP QUANTIFY ADVECTION AT THE BERMUDA ATLANTIC TIME-SERIES SITE.

664 **Hahn-Woernle, L.**; Dijkstra, H. A.; van der Woerd, H. J.: STUDYING THE INFLUENCE OF VERTICAL MIXING ON PHYTOPLANKTON GROWTH WITH A QUASI-2D NP MODEL

665 **Yu, Y.**; Liu, H.; Lin, P.: A QUASI-GLOBAL 1/10 EDDY-RESOLVING OCEAN GENERAL CIRCULATION MODEL AND ITS PRELIMINARY RESULTS

666 **Petersen, M. R.**; Jacobsen, D. W.; Ringler, T. D.: THE MPAS-OCEAN ALE VERTICAL COORDINATE

667 **Kim, G.**; Gnanadesikan, A.; Del Castillo, C.: PARAMETERIZATION OF THE DIFFUSE ATTENUATION COEFFICIENT OF DOWNWELLING IRRADIANCE AS A FUNCTION OF CHLOROPHYLL & CDOM FOR IMPLEMENTATION IN EARTH SYSTEM MODELS

668 **Brueggemann, N.**; Eden, C.: VALIDATING DIFFERENT PARAMETERIZATIONS FOR MIXED LAYER EDDY FLUXES INDUCED BY BAROCLINIC INSTABILITY

729 **Xu, Z.**; Chang, P.; Kim, W.; Richter, I.: DIAGNOSING SOUTHEAST TROPICAL ATLANTIC SST AND OCEAN CIRCULATION BIASES IN THE CMIP5 ENSEMBLE

730 **Jaromir Jakacki, .**: MODELING OF THE RISK ASSESSMENT FOR THE POTENTIAL LEAKAGE OF CHEMICAL MUNITIONS IN THE BALTIC SEA.

731 **LI, Y.**; XU, Y.: SIMULATED SEASONAL VARIATIONS OF THE PHYSICAL FIELDS AND BIOGEOCHEMICAL VARIABLES IN THE MARGINAL SEAS OF THE NORTHWEST PACIFIC

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733 **Jin, M.**: BRINE REJECTION INDUCED OCEAN MIXING IN CESM CLIMATE MODEL AND ITS IMPACTS ON NUTRIENTS TRANSPORT IN THE ARCTIC OCEAN

734 **Xiu, P.**; Chai, F.; Guo, L.; Chavez, F. P.; Chao, Y.: SEASONAL VARIATIONS OF ECOSYSTEM STRUCTURES IN THE CENTRAL CALIFORNIA CURRENT SYSTEM

735 **ZONG, H.**; Ding, P.: MODELING STUDY OF SEASONAL VARIABILITY OF NUTRIENTS (N AND P) TRANSPORT IN THE YANGTZE ESTUARY AND ADJACENT WATERS

736 **Mikhail Dobrynin, .**; Thomas Pohlmann, .: INTERACTION OF TIDES AND SEA-ICE IN THE SHALLOW ARCTIC

769 **Min, H. S.**; Kwon, Y. O.: COMPARISON OF NORTH PACIFIC INTERMEDIATE WATER DISTRIBUTION BETWEEN OBSERVATION AND CCSM4

770 **Komuro, Y.**: THE IMPACT OF SURFACE MIXING ON THE ARCTIC RIVER WATER DISTRIBUTION AND STRATIFICATION IN A GLOBAL ICE–OCEAN MODEL

771 **CHANUT, J.**: A REFINED NUMERICAL VIEW OF MEDITERRANEAN OVERFLOW

772 **Santilli, E.**; Chalamalla, V.; Sarkar, S.; Scotti, A.: MULTISCALE MODELING OF INTERNAL TIDES AT TOPOGRAPHY: TURBULENCE, MIXING AND WAVE ENERGETICS

773 **Reckinger, S. M.**; Petersen, M. R.; Reckinger, S. J.: SENSITIVITY OF RESOLUTION AND VERTICAL GRID TYPES ON 3D OVERFLOW SIMULATIONS USING MPAS-OCEAN

774 **Tseng, Y.**; Bryan, F. O.: THE EFFECTS OF RIVER AND ESTUARY RUNOFF PARAMETERIZATION IN THE COMMUNITY EARTH SYSTEM MODEL

775 **Lindsay, K.**: APPLICATION OF A NEWTON-KRYLOV SOLVER TO SPIN UP BIOGEOCHEMICAL TRACERS

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837 **Shchepetkin, A. F.**: AN ADAPTIVE, COURANT-NUMBER-DEPENDENT IMPLICIT SCHEME FOR VERTICAL ADVECTION IN OCEANIC MODELING

838 **Bruggeman, J.**; Butenschön, M.; Bolding, K.: MODEL COUPLING WITH THE FRAMEWORK FOR AQUATIC BIOGEOCHEMICAL MODELS: A DEMONSTRATION WITH THE EUROPEAN REGIONAL SEAS ECOSYSTEM MODEL

839 **Hogan, P. J.**; Coelho, E.; Thoppil, P.; Peggion, G.: EXTENDED RANGE ENSEMBLE FORECASTING IN THE GULF OF MEXICO

840 **J.-M. Campin, .**; Bates, M.: DIAGNOSTICS OF TRACER VARIANCE BUDGET AND IMPLIED NUMERICAL DIFFUSIVITY IN OCEAN MODELS

841 **Scott, J. R.**; Marshall, J. C.; Armour, K. C.: SENSITIVITY OF OCEAN HEAT UPTAKE AND CLIMATE RESPONSE TO EDDY AND DIAPYCNAL DIFFUSIVITY PARAMETERS

842 **Krelling, A. M.**; Silveira, I. C.; Gangopadhyay, A.: ADDRESSING THE DYNAMICS OF A NEAR-EQUATORIAL EDDY THROUGH NUMERICAL MODELLING

843 **Mirabito, C. M.**; Ueckermann, M. P.; Haley, P. J.; Lermusiaux, P. F.: DEVELOPMENT, VERIFICATION, AND PARALLELIZATION STRATEGIES FOR AN EFFICIENT NON-HYDROSTATIC FREE SURFACE PRIMITIVE EQUATION OCEAN MODEL

868 **Moisan, J. R.**; McCarthy, J. J.: GENETIC PROGRAMMING FOR OCEAN MICROBIAL ECOLOGY AND BIODIVERSITY

869 **Locke, L.**: VALIDATION OF DRIFT PREDICTIONS FROM THE NAVY'S OPERATIONAL OCEAN MODELS

870 **Sun, S.**; Bleck, R.: VALIDATION OF AN ICOSAHEDRAL-MESH VERSION OF HYCOM OCEAN MODEL

021 Ocean Acidification and Coral Reefs: the Importance of Cooperative Research and the Integrated Ocean Observing System (IOOS)

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2478 **Manzello, D. P.**; Enochs, I. C.; Musielewicz, S.; Carlton, R.; Gledhill, D.: TROPICAL CYCLONES CAUSE CACO3 UNDERSATURATION OF CORAL REEF SEAWATER IN A HIGH-CO2 WORLD

2480 **Avaro, J.**; Rose, A.: A NEW PROBE FOR KINETIC CHARACTERISATION OF CALCIUM CARBONATE PRECIPITATION: FLUORESCENCE RESPONSE UNDER VARYING PH, IONIC STRENGTH AND SOLUTION CONDITIONS

2481 **Shaw, E. C.**; Phinn, S.; Tilbrook, B.: CORAL REEF COMMUNITY METABOLISM: HOW DO SLACK WATER AND FLOW RESPIROMETRY MEASUREMENTS COMPARE?

2482 **Feng, E. Y.**; David, K. P.; Koeve, W.; Oschlies, A.: OCEAN ALKALINIZATION- AN APPLICATION FOR CORAL REEF CONSERVATION

2483 **Paul, V. J.**; Craft, J. D.; Ritson-Williams, R.; Langdon, C.: ALGAL CHEMICAL ECOLOGY IN A CHANGING OCEAN

2484 **Chan, W. Y.**; Eggins, S.; Ellwood, M.; Nand, V.: NATURAL VARIABILITY IN SEAWATER CARBONATE CHEMISTRY AT ONE TREE ISLAND, AUSTRALIA

2485 **DeCarlo, T. M.**; Cohen, A. L.; Young, C.; Golbuu, Y.; Brainard, R.: CORAL BIOEROSION ENHANCED BY OCEAN ACIDIFICATION AND NUTRIENTS

2486 **Tribollet, A.**; Atkinson, M. J.; Cuet, P.; Chauvin, A.: PRODUCTION OF SEAWATER ALKALINITY BY BIOERODING MICROFLORA INCREASES WITH OCEAN ACIDIFICATION

2487 **Maclaren, J. K.**; Silverman, J.; Shamberger, K. E.; Rivlin, T.; Caldeira , K.: A DUAL-TRACER REGRESSION METHOD FOR ESTIMATING CORAL REEF ECOSYSTEM RESPONSE TO A PLUME OF HIGH ALKALINITY SEAWATER TO STUDY THE EFFECT OF OCEAN ACIDIFICATION

2488 **Wall, C. B.**; Fan, T.; Edmunds, P. J.: OCEAN ACIDIFICATION DOES NOT AFFECT THERMAL BLEACHING IN THE JUVENILE CORAL *SERIATOPORA CALIENDRUM*

2523 **Noh, J. H.**; Sutton , A.; Lee, C. M.; Sabine, C.; Lee, K.: OCEAN ACIDIFICATION MONITORING IN TROPICAL LAGOON WATERS OF CHUUK, FSM

2524 **Turk, D.**; McGillis, W. R.; Yates, K. K.; Nelson, M.; Muller-Karger, F. E.: COMMUNITY METABOLISM IN A SHALLOW CORAL REEF AND SEAGRASS ECOSYSTEM IN THE LOWER FLORIDA KEYS

2525 **Rivest, E. B.**; Chen, C. S.; Fan, T. Y.; Li, H. H.: EFFECTS OF MULTIPLE STRESSORS ON LIPID CONSUMPTION AND FITNESS CHARACTERISTICS OF CORAL LARVAE IS LINKED TO LOCAL ENVIRONMENTAL VARIABILITY AND RELEASE DATE

2526 **Lunden, J. J.**; McNicholl, C. G.; Sears, C. R.; Morrison, C. L.; Cordes, E. E.: SENSITIVITY OF THE DEEP-SEA CORAL *LOPHELIA PERTUSA* TO OCEAN CHANGE VARIES BY INDIVIDUAL GENOTYPE IN THE GULF OF MEXICO

2527 **Peterson, B.**; Spaulding, R.; DeGrandpre, M. D.; De Carlo, E. H.; Drupp, P.: EVALUATION OF AN IN SITU ALKALINITY TIME-SERIES ON A HAWAIIAN BARRIER REEF

2528 **Drupp, P. S.**; De Carlo, E. H.; Thompson, R. W.; Mackenzie, F. T.; Musielewicz, S.: VARIABILITY IN POREWATER CARBONATE CHEMISTRY OF PERMEABLE SEDIMENTS ON A BARRIER REEF

028 Marine Renewable Energy Research, Development, E valuation, and Policy

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1397 **McCaffrey, K. L.**; Fox-Kemper, B.; Hamlington, P. E.; Thomson, J.: CHARACTERIZATION OF TURBULENCE ANISOTROPY, COHERENCE, AND INTERMITTENCY AT A PROSPECTIVE TIDAL ENERGY SITE

1398 **Stark, N.**; Hay, A. E.; Kopf, A.: INTRODUCING A SMALL-SCALE DYNAMIC PENETROMETER FOR RAPID GEOTECHNICAL SITE ASSESSMENT AND MONITORING IN THE FIELD OF OCEAN RENEWABLE ENERGY

1399 **Boatman, M. C.**; Hall, C. M.; Bigger, D.: ENVIRONMENTAL EVALUATIONS OF LIGHTING SCHEMES AND CHEMICAL SPILLS FOR MARINE RENEWABLE ENERGY

1400 **Chang, G.**; Roberts, J. D.; Jones, C. A.; Magalen, J.: WAVE ENERGY CONVERTER EFFECTS ON THE NEARSHORE ENVIRONMENT

1401 **Jones, C. A.**; Chang, G.; Spada, F. W.; Roberts, J. D.: COST EFFECTIVE REAL-TIME WAVE ASSESSMENT TOOL

1402 **Brodie, J. F.**; Veron, D. E.; Archer, C. L.; Veron, F.: MODELING OFFSHORE WIND FARM CONFIGURATIONS IN A MESOSCALE ATMOSPHERIC MODEL TO OPTIMIZE POWER PRODUCTION

1403 **Lewis, M. J.**; Neill, S.; Hasemi, R.: WIND-WAVE DIRECTION AND THE TIDAL STREAM ENERGY RESOURCE.

1404 **Goward Brown, A. J.**; Neill, S. P.: 3D ROMS MODELLING OF THE PENTLAND FIRTH – A WORLD-LEADING TIDAL ENERGY RESOURCE

1405 Cochlan, W. P.; **Buttler, F. R.**; Herndon, J.; Ikeda, C. E.; Bidigare, R. R.: EFFECT OF SEQUENCE AND SEVERITY OF MACRONUTRIENT DEPLETION ON NEUTRAL LIPID PRODUCTION IN TWO STRAINS OF CHLORELLA 211-218

1406 **Yin, L.**; Blumberg, A. F.; Wakeman, T. H.; Miller, J. K.; Datla, R. V.: WAVE EDUCTOR AND ITS POTENTIAL USE IN OCEAN THERMAL ENERGY CONVERSION

1407 **Huang, Z.**; Deng, Z.; Law, A.: WAVE POWER EXTRACTION BY A BOTTOM-MOUNTED OSCILLATING WATER COLUMN CONVERTER WITH V-SHAPED ARMS

1408 **Chiou, M. D.**; Jan, S.; Kuo, T. H.; Chen, C. C.; Chien, H.: ASSESSMENT OF FLOW FIELD IN THE INNER SEA OF THE PENGHU ISLANDS BY TIDAL ENERGY EXTRACTION AT INLETS: NUMERICAL APPROACH

1409 **Trowse, G. C.**; Hay, A. E.; Karsten, R.; Cheel, R. A.: A LOW-COST AND HIGH-VALUE METHOD FOR INITIAL ASSESSMENT OF TIDAL ENERGY POTENTIAL AND VALIDATION OF COASTAL OCEAN MODELS

1410 **Pietrafesa, L. J.**; Bao, S.; Li, X. F.; Yan, T.; Gayes, P. T.: ON IN-SITU DERIVED CLIMATOLOGY, REMOTE VIEWS AND NUMERICAL MODEL OUTPUT OF WINDS AND WAVES IN U.S. COASTAL WATERS

1463 Xue, H.; **Rao, S.**; Bao, M.: MODELING TIDAL POWER DENSITY AND TIDAL FARM EFFICIENCY IN THE WESTERN PASSAGE

1464 **Thomas, N.**; Seim, H.; Haines, S.: ESTIMATING A STABILITY-BASED DEPICTION OF TURBINE-HEIGHT WINDS OFFSHORE OF NORTH CAROLINA

1465 **Dallman, A. R.**; Gunawan, B.; Neary, V.; Bull, D.: WAVE ENVIRONMENT CHARACTERIZATION AT WAVE ENERGY CONVERTER (WEC) TEST SITES

1466 Nichols, R.; **Gayes, P. T.**; Pietrafesa, L.; Driscoll, F.; Dolan, D.: IMPROVING THE DESIGN BASIS FOR OFFSHORE WIND TURBINES IN SHALLOW WATER SUSCEPTIBLE TO TROPICAL CYCLONES.

1467 Lowcher, C. F.; Bane, J. M.; He, R.; **Muglia, M.**; Gong, Y.: GULF STREAM MHK POWER CHARACTERISTICS OFF CAPE HATTERAS, NORTH CAROLINA

1468 **Suryan, R.**; Albertani, R.; Polagye, B.; Flowers, J.; Harrison, T.: A SYNCHRONIZED SENSOR ARRAY FOR REMOTE MONITORING OF AVIAN AND BAT INTERACTIONS WITH OFFSHORE WIND TURBINES

1469 **Kramer, S. H.**: FRAMEWORK FOR BASELINE AND EFFECTS MONITORING PROTOCOLS FOR OCEAN RENEWABLE ENERGY

035 Optics and Light In the Particle-Laden Coastal Ocean

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819 **TAO, J.**; Hill, P. S.; Milligan, T. G.: VARIABILITY OF PARTICLE DISTRIBUTION USING OPTICAL MEASUREMENTS WITHIN THE COLUMBIA RIVER PLUME

820 **Hill, P. S.**; Milligan, T. G.; Boss, E.: BACKSCATTER RATIO AS A PROXY FOR AREA-TO-MASS RATIO

821 **Peng, F.**; Effler, S. W.: SPECTRAL ABSORPTION PROPERTIES OF MINERAL PARTICLES IN WESTERN LAKE ERIE: INSIGHTS FROM INDIVIDUAL PARTICLE ANALYSIS

822 **Neukermans, G.**; Reynolds, R. A.; Stramski, D.: OPTICAL DIFFERENTIATION OF ECOLOGICAL REGIMES IN THE ARCTIC OCEAN

823 **Wojtasiewicz, B.**; Wozniak, M.; Bradtke, K.; Ston-Egiert, J.; Krezel, A.: LIGHT ABSORPTION BY PHYTOPLANKTON FROM THE GULF OF GDANSK (BALTIC SEA)

824 **Sullivan, J. M.**; Twardowski, M. S.; Katz, J.; McFarland, M.: UNDERSTANDING PARTICLE FIELDS AND THEIR RELATION TO OPTICS USING IN-SITU HOLOGRAPHIC MICROSCOPY

825 **Ackleson, S. G.**; O'Donnell, J.; Howard-Strobel, M. M.: OPTICAL DESCRIPTIONS OF SUSPENDED PARTICLE COMPOSITION AND MORPHOLOGY IN EASTERN LONG ISLAND SOUND AND BLOCK ISLAND SOUND

826 **Sokoletsky, L. G.**; Shen, F.: OPTICAL CLOSURE FOR THE REMOTE-SENSING REFLECTANCE: THE CASE OF CHANGJIANG (YANGTZE) RIVER ESTUARY AND ITS ADJACENT COASTAL AREA, CHINA

827 **Davies, E. J.**; Brandvik, P. J.; Leirvik, F.: THE USE OF OPTICS FOR INFERRING PROPERTIES OF SUBSURFACE OIL AND GAS PARTICLES

828 **Sukenik, C. I.**; Zimmerman, R.; Hill, V.; Degree, A.: EXPLOITING LIDAR TO RETRIEVE PARTICLE DISTRIBUTIONS OF THE UPPER OCEAN

829 **Ficek, D.**; Meler, J.; Ston-Egiert, J.; Zapadka, T.; Majchrowski, R.: LIGHT ABSORPTION BY PHYTOPLANKTON IN THE BALTIC SEA AND POLISH LAKES

830 Graham, G. W.; **Nimmo Smith, W. A.**; Davies, E. J.; McKee, D.; Bowers, D. G.: THE OPTICAL SIGNIFICANCE OF VARIABILITY IN NATURAL PARTICLE POPULATIONS OBSERVED IN UK COASTAL WATERS

831 **Zhang, X.**; Gray, D.; Huot, Y.; Stavn, R.; Twardowski, M.: EXAMINING PARTICLES AT DIFFERENT ANGLES: INFERENCES FROM VOLUME SCATTERING FUNCTIONS

832 **Zhai, P.**; Hu, Y.; Trepte, C. R.; Winker, D. M.; Josset, D. B.: LIGHT SCATTERING BY EMILIANIA HUXLEYI BASED ON A REALISTIC NONSPHERICAL MODEL

833 Fournier, G.; **Sanjuan calzado, V.**; Trees@cmre.nato.int, C.; Neukermans, G.: NEW PHASE FUNCTION TAILORED FOR AOP TO IOP INVERSION

834 **Treibitz, T.**; Mullen, A.; Roberts, P. L.; Laxton, B.; Jaffe, J.: UNDERWATER BENTHIC MICROSCOPY

875 **Vuorenkoski, A.**; Twardowski, M.; Stockley, N.; Dalgleish, F.; Ouyang, B.: BEAM ATTENUATION MEASUREMENTS WITH AN IN SITU LIDAR INSTRUMENT OVER A WIDE RANGE OF ENVIRONMENTAL CONDITIONS IN THE LIGURIAN SEA

876 **Wyse, D. E.**; McPhee-Shaw, E. E.; Bellingham, J. G.; Sudek, S.; Bowers, H. A.: PLANKTON IN MONTEREY BAY: OPTIMIZATION OF OPTICAL SENSOR DATA FROM AUVS WITH APPLICATIONS IN PLANKTON COMMUNITY COMPOSITION

038 The Coral Triangle of the Indonesian/Philippines Archipelago, Its Response to Climate Change

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2579 **Dustan, P.**; Doherty, O.; Milner, C.; Lehman, A.; Alling, A.: ASSESING THE ECOLOGICAL TIPPING POINT OF CORAL REEFS IN NW BALI, INDONESIA

2580 **Moore, T. N.**; Gaynus, C. J.: MEIOFAUNA ABUNDANCE AND DIVERSITY IN BALI, INDONESIA

2581 **Gaynus, C.**; Moore, T.: MEIOFAUNA ABUNDANCE AND DIVERSITY IN BALI, INDONESIA

2582 **Howard, C. D.**; Keliher, J.; Noer, I.; Arbi, U. Y.: VALIDATING A TECHNIQUE FOR MEASURING CORAL REEF BIODIVERISTY

2583 **Curchitser, E. N.**; Castruccio, F. S.; Kleypas, J. A.; Pinksy, M.; Watson, J. R.: CLIMATE, BLEACHING AND CONNECTIVITY IN THE CORAL TRIANGLE.

2584 **Kleypas, J. A.**; Castruccio, F.; Curchitser, E.; McLeod, E.: ARE THERE THERMAL REFUGIA FOR CORAL REEFS IN THE CORAL TRIANGLE?

2619 **Watanabe, A.**; Miyajima, T.; Nadaoka, K.; McGlone, M. L.; Villanoy, C.: RELATIONSHIP BETWEEN WATER MASS PROPERTIES AND CARBONATE CHEMISTRY OBSERVED IN LAMON BAY, THE PHILIPPINES IN MAY 2012

2620 **Guan, Y.**; Hohn, S.; Merico, A.: ENVIRONMENTAL LIMITS FOR THE DISTRIBUTION OF CORAL HABITATS IN THE CORAL TRIANGLE

2621 **Castruccio, F. S.**; Curchitser, E. N.; Kleypas, J. A.; Pinsky , M. L.; Watson, J. R.: A FRAMEWORK FOR INVESTIGATING THE IMPACTS OF CHANGING TEMPERATURE AND CIRCULATION ON CORAL CONNECTIVITY IN THE CORAL TRIANGLE

2622 **Dorman, J. G.**; Castruccio, F. S.; Powell, T. M.; Kleypas, J. A.; Curchitser, E. N.: SEASONAL AND INTERANNUAL VARIABILITY OF *ACROPORA MILLEPORA*CONNECTIVITY IN THE SPRATLY ISLANDS

2623 **Sbrocco, E. J.**: LOOKING BACK FOR THE FUTURE: WHAT SPECIES RESPONSE TO PAST CLIMATE CHANGE CAN TELL US ABOUT THE FUTURE OF CORAL REEFS IN A MARINE BIODIVERSITY HOTSPOT

2624 **Davis, C. S.**; Cohen, A. L.; McKinnie, D.; Susanto, D.; Ji, R.: A PERSPECTIVE ON CLIMATE AND OCEANOGRAPHIC DRIVERS OF CORAL RESILIENCE IN THE HALMAHERA SEA

045 Sea-Ing Connections: Ocean Science As A Catalyst to Inspire the Next Wave of Young (PreK-16) Scientists and Keep Students Engaged Within and Outside the Classroom.

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1565 **Shea, N. A.**; Mouza, C.; McGinnis, R. J.; Breslyn, W.; Hestness, E.: SEA LEVEL RISE AND NGSS: AN IMPETUS FOR COLLABORATIVE TEACHER PROFESSIONAL DEVELOPMENT

1615 **Eubanks, E. D.**; Oberbauer, S.; Lavoie, A. R.; Ybanez, K.: THE BENEFITS OF BEING A STUDENT OF TEACHER RESEARCHERS EXPERIENCES (SOTRE')

1616 Babb, I. G.; **Erickson, J.**; McKee, M. P.; Joy, K.; Hamilton, J.: COSEE-TEK – LSAMP COLLABORATION: THE 2013 OCEAN SCIENCE AND TECHNOLOGY CHALLENGE (OSTC) – DEVELOPING 21ST CENTURY SKILLS

1617 **Hoppe, K. A.**; Furutani, T. T.; Nesbit, E. A.; Martin, R. A.: USING ANALYSES OF BENTHIC FORAMINIFERA FROM PUGET SOUND, WA TO ENGAGE AND INFORM INTRODUCTORY EARTH SCIENCE STUDENTS

1618 **Eubanks, E. D.**; Guinan, E. M.; Oberbauer, S. F.: TRACKING A SEVEN YEAR SOTRE (STUDENT OF TEACHER RESEARCH EXPERIENCES)

1619 **Awad, A. A.**: DUAL CREDIT GEOLOGY PROGRAM INTRODUCES OCEAN SCIENCES TO HIGH SCHOOL STUDENTS

1620 **Magnusson, J. L.**: REAL-TIME SCIENCE: ENGAGING STUDENTS IN STEM FIELDS USING AUTHENTIC CONNECTIONS WITH SCIENTISTS AND THEIR RESEARCH

1621 **Mayfield, K. K.**: NA KEIKI O KA `AINA SUMMER ADVENTURE CAMPS: TEACHING AND INSPIRING THE NEXT GENERATION OF SCIENTISTS ON KAUA`I

1622 **Thompson, N.**: USING MOBILE DEVICES TO ENGAGE MIDDLE SCHOOL STUDENTS IN UNDERSTANDING THE IMPLICATIONS OF CLIMATE CHANGE AND ITS RELATIONSHIP TO PLANKTON ECOLOGY

1623 **Newton, F. A.**; Veron, D. E.: HIGH SCHOOL STUDENTS EXPERIENCE MARINE SCIENCE THROUGH THE UNIVERSITY OF DELAWARE'S TIDE CAMP

1624 **Ewing, N. R.**; Davidson, E. R.: THE OCEAN SCIECNE SYMPOSIUM: NURTURING ENTHUSIASM IN K-16 STUDENTS FOR OCEAN SCIENCE AND TECH THROUGH INTERDISCIPLINARY PEER-2-PEER MENTORING

1625 **Hills, W. B.**; Rue, A. N.; Gilman, C. S.: WHAT WOULD THEY CHOOSE? USING OCEAN LITERACY PRINCIPLES AND INQUIRY-BASED SCENARIOS TO TEACH STUDENTS ABOUT EVALUATION OF MARINE ISSUES

1626 **Bertram, M. A.**; Thompson, L.; Palevsky, H.; Flowers, N.: FACULTY, GRADUATE STUDENTS AND HIGH SCHOOL TEACHERS WORKING TOGETHER FOR OCEAN AND CLIMATE CHANGE EDUCATION: WHAT'S DATA GOT TO DO WITH IT?

1627 **Ferenbaugh, J. K.**; Brodrick-Hartman, C. J.: USING GLOBAL DISPLAY THEATER AND INQUIRY-BASED LEARNING TO ENGAGE STUDENTS IN OCEAN AND CLIMATE SCIENCE

1628 **Lyman-Holt, A. L.**: USING TSUNAMIS TO PUT ENGINEERING INTO STEM: COASTAL ENGINEERING MODULES FOR FORMAL AND INFORMAL EDUCATION

1629 **Rii, Y. M.**; Komatsu, J. N.; Hayakawa, D. H.: SCIENCE IN ACTION: 9-12 SCIENCE EDUCATION WITHIN THE UNIVERSITY INFRASTRUCTURE FOSTERS EFFECTIVE PROJECT-BASED LEARNING

1630 **Greely, T.**; Lodge, A.: DOING SCIENCE LIKE AN OCEAN SCIENTIST: OCEAN IMMERSION PROGRAMS TO ENGAGE STUDENTS AND TEACHERS OUTSIDE THE CLASSROOM--- AT SEA, IN LABS, IN THE FIELD

1670 **Wold-Brennon, R. E.**: FROM DOLPHINS TO PLANKTON: IDENTIFYING EFFECTIVE STRATEGIES FOR SUSTAINING UNDERREPRESENTED YOUTH INTEREST IN STEM FOR FORMAL AND INFORMAL EDUCATION SETTINGS

050 Arctic In Rapid Transition (ART): Impacts of Climate Change On the Ecology, Biogeochemistry, and Biological Carbon Pump of the Arctic Ocean

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1151 **Le Moigne, F.**; Poulton, A. J.; Daniels, C. J.; Henson, S. A.; Richier, S.: HIGHLY EFFICIENT BIOLOGICAL CARBON PUMP IN A PHAEOCYSTIS SP. BLOOM IN THE ARCTIC OCEAN

1152 **Weslawski, J. M.**; Lydersen, C.: TIDAL GLACIERS – NOAH'S ARC FOR ARCTIC MARINE FAUNA

1153 **Mienert, J.**; Carroll, J.: COUPLING AND FEEDBACKS IN THE METHANE HYDRATE SYSTEM OF THE ARCTIC OCEAN

1154 **Ortiz, M.**; Graber, H.: TRACKING AN ICE MASS-BALANCE BUOY USING HIGH RESOLUTION SAR SIGNATURES WITH TERRASAR-X AND RADARSAT 2 IN THE BEAUFORT SEA

1155 **Brown, K. A.**; Miller, L. A.; Mundy, C. J.; Francois, R.; Tortell, P.: INORGANIC CARBON SYSTEM DYNAMICS IN LAND-FAST ARCTIC SEA ICE DURING THE EARLY-MELT PERIOD: OBSERVATIONS USING STABLE CARBON ISOTOPES

1156 **Matsuoka, A.**; Babin, M.; Doxaran, D.; Hooker, S. B.; Mitchell, B. G.: A SYNTHESIS OF ABSORPTION PROPERTIES OF THE PAN-ARCTIC OCEAN: APPLICATION TO SEMI-ANALYTICAL ESTIMATES OF DISSOLVED ORGANIC CARBON CONCENTRATIONS FROM SPACE

1157 **Kosobokova, K. N.**; Hopcroft, R. R.; Hirche, H. J.: ZOOPLANKTON COMMUNITY STRUCTURE AND PRODUCTIVITY IN A CHANGING ARCTIC OCEAN

1158 **Eveleth, R. K.**; Timmermans, M. L.; Cassar, N.: PHYSICAL AND BIOLOGICAL CONTROLS ON OXYGEN SATURATION VARIABILITY IN THE CENTRAL ARCTIC

1159 **Lee, H.**; Kwon, M.; Lee, K.: POSSIBLE CAUSES FOR ACCELERATED SEA ICE LOSS IN THE ARCTIC OCEAN AFTER 2000

1160 **Kawasaki, T.**; Hasumi, H.: THE MAINTENANCE OF LAYERED STRUCTURE IN THE ARCTIC OCEAN BY THE ATLANTIC WATER INFLOW

1161 **Glowacki, O.**; Deane, G. B.; Moskalik, M.; Tegowski, J.; Blondel, P.: HYDROACOUSTIC STUDY OF GLACIER CALVING EVENTS IN HORNSUND FJORD, SPITSBERGEN

1162 **Wei, C.**; Roy, V. and Archambault, P., .; Bélanger, S.; Lawton, P.; Snelgrove, P.: A MULTI-SCALE APPROACH TO PREDICTING DEEP-SEA EPIFAUNAL BIOMASS IN THE CANADIAN HIGH ARCTIC USING REMOTELY SENSED DATA

1163 **Wlodarska-|Kowalczuk, m.**; Deja, k.; Legezynska, J.; Kulinski, K.: ORGANIC CARBON IN SEDIMENTS SHAPES THE PATTERNS OF SPECIES DISTRIBUTION, DENSITY AND DIVERSITY OF ARCTIC FJORDIC MACROFAUNA (WEST SPITSBERGEN)

1246 **DeGrandpre, M.**; Islam, F.; Beatty, C.; Krishfield, R.; Toole, J.: AUTONOMOUS PCO2 AND O2 TIME-SERIES IN THE CENTRAL ARCTIC OCEAN

1247 **Ravelo, A. M.**; Konar, B.: CORRELATING SEA ICE COVERAGE TO EPIBENTHIC COMMUNITIES ON THE ALASKAN ARCTIC SHELVES

1248 **Balmonte, J. P.**; Arnosti, C.: REGIONAL AND DEPTH-RELATED DIFFERENCES IN THE CAPABILITIES OF ARCTIC MICROBIAL COMMUNITIES TO DEGRADE ORGANIC MATTER

1249 **Cross, J. N.**; Mathis, J. T.; Evans, W.; Byrne, R. H.; Bates, N. R.: ACIDIFICATION-INDUCED CARBONATE MINERAL DISSOLUTION IN THE EASTERN BERING SEA

1250 **Dosser, H. V.**; Rainville, L.; Toole, J. M.: MULTI-YEAR OBSERVATIONS OF NEAR-INERTIAL INTERNAL WAVES IN THE ARCTIC OCEAN

1251 **Corvi, E. R.**; Goni, M. A.; Alleau, Y.: CHARACTERIZATION AND SPATIAL DISTRIBUTION OF PARTICULATE ORGANIC MATTER IN THE ARCTIC OCEAN

1252 **Devred, E.**; Babin, M.; Matsuoka, A.; Coupel, P.; Benoît-Gagné, M.: RECENT TRENDS IN THE PHYTOPLANKTON COMMUNITY STRUCTURE OF THE CANADIAN ARCTIC BASIN: A SATELLITE APPROACH

1253 **Martin, T.**; Steele, M.; Zhang, J.: TRENDS IN ARCTIC OCEAN MOMENTUM INFLUX AND THE ROLE OF OPTIMUM SEA ICE CONCENTRATION

1254 **Boissonnot, L.**; Søreide, J. E.; Graeve, M.: EFFECT OF FOOD AND LIGHT ON THE DEVELOPMENT OF THE ARCTIC COPEPOD CALANUS GLACIALIS DURING THE WINTER-SPRING TRANSITION

1255 **Van Dijken, G. L.**; Arrigo, K. R.: CHANGES IN ARCTIC SEA ICE AND PRIMARY PRODUCTION OVER THE LAST FOUR DECADES

1256 **Causey, D.**; Welker, J. M.; Burnham, K.: FINE-SCALE SPATIAL AND TEMPORAL EFFECTS OF RAPID ENVIRONMENTAL CHANGE ON GREENLAND HIGH ARCTIC COASTAL MARINE COMMUNITIES

054 The Dynamics of the Madden-Julian Oscillation (DYNAMO), Multi-Scale Ocean-Atmosphere Interaction, and Numerical Simulation of Coupled Ocean-Atmosphere Processes

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905 **Dong, H.**: EVALUATION OF PERFORMANCE OF THE ASSIMILATED DATA OF YOTC IN SIMULATING MJO

906 **Ohlmann, C.**; Moulin, A.; Moum, J.: SOLAR TRANSMISSION AND RADIANT HEATING IN THE EQUATORIAL INDIAN OCEAN DURING DYNAMO

907 **Chi, N.**; Lien, R.; D'Asaro, E.: SURFACE MIXED LALYER HEAT BUDGET AT CENTRAL INDIAN OCEAN DURING MJO EVENTS

908 **Shinoda, T.**; Han, W.; Zamudio, L.; Jensen, T.; Wang, C.: REMOTE OCEAN RESPONSE TO THE MADDEN-JULIAN OSCILLATION DURING THE DYNAMO FIELD CAMPAIGN: SATELLITE OBSERVATIONS AND OCEAN MODELING

909 **Hoecker-Martinez, M. S.**; Smyth, W. D.; Skyllingstad, E. D.; Edson, J. B.; Moum, J. N.: LARGE EDDY SIMULATIONS OF TURBULENT PROCESSES IN THE UPPER EQUATORIAL INDIAN OCEAN DURING DYNAMO

989 **Shelly, A.**; Xavier, P.: MODELLED OCEAN-ATMOSPHERE PROCESSES AND MJO INTERACTIONS ON MEDIUM RANGE TIMESCALES

990 **Edson, J. B.**; Fairall, C. W.; Bariteau, L.; de Szoeke, S.; Marion, J.: AN INVESTIGATION OF LATENT, SENSIBLE AND NET HEAT EXCHANGE IN THE DYNAMO/LASP PROGRAM

991 **Carniel, S.**; Miglietta, M. M.; Warner, J. C.; Benetazzo, A.; Sclavo, M.: A COUPLED ATMOSPHERE–OCEAN MODELLING SYSTEM TO INVESTIGATE THE EXCEPTIONAL WINTER 2012 CONDITIONS IN THE NORTHERN ADRIATIC SEA

992 **Martin, P. E.**; Arbic, B. K.; Blundell, J. R.; Dewar, W. K.; Hogg, A.: FREQUENCY-DOMAIN ANALYSIS OF FORCED VERSUS INTRINSIC VARIABILITY IN A QUASI-GEOSTROPHIC COUPLED OCEAN-ATMOSPHERE MODEL

993 **Ashfaq, M.**; Rastogi, D.; Hodges, K.: SOUTH ASIAN MONSOON DEPRESSIONS IN CMIP5 GCMS

994 **Kondrashov, D.**; Chekroun, M. D.; Robertson , A. W.; Ghil, M.: LOW-ORDER STOCHASTIC MODEL AND "PAST-NOISE FORECASTING" OF THE MADDEN-JULIAN OSCILLATION

995 **Zappa, C. J.**; Moum, J. N.; Smyth, W. D.; Edson, J. B.; Fairall, C. W.: WAVE-INFLUENCED OCEAN SURFACE LAYER TURBULENCE RESPONSE TO WIND BURSTS DURING DYNAMO

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999 **Benedict, J. J.**; Collins, W. D.: COMPOSITE BEHAVIOR OF SIMULATED MADDEN-JULIAN OSCILLATION DISTURBANCES BASED ON INDIAN OCEAN DIPOLE PHASE

1000 **Munchow, G. B.**; Alves, R. M.; Pezzi, L. P.: EFFECT OF COUPLED NUMERICAL MODEL COAWST IN PLANETARY BOUNDARY LAYER - A STUDY CASE ON THE CONFLUENCE BRAZIL-MALVINAS

1011 **Chen, S. S.**; Kerns, B. W.; Saravin, A.; Lee, C. Y.; Jorgensen, D. P.: CONVECTIVE COLD POOL STRUCTURE AND BOUNDARY LAYER RECOVERY: MULTISCALE AIR-SEA COUPLING PROCESS OBSERVED DURING DYNAMO

1012 **Lucas, S.**; Todd, J.; Higgins, W.: THE CLIMATE VARIABILITY & PREDICTABILITY (CVP) PROGRAM AT NOAA - DYNAMO RECENT PROJECT ADVANCEMENTS

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058 Mesoscale Ocean Processes and Their Representation In Earth System Models

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2892 **Duteil, O.**; Schwarzkopf, F.; Böning, C.; Oschlies, A.: HIGH-RESOLUTION MODEL INDICATES MAJOR ROLE OF EQUATORIAL AND OFF-EQUATORIAL UNDERCURRENTS IN SETTING OXYGEN LEVELS IN THE EASTERN TROPICAL ATLANTIC OCEAN

2893 **YANG, G.**; WANG, F.; Li, Y. L.; Lin, P. F.: MESOSCALE EDDIES IN THE NORTHWESTERN SUBTROPICAL PACIFIC OCEAN:STATISTICAL CHARACTERISTICS AND THREE-DIMENSIONAL STRUCTURES

2894 **Miyazawa, Y.**; Varlamov, S. M.; Guo, X.; Kaoru, I.; Miyama, T.: M2 INTERNAL TIDE VARIABILITY MODULATED BY OCEAN CIRCULATION PROCESSES SOUTH OF JAPAN

2895 **Trossman, D. S.**; Arbic, B. K.: IMPACT OF BOTTOM DRAG STRENGTH ON EDDYING OCEAN GENERAL CIRCULATION MODELS

2896 **Hamilton, P.**; Sheinbaum, J.; Donohue, K. A.; Leben, R. R.; Watts, D. R.: EKMAN, FRANKLIN AND HADAL: LOOP CURRENT EDDY SEPARATION AND STATISTICS FROM OBSERVATIONS

2897 **Bishop, S. P.**; Bryan, F. O.: A COMPARISON OF MESOSCALE EDDY HEAT FLUXES FROM OBSERVATIONS AND A HIGH-RESOLUTION OCEAN MODEL SIMULATION OF THE KUROSHIO EXTENSION

2898 **von Storch, J.**: AN ESTIMATE OF THE LORENZ ENERGY CYCLE FOR THE WORLD OCEAN BASED ON THE 1/10 DEGREE STORM/NCEP SIMULATION

2973 **Vic, C.**; Roullet, G.; Carton, X.; Capet, X.: A NUMERICAL STUDY OF THE GREAT WHIRL LIFECYCLE

2974 **Perrot, X.**; Dritschel, D. G.: INTERACTION OF A SURFACE VORTEX WITH AN INTERIOR ONE, IN QUASI GEOSTROPHIC MODEL WITH BUOYANCY BOUNDARY CONDITIONS

2975 **Wang, F.**; Liu, H.; Lu, J.; Lin, P.: THE THICKNESS DIFFUSIVITY IN HIGH RESOLUTION OCEAN MODEL

2976 **Escudier, R.**; Renault, L.; Juza, M.; Pascual, A.; Brasseur, P.: CHARACTERIZATION OF MESOSCALE EDDIES IN THE WESTERN MEDITERRANEAN SEA: PERSPECTIVES FROM MODELS AND OBSERVATIONS

2977 **Miranda, J. A.**; Silveira, I. C.; Flierl, G. R.: DYNAMICS OF BRAZIL CURRENT DIPOLES: BAROTROPIC INSTABILITIES AND FLOW-WESTERN BOUNDARY INTERACTIONS

2978 **Bourdallé-Badie, R.**; Bricaud, C.; Drévillon, M.; Drillet, Y.; Garric, G.: MESO-SCALE ENERGY LEVELS IN A HIERARCHY OF VARYING HORIZONTAL RESOLUTIONS GLOBAL OGCM CONFIGURATIONS

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2983 **Pradal, M. A.**; Gnanadesikan, A.: HOW DOES ISOPYCNAL STIRRING IMPACT GLOBAL CLIMATE IN AN EARTH SYSTEM MODEL?

2984 **Syamsudin, F.**; Syamsuddin, M. L.; Iskandar, I.: MESOSCALE EDDIES IN THE SOUTH OF JAWA WATER AND ITS RELATIONSHIP WITH BIGEYE TUNE (THANNUS OBESUS) HOTSPOT IN THE EASTERN INDIAN OCEAN

2985 **Palóczy, A.**; Silveira, I. C.; Rocha, C. B.: THE QUASI-STANDING UNSTABLE MEANDERS OF THE BRAZIL CURRENT

2986 **Chu, X.**; Xue, H.; Qi, Y.: AN EXCEPTIONAL MESOSCALE EDDY IN THE SOUTH CHINA SEA INVESTIGATED BY OBSERVATIONAL AND MODELING DATA

2987 **Wetzel, A. N.**; Arbic, B. K.; Flierl, G. R.: IMPACT OF BOTTOM FRICTION ON MULTI-LAYER QUASI-GEOSTROPHIC TURBULENCE WITH SURFACE BOUNDARY EFFECTS

2988 **Griesel, A.**; Eden, C.; McClean, J. L.; Gille, S. T.; Sprintall, J.: LAGRANGIAN EDDY DIFFUSIVITIES AND THEIR RELATION TO MEAN JETS

3041 **Ramos-Musalem, A. K.**; Zavala-Hidalgo, J.; Ruiz-Angulo, A.: A NUMERICAL STUDY OF THE YUCATAN UPWELLING PROCESSES

059 Illuminating the Deep Ocean: Limits to Understanding, Observation Requirements, and Overcoming the Challenges

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2009 **Zhao, Y.**; Liu, Z.; Zhang, Y.; Wang, W.; Xu, J.: ADCP-BASED DEEP-WATER CURRENT VELOCITY STRUCTURE IN THE NORTHEASTERN SOUTH CHINA SEA

2010 **Aguzzi, J.**; Fanelli, E.; Thomsen , L.; Meredith , P.; Favali, P.: THE CABLED OBSERVATORY AS AN ADVANCED TOOL FOR LONG-TERM STUDY OF BENTHIC COMMUNITIES

2011 **Chun, J.**: ENVIRONMENTAL IMPACT STUDY FOR GAS HYDRATE PRODUCTION TEST IN THE ULLEUNG BASIN, EAST SEA, KOREA

2012 **Nunnally, C. C.**; Friedman, J.; Drazen, J.; Williamson, M.: DEVELOPMENT OF AN IN SITU RESPIROMETER TO MEASURE METABOLIC RATES OF HADAL INVERTEBRATES

2013 **Hautala, S. L.**: THE NORTHEAST PACIFIC DEEP OVERTURNING CIRCULATION IN A REGIONAL-SCALE HYDROGRAPHIC INVERSE MODEL

2014 **Izenberg, N. R.**; Papadakis, S. J.; Kott, T. M.; Gold, R. E.: BUOYANT UNSPOOLING GENERATOR FOR LONG-DURATION DEEP SEA MONITORING STATIONS.

2051 **Udovydchenkov, I. A.**; Stephen, R. A.; Komatitsch, D.; Xie, Z.; Tromp, J.: THREE-DIMENSIONAL NUMERICAL MODELING OF SOUND PROPAGATION AND SCATTERING IN THE DEEP OCEAN WITH ELASTIC BOTTOMS

2052 **Godin, O. A.**; Lv, C.; Evers, L. G.; Ball, J.: LONG-RANGE CORRELATIONS OF UNDERWATER PRESSURE FLUCTUATIONS

2053 **Easton, E. E.**; Coker, R.; Thistle, D.: PATTERNS OF MACROFAUNA ABUNDANCES ON THE CONTINENTAL RISE OFF THE COAST OF CALIFORNIA

2054 Schatzman, C.; Johnson, M. C.; Mattson, C.; Becker, S. M.; **Swift, J. H.**: COMPARISON OF SBE-43 AND RINKO III DISSOLVED OXYGEN SENSORS

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2056 **Girton, J. B.**; Alford, M. H.; Carter, G. S.; Klymak, J. M.; Voet, G.: TOPOGRAPHIC CONTROL OF TRANSPORT AND MIXING IN THE SAMOAN PASSAGE: INSIGHTS FROM HYDRAULIC THEORY, PROCESSES MODELING, AND TRACER DISTRIBUTIONS

2057 **Carter, G. S.**; Alford, M. H.; Girton, J. B.; Klymak, J. M.; Voet, G.: MIXING OF BOTTOM WATER IN THE SAMOAN PASSAGE: RECENT ESTIMATES FROM MICROSTRUCTURE AND HIGH-RESOLUTION CTD PROFILING

2058 **Fryer, P.**: HADAL MARINE SCIENCE: THE DEEP ENDMEMBER OF OCEAN EXPLORATION

060 Submarine Groundwater Discharge - From Ridge to Reef: Groundwater Evolution, Climate, Land-Use, Coastal Hydrology and Marine Biogeochemical Impacts

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1013 **Ganguli, P. M.**; Swarzenski, P. W.; Dulaiova, H.; Glenn, C. R.; Flegal, A. R.: MERCURY DYNAMICS IN A COASTAL AQUIFER: MAUNALUA BAY, OAHU, HAWAII

1014 **Lee, J.**; Kim, G.: BIOGEOCHEMICAL REACTIONS OF DISSOLVED INORGANIC CARBON IN SUBTERRANEAN ESTUARIES

1015 **Luek, J. L.**; Beck, A. J.: RADIUM BUDGET OF THE YORK RIVER ESTUARY (VA, USA) DOMINATED BY SUBMARINE GROUNDWATER DISCHARGE AND A SEASONALLY VARIABLE GROUNDWATER END-MEMBER

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1017 **Heu, L. I.**; Lamar, F.; Jenings-Kam, D. K.; Wiegner, T.; Adolf, J. E.: EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF NUTRIENT ENRICHMENT OF MICROIAL BIOMASS AND CLASS STURCTURE IN TROPICAL OLIGOTROPHIC WATERS OFF WEST HAWAI' I

1067 **Lecher, A. L.**; Paytan, A.; Kessler, J.; Sparrow, K.; Dimova, N.: QUANTIFICATION OF METHANE TRANSPORT THROUGH SUBMARINE GROUNDWATER DISCHARGE AT TWO HIGH-LATTITUDE OCEAN SITES

1068 **Fackrell, J. K.**; Glenn, C. R.: HOW MUCH DO HIGH-LEVEL AQUIFERS IMPACT SGD AND THE COASTAL ZONE IN HAWAII? UNSCRAMBLING THE SGD MIX WITH WATER ISOTOPES

1069 **Economy, L. M.**; Colbert, S. L.: CO_2 DYNAMICS IN THE PRESENCE OF SUBMARINE GROUNDWATER DISCHARGE AT KIHOLO BAY, HI

1070 **Waters, C. A.**; Dulaiova, H.: FATE OF GROUNDWATER-DELIVERED NUTRIENTS IN THE COASTAL OCEAN: THE CRITICAL ROLE OF RESIDENCE TIME

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1072 **Silva-Filho, E. V.**; Sanders, C. J.; Marques, E. D.; Souza, G. V.; Smoak, J. M.: LARGE 224RA AND 228RA DISEQUILIBRIUM INDICATES INTENSE GROUNDWATER GEOCHEMICAL PROCESSES IN THE CABO FRIO COASTAL SYSTEM

1073 **Tamborski, J. J.**; Cochran, J. K.; Bokuniewicz, H.; Rogers, A. D.: THE ROLE OF SUBMARINE GROUNDWATER DISCHARGE (SGD) IN PROMOTING HYPOXIA IN SMITHTOWN BAY, NEW YORK

1074 **Coffey, R.**; Bokuniewicz, H. J.: CALCULATING THE AVERAGE SUBMARINE GROUNDWATER DISCHARGE FROM DISCRETE, TIDALLY MODULATED MEASUREMENTS

1075 Coburn, N. L.; Dimova, N.; Torgashov, E.; **Ellis, J.**; Tick, G.: VALIDATING AND CALIBRATING SEAWATER INTRUSION MODELS IN COASTAL AQUIFERS USING ELECTRICAL RESISTIVITY TOMOGRAPHY

1076 **Jennings-Kam, D. K.**; Adolf, J.: SCANNING ELECTRON MICROSCOPY TO ASSESS THE DOMINANT PHYTOPLANKTON IN NUTRIENT BIOASSAYS AT A SUBMARINE GROUNDWATER-INFLUENCED SITE ON WEST HAWAI'I ISLAND

1077 **Bishop, J. M.**; Amato, D. W.; Glenn, C. R.: CONNECTING LAND USE TO SUBMARINE GROUNDWATER DISCHARGE NUTRIENT LOADS ON MAUI

1078 **Smythe, W. E.**; McAllister, S. M.; Lee, S. W.; Moyer, C.; Tebo, B. M.: GEOMICROBIOLOGY: INVESTIGATION OF MANGANESE DEPOSITING ECOSYSTEMS IN EXTREME ENVIRONMENTS

1079 **Colbert, S. L.**; Adolf, J. E.; Cadiz, E.; Economy, L.; Pe'a, R.: NEARSHORE DYNAMICS OF AN SGD PLUME, KIHOLO BAY, HI

1080 **Mayfield, K. K.**; Dulaiova, H.; Glenn, C. R.; Kelly, J. L.: SUBMARINE GROUNDWATER DISCHARGE IN A STREAM-DOMINATED EMBAYMENT: KAHANA BAY, O`AHU, HAWAI`I

1081 **Amato, D. W.**; Bishop, J. M.; Glenn, C. R.; Smith, C. M.: USING MARINE ALGAE AS BIOINDICATORS OF ANTHROPOGENIC NUTRIENT POLLUTION IN HAWAIIAN COASTAL WATERS

1082 **Holitzki, T. M.**; Johnson, E. E.; Wiegner, T. N.: SUBMARINE GROUNDWATER IMPACTS ON BENTHIC MACROALGAE C:N:P IN HAWAIIAN MARINE WATERS

069 MARINE MICROBIAL ECOLOGY: THE RELATIVE ROLE OF DISPERSAL, INTERACTIONS, ASSOCIATIONS AND OTHER ECOLOGICAL PROCESSES IN STRUCTURING MICROBIAL COMMUNITIES.

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172 **Houghton, K. A.**; Hutcheson, J. M.; Riensenfeld, C.; Snyder, R. A.; Jeffrey, W. H.: EFFECTS OF OIL AND DISPERSANTS ON BACTERIOPLANKTON COMMUNITY STRUCTURE AND FUNCTION USING 16S RRNA AND ALKB GENES IN THE NORTHEASTERN GULF OF MEXICO

173 **Valliere, M.**; Kim, H.; Yoshizawa, S.; DeLong, E. F.: CHANGES IN THE GROWTH PHYSIOLOGY OF DIFFERENT PROTEORHODOPSIN-CONTAINING MARINE FLAVOBACTERIA AT LOW AND HIGH NUTRIENT CONCENTRATIONS

174 **Scavotto, R. E.**; Dziallas, C.; Riemann, L.; Moisander, P. H.: COMMUNITY COMPOSITION OF NITROGEN-FIXING BACTERIA AND VIBRIO SPP. IN ASSOCIATION WITH COPEPODS IN NORTH ATLANTIC COASTAL WATERS

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228 **McCurry, C. B.**; Moss, J. A.; Tominack, S. A.; Jeffrey, W. H.; Snyder, R. A.: BENTHIC FORAMINIFERA COMMUNITY DIVERSITY AND DISTRIBUTION IN THE NORTHERN GULF OF MEXICO

229 **ZHANG, Y.**; MOU, X.: ISOLATION AND IDENTIFICATION OF ACTINOBACTERIA FROM AQUATIC SYSTEMS

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233 **Amano-Sato, C.**; Li, Q.; Takahashi, S.; Utsumi, M.: IN SITU INCUBATION FOR MARINE PROKARYOTES USING ROCS INCUBATION SYSTEM

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238 **Shepard, A. K.**; McInnes, A. S.; Quigg, A.: MICROBIAL PLANKTON RESPONSES TO A COMBINATION OF PHYSICAL AND BIOLOGICAL INFLUENCES IN THE GULF OF MEXICO

239 **Fuchsman, C. A.**; Collins, R. E.; Brazelton, W. J.; Rocap, G.: EFFECT OF THE ENVIRONMENT ON HORIZONTAL GENE TRANSFER

240 **Johnson, Z. I.**: ECOLOGICAL PROCESSES STRUCTURING PROCHLOROCOCCUS COMMUNITIES

241 **Gomez-Consarnau, L.**; Gonzalez, J. M.; Riedel, T.; Wagner-Döbler, I.; Fuhrman, J. A.: A TRANSCRIPTOME APPROACH TO UNDERSTANDING THE FUNCTION OF PROTEORHODOPSIN IN THE MARINE GENUS DOKDONIA

242 **Ma, L.**; Zinser, E.: INFLUENCE OF OXIDATIVE STRESS AND TEMPERATURE ON THE GROWTH AND PHYSIOLOGY OF PROCHLOROCOCCUS

243 **Pereira, N. A.**; Shilova, I. N.; Zehr, J. P.: CHARACTERIZING THE EXPRESSION OF TWO PHOSPHORUS STRESS MOLECULAR MARKERS IN THE NITROGEN-FIXING CYANOBACTERIUM *CROCOSPHAERA*

244 **Zhang, Q.**; Yan, T.: CAN BEACH SAND ENHANCE THE DECAY OF FECAL INDICATOR BACTERIA AND PATHOGENS IN BEACH ECOSYSTEMS?

245 **Hamilton, B. R.**; Soloviev, A. V.; Tartar, A.; Perrie, W. A.; Lehner, S.: DNA ANALYSIS OF SURFACTANT ASSOCIATED BACTERIA IN THE SEA SURFACE MICROLAYER

246 **Ortmann, A. C.**; Brannock, P. M.; Halanych, K. M.: RIVER DISCHARGE INFLUENCES BACTERIAL COMMUNITIES IN SURFACE SEDIMENTS FROM THE NORTHERN GULF OF MEXICO

247 **Ortell, N.**; Ortmann, A. C.: A STABLE ARCHAEAL COMMUNITY ALONG AN ESTUARINE-SHELF GRADEINT IN THE NORTHERN GULF OF MEXICO IS DOMINATED BY EURYARCHAEOTA

248 **Moisander, P. H.**; McCliment, E. A.; Shoemaker, K. M.; Charoenpong, C.; Altabet, M. A.: EXPRESSION OF THE *NIFH* GENE IN ASSOCIATION WITH COPEPODS IN THE SARGASSO SEA

249 **Morris, M. M.**; Doane, M. P.; Haggerty, J. M.; Edwards, M. S.; Dinsdale, E. A.: THE EFFECTS OF MICROBES ON THE SETTLEMENT AND DEVELOPMENT OF THE MICROSCOPIC LIFE STAGES OF GIANT KELP

072 The Southern Ocean and Its Role In the Climate System: Observations and Modeling of Physical and Biogeochemical Processes

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737 **Schofield, O.**; Meredith, M.; Newman, L.: BUILDING A SOUTHERN OCEAN OBSERVING SYSTEM

738 **Graham, R. M.**; De Boer, A. M.: THE DYNAMICAL SUBTROPICAL FRONT

757 **Mackay, N. S.**; Watson, A. J.; Naveira Garabato, A. C.; Sheen, K. L.; Ledwell, J. R.: DIAPYCNAL MIXING IN THE SOUTHERN OCEAN DIAGNOSED USING THE DIMES TRACER AND SATELLITE ALTIMETRY

758 **Wang, G.**; Dommenget , D.; Frauen, C.: LOW-FREQUENCY SST VARIABILITY IN THE SOUTHERN OCEAN

759 **Robinson, J.**; Popova, E. E.; Yool, A.; Srokosz, M.; Lampitt, R. S.: HOW DEEP IS DEEP ENOUGH? OCEAN IRON FERTILIZATION AND CARBON SEQUESTRATION IN THE SOUTHERN OCEAN

760 **Kusahara Kazuya, .**; Hasumi Hiroyasu, .: MODELING ANTARCTIC ICE SHELF RESPONSES TO FUTURE CLIMATE CHANGES

761 **Chengyan, L.**; Zhaomin, W.: ON THE RESPONSE OF THE SUBDUCTION TO CLIMATE CHANGE OVER THE SOUTHERN OCEAN IN AN EDDY PERMITTING OCEAN GCM

762 **Wang, G.**; Cai, W.: CLIMATE-CHANGE IMPACT ON THE 20TH-CENTURY RELATIONSHIP BETWEEN THE SOUTHERN ANNULAR MODE AND GLOBAL MEAN TEMPERATURE

763 **Van Sebille, E.**; Spence, P.; Mazloff, M.; England, M. H.; Rintoul, S. R.: ABYSSAL CONNECTIONS OF ANTARCTIC BOTTOM WATER AND THE AMALGAMATION OF SOURCE WATERS IN THE SOUTHERN OCEAN

764 **Keller, D. P.**; Oschlies, A.: INVESTIGATING THE ROLE THAT THE SOUTHERN OCEAN BIOLOGICAL PUMP PLAYS IN DETERMINING GLOBAL OCEAN OXYGEN CONCENTRATIONS AND DEOXYGENATION

765 **Grenier, M.**; Garcia Solsona, E.; Lemaitre, N.; Bouvier, V.; Jeandel, C.: RARE EARTH CONCENTRATIONS AND NEODYMIUM ISOTOPIC COMPOSITIONS OF SEAWATER AROUND THE KERGUELEN PLATEAU: TRACING LAND-TO-OCEAN SOURCES AND OCEAN CIRCULATION

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075 A Holistic Approach to Marine Eco-Systems Biology, Major Results and Perspectives for Research and Education

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087 High-Resolution Ocean Circulation Observations From Space: the SWOT Mission, Operational Applications, and Physical-Biogeochemical Interactions

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2131 **Wilson, C.**; Bonekamp, H.; Brown, C.; DiGiacomo , P.; Kwiatkowska, E.: RE-DEFINING OPERATIONAL: AN EVOLVING PARADIGM FOR SATELLITE OCEANOGRAPHY

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2215 **Sasai, Y.**; Sasaoka, K.; Sasaki, H.; Klein, P.; Qiu, B.: IMPACTS OF SUBMESOSCALE DYNAMICS ON THE PHYTOPLANKTON FIELD IN THE KUROSHIO EXTENSION

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093 Coasts In Crisis: Sea Level Rise and Inundation and the Need for Adaptation

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488 **Lee, H. S.**: MODELING EXTREME SEA LEVELS DUE TO SEA LEVEL RISE AND STORM SURGE IN BANGALADESH USING EEMD AND EVA

489 **Cheng, T. K.**; Hill, D. F.: MODELING THE HYDRODYNAMIC RESPONSE OF TILLAMOOK BAY TO CLIMATE CHANGE-DRIVEN BOUNDARY CONDITIONS

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499 **Kumar, A.**; Murray, N.: CLIMATE ADAPTATION STRATEGIES FOR THE EASTERN SHORE

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502 **Miller, I. M.**; Petersen, S.; Rot, B.; Hals, H.; Parks, J.: PDOS AND SLOW SLIP AND STORM SURGE RETURN INTERVALS, OH MY!: A SEA LEVEL RISE ASSESSMENT CASE STUDY FROM THE PACIFIC NORTHWEST, USA.

538 **Ferreira, C. M.**; Lawler, S.; deb, m.: COASTAL STORM SURGE MITIGATION: ANALYSIS AND MODELING OF CHESAPEAKE BAY WETLANDS

539 **Barbee, M. M.**; Fletcher, C.; Coughlin, R.; Schaubach, M.: INTEGRATING SPATIAL DATA OF COASTAL VULNERABILITY IN THE CONTEXT OF SEA-LEVEL RISE AROUND THE HAWAIIAN ISLANDS.

540 **Jarry Nicolas, .**; Gouaud Fabrice, .: IMPACT OF STORMS INTENSITY INCREASE AND SEA LEVEL RISE ON WAV OVERTOPPING PHENOMENON ABOVE PROTECTIVE DYKES

541 **Watson, E. B.**; Wigand, C.; Bishop, J.: NORTHEASTERN SALT MARSHES: ELEVATION CAPITAL AND RESILIENCE TO SEA LEVEL RISE

096 Ocean and Climate Change Science: Engaging Scientists In Educating the Public

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1755 **Van Sebille, E.**; England, M. H.: ADRIFT.ORG.AU: AN INTERACTIVE WEBSITE ABOUT OCEAN CURRENTS AND THE PATHWAYS OF MARINE PLASTIC INTO THE OCEAN GARBAGE PATCHES

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097 Breaking Boundaries: the Role of Science Communication and Outreach In Promoting Healthy Oceans

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2016 **Lustick, D. S.**; Lohmeier, J.; Chen, R.; Wilson, R.; Rabkin, D.: SCIENCETOGO.ORG: FIRST LOOK AT A MODEL'S EFFICACY TO ENGAGE MASS TRANSIT RIDERS WITH CLIMATE CHANGE SCIENCE

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111 New Insights Into Microbial Community Metabolism and Coupled Biogeochemical Cycling In Oxygen-Deficient Marine Waters

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2266 **ROSE, A. L.**: THE ROLE OF REACTIVE OXYGEN SPECIES IN CONTROLLING LOCAL REDOX CONDITIONS IN OXIC AND SUBOXIC MARINE WATERS

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2270 **Parris, D. J.**; Ganesh, S.; Delong, E. F.; Edgcomb, V.; Stewart, F. J.: MICROBIAL EUKARYOTE DIVERSITY IN THE MARINE OXYGEN MINIMUM ZONE OFF NORTHERN CHILE

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2283 **Gillies, L. E.**; Thrash, J. C.; Rabalais, N. N.; Mason, O. U.: MICROBIAL COMMUNITY STRUCTURE IN THE JULY 2013 GULF OF MEXICO DEAD ZONE

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122 Investigating the Mechanisms Defining Fundamental Interactions At the Nano-Scale to the Micro-Scale: Novel Technologies Providing Key Insights

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123 The Molecular Chemistry and Microbial Biology of Marine Dissolved Organic Matter (DOM) Composition and Cycling

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290 **Gardner, B.**; Chen, R. F.; Peri, F.; Scheibel, H.; Wang, X.: SOURCES, TRANSPORT AND FATE OF DOC IN A SHALLOW BAY

291 **Kowalczuk, P.**; Zablocka, M.; Sagan, S.: CHARACTERIZATION OF FLUORESCENT DISSOLVED ORGANIC MATTER COMPOSITION IN THE DEEP BALTIC SEA WATERS FROM FLUORESCENCE SPECTROSCOPY AND PARALLEL FACTOR ANALYSIS.

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154 Fine-Grained Sedimentation In the Ocean: Processes & Products

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566 **Kim, G.**; Narantsetseg, B.; Chun, J.: CHARACTERISTICS OF PHYSICAL PROPERTY AND MICRO-STRUCTURES OF GASSY SEDIMENTS IN THE INNER SHELF OF SE KOREA

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159 CLIVAR: Ocean and Atmosphere Variability, Predictability and Change

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160 Ocean Pollution: the Gulf of Mexico As A Case Study

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1741 **Snyder, S. M.**; Pulster, E.; Wetzel, D.; Romero, I. C.; Murawski, S.: TRACING EXPOSURE OF BURROW-FORMING FISHES TO OIL CONTAMINATION FOLLOWING THE*DEEPWATER HORIZON* BLOWOUT

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1842 **Leary, A. E.**; Gelsleichter, J.; Grubbs, R. D.: POLYCYCLIC AROMATIC HYDROCARBON BIOMARKERS IN GULF OF MEXICO SHARKS AND FISHES IN THE YEARS FOLLOWING THE DEEPWATER HORIZON OIL SPILL

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3101 **Suursaar, U.**; Torn, K.; Martin, G.; Kovtun-Kante, A.; Kullas, T.: USING BEACH WRACK SAMPLING AND HYDRODYNAMIC MODELING FOR ASSESSING BIODIVERSITY AND CLIMATE CHANGE EFFECTS IN THE COASTAL SEA MACROVEGETATION

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3126 **Warren, E. J.**; Ryan, W. L.; Butler, N. M.: INVESTIGATING THE METABOLIC RATE OF INDIVIDUAL PLANKTONIC ORGANISMS THROUGH RESPIRATION

3127 **Murry, B. C.**; Pride, C. J.: SEASONAL AND INTERANNUAL VARIABILITY OF SURFACE DIATOM GENERA IN THE SAVANNAH RIVER ESTUARY

3128 **Van Eerden, J. R.**; Najera, M. A.; Strikler, R. J.; Nam, Y. G.; Chang, W. J.: MICROFLUIDICS AND FORM AND FUNCTION IN CYCLOPOID COPEPODS

3197 **Nesbit, K. T.**; Christie, A. E.: IDENTIFICATION OF THE MOLECULAR COMPONENTS OF A CIRCADIAN SIGNALING SYSTEM IN THE MARINE COPEPOD*TIGRIOPUS CALIFORNICUS*

3198 Sabat, A. M.; **Soto-Santiago, F. J.**: ABUNDANCE AND SIZE STRUCTURE OF A "RESILIENT" AND "SUSCEPTIBLE" CORAL SPECIES ALONG AN ANTHROPOGENIC STRESS GRADIENT IN EASTERN PUERTO RICO

3199 **Gao, Y.**; Xu, Z.: EXTRATION AND ANALYSIS PROTOCOL OF ANTIBIOTICS RESIDUES IN SEAFOOD

3200 **Hernandez, K. L.**; Yannicellli, B.; cornejo, m. f.; olsen, L. M.; iriarte, J. L.: SOLAR RADIATION AND STRATIFICATION MAIN DRIVERS IN MICROBIAL PRODUCTION IN PATAGONIAN FJORDS?

3201 **Chigbu, P.**; Malinis, L.: TEMPORAL AND SPATIAL PATTERNS IN THE ABUNDANCE OF SAND SHRIMP, CRANGON SEPTEMSPINOSA, IN THE MARYLAND COASTAL BAYS

TUESDAY

172 Multiple Drivers Affecting Ecosystem Function In Estuarine and Coastal Waters

Chair(s): Thorsten Blenckner , thorsten.blenckner@stockholmresilience.su.se

Location: Kamehameha Hall III

1411 **Tsai, A. Y.**; Gong, G. C.: CONTRIBUTION OF VIRAL LYSIS AND NANOFLAGELLATE GRAZING TO BACTERIAL MORTALITY IN THE INNER AND OUTER REGIONS OF THE CHANGJIANG RIVER PLUME DURING SUMMER

1412 **Roelke, D. L.**; Li, H. P.; Davis, S. E.; Quigg, A.; Buyukates, Y.: IT'S NOT ALL ABOUT INFLOWS: MULTIPLE DRIVERS AFFECTING PHYTOPLANKTON BIOMASS, PRODUCTIVITY AND COMMUNITY COMPOSITION IN GALVESTON BAY, TX (USA)

1413 **Lundgren, V. M.**; Roelke, D. L.; Brooks, B. W.; Davis, S. L.; Scott, W. S.: HARMFUL GOLDEN ALGAL BLOOMS IN GALVESTON BAY, TX (USA)? IT CAN HAPPEN: EXPLORING MULTIPLE DRIVERS OF BLOOM DYNAMICS THROUGH IN-FIELD MESOCOSM EXPERIMENTS

1456 **Niiranen, S.**; Blenckner, T.; Yletyinen, J.; Otto, S.; Meier, H. E.: RISK OF REGIME SHIFTS AND CHANGES IN ECOSYSTEM DYNAMICS IN THE FUTURE BALTIC SEA

1457 **Vaquer-Sunyer, R.**; Conley, D. J.; Kritzberg, E. S.: EFFECTS OF WARMING AND DISSOLVED ORGANIC NITROGEN (DON) ON PLANKTONIC METABOLISM IN THE BALTIC SEA

1458 **Wang, Y.**; Guo, X.; Zhao, L.; Zhang, J.: INFLUENCE OF NUTRIENTS WITH DIFFERENT SOURCES ON NUTRIENT DISTRIBUTION AND PRIMARY PRODUCTION IN THE EAST CHINA SEA

1459 **Quigg, A.**; Dorado, S.; Booe, T.; Steichen, J.; Windham, R.: IDENTIFYING FRESHWATER INFLOW AS A DRIVER OF ESTUARINE PHYTOPLANKTON STRUCTURE

1460 **Klump, J. V.**; Grunert, B.; LaBuhn, S. L.; Waples, J. T.: MULTIPLE DRIVERS OF TEMPORAL AND SPATIAL TRENDS IN THE BIOGEOCHEMISTRY OF HYPOXIA IN GREEN BAY, LAKE MICHIGAN

1461 **Kenworthy, J.**; Paterson, D. M.; Bishop, M.: THE IMPACT OF MULTIPLE STRESSORS ON BENTHIC ECOSYSTEM FUNCTION IN ESTUARINE SYSTEMS IN THE UK

1462 **Withrow, F. G.**; Roelke, D.; Walton, J.; Roder, C.; Voolstra, C.: QUALITY NOT QUANTITY: MULTIPLE DRIVERS MAY INFLUENCE THE LIGHT FIELD INCIDENT UPON CORALS BASED ON SHIFTS IN PHYTOPLANKTON BIOMASS AND COMPOSITION

1487 Larsson, U.; **Elmgren, R.**; Hajdu, S.; Walve, J.: WHOLE-ECOSYSTEM EXPERIMENTS AND 33 YRS OF DATA SHOW THAT LOWERING NITROGEN LOAD REDUCES EUTROPHICATION OF A BALTIC ESTUARY DESPITE INCREASED NITROGEN FIXATION

1488 **Fransner, F.**; Meier, H. M.; Humborg, C.; Mörth, C. M.; Nycander, J.: QUANTIFYING SINKS OF TERRESTRIAL DOC IN THE BALTIC SEA

1489 **Belley, R.**; Snelgrove, P.: SMALL CRITTERS PLAY A BIG ROLE: BENTHIC BIODIVERSITY AND ECOSYSTEM FUNCTIONING IN COASTAL SEDIMENTARY ENVIRONMENTS

1490 **Stender, Y. O.**; Jokiel, P. L.; Rodgers, K. S.: THIRTY YEARS OF CORAL REEF CHANGE IN RELATION TO COASTAL CONSTRUCTION AND INCREASED SEDIMENTATION AT PELEKANE BAY, HAWAI'I

174 Undergraduate Research In Marine and Aquatic Sciences

Chair(s): Lisa Rom, elrom@nsf.gov
David Fields, dfields@bigelow.org
Joan S. Cleveland, joan.cleveland@navy.mil

Location: Kamehameha Hall III

2255 **Fitzpatrick, R. S.**; Urban-Rich, J.: EFFECTS OF QUANTUM DOTS ON THE GROWTH AND DEVELOPMENT OF BAY SCALLOP *ARGOPECTEN IRRADIANS*

2256 **Monreal, V. N.**; Yang, S.: EELGRASS (*ZOSTERA MARINA*) SEED GERMINATION IN WASHINGTON STATE DEPENDS ON DONOR POPULATION, STORAGE CONDITIONS, AND ANOXIA

2257 **Mura, G. E.**; Hall, L. M.; Shulse, C. S.; Rappé, M. S.: DETERMINING THE MICRODIVERISITY OF SAR11 BACTERIOPLANKTON WITHIN A COASTAL ZONE

2258 **Sanchez, A.**; Wang, Z.; Kroeger, K.; Signell, J.: CALIBRATION OF A CO_2 AND PH SENSOR

2259 **Perez, P. J.**; Johnson, A. K.; Wolfer, H. M.: IMMUNE SYSTEM RESPONSE TO HYPOXIA OF ATLANTIC CROAKER IN CHESAPEAKE BAY, MD

2260 **Colna, K. E.**; Kumar, A.; Robinson, K.: ADAPTING TO A CHANGING CLIMATE ALONG THE EASTERN SHORE

2285 **Mathyer, M. E.**; Swan, B. K.; Stepanauskas, R.: CARBON AND NITROGEN CYCLING BY *NITROSPINA* IN THE DARK OCEAN

2286 **Abel, V. E.**; Balch, W. M.; White, M.: LIGHT DEPENDENCY OF CALCIFICATION AND IMPACTS OF VARYING PH LEVELS IN THE COCCOLITHOPHORID PLEUROCHRYSIS CARTERAE

2287 **Asirwatham, J.**; Shen, Y.; Benner, R.: EFFECT OF SUBSTRATE ON DISSOLVED ORGANIC MATTER PRODUCTION BY MARINE BACTERIA

2288 **Wall, S. D.**: SURFACE AND GROUNDWATER CONTRIBUTION TO A COASTAL WETLAND AT THE HE'EIA AHUPUA'A

2289 **Riesen, A. L.**; Liu, S.; Liu, Z.: THE ROLE OF PROTISTS VERSUS BACTERIA IN THE DECOMPOSITION OF A TETRAPEPTIDE IN COASTAL WATERS

2290 **Coyote-Maestas, W.**; Heal, K. R.; Truxal Carlson, L.; Ingalls, A.: A QUANTITATIVE ANALYSIS AND COMPARISON OF B_7 AND SEVERAL FORMS OF B_{12} BETWEEN COASTAL, SUB ARCTIC GYRE AND OLIGOTROPHIC GYRE REGIMES.

2329 **Velez, M.**; Gontz, A.; Schaaf, C.; Ly, J.; Paynter, I.: IMAGERY FROM HIGH-RESOLUTION, GROUND-BASED LIDAR AND IDENTIFICATION OF COASTAL FEATURES AND POTENTIAL APPLICATIONS FOR COASTAL CHANGE ANALYSIS

2330 **Gezymalla, J.**; Young, T.; Vasslides, J.; Kaneshiro-Pineiro, M.: HISTOLOGICAL ANALYSIS OF REPRODUCTION BIOLOGY OF AN ESTUARINE JELLYFISH (CHRYSAORA QUINQUECIRRHA)

2331 **Loftus, K. M.**; Franck, E.; Christian, A. D.: SPATIAL VARIABILITY OF SURFICIAL SEDIMENT GEOCHEMISTRY IN BOSTON HARBOR: EVALUATING WATERSHED AND COASTAL INFLUENCES

2332 **Cramer, K. R.**; Curran, M. C.: ACCUMULATION OF LITTER LEFT BEHIND BY VISITORS BEFORE AND AFTER WEEKENDS, ON A BEACH IN TYBEE ISLAND, GA

2333 **Cranmore, K. C.**; Robinson , W. E.: TURNOVER RATE OF BIOTIN-TAGGED HISTIDINE-RICH GLYCOPROTEIN (HRG) IN THE BIVALVE MYTILUS EDULIS L.

2334 **Duarte, A. E.**; Gilg, I.; Wilson, W. H.: DIVERSITY OF LARGE MARINE VIRUSES IN THE GULF OF MAINE

2335 **Geronimo, G.**; Lapham, L.: THE MICROBIAL EFFECTS OF THE ADDITION OF OIL TO ANOXIC SEDIMENTS FROM THE CHESAPEAKE BAY

2336 Scherer, A. E.; **Draper, A. M.**; Lunt, J.; Smee, D. L.: EFFECTS OF TRANSIENT VERSUS RESIDENTIAL PREDATOR CUES ON INDUCIBLE DEFENSES OF THE EASTERN OYSTER *CRASSOSTREA VIRGINICA*

2337 Wolfe, K. D.; **Walllace, B. W.**; Mozzachiodi, R.; Wainwright, M. L.: SUPPRESSION OF FEEDING BEHAVIOR IN APLYSIA CALIFORNICA FOLLOWING EXPOSURE TO ALARM CUES

2338 **Russell, C. A.**; Montalbano, A.; Menden-Deuer, S.: THE EFFECTS OF pCO_2 ON GROWTH RATE AND COMMUNITY STRUCTURE OF A NATURAL PLANKTON ASSEMBLAGE FROM NARRAGANSETT BAY, RI

2339 **Price, A. L.**; Romero, A. O.; Parks, E. A.; Reinsel, K. A.; Welch, J. M.: PLANKTONIC INGRESS OF FIDDLER CRAB MEGALOPAE TO THE NEWPORT RIVER ESTUARY, NC: DO DIFFERENT SPECIES RETURN TO THE ESTUARY AT DIFFERENT TIMES?

2340 **Green, S. R.**; Chung, J. S.: UNDERSTANDING THE MOLECULAR MECHANISMS OF REPRODUCTIVE BIOLOGY OF THE SNOW CRAB, CHIONOECETES OPILIO AND THE DEEP-SEA RED CRAB, CHACEON QUINQUEDENS

2377 **Wyers, A. J.**; Ranson, J. L.; Kaiser, K.: LINKING CHEMICAL COMPOSITION AND MOLECULAR STRUCTURE OF TERRIGENOUS ORGANIC MATTER TO OPTICAL PROPERTIES

2378 **Ransom, J. L.**; Wyers, A. J.; Kaiser, K.: INVESTIGATING THE SOURCES AND DECOMPOSITION OF TERRIGENOUS ORGANIC MATTER USING BIOMARKERS

2379 **Carufel, R.**: LATE FIRST GENERATION POPULATION ECOLOGY OF THE QUAGGA MUSSEL, DREISSENA BUGENSIS, IN THE SOUTHERN BASIN OF LAKE MICHIGAN

2380 **Pearson, S. P.**; Kilbourne, K. H.; Xu, Y.: CALIBRATION OF MODERN CORAL CLIMATE SIGNALS TO ENSURE ACCURACY OF PALEOCLIMATE DETERMINATIONS IN ANEGADA, BRITISH VIRGIN ISLANDS

2381 **O'Donnell, B. C.**; Clark, N. M.; Larson, R. A.; Brooks, G. R.: THE USE OF BULK DENSITY TO SUPPORT A DOCUMENTED RAPID DEPOSITIONAL PULSE FOLLOWING THE 2010 DWH BLOWOUT

2382 **Kalin, R. A.**; Kuhs, C. A.; Larson, R. A.; Barber, B. J.; Brooks, G. R.: USE OF BIOGENIC SEDIMENT COMPONENTS TO DETECT ENVIRONMENTAL CHANGES: U.S. VIRGIN ISLANDS

2383 **Yesmalie Aleman, F.**; Jose A. Fernandez, G.: SCREENING OF THE MMV CHEMICAL LIBRARY FOR COMPOUNDS INHIBITING THE PROLIFERATION OF THE OYSTER PROTOZOAN PARASITE PERKINSUS MARINUS

2384 **Ashworth, H. C.**; Larson, R. A.; Brooks, G. R.: ^{210}PB MODELS OF DEEP SEA SEDIMENTARY RECORDS IN THE NE GULF OF MEXICO: CRS VS. CIC

2385 **Anderson, S. R.**; Poulton, N. J.; Haugen, E. M.; Countway, P. D.; Sieraki, M. E.: GROWTH AND GRAZING OF *SYNECHOCOCCUS* IN BOOTH BAY, MAINE

2386 **Boardman, A. L.**; O'Neil, J. M.; Gustafson, A. B.; Sellner, K. G.: CYANOBACTERIA SUCCESSION AND NITROGEN FIXATION IN A EUTROPHIC RESTORED WETLAND SYSTEM WITHIN CHESAPEAKE BAY

2387 **Nelson, A. J.**; Devol, A. H.; Ingalls, A. E.; Horak, R. E.; French, D. W.: PHOTOINHIBTION EFFECTS ON MARINE AMMONIA OXIDIZING ARCHAEA

2388 **Erf, K. M.**; Poulton, N. J.; Haugen, E.; Sieracki, M. E.; Countway, P. D.: ANALYZING THE POPULATION DIVERSITY OF *SYNECHOCOCCUS* DURING THE 2013 SUMMER BLOOM PERIOD IN BOOTHBAY, MAINE

2389 **Burns, W. G.**; Poulton, N. J.; Countway, P. D.; Haugen, E.; Sieracki, M. E.: GROWTH AND GRAZING DYNAMICS OF PHOTOTROPHIC PROTISTS IN BOOTH BAY, MAINE

2390 **Jocis, S. J.**; Vuorenkoski, A.; Nootz, G.; Dalgleish, F.: SPECTRAL FLUORESCENCE CHARACTERISTICS OF COMMERCIALLY AVAILABLE HYDROCARBON SENSORS

2391 **Willert, M.**; Canesi, K.; Rynearson, T.: PHYSIOLOGICAL AND GENETIC DIVERSITY AMONG MORPHOLOGICALLY CRYPTIC *SKELETONEMA* SPECIES

2392 **Shipp, S. K.**: MAPPING AND MEASURING THE OXYGEN MINIMUM ZONE IN THE SOUTH PACIFIC GYRE

2/26/2014 Orals

175C Tutorials

Chair(s): Scott Harper, scott.l.harper@navy.mil

Location: 310 Theater

14:00 **Johnson, K. S.**; Claustre, H.; Sarmiento, J. L.: TOWARD A GLOBAL OCEAN BIOGEOCHEMICAL OBSERVING SYSTEM BASED ON PROFILING FLOATS

14:30 **Lilly, J. M.**; Olhede, S. C.; Sykulski, A. M.; Elipot, S.; Waterman, S. N.: NEW DIRECTIONS IN OCEANOGRAPHIC TIME SERIES ANALYSIS

15:00 **MacKinnon, J. A.**: DIAPYCNAL MIXING IN THE OCEAN INTERIOR: A REVIEW OF RECENT RESULTS

15:30 **Gnanadesikan, A.**; Pradal, M. A.: DISPERSION,DIFFUSION AND CONFUSION: WHY MESOSCALE MIXING MATTERS AND WHAT WE STILL NEED TO LEARN ABOUT IT

001 Upper Ocean Turbulent Fields and Their Variability: Temperature, Salinity, Energy

Chair(s): Darek Bogucki, Darek.Bogucki@tamucc.edu
Peter Minnett, pminnett@rsmas.miami.edu
Will Drennan, wdrennan@rsmas.miami.edu
Alex Soloviev, soloviev@nova.edu

Location: 316 C

08:00 **Bogucki,, D.**; Arnott, K.; Laxague, N.; Haus, B.; Reiners, A.: SUBSURFACE TURBULENCE MEASUREMENTS DURING GLAD EXPERIMENT

08:15 **Laxague, N. J.**; Haus, B. K.; Bogucki, D.; Williams, N. J.: SEA-SURFACE MEASUREMENTS DURING THE GLAD EXPERIMENT

08:30 **Sutherland, G. J.**; Ward, B.; Christensen, K. H.: EVALUATING TURBULENCE REGIMES IN THE OCEAN SURFACE BOUNDARY LAYER: MEASUREMENTS FROM A VERTICALLY RISING MICROSTRUCTURE PROFILER

08:45 **Sutherland, P.**; Melville, W. K.: SIMULTANEOUS MEASUREMENTS OF BREAKING WAVES AND TURBULENCE AT THE AIR-SEA INTERFACE

09:00 **Wong, E.**; Minnett, P. J.: RELATIONSHIP BETWEEN ATMOSPHERIC EMITTED INFRARED RADIATION AND THE GRADIENT OF THE THERMAL SKIN SST LAYER

09:15 **Bogdanoff, A. S.**; Clayson, C. A.; St. Laurent, L.: OBSERVATIONS OF TURBULENCE DURING UPPER OCEAN STABLE STRATIFICATION

09:30 **Callaghan, A. H.**; Deane, G. B.; Stokes, M. D.: USING WHITECAP STATISTICS TO ESTIMATE ENERGY DISSIPATION BY BREAKING SURFACE GRAVITY WAVES

09:45 **Deane, G. B.**; Stokes, M. D.: OBSERVATIONS OF FLUID TURBULENCE AND AIR ENTRAINMENT IN LABORATORY BREAKING WAVES

10:30 Guo, X.; **Shen, L.**: SIMULATION OF INTERACTION BETWEEN SURFACE WAVES AND UPPER OCEAN TURBULENCE

10:45 **Chen, S. M.**; Tsai, W. T.: A NUMERICAL STUDY ON THE INTERACTION BETWEEN LANGMUIR CIRCULATION AND A RAPIDLY DEEPENING MIXED LAYER

11:00 **Furuichi, N.**; HIbiya, T.: ASSESSMENT OF TURBULENCE CLOSURE MODELS FOR OCEANIC MIXED LAYER PROCESSES USING A LARGE EDDY SIMULATION MODEL

11:15 **Hara, T.**; Sullivan, P. P.: EFFECTS OF WAVE INDUCED STRESS ON AIR-SEA MOMENTUM FLUX AND ATMOSPHERIC WAVE BOUNDARY LAYER TURBULENCE

11:30 **Kukulka, T.**; Plueddemann, A. J.; Sullivan, P. P.: INHIBITED UPPER OCEAN RESTRATIFICATION IN NONEQUILIBRIUM SWELL CONDITIONS

11:45 **Pham, H. T.**; Sarkar, S.; Winters, K. B.: DIURNAL SHEAR INSTABILITIES AND DEEP-CYCLE TURBULENCE IN THE EQUATORIAL OCEANS

12:00 **Tejada-Martinez, A. E.**; Sinha, N.; Grosch, C. E.; Martinat, G.: A K-PROFILE PARAMETERIZATION OF LANGMUIR TURBULENCE IN SHALLOW WATER

12:15 **Dean, C. W.**; Soloviev, A. V.; Hirons, A. C.; Frank, T. M.; Wood, J. D.: DIEL VERTICAL MIGRATIONS OF ZOOPLANKTON AND TURBULENT MIXING: OBSERVATIONS AND NUMERICAL SIMULATION

14:00 **Yamazaki, H.**; Sagara, Y.; Tanaka, M.; Doubell, M. J.: FLUORESCENT MICROSTRUCTURES: QUEST FOR THE BUILDING BLOCKS OF THE PLANKTONIC ECOSYSTEM

14:15 **McGauley, M. G.**; Soloviev, A.; Haus, B.; Laxague, N.; Ortiz-Suslow, D.: MICROSTRUCTURE OF THE AIR-SEA INTERFACE IN HURRICANE CONDITIONS: NUMERICAL SIMULATIONS AND LABORATORY EXPERIMENT

14:30 **Polito, P. S.**; Sato, O. T.; Krieger, S.: GLOBAL TRENDS IN THE WIND STRESS FROM MICROWAVE REMOTE SENSING

14:45 **Tamura, H.**; Drennan, W. M.; Sahlée, E.; Graber, H. C.: AN ANALYSIS AND MODELLING OF WAVENUMBER SPECTRA OF SHORT GRAVITY WAVES

15:00 **Pizzo, N. E.**; Melville, W. K.: VORTEX GENERATION BY DEEP-WATER BREAKING WAVES

15:15 **Homma, H.**; Yamazaki, H.; Nagai, T.; Masunaga, E.; Kumagai, M.: MULTIPLE MIXING LAYERS AND STRATIFICATION OBSERVED IN THE UPPER WATER OF LAKE BIWA DURING SUMMER

15:30 **Carpenter, J. R.**; Sommer, T.; Wüest, A.; Timmermans, M. L.: NEW INSIGHTS INTO HEAT FLUXES THROUGH DOUBLE-DIFFUSIVE STAIRCASES

15:45 **Soloviev, A.**; Lukas, R.; Donelan, M.; Haus, B.; Ginis, I.: THE AIR-SEA INTERFACE AND SURFACE STRESS UNDER TROPICAL CYCLONES

003 Advances In Coastal Ocean Modeling, Observations, and Prediction

Chair(s): Villy Kourafalou, vkourafalou@rsmas.miami.edu
Pierre de Mey, pierre.de-mey@legos.obs-mip.fr
Yi Chao, ychao001@gmail.com

Location: 314

08:00 **Wendell Brown, .**; Oscar Schofield, .; Scott Glenn, .; Josh Kohut, .; William Boicourt, .: THE EVOLUTION OF THE 2007 MID-ATLANTIC COLD POOL

08:15 **Hermann, A. J.**; Siedlecki, S. A.; Bond, N. A.: REGIONAL PREDICTABILITY OF THE NORTHEASTERN PACIFIC ON SEASONAL TIME SCALES

08:30 **Durski, S. M.**; Kurapov, A.; Allen, J. S.; Egbert, G.; Kosro, P. M.: MODELING WINTER CIRCULATION OFF THE OREGON COAST: COMPARISON OF EL NINO/LA NINA YEARS

08:45 **Moore, A. M.**; Edwards, C. A.; Fiechter, J.; Jacox, M. G.; Crawford, W.: A 31 YEAR HISTORICAL ANALYSIS OF THE CALIFORNIA CURRENT CIRCULATION USING THE ROMS 4-DIMENSIONAL VARIATIONAL DATA ASSIMILATION SYSTEM

09:00 **Ross, A. C.**; Li, M.; Najjar, R. G.; Herrmann, M.: HIGH-RESOLUTION SIMULATIONS OF CHESAPEAKE AND DELAWARE BAYS UNDER PAST AND FUTURE CLIMATES

09:15 **Tinker, J. P.**; Lowe, J. A.; Holt, J. T.; Pardaens, A.; Barciela, R.: CLIMATE PROJECTIONS FOR THE NW EUROPEAN SHELF SEAS WITH ASPECTS OF UNCERTAINTY QUANTIFIED.

09:30 **Gopalakrishnan Ganesh, .**; Cornuelle Bruce, .; Rudnick Daniel, .: IMPACT OF GLIDER DATA ASSIMILATION ON THE LOOP CURRENT FORECASTS IN THE GULF OF MEXICO

09:45 **Gough, M. K.**; Reniers, A. H.; Howden, S.: NEAR-INERTIAL SURFACE CURRENTS IN THE NORTHEASTERN GULF OF MEXICO USING HF RADAR AND GPS-TRACKED DRIFTERS DURING THE GLAD EXPERIMENT

10:30 **Li, Y.**; He, R.; Chen, K.: VARIATIONAL DATA ASSIMILATIVE MODELING INVESTIGATION OF THE GULF OF MAINE COASTAL CIRCULATION IN SPRING AND SUMMER 2010

10:45 **Hunter, E. J.**; Wilkin, J. L.; Levin, J. C.; Zavala-Garay, J.: TOWARD THE CONTINUOUS IMPROVEMENT OF ESPRESSO: AN EULERIAN/LAGRANGIAN SKILL ASSESSMENT

11:00 **Kudela, R. M.**; Anderson, C. R.; Kahru, M.; Chao, Y.; Chai, F.: WATER QUALITY PREDICTIONS FROM A NOVEL BLENDING OF SATELLITE DATA AND NUMERICAL MODELS FOR COASTAL CALIFORNIA

11:15 **Lin, Y.**; Chang, M.; Xu, F.; Oey, L.; Chang, Y.: AN OCEAN PREDICTION SYSTEM FOR THE WESTERN NORTH PACIFIC AND THE CHINA SEAS

11:30 **Haley, P. J.**; Lermusiaux, P. F.; Gawarkiewicz, G.: EVALUATION OF OCEAN PROBABILISTIC FORECASTS: QUANTIFYING, PREDICTING AND EXPLOITING UNCERTAINTY.

11:45 **Ishikawa, Y.**; Awaji, T.; In, T.; Nakada, S.: DEVELOPMENT OF AN INCREMENTAL 4D-VAR SYSTEM FOR A INNOVATIVE DOWNSCALING APPROACH

12:00 **Pullen, J.**; Caldeira, R.; Doyle, J.; May, P.: ADVANCES IN MODELING ISLAND REGIONS USING AIR-SEA COUPLED SYSTEMS

12:15 **Kim, S. B.**; Lee, J. H.; Hong, C. S.; Pang, I. C.: COASTAL SALINITY VARIABILITY OVER THE EAST CHINA SEA MONITORED BY THE AQUARIUS/SAC-D MISSION

14:00 Gleb Panteleev, .; **Max Yaremchuk, .**; Jacob Stroh, .; Pamela Posey, .; David Hebert, .: MONITORING THE BERING STRAIT TRANSPORT WITH HIGH-FREQUENCY RADARS

14:15 **Farrara, J. D.**; Chao, Y.; Zhang, H.: COUPLING A CALIFORNIA COASTAL OCEAN MODEL WITH A SAN FRANCISCO BAY/ESTUARY MODEL TO ENABLE PREDICTIONS

14:30 **Karna, T.**; Baptista, A. M.; Lopez, J.; McNeil, C.; Sanford, T. B.: NUMERICAL MODELING OF A RIVER-DOMINATED ESTUARY: REPRESENTING SHARP DENSITY GRADIENTS

14:45 **Loftis, J. D.**; Wang, H. V.: HIGH-RESOLUTION SUB-GRID MODELING OF LOCAL INUNDATION IN THE NEW YORK HARBOR DURING 2012 HURRICANE SANDY

15:00 **Valle-Levinson, A.**; Olabarrieta, M.; Van Horn, J.: SEMIDIURNAL PERTURBATIONS TO THE SURGE OF HURRICANES AFFECTING EASTERN US

15:15 **Rayson, M. D.**; Fringer, O. B.; Gross, E. S.; Hetland, R. D.: APPLICATION OF A NESTED, UNSTRUCTURED MESH HYDRODYNAMIC MODEL TO A BAY IN THE GULF OF MEXICO

15:30 **Paris, C. B.**; Lindo-Atichati, D.; Aman, Z. M.; Le Henaff, M.; Kourafalou, V.: ADVANCES IN MODELING THE TRANSPORT AND FATE OF SUBSEA OIL

15:45 **Wei, M.**; Jacobs, G.; Rowley, C.; Barron, C. N.; Martin, P.: PROBABILISTIC FORECAST AND ITS APPLICATION TO LAGRANGIAN TRAJECTORY AND LAGRANGIAN COHERENT STRUCTURE IN THE GULF OF MEXICO

016 Using Evaluation In Ocean Sciences Education and Workforce Development: What Does the Evidence Show?

Chair(s): Elizabeth L. Rom, elrom@nsf.gov
Patricia Kwon , pkwon@aqmd.gov
Andrea Anderson, andrea@soundviewevaluation.com
Allison Miller, amiller@Oceanleadership.org

Location: 318 AB

14:00 **Clem, S.**; Lozier, M. S.: MPOWIR - COMMUNITY-BASED MENTORING

14:15 **Anderson, A. V.**; Kwon, P. S.; Dorph, R.; Plude, D. E.: WHAT IS THE NATURE OF THE IMPACTS OF COSEE INVOLVEMENT ON SCIENTISTS' PROFESSIONAL ROLES?

14:30 **Payne, D. L.**; Babb, I. G.; Erickson, J.: COSEE-TEK OCEAN SCIENCE AND TECHNOLOGY CHALLENGE (OSTC): AN EVALUATION OF COLLABORATION WITH A LOUIS STOKES ALLIANCE FOR MINORITY PARTICIPATION (LSAMP) PROGRAM

14:45 **McDuff, R. E.**: DEMOGRAPHICS OF OCEAN SCIENCE GRADUATE PROGRAMS

15:00 **Anderson, A.**; Stahr, F. R.: USING THE COSEE SCIENTIST SURVEY FACTORS TO ASSESS THE IMPACT OF OCEAN INQUIRY PROJECT ACTIVITIES ON SCIENTIST-VOLUNTEERS' PROFESSIONAL PRACTICES

15:15 **Guannel, M. L.**; Bruno, B. C.; Grand, M. M.; Lee, N.; Day-Miller, E. A.: FOSTERING LEADERSHIP AND APPRECIATION FOR BROADER IMPACTS AMONG EARLY CAREER SCIENTISTS: DEVELOPMENT AND ASSESSMENT OF A PROFESSIONAL DEVELOPMENT COURSE

15:30 **Hodder, J.**; Apple, J.; Gehrke, C.; Hadfield, M.; Manset, G.: AN EVALUATION OF THE ROLE OF PROFESSIONAL DEVELOPMENT INSTITUTES FOR FACULTY: IMPROVING THE TEACHING OF OCEAN SCIENCE AT COMMUNITY COLLEGES.

15:45 **Wilson, C. E.**; Keane, C. M.; Houlton, H. R.: GEOSCIENCE STUDENT PATHWAYS FROM THE UNDERGRADUATE DEGREE THROUGH THE FIRST FEW YEARS AS AN EARLY CAREER GEOSCIENTIST

040 Antarctic Marginal Seas and Shelf/Slope Processes: Physical and Biological Variability, Controls, and Links to Larger Scales

Chair(s): Robin D. Muench, rmuench@esr.org
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Josh Kohut, kohut@marine.rutgers.edu

Location: 316 B

08:00 **Arrigo, K. R.**; van Dijken, G. L.: THE ROLE OF COASTAL POLYNYAS IN SOUTHERN OCEAN PRIMARY PRODUCTION

08:15 **Yager, P. L.**; Sherrell, R. M.; Alderkamp, A. C.; Ingall, E. D.; Ducklow, H. W.: NET COMMUNITY PRODUCTION AND EXPORT IN THE AMUNDSEN SEA POLYNYA (WESTERN ANTARCTICA); WITH COMPARISONS TO ARCTIC POLYNYAS AND A LINK TO CLIMATE SENSITIVITY

08:30 **Thompson, A. F.**; Schmidtko, S.; Heywood, K. J.: GLIDER OBSERVATIONS AT THE ANTARCTIC SHELF BREAK: POTENTIAL VORTICITY AND CROSS-SHELF TRANSPORT

08:45 **Gayen, B.**; Griffiths, R. W.; Kerr, R.; Hughes, G. O.: CONVECTION AT THE ICE-SEAWATER INTERFACE DURING MELTING

09:00 **Stanton, T. P.**; Shaw, W. J.: OBSERVATIONS OF OCEAN / ICE INTERACTION UNDER THE PINE ISLAND ICE SHELF, ANTARCTICA

09:15 **McGillicuddy, D. J.**; Sedwick, P. N.; Dinniman, M. S.; Arrigo, K. R.; and the PRISM Science Team, .: IRON SUPPLY AND DEMAND IN AN ANTARCTIC SHELF ECOSYSTEM

09:30 **Marques, G. M.**; Padman, L.; Özgökmen, T. M.: TOPOGRAPHIC VORTICITY WAVES FORCED BY ANTARCTIC DENSE SHELF WATER OUTFLOWS

09:45 **Dinasquet, J.**; Richert, I.; Yager, P.; Bertilsson, S.; Riemann, L.: MIXING OF WATER MASSES CAUSED BY A DRIFTING ICEBERG AFFECTS ACTIVITY, COMMUNITY COMPOSITION AND SUBSTRATE UTILIZATION IN THE SOUTHERN OCEAN

10:30 **Lannuzel, D.**; van der Merwe, P. C.; Townsend, A. T.; Bowie, A. R.: SIZE FRACTIONATION OF IRON, MANGANESE AND ALUMINIUM IN ANTARCTIC FAST ICE REVEALS A LITHOGENIC ORIGIN AND LOW IRON SOLUBILITY

10:45 **Smith, W. O.**; Delizo, L.; Mosby, A. M.: AN ICE-SHELF PHYTOPLANKTON BLOOM: MIXING, GROWTH AND BIOMASS ACCUMULATION NEAR THE ROSS SEA ICE SHELF

11:00 **Klinck, J.**; Dinniman, M.; Greenan, B.; McGillicuddy, D.; PRISM group, .: HORIZONTAL STRUCTURE OF OCEAN PROPERTIES IN THE SOUTHERN ROSS SEA

11:15 **Kaufman, D. E.**; Friedrichs, M. A.; Smith, W. O.; Heywood, K. J.; Queste, B. Y.: GLIDER-BASED OBSERVATIONS OF BIOGEOCHEMICAL VARIABILITY IN THE SOUTHERN ROSS SEA

11:30 **Kohut, J. T.**; Kustka, A.; Lam, P.; Measures, C.; Milligan, A.: DEEP WATER INTRUSIONS AS AN IRON SOURCE TO THE SUMMER ROSS SEA ECOSYSTEM: THE SLOCUM ENHANCED ADAPTIVE FE ALGAL RESEARCH IN THE ROSS SEA (SEAFARERS) PROJECT

11:45 **Hatta, M.**; Measures, C. I.; Lam, P. J.; Ohnemus, D. C.; Grand, M. M.: THE DISSOLVED FE, MN, AND AL CONCENTRATIONS ON THE SHELF/SLOPE IN THE ROSS SEA DURING THE 2011 SEAFARERS EXPEDITION

12:00 **McKee, D. C.**; Martinson, D. G.; Schofield, O.: A SPATIO-TEMPORAL STUDY OF THE TRANSPORT OF UPPER CIRCUMPOLAR DEEP WATER ONTO THE WESTERN ANTARCTIC PENINSULA CONTINENTAL SHELF

12:15 **Kavanaugh, M. T.**; Doney, S. C.; Ducklow, H. W.; Schofield, O.; Stammerjohn, S. E.: ROLE OF SUBMARINE CANYONS ON PHYTOPLANKTON DYNAMICS ALONG THE WESTERN ANTARTIC PENINSULA

14:00 **Graham, J. A.**; Heywood, K. J.; Chavanne, C. P.; Holland, P. R.: THE INFLUENCE OF WIND VARIABILITY ON WATER MASSES AND TRANSPORT ON THE ANTARCTIC CONTINENTAL SHELF AND SLOPE

14:15 **Kalen, O.**; Wahlin, A. K.; Ha, H. K.; Kim, T. W.; Lee, S. H.: OBSERVATIONS OF CIRCULATION OF WARM DEEP-WATER ON THE SHELF EDGE OF THE AMUNDSEN SEA

14:30 **Kim, M.**; Hwang, J.; Kim, H. J.; Kim, D.; Lee, S.: PARTICULATE ORGANIC CARBON CYCLING ON THE AMUNDSEN SHELF : INSIGHTS FROM RADIOCARBON ANALYSIS

14:45 **St-Laurent, P.**; Klinck, J. M.; Dinniman, M. S.: VERTICAL AND HORIZONTAL TRANSPORT BY MESOSCALE EDDIES IN THE AMUNDSEN SEA: WHERE, WHEN, AND HOW MUCH?

15:00 **Darelius, E.**; Daae, K.; Makinson, K.; Årthun, M.; Østerhus, S.: CIRCULATION IN THE FILCHNER DEPRESSION AND THE SEASONALITY OF THE FILCHNER OUTFLOW, ANTARCTICA

15:15 **Hattermann, T.**; Lilly, J. M.; Nøst, O. A.; Smedsrud, L. H.: MODELLING OCEAN HEAT TRANSPORT TOWARDS THE FIMBUL ICE SHELF, ANTARCTICA

15:30 **Shadwick, E. H.**; Tilbrook, B.; Williams, G. D.; Rintoul, S. R.: BIOLOGICAL MODIFICATION OF CARBONATE CHEMISTRY IN DENSE WATER OUTFLOWS FROM THE MERTZ POLYNYA, EAST ANTARCTICA

15:45 **McDougall, T. J.**: THE INTERACTION OF ICE AND SEAWATER

041 Advances In the Understanding of Uncultivated Microbes and Development of Model Systems for Marine Microbial Ecology

Chair(s): Jennifer Biddle, jfbiddle@udel.edu
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Robert Morris, morrisrm@uw.edu

Location: 301 AB

14:00 **Giovannoni, S. J.**; Temperton, B.: METABOLIC AND ECOLOGICAL IMPLICATIONS OF STREAMLINED METABOLISM IN PELAGIBACTER

14:15 **Eiler, A.**; Andersson , S. G.; McMahon, K. D.; Stepanauskas, R.; Bertilsson, S.: METABOLIC STREAMLINING IN THE MARINE-FRESHWATER TRANSITION

14:30 **Grant, S. R.**; Rappe, M.; Church, M.: GROWTH STUDY OF THE SAR11 COASTAL ISOLATE HIMB114 IN BATCH AND CONTINUOUS CULTURE.

14:45 **Dupont, C. L.**; Allen, A. E.; Rusch, D. B.; Yooseph, S.: TOWARDS A CHARACTERIZATION OF THE UNCULTIVATED SAR86 CLADE

15:00 **Marshall, K. T.**; Iverson, V.; Armbrust, E. V.; Morales, R. L.; Morris, R. M.: THE COMPLETE GENOME SEQUENCE OF THIOGLOBUS SINGULARIS REVEALS NOVEL EVOLUTIONARY ADAPTATIONS OF CARBON AND SULFUR METABOLISMS IN THE SUP05/ARCTIC96BD-19 CLADE

15:15 **Santoro, A. E.**; Dupont, C. L.; Saito, M. A.: THE GENOME AND PROTEOME OF AN AMMONIA-OXIDIZING ARCHAEON FROM THE OPEN OCEAN

15:30 Palovaara, J.; Akram, N.; Pedrós-Alió, C.; González, J. M.; **Pinhassi, J.**: REGULATION OF PROTEORHODOPSIN PHOTOTROPHY IN THE FLAVOBACTERIUM *DOKDONIA*SP. MED134

15:45 **Stepanauskas, R.**; Swan, B. K.; Woyke, T.; Labonte, J.; Cavicchioli, R.: SINGLE CELL GENOMICS OF SURFACE OCEAN BACTERIOPLANKTON REVEALS PREDOMINANT GENOME STREAMLINING, LATITUDINAL DIVERGENCE, AND IN SITU INTERACTIONS WITH PHAGES

042 Optical Remote Sensing of Freshwater, Estuarine, and Coastal Environments: Water Quality and Other Applications

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Location: 313 C

08:00 **Kauer, T.**; Kutser, T.; Arst, H.; Nõges, T.: MODELLING LAKE PRIMARY PRODUCTION BASED ON SATELLITE DATA

08:15 **Kutser, T.**; Alikas, K.; Kothawala, D.; Köhler, S. J.: DISSOLVED IRON OR CARBON? WHAT DO WE MEASURE WITH YELLOW SUBSTANCE RETRIEVAL ALGORITHMS?

08:30 **Du, K.**; Xue, K.; Ou, J.; Duan, H.: A NEW RETRIEVAL ALGORITHM FOR PHYCOCYANIN OF TAIHU LAKE

08:45 **Moore, G. F.**; Huot, J. P.; Kratzer, S.: A THREE COMPONENT MODEL OF NIR REFLECTANCE: RETRIEVAL OF AEROSOL, PARTICLE BACKSCATTER AND GLINT

09:00 **Shi, W.**; Wang, M.: OCEAN REFLECTANCE SPECTRA AT THE RED, NEAR-INFRARED, AND SHORTWAVE INFRARED FROM HIGHLY TURBID WATERS

09:15 **Brajard, J.**; Jamet, C.; Thiria, S.: ATMOPSHERIC CORRECTION OVER COASTAL WATERS: A SPATIAL ANALYSIS METHOD.

09:30 **Craig, S. E.**; Lazin, G.; Jones, C. T.: BYPASSING ATMOSPHERIC CORRECTION IN THE RETRIEVAL OF OCEAN COLOUR PRODUCTS: A NOVEL STATISTICAL APPROACH

09:45 **Lavender, S. J.**: MULTI-SENSOR OCEAN COLOUR ATMOSPHERIC CORRECTION FOR TIME-SERIES DATA: USING ALL THE INFORMATIONAL AVAILABLE

10:30 **Davis, C. O.**; Kappus, M. E.; Bowles, J. H.; Evans, C. A.; Stefanov, W. L.: HYPERSPECTRAL IMAGER FOR THE COASTAL OCEAN (HICO): OVERVIEW, OPERATIONAL UPDATES, AND COASTAL OCEAN APPLICATIONS

10:45 **Moses, W. J.**; Bowles, J. H.; Gitelson, A. A.; Lamela, G. M.; Berdnikov, S.: COASTAL REMOTE SENSING USING HICO – RESULTS, CHALLENGES, AND POTENTIAL FOR OPERATIONAL BIOPHYSICAL PARAMETER ESTIMATION

11:00 **Palacios, S. L.**; Schafer, C.; Broughton, J.; Guild, L. S.; Kudela, R. M.: DISCRIMINATING PHYTOPLANKTON FUNCTIONAL TYPES (PFTS) IN THE COASTAL OCEAN USING PHYDOTAX

11:15 **Tufillaro, N.**; Davis, C. O.; Nahorniak, J.: IMAGING THE COASTAL OCEAN: INSIGHTS FROM USING HICO AND VIIRS DATA

11:30 **Yang, H.**; Arnone, R.; Jolliff, J.: ESTIMATING ADVECTIVE SURFACE CURRENTS FROM OCEAN COLOR SATELLITE IMAGES

11:45 **Gilerson, A. A.**; Ibrahim, A. I.; El-Habashi, A.; Carrizo, C.; Ahmed, S. A.: RETRIEVAL OF OCEAN WATER PARAMETERS FROM POLARIMETRIC OBSERVATIONS

12:00 **Wei, J.**; Lee, Z. P.: IMPROVING CHLOROPHYLL A AND CDOM ESTIMATION FROM WATER COLOR SPECTRA WITH ADDITIONAL UV BANDS: A SIMULATION STUDY

12:15 **Mannino, A.**; Novak, M. G.; Hyde, K.; Hooker, S. B.: SATELLITE-DERIVED CDOM PROPERTIES AND DOM DISTRIBUTIONS FOR ESTUARINE AND CONTINENTAL SHELF WATERS ALONG THE NORTHEASTERN U.S. COAST

14:00 McKenna, L.; **Jenn Dijkstra, .**; Christopher Parrish, .: ASSESSING HURRICANE SANDY IMPACTS ON BENTHIC HABITATS IN BARNEGAT BAY WITH NEW TOPOGRAPHIC-BATHYMETRIC LIDAR TECHNOLOGY

14:15 **Dierssen, H. M.**; Hedley, J. D.; Zimmerman, R. C.: OPTICS OF SEAGRASS FOR REMOTE SENSING APPLICATIONS: MODELS AND MEASUREMENTS

14:30 **Zheng, G.**; DiGiacomo1, P. M.; Kaushal, S. S.; Yuen-Murphy, M. A.: REMOTE SENSING OF RIVER PLUMES AND WATER QUALITY IN THE CHESAPEAKE BAY

14:45 **Broughton, J. A.**; Felis, J.; Adams, J.; Kudela, R.: CHARACTERIZATION OF WATER MASSES WITHIN THE COLUMBIA RIVER PLUME USING AIRBORNE HYPERSPECTRAL RADIOMETRY

15:00 **Crout, R. L.**; Ladner, S.; Amin, R.; Lawson, A.; Arnone, R.: EVALUATION OF GOCI OCEAN COLOR PROPERTIES BASED ON AQUA-MODIS AND VIIRS

15:15 **Vandermeulen, R.**; Arnone, R.; Ladner, S.; Martinolich, P.: ENHANCED SATELLITE REMOTE SENSING OF COASTAL WATERS: INCREASING THE RESOLUTION OF VIIRS BIO-OPTICAL PRODUCTS

15:30 **Chai, F.**; Xiu, P.; XUe, H.; Mobley, C.; Chao, Y.: INCORPORATING OPTICAL PROCESSES INTO PHYSICAL-BIOGEOCHEMICAL MODELS IN THE PACIFIC OCEAN

15:45 **Arnone, R. A.**; Vandermuellen R, and Yang, H , R.; Ladner S. and Martinolich, P.; Donaghay, P.; Fargion G. and Wang, , M.: CHARACTERIZING PHYSICAL AND ECOLOGICAL EXCHANGE PROCESSES IN COASTAL AND OPEN WATERS USING THE VIIRS – SUOMI NPP SENSORS

047 Natural and Anthropogenic Changes In Coastal Ecosystems and Their Impact On Human Welfare

Chair(s): Gretchen Hofmann, hofmann@lifesci.ucsb.edu
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Douglas Capone, capone@usc.edu

Location: 319 AB

14:00 Reed, M.; Keppler, C. K.; Maldonado, D. A.; **Greenfield, D. I.**: THE INFLUENCE OF NITROGEN AND PHOSPHORUS ON SEASONAL PHYTOPLANKTON BIOMASS AND COMMUNITY COMPOSITION IN FOUR COASTAL SOUTH CAROLINA SYSTEMS

14:15 **McLaughlin, K.**; Howard, M. A.; Nezlin, N. P.; Beck, C. A.; Robertson, G.: UNRAVELING THE IMPACTS OF WASTEWATER EFFLUENT ON COASTAL NITROGEN CYCLING: LESSONS FROM THE SOUTHERN CALIFORNIA BIGHT

14:30 **Nilsen, E. B.**; Rosenbauer, R. J.; Fuller, C. C.; Jaffe, B. J.: SEDIMENTARY ORGANIC BIOMARKERS SUGGEST DETRIMENTAL IMPACTS OF PAH CONTAMINANTS ON MICROBES AND/OR ALGAE DURING THE 20TH CENTURY IN SAN FRANCISCO BAY, CA, USA

14:45 **Armitage, A. R.**; Highfield, W. E.; Norwood, M. J.; Brody, S. D.; Louchouarn, P.: MANGROVE EXPANSION ON THE TEXAS COAST: IMPLICATIONS FOR BLUE CARBON STORAGE IN COASTAL WETLANDS

15:00 Miller, M. A.; **Bourke, R. E.**: KAELEPULU: AN INVESTIGATION OF MIXING AND EXCHANGE IN AN URBANIZED ESTUARY TO HELP DEFINE RESTORATION ALTERNATIVES

15:15 **Albert, S.**; Lauer, M.; Grinham, A.; Gibbes, B.: RAPID RECOVERY OF SOCIAL-ECOLOGICAL SYSTEMS IN SOLOMON ISLANDS

15:30 **Li, M.**: IMPACTS OF EXTREME WEATHER EVENTS ON PLANKTON PRODUCTIVITY AND HYPOXIA IN CHESAPEAKE BAY

15:45 **Donner, S. D.**: IDENTIFYING FACTORS THAT CONFER CORAL RESILINECE TO CLIMATE CHANGE USING A NATURAL GRADIENT OF CLIMATE VARIABILITY IN THE CENTRAL PACIFIC

053 Coral Microbiology: Partners and Pathogens

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Ruth Gates, rgates@hawaii.edu

Location: 304 AB

14:00 **Vega Thurber, R. L.**: MICROBIAL AND VIRAL DYNAMICS ON TROPICAL CORALS

14:15 **Richards Donà, A. M.**; Peters, E. C.: DAMAGING INTERACTIONS BETWEEN THE CORAL HOLOBIONT AND PUTATIVE BACTERIAL PATHOGENS: UNDETECTABLE UNTIL IT IS TOO LATE

14:30 **Pollock, F. J.**; Lamb, J. B.; van de Water, J. A.; Bourne, D. G.; Willis, B. L.: WATER QUALITY PARAMETERS NEAR PERMANENTLY MOORED TOURIST PLATFORMS DRIVE MICROBIAL SHIFTS, IMMUNE RESPONSE AND DISEASE IN CORALS

14:45 **Apprill, A.**; Weber, L. G.; Santoro, A. E.: CONSTRAINING MICROBIAL COMMUNITIES TO MICRO-NICHES WITHIN THE CORAL HOLOBIONT

15:00 **Sneed, J. M.**; Sharp, K. H.; Paul, V. J.: THE CHEMICAL CUE TETRABROMOPYRROLE FROM A BIOFILM BACTERIUM INDUCES SETTLEMENT OF MULTIPLE CARIBBEAN CORALS

15:15 **Baker, D. M.**; Fogel, M. L.; Freeman, C. J.; Knowlton, N.; Moynihan, M. A.: BIOGEOCHEMICAL PATTERNS AMONG INVERT-MICROBE SYMBIOSES

15:30 **Putnam, H. M.**; Fabina, N. S.; Yost, D. M.; Vik, D.; Gates, R. D.: DIFFERING ASSEMBLY DYNAMICS OF SYMBIODINIUM COMMUNITIES IN GENERALIST AND SPECIFIST CORALS ACROSS A GRADIENT OF THERMAL VARIANCE

15:45 **Kopp, C.**; Domart-Coulon, I.; Hignette, M.; Meibom, A.: NANOSIMS STUDY OF TROPHIC INTERACTIONS IN THE CORAL-DINOFLAGELLATE SYMBIOSIS

058 Mesoscale Ocean Processes and Their Representation In Earth System Models

Chair(s): Mehmet Ilicak, mehmet.ilicak@noaa.gov
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Location: 315

08:00 **Afanasyev, Y. D.**: BETA-PLUME MECHANISM IN BETA-PLANE TURBULENCE

08:15 **Srinivasan, K.**; Young, W. R.: DRIFTING JETS

08:30 **Schloesser, F.**; Rothstein, L.: THE EFFECT OF A CONTINENTAL SHELF ON RADIATING EASTERN BOUNDARY CURRENT INSTABILITIES

08:45 Cravatte, S. E.; **Kessler, W. S.**; Marin, F.: INTERMEDIATE ZONAL JETS IN THE THREE EQUATORIAL OCEANS OBSERVED BY ARGO FLOATS

09:00 Buckingham, C.; **Cornillon, P.**; Schloesser, F.; Obenour, K.: AN OBSERVED RELATIONSHIP BETWEEN SST AND SSH IN THE CONTEXT OF STRIATIONS/ZONAL BANDS

09:15 **Reckinger, S. J.**; Fox-Kemper, B.; Bachman, S.; Bryan, F. O.; Dennis, J. M.: THE ANISOTROPY OF MESOSCALE EDDY-INDUCED DIFFUSION

09:30 **Morten, A. J.**; Arbic, B. K.; Flierl, G. R.; Scott, R. B.: THEORY OF NONLINEAR SPECTRAL TRANSFERS IN THE FREQUENCY-WAVENUMBER DOMAIN, ILLUSTRATED BY QUASI-TWO-DIMENSIONAL EXAMPLES

09:45 **SERAZIN, G.**; PENDUFF, T.; TERRAY, L.; GREGORIO, S.; BARNIER, B.: OCEANIC INTRINSIC VARIABILITY: SPATIO-TEMPORAL SCALES AND MODEL RESOLUTION

10:30 **Rossby, T.**: A SOLITARY LENS IN THE SOUTH-EAST PACIFIC

10:45 **Maximenko, N.**; Hafner, J.; Melnichenko, O.; Belmadani, A.: DYNAMICS OF LAGRANGIAN TRACER IN NEAR-SURFACE OCEAN STUDIED WITH REAL AND SIMULATED DRIFTERS: DIFFUSION, CONNECTIVITY, AND TIME SCALES

11:00 **Chen, R.**; McClean , J. L.; Gille, S. T.; Griesel, A.: LAGRANGIAN ISOPYCNAL EDDY DIFFUSIVITIES OF AN EDDYING MODEL IN THE KUROSHIO EXTENSION

11:15 **Mohrholz, V.**; Schmidt, M.; Flohr, A.: CONTRIBUTION OF UPWELLING FILAMENTS TO CROSS SHELF TRANSPORT OF MATTER AND ITS IMPLICATION FOR ECOSYSTEM DYNAMICS.

11:30 **Magaldi, M. G.**; Haine, T. W.: HYDROSTATIC AND NON-HYDROSTATIC SIMULATIONS OF DENSE WATERS CASCADING OFF A SHELF: THE EAST GREENLAND CASE

11:45 **Kamenkovich, I. V.**; Rypina, I. I.; Berloff, P. S.: IMPORTANCE OF LARGE-SCALE EDDIES FOR THE DISTRIBUTION OF OCEANIC TRACERS

12:00 **Banyte, D.**; Visbeck, M.; Tanhua, T.; Fischer, T.; Brandt, P.: VENTILATION OF THE EASTERN TROPICAL ATLANTIC OXYGEN MINIMUM ZONE BY MESOSCALE EDDY STIRRING AND TROPICAL ZONAL JETS

12:15 **Castillo-Trujillo, A. C.**; Flament, P.: WIND-FORCED MECHANISMS ON THE NONLINEAR VORTICITY BALANCE DERIVED FROM HIGH FREQUENCY DOPPLER RADAR (HFDR) CURRENTS

066 Collaborations and Partnerships In Ocean Research and Education

Chair(s): Barbara Bruno, barb@hawaii.edu
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Location: 318 AB

08:00 **Baptista, A. M.**; Green, V.; Bueno Watt, N.: INTEGRATING TRADITIONAL WAYS OF KNOWING WITH WESTERN SCIENCE, THROUGH COLLABORATIVE OPPORTUNITIES FOSTERED BY THE NETWORK OF NSF SCIENCE AND TECHNOLOGY CENTERS

08:15 **Dublin, R. A.**; Barnhardt, R. J.; Morrow, L. S.; Anderson, A.; Sigman, M.: STUDENT RESEARCH ON PEOPLE, OCEANS AND CLIMATE CHANGE: WEAVING TRADITIONAL ALASKA NATIVE KNOWLEDGE AND WESTERN SCIENCE TOGETHER AT SCIENCE FAIRS

08:30 **Smythe, W. F.**; McAllister, S. M.; Remple, K. L.; Young, B.; Baptista, A.: INCORPORATING TRADITIONAL KNOWLEDGE INTO GEOSCIENCE EDUCATION: A LOOK AT WATERSHEDS IN SOUTHEAST ALASKA

08:45 **Hatch, M. B.**: AMERICAN INDIAN STUDENT-DRIVEN RESEARCH AT THE SALISH SEA RESEARCH CENTER

09:00 **Waterhouse, J.**: INTEGRATING TRADITIONAL WAYS OF KNOWING AND WESTERN SCIENCE IN THE GLOBAL WATERSHED

09:15 **Thomas, F. I.**; Aikau, H.; Dulaiova, H.; Yoshioka, J. R.; Lemus, J.: COMMUNITY BASED PARTICIPATORY RESEARCH LINKS ACADEMIC DISIPLINES, COMMUNITY, AND MANAGEMENT

09:30 **Foley, J. M.**; Thompson, A. N.: TRADITIONAL KNOWLEDGE AND WESTERN MARINE SCIENCE IN HAWAI'I: SUCCESSES AND CHALLENGES IN YOUTH AND PUBLIC EDUCATION

09:45 Choy, C. A.; Noa, K.; **Bruno, B. C.**: SOEST MAILE MENTORING BRIDGE: BRINGING NATIVE HAWAIIANS INTO SCIENCE

10:30 **Scott, O.**; Johnson, A.; Williamson Whitney, V.; Ricciardi, L.; Siegfried, D.: MS PHD'S: USING VIRTUAL COMMUNITY PLATFORMS TO INTEGRATE DIVERSITY, COLLABORATIVE STRATEGIES AND EFFECTIVE PARTNERSHIPS IN OCEAN SCIENCE RESEARCH AND EDUCATION

10:45 **LaChance, R. S.**: SCIENTIFIC COMMUNITY EDUCATIONAL PARTNERSHIPS PROVIDE MIDDLE STUDENTS WITH OPPORTUNITIES, TOOLS, AND STRATEGIES TO EXPLORE MARINE ECOLOGY

11:00 **Lodes, K. M.**: MIDWEST TO MID-OCEAN; MAKING CONNECTIONS BETWEEN SCIENTISTS AND HIGH SCHOOL STUDENTS

11:15 Rivera, M. A.; **Manning, M. M.**; Gorospe, K. D.: RESEARCH EXPERIENCES IN MARINE SCIENCE (REMS) SUMMER HIGH SCHOOL PROGRAM AT THE HAWAI'I INSTITUTE OF MARINE BIOLOGY (HIMB)

11:30 **Peach, C. L.**; Villenueva, M.; Trecha, C.: ENGAGING TEACHERS AND SCIENTISTS IN THE TRANSITION TO NEXT GENERATION SCIENCE AND ENGINEERING STANDARDS

11:45 **Luther, R. A.**; Reader, H. E.: DEVELOPING STUDENT-SCIENTIST PARTNERSHIPS TO ENRICH UNDERGRADUATE SCIENCE EDUCATION, CULTIVATE SUSTAINABLE THINKING, AND FOSTER OCEAN STEWARDSHIP

12:00 **Foote, E. A.**; Diamond, J.: COLLABORATIVE EFFORTS THROUGH THE KA'ANAPALI MAKAI WATCH PROGRAM IN SUPPORT OF A UNIQUE PROTECTED AREA ON MAUI

12:15 **Ben McNeil, .**: HOW DO WE FUND YOUNG, RISKY, BLUE-SKY RESEARCH? NEW COLLABORATIVE FUNDING OPPORTUNITIES IN A DIGITAL AGE

073 Ocean Salinity and Water Cycle Variability and Change

Chair(s): Paul Durack, pauldurack@llnl.gov
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Bob Marsh, robert.marsh@noc.soton.ac.uk
Tony Lee, tlee@jpl.nasa.gov

Location: 323 ABC

08:00 **Lagerloef, G. S.**; Kao, H. Y.: AQUARIUS SATELLITE SALINITY MEASUREMENT ACCURACY AND SCIENCE ACHIEVEMENTS AFTER TWO YEARS

08:15 **Boutin, J.**; Reverdin, G.; Martin, N.; Yin, X.; Morisset, S.: SEA SURFACE SALINITY VARIABILITY: NEW INSIGHTS FROM SMOS AND IN SITU MEASUREMENTS

08:30 **Meissner, T.**; Wentz, F.; Hilburn, K.: THE AQUARIUS SALINITY RETRIEVAL ALGORITHM: CHALLENGES AND RECENT PROGRESS

08:45 **Tang, W.**; Yueh, S.; Lagerleof, G.; Fore, A.; Hayashi, A.: THE RAIN EFFECT ON AQUARIUS' SEA SURFACE SALINITY RETRIEVAL

09:00 **Jacob, M. M.**; Ebrahimi, H.; Santos-Garcia, A.; Jones, W. L.; Asher, W.: AQUARIUS SSS MEASUREMENTS IN RAIN: SCIENCE OR ERRORS?

09:15 **Drucker, R. S.**; Riser, S.: VALIDATION OF AQUARIUS SEA SURFACE SALINITY WITH ARGO: ANALYSIS OF ERROR DUE TO COLLOCATION AND VERTICAL SALINITY STRATIFICATION

09:30 **Reagan, J. R.**; Boyer, T. P.; Antonov, J. I.: COMPARISON ANALYSIS BETWEEN AQUARIUS SEA SURFACE SALINITY AND WORLD OCEAN DATABASE IN SITU ANALYZED SEA SURFACE SALINITY

09:45 **Melnichenko, O.**; Hacker, P.; Maximenko, N.; Potemra, J.: HIGH-RESOLUTION AQUARIUS SEA SURFACE SALINITY PRODUCTS FOR GLOBAL AND REGIONAL STUDIES

10:30 Zhang, H.; **Chao, Y.**: VALIDATE AQUARIUS SATELLITE MEASURED SEA SURFACE SALINITY WITH IN SITU DATA FROM SPURS

10:45 **Banks, C. J.**; Gommenginger, C. P.; Srokosz, M. A.; Snaith, H. M.: SEA SURFACE SALINITY: RESOLVING ISSUES OF TIME AND SPACE

11:00 Vazquez, J.; **Gierach, M. M.**; Lee, T.; Tsontos, V. M.: AQUARIUS AND SMOS DETECT EFFECTS OF AN EXTREME MISSISSIPPI RIVER FLOODING EVENT IN THE GULF OF MEXICO

11:15 **Matano, R. P.**; Combes, V.; Strub, P. T.: THE LA PLATA RIVER PLUME: AQUARIUS OBSERVATIONS AND NUMERICAL SIMULATIONS

11:30 Guan, B.; Halkides, D. J.; **Lee, T.**; Waliser, D. E.: SEA SURFACE SALINITY SIGNATURE OF THE MADDEN-JULIAN OSCILLATION IN TWO YEARS OF AQUARIUS OBSERVATIONS

11:45 **KAO, H.**; Lagerloef, G.: OBSERVING THE SALINITY FRONTS IN THE TROPICAL PACIFIC USING AQUARIUS OBSERVATIONS – A PRACTICAL APPLICATION FOR THE SPURS-2 PROJECT

12:00 **Vinogradova, N. T.**; Ponte, R. M.; Fukumori, I.; Wang, O.: CONSTRAINING FRESHWATER FLUXES AND OCEAN ESTIMATES WITH AQUARIUS AND SMOS SALINITY

12:15 **Bayler, E. J.**; Nadiga, S.; Mehra, A.; Behringer, D.: SENSITIVITY AND VERIFICATION STUDY OF THE ASSIMILATION OF SATELLITE SEA SURFACE SALINITY FIELDS IN AN NCEP OPERATIONAL OCEAN FORECAST SYSTEM

14:00 **Lago, V.**; Durack, P.; Wijffels, S.; Bindoff, N.; Marsland, S.: DIAGNOSING THE CAUSES OF SUBSURFACE OCEAN SALINITY AND TEMPERATURE CHANGE TO SURFACE USING IDEALIZED OCEAN MODEL EXPERIMENTS

14:15 Skliris, N.; **Marsh, R.**; Josey, S. A.; Liu, C. L.; Allen, R. P.: SALINITY CHANGES IN THE WORLD OCEAN SINCE 1950 IN RELATION TO CHANGING SURFACE FRESHWATER FLUXES

14:30 **Yu, L.**: SEA-SURFACE SALINITY DYNAMICS IN THE FRESHWATER REGIME

14:45 **Hasson, A. E.**; Delcroix, T.; Boutin, J.: FORMATION AND VARIABILITY OF THE SOUTH PACIFIC SEA SURFACE SALINITY MAXIMUM IN RECENT DECADES

15:00 **Zhang, L.**; Qu, T.: LOW FREQUENCY VARIABILITY OF SOUTH PACIFIC TROPICAL WATER FROM ARGO

15:15 **Delcroix, T.**; Radenac, M. H.; Cravatte, S.; Gourdeau, L.; Alory, G.: SEA SURFACE SALINITY AND TEMPERATURE SEASONAL CHANGES IN THE WESTERN SOLOMON AND BISMARCK SEAS

15:30 **Riser, S. C.**; Anderson, J.: MONSOON VARIABILITY AND THE DIURNAL CYCLES OF TEMPERATURE AND SALINITY IN THE BAY OF BENGAL

15:45 **McDonagh, E. L.**; King, B. A.; Bryden, H. L.; Johns, W. E.; Nurser, A. G.: SALINITY, HEAT AND FRESHWATER FLUXES ACROSS THE ATLANTIC AT 26NN: TIME SERIES AND THEIR VARIABILITY

074 Estuaries, What Are They Good for? A Tribute to the Work of Dr. Jonathan H. Sharp

Chair(s): Koty Sharp, sharpkh@eckerd.edu
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Jonathan (Josh) Sharp, jsharp@mines.edu

Location: 319 AB

08:00 **Cai, W.**: A TALE OF TWO ESTUARIES (THE DELAWARE AND CHESAPEAKE BAYS)—BUILDING CO2 SYSTEM RESEARCH ON A RICH LEGACY

08:15 **Gallegos, C. L.**: TWENTY YEARS OF PRIMARY PRODUCTION IN A EUTROPHIC SUBESTUARY

08:30 **Bergamaschi, B.**; Downing, B.; Saraceno, J.; Pellerin, B.; Fleck, J.: NEW INSIGHTS FROM CONTINUOUS MONITORING OF NUTRIENT DYNAMICS IN TIDAL WETLANDS

08:45 **Parker, A. E.**; Dugdale, R. C.; Wilkerson, F. P.: CONSIDERATION OF FORMS OF INORGANIC N WHEN EVALUATING THE IMPACT OF NUTRIENTS IN THE URBAN OCEAN: RESULTS FROM THE SAN FRANCISCO AND DELAWARE BAY ESTUARIES.

09:00 Herrmann, M.; **Najjar, R. G.**; Kemp, W. M.; Alexander, R. B.; Boyer, E. W.: NET ECOSYSTEM PRODUCTION AND ORGANIC CARBON BALANCE OF U.S. EAST COAST ESTUARIES: A SYNTHESIS APPROACH

09:15 **Kirchman, D. L.**; Stegman, M.; Nikrad, M.; Cottrell, M. T.: ACTIVITY OF AEROBIC ANOXYGENIC PHOTOTROPHIC BACTERIA IN THE DELAWARE ESTUARY AND ANTARCTIC COASTAL WATERS

09:30 **Boicourt, W. C.**; Scully, M. E.; Li, M.; Sanford, L. P.; Friedrichs, C. T.: THE ROLE OF WIND IN ESTUARINE CIRCULATION

09:45 **Rabalais, N. N.**; Turner, R. E.; Smith, L. M.: HOW TO PUT LONG-TERM DATA TO WORK: JON, WE DO HAVE HYPOXIA

10:30 **Twilley, R. R.**: NUTRIENT BIOGEOCHEMISTRY OF WETLAND-DOMINATED COASTAL SYSTEMS: MISSISSIPPI RIVER DELTAIC FLOODPLAIN

10:45 **Findlay, A. J.**; Gartman, A.; Hanson, T. E.; Luther, III, G. W.: DISTRIBUTION AND SIZE FRACTIONATION OF ELEMENTAL SULFUR ALONG REDOX GRADIENTS IN TWO MARINE ENVIRONMENTS: THE CHESAPEAKE BAY AND MID-ATLANTIC RIDGE

11:00 **Hopkinson, C. S.**; Cai, W. J.; Morris, J. T.; Kirwan, M. L.: CLIMATE CHANGE AND ESTUARINE WETLAND CARBON SEQUESTRATION

11:15 **Farrington, J. W.**: ESTUARINE AND COASTAL SHELLFISH AND POLYCYCLIC AROMATIC HYDROCARBONS: MORE COMPREHENSIVE RISK ASSESSMENTS NEEDED.

11:30 **Montagna, P. A.**: FRESHWATER INFLOW TO ESTUARIES: WATER RUN TO WASTE?

11:45 **Hoer, D. R.**; Tommerdahl, J. P.; Martens, C. S.: NITROGEN CYCLING BY SPONGES IN FLORIDA BAY, USA

12:00 **Harding, L. W.**; Adolf, J. E.; Miller, W. D.; Perry, E. S.; Mallonee, M. E.: CLIMATE EFFECTS ON PHYTOPLANKTON DYNAMICS IN CHESAPEAKE BAY

12:15 **Turner, R. E.**; Bodker, E.; Tweel, A.; Schulz, C.: CONSEQUENCES BELOWGROUND OF INCREASED NUTRIENT LOADING TO COASTAL MARSHES

079 Rising Sea Level: Contributions and Future Projections

Chair(s): Nadya Vinogradova, nadya@aer.com
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Tangdong Qu, tangdong@hawaii.edu

Location: 313 B

08:00 **Hernandez Fabrice, .**; Ferry Nicolas, .; GSOP Group, .: SEA LEVEL CHANGES FROM THE GSOP2012 MULTI-REANALYSIS ENSEMBLE STUDY

08:15 **Carson, M.**; Koehl, A.; Stammer, D.: REGIONAL MULTI-DECADAL AND CENTURY-SCALE INTERNAL SSH VARIABILITY IN CMIP5 MODELS

08:30 **Yin, J.**; Griffies, S. M.: CENTURY TO MULTI-CENTURY PROJECTIONS OF THE STERIC AND DYNAMIC SEA LEVEL WITH A SUITE OF CLIMATE MODELS

08:45 **Ocana, V.**; Zorita, E.; Heimbach, P.: DETERMINISTIC VS. STOCHASTIC TRENDS IN SEA LEVEL RISE

09:00 **Ponte, R. M.**; Piecuch, C. G.: MECHANISMS OF GLOBAL MEAN STERIC CHANGE AND IMPLICATIONS FOR SEA LEVEL SIMULATIONS AND PROJECTIONS

09:15 **Durack, P. J.**; Wijffels, S. E.; Gleckler, P. J.: REVISITING HALOSTERIC AND THERMOSTERIC SEA-LEVEL RISE

09:30 **Bellingham, C.**; Williams, R.; Holgate, S.; Hughes, C.: ESTIMATING THE MASS COMPONENT TO SEA LEVEL RISE FROM TIDE GAUGES, ALTIMETRY AND STERIC RECONSTRUCTIONS

09:45 **Leuliette, E. W.**; Miller, L.: WHAT DO ALTIMETRY, GRACE, AND ARGO IMPLY ABOUT DEEPOOCEAN WARMING?

10:30 **King, B. A.**; Desbruyères, D.; McDonagh, E. L.; Astley, A.; Garry, F. K.: DECADAL CHANGE OF THE DEEP AND UPPER OCEAN HEAT CONTENT OF THE NORTH-EAST ATLANTIC

10:45 **Yan, X. H.**; Wang, W. Q.; Hu, R. J.; Wu, X. B.; Klemas, V.: DEEPER OCEAN REMOTE SENSING AND DEEPER OCEAN RESPONSE TO GLOBAL CLIMATE CHANGE

11:00 **LLOVEL, W.**; FUKUMORI, I.; WANG, O.: QUANTIFYING THE CONTRIBUTION OF WIND STRESS AND DIABATIC FORCING TO DECADAL SEA LEVEL TRENDS OVER 1993-2010

11:15 **Frankcombe, L.**; Spence, P.; Hogg, A.; England, M.; Griffies, S.: SEA LEVEL CHANGES FORCED BY SOUTHERN OCEAN WINDS

11:30 **Marzeion, B.**; Richter, K.; Cogley, J. G.; Parkes, D.: ATTRIBUTION OF PAST GLACIER MASS LOSS TO ANTHROPOGENIC AND NATURAL CLIMATE FORCING

11:45 **Pickering, M. D.**; Blundell, J. R.; Hirschi, J. J.; Horsburgh, K. J.; Nicholls, R. J.: THE IMPACT OF FUTURE SEA-LEVEL RISE ON THE TIDES

12:00 **Widlansky, M. J.**; Timmermann, A.; McGregor, S.; Stuecker, M. F.; Chikamoto, Y.: PROJECTIONS OF EXTREME SEA LEVEL VARIABILITY DUE TO EL NIOO *TAIMASA*

12:15 **Reed, A. J.**; Mann, M. E.; Lin, N.; Kemp, A. C.; Emanuel, K. A.: IMPACTS OF SEA-LEVEL RISE, TROPICAL CYCLONES, AND CLIMATE CHANGE ON COASTAL INUNDATION IN NEW YORK AND NEW JERSEY

081 Climate Impacts On Living Marine Resources

Chair(s): Vincent S. Saba, vincent.saba@noaa.gov
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Location: 313 B

14:00 **Cabre, A.**; Marinov, I.; Leung, S.: CONSISTENT GLOBAL RESPONSES OF MARINE ECOSYSTEMS TO FUTURE CLIMATE CHANGE ACROSS THE IPCC AR5 EARTH SYSTEM MODELS

14:15 **Fratantoni, P.**; Li, Y.; Ji, R.; Chen, C.; Hare, J.: VARIABILITY OF STRATIFICATION ON THE NORTHWEST ATLANTIC SHELF AND ITS IMPLICATIONS FOR PLANKTON PRODUCTION

14:30 **Llopiz, J. K.**; Wuenschel, M.; Smith, B.; Hare, J.; Thorrold, S.: EVIDENCE FOR CLIMATE AND REGIME-SHIFT IMPACTS ON AN UPPER-LEVEL CONSUMER ON GEORGES BANK

14:45 **Di Lorenzo, E.**; Ohman, M. D.; Lluch-Cota, S.; Alexander, M.: A FILTERING-HYPOTHESIS TO EXPLAIN CLIMATE SYNCHRONY IN FISH POPULATIONS

15:00 **Kristiansen, T.**; Stock, C.; Drinkwater, K.; Curchitser, E. N.: MECHANISTIC INSIGHTS INTO THE EFFECTS OF CLIMATE CHANGE ON LARVAL COD

15:15 **Carozza, D. A.**; Galbraith, E. D.; Bianchi, D.: AN EARTH-SYSTEM PERSPECTIVE TO FISHERIES AND FISHERIES ECONOMICS

15:30 **Hollowed, A. B.**: PROJECTED IMPACTS OF CLIMATE CHANGE ON ARCTIC AND SUB-ARCTIC FISH AND FISHERIES

15:45 **Field, D. B.**; Rose, K.; Bringue, M.; Pospelova, V.; Ziveri, P.: IMPACTS OF 20TH CENTURY WARMING ON MARINE ECOSYSTEMS OF THE CALIFORNIA CURRENT

092 From VERTEX to GEOTRACES: Honoring Ken Bruland's Contributions to Marine Biogeochemical Cycles

Chair(s): Gregory Cutter, gcutter@odu.edu
Ana Aguilar-Islas, amaguilarislas@alaska.edu
Kristen Buck, kristen.buck@bios.edu
William Landing, wlanding@fsu.edu
Maeve Lohan, maeve.lohan@plymouth.ac.uk

Location: 317 AB

10:30 **Landing, W. M.**; Morton, P. L.; Shelley, R. U.; Resing, J. A.; Barrett, P. M.: DISSOLVED TRACE METALS IN THE NORTH ATLANTIC FROM 2003 TO 2013: RESULTS FROM THE A16N CLIVAR/REPEAT HYDROGRAPHY SECTIONS

10:45 **Barbeau, K. A.**; King, A. L.; Hopkinson, B. M.; Buck, K. N.; Bundy, R. M.: INVESTIGATIONS OF IRON BIOGEOCHEMISTRY IN THE SOUTHERN CALIFORNIA CURRENT SYSTEM

11:00 Hurst, M.; Janssen, D.; **Cullen, J. T.**; Bruland, K. W.: THE DISTRIBUTION AND SIZE-PARTITIONING OF TRACE METALS IN SURFACE WATERS OF THE BERING SEA

11:15 **Aguilar-Islas, A. M.**; Seguret, M.; Rember, R.; Stockwell, D.; Buck, K.: IRON AND RELATED PARAMETERS ALONG THE GULF OF ALASKA SHELF

11:30 **Moffett, J. W.**; Vedamati, J.: CONTRASTING BEHAVIOR OF IRON AND MANGANESE ON THE PERUVIAN SHELF ARISE FROM IRON "TRAPPING"

11:45 **Hawco, N. J.**; McIlvin, M. R.; Saito, M. A.: A MERIDIONAL COBALT SECTION FROM THE EQUATORIAL PACIFIC.

12:00 **Lohan, M. C.**; Wyatt, N.; Milne, A.; Middag, R.; Conway, T. M.: ZINC DISTRIBUTIONS IN THE ATLANTIC OCEAN: THE USE OF A NEW TRACER ZN*

12:15 **Rijkenberg, M.**; Middag, R.; Conway, T.; Bruland, K.; de Baar, H.: EXCELLENT CONSISTENCY OF DISSOLVED MANGANESE, IRON, COBALT, NICKEL, COPPER, ZINC, CADMIUM AND LEAD AT THE BERMUDA CROSSOVER STATION OF TWO GEOTRACES SECTIONS

14:00 **Boyle, E. A.**; Noble, A. E.; Echegoyen, Y.; Fornace, K.; Lee, J. M.: PB ISOTOPE SIGNALS IN THE ATLANTIC AND INDIAN OCEANS

14:15 **John, S. G.**; Conway, T. M.: THE ROLE OF SCAVENGING IN THE MARINE BIOGEOCHEMICAL CYCLING OF ZINC ISOTOPES, AND THE GLOBAL CORRELATION BETWEEN ZN AND SI

14:30 Measures, C. I.; **Hatta, M.**: WHAT CONTROLS DEEP WATER DISSOLVED AL CONCENTRATIONS IN THE N ATLANTIC?

14:45 **Shiller, A. M.**; Hatta, M.; Measures, C. I.: DISSOLVED GALLIUM AND GALLIUM/ALUMINUM RATIOS IN THE US GEOTRACES NORTH ATLANTIC ZONAL SECTION

15:00 **Parker, C. E.**; Bruland, K. W.: CONTRASTING GROUP 3 METALS: SCANDIUM, YTTRIUM, AND LANTHANUM REACTIVITY

15:15 **Nielsdottir, M. C.**; Cutter, G. A.: SPECIATION AND REDOX-CYCLING OF INORGANIC IODINE IN THE EASTERN PACIFIC

15:30 **Miller, L. A.**; Brown, K. A.; Else, B.; Papakyriakou, T. N.; Sutherland, N.: ADVENTURES ON SEA ICE: NEW IDEAS ABOUT AIR-SEA EXCHANGE IN POLAR WATERS

099 Proxy Records for Understanding Coastal and Oceanic Processes and Their Preservation In Present and Past

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Location: 315

14:00 **Marzocchi, A.**; Lunt, D. J.; Flecker, R.; Gladstone, R. M.; Hilgen, F. J.: ORBITAL FORCING CONTROL ON WESTERN-EASTERN MEDITERRANEAN SEA DYNAMICS IN THE LATE MIOCENE

14:15 **Abrantes, F.**; Lopes , C.; Romero, O.; Matos, L.: MEDIUM [SI] AND DIATOM PRESERVATION POTENTIAL IN SEDIMENTS

14:30 **Brumsack, H. J.**; Eckert, S.; Schnetger, B.; Severmann, S.; Weyer, S.: A GEOCHEMICAL COMPARISON OF THE EEMIAN AND HOLOCENE MARINE INGRESSIONS INTO THE BLACK SEA

14:45 **Schreiner, K. M.**; Bianchi, T. S.; Allison, M. A.; Eglinton, T. I.; Wacker, L.: CHANGES TO THE ALASKAN NORTH SLOPE CARBON CYCLE OVER THE LATE HOLOCENE: EVIDENCE FROM COLVILLE DELTA SEDIMENTS, BEAUFORT SEA, ALASKA

15:00 **Gill, G. A.**; Brandenberger, J. M.; Arrigo, L. M.; Keillor, M. E.; Hossbach, T. W.: SEDIMENT GEOCHRONOLOGY USING 32-SI AND ULTRA-SENSITIVE LOW BACKGROUND BETA DETECTION

15:15 **Williams, B.**; Wang, X.; Prokopenko, M.; Sigman, D.; Adkins, J. F.: ISOTOPIC COMPOSITION OF NITROGEN BOUND IN THE CALCIUM CARBONATE SKELETON OF DEEP-SEA CORALS – DEVELOPING A NEW PROXY

15:30 **Pedersen, J. B.**; Nielsen, J. M.; Matras, U.; Christensen, J. T.; Grønkjaer, P.: CAN STABLE N & C ISOTOPE RECORDS FROM OTOLITHS AND BIVALVE SHELLS REVEAL LONG TERM DIET CHANGES IN NORTH ATLANTIC COD?

15:45 **Wang, X. T.**; Sigman, D. M.; Cohen, A. L.; Sinclair, D. J.; Sherrell, R. M.: NITROGEN ISOTOPES OF CORAL SKELETON-BOUND ORGANIC MATTER: INFLUENCES IN THE MODERN OCEAN

100 Environmental Variability and Climate Change: Linking Environmental Variation and Organism Responses Across Scales

Chair(s): Christian Pansch, ch.pansch@gmail.com
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Joern Thomsen, jthomsen@geomar.de

Location: 304 AB

08:00 **Richier, S.**; Achterberg, E. P.; Suggett, D. J.; Tyrrell, T.; Moore, C. M.: SENSITIVITY OF PHYTOPLANKTON TO RAPID PH REDUCTION IS LINKED TO BUFFER CAPACITY

08:15 **Smolina, I.**; Kollias, S.; Moller, E. F.; Lindeque, P.; Hoarau, G. G.: TRANSCRIPTOME RESPONSE TO THERMAL STRESS IN TWO KEY ZOOPLANKTON SPECIES,*CALANUS FINMARCHICUS* AND *C. GLACIALIS*

08:30 **Maud, J. L.**; Atkinson, A.; Hirst, A. G.; Lindeque, P.; Harmer, R.: CALANUS HELGOLANDICUS AND A CHANGING CLIMATE: ANALYSIS OF A 25-YEAR TIME SERIES FROM THE ENGLISH CHANNEL

08:45 **Haynert, K.**; Schönfeld, J.; Thomsen, J.: RESPONSE OF BENTHIC FORAMINIFERA FROM COASTAL HABITATS TO OCEAN ACIDIFICATION

09:00 **Batta-Lona, P. G.**; Wiebe, P. H.; O'Neill, R.; Bucklin, A.: TRANSCRIPTOME-WIDE PROFILES OF GENE EXPRESSION OF *SALPA THOMPSONI* IN RELATION TO VARIATION OF THE PELAGIC ENVIRONMENT OF THE SOUTHERN OCEAN.

09:15 **Chan, K.**; García, E.; Dupont, S.: EFFECT OF OCEAN ACIDIFICATION ON SWIMMING OF LARVAL GREEN URCHINS IN FLOW

09:30 **Levin, L. A.**; Frieder, C.; Navarro, M.; Gonzalez, J.: GEOCHEMICAL PROXIES FOR LARVAL EXPOSURE TO LOW PH AND OXYGEN

09:45 **Styf, H. K.**; Nilsson Sköld, H.; Eriksson, S. P.: EMBRYONIC RESPONSES TO LONG-TERM EXPOSURE OF THE MARINE CRUSTACEAN, *NEPHROPS NORVEGICUS*, TO OCEAN ACIDIFICATION AND TEMPERATURE

10:30 **Pansch, C.**; Schaub, I.; Havenhand, J.; Wahl, M.: THE POTENTIAL OF A MARINE INVERTEBRATE TO ADAPT TO FUTURE OCEAN ACIDIFICATION

10:45 **Mazzuco, A. C.**; Ciotti, A. M.; Christofoletti, R. A.; Starczak, V. R.; Pineda, J.: THE INFLUENCE OF OCEANIC-CLIMATIC CONDITIONS IN RECRUITMENT IN DIFFERENT TEMPORAL SCALES: THE IMPORTANCE OF WIND, SEA SURFACE TEMPERATURE AND CHLOROPHYLL-A

11:00 **Menge, B. A.**; Gouhier, T. C.; Hacker, S. D.; Chan, F.; Nielsen, K. J.: OCEANOGRAPHIC AND ECOLOGICAL DRIVERS OF SPATIAL STRUCTURE IN A ROCKY INTERTIDAL META-ECOSYSTEM

11:15 **Jury, C. P.**; Thomas, F. I.; Atkinson, M. J.; Jokiel, P. L.; Toonen, R. J.: BUFFER CAPACITY, ECOSYSTEM FEEDBACKS, AND CORAL GROWTH UNDER ENVIRONMENTAL VARIABILITY

11:30 **Guadayol, O.**; Silbiger, N. J.; Donahue, M. J.; Thomas, F. I.: TURBULENT SCALES ALONG A GRADIENT OF ENVIRONMENTAL VARIABILITY ON A CORAL REEF

12:00 **Sogin, E. M.**; Putnam, H. M.; Paul, A. E.; Gates, R. D.: VARIATION IN CORAL METABOLITE PRODUCTION AFTER EXPOSURE TO GLOBAL CLIMATE CHANGE STRESSORS IS SPECIES SPECIFIC

12:15 **Silbiger, N. J.**; Guadayol, O.; Thomas, F. I.; Donahue, M. J.: REEFS SHIFT FROM NET ACCRETION TO NET EROSION WITH RISING OCEAN ACIDITY

102 The Chukchi Sea Region: Physical Forcing and Ecosystem Response In the Pacific Arctic

Chair(s): Jacqueline M. Grebmeier, jgrebmei@umces.edu
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Bill Williams, bill.williams@dfo-mpo.gc.ca

Location: 316 A

08:00 **Kent Moore, .**; Bob Pickart, .: A COUPLED ATMOSPHERE-OCEAN-SEA ICE INTERANNUAL OSCILLATION IN THE CHUKCHI AND THE BEAUFORT SEAS

08:15 **Danielson, S. L.**; Weingartner, T. J.; Hedstrom, K. S.; Aagaard, K.; Woodgate, R.: COUPLED WIND-FORCED CONTROLS OF THE BERING-CHUKCHI SHELF CIRCULATION AND THE BERING STRAIT THROUGHFLOW

08:30 **Gong, D.**; Pickart, R. S.: SUMMERTIME WATER MASS TRANSFORMATION IN THE CHUKCHI SEA

08:45 **Winsor, P.**; Weingartner, T. J.; Kasper, J. L.; Statscewich, H.; Potter, R. A.: HIGH-RESOLUTION HYDROGRAPHY OF THE NORTHEASTERN CHUKCHI SEA FROM AUV GLIDERS AND TOWED CTD SURVEYS – THE ALASKA COASTAL CURRENT, UPWELLING AND FRONTS

09:00 **Stabeno, P. J.**; Kachel, N. B.; Ladd, C.; Napp, J. M.: THE CHAOZ PROJECT: INFLUENCE OF CLIMATE VARIABILITY ON THE NORTHEASTERN CHUKCHI ECOSYSTEM

09:15 **Nobre, C.**; Pickart, R. S.: EVOLUTION OF WATER MASSES IN BARROW CANYON DURING SUMMER/FALL: FIRST RESULTS FROM THE DBO INTERNATIONAL TRANSECTS 2010-13

09:30 **Okkonen, S. R.**; Ashjian, C. A.; Campbell, R. G.; Stafford, K. M.; Clarke, J. T.: VARIABILITY OF LATE SUMMER OCEANOGRAPHIC CONDITIONS IN BARROW CANYON

09:45 Nechaev, D.; **Panteleev, G.**; Zhang, J.; Kikuchi , T.: VARIABILITY OF THE CIRCULATION IN THE PACIFIC SECTOR OF ARCTIC OCEAN DERIVED BY 4DVAR ASSIMILATION OF AVAILABLE OBSERVATIONS

10:30 **KIKUCHI, T.**; NISHINO, S.; WATANABE, E.: HOPE VALLEY DOME (I): WATER-MASS CHARACTERISTICS AND FORMATION MECHANISM

10:45 **Pickart, R. S.**; Spall, M. A.; Schulze, L. M.; Moore, G. W.; Brugler, E.: ROLE OF SHELFBREAK UPWELLING ON PRIMARY PRODUCTIVITY IN THE BEAUFORT AND CHUKCHI SEAS

11:00 **Whitledge, T. E.**; Lee, S. H.: DECADAL CHANGES OF NUTRIENTS, PIGMENTS AND PRIMARY PRODUCTION IN BERING STRAIT AND THE CHUKCHI SEA

11:15 **Cooper, L. W.**; Frey, K. E.; Wood, C. L.; Grebmeier, J. M.: MELTED SEA ICE IN AN UNDER-ICE PHYTOPLANKTON BLOOM IN THE CHUKCHI SEA

11:30 **Palmer, M. A.**; Arrigo, K. R.; Saenz, B. T.: MODELING THE IMPACTS OF SEA ICE RETREAT, THINNING, AND MELT POND PROLIFERATION ON THE SUMMER PHYTOPLANKTON BLOOM IN THE CHUKCHI SEA, ARCTIC OCEAN

11:45 **Brown, Z. W.**; Lowry, K. E.; Mills, M. M.; Van Dijken, G. L.; Arrigo, K. R.: CHARACTERIZING THE SUBSURFACE CHLOROPHYLL A MAXIMUM IN THE CHUKCHI SEA AND CANADA BASIN

12:00 **Kinzler, K. P.**; McHugh, C.; Aumack, C.; Juhl, A.; Neuer, S.: TEMPORAL AND SPATIAL EXPORT VARIABILITY OF ALGAL COMMUNITIES FROM LAND FAST ARCTIC SEA ICE

12:15 **Dolan, J. R.**; Yang, E. J.; Kim, T. W.; Kang, S. H.: MICROZOOPLANKTON IN A WARMING ARCTIC? TINTINNIDS AND RADIOLARIANS OF THE CHUKCHI SEA IN THE CONTRASTING SUMMERS OF 2011 AND 2012

14:00 **Ashjian, C. J.**; Campbell, R. G.; Okkonen, S. R.: ZOOPLANKTON OF THE CHUKCHI AND NORTHERN BERING SEAS IN LATE FALL/EARLY WINTER 2011

14:15 **Dunton, K. H.**; Schonberg, S. V.; Saupe, S. M.: INVENTORIES AND TROPHIC RELATIONSHIPS OF THE NORTHEASTERN CHUKCHI SHELF BENTHIC FAUNA

14:30 **Blanchard, A. L.**; Dasher, D. H.; Jewett, S. C.; Hoberg, M. K.: TEMPORAL VARIATIONS OF MACROBENTHIC COMMUNITIES IN THE NORTHEASTERN CHUKCHI SEA

14:45 **Stafford, K. M.**; Clarke, J. T.; Moore, S. E.: ACOUSTIC AND VISUAL DETECTIONS OF SUB-ARCTIC CETACEANS IN THE SOUTHERN CHUKCHI SEA-BERING STRAIT REGION, 2009-2012

15:00 **Jay, C. V.**; Fischbach, A. S.; Grebmeier, J. M.; Kochnev, A. A.; Cooper, L. W.: PACIFIC WALRUS HABITAT USE IN THE NORTHERN BERING AND CHUKCHI SEAS

15:15 **Gall, A. E.**; Day, R. H.; Morgan, T. C.; Kuletz, K.: SHIFTS IN THE SEABIRD COMMUNITY OF THE CHUKCHI SEA OVER FOUR DECADES: A SEA CHANGE IN STRUCTURE?

15:30 **Bluhm, B. A.**; Holladay, B. A.; Huettmann, F.; Iken, K. B.; Norcross, B. L.: DEMERSAL FISH ASSEMBLAGES IN THE CHUKCHI SEA: OBSERVATIONS AND PREDICTIONS

15:45 **Grebmeier, J. M.**; Cooper, L. W.; Frey, K. E.; Moore, S. E.; Pickart, R. S.: THE DISTRIBUTED BIOLOGICAL OBSERVATORY: A CHANGE DETECTION ARRAY TO TRACK PHYSICAL DRIVERS AND ECOSYSTEM RESPONSE IN THE PACIFIC ARCTIC

123 The Molecular Chemistry and Microbial Biology of Marine Dissolved Organic Matter (DOM) Composition and Cycling

Chair(s): Daniel Repeta, drepeta@whoi.edu
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Location: 317 AB

08:00 **Guo, W.**; Yang, L.; Zhai, W.; Chen, W.; Osburn, C. L.: RUNOFF-MEDIATED SEASONAL OSCILLATION IN THE DYNAMICS OF DISSOLVED ORGANIC MATTER IN DIFFERENT BRANCHES OF A LARGE BIFURCATED ESTUARY

08:15 **Ward, N. D.**; Krusche, A. V.; Keil, R. G.; Brito, D. C.; Richey, J. E.: THE EVOLUTION OF ORGANIC MATTER ALONG THE LOWER AMAZON RIVER CONTINUUM–BBIDOS TO THE OCEAN

08:30 **Seidel, M.**; Ward, N. D.; Krusche, A. V.; Dittmar, T.; Medeiros, P. M.: BIOGEOCHEMISTRY OF DISSOLVED ORGANIC MATTER IN THE RIVER TO OCEAN CONTINUUM OF THE AMAZON

08:45 **Schiebel, H. N.**; Wang, X.; Peri, F.; Chen, R. F.; Gardner, G. B.: A CARBON OUTWELLING BUDGET FOR A NEW ENGLAND SALT MARSH

09:15 **Reader, H. E.**; Stedmon, C. A.; Kritzberg, E. S.: MOLECULAR FINGERPRINTS OF TERRESTRIAL DOM REACTIVITY IMPACTS ON THE MARINE ENVIRONMENT

09:30 **Heil, C. A.**; Countway, P.; Poulton, N.; Jaques, Z.: EFFECTS OF RIVERINE DISSOLVED HUMIC COMPOUNDS ON MARINE MICROBIAL COMMUNITY COMPOSITION IN THE GULF OF MAINE

09:45 **Panneer Selvam, B.**; Karlsson, J.; Berggren, M.: TRACKING LONG TERM REACTIVITY OF DISSOLVED ORGANIC CARBON (DOC) EXPORTED FROM TERRESTRIAL TO AQUATIC SYSTEMS

124 Boundary Currents, Eddies, and Water Mass Transformation At High Latitudes

Chair(s): Michael Spall, mspall@whoi.edu
Paal Erik Isachsen, palei@met.no

Location: 312

08:00 **Våge, K.**; Pickart, R. S.; Spall, M. A.; Moore, G. K.; Valdimarsson, H.: REVISED CIRCULATION SCHEME NORTH OF THE DENMARK STRAIT

08:15 **Kanzow, T.**; Schaffer, J.; Nunes, N.; Tippenhauer, S.; Jochumsen, K.: A MULTI-PLATFORM STUDY OF ENTRAINMENT BY (SUB-)MESOSCALE PROCESSES IN THE DENMARK STRAIT OVERFLOW PLUME

08:30 **Harden, B. E.**; Pickart, R. S.; Bahr, F.; Torres, D.: MOORED OBSERVATIONS OF THE NORTH ICELANDIC JET UPSTREAM OF DENMARK STRAIT

08:45 **Jimenez-Urias, M. A.**; Thompson, L.: EFFECT OF FRONTAL INSTABILITIES ON HEAT TRANSPORT ACROSS MOUNTAIN RIDGES, WITH IMPLICATIONS FOR THE ICELAND-FAROE RIDGE.

09:00 **Beaird, N. L.**; Rhines, P. B.; Eriksen, C. C.: EVIDENCE OF DIRECT EXCHANGE OF LOW SALINITY INTERMEDIATE WATERS ACROSS THE ICELAND-FAROE FRONT IN WINTER

09:15 **Léon Chafik, L. C.**; Johan Nilsson, J. N.; Øystein Skagseth, Ø. S.: ON THE COHERENCY OF THE NORWEGIAN ATLANTIC SLOPE CURRENT

09:30 **Katrin Latarius, .**; Detlef Quadfasel, .: INDIRECT ESTIMATE OF FLUXES BETWEEN BOUNDARY CURRENT AND DEEP BASINS IN THE NORDIC SEAS: HEAT AND FRESHWATER BUDGETS

09:45 **Richards, C. G.**; Straneo, F.: TRANSFORMATION OF ATLANTIC WATER IN THE LOFOTEN BASIN FROM 2 YEARS OF MOORED DATA

10:30 **Bacon, S.**: ARCTIC FRESHWATER AND HEAT FLUXES: VARIABILITY, AND ASSESSMENT

10:45 **Timmermans, M. L.**; Proshutinsky, A.; Goloubeva, E.; Krishfield, R.; Toole, J.: PROPERTIES AND PATHWAYS OF THE ARTIC'S PACIFIC SUMMER WATER: 2003 – 2013

11:00 **Curry, B.**; Lee, C. M.; Petrie, B.; Mortiz, R. E.; Kowk, R.: MULTI-YEAR OBSERVATIONAL STUDY OF DAVIS STRAIT TRANSPORTS

11:15 **Lique, C.**; Johnson, H. L.; Davis, P. E.: ON THE INTERPLAY BETWEEN THE CIRCULATION OF THE SURFACE AND INTERMEDIATE LAYERS OF THE ARCTIC OCEAN

11:30 **Spall, M. A.**: A SIMPLE MODEL FOR THE HALOCLINE AND CIRCULATION OF ATLANTIC WATER IN THE ARCTIC OCEAN

11:45 **Aksenov, Y.**; Bacon, S.; Regan, H. C.; Nurser, A. G.; Coward, A. C.: PRECONDITIONING ARCTIC OUTFLOWS WEST AND EAST OF GREENLAND: OCEAN CIRCULATION IN THE LINCOLN SEA AND WESTERN FRAM STRAIT IN EDDY PERMITTING GLOBAL OCEAN MODELS

12:00 **Nilsen, F.**; Vaardal-Lunde, J.; Skogseth, R.: A SIMPLE TOPOGRAPHICALLY CONTROLLED SHELF CIRCULATION MODEL - INTRUSION OF ATLANTIC WATER ON AN ARCTIC SHELF

12:15 **Fukumori, I.**; Wang, O.; Llovel, W.: OBSERVATIONS AND MECHANISMS OF NEAR-UNIFORM SEA LEVEL AND OCEAN BOTTOM PRESSURE FLUCTUATIONS SPANNING THE ARCTIC OCEAN AND THE NORDIC SEAS

14:00 **Stewart, A. L.**; Thompson, A. F.: WATER MASS EXCHANGE ACROSS THE ANTARCTIC SLOPE FRONT

14:15 **Jamieson, A.**; Thompson, A. F.; Dalziel, S. B.; Heywood, K. J.: VARIABILITY IN THE ANTARCTIC SLOPE FRONT IN THE NORTHWESTERN WEDDELL SEA

14:30 **Poulin, F. J.**; Stegner, A.: STEEP SHELF STABILISATION OF THE BRANSFIELD COASTAL CURRENT

14:45 **Janout, M. A.**; Aksenov, Y.; Rabe, B.; Schauer, U.; Lenn, Y. D.: FORCING, PATHWAYS AND VARIABILITY OF THE ARCTIC FRESHWATER-DRIVEN VILKITSKY STRAIT CURRENT: MODEL AND OBSERVATIONS

15:00 **Xu, X.**; Rhines, P. B.; Chassignet, E. P.; Schmitz Jr., W. J.: SPREADING OF DENSE OVERFLOW WATERS IN THE NORTHWESTERN ATLANTIC: INSIGHTS FROM EDDY-RESOLVING SIMULATIONS AND OBSERVATIONS OF PASSIVE AND DYNAMICAL TRACERS

15:15 **de Jong, M. F.**; Bower, A. S.; Furey, H. H.: SEASONAL CHANGES IN THE PROPERTIES OF IRMINGER RINGS SHED BY THE WEST GREENLAND CURRENT

15:30 **Yasuda, Y.**; Spall, M. A.: EXAMINATION OF RESPONSE OF THERMOHALINE CIRCULATION TO CHANGES IN PRECIPITATION IN A TWO-DIMENSIONAL DYNAMICAL SYSTEM

15:45 **Zhai, P.**; Pratt, L.; Bower, A.: ON THE CROSSOVER OF BOUNDARY CURRENTS IN AN IDEALIZED MODEL OF THE RED SEA

142 Understanding and Simulating ENSO In Past, Present and Future Climates

Chair(s): Pedro Di Nezio, pdn@hawaii.edu
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Fei-Fei Jin, ckaramp@hawaii.edu
Axel Timmermann, ckaramp@hawaii.edu

Location: 313 A

10:30 **McGregor, S.**; Timmermann, A.; England, M. H.; Elison Timm, O.; Wittenberg, A. T.: INFERRED CHANGES IN EL NIOO-SOUTHERN OSCILLATION VARIANCE OVER THE PAST SIX CENTURIES

10:45 **Takahashi, K.**; Martinez, A. G.; Mosquera-Vasquez, K. A.: THE STRONG FAR-EASTERN PACIFIC EL NINOO IN 1925-26, REVISITED

11:00 **Boucharel, J.**; Timmermann, A.; Jin, F. F.; England, M.; Santoso, A.: A VARIANCE HEAT BUDGET OF ENSO

11:15 **Santoso, A.**; McGregor, S.; Jin, F. F.; Cai, W.; England, M. H.: MORE FREQUENT EMERGENCE OF EL NIOO PROPAGATION ASYMMETRY DUE TO GREENHOUSE WARMING

11:30 **Stuecker, M. F.**; Timmermann, A.; Jin, F. F.; McGregor, S.; Ren, H. L.: A COMBINATION MODE OF ANNUAL CYCLE AND THE EL NIOO-SOUTHERN OSCILLATION: GENESIS, IMPACTS AND ATTRIBUTION OF AIR/SEA COUPLING

11:45 **ZHENG, W.**; CHEN, L.; YU, Y.: ANALYSIS OF THE ENSO STABILITY IN THE MID-HOLOCENE SIMULATIONS OF PMIP MODELS

12:00 **Kim, S.**; Cai, W.; Jin, F.; Santoso, A.: EL NIOO RESPONSE TO GREENHOUSE WARMING DUE TO TIME-VARYING INDO-PACIFIC DIFFERENTIAL WARMING

12:15 **Okumura, Y. M.**: ORIGINS OF TROPICAL PACIFIC DECADAL VARIABILITY: ROLE OF STOCHASTIC ATMOSPHERIC FORCING FROM THE SOUTH PACIFIC

14:00 **Jin, F.**; Levine, A.: MULTIPLICATIVE NOISE FORCING, EL NINO ASYMMETRY, AND SUPER EL NINO EVENTS

14:15 **Zhang, C.**; Kapur, A.: ENSO IRREGULARITY: THE ROLE OF MULTIPLICATIVE MJO

14:30 **Chiodi, A. M.**; Harrison, D. E.; Vecchi, G. A.: SUBSEASONAL ATMOSPHERIC VARIABILITY AND EL NIOO WAVEGUIDE WARMING; OBSERVED EFFECTS OF THE MADDEN-JULIAN OSCILLATION AND WESTERLY WIND EVENTS

14:45 **Chen, C.**; Cane, M. A.; Wittenberg, A. T.; Chen, D.; Henderson, N.: EVOLUTIONARY CHARACTERISTICS AND PREDICTABILITY OF ENSO DIVERSITY

15:00 **Yamazaki, K.**; Imada, Y.; Watanabe, M.: SEA SURFACE TEMPERATURE ANOMALY IN THE NORTH TROPICAL ATLANTIC AND ITS ROLE IN THE SEASONAL PREDICTABILITY OF ENSO

15:15 **Munnich, M.**; Frischknecht, M.; Gruber, N. P.: LOCAL VERSUS REMOTE RESPONSE OF THE CALIFORNIA CURRENT SYSTEM TO ENSO

15:30 **Duprey, N. N.**; Galipaud, J. C.; Cabioch, G.; Lazareth, C. E.: THE OLD MAN AND THE GIANT CLAM

15:45 **Rafter, P. A.**; Sigman, D. M.; Haug, G. H.; Bernasconi, S. M.: A 4 MILLION YEAR VIEW OF EQUATORIAL PACIFIC NUTRIENT AND UPPER OCEAN DYNAMICS

144 Viruses In the Sea – the Molecular Engineers and Architects of Plankton Communities

Chair(s): Grieg Steward, grieg@hawaii.edu
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Kristina Mojica, Kristina.Mojica@nioz.nl
Jaclyn Mueller, mueller3@hawaii.edu

Location: 310 Theater

08:00 **Brussaard, C.**; Maat, D.: THE DIFFERENTIAL EFFECTS OF NUTRIENT-LIMITATION AND IRRADIANCE LEVEL ON VIRUS-HOST MODEL SYSTEMS IN A CHANGING OCEAN

08:15 **Bidle, K. D.**; Van Mooy, B. A.; Vardi, A.; DiTullio, G.; Coolen, M. J.: LUBRICATION OF OCEANIC CARBON AND SULFUR CYCLING BY A HOST-VIRUS CHEMICAL ARMS RACE: 'NORTH ATLANTIC VIRUS INFECTION OF COCCOLITHOPHORES EXPEDITION' (NAVICE)

08:30 **Carlson, M. G.**; McCary, N.; Rocap, G. L.: HOST RANGE AND SEASONALITY OF PSEUDO-NITZSCHIA VIRUSES

08:45 **Allen, L. Z.**; McCrow, J. P.; Tran, D. N.; McQuaid, J. B.; Allen, A. E.: USING TRANSCRIPTOMICS TO INVESTIGATE RNA VIRUSES AND THEIR ASSOCIATION WITH EUKARYOTIC PHYTOPLANKTON

09:00 **Våge, S.**; Storesund, J. E.; Thingstad, T. F.: TRADE-OFFS BETWEEN COMPETITION AND VIRAL DEFENSE STRUCTURE PELAGIC MICROBIAL FOOD WEBS

09:15 **Brum, J. R.**; Hurwitz, B. L.; Schofield, O.; Ducklow, H. W.; Sullivan, M. B.: SEASONAL TIME BOMBS: TEMPERATE VIRUSES DOMINATE THE SOUTHERN OCEAN AND SUBSTANTIALLY AFFECT MICROBIAL DYNAMICS

09:30 **Lindell, D.**; Baran, N.; Dekel-Bird, N. P.; Kirzner, S.; Maidanik, I.: A NOVEL SINGLE-VIRUS PCR METHOD REVEALS THAT T7-LIKE CYANOPODOVIRUSES ENCODING THE *PSBA* GENE ARE ABUNDANT IN THE RED AND MEDITERRANEAN SEAS

09:45 **Martinez Martinez, J.**; Orcutt, B.: VIRUS-HOST DIVERSITY AND INTERACTIONS IN THE JUAN DE FUCA RIDGE FLANK DEEP BIOSPHERE.

159 CLIVAR: Ocean and Atmosphere Variability, Predictability and Change

Chair(s): Lisa Goddard, goddard@iri.columbia.edu
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Martin Visbeck, mvisbeck@geomar.de
Aaron Donohoe, thedhoe@mit.edu

Location: 311

08:00 **Goddard, L.**: DECADAL PREDICTABILITY AND PREDICTION: A FORECASTER'S PERSPECTIVE

08:15 **Meehl, G. A.**; Teng, H.: COULD WE HAVE PREDICTED THE EARLY-2000S HIATUS IN THE 1990S?

08:30 **Danabasoglu, G.**; Drange, H.; Griffies, S. M.; Pirani, A.; Yeager, S. G.: COORDINATED OCEAN-ICE REFERENCE EXPERIMENTS PHASE II (CORE-II)

08:45 **Legler, D.**: NOAA'S OCEAN CLIMATE OBSERVATION PROGRAM

09:00 **Talley, L. D.**; Feely, R. A.; US Repeat Hydrography Oversight Committee, .: CHANGES IN OCEAN HEAT, VENTILATION AND OVERTURNING: REVIEW OF THE FIRST DECADE OF U.S. REPEAT HYDROGRAPHY (GO-SHIP)

09:30 **Yu, W.**; Liu, L.; Davis, C.; Xue, L.; Ning, C.: PILOT CRUISE RESULS OF EASTERN INDIAN OCEAN UPWELLING INITIATIVE AND ITS PERSPECTIVE

10:30 Patara, L.; **Boening, C. W.**: SIMULATED STRENGTHENING OF THE ATLANTIC MERIDIONAL OVERTURNING CIRCULATION IN RESPONSE TO ABYSSAL OCEAN WARMING AROUND ANTARCTICA

10:45 **Meinen, C.**; Speich, S.; Perez, R.; Dong, S.; Piola, A.: TEMPORAL VARIABILITY OF THE MERIDIONAL OVERTURNING CIRCULATION AT 34.5SS: RESULTS FROM TWO PILOT BOUNDARY ARRAYS IN THE SOUTH ATLANTIC

11:00 **Donohoe, A.**; Marshall, J.; Green, B.; Armour, K.; Ferreira, D.: ON WHAT TIMESCALE DOES THE ATLANTIC MERIDIONAL OVERTURNING CIRCULATION INFLUENCE THE ATMOSPHERE?

11:15 **Joyce, T. M.**: SOME NEW PERSPECTIVES ON FRONTAL AIR-SEA EXCHANGE OVER THE GULF STREAM IN CLIMODE

11:30 **Nakamura, H.**; Ogawa, F.; Nishii, K.; Miyasaka, T.; Kuwano-Yoshida, A.: POTENTIAL IMPORTANCE OF A MIDLATITUDE OCEANIC FRONTAL ZONE IN THE ATMOSPHERIC ANNULAR-MODE VARIABILITY

12:00 **O'Reilly, C. H.**; Czaja, A.: THE RESPONSE OF THE PACIFIC STORM TRACK AND ATMOSPHERIC CIRCULATION TO KUROSHIO EXTENSION VARIABILITY

12:15 **Gulev, S.**; Tilinina, N.: EXTREME AIR-SEA SURFACE FLUXES IN MID LATITUDES - ORIGINS AND MECHANISMS

14:00 **Brandt, P.**; Funk, A.; Tantet, A.; Johns, W.; Fischer, J.: EQUATORIAL CIRCULATION AND TROPICAL ATLANTIC VARIABILITY DURING THE TROPICAL ATLANTIC CLIMATE EXPERIMENT

14:15 **Hummels, R.**; Dengler, M.; Brandt, P.; Schlundt, M.: MIXED LAYER HEAT AND FRESHWATER BUDGETS IN THE TROPICAL ATLANTIC: IMPROVEMENTS DURING TACE

14:30 **Dengler, M.**; Hummels, R.; Brandt, P.; Fischer, T.; Krahmann, G.: UPPER OCEAN MIXING OBSERVATIONS DURING TACE: MIXING PROCESSES IN THE EQUATORIAL ATLANTIC VS. PACIFIC

14:45 **Perez, R. C.**; Hormann, V.; Lumpkin, R.; Brandt, P.; Johns, W. E.: MEAN MERIDIONAL CURRENTS IN THE CENTRAL AND EASTERN EQUATORIAL ATLANTIC

15:00 **Papapapostolou, A.**; Johns, W.; Brandt, P.; Bourles, B.; Jouanno, J.: SEASONAL MOMENTUM BALANCE OF THE ATLANTIC EQUATORIAL UNDERCURRENT (EUC)

15:15 **Hahn, J.**; Brandt, P.; Greatbatch, R. J.; Krahmann, G.; Körtzinger, A.: OXYGEN VARIANCE AND MERIDIONAL OXYGEN SUPPLY IN THE TROPICAL NORTH EAST ATLANTIC OXYGEN MINIMUM ZONE

15:30 **Fine, R. A.**; Peacock, S.; Maltrud, M. E.; Bryan, F. O.: A NEW LOOK AT OCEAN VENTILATION TIMESCALES

15:45 **Chikamoto, Y.**; Timmermann, A.; Schneider, N.; Widlansky, M.; Langford, S.: SYSTEM FOR INTERANNUAL-TO-DECADAL CLIMATE PREDICTION USING THE EARTH SYSTEM MODEL CESM

166 Aquatic Biology

Chair(s): Carmen Aguilar, aguilar@uwm.edu

Location: 301 AB

08:00 **Koppelmann, R.**: GEOCHEMISTRY AND ECOLOGY OF THE NAMIBIAN UPWELLING SYSTEM (GENUS) – FROM PLANKTON TO BENTHOS

08:15 **Rhodes, A. C.**; Purtle, G.: ENVIRONMENTAL FACTORS THAT INFLUENCE SPECIES DISTRIBUTIONS AT HYDROTHERMAL VENTS, COLD SEEPS AND WHALE FALLS WORLDWIDE

08:30 **Morgan, N. B.**; Baco, A. R.: THE ENIGMATIC NECKER RIDGE: INSIGHTS INTO FAUNA AND COMPARISON TO THE HAWAIIAN ARCHIPELAGO

08:45 **Bonato, S.**; Artigas, L. F.; Lizon, F.; Lefèbvre, A.; Christaki, U.: PHYTOPLANKTON DISTRIBUTION ASSESSED BY HIGH-FREQUENCY FLOW CYTOMETRY, IN SPRING, ACROSS THE EASTERN CHANNEL

09:00 **Bi, R.**; Arndt, C.; Sommer, U.: LINKING ELEMENTS TO BIOCHEMICALS: EFFECTS OF NUTRIENT SUPPLY RATIOS AND GROWTH RATES ON FATTY ACID COMPOSITION OF PHYTOPLANKTON

09:15 **Semcheski, M. R.**; Egerton, T. A.; Marshall, H. G.: COMPARATIVE ANALYSES OF COMPOSITION AND PRODUCTIVITY OF PHYTOPLANKTON AND INTERTIDAL BENTHIC MICROALGAL COMMUNITIES IN LOWER CHESAPEAKE BAY.

09:30 Goodwin, D. S.; **Schell, J. S.**; Siuda, A. N.: SARGASSUM NATANS AND S. FLUITANS EXHIBIT GEOGRAPHICALLY DISTINCT DISTRIBUTIONS IN A 20-YEAR NEUSTON NET DATASET FROM THE WESTERN NORTH ATLANTIC

09:45 **Holcomb, M.**; Venn, A. A.; Tambutte, E.; Tambutte, S.; McCulloch, M.: RESPONSE OF CORAL CALCIFICATION TO ACIDIFICATION TRACKS VARIATIONS IN CALCIFYING FLUID PH

10:30 **Sigl, R.**; Settles, M.; Laforsch, C.: DOES PLASTICITY HELP ACANTHASTER PLANCI OUTBREAKS TO SPREAD?

10:45 **Smee, D. L.**; Overath, R. D.; Johnson, K. D.; Sanchez, J. A.: INTRASPECIFIC DIVERSITY AFFECTS ECOLOGICAL FUNCTIONS

11:00 **Pinheiro, I. G.**; Layman, C. A.; Leite, T. S.; Castello, J. P.: TROPHIC ECOLOGY OF FISH PREDATORS AN ISOLATED EQUATORIAL ISLAND

11:15 **Morales-Núñez, A. G.**; Chigbu, P.: AMPHIPODA (CRUSTACEA) IN MARYLAND COASTAL BAYS: ABUNDANCE, SPECIES COMPOSITION, AND DISTRIBUTION IN RELATION TO MACROALGAE

11:30 **Oghenekaro, E. U.**; Chigbu, P.: SEASONALITY AND SPATIAL DISTRIBUTION OF CLADOCERANS IN THE MARYLAND COASTAL BAYS

11:45 **Darnell, K. M.**; Dunton, K. H.: THE INFLUENCE OF NUTRIENT AVAILABILITY ON TURTLEGRASS REPRODUCTIVE STATUS

12:00 **Chacin, D. H.**; Stallings, C. D.: DISENTANGLING LOCAL AND SEASCAPE-LEVEL EFFECTS OF HABITAT ON PREDATOR-PREY INTERACTIONS

12:15 **Sancho, G.**; Miller, J.; Escartin, J.; Barreyre, T.; Garcia, R.: USE OF PHOTOMOSAIC IMAGES TO CHARACTERIZE FISH COMMUNITIES AT LUCKY STRIKE HYDROTHERMAL VENT SITE

173 New Conceptual and Experimental Approaches to Investigate the Effects of Multiple Environmental Drivers On Ocean Biota

Chair(s): Philip Boyd, pboyd@chemistry.otago.ac.nz
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Jean-Pierre Gattuso, gattuso@obs-vlfr.fr

Location: 313 A

08:00 **Kline, D. I.**; Teneva, L.; Schneider, K.; Dove, S.; Hoegh-Guldberg, O.: A 200-DAY IN SITU EXPERIMENT REVEALS THAT THERE WILL LIKELY BE NET DISSOLUTION OF CORAL REEFS IN A HIGH CO_2 FUTURE

08:15 **Martinez-Rey, J.**; Tagliabue, A.; Hutchins, D.; Beman, M.; Gehlen, M.: OCEAN ACIDIFICATION EFFECTS ON THE MARINE NITROGEN CYCLE: GLOBAL CHANGES IN N_2-FIXATION AND NITRIFICATION IN THE 21ST CENTURY

08:30 **Cheng, B. S.**; Bible, J. M.; Ferner, M. C.; Wasson, K.; Grosholz, E. D.: EXISTING LOCAL ENVIRONMENTAL STRESS CAN OUTWEIGH CLIMATE CHANGE: THE IMPORTANCE OF TEMPORAL DYNAMICS IN A MULTI-STRESSOR ESTUARINE SYSTEM

08:45 **Irwin, A. J.**; Finkel, Z. V.: TESTING THE STABILITY OF THE REALIZED NICHES OF PHYTOPLANKTON IN RESPONSE TO A CHANGING CLIMATE

09:00 **Kristy, K. J.**; Gaylord, B.; Hill, T. M.; Sanford, E.: THE ROLE OF TEMPERATURE IN DETERMINING SPECIES VULNERABILITY TO OCEAN ACIDIFICATION

09:15 **Boyd, P. W.**; Doney, S. C.; Glover, D.; Lennartz, S.: NEW APPROACHES TO DESIGNING COMPLEX ENVIRONMENTAL MANIPULATIONS OF MARINE PHYTOPLANKTON

09:30 **Walworth, N. G.**; Fu, F.; Tatters, A.; Webb, E.; Hutchins, D. A.: USING MULTIPLE STRESSORS TO TEST FOR PLEIOTROPIC EFFECTS IN HIGH-CO2 ADAPTED TRICHODESMIUM CELL LINES

09:45 **Dutkiewicz, S.**; Morris, J.; Follows, M. J.; Dyhrman, S.; Berman-Frank, I.: WILL OCEAN ACIDIFICATION BE THE DOMINANT DRIVER INFLUENCING PHYTOPLANKTON COMMUNITIES IN THE FUTURE?

2/26/2014 Posters

001 Upper Ocean Turbulent Fields and Their Variability: Temperature, Salinity, Energy

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Will Drennan, wdrennan@rsmas.miami.edu
Alex Soloviev, soloviev@nova.edu

Location: Kamehameha Hall III

687 **Nakano, H.**; Kurono, Y.; Fujio, S.; Yoshida, J.: LATITUDINAL VARIATION OF THE VERTICAL EDDY DIFFUSIVITY AT THE SURFACE LAYER IN THE NORTH PACIFIC OCEAN

688 **Foloni-Neto, H.**; Arima, M.; Mabuchi, Y.; Lueck, R.; Yamazaki, H.: TURBOMAP-G - A NEW QUASI-HORIZONTAL GLIDER TO MEASURE BIOPHYSICAL MICROSTRUCTURE

689 **Roach, C. J.**; Phillips, H. E.; Bindoff, N. L.; Rintoul, S. R.: ASSESING THE PERFORMANCE OF LINEAR EKMAN MODELS IN THE SOUTHERN OCEAN

690 **Xu, Y.**; Wang, S.: SCALES, EDDY INTERACTION, AND SPECTRAL FLUXES IN THE DECADALLY MODULATING KUROSHIO EXTENSION SYSTEM

691 **Gelpi, C. G.**; Leinweber, A.: MOMENTUM AND THERMAL DIFFUSION OFF THE COAST OF SOUTHERN CALIFORNIA

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693 **Peralta-Ferriz, C.**; Blanchard-Wrigglesworth, E.; Woodgate, R. A.; Bitz, C. M.: QUANTIFYING SEASONAL AND INTERANNUAL CHANGES IN ARCTIC OCEAN MIXED LAYER DEPTHS FROM OBSERVATIONS AND MODELING

694 **Villas Boas, A. M.**; Sato, O. T.; Chaigneau, A.: PRELIMINARY RESULTS ON THE IMPACT OF MESOSCALE EDDIES ON THE OCEAN-ATMOSPHERE HEAT FLUXES IN THE SOUTH ATLANTIC.

695 **Qian, Y. K.**; Peng, S. Q.: ESTIMATING LATERAL DIFFUSIVITY OVER INDIAN OCEAN – INFLUENCE OF NONSTATIONARY MEAN FLOW

696 **Li, Q.**; Fox-Kemper, B.; Arbetter, T.; Webb, A.: ASSESSING THE INFLUENCE OF SURFACE WIND WAVES TO THE GLOBAL CLIMATE BY INCORPORATING WAVEWATCH III IN CESM

697 **Peng, S. Q.**; Qian, Y. K.; Li, P.: THE EULERIAN AND LAGRANGIAN STATISTICS OF THE SURFACE CIRCULATIONS IN THE INDIAN OCEAN AS DEDUCED FROM SURFACE DRIFTERS

698 **Wu, K.**; Dai, M. H.; Chen, J. H.; Meng, F. F.; Qian, W.: IMPACT OF KUROSHIO INTRUSION ON THE INVENTORY OF TOTAL ORGANIC CARBON IN THE UPPER NORTHERN SOUTH CHINA SEA

699 **Wenegrat, J. O.**; McPhaden, M. J.: THE DIURNAL CYCLE OF NEAR-SURFACE STRATIFIED SHEAR FLOW AT 0NN, 23°W

700 **Novelli, G.**; Pennel, R.; Ortiz-Suslow, D.; Laxague, N.; Smith, C.: EXPERIMENTS IN THE NEAR-SURFACE OCEAN LAYER

701 **LI, L.**; Smyth, W. D.; Thorpe, S. A.; Liu, Z.: DESTABILIZATION OF STRATIFIED SHEAR FLOW BY AMBIENT TURBULENCE

702 **Matt, S.**; Hou, W.; Goode, W.; Weidemann, A.: IN THE LIGHT OF TURBULENCE

703 Kim, H. M.; **Kim, H. C.**: SKIN-BULK DIFFERENCE IN PACIFIC USING TRANSITS OF ICEBREAKER ARAON

704 **Desbiolles, F.**; Blanke, B.; Bentamy, A.: OCEANIC RESPONSE TO FINE ATMOSPHERIC SCALES IN A REALISTIC REGIONAL MODEL OF AN EASTERN-BOUNDARY UPWELLING SYSTEM: FOCUS ON THE CANARY AND BENGUELA SYSTEMS

705 **Ivanov, V.**; Polyakov, I.; Ashik, I.; Rember, R.; Repina, I.: EXCEPTIONAL WARMING IN THE UPPER ARCTIC OCEAN IN SUMMER 2013 FOLLOWS PROGRESSIVE RETREAT OF THE SUMMER ARCTIC SEA ICE COVER

706 **Lincoln, B. J.**; Rippeth, T. P.; Simpson, J. H.: INERTIAL OSCILLATIONS AND SURFACE MIXED LAYER DEEPENING IN SEASONALLY STRATIFIED SHELF SEAS

707 **Wimmer, W.**; Robinson, I. S.: SEA TEMPERATURE REFERENCE MEASUREMENTS FOR VALIDATING SATELLITE SST DATA PRODUCTS

708 **Renner, A. H.**; Sundfjord, A.; Randelhoff, A.: COMBINED FORCING MECHANISMS OF VERTICAL HEAT FLUX IN THE SEA ICE-OCEAN BOUNDARY LAYER NORTH OF SVALBARD

709 **Yoshikawa, Y.**: COMPETING ROLES OF SURFACE STABILIZING BUOYANCY FLUX AND EARTH ROTATION IN SCALING WIND-DRIVEN MIXING

710 **Drillet, Y.**; Lellouche, J. M.; Le Galloudec, O.; Reffray, G.; Levier, B.: FORECAST OF THE MIXED LAYER DEPTH IN THE NORTH EAST ATLANTIC, ENSEMBLE AND UNCERTAINTIES BASED ON OPERATIONAL FORECASTS

795 **Smyth, W. D.**; Moum, J. N.: SEASONAL CYCLES OF MARGINAL INSTABILITY AND DEEP CYCLE TURBULENCE IN THE EASTERN EQUATORIAL PACIFIC OCEAN

796 **Warner, S. J.**; Moum, J. N.: EVALUATION OF EQUATORIAL SHEAR INSTABILITIES FROM LONG-TERM MIXING RECORDS

798 **Guthrie, J. D.**; Fer, I.; Morison, J. H.: RECENT TEMPERATURE MICROSTRUCTURE MEASUREMENTS IN A THERMOHALINE STAIRCASE IN THE AMUNDSEN BASIN: AN OBSERVATIONAL LOOK AT THE 4/3RD FLUX LAW.

799 **Flanagan, J.**; Edwards, E.; Radko, T.; Shaw, W.; Stanton, T.: DYNAMIC AND DOUBLE-DIFFUSIVE INSTABILITIES IN WEAK PYCNOCLINE, WITH APPLICATION TO MIXING AT MAUD RISE.

003 Advances In Coastal Ocean Modeling, Observations, and Prediction

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725 **Yamazaki, K.**; Kitade, Y.; Igeta, Y.; Kumaki, Y.; Watanabe, T.: INTERMITTENCY OF NEAR-INERTIAL INTERNAL WAVES INDUCED BY HORIZOTAL VELOCITY SHEAR ASSOCIATED WITH COASTAL-TRAPPED WAVES

726 **Chanthasiri, N.**; Singhruck, P.: NUMERICAL MODELING OF CORAL LARVAL DISPERSAL ALONG THE COAST OF THAILAND

727 **Cheng, P.**; Li, M.: MODELING CHESAPEAKE AND DELAWARE BAYS BY DOWNSCALING FROM MIDDLE ATLANTIC BIGHT INTO ESTUARIES

728 **Choi, B.**; Kwon, K.; Lee, S.; Seo, G.: ASSIMILATION OF SST TO THE YELLOW SEA CIRCULATION MODELING SYSTEM USING AN ENSEMBLE METHOD

777 **Ono, J.**; De Silva, L. W.; Yamaguchi, H.: MODELING STUDY ON SEA-ICE PREDICTION FOR THE NORTHERN SEA ROUTE AND NORTHWEST PASSAGE

778 **YOON, J.**; SHIM, J.; JUN, K.; PARK, K.: A NUMERICAL STUDY OF SENSITIVITY FOR THE INLAND ROUGHNESS EFFECT IN REDUCING STORM SURGE INUNDATION

779 **Barton, E. D.**; TORRES, R.; LARGIER, J.; TRASVINA, A.; SOUZA, A.: INTERACTION OF AN UPWELLING SYSTEM WITH A SEMI-ENCLOSED ESTUARINE BAY: RIA DE VIGO

780 **Badaro, O.**; Lentz, S.; Castro, B. M.: SEASONAL AND YEAR-TO-YEAR TEMPERATURE AND CURRENT VARIABILITY AT THE SAO SEBASTIAO CHANNEL (SAO PAULO, BRAZIL).

781 Freitas, A. C.; **Mello, R. L.**; Ramos, A. E.; Alvarenga, J. B.: ENSEMBLE OPTIMAL INTERPOLATION USING HYCOM FORECAST PREDICTION AT SOUTHWEST ATLANTIC: AN OBSERVATIONAL AND NUMERICAL STUDY

782 **Hirose, N.**; Kaneda, A.; Ookei, N.; Kumaki, Y.; Yamazaki, K.: PREDICTION OF RAPID COASTAL CURRENT IN THE JAPAN SEA

783 **Rao, S. A.**; Chai, F.; Xue, H.; Chao, Y.; Dugdale, R. C.: A STUDY OF NUTRIENT AND BIOMASS CYCLES IN THE SAN FRANCISCO BAY USING THE SELFE-COSINE ECOSYSTEM MODEL

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785 **Rinehimer, J. P.**; Sanford, T. B.; Kärnä, T.; Baptista, A. M.: OBSERVATIONS OF TURBULENCE AND MIXING IN THE COLUMBIA RIVER ESTUARY

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786 Castro, R.; **Collins, C. A.**; Rago, T.; Margolina, T. M.: CIRCULATION AT THE ENTRANCE TO THE GULF OF CALIFORNIA IN LATE APRIL 2013

787 **Evers, L. A.**; Shaughnessy, F. J.; Bjorkstedt, E. P.; Anderson, J. K.: PROGRESS TOWARD A CHLOROPHYLL FORECAST IN HUMBOLDT BAY, CALIFORNIA

788 Hunt, C. W.; **Vandemark, D.**; Salisbury, J. E.; Shellito, S.; Musielewicz, S.: COINCIDENT AUTONOMOUS PCO2 AND PH DATA AND THEIR APPLICATION TO CARBONATE CHEMISTRY INVESTIGATION ON THE COASTAL MARGINS

789 **Liang, X. S.**; Robinson, A. R.: ABSOLUTE AND CONVECTIVE INSTABILITIES AND THEIR ROLES IN THE FORECASTING OF LARGE FRONTAL MEANDERINGS

790 **Sinclair, A. M.**: DYNAMICS OF PLUNGING BREAKERS AT WAIMEA BAY MEASURED WITH A TINY FLOAT AND INERTIAL SENSORS

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792 **Youngmi, S. Y.**; O'Donnell, O. J.: WAVE-INDUCED CIRCULATION IN RESPONSE TO WIND IN WESTERN LONG ISLAND SOUND

793 **Hoffman, M. J.**; Zhang, B.; Brown, C. W.; Lanerolle, L.; Aikman, F.: 4D-VAR AND LETKF DEVELOPMENT AND COMPARISON FOR NOAA'S CHESAPEAKE BAY OPERATIONAL FORECAST SYSTEM

794 **Tennyson, K. A.**; Kurapov, A. L.; Durski, S.; Osborne, J.: INTERNAL TIDES OVER THE BERING SEA SLOPE AND SHELF

835 **Mask, A.**: IMPORTANCE OF SATELLITE SEA SURFACE HEIGHT IN PROPERLY FORECASTING THE SPRING TRANSITION

836 **Moore, C. W.**; Titov, V. V.; Arcas, D.; Kanoglu, U.: U.S. EAST COAST NON-SEISMIC TSUNAMI EVENTS

016 Using Evaluation In Ocean Sciences Education and Workforce Development: What Does the Evidence Show?

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1658 **WIener, C. S.**; Lemus, J. D.; Manset, G.: EXPLORING PUBLIC ATTITUDES AND INFORMATION NEEDS FOR MARINE CONSERVATION OUTREACH IN HAWAII

1659 **Maharaj, A. M.**; Sherwood, S.; Pitman, A.; Abramowitz, G.; Sen Gupta, A.: THE SMART SCIENCE INITIATIVE

1660 **Cuker, B. E.**; Haxton, C.; Martínez, C.; Berger, A.: THE ASLO MULTICULTURAL PROGRAM: AN EVALUATION OF ITS EFFECTIVENESS AND OUTCOMES

1661 **Day-Miller, E. A.**: BENEFITS OF SCIENTISTS ENGAGING IN EDUCATION AND OUTREACH: SCIENTIST PERSPECTIVES

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1664 **Fauver, A.**; Siegfried, D.; Detrick, L.; Johnson, A.: DESIGNING FOR SUCCESS: POSITIVE FACTORS THAT SUPPORT SUCCESS AND RETENTION IN STEM

1665 **Fauver, A.**; Johnson, A.; Ricciardi, L.; Detrick, L.; Siegfried, D.: WORKFORCE DEVELOPMENT: BROADENING PARTICIPATION IN STEM

1666 **deCharon, A. V.**; Companion, C. J.; Repa, J. T.: MAPPING OUT YOUR MESSAGE: WORKSHOP AND WEBINAR MODELS THAT SUPPORT COLLABORATIVE CRITICAL THINKING

1667 **Puniwai, N.**; Ziegler-Chong, S.; Ching, M.: THE PACIFIC INTERNSHIP PROGRAMS FOR EXPLORING SCIENCE: CHANGING THE FACE OF CONSERVATION IN HAWAII

027 Nearshore Processes

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338 **Smallegan, S. M.**; Irish, J. L.: WAVE FORCE REDUCTION DUE TO BURIED AND EXPOSED SEAWALLS

339 **Azouri, A.**; Luther, D. S.: THE NON-MODAL RESPONSE OF COASTAL INFRAGRAVITY WAVES FORCED BY ENERGETIC SWELLS AND TSUNAMIS

340 **CHU, Y.**; Campbell, T.; Smith, T.; Allard, R.; Martin, P.: ESTUARY DYNAMICS IN THE CHESAPEAKE BAY REGION DURING THE 2013 TRIDENT WARRIOR EXERCISE

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375 **Henderikx Freitas, F.**; Halewood, S.; Stassinos, E.; Siegel, D. A.: COUPLING BETWEEN PHYSICAL AND BIO-OPTICAL VARIABILITY ACROSS THE INNERSHELF SANTA BARBARA CHANNEL, CA

376 **Almeida, T. G.**; Walker, D. T.; Reath, A. L.: ESTIMATION OF WAVES, TIDES AND CURRENTS NEAR THE NEW RIVER INLET USING VARIATIONAL INVERSE MODELING

377 **Lopez-Feliciano, O. L.**: SEDIMENT TRANSPORT STUDY OF A GROIN FIELD DURING SUPERSTORM SANDY

378 **Zimmerle, H. M.**; DiMarco, S. F.; Guinasso, Jr., N. L.: QUANTIFYING TEXAS COASTAL CURRENT REVERSALS IN THE NORTHWESTERN GULF OF MEXICO USING 18 YEAR TIME SERIES

379 **MacMahan, J. H.**; Sheets, J.; Reniers, A.; Weltmer, M.; Rynne, P.: OBSERVATIONS OF NEW RIVER ESTUARY WATER MASSES

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381 **Mortlock, T. R.**; Goodwin, I. D.: MARGINAL SEA WAVE CLIMATES AT SYDNEY, AUSTRALIA

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384 **Liblik, T.**; Karstensen, J.; Krahmann, G.: SUMMER UPWELLING EVENTS IN THE BOKNIS ECK TIME SERIES STATION (WESTERN BALTIC SEA) – COMBINING GLIDER AND SURVEY

385 **zhu longhai, .**; WU Jianzheng, .; Hu rijun, .; xu yongchen, .; Jiang shenghui, .: RESEARCH ON EROSION AND DEPOSITION OF TIDAL GEOMORPHOLOGY IN LIAODONG SHOAL

386 **Blenkinsopp, C. E.**; Matias, A.; Howe, D.; Castelle, B.: LABORATORY INVESTIGATION OF WAVE RUNUP ON A PROTOTYPE SCALE SAND BARRIER

387 **Al-Ragum, A. N.**; Monge-Ganuzas, M.; Amos, C. L.; Cearreta, A.; Townend, I.: SAND TRANSPORT IN THE OKA ESTUARY (URDAIBAI BIOSPHERE RESERVE, SPAIN)

389 **SENECHAL, N.**; COCO, G.: STORM IMPACT ON SEASONAL SHORELINE DYNAMICS OF AN INTERMEDIATE MESOTIDAL SANDY BEACH

390 **Connolly, T. P.**; Lentz, S. J.: INTERANNUAL VARIABILITY OF INNER-SHELF TEMPERATURE IN THE MID-ATLANTIC BIGHT

403 **He, Z.**; Zhang, W.; Song, D.; Weng, H.; Wu, G.: MIXING AND STRATIFICATION IN A SOUTH PASSAGE OF HANGZHOU BAY, CHINA

404 **Cheel, R. A.**; Hay, A. E.: SMARTROCK: A NEW DEVICE TO EXAMINE COBBLE MOVEMENT IN THE SURF, SWASH AND SHORE BREAK.

405 **Lerczak, J. A.**; Wright, B. E.; Lyons, D. E.; Peck-Richardson, A.; Brown, R. F.: MAPPING BATHYMETRY AND SALT-WEDGE VARIABILITY IN THE COLUMBIA RIVER ESTUARY USING SENSORS ATTACHED TO PINNIPEDS AND WATERBIRDS

406 **El Safty, H.**; Lynett, P.: SPOT-APPLICATION TOOL FOR WAVE-DRIVEN NEARSHORE HYDRODYNAMICS

407 **Canals, M.**; Amador, A.; Ortiz, C.: PROBING THE HYDRODYNAMICS OF PLUNGING GRAVITY WAVES THROUGH NOVEL LAGRANGIAN OBSERVATIONS OF INERTIAL PARTICLE DYNAMICS

408 **Xu, Y.**; Glenn, S.; Schofield, O.; Miles, T.; Seroka, G.: THE HEAT AND MOMENTUM BALANCE DURING SUMMER STORM IRENE IN THE MID-ATLANTIC BIGHT

409 **Quinones-Melendez, E.**; Canals, M.: DEVELOPMENT OF THE PUERTO RICO BEACH HAZARDS AND SURFZONE CURRENTS WARNING SYSTEM

410 **Hally-Rosendahl, K.**; Feddersen, F.; Guza, R. T.; Clark, D. B.: ALONGSHORE TRACER DILUTION AND SURFZONE/INNER-SHELF EXCHANGE DURING THE IB09 EXPERIMENT

411 **Smit, P. B.**; Janssen, T. T.: REFRACTIVE FOCUSING OF COHERENT WAVES

412 **García-Medina, G.**; Özkan-Haller, H. T.: VARIABILITY OF NUMERICALLY MODELED LONGSHORE AND UNDERTOW CURRENTS

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414 **Davis, J. R.**; Sheremet, A.; Saxena, S.; Martz, T.: A NUMERICAL IMPLEMENTATION OF A NONLINEAR MILD SLOPE MODEL FOR SHOALING DIRECTIONAL WAVES

415 **Rynne, P. F.**; Reniers, A. J.; van de Kreeke, J.; MacMahan, J.: QUANTIFICATION OF RESIDENCE TIME IN A PROCESS-BASED MODEL OF AN IDEAL TIDAL INLET USING A VIRTUAL TRACER

416 **Ko, H.**; Lynett, P. J.: DESIGN OF A HYDRAULIC-CONTROL WAVE-MAKER (HCW) FOR THE STUDY OF OCEANOGRAPHIC FLOWS

040 Antarctic Marginal Seas and Shelf/Slope Processes: Physical and Biological Variability, Controls, and Links to Larger Scales

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641 **Pedulli, M.**; Ducklow, H. W.; Bisagni, J. J.; Stukel, M. R.; Pilskaln, C. H.: EXPORT PRODUCTION FOR THE WATERS OFF THE WESTERN ANTARCTIC PENINSULA (WAP) REGION

642 **Salmon, E.**; Dinniman, M.; Hofmann , E.: NPZD-IRON LOWER LEVEL ECOSYSTEM MODEL OF THE ROSS SEA: A STUDY OF THE PROCESSES CONTROLLING THE SEASONAL CYCLE OF BIOLOGICAL PRODUCTION.

643 **Muench, R. D.**; Wåhlin, A. K.; Dohan, K.: WHAT DRIVES THE FLOW OF WARM CIRCUMPOLAR DEEP WATER FROM THE DEEP OFFSHORE SOUTHEASTERN PACIFIC ONTO THE WESTERN ANTARCTIC SHELF SEAS?

644 **Schine, C. M.**; van Dijken, G.; Brown, Z. W.; Arrigo, K. R.: DETAILED SPATIAL ANALYSIS OF TRENDS IN PRIMARY PRODUCTION AND SEA ICE IN THE ROSS SEA, ANTARCTICA (1997-2013)

645 **Johnson, A. M.**; Montagna, P. A.; Hyde, L.; Palmer, T.; Sericano, J.: LONG-TERM BENTHIC MONITORING IN MCMURDO SOUND, ANTARCTICA

646 **Daae, K.**; Darelius, E.; Fer, I.: OSCILLATION OF THE ICE SHELF WATER PLUME ON THE CONTINENTAL SHELF OF THE SOUTHERN WEDDELL SEA

647 **Mack, S.**; Dinniman, M.; Greenan, B.; Springer, S.; Klinck, J.: ROLE OF TIDALLY-INDUCED MIXING IN THE ROSS SEA

648 **Amft, J.**; Savidge, D. K.; Dwyre, G.: CIRCULATION CONNECTIVITY ON THE WEST ANTARCTIC PENINSULA FROM SHIPBOARD ADCP

649 **Luxem, K. E.**; Ellwood, M. J.; Strzepek, R. F.: INTRASPECIES DIVERSITY IN THE RESPONSE OF *PHAEOCYSTIS ANTARCTICA* TO IRON AND LIGHT LIMITATION

650 **DU, L.**; Wu, X.; Xie, H.; Ackley, S. F.: SPATIAL DISTRIBUTION AND VARIATIONS OF SEA ICE THICKNESS AND VOLUME IN THE ROSS SEA RETRIEVED FROM ICESAT/GLAS LASER ALTIMETER, 2004-2008

651 **Davis, L. B.**; Hofmann, E. E.; Pinones, A.; Klinck, J. M.: CLIMATOLOGICAL DISTRIBUTIONS OF EUPHAUSIA SUPERBA AND E. CRYSTALLOROPHIAS IN THE ROSS SEA

652 **Auscavitch, S. R.**; Waller, R. G.: FIRST INSIGHTS TO COMPLEX BIOGEOGRAPHIC PATTERNS OF COLD-WATER CORAL AND SPONGE-DOMINATED COMMUNITIES IN THE DRAKE PASSAGE AND WEST ANTARCTIC PENINSULA SHELF

653 **Carvalho, A. F.**; Schofield, O.; Saba, G.; Kohut, J.; Ducklow, H.: THE ROLE OF LIGHT AVAILABILITY AND NUTRIENT DELIVERY IN CONTROLLING THE SPRING PHYTOPLANKTON BLOOM IN PALMER DEEP CANYON IN THE WEST ANTARCTIC PENINSULA

654 **Youngs, M. K.**; Thompson, A. F.; Flexas, M. M.; Heywood, K. J.: WEDDELL SEA EXPORT PATHWAYS FROM SURFACE DRIFTERS

655 **Ryan-Keogh, T. J.**; Smith, W. O.; Sedwick, P. N.; Moore, C. M.; Bibby, T. S.: RESPONSES OF PHYTOPLANKTON TO IRON AVAILABILITY IN THE ROSS SEA

656 **Martin, A.**; Houssais, M. N.: ANTARCTIC SHELF CIRCULATION: A CASE STUDY BASED ON SUMMER OBSERVATIONS OFF ADELIE LAND.

657 **Webber, B. G.**; Heywood, K. J.; Jenkins, A.; Stevens, D. P.; Assmann, K.: HEAT FLUX PATHWAYS AND VARIABILITY IN THE AMUNDSEN SEA.

658 Castagno, P.; **Budillon, G.**; Spezie, G.: INTERANNUAL VARIABILITY OF ROSS SEA SHELF WATERS FROM 1995 TO 2012

659 **Wilson, S. E.**; Swalethrop, R.; Kjellerup, S.; Ducklow, H. W.; Yager, P. L.: MESO AND MACRO-ZOOPLANKTON COMMUNITY STRUCTURE OF THE AMUNDSEN SEA POLYNYA, ANTARCTICA (SUMMER 2010-2011)

660 **Lam, P. J.**; Ohnemus, D. C.; Auro, M. E.; Kohut, J.; Hatta, M.: SEDIMENTS AS A SOURCE OF IRON IN THE ROSS SEA: SEDIMENT CHARACTERISTICS AND PARTICULATE IRON

746 **Saba, G. K.**; Fraser, W. R.; Saba, V. S.; Ducklow, H. W.; Schofield, O.: AUSTRAL WINTER AND SPRING CONTROLS ON THE FOOD WEB AT PALMER STATION, WEST ANTARCTIC PENINSULA (WAP)

747 **Kustka, A. B.**; Jones, B. M.; Milligan, A. J.; White , A.; Hatta, M.: THE EFFECTS OF IRON AND MCDW ON PHYTOPLANKTON PRODUCTIVITY AND COMMUNITY COMPOSITION DURING THE ROSS SEA SEAFARERS EXPEDITION

748 **Tortell, P. D.**; Ducklow , H.; Goldman, J. A.; Morel, F. M.; Grzymski, J.: METABOLIC BALANCE OF COASTAL ANTARCTIC WATERS REVEALED BY AUTONOMOUS HIGH FREQUENCY PCO2 AND DELTA O2 /AR MEASUREMENTS

749 **White, A. E.**; Milligan, A.; Kustka, A.: PRIMARY PRODUCTIVITY IN THE ROSS SEA: RESULTS FROM 14C TRACER MEASUREMENTS AND MODELS BASED ON CONTINUOUS FLOW THRU DATA

750 **Bertrand, E. M.**; McQuaid, J.; Bronk, D. A.; Hutchins, D. A.; Allen, A. E.: METATRANSCRIPTOMIC ANALYSIS OF CONTINUOUS FLOW EXPERIMENTS MANIPULATING IRON, CO2, AND TEMPERATURE: CONTROLS ON LATE SEASON PRIMARY PRODUCTION IN THE ROSS SEA

751 **Marsay, C. M.**; Sedwick, P. N.; Dinniman, M. S.; Sohst, B. M.; McGillicuddy, D. J.: AN ASSESSMENT OF BENTHIC IRON EFFLUX ON THE ROSS SEA CONTINENTAL SHELF AND ITS CONTRIBUTION TO SURFACE WATER DISSOLVED IRON SUPPLY

752 **Joy-Warren, H.**: LINKS BETWEEN NATURAL PHYTOPLANKTON ASSEMBLAGES AND LIGHT AND IRON AVAILABILITY IN THE ROSS SEA (ANTARCTICA)

753 **Cape, M. R.**; Vernet, M.; Spreen, G.; Smith, C. R.; Domack, G.: PATTERNS AND DRIVERS OF PHYTOPLANKTON GROWTH AND PRODUCTION IN THE NEW LARSEN A AND B POLYNYAS, ANTARCTICA

754 **Gimpel, C.**; Murray, A. E.; Reiss, C.; Weiss, E.: WINTER PICOPLANKTON IN OPEN VS. SEA ICE COVERED WATERS OF THE SOUTH SHETLAND ISLANDS REGION.

041 Advances In the Understanding of Uncultivated Microbes and Development of Model Systems for Marine Microbial Ecology

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13 **Nakatani, T.**; Yamazaki, T.; Nakatani, N.; Arai, R.: NUMERICAL MODEL FOR GLIDING MOTION OF BEGGIATOA UNDER CONTROL OF NO3 AND HS

14 **Giebel, Helge-Ansgar, .**; Wemheuer, Bernd, .; Voget, Sonja, .; Daniel, Rolf, .; Simon, Meinhard, .: THE ABUNDANT *ROSEOBACTER* CLADE AFFILIATED (RCA) CLUSTER: METABOLIC TRAITS OF ITS MODEL ORGANISM *PLANKTOMARINA TEMPERATA* RCA23

67 **Pearson, A.**; Mohr, W.; Shah, S. R.: APPLICATIONS OF HIGH-THROUGHPUT NANOCOMBUSTION IRMS TO MARINE ORGANIC GEOCHEMISTRY

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70 **Hollibaugh, J. T.**; Popp, B. N.; Tolar, B. B.; Wallsgrove, N. J.: OXIDATION OF 15N SUPPLIED AS AMMONIA, UREA OR AMINO ACIDS BY MARINE BACTERIOPLANKTON COMMUNITIES

71 **Wilbanks, E. G.**; Eisen, J. A.; Facciotti, M. T.; Fike, D. A.; Orphan, V. J.: A SULFUROUS SYMBIOSIS: MICROSCALE SULFUR CYCLING IN THE PINK BERRY CONSORTIA OF THE SIPPEWISSETT SALT MARSH

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75 **McKenzie, K. A.**; Edwards, K. L.; Drummond, K. M.; Cox, T. M.; Frischer, M. E.: EXPLORING THE BOTTLENOSE DOLPHIN MICROBIOME

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79 **van Tol, H. M.**; Amin, S. A.; Armbrust, E. V.: A MODEL SYSTEM FOR DIATOM-FLAVOBACTERIUM INTERACTIONS

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81 **Seyler, L. M.**; McGuinness, L. M.; Kerkhof, L. J.: CRENARCHAEAL HETEROTROPHY IN SALT MARSH SEDIMENTS

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83 **Needham, D. M.**; Sachdeva, R.; Fuhrman, J. A.: STRAIN LEVEL DAY-TO-DAY VARIATION OF SAR11 REVEALED BY HIGH THROUGHPUT ITS SEQUENCING

84 **Sachdeva, R.**; Heidelberg, J. F.: PHYLIGO: AN INTEGRATED APPROACH FOR BINNING METAGENOMIC SEQUENCES AND ITS PRACTICAL APPLICATION TO THE COSMOPOLITAN MARINE ACTINOBACTERIAL CLADE

85 **Morando, M. B.**; Capone, D. G.: COUPLING STABLE ISOTOPE PROBING (SIP) WITH NEXT GENERATION SEQUENCING: THE NITROGEN CYCLE IN A WHOLE NEW LIGHT

042 Optical Remote Sensing of Freshwater, Estuarine, and Coastal Environments: Water Quality and Other Applications

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879 **Mitchell, C.**; Cunningham, A.: REMOTE SENSING OF ATTENUATION COEFFICIENTS AND EUPHOTIC DEPTHS IN THE IRISH SEA

880 **Jiang, L.**; Wang, M.: A NEW BLENDED NEAR-INFRARED OCEAN REFLECTANCE CORRECTION ALGORITHM FOR SATELLITE OCEAN COLOR DATA PROCESSING IN COASTAL AND INLAND WATERS

881 **Paavel, B.**; Arst, H.; Kangro, K.; Kutser, T.: PARAMETERIZATION OF PHYTOPLANKTON SPECIFIC ABSORPTION COEFFICIENT FOR TURBID LAKE WATERS

882 **Lõugas, L.**; Kutser, T.; Kotta, J.; Vahtmäe, E.: LONG TIME VARIATION IN BENTHIC MACROALGAL COVER. A RETROSPECTIVE STUDY BASED ON LANDSAT ARCHIVE

883 **Kratzer, S.**; Moore, G. F.: INHERENT OPTICAL PROPERTIES OF THE NW BALTIC SEA (NWBS) IN COMPARISON TO OTHER SEAS AND OCEANS

884 **ASANUMA, I.**; SAKASHITA, H.; FUKUTOMI, N.; KABA, K.; OKABE, T.: STUDY OF OPTICAL PROPERTIES OF SHALLOW WATER FOR AIRBORNE LASER BATHYMETRY SYSTEM AROUND JAPAN

885 **SONG, Y.**; ASANUMA, I.; TANG, X.: DISTRIBUTION OF FISHING GROUNDS IN THE EAST CHINA SEA

886 **Phillips, S. R.**; Costa, M.: BIOPHYSICAL AND OPTICAL CHARACTERISATION OF SUSPENDED PARTICLES IN THE FRASER RIVER PLUME (STRAIT OF GEORGIA) AND IMPLICATIONS FOR COASTAL REMOTE SENSING.

887 **Li, J.**; Shen, Q.; Wu, Y.: DETECTION OF CYANOBACTERIA-DOMINANT ALGAL BLOOMS FROM HYPERSPECTRAL REMOTE SENSING DATA

888 **Wozniak, M.**; Kratzer, S.; Craig, S.; Krezel, A.: RETRIEVAL OF THE DOMINANT CYANOBACTERIA SPECIES FROM REMOTE SENSING REFLECTANCE INVERSION- A CASE STUDY FROM THE GULF OF GDANSK, SOUTHERN BALTIC SEA

889 **Trochta, J. T.**; Mouw, C. B.: OBSERVING INTERANNUAL VARIABILITY OF SATELLITE-DERIVED PROPERTIES IN LAKE SUPERIOR WITH THE USE OF FUZZY CLUSTERING

890 **Shen, F.**; Zhou, Y. X.; Sokoletsky, L.: MULTI-SENSOR SATELLITE OBSERVATIONS OF SUSPENDED PARTICULATE MATTER DYNAMICS IN THE YANGTZE ESTUARINE AND COASTAL WATERS

891 **Ramos-Chavez, J. C.**; Lougheed, V. L.; Tweedie, C.; Syaifudin, Y.: DIGITAL REPEAT PHOTOGRAPHY TO ASSESS AND MONITOR PHENOLOGICAL CHANGE IN A TROPICAL MANGROVE FOREST

892 **Cartwright, G. M.**; Friedrichs, C. T.; Sanford, L. P.; Smith, S. J.: ADDED VALUE OF COMBINING MULTIPLE OPTICAL AND ACOUSTIC INSTRUMENTS WHEN CHARACTERIZING FINE-GRAINED ESTUARINE SUSPENSIONS

919 **Shen, Q.**; Li, J. S.: CONSECUTIVE MONITORING WATER QUALITY BY PROBA/CHRIS HYPERSPECTRAL SATELLITE OVER RESERVOIR

921 **Jamet, C.**; Goyens, C.: SPECTRAL WATER-LEAVING REFLECTANCE RELATIONSHIPS FOR IMPROVING NEAR-MODELLING SCHEMES IN ATMOSPHERIC CORRECTION OVER OPTICALLY-COMPLEX WATERS

922 **Wood, J. S.**; Cifuentes, L.; Price, D. G.; Su, L.; Bridges, D. H.: OCEANOGRAPHIC INVESTIGATIONS AT TAMUCC USING AN UNMANNED AERIAL VEHICLE

923 **Yu, P.**; Lee, Z.: THE SHELF-SHADOW-IMPACT OF THE SKYLIGHT-BLOCKED SYSTEM IN OCEAN COLOR MEASUREMENTS AND ITS CORRECTION

924 **Andresen, c. g.**; Lougheed, v. l.: LONG-TERM CHANGES IN HYDROLOGY OF COASTAL ARCTIC TUNDRA PONDS IN THE BARROW PENINSULA

925 **Hlaing, S. M.**; Weidemann, A.; Arnone, R.; Wang, M.; Ahmed, S.: ASSESSMENT OF VIIRS OCEAN COLOR DATA PROCESSING SCHEMES ON THE COASTAL SITES

926 **Garaba, S. P.**; Zielinski, O.: CAN WE INFER SEAWATER CONSTITUENTS FROM PERCEIVED OCEAN (FOREL-ULE) COLOR?

927 **FELIPE LOBO, F. L.**; Maycira Costa, M. C.; Evlyn Novo, E. N.: USE OF LANDSAT IMAGERY (MSS-TM-OLI) FOR A 40-YEARS TIME SERIES ANALYSIS OF WATER QUALITY AND GOLD MINING ACTIVITY IN TAPAJSS RIVER BASIN/BRAZILIAN AMAZON

928 Loos, E.; **Costa, M.**; Brown, L.; Ersahin, K.; Selbie, D.: INHERENT AND APPARENT OPTICAL PROPERTIES OF THE GLACIER FEED, ULTRA-OLIGOTROPHIC CHILKO LAKE, BRITISH COLUMBIA, CANADA

929 **Ryan, K. W.**; Ali, K. A.: EVALUATING EXISTING OCEAN COLOR ALGORITHMS IN RETRIEVING CHLOROPHYLL-A CONCENTRATIONS IN THE TURBID WATERS OF LONG BAY, SOUTH CAROLINA

930 **Wang, G.**; Lee, Z.: USE HYPERSPECTRAL INFORMATION TO IMPROVE THE RETRIEVAL OF INHERENT OPTICAL PROPERTIES FROM REMOTE SENSING REFLECTANCE

931 **Sackmann, B. S.**; Krembs, C.; Pool, S.; Bos, J.; Khangaonkar, T.: EYES OVER PUGET SOUND: PRODUCING VALIDATED SATELLITE PRODUCTS TO SUPPORT RAPID WATER QUALITY ASSESSMENTS IN PUGET SOUND

932 **Schalles, J. F.**; Olley, J. T.; O'Donnell, J. P.: REMOTE SENSING AND GEOSPATIAL ANALYSIS OF MATERIAL GRADIENTS AND FRONTS WITHIN THE INNER SHELF OF THE CENTRAL SOUTH ATLANTIC BIGHT

933 **Carlson, P.**; Yarbro, L.; Hu, C.; English, D.; Herwitz, S.: MULTISCALE, MULTISPECTRAL MEASUREMENT OF SEAGRASS AND MACROALGAL BIOMASS AND HEALTH USING AERIAL SENSORS

044 East Asian Marginal Seas: Sea Surface Temperature Variability and Ocean–Atmosphere Process

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1359 **Lin, X. P.**; Wu, D. X.; Wu, L. X.; Chang, P.; Cai, W. J.: FAST WARMING IN THE PAST SEVERAL DECADES IN THE EAST CHINA SEA-MODULATION OF ANNUAL CYCLE VS GREENHOUSE FORCING

1360 **Masunaga, R.**; Nakamura, H.; Miyasaka, T.; Nishii, K.; Tanimoto, Y.: DEPENDENCY OF ATMOSPHERIC BOUNDARY LAYER REPRODUCED IN REANALYSIS TO THE RESOLUTION OF PRESCRIBED SEA SURFACE TEMPERATURE

1361 **Kim, T.**; Jin, K.: NUMERICAL STUDY OF AIR-SEA INTERACTION DURING EXTREME WEATHER EVENTS USING A COUPLED ATMOSPHERE-OCEAN MODELING SYSTEM

1362 **Wang, B.**; Hirose, N.; Kang, B.; Takayama, K.: SEASONAL MIGRATION OF THE YELLOW SEA BOTTOM COLD WATER (YSBCW)

1363 **Kuwano-Yoshida, A.**; Minobe, S.: ATMOSPHERIC RESPONSE TO THE JAPAN SEA AND THE EAST CHINA SEA IN AN AGCM

1364 **Guo, X.**; Soeyanto, E.; Ono, J.; Miyazawa, Y.: INTERANNUAL VARIATIONS OF KUROSHIO TRANSPORT IN THE EAST CHINA SEA AND ITS RELATION TO PACIFIC DECADAL OSCILLATION AND MESOSCALE EDDY

1365 **Inoue, F.**; Minobe, S.: SUMMERTIME UPPER TROPOSPHERIC CIRCULATIONS DUE TO DIABATIC HEATING OVER THE NORTH ATLANTIC AND THE NORTH PACIFIC

1366 **Miyama, T.**; Miyazawa, Y.; Mitsudera, H.: KUROSHIO ACCELERATION AND SHORT-TERM VARIATIONS SOUTH OF JAPAN

1367 **Nishii Tatsuya, N. T.**; Uchiyama Yusuke, U. Y.; Mori Nobuhito, M. N.; Baba Yasuyuki, B. Y.: COOLING THE UPPER OCEAN AROUND SETO INLAND SEA DUE TO TYPHOONS

1368 **Nishina, A.**; Nakamura, H. R.; Park, J. H.; Hasegawa, D.; Hibiya, T.: DEEP WATER FORMATION PROCESS IN THE OKINAWA TROUGH

1369 **Yu, F.**; Li, A.; Diao, x.: INTERANNUAL VARIABILITY OF TEMPERATURE OF NORTHERN YELLOW SEA COLD WATER MASS

1370 **Shusaku Sugimoto, .**; Nakaba Kobayashi, .; Kimio Hanawa, .: QUASI-DECADAL VARIATION IN INTENSITY OF WINTER SUBARCTIC SST FRONT IN THE WESTERN NORTH PACIFIC: INFLUENCES OF CHANGES IN PATH STATE OF THE KUROSHIO EXTENSION

1371 **Han, S.**; Hirose, N.; Usui, N.; Miyazawa, Y.: SEASONAL VARIATION OF VOLUME TRANSPORT THROUGH THE STRAITS OF EAST-ASIAN MARGINAL SEAS ESTIMATED FROM MULTIPLE OCEAN MODELS

1372 **Seo, Y.**; Sugimoto, S.; Hanawa, K.: LONG-TERM VARIATIONS OF KUROSHIO EXTENSION PATH IN WINTER: MERIDIONAL MOVEMENT AND PATH STATE CHANGE

1425 **IIZUKA, S.**; KAWAMURA, R.: SST VARIABILITY AROUND THE SUBPOLAR FRONT IN JAPAN SEA AND WINTERTIME RAINFALL IN JAPAN

1426 **Tsutsumi, E.**; Guo, X.; Takeoka, H.; Yoshie, N.: INTER-ANNUAL VARIABILITY OF WATER TEMPERATURE IN A CHANNEL CONNECTING AN INLAND SEA AND THE KUROSHIO REGION

1427 **Lee, S.**; Choi, B.: EFFECTS OF NORTHERLY WIND ON VERTICAL CURRENT STRUCTURE IN THE ENTRANCE OF WESTERN CHANNEL OF THE KOREA STRAIT IN AUTUMN 2009

1428 Zhang, F.; **Hu, J.**: INTERANNUAL VARIABILITY OF SEA SURFACE TEMPERATURE IN THE TAIWAN STRAIT

1429 **Tai, J.**; Yang, K.; Gawarkiewicz, G.; Tang, T.: SUB-TIDAL CURRENT STRUCTURE AND VARIABILITY OF THE CONTINENTAL SHELF AND SLOPE OF THE NORTHERN SOUTH CHINA SEA

1430 **Mori, N.**; Minobe, S.; Sasaki, Y. N.; Nakamura, H.; Isobe, A.: SHIP OBSERVATION OF ATMOSPHERIC CONDITIONS ACROSS THE KUROSHIO IN THE EAST CHINA SEA IN BAIU-MEIYU SEASON.

1431 **Park, J. H.**; Chang, K. I.: SUMMERTIME SOUTHWARD CURRENTS ALONG THE EAST COAST OF KOREA: SSH DEPRESSION CAUSED BY POSITIVE WIND-CURL

1432 **Tomita, H.**; Kubota, M.: FINE SCALE FEATURES IN AIR-SEA TURBULENT HEAT FLUX OVER THE JAPAN/EAST SEA

1433 **Ito, M.**; Morimoto, A.; Isoda, Y.; Takikawa, T.; Tomita, H.: INTERANNUAL VARIATION IN THE THIRD BRANCH OF THE TSUSHIMA WARM CURRENT PATH DRIVEN BY THE WINTER SURFACE COOLING IN THE JAPAN/EAST SEA

1434 **Taguchi, B.**; Nonaka, M.; Schneider, N.; Nakamura, H.: RESPONSE OF ATMOSPHERE-OCEAN SYSTEM TO LATITUDINAL SHIFTS OF THE NORTH PACIFIC SUBARCTIC FRONTAL ZONE: A COUPLED GCM EXPERIMENT

1435 **Cadden, D.**: PHYSICAL UPPER OCEAN RESPONSE OF THE SOUTH CHINA SEA TO TYPHOON UTOR

046 Bio–Physical Controls On the Initiation and Development of the Spring Phytoplankton Bloom

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2847 **Hopkins, J.**; Henson, S.; Poulton, A.; Painter, S.; Tyrrell, T.: INVESTIGATING EMILIANIA HUXLEYI BLOOM DYNAMICS USING REMOTELY SENSED DATA

2848 **Bell, S. J.**; Johnson, R. J.; Jones, J.: AN ASSESSMENT OF VITAMIN B12 AS A CO-LIMITING MICRONUTRIENT INFLUENCING SPRING BLOOM PRIMARY PRODUCTION AT THE BATS SITE.

2849 **Furnas, M. J.**: HIGH PHYTOPLANKTON PRODUCTIVITY ON THE MEGA-TIDAL, MONSOONAL KIMBERLEY SHELF, NW AUSTRALIA

2850 **Fujiki, T.**; Matsumoto, K.; Sasaoka, K.; Honda, M. C.; Saino, T.: DETECTION OF INITIATION AND DEVELOPMENT OF PHYTOPLANKTON BLOOM IN THE SUBTROPICAL NORTH PACIFIC BY AN UNDERWATER PROFILING BUOY SYSTEM

2875 **Naegelen, A.**; L'Helguen, S.; Maguer, J. F.; Klein, C.: TRANSFORMATION OF DISSOLVED INORGANIC NITROGEN INTO PARTICULATE ORGANIC NITROGEN DURING THE SPRING BLOOM IN THE BAY OF BREST (FRANCE)

2876 **Lacour, L.**; Claustre, H.; Prieur, L.; Fontana, C.; D'Ortenzio, F.: IMPACT OF MESOSCALE ACTIVITY ON PHYTOPLANKTON BIOMASS CYCLES IN THE NORTH ATLANTIC SUB-POLAR GYRE: THE CASE OF THE LABRADOR SEA

2877 **GOFFART, A.**; HECQ, J. H.; LEGENDRE, L.: CONTROL OF PHYTOPLANKTON BLOOM BY WINTER CONDITIONS IN A MEDITERRANEAN COASTAL AREA : RESULTS FROM A LONG-TERM STUDY (1979 – 2011)

2878 **Allen, S. E.**; Wolfe, M. A.: FACTORS DETERMINING THE TIMING OF THE PEAK OF THE SPRING BLOOM IN TWO ESTUARINE SYSTEMS

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2880 **Lindemann, C.**; St. John, M. A.; Backhaus, J. O.: INFLUENCES OF DEEP CONVECTION ON THE INOCCULUM OF THE PHYTOPLANKTON SPRING BLOOM IN THE NORTH ATLANTIC

2881 **Kim, H. J.**; Nam, S. H.; Send, U.; Ohman, M. D.; Lankhorst, M.: BIOGEOCHEMICAL RESPONSES TO EVENT-SCALE PHYSICAL FORCING IN THE CALIFORNIA CURRENT OFF PT. CONCEPTION

2882 **Reyes-Mendoza, O.**; Mariño-Tapia, I.; Herrera-Silveira , J.; Marina, T.; Ruiz, G.: OBSERVATIONS AND MODELLING OF PLANKTON DYNAMICS IN A TROPICAL UPWELLING REGION, CABO CATOCHE, MEXICO.

2883 **Westberry, T. K.**; Behrenfeld, M. J.; Schultz, P.; Sarmiento, J. L.; Siegel, D. A.: ANNUAL CYCLES OF PHYTOPLANKTON IN THE SUBARCTIC ATLANTIC AND PACIFIC OCEANS

2918 **Rünk, N.**; Lips, I.; Kikas, V.; Meerits, A.; Lips, U.: TEMPORAL AND SPATIAL VARIABILITY OF THE SPRING BLOOM IN THE GULF OF FINLAND (BALTIC SEA) IN FOUR CONSECUTIVE YEARS

2919 **Enriquez, R. M.**; Taylor, J. R.: THE COMPETITION BETWEEN WIND-DRIVEN MIXING AND SURFACE HEATING IN TRIGGERING SPRING PHYTOPLANKTON BLOOMS

2920 **Moore, C. M.**; Achterberg, E. P.; Bibby, T. S.; Ryan-Keogh, T. J.; Steigenberger, S. S.: TERMINATION OF THE NORTH ATLANTIC SPRING BLOOM: THE CASE FOR IRON

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2922 **Dias, F.**; Calil, P.; Lazaneo, C.; Muelbert, J.: BIO-PHYSICAL MECHANISMS THAT CONTROL PRIMARY PRODUCTION AT WESTERN BOUNDARY UPWELLING SYSTEM

2923 **Marra, J. F.**; Dickey, T. D.; Plueddemann, A. J.; Weller, R. A.: PHYTOPLANKTON BLOOM PHENOMENA FROM MOORED OBSERVATIONS IN THE ICELAND BASIN AND ARABIAN SEA

2924 **Carranza, M. M.**; Gille, S. T.; Romero, S. I.; Piola, A. R.: SUBSEASONAL CHLOROPHYL-A VARIABILITY IN THE PATAGONIAN SHELF AND SHELF-BREAK FRONT ASSOCIATED TO PHYSICAL PROCESSES

2925 **Saba, V. S.**; Hyde, K. J.; Rebuck, N. D.; Fogarty, M. J.; Fratantoni, P. S.: CLIMATE DRIVEN INTERANNUAL VARIABILITY OF SPRING PHYTOPLANKTON BIOMASS IN THE UNITED STATES NORTHEAST SHELF

2926 **Peterson, T. D.**; Needoba, J. A.; Roegner, G. C.; Herfort, L.; Baptista, A. M.: RED WATER BLOOM INITIATION IN THE COLUMBIA RIVER ESTUARY

2959 **Zarubin, M.**; Lindemann, Y.; Genin, A.: SPRING BLOOM INITIATION AFTER UNUSUALLY DEEP WINTER MIXING: BLOOM DYNAMICS IN THE GULF OF AQABA

047 Natural and Anthropogenic Changes In Coastal Ecosystems and Their Impact On Human Welfare

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1083 **Kamishny, A.**; Oduro, H.; Mansaray, Z. F.; Farquhar, J.: CYANIDE AND THIOCYANATE BIOGEOCHEMISTRY IN NON-POLLUTED NATURAL AQUATIC SYSTEMS

1084 **Rennie, S. E.**; Brandt, A.: PROBABILISTIC MODELING OF OBJECT MIGRATION IN THE COASTAL ZONE

1109 **Claisse, J. T.**; Williams, J. P.; Zahn, L. A.; Pondella, D. J.; Ford, T.: POTENTIAL IMPACTS OF KELP FOREST HABITAT RESTORATION WITHIN A MOSAIC OF MANAGEMENT ACTIONS ALONG THE PALOS VERDES PENINSULA IN SOUTHERN CALIFORNIA, USA.

1110 **Wolfer, H. M.**; Johnson, A. K.: HYPOXIA-INDUCED PHYSIOLOGICAL AND IMMUNE SYSTEM EFFECTS IN ATLANTIC CROAKER, *MICROPOGONIAS UNDULATUS*, FROM CHESAPEAKE BAY

1111 **Lee, J.**; Joo, H.; Par, J.; Kang, J.; Lee, S.: SEASONAL VARIATION IN BIOCHEMICAL COMPOSITIONS OF PARTICULATE ORGANIC MATTER IN THE GWANGYANG BAY, KOREA

1112 **Higashi, K.**; Ota, N.; Kawai, T.; Yamamoto, R.; Kozuki, Y.: LOST ECOLOGICAL FUNCTIONS OF THE DOMINANT MUD SNAIL *BATILLARIA CUMINGII* ON A CREATED TIDAL FLAT IN JAPAN

1113 **Schouten, K. R.**; McCall, A.; Solomon, C.: INVESTIGATING THE INFLUENCE OF WATER QUALITY ON PHYTOPLANKTON ASSEMBLAGES IN THE ANACOSTIA RIVER, D.C.

1114 **Carvalho, S.**; Pilo, D.; Araujo, O.; Guilherme, S.; Pacheco, M.: RESPONSES OF VENERUPIS PHILIPPINARUM (MOLLUSCA, BIVALVIA) TO METAL CONTAMINATION: DO THEY REFLECT CHANGES AT THE COMMUNITY LEVEL?

1115 **Bednarsek, N.**: VULNERABILITY AND ADAPTATION STRATEGIES OF PTEROPODS IN THE CALIFORNIA CURRENT ECOSYSTEM

1116 **Kim, C. S.**; Cho, Y. K.; Seo, G. H.; Choi, B. J.; Kim, T. W.: CHANGE OF CHANGJIANG RIVER DISCHARGE BY THE THREE GORGES DAM AND IT'S EFFECT ON THE NEIGHBORING SEAS

1117 **Arias-Ortiz, A.**; Marbà, N.; Duarte, C. M.; Masqué, P.; Kendrick, G. A.: QUANTIFYING THE IMPACT OF SEAGRASS LOSS AND REVEGETATION ON CARBON SEQUESTRATION CAPACITY

1118 **Limoges, A.**; Gabriel, A.; de Vernal, A.; Gélinas, Y.: TRACKING BACK IN TIME HARMFUL ALGAL BLOOMS CAUSED BY DINOFLAGELLATE SPECIES IN THE GULF OF MEXICO

1119 **Zeeman, S. I.**; Tilburg, C. E.; Spillane, T. E.: PRECIPITATION, LAND-COVER, AND RIVER CONTAMINANT TRANSPORT TO COASTAL WATERS.

1120 **Scaboo, K. M.**; Hintz, C. J.: THE DISSOLVED INORGANIC CARBON EXPORT FROM THE SEMI-DIURNAL TIDAL-DOMINATED WILMINGTON RIVER INTO WASSAW SOUND, COASTAL GEORGIA, U.S.A.

1121 **Howard, M. D.**; Sutula, M.; Caron, D. A.; Chao, Y.; Jones, B.: ANTHROPOGENIC NUTRIENT SOURCES RIVAL NATURAL SOURCES ON SMALL SCALES IN THE COASTAL WATERS OF THE SOUTHERN CALIFORNIA BIGHT

1122 **Cortés M., M. Y.**; Sánchez Salgado, D. A.; Schwennicke, T.; Pérez Venzor, J. A.: HOLOCENE COASTAL CHANGES IN THE SOUTHERN PART OF LA PAZ LAGOON, BAJA CALIFORNIA SUR, MEXICO: IMPLICATIONS FOR THE URBAN GROWTH OF THE CITY OF LAPAZ.

1123 **O'Mullan, G. D.**; Juhl, A.; Schneider, E.; Morel, A.; Perez, J.: COUPLED ABUNDANCE AND PERSISTENCE OF FECAL INDICATOR AND ANTIBIOTIC RESISTANT BACTERIA IN WATER AND SEDIMENT FROM THE HUDSON RIVER ESTUARY

1124 **Dasher, D. H.**; Jewett, S.; Lomax, T.; Hartwell, S. I.: SCREENING SEDIMENT PAH CONCENTRATIONS FOR POTENTIAL BENTHIC ORGANISM TOXICITY WITHIN THE NORTHEASTERN CHUKCHI SEA CORRIDOR

1125 Fletcher, C. H.; **Habel, S.**; Barbee, M.: ROYAL HAWAIIAN BEACH: REPLENISHMENT AND MONITORING INTERIM REPORT, YEAR 1

1126 **Perez-Gonzalez, M.**; Bas-Concepcion, J.; Agosto-Calderon, N.; Diaz-Vazquez, L. M.; Roberson, L.: STUDYING THE POTENTIAL FOR BIOACCUMULATION OF HEAVY METALS AND ORGANIC POLLUTANTS IN OYSTERS AND ALGAE FROM THE SAN JUAN BAY ESTUARY

1171 **Voorhies, K. J.**: LIVE LESSONS AND DEAD INSIGHTS: HISTORICAL CHANGES, MODERN DRIVERS, AND FUTURE POSSIBILITIES IN SUBTIDAL BIVALVE COMMUNITIES

1172 **McDonald, P. S.**; Holsman, K. K.; VanBlaricom, G. R.: ECOLOGICAL EFFECTS OF CLAM (*PANOPEA GENEROSA*) AQUACULTURE ON RESIDENT AND TRANSIENT MACROFAUNA IN AN URBAN ESTUARY

1173 **Irvine, G. V.**; Mann, D. H.; Carls, M.; Reddy, C.; Nelson, R. K.: *EXXON VALDEZ* OIL AFTER 23 YEARS ON ROCKY SHORES IN THE GULF OF ALASKA: BOULDER ARMOR STABILITY AND PERSISTENCE OF SLIGHTLY WEATHERED OIL

053 Coral Microbiology: Partners and Pathogens

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2678 **Shulse, C. N.**; Huggett, M. J.; Behymer, C. M.; Rappe, M. S.: MICROBIAL ASSOCIATIONS IN THE SOLITARY CORAL *FUNGIA SCUTARIA*

2679 **Neave, M. J.**; Apprill, A.; Voolstra, C. R.: COMPARATIVE GENOMICS OF *ENDOZOICOMONAS*, A DOMINANT CORAL-ASSOCIATED BACTERIA

2680 **Weber, L. G.**; Apprill, A.; Repeta, D.: CORAL SNOT: EXPLORING THE CHEMICAL INTERPLAY BETWEEN CORAL MUCUS AND MICROBES

2705 **Ushijima, B.**; Videau, P.; Hemscheidt, T. K.; Aeby, G. S.; Callahan, S. M.: PRODUCTION OF THE ANTIBIOTIC ANDRIMID IS INVOLVED IN PATHOGENESIS OF *VIBRIO CORALLIILYTICUS* STRAIN OCN008

2706 **George, A. M.**; De Palmas, S.; Chen, C. A.: CHARACTERIZING THE MICROBIAL COMMUNITIES IN CORAL LESIONS ON PATCH REEFS IN TAIWAN

2707 **Cunning, R.**; Baker, A. C.: THE IMPORTANCE OF SYMBIONT DENSITY IN REEF CORALS

2708 **Burger, A. H.**; Ushijima, B.; Videau, P. J.; Aeby, G.; Callahan, S. M.: THE ROLE OF QUORUM SENSING ON VIRULENCE AND ANTIMICROBIAL PRODUCTION IN THE CORAL PATHOGEN *VIBRIO CORALLIILYTICUS* STRAIN OCN008

2709 **Peters, E. C.**: A RICKETTSIALES-LIKE BACTERIUM IS RESPONSIBLE FOR THE TISSUE LOSS DISEASES OF CARIBBEAN ACROPORID CORALS

2710 **Barott, K. L.**; Venn, A.; Tambutte, S.; Tresguerres, M.: HOST PROTON PUMP PROMOTES PHOTOSYNTHESIS IN SCLERACTINIAN CORALS

2712 **McNally, S.**; Parsons, R. J.; Apprill, A.: *PORITES ASTREOIDES* CORALS INFLUENCE REEF WATER BACTERIOPLANKTON COMMUNITIES

2714 **Shore-Maggio, A.**; Runyon, C.; Ushijima, B.; Aeby, G.; Callahan, S.: BACTERIAL COMMUNITY COMPARISONS BETWEEN HEALTHY AND MONTIPORA WHITE SYNDROME-AFFECTED CORALS

2715 **Cavalcanti, G. S.**; Gregoracci, G. B.; Silveira, C. B.; Amado-Filho , G. M.; Thompson , F. L.: PHYSIOLOGIC AND METAGENOMIC ATTRIBUTES OF THE RHODOLITHS FORMING THE LARGEST CACO3 BED IN GLOBAL OCEAN

2716 **Silveira, C. B.**; Francini-Filho, R. B.; Moura, R. L.; Paranhos, R.; Thompson, F. L.: BENTHIC AND PLANKTONIC PRIMARY PRODUCTIVITY OF SOUTH ATLANTIC REEFS

2717 **Runyon, C. M.**; Ushijima, B.; Work, T. M.; Callahan, S. M.; Aeby, G.: OUTBREAK OF BLACK BAND DISEASE ON KAUA'I

2718 **Joyner, J. L.**; Kemp, D.; Wares, J. P.; Porter, J.; Lipp, E. K.: BACTERIAL COMMUNITY ASSEMBLIES OF INDIVIDUAL *ACOPORA PALMATA* COLONIES OBSERVED OVER THREE YEARS

2719 **Hansel, C. M.**; Zhang, T.; Diaz, J. M.; Apprill, A.; Parsons, R.: UNRAVELING THE ROLE OF THE CORAL HOLOBIONT IN SUPEROXIDE PRODUCTION

2720 **Claar, D. C.**; Gates, R. D.; Baum, J. K.: CHANGES IN *SYMBIODINIUM* DIVERSITY ACROSS A GRADIENT OF HUMAN DISTURBANCE ON KIRITIMATI ATOLL

058 Mesoscale Ocean Processes and Their Representation In Earth System Models

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2899 **Blaker, A.**; Hirschi, J.; Sevellec, F.; Sinha, B.; Coward, A.: LARGE NEAR-INERTIAL OSCILLATIONS OF THE ATLANTIC MOC

2900 **Chen, Q.**: MESOSCALE EDDIES IN THE SOUTHERN OCEAN AND THEIR PARAMETRIZATIONS

2901 **Donohue, K. A.**; Watts, D. R.; Hamilton, P.; Leben, R. R.: EDDY-MEAN INTERACTION DURING LOOP CURRENT EDDY FORMATION

2902 **Rosburg, K. C.**; Donohue, K. A.; Chassignet, E. P.: COMPARISON OF THE 1/25 ASSIMILATED GULF OF MEXICO HYCOM WITH OBSERVATIONS IN THE LOOP CURRENT EDDY FORMATION REGION

2903 **KANG, D.**; Curchitser, E. N.: CLIMATE CONNECTION OF THE GULF STREAM EDDY VARIABILITY

2904 **Wang, Y.**; Olascoaga, M. J.; Beron-Vera, F. J.; Goni, G. J.; Haller, G.: COHERENTLY TRANSPORTED WATER THROUGH THE SOUTH ATLANTIC

2905 **Nakano, H.**; Tsujino, H.; Hirabara, M.; Sakamoto, K.; Yamanaka, G.: EFFECTS OF THE SHATSKY RISE ON THE KUROSHIO EXTENSION

2906 **Maharaj, A. M.**; Tailleux, R.: HOW SENSITIVE IS GENERALISED LINEAR ROSSBY WAVE THEORY TO UNCERTAINTIES IN THE DETERMINATION OF THE BACKGROUND MEAN FLOW?

2907 **Forshaw, M. E.**; Marshall, D. P.; Maddison, J. R.; Johnson, H.: PARAMETRISING THE EFFECT ON MEAN ARCTIC CIRCULATION DUE TO EDDY-TOPOGRAPHY INTERACTIONS

2908 **Sonntag, S.**; Hense, I.: MODELLING BIOLOGICAL-PHYSICAL FEEDBACK MECHANISMS IN MARINE SYSTEMS

2909 **Ilicak, M.**; Bentsen, M.; Drange, H.: COMPARISON OF ONE DEGREE AND QUARTER DEGREE NORWEGIAN EARTH SYSTEM MODEL: EFFECT OF MESOSCALE EDDIES

2910 **Biló, T. C.**; Silveira , I. C.; Rocha, C. B.; Belo, W. C.: ON THE BRAZIL CURRENT THICKENING IN SANTOS BASIN (23-28S)

2911 **Chen, C.**; Kamenkovich, I.; Berloff, P.: ON THE DYNAMICS OF STATIONARY JETS OVER TOPOGRAPHY

2912 **Stashchuk, N.**; Vlasenko, V.; Inall, M. E.; Aleynik, D.: HORIZONTAL DISPERSION IN SHELF SEAS: 3D HIGH RESOLUTION MODELING AS AN AID TO SPARSE SAMPLING

2965 **Zamudio, L.**; Metzger, E. J.; Palacios, E.; Trasvina, A.: MODELING THE SOUTHERN BRANCH OF THE SUBTHERMOCLINE POLEWARD CURRENT IN THE NORTHEASTERN TROPICAL PACIFIC

2966 **Douglass, E. M.**; Richman, J. G.: IDENTIFYING EDDIES AND QUANTIFYING EDDY NONLINEARITY

2967 **Bischoff, T.**; Thompson, A. F.: CONFIGURATION OF A SOUTHERN OCEAN STORM TRACK

2968 **Luecke, C. A.**; Bassette, S. L.; Arbic, B. K.: GLOBAL MODEL-DATA COMPARISON AND CONSTRUCTION OF MAPS OF EDDY AVAILABLE POTENTIAL ENERGY

2969 **Waterman, S.**; Lilly, J. M.: GEOMETRIC INGREDIENTS OF EDDY-MEAN FLOW FEEDBACKS, AND A TIME-VARYING EXTENSION

2970 **Bebieva, Y.**; De Ruijter, W.; Le Bars, D.: OBSERVATION AND MODELING OF EDDIES AND DIPOLES IN THE SOUTHERN INDIAN OCEAN

2971 **Ascani, F.**; Firing, E.: HOW DOES WAVE-DRIVEN LAGRANGIAN MEAN CIRCULATION DEPEND ON PARAMETERIZED DISSIPATION?

2972 **Kurogi, M.**; Tanaka, Y.; Hasumi, H.: IMPACT OF DEEP BOTTOM TOPOGRAPHY ON THE SEA SURFACE HEIGHT VARIABILITY IN THE KUROSHIO EXTENSION REGION

063 Changes In the Global Ocean Carbon Cycle: From Observations to Models

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2349 **Nagano, A.**; Wakita, M.; Watanabe, S.: DECADAL CHANGE OF NORTH PACIFIC WESTERN SUBARCTIC GYRE AND ITS IMPACT ON AIR-SEA CO_2 FLUX

2350 **Zunino, P.**; Garcia-Ibanez, M. I.; Lherminier, P.; Perez, F. F.; Mercier, H.: VARIABILITY OF THE TRANSPORT OF ANTHOPOGENIC CO2 AT THE GREENLAND-PORTUGAL OVIDE SECTION: CONTROLLING MECHANISMS

2351 **Hartin, C. A.**; Bond-Lamberty, B.; Patel, P. L.: THE INORGANIC CARBON CYCLE IN A SIMPLE OCEAN BOX MODEL

2352 Smith, K. L.; Ruhl, H. A.; Kahru, M.; **Huffard, C. L.**; Sherman, A. D.: DEEP OCEAN COMMUNITY FOOD SUPPLY AND DEMAND IMPACTED BY CHANGING CLIMATE OVER 24 YEARS IN THE ABYSSAL NORTHEAST PACIFIC OCEAN

2353 **Nakaoka, S.**; Nojiri, Y.; Yasunaka, S.; Mukai, H.; Telszewski, M.: OCEAN SURFACE PCO2 MAPPING AND AIR-SEA CO2 FLUX ESTIMATE OVER THE GLOBE BASED ON IN-SITU MEASUREMENTS AND NEURAL STATICS

2354 **Wang, S.**; Lindsay, K.: A STUDY OF THE CALCIUM CARBONATE CYCLE USING THE CESM

2355 **Garley, R.**; Bates, N. R.: SEAWATER CARBONATE CHEMISTRY CHANGES ACROSS THE WESTERN NORTH ALTANTIC SUBTROPICAL GYRE OVER THE LAST TWENTY YEARS

2356 **Mordy, C. W.**; Zhang, J. Z.; Johnson, G. C.; Langdon, C.; Baringer, M.: DECADAL VARIABILITY OF NUTRIENTS IN THE NORTHEAST ATLANTIC OBSERVED DURING CLIVAR REPEAT HYDROGRAPHIC SURVEYS.

2361 **Yamamoto, A.**; Yamanaka, Y.; Oka, A.; Abe-Ouchi, A.: ESTIMATIONS OF METHANE HYDRATE INVENTORY LOSS AND ITS POTENTIAL IMPACT ON DISSOLVED OXYGEN

2362 **Dai, M.**; Cao, Z.; Zhao, H.; Zhang, C.; Yin, Z.: WHAT CONTROLS CO2 FLUXES IN COASTAL OCEAN: RIVER DOMINATED VS OCEAN DOMINATED MARGINS?

2363 Ericson, Y.; **Ulfsbo, A.**; van Heuven, S.; Kattner, G.; Anderson, L. G.: ARCTIC SUBSURFACE WATERS: A SINK OF ANTHROPOGENIC CO_2

2364 **Lauvset, S. K.**; Gruber, N.; Landschützer, P.; Olsen, A.: GLOBAL SURFACE OCEAN pH 1981-2011: LONG-TERM VARIABILITY AND TRENDS

2365 **Douglas, N. K.**; Byrne, R. H.; Patsavas, M. C.: DEVELOPMENT OF AN INSTRUMENT FOR IN SITU SPECTROPHOTOMETRIC MEASUREMENTS OF THE ARAGONITE SATURATION HORIZON

2366 Willey, D. A.; **Fine, R. A.**; Millero, F. J.: GLOBAL SURFACE ALKALINITY FROM AQUARIUS SATELLITE

2367 **Ishii, M.**; Sasano, D.; Kosugi, N.; Nakano, T.; Midorikawa, T.: CARBONATE SYSTEM VARIABLES IN SURFACE WATER OF THE WESTERN NORTH PACIFIC: THEIR SEASONAL VARIATIONS AND LONG-TERM TRENDS OVER THE SUBTROPICAL ZONES

2368 **Muglia, J.**; Brody, S.; Bronselaer, B.; Johnson, L.; Pilcher, D.: HOW WELL DO CMIP5 MODELS REPLICATE THE OBSERVED OCEAN PCO2 SEASONAL CYCLE?

2369 **Becker, S. M.**; Schuller, D.; Miller, M.; Aoyama, M.; Sato, K.: COMPARABILITY OF NUTRIENTS FROM US CLIVAR EXPEDITIONS AND USE OF REFERENCE MATERAILS FOR NUTRIENTS IN SEAWATER

2370 **Yokoi, T.**; Valsala, V. K.; Maksyutov , S.: DEVELOPMENT OF THE HIGH-RESOLUTION – OFFLINE OCEAN TRACER TRANSPORT MODEL

2371 **Chu, S. N.**; Wang, Z. A.; Hoering, K. A.; Lawson, G. L.: OCEAN ACIDIFICATION IN THE NORTHEAST PACIFIC IN THE PAST DECADE

2372 **Wakita, M.**; Sasai, Y.; Kawakami, H.; Matsumoto, K.; Honda, M.: NET COMMUNITY PRODUCTION ESTIMATED FROM SEASONAL VARIATION OF DISSOLVE INORGANIC CARBON IN SURFACE WATER OF WESTERN SUBARCTIC AND SUBTROPICAL NORTH PACIFIC

2373 **Daisuke Sasano, D.**; Yusuke Takatani, Y.; Naohiro Kosugi, N.; Toshiya Nakano, T.; Masao Ishii, M.: OXYGEN DECREASE IN THE WESTERN NORTH PACIFIC

2374 **Olsen, A.**; Key, R. M.; Lauvset, S. K.; Lin, X.; Tanhua, T.: RELEASE! GLOBAL OCEAN DATA ANALYSIS VERSION 2 (GLODAPV.2)

2375 **Ilyina, T.**: EFFECTS OF CLIMATE CHANGE AND OCEAN ACIDIFICATION ON OCEAN SEDIMENTS

2376 **Eide, M.**; Olsen, A.; Ninnemann, U.: THE GLOBAL OCEAN ^{13}C-SUESS EFFECT AND UPTAKE OF ANTHROPOGENIC CO_2

2443 **Tynan, E.**; Achterberg, E. P.; Humphreys, M. P.; Dumousseaud, C.: ANTHROPOGENIC CARBON AND BIOLOGICAL CONTRIBUTIONS TO ARAGONITE UNDERSATURATION IN THE OXYGEN MINIMUM ZONE IN THE TROPICAL ATLANTIC

2444 **Macdonald, A. M.**; Talley, L. D.; McClean, J. L.; Davis, X. J.: TOWARD UNDERSTANDING THE ROLE OF NORTHEAST MONSOON CIRCULATION IN THE INDIAN OCEAN CARBON BUDGET

2445 **Martz, T.**; Send, U.; Nam, S.; Kim, H. J.; Alin, S.: AUTONOMOUS OBSERVATIONS OF CARBON DYNAMICS IN THE SOUTHERN CALIFORNIA CURRENT SYSTEM

2446 **Toyama, K.**; Rodgers, K. B.; Majkut, J. D.; Ishii, M.: ROLE OF SUBDUCTION IN CARBON TRANSPORT WITHIN THE OCEAN

2447 Clement, D.; **Gruber, N.**: A C*-BASED EXTENDED MULTIPLE LINEAR REGRESSION METHOD TO DETERMINE DECADAL CHANGES IN ANTHROPOGENIC CO₂ IN THE OCEAN

2448 **Kuai, L.**; Worden, J.; Campbell, E.; Kulawik, S.; Montzka, S.: CHARACTERIZING CARBONYL SULFIDE OCEAN FLUX USING TROPOSPHERIC OBSERVATIONS FROM AURA TROPOSPHERIC EMISSIONS SPECTROMETER

066 Collaborations and Partnerships In Ocean Research and Education

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1827 **Sauzède, R.**; Pasqueron de Fommervault, O.; Scheurle, C.; Claustre, H.: COLLABORATION BETWEEN SCIENTISTS, TEACHERS AND STUDENTS TO DEVELOP EDUCATIONAL TOOLS AND SHARE EXPERIENCES

1828 **Keener, P.**; Tuddenham, P.: OCEAN EXPLORATION 2020 - A NATIONAL FORUM: WHAT'S TRENDING AMONG OCEAN EXPLORATION EXPERTS AND THE OCEAN SCIENCE EDUCATION COMMUNITY IN THE U.S AND ABROAD?

1829 **Hathaway, T. K.**; Thomas, C. J.; Bell, E. V.; Bliss, A. C.; Spence, L. L.: RESEARCHER-EDUCATOR EXCHANGE FORUM: ENGAGING EARLY-CAREER SCIENTISTS WITH CLASSROOM TEACHERS, INFORMAL EDUCATORS, AND INFORMAL SCIENCE EDUCATION FACILITIES

1830 **Curran, M. C.**; Cox, T. M.; Pride, C. J.: MENTORING SUCCESS IN MARINE SCIENCE: EXAMPLES FROM SAVANNAH STATE UNIVERSITY

1855 **Bueno Watts, N.**; Dalbotten, D.; Green, V.: GEOSCIENCE ALLIANCE: BUILDING PARTNERSHIPS TO ADVANCE OCEAN RESEARCH AND EDUCATION FOR NATIVE AMERICAN STUDENTS

1856 **Mayer, B.**; Duhr-Schultz, M.; Lopez, J.; Becker, B.; Collins, A.: OUTREACH BETWEEN RESEARCHERS AND MANAGERS IN THE NORTHWESTERN HAWAIIAN ISLANDS AND YOUTH AUDIENCES

1857 **Munson, B. H.**; Martz, M. A.; Shimek, S. H.: SCIENTISTS' AND TEACHERS' PERSPECTIVES ABOUT COLLABORATION

1858 **Newman, S. J.**; Chinn, P.; Henderson, S.; Bornhorst, H.; Adams, R.: INCREASING PUBLIC AWARENESS OF IMPORTANCE OF HAWAIIAN PLANTS TO HEALTHY TERRESTRIAL AND COASTAL ECOSYSTEMS: PROJECT BUDBURST-UNIVERSITY OF HAWAII COLLABORATION

1859 **Mullins-Perry, R. L.**; Jochens, A. E.; Howard, M. K.; Howden, S.: BUILDING TOWARD A SUSTAINABLE, INTEGRATED, AND OPERATIONAL GLIDER NETWORK IN THE GULF OF MEXICO

1860 **Diederick, L. K.**; Paul, V. J.; Bourexis, P.: ENGAGING OCEAN SCIENTISTS IN EDUCATIONAL OUTREACH: COSEE FLORIDA'S MODEL FOR MUTUALLY BENEFICIAL PARTNERSHIPS

1861 **Crews, T. D.**; McDonald, R.; Carlin-Morgan, K.; Goodwin, C.; Rowe, S.: ENGAGING STUDENTS IN MARINE DEBRIS EFFORTS UTILIZING AN INTEGRATED SCIENCE, TECHNOLOGY, ENGINEERING, ARTS, MATHEMATICS, AND SOCIAL STUDIES CURRICULUM

1862 **Frazier, J. A.**; Ma, J.; Liao, I.; Dutkiewicz, S.: LIVING LIQUID: PARTNERING WITH OCEAN SCIENTISTS TO CREATE MUSEUM EXHIBITS

1863 **Balmonte, J. P.**; Foster, S. Q.; Rouco-Molina, M.; James, A.; Bramucci, A.: SEE MORE SEAS WITH C-MORE: MERITS OF THE 2013 SUMMER COURSE

1864 **van Fleit, L.**: THE 2013 LAUNCH OF A RESEARCH ALLIANCE ON ATLANTIC OCEAN COOPERATION MARKED A CRUCIAL STEP. NOW, WHY MUST RESEARCHERS THINK BEYOND THE HORIZON?

1865 **Chandler, M. T.**; Miller, J.; Ferguson, J. S.; Taylor, B.; Wessel, P.: SHARING SOEST UNDERWAY DATA: A NEW APPROACH

1866 **Mitchell, J. K.**: HO`OMAKA HOU ~ TO MAKE A NEW BEGINNING

1867 **The C-MORE Summer Course Collective, .**: THE C-MORE SUMMER COURSE: TRAINING THE NEXT GENERATION OF MICROBIAL OCEANOGRAPHERS

1868 **Jekielek, P. E.**; Johnson, T. R.: COOPERATIVE FISHERIES RESEARCH IN NEW ENGLAND: PARTICIPANT PERCEPTIONS

1869 **Alpert, A.**; Rosengard, S.: BROADER IMPACTS GROUP: STUDENT-LED EFFORTS TO BRING SCIENCE COMMUNICATION INTO THE GRADUATE EDUCATION PROCESS

1870 **Paul, V. J.**; Diederick, L. K.: BUILDING A STATEWIDE OCEAN SCIENCE LEARNING NETWORK THROUGH COLLABORATIONS BETWEEN RESEARCHERS AND INFORMAL SCIENCE EDUCATION CENTERS

1915 **McFadden, M. A.**; Manning, J. P.; Troubetaris, J.; Sage, C.: OCEANOGRAPHY SUMMER RESEARCH COLLABORATION BETWEEN A COMMUNITY COLLEGE AND NOAA RESEARCHER

1916 **Green, V. L.**; Besse, I.; Bueno Watts, N.; Baptista, A. M.: RED WATER BLOOM: A COLLABORATIVE BIOMATHEMATICS WORKSHOP WITH THE CENTER FOR COASTAL MARGIN OBSERVATION AND PREDICTION AND PACIFIC UNIVERSITY

1917 **Wilson, S. J.**; Page, H. N.; Patin, N. V.: SCRIPPS COMMUNITY OUTREACH PROGRAM FOR EDUCATION (SCOPE)

1918 **Rollwagen-Bollens, G.**; Nelson, T.; Kennedy, A.; Graves, M.; Bollens, S.: PARTNERS IN DISCOVERY: BUILDING SCIENTIST-TEACHER COLLABORATIONS TO SUPPORT STUDENT LEARNING AND INQUIRY SKILLS IN AQUATIC SCIENCE

1919 **Ellinwood, J. K.**; Stone, J. K.; Nogelmeier, M. P.; Chinn, P. W.: I PAA KE KAHUA: USING HAWAIIAN LANGUAGE RESOURCES FOR SCIENCE CURRICULUM

1920 **O'Neil, J. M.**; Costanzo, S. D.; Campbell, C. A.; Heil, C. A.; Dennison, W. C.: US-AUSTRALIA VIRTUAL ENVIRONMENTAL PARTNERSHIP: ENGAGING "DIGITAL NATIVE" HIGH SCHOOL STUDENTS IN WATER ISSUES

1921 **Wren, J. L.**; Bruno, B. C.: SO, WHAT DOES A GEOSCIENTIST REALLY DO?

1922 **Spencer, L.**; Stone, J.; Ellinwood, J.; Rowland, S. K.; Chinn, P.: BRIDGING THE GAP: USING PLACE- AND CULTURE-BASED CURRICULUM TO CREATE INTEREST IN EARTH SCIENCE EDUCATION

1923 **Lance, K.**; Businger, S.; Stone, J.; Ellinwood, J.; Chinn, P.: EMERGING DATA FROM CITIZEN SCIENCE: USING NATIVE KNOWLEDGE TO UNDERSTAND HAWAI'I'S CLIMATE

1924 **Haddock, S. H.**; Elliott, K. E.: JELLYWATCH.ORG — CITIZEN SCIENCE ON A GLOBAL SCALE

1925 Potter, J.; Lobecker, E.; Russell, C.; **McDonough, J.**; Cantwell, K.: SYSTEMATIC APPROACH TO TRANSFORM OUR KNOWLEDGE OF THE US ATLANTIC SUBMARINE CANYONS

073 Ocean Salinity and Water Cycle Variability and Change

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1579 **Bulusu, S.**; Grunseich, G.: NEW APPROACHES TO UNDERSTANDING THE MADDEN-JULIAN OSCILLATION USING AQUARIUS SALINITY

1580 **Bingham, F.**; Busecke, J.; Gordon, A.; Giulivi, C.; Li, Z.: THE NORTH ATLANTIC SUBTROPICAL SURFACE SALINITY MAXIMUM AS OBSERVED BY AQUARIUS

1581 **Anderson, J. E.**; Riser, S. C.: RAIN INDUCED VERTICAL TEMPERATURE AND SALINITY VARIABILITY: OBSERVATIONS FROM PROFILING FLOATS

1582 **Lee, T.**; Lagerloef, G.; Kao, H.; McPhaden, M. J.; Willis, J.: SALINITY'S ROLE IN TROPICAL ATLANTIC INSTABILITY WAVES

1583 **Grodsky, S. A.**; Carton, J. A.; Bryan, F. O.: SURFACE SALINITY MAXIMUM IN THE NORTHWESTERN TROPICAL ATLANTIC

1584 **Bartlett, J. T.**; Bulusu, S.: ESTIMATION OF GLOBAL FRESHWATER FLUXES USING AQUARIUS/SAC-D SALINITY MISSION

1585 **deCharon, A. V.**; Companion, C. J.; Cope, R. E.: SHARING THE IMPORTANCE OF OCEAN SALINITY BEYOND THE SCIENTIFIC COMMUNITY

1586 **Katsura, S.**; Oka, E.: FORMATION MECHANISM OF WINTER BARRIER LAYER IN THE SUBTROPICAL PACIFIC

1587 **Drushka, K.**; Gille, S. T.; Sprintall, J.: THE DIURNAL SALINITY CYCLE FROM AQUARIUS AND ARGO

1588 **Ueno, H.**; Yasui, K.: DISTRIBUTION AND SEASONAL VARIATION OF HALOCLINE IN THE WORLD OCEAN

1589 **Monk, S. A.**; Johnson, R. J.; Bates, N. R.; Risi, C.: AN INVESTIGATION OF SALINITY VARIABILITY IN THE SARGASSO SEA USING LAND BASED METEOROLOGICAL OBSERVATIONS, RADAR PRECIPITATION ESTIMATES AND AN ATMOSPHERIC GCM

1590 **Kolodziejczyk, N.**; Hernandez, O.; Boutin, J.; Reverdin, G.: SMOS SALINITY IN THE SUBTROPICAL NORTH ATLANTIC SALINITY MAXIMUM: OBSERVATION OF THE SURFACE THERMOHALINE HORIZONTAL STRUCTURE AND OF ITS SEASONAL VARIABILITY

1593 **ZHANG, S.**; DU, L.: STUDY OF THE CHARACTERISTICS OF SALINITY ON THE PACIFIC OCEAN

1594 **D'Addezio, J. M.**; Bingham, F. M.: A SUBTROPICAL NORTH ATLANTIC REGIONAL ATMOSPHERIC MOISTURE BUDGET

1595 **Fine, E. C.**; Bryan, F. O.; Large, W. G.: DIURNAL SEA SURFACE SALINITY VARIATION DETECTION IN AQUARIUS DATA

1596 **Eriksen, C. C.**: CONDUCTIVITY CELL THERMAL INERTIA CORRECTION REVISITED

1597 **Wilson, E. A.**; Riser, S.: SEASONAL FRESHWATER CIRCULATION IN THE BAY OF BENGAL

1598 Santos-Garcia, A.; Aslebagh, S.; Jacob, M. M.; **Jones, W. L.**: A RAIN ACCUMULATION PRODUCT TO INVESTIGATE RAIN EFFECTS ON AQUARIUS SEA SURFACE SALINITY MEASUREMENTS

1687 **Fratantoni, D. M.**; Hodges, B. A.: AUTONOMOUS OBSERVATION OF SUBMESOSCALE STRUCTURE WITHIN THE ATLANTIC SALINITY MAXIMUM

1688 **Shkvorets, I.**: THERMODYNAMIC SALINOMETRY

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100 Environmental Variability and Climate Change: Linking Environmental Variation and Organism Responses Across Scales

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2939 **Nephin, J.**; Juniper, S. K.; Archambault, P.: QUANTIFYING SPATIAL AND TEMPORAL VARIABILTY OF INFAUNAL AND EPIFAUNAL ABUNDANCE, DIVERSITY AND COMMUNITY STRUCTURE ON THE BEAUFORT SHELF

2940 **Harrison, P. J.**; Zingone, A.; Jakobsen, H. H.: BIOVOLUME OF ECOLOGICALLY IMPORTANT PHYTOPLANKTON FROM TIME SERIES DATASETS

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2946 Leshno, Y.; **Edelman-Furstenberg, Y.**; Benjamini, C.: LIVE AND DEAD BENTHIC MOLLUSCAN ASSEMBLAGES AS A PROXY FOR ANTHROPOGENIC MODIFICATION OF THE EASTERN MEDITERRANEAN COASTLINE

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3004 **Kubiszyn, A. M.**; Trudnowska, E.; Wiktor, J. M.; Boehnke, R.; Blachowiak-Samolyk, K.: RELATIONSHIPS BETWEEN DIFFERENT PLANKTON SIZE FRACTIONS IN A WARMING ARCTIC FJORD

3005 **Mella-Flores, D.**; Vargas, C.; Mesa-Campbell, S.; Andrade, S.; von Dassow, P.: DIFFERENTIAL STRESS RESPONSES BETWEEN STRAINS AND LIFE-CYCLE STAGES IN THE UBIQUITOUS COCCOLITHOPHORE EMILIANIA HUXLEYI

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3007 **Davies, S. M.**; Sánchez Velasco, L.; Beier, E.: LARVAL FISH HABITATS IN THE NORTHERN BOUNDARY OF THE SHALLOW OXYGEN MINIMUM ZONE IN THE EASTERN TROPICAL PACIFIC OFF MEXICO

3008 **Navarro, M. O.**; Parnell, P. E.; Martz, T. R.; Levin, L. A.: YEAR-ROUND SPAWNING OF MARKET SQUID, DORYTEUTHIS OPALESCENS, THROUGH DYNAMIC ENVIRONMENTAL PH AND [O_2] CONDITIONS OFF SOUTHERN CALIFORNIA

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3010 **Miller, J. A.**; Peterson, W. T.; Copeman, L.; Litz, M. N.; Sremba, A. L.: IS THE GROWTH AND CONDITION OF EARLY LIFE STAGES STAGES OF NORTHERN ANCHOVY RELATED TO THE BIOCHEMICAL CLIMATOLOGY OF THE NORTHERN CALIFORNIA CURRENT?

3011 **Shimoda, T. E.**; Sakihara, T. S.; Nishiura, L. K.; Shindo, T. T.; Peyton, K. A.: INVESTIGATIONS OF HAWAIIAN ESTUARIES AS FISH HABITAT: SPECIES ASSEMBLAGES, ABUNDANCE, BIOMASS, AND SEASONALITY FROM THREE ESTUARY TYPES

3012 **McElhany, P.**; Ladd, T.; Khangaonkar, T.: MODELING COMPLEX MOVEMENT OF ZOOPLANKTON IN A DYNAMIC CARBON CHEMISTRY ENVIRONMENT

102 The Chukchi Sea Region: Physical Forcing and Ecosystem Response In the Pacific Arctic

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1038 **Statscewich, H.**; Weingartner, T. J.; Winsor, P. R.; Potter, R. A.; Danielson, S. L.: THE CIRCULATION AND HYDROGRAPHIC STRUCTURE OF BARROW CANYON IN THE NORTHEAST CHUKCHI SEA

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1059 **Varela, D. E.**; Giesbrecht, K. E.: WHY CHLOROPHYLL DOESN'T TELL THE WHOLE STORY: DECREASING BIOGENIC SILICA AND MICROPLANKTON PRODUCTIVITY IN THE BERING AND CHUKCHI SEAS SINCE 2006

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961 **Pisareva, M.**; Pickart, R. S.: FLOW OF PACIFIC WATER IN THE WESTERN CHUKCHI SEA: RESULTS FROM THE RUSALCA 2009 EXPEDITION

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963 **SOUSA, L.**; PINCHUK, A.; LOGERWELL, E.; PARKER-STETTER, S.; VOLLENWEIDER, J.: ARCTIC SHELFZ (SHELF HABITAT AND ECOLOGY OF FISH AND ZOOPLANKTON)

107 Tides and Ocean Mixing: Past, Present, Future

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1894 **Wang, Z.**; DiMarco, S.: OBSERVATIONS AND ANALYSIS OF TURBULENT MIXING NEAR THE SITE OF THE BP DEEPWATER HORIZON OIL SPILL IN THE GULF OF MEXICO

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2003 **Endoh, T.**; Yoshikawa, Y.; Matsuno, T.; Yufu, K.; Wakata, Y.: ESTIMATING REYNOLDS STRESS FROM ADCP MEASUREMENTS IN THE BOTTOM BOUNDARY LAYER OVER THE CONTINENTAL SHELF OF THE EAST CHINA SEA

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2072 **Zemskova, V. E.**; White, B. L.: OCEAN ENERGY CYCLE ESTIMATE FROM AVAILABLE POTENTIAL ENERGY FRAMEWORK

124 Boundary Currents, Eddies, and Water Mass Transformation At High Latitudes

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1238 **Hebert, D. L.**; Sutyrin, G. G.; Ullman, D. S.; Rossby, H. T.: EDDY DYNAMICS AT THE NORTHWEST CORNER OF THE NORTH ATLANTIC CURRENT

1239 **Zhan, P.**; Subramanian, A. C.; Hoteit, I.: EDDIES IN THE RED SEA: A STATISTICAL AND DYNAMICAL STUDY

1240 **Spence, J. P.**; van Sebille, E.; Saenko, O.; England, M.: USING EULERIAN AND LAGRANGIAN APPROACHES TO INVESTIGATE THE SOUTHERN OCEAN ABYSSAL CIRCULATION

1241 **Xu, J.**; Lowe, R.; Ivey, G.; Jones, N.; Zhang, Z.: SHELF CIRCULATION AND WATER MASS CONNECTIVITY ON THE NINGALOO SHELF OF WESTERN AUSTRALIA

1242 **Wang, Y.**; Wu, D.; Lin, X.: EFFECTS OF THE TIDE AND WIND FORCING ON THE WATER RESIDENCE TIME IN THE BOHAI SEA

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1245 **Furue, R.**; Benthuysen, J.; Schloesser, F.; McCreary, J.; Phillips, H.: IMPACTS OF THE CONTINENTAL SLOPE ALONG THE EASTERN BOUNDARY ON THE SINKING BRANCH OF DEEP MERIDIONAL OVERTURNING CIRCULATION

1285 **Wu, L.**; Sun, S.: INTENSFICATION OF GLOBAL SUBTROPICAL WESTERN BOUNDARY CURRENTS IN A WARMER CLIMATE

1286 **Davis, P. E.**; Lique, C.; Johnson, H. L.: HOW ARE CHANGING SEA ICE CONDITIONS AFFECTING THE SPIN-UP OF THE BEAUFORT GYRE?

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1292 Nakanowatari, T.; **Mitsudera, H.**; Motoi, T.; Ishikawa, I.; Ohshima, K. I.: MULTIDECADAL SCALE COOLING IN THE NORTH PACIFIC INTERMEDIATE WATER: AN EDDY-RESOLVING ICE-OCEAN COUPLED MODEL SIMULATION

1293 **Morison, J. H.**; Rigor, I.; Peralta-Ferriz, A. C.; Guthrie, J.; Zhang, J.: HOW THE CHARACTER OF ARCTIC OCEAN VARIABILITY CHALLENGES FUTURE SAMPLING

1294 **Orvik, K. A.**; Haugan, P. M.; Bruvik, E. M.; Hessevik, I.; Kvalsund, K.: THE EDDY FIELD OF THE LOFOTEN BASIN FROM SEAGLIDER OBSERVATIONS

1295 **Bosse, A.**; Testor, P.; Mortier, L.; d'Ortenzio, F.; Prieur, L.: HIGH RESOLUTION SAMPLING OF SUBMESOSCALE COHERENT VORTICES TRANSPORTING NEWLY FORMED DEEP WATER ACROSS THE NW MEDITERRANEAN SEA THANKS TO GLIDER

1296 **Shibley, N.**; Timmermans, M. L.; Toole, J.; Carpenter, J.: THE ARCTIC'S ATLANTIC WATER DOUBLE-DIFFUSIVE STAIRCASE: FROM THE BASIN BOUNDARIES TO THE INTERIOR

1354 **Lima, N. D.**; Gabioux, M.; Guerra, L. A.; Paiva, A. M.: A BIMODAL EDDY STRUCTURE ALONG THE BRAZIL CURRENT

1355 **Hossainzadeh, S.**; Osinski, R.; Maslowski, W.; Tulaczyk, S.: EFFECTS OF GREENLAND'S RUNOFF ON LABRADOR SEA DYNAMICS

1356 **Sato, R. M.**; Silveira, I. A.; Belo, W. C.; Möller, O. O.: BRAZIL CURRENT'S PROPAGATING CYCLONIC MEANDERS OFF CAPE SANTA MARTA (28SS)

1357 **Søiland, H.**; Rossby, T.: THE LOFOTEN BASIN EDDY REVISITED

1358 **Bhatrasataponkul, T.**: PATHWAYS AND TRANSFORMATION OF GREENLAND'S EXCESS FRESHWATER IN THE NORDIC SEA

139 Advances In Ocean Technology; Autonomous Instrument Development and Applications

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1493 **Leeuw, T.**; Boss, E.: CROWDSORUCING WATER QUALITY DATA USING THE IPHONE CAMERA

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1529 **Meyer, D.**; Prien, R. D.; Dellwig, O.; Waniek, J. J.; Schulz-Bull, D. E.: MEASUREMENT AND INTERPRETATION OF THE REDOX POTENTIAL IN THE GOTLAND DEEP

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159 CLIVAR: Ocean and Atmosphere Variability, Predictability and Change

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2127 **Mathis, J. T.**; Cooley, S. R.; Lucey, N.; Frisch, L. C.; Feely, R. A.: OCEAN ACIDIFICATION RISK ASSESSMENT FOR ALASKA'S FISHERY SECTOR

2128 **De Ramon N'Yeurt, A.**; Hemstock, S.; Rosentrater, K. A.; Capron, M. E.: PACIFIC COMMUNITY DEVELOPMENT THROUGH FERTILIZER PRODUCTION AND BIOFUEL GENERATION FROM SEAWEED AND OTHER MARINE PLANTS USING OCEAN MACROALGAL AFFORESTATION

2129 **Brosnan, I. G.**; Welch, D. W.; Jacobs Scott, M.: MANAGED DAM SPILL, GAS SUPERSATURATION, AND THE EFFECT ON SURVIVAL OF YEARLING CHINOOK SALMON IN THE LOWER COLUMBIA RIVER AND OCEAN PLUME

2130 **Fang, S. M.**; Zhang, H. D.; Xu, H. L.: EVALUATION OF MARINE SCIENCE AND TECHNOLOGY CONVERSION EFFICIENCY IN COASTAL PROVINCES AND CITIES OF CHINA BASED ON MIXED DEA-SFA MODEL

2175 **Yin, K. D.**; Jin, X.; Gao, W. J.: ANALYSIS ON BOOM INDEX AND FLUCTUATING CHARACTERISTICS OF MARINE ECONOMY IN CHINA

2176 **Correggiari, A.**; Perini, L.; Foglini, F.; Remia, A.; Luciani, L.: RESEARCH AND EXPLOITATION OF SHELF MARINE SAND DEPOSIT FOR COASTAL RENOURISHMENT: GEODATABASE GUIDELINES FROM ADRIATIC SHELF EXPERIENCE

2177 **Jones, C. M.**: FOOD SECURITY, FISH, AND HUMAN HEALTH

2178 **Holl, C. M.**; Popp, B. N.; Otoshi, C. A.; Moss, S. M.: NATURAL PRODUCTIVITY IN RECIRCULATING AQUACULTURE AS SUPPLEMENTAL NUTRITION

2179 **de Ramon N'Yeurt, A.**; Tulip, R.; Capron, M. E.: MOVING OCEAN POLICY FROM "TAKE" TO "GIVE AND TAKE" WITH MANAGED OCEAN SEAWEED FORESTS

2180 **Hopkins, K. D.**: THE MORAL IMPERATIVE FOR SUPPORTING OFF-SHORE AQUACULTURE

2206 **REEVE, L. N.**: THE IMPACTS ON MYSTICETES OF UNDERWATER NOISE POLLUTION FROM COMMERCIAL SHIPPING IN THE HIGH SEAS AND OPPORTUNITIES FOR INTERNATIONAL REGULATION

2207 **Kotowicz, M.**: MANAGING OCEANS' HISTORIC AND SCIENTIFIC RESOURCES IN THE MARIANAS TRENCH MARINE NATIONAL MONUMENT

2208 **Costa, M. B.**; Macedo, E. C.; Siegle, E.: SHORELINE CHANGES ANALYSIS AT ROCAS ATOLL AS A TOOL TO IMPROVE SPATIAL PLANNING STRATEGIES

170 Ecosystems: Processes, Assessment, and Management

Chair(s): To be named, lyndaw@sgmeet.com

Location: Kamehameha Hall III

3215 **Taub, F. B.**; McLasdey, A. K.: EFFECTS OF GRAZERS ON COMMUNITY METABOLISM (O2 AND CO2 DYNAMICS) IN CLOSED ECOLOGICAL SYSTEMS

3216 Shelton III, A. J.; **Richmond, R. H.**: REVIVING ISLAND ECOSYSTEMS: WATERSHED, CORAL REEF, AND FISHERIES RESTORATION IN HUMTTAK, GUAM

3217 **Drury, C. R.**; Lirman, D.: THE IMPACT OF CORAL GENOTYPE AND THE ENVIRONMENT ON RESTORATION SUCCESS IN ACROPORA CERVICORNIS

3218 **Christensen, S. J.**; Kolber, Z.; Bidigare, R. R.: VALIDATION OF FRR FLUOROMETRIC MEASUREMENTS OF BACTERIOCHLOROPHYLL A BY LC-MS/MS ANALYSIS

3219 **Bliss, B. C.**; Gilliam, D. S.: TRANSLOCATION OF ACROPORA CERVICORNIS ACROSS GEOGRAPHIC REGIONS: INVESTIGATING SPECIES RECOVERY AND RESTORATION

3220 **White, D. J.**; Williams, I. D.; Sparks, R. T.: THE KAHEKILI HERBIVORE FISHERIES MANAGEMENT AREA: ENHANCING RESILIENCE OF A REEF SHOWING SIGNS OF STRESS IN WEST MAUI, HAWAI`I

3221 **Dethmers, K. E.**; Penny, S.: TROUBLE IN A SOUP OF NETS: WILDLIFE ENTANGLEMENTS IN DERELICT FISHING GEAR

3222 **Sindorf, V. L.**: INDIAN OCEAN ROCKY INTERTIDAL ZONE - AN IMPORTANT NURSERY HABITAT FOR COMMERCIALLY VALUABLE FISH SPECIES. A PRELIMINARY SURVEY IN WATAMU, KENYA

3224 **Santos, C. J.**; Sanchez, B. I.; Martinez, G. A.; Macchiavelli, R. E.: PHYTOPLANKTON IN SIX RESERVOIRS OF PUERTO RICO: AN APPROACH TO RELATE DIVERSITY AND TROPHIC CONDITIONS USING BIOTIC INDEXES AND THE FUNCTIONAL GROUPS CONCEPT

3225 **Kneer, D.**: DYNAMICS OF SEAGRASSES IN A HETEROGENOUS TROPICAL REEF ECOSYSTEM

3226 **Levine, R. M.**; Lawson, G. L.; Wiebe, P. H.; Lavery, A. C.; Greene, C. H.: TEMPORAL AND SPATIAL VARIABILITY IN EUPHAUSIID ABUNDANCE AND SPECIES COMPOSITION AT THE NORTHWEST ATLANTIC SHELF BREAK AND ITS CANYONS

3227 **Sakashita, M.**; Jeffers, E.: ENDANGERED CORALS GET NEW LEGAL MUSCLE

3228 **Hoff, N. T.**; Dias, J. F.: ABUNDANCE BIOMASS COMPARISON (ABC METHOD) APPLIED TO ICHTHYOFAUNA FROM A BRAZILIAN MARINE PROTECTED AREA

3229 **Palardy, J. E.**: THERMAL EVOLUTION IS REQUIRED FOR LONG-TERM CORAL REEF SURVIVAL

3230 **Ennis, R. S.**; Smith, T. S.: CORAL REEF HEALTH AND ACCLIMATION ALONG A WATER QUALITY GRADIENT IN ST. THOMAS, USVI

3231 **Ross, M. C.**; Donahue, M. J.: INTEGRAL PROJECTION MODELS AS A TOOL TO INVESTIGATE THE ROLE OF CORAL DEMOGRAPHY IN LONG-TERM TRENDS OF CORAL ABUNDANCE AROUND MAUI HAWAII

3232 Ricci, P. F.; **Taramelli, A.**; Valentini, E.; Sheng, H.; Ricci, A. P.: INTRINSIC ANALYSIS: A UNIFICATION THROUGH NETWORKS, ENTROPY, AND DIVERSITY INDICES TO DESCRIBE THE SELF (IN SE) QUALITIES OF AN ECOSYSTEM.

3233 **DeJoseph, B. M.**; Fluharty, D. L.: UNDERSTANDING INFORMATION NEEDS FOR ADAPTING REEF ECOSYSTEM MANAGEMENT TO A CHANGING CLIMATE

3234 **Day, R. D.**; Pugh, R. S.; Becker, P. R.: THE CORAL REEF ENVIRONMENTAL BIOREPOSITORY (CREB): EXPANDING SPECIMEN BANKING AT THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST)

3235 **Feeley, M. W.**; Morley, D.; Acosta, A.; Barbera, P.; Hunt, J.: SPAWNING MIGRATION MOVEMENTS OF MUTTON SNAPPER WITHIN A MARINE RESERVE NETWORK IN TORTUGAS, FLORIDA

3236 **Rice, C. A.**; Greene, C. M.; Rhodes, L.; Chamberlin, J.; Hall, J.: LANDSCAPE AND SEASONAL COMPOSITION OF LOWER TO MIDDLE TROPHIC LEVELS IN PUGET SOUND SURFACE WATERS

173 New Conceptual and Experimental Approaches to Investigate the Effects of Multiple Environmental Drivers On Ocean Biota

Chair(s): Philip Boyd, pboyd@chemistry.otago.ac.nz
David Hutchins , dahutch@usc.edu
Jean-Pierre Gattuso, gattuso@obs-vlfr.fr

Location: Kamehameha Hall III

1471 **Spackeen, J.**; Bronk, D.; Sipler, R.; Hutchins, D.; Allen, A.: IMPACT OF ELEVATED TEMPERATURE AND PCO2 ON THE UPTAKE OF NITRATE AND UREA BY MICROBES IN COASTAL SOUTHERN CALIFORNIA

1472 **Roberts, D.**; Stark, J. S.; Kirkwood, W. J.; Peltzer, E. T.; McMinn, A.: FREE OCEAN CO_2 ENRICHMENT OF THE ANTARCTIC SEA FLOOR: ANTFOCE

1473 **Zhu, Z.**; Fu, F.; Hutchins, D. A.: EFFECTS OF GLOBAL WARMING AND PHOSPHORUS LIMITATION ON THE DIATOM COSCINODISCUS SP.

1474 **Sperling, E. A.**; Frieder, C. A.; Levin, L. A.: MACROFAUNAL FEEDING ECOLOGY IN MODERN OXYGEN MINIMUM ZONES: IMPLICATIONS FOR PAST AND FUTURE OCEANS

1476 **Hoppe, C. J.**; Beszteri, S.; Holtz, L. M.; Trimborn, S.; Rost, B.: DYNAMIC LIGHT ALTERS THE RESPONSE OF CHAETOCEROS DEBILIS TO OCEAN ACIDIFICATION

1477 **Xu, K.**; Fu, F.; Hutchins, D. A.: COMPARATIVE RESPONSES OF THE TWO DOMINANT ANTARCTIC PHYTOPLANKTON PHAEOCYSTIS ANTARCTICA AND FRAGILARIOPSIS CYLINDRUS TO FOUR CLUSTERED ENVIRONMENTAL FACTORS

1478 **MacDonald, D. J.**; McGinley , M. P.; Browning , G.; Oliver , M. J.; Luther , G. W.: ASSESING HYDROGEN SULFIDE STRESS AT PHOTOSYSTEM CENTER II IN MARINE ALGAE USING IN SITU BIOLOGICAL, CHEMICAL AND PHYSICAL SENSORS

1479 **Barry, J. P.**; Litvin, S. Y.; Kirkwood, W. J.; Matsumoto, G. I.; Brewer, P. G.: DEVELOPMENT OF A SHALLOW-WATER, FREE OCEAN CO2 ENRICHMENT (SW-FOCE) FACILITY IN MONTEREY BAY, CALIFORNIA

1480 **Mason, R. A.**; Dove, S. G.; Skirving, W.; Hoegh-Guldberg, O.: PREDICTION OF CORAL BLEACHING USING REMOTELY-SENSED IRRADIANCE AND OCEAN TEMPERATURE

1481 **Winder, M.**; Bermúdez, J. R.; Hansen, T.; Jay, B.; Thompson, E.: CYCLING OF ORGANIC MATTER THROUGH THE PELAGIC FOOD WEB UNDER WARMER ACIDIFIED OCEAN CONDITIONS

1482 **Strzepek, R. F.**; Boyd, P. W.; Tagliabue, A.: TOWARDS A MECHANISTIC UNDERSTANDING OF THE MULTIPLICATIVE EFFECTS OF IRON AND LIGHT ON ALGAL PHOTOSYNTHESIS AND IRON REQUIREMENTS

1483 **Hutchins, D. A.**; Tatters, A. O.; Xu, K.; Bronk, D.; Allen, A.: WILL CLIMATE CHANGE PROMOTE ECOSYSTEM-DAMAGING TOXIC PSEUDO-NITZSCHIA BLOOMS IN THE FUTURE ROSS SEA?

1484 **Sánchez-García, M. A.**; Roberson, L. M.; Zottoli, S. J.: USE OF LUTJANUS JOCU (DOG SNAPPER) AS A BIOINDICATOR OF EMERGING CONTAMINANTS AND CHANGES IN ENVIRONMENTAL CONDITION

1485 **Marty-Rivera, M.**; Roberson, L. M.; Yudowski, G. A.: A CHEMICAL APPROACH TO PREVENT CORAL BLEACHING

1486 **Johnson, C. N.**; Fu, F.; Hutchins, D. A.; Walworth, N.; Webb, E. A.: DIFFERENTIAL EXPRESSION OF GENES FOR CARBON AND NITROGEN METABOLISM IN HIGH CO2 ADAPTED CELL LINES OF TRICHODESMIUM ERYTHRAEUM (IMS 101)

1541 **Roberson, L.**; Rosenthal, J.: A COMPARATIVE TRANSCRIPTOMICS APPROACH TO UNDERSTANDING CALCIFICATION IN CORALS

1542 **Vilchis, L. I.**; Gaydos, J. K.; Johnson, C. K.; Evenson, J. R.; Pearson, S. F.: COMMON RISKS AMONG DECLINING MARINE PREDATORS SUGGESTS ECOSYSTEM CHANGE

824 papers

2/27/2014 Orals

175D Tutorials

Chair(s): Tom Drake, tom.drake@navy.mil

Location: 310 Theater

14:00 **Filippelli, G. M.**: OCEAN SCIENCE, POLICY, AND INTERNATIONAL DIPLOMACY: A LOOK FROM INSIDE THE U.S. DEPARTMENT OF STATE

14:30 **Buesseler, K. O.**: FUKUSHIMA AND OCEAN RADIOACTIVITY

15:00 **Chen, S. S.**: SUPERSTORM SANDY: AN IDEAL TUTORIAL FOR INTEGRATED IMPACT FORECASTING USING COUPLED ATMOSPHERE-WAVE-OCEAN-SURGE MODELS

15:30 **Greene, C. H.**: FOSSIL FUEL JUNKIES, CLIMATE CHANGE, OCEAN ACIDIFICATION, AND GLOBAL BIOGEOCHEMICAL ENGINEERING

005 Air-Sea Gas Exchange

Chair(s): David Ho, ho@hawaii.edu
Rik Wanninkhof, rik.wanninkhof@noaa.gov
William Asher, asherwe@apl.washington.edu

Location: 312

08:00 **Blomquist, B. W.**; Huebert, B. J.; Fairall, C.; Hare, J.; Brooks, I.: HIWINGS – RECENT RESULTS FROM A HIGH WIND GAS EXCHANGE STUDY IN THE LABRADOR SEA

08:15 **Butterworth, B. J.**; Miller, S. D.: LONG-TERM SOUTHERN OCEAN AIR-SEA CO_2 FLUX BY EDDY COVARIANCE FROM AN ICE BREAKER

08:30 **Landwehr, S.**; Miller, S. D.; Smith, M. J.; Saltzman, E. S.; Ward, B.: ANALYSIS OF THE PKT CORRECTION FOR DIRECT CO2 FLUX MEASUREMENTS OVER THE OCEAN

08:45 **Yang, M.**; Nightingale, P.; Liss, P.; Johnson, M.; Blomquist, B.: EDDY COVARIANCE MEASUREMENTS OF AIR-SEA OVOC TRANSFER OVER THE ATLANTIC OCEAN

09:00 **Coburn, S.**; Ortega, I.; Blomquist, B.; Fairall, C. W.; Volkamer, R.: EDDY COVARIANCE FLUX MEASUREMENTS OF GLYOXAL OVER THE TROPICAL PACIFIC OCEAN DURING TORERO 2012

09:15 **Fairall, C. W.**; Bariteau, L.: THEORETICAL AND NUMERICAL ANALYSIS OF CARBONATE REACTION TIME SCALES ON THERMAL EFFECTS OF AIR-SEA CO2 FLUX

09:30 **Nicholson, D. P.**; Khatiwala, S.: NOBLE GAS CONSTRAINTS ON BUBBLE-MEDIATED AIR-SEA GAS FLUX IN A GLOBAL OCEAN MODEL

09:45 **Brix, H.**; Menemenlis, D.: AIR-SEA GAS EXCHANGE REVISITED: IMPROVING AIR-SEA CARBON FLUXES IN A GLOBAL BIOGEOCHEMICAL MODEL

14:00 **Landschützer, P.**; Gruber, N.; Bakker, D.; Schuster, U.: VARIABILITY OF THE GLOBAL OCEAN CARBON SINK (1998-2011)

14:15 **Yokouchi, Y.**; Saito, T.; Mukai, H.: HIGH FREQUENCY MEASUREMENTS OF DIBROMOMETHANE IN THE ATMOSPHERE AND NEW FINDINGS ON ITS OCEANIC SOURCES

14:30 **Fischer, T.**; Kock, A.; Dengler, M.; Bange, H. W.; Arévalo-Martínez, D. L.: GAS GRADIENT IN TOP 10 METERS OF COASTAL UPWELLING BIASES SEA-TO-AIR FLUX ESTIMATES: NITROUS OXIDE OBSERVATIONS OFF PERU

14:45 **Arneborg, L.**; Gålfalk, M.; Fredriksson, S.; Bastviken, D.: A WAVE BASED PARAMETERIZATION OF THE GAS TRANSFER VELOCITY IN FETCH LIMITED AREAS

15:00 **Schnieders, J.**; Garbe, C. S.: IMPACT OF INTERFACIAL TURBULENCE ON GAS TRANSFER

15:15 **Liao, Q.**; Wang, B.; Fillingham, J. H.; Bootsma, H. A.: ON THE COEFFICENT OF THE SMALL-SCALE EDDY MODEL THAT PREDICTS THE AIR-SEA GAS TRANSFER VELOCITY

15:30 **Lovely, A. E.**; Loose, B.; Schlosser, P.; Perovich, D.; McGillis, W. R.: GAS TRANSFER THROUGH POLAR SEA ICE (GAPS): GAS PARTITIONING BETWEEN WATER AND SEA ICE DERIVED FROM A LARGE-SCALE TANK EXPERIMENT

15:45 **Brumer, S. E.**; Zappa, C. J.; McGillis, W. R.; Loose, B.; Schlosser, P.: GAS TRANSFER IN SEASONAL ICE ZONES

017 Shedding Light On Phytoplankton Biogeography

Chair(s): Dr. Anna Hickman, a.hickman@noc.soton.ac.uk
Dr. Stephanie Dutkiewicz, stephd@ocean.mit.edu

Location: 313 C

08:15 **Slade, W. H.**; Cetinic, I.; Poulton, N. J.; Perry, M. J.: FRACEX: UNDERSTANDING THE EFFECTS OF PHYTOPLANKTON SIZE ON OPTICAL PROPERTIES

08:30 **Edwards, K. F.**; Thomas, M. K.; Klausmeier, C. A.; Litchman, E.: LIGHT AND PHYTOPLANKTON GROWTH: ALLOMETRY, TAXONOMIC VARIATION, AND BIOGEOGRAPHY

08:45 **Graff, J. R.**; Milligan, A. J.; Westberry, T. K.; Halsey, K. H.; Behrenfeld, M. J.: PHOTOACCLIMATION RELATIONSHIPS OF PHYTOPLANKTON COMMUNITIES IN THE NATURAL FLUCTUATING LIGHT FIELD

09:00 **Talmy, D.**; Geider, R. J.; Blackford, J.; Hill, C.; Follows, M.: PHYTOPLANKTON PHOTO-ADAPTATION IN CONTRASTING AQUATIC LIGHT REGIMES

09:15 **Mackey, K.**; McIlvin, M.; Post, A.; Saito, M.: STRAIN-SPECIFIC RESPONSE OF MARINE SYNECHOCOCCUS TO IRON LIMITATION

09:30 Zorz, J. K.; **Cockshutt, A. M.**: CROSS-TAXON ANALYSES OF THE PHOTOSYNTHETIC PROTEIN COMPLEX ALLOCATIONS IN THE PICOCYANOBACTERIA

09:45 **Klausmeier, C. A.**; Nathan, J.; Yoshiyama, K.: PHYTOPLANKTON SPECIES COEXISTENCE ALONG VERTICAL GRADIENTS OF NUTRIENTS AND LIGHT

018 Advancing the Frontiers of the Si Cycle In Terrestrial, Coastal, and Open Ocean Ecosystems

Chair(s): Paul J. Treguer, paul.treguer@univ-brest.fr
Joanna C. Carey, carey.joanna@epa.gov
Mark A. Brzezinski, mark.brzezinski@lifesci.ucsb.edu
Christina De La Rocha, Christina.Delarocha@univ-brest.fr
Robinson W. Fulweiler, rwf@bu.edu
Manuel Maldonado, maldonado@ceab.csic.es

Location: 318 AB

14:00 **Conley, D. J.**; Frings, P.; Clymans, W.; Vandevenne, F.; Struyf, E.: LINKING THE TERRESTRIAL AND OCEANIC SI CYCLES

14:15 **Hood, J. L.**; Cappellen, P. V.: SEASONAL PATTERNS OF DISSOLVED SILICA IN TEMPERATE RIVERS AND STREAMS

14:30 **Treguer, P. J.**; De La Rocha, C. L.: IS THE WORLD OCEAN SILICA CYCLE AT STEADY STATE?

14:45 **Jeandel, C.**; Oelkers, E.; Jones, M.: THE INFLUENCE OF RIVERINE TRANSPORTED PARTICULATE MATERIAL DISSOLUTION ON THE GLOBAL CYCLES OF SI AND OTHER ELEMENTS

15:00 Lehtimäki, M.; **Tallberg, P.**: DOES HYPOXIA INFLUENCE BIOGEOCHEMICAL CYCLING OF SILICON?

15:15 **Holzer, M.**; Primeau, F.; DeVries, T.; Matear, R.: THE SOUTHERN-OCEAN SILICON TRAP: DATA-CONSTRAINED ESTIMATES OF REGENERATED SILICIC ACID, TRAPPING EFFICIENCIES, AND TRANSPORT PATHS

15:30 **Brzezinski, M. A.**; Jones, J. L.: COUPLING OF THE DISTRIBUTION OF SILICON ISOTOPES TO THE MERIDIONAL OVERTURNING CIRCULATION OF THE NORTH ATLANTIC OCEAN

15:45 **Krause, J. W.**; Brzezinski, M. A.; Lachenmyer, E. M.; Marquez, I. A.; Baines, S. B.: CELLULAR SILICON VARIABILITY AND UPTAKE IN CULTURED SYNECHOCOCCUS

024 ASLO Multicultural Program Student Symposium

Chair(s): Benjamin Cuker, benjamin.cuker@hamptonu.edu
Deidre Gibson, deidre.gibson@hamptonu.edu

Location: 304 AB

08:00 **Quesada, A. J.**; Acuña, F. H.; Cortés, J.: DIET OF THE SEA ANEMONE *ANTHOPLEURA NIGRESCENS*: COMPOSITION AND VARIATION BETWEEN DIURNAL AND NOCTURNAL HIGH TIDES

08:15 **Edge, I. T.**; DeLorenzo, M.: EFFECTS OF SAMPLE STORAGE METHODS AND TEMPERATURE ON CELLULAR BIOMARKER ACTIVITY IN THE EASTERN OYSTER, CRASSOSTREA VIRGINICA

08:30 **Dupont, A. M.**; Cuhel PhD, R. L.: CA:MG RATIOS IN QUAGGA MUSSEL SHELLS IN LAKE MICHIGAN: A BIOGEOCHEMICAL THERMOMETER AND ITS RELATIONSHIP WITH WATER COLUMN INVENTORIES

08:45 **Peoples, A. J.**; Wenzel , F.; Waring, G.: PRELIMINARY ANALYSIS ON THE FEEDING ECOLOGY OF THE GRAY SEAL (*HALICHOERUS GRYPUS*) FROM THE COAST OF NEW ENGLAND

09:00 **Browning, G. A.**; MacDonald, D. J.; Luther, G. W.: THE EFFECTS OF HYDROGEN SULFIDE AS A CHEMICAL STRESSOR ON ALGAL SPECIES NATIVE TO THE DELAWARE INLAND BAYS AND THE CHESAPEAKE BAY

09:15 **Yazzie, A. T.**: SPATIAL VARIABILITY OF BIOTOXINS IN MANILA AND VARNISH CLAMS

09:30 **Francisco, C.**; Fields, D.; Vermont, A.; Waller, J.: RESPIRATION RATES OF ACARTIA TONSA UNDER FUTURE TEMPERATURE AND SALINITY SCENARIOS IN THE GULF OF MAINE

09:45 **Ramírez Vélez, A. C.**; Brush, M. J.: EFFECTS OF OUTWELLING ON THE METABOLISM OF THE YORK RIVER ESTUARY, VA

025 Physical-Biological Interactions In Coral Reefs: A Tribute to Marlin Atkinson

Chair(s): Stephen Monismith, monismith@stanford.edu
Amatzia Genin, a.genin@mail.huji.ac.il

Location: 320 Theater

08:00 **Falter, J. L.**; Lowe, R. J.; Zhang, Z. L.; McCulloch, M. M.: PHYSICAL AND BIOLOGICAL CONTROLS ON THE CARBONATE CHEMISTRY OF CORAL REEF WATERS: NO REAL REFUGE FROM ACIDIFICATION

08:15 **Comeau, S.**; Carpenter, R. C.; Lantz, C. A.; Edmunds, P. J.: UTILIZATION OF OUTDOOR FLUMES TO INVESTIGATE THE RESPONSE OF CORAL REEF COMMUNITIES TO OCEAN ACIDIFICATION

08:30 **Koweek, D. A.**; Dunbar, R. B.; Rogers, J. S.; Mucciarone, D. A.; Teneva, L. T.: HIGH-RESOLUTION COMMUNITY METABOLISM FROM A HEALTHY CORAL REEF ECOSYSTEM: THE BALANCE BETWEEN ENVIRONMENTAL AND ECOLOGICAL CONTROLS

08:45 **Johnson, M. D.**; Fox, M. D.; Kelly, E. L.; Andersson, A. J.; Smith, J. E.: BIOGEOCHEMICAL RESPONSES OF TROPICAL MACROALGAE TO NUTRIENT ENRICHMENT IN THE SOUTHERN LINE ISLANDS

09:00 **Chauvin, A.**; Atkinson, M. J.; Cuet, P.; Schar, D. W.: A METHOD TO DERIVE C AND $CACO_3$ BUDGETS ON CORAL REEFS USING A PH OR PCO_2 SENSOR

09:15 **Ruiz-Jones, G. J.**; Palumbi, S. R.: CORAL CALCIFICATION IN A REEF ENVIRONMENT WITH LARGE DAILY SWINGS IN PH

09:30 **Price, N. N.**; Martz, T. R.; Smith, J. E.: DO CALCIFIED ALGAE ACCLIMATE TO DIEL FLUCTUATIONS IN SEAWATER PH ON CORAL REEFS?

09:45 **Shamberger, K. E.**; Lentz, S. J.; Cohen, A. L.; McCorkle, D. C.; Golbuu, Y.: A DECLINE IN NET ECOSYSTEM CALCIFICATION BY CORAL REEFS OF THE PALAUAN ARCHIPELAGO

027 Nearshore Processes

Chair(s): Allison M. Penko, allison.penko@nrlssc.navy.mil
Ryan P. Mulligan, mulliganr@civil.queensu.ca

Location: 311

08:00 **Hansen, J. E.**; Raubenheimer, B.; List, J.; Elgar, S.: SURFZONE MORPHOLOGIC CHANGE ONSHORE OF A SUBMARINE CANYON

08:15 **Safak, I.**; List, J. H.; Warner, J. C.: PHYSICAL AND GEOLOGICAL CONTROLS ON LONG-TERM SEDIMENT TRANSPORT PATTERNS ALONG A WAVE-ENERGETIC, NON-INTERRUPTED COASTLINE: OREGON INLET TO CAPE HATTERAS

08:30 Calantoni, J.; Eldredge, K. H.; Staples, T.; Sheremet, A.; **Penko, A. M.**: TIME SERIES OBSERVATIONS OF SEAFLOOR ROUGHNESS IN THE NORTHERN GULF OF MEXICO 1: SEDIMENT TRANSPORT

08:45 **Staples, T. J.**; Safak, I.; Sheremet, A.; Calantoni, J.: TIME SERIES OBSERVATIONS OF SEAFLOOR ROUGHNESS IN THE NORTHERN GULF OF MEXICO 2: HYDRODYNAMICS

09:00 **Nelson, T. R.**; Voulgaris, G.: TEMPORAL AND SPATIAL EVOLUTION OF INNER SHELF RIPPLE GEOMETRY AND IRREGULARITY

09:15 **Johnson, B. A.**; Cowen, E. A.: AN EXPERIMENTAL INVESTIGATION OF SEDIMENT SUSPENSION AND RIPPLE EVOLUTION DUE TO TURBULENCE IN THE ABSENCE OF MEAN SHEAR

09:30 **Hartman, M. A.**; Kennedy, A. B.: RELATIONSHIP BETWEEN SANDY BEACH MORPHOLOGY AND WAVE CLIMATE USING BATHYMETRIC LIDAR

09:45 **Fiedler, J. W.**; Brodie, K. L.; McNinch, J. E.; Guza, R. T.: INFRAGRAVITY WAVES, WATER TABLE, AND RUNUP OBSERVATIONS ON A NOURISHED BEACH

14:00 **Bennis, A. C.**; Le Bot, S. C.; Lafite, R.; Bonneton, P.; Ardhuin, F.: ON A NEW HYDRID METHOD TO MODELIZE THE TURBULENCE OVER MARINE SAND RIPPLES

14:15 **Sylvia Rodriguez-Abudo, B.**; Diane Foster, L.: NEARBED MOMENTUM TRANSFER IN THE WAVE-BOTTOM BOUNDARY LAYER OVER RIPPLED SEDIMENT BEDS

14:30 **Nayak, A. R.**; Li, C.; Kiani, B.; Katz, J.: REYNOLDS AND WAVE STRESSES IN THE ROUGH WALL COASTAL BOTTOM BOUNDARY LAYER

14:45 **Mullarney, J. C.**; MacDonald, I. T.: MEMORY-LOSS: USING LAGRANGIAN MEASUREMENTS OF FLOCCULATION DYNAMICS AND TURBULENCE TO REMOVE ANTECDENT INFLUENCES ON SEDIMENT IN MOTION

15:00 **Rosman, J. H.**; Paul, E. L.; Scotti, A.: INTERPRETING SHALLOW WATER TURBULENCE MEASUREMENTS: INSIGHTS FROM NUMERICAL SIMULATIONS OF TURBULENCE ADVECTED BY WAVES

15:15 **Zhou, Z.**; Sangermano, J.; Hsu, T.; Ting, F.; Liu, X.: THE EFFECTS OF WAVE-BREAKING-INDUCED TURBULENT COHERENT STRUCTURES ON BOTTOM STRESS AND SUSPENDED SEDIMENT TRANSPORT – A 3D NUMERICAL STUDY

15:30 **Hsu, T. J.**; Cheng, Z.; Calantoni, J.; Sou, I. M.: ON THE DYNAMICS OF PLUG FLOW - A MULTI-DIMENSIONAL EULERIAN TWO-PHASE MODEL INVESTIGATION

15:45 **Frank, D. P.**; Foster, D. L.; Sou, I.; Calantoni, J.; Chou, P.: INCIPIENT MOTION OF NEARSHORE SEDIMENTS

044 East Asian Marginal Seas: Sea Surface Temperature Variability and Ocean-Atmosphere Process

Chair(s): Hyodae Seo, hseo@whoi.edu
Shang-Ping Xie, sxie@ucsd.edu
Glen Gawarkiewicz , ggawarkiewicz@whoi.edu
Naoki Hirose, Kyushu University

Location: 301 AB

08:00 **Takehi, F.**; Nakamura, H.; Miyasaka, T.; Yoshioka, M. K.: IMPACT OF THE EARLY-SUMMER OCEANIC FRONTAL ZONE IN THE SOUTHERN EAST CHINA SEA ON STRUCTURAL CHANGE OF A TROPICAL CYCLONE

08:15 **Kida, S.**; Qiu, B.: AN EXCHANGE FLOW BETWEEN THE OKHOTSK SEA AND THE NORTH PACIFIC DRIVEN BY THE EAST KAMCHATKA CURRENT

08:30 **Park, Y.**; Park, J.; Lee, H.; Min, H.: THE EFFECTS OF GEOTHERMAL HEATING ON THE EAST/JAPAN SEA CIRCULATION

08:45 **Ichikawa, K.**; Motomura, K.; Morimoto, A.; Fukudome, K.; Yoshikawa, Y.: SEASONAL VARIATOINS OF THE SURFACE GEOSTROPHIC TSUSHIMA WARM CURRENT DETERMINED BY GPS ON A FERRYBOAT

09:00 **SHIN, C.**; KIM, E.; KIM, D.; JEON, J.: THE RATIO OF THE NORTHWESTERN PACIFIC WATER IN THE KOREA STRAIT IN JUNE

09:15 **WEI, H.**; LU, Y. Y.; LI, J. X.; LUO, X. F.: INTER-ANNUAL VARIATIONS OF WATER TEMPERATURE AND CIRCULATION IN THE EAST CHINA SEA

09:30 **Matsuno, T.**; Liu, C. T.; Fukudome, K.; Chen, H. W.; Ichikawa, K.: SEASONAL VARIATIONS OF VOLUME TRANSPORT THROUGH TAIWAN AND TSUSHIMA STRAITS AND NET TRANSPORT ACROSS THE SHELF BREAK OF THE EAST CHINA SEA

09:45 **Yoshie, N.**; Sakamoto, K.; Nakagawa, M.; Guo, X.: DRASTIC CHANGE OF PHYTOPLANKTON COMMUNITY IN THE KUROSHIO REGION OF THE EAST CHINA SEA ASSOCIATED WITH THE KUROSHIO FRONTAL EDDY

14:00 **Oey, L.**; Chang, M. C.; Chang, Y. L.; Lin, Y. C.; Xu, F. H.: DECADAL WARMING OF COASTAL CHINA SEAS AND COUPLING WITH WINTER MONSOON AND CURRENTS

14:15 N.-E. Omrani, .; F. Ogawa , .; N. S. Keenlyside, .; **H. Nakamura, .**; K. Matthes, .: IMPACT OF OCEANIC FRONT ON THE NORTHERN HEMISPHERIC COUPLED STRATOSPHERE/TROPOSPHERE-SYSTEM

14:30 **Schneider, N.**; Qiu, B.: THE RESPONSE OF THE ATMOSPHERIC BOUNDARY LAYER TO WEAK SEA SURFACE TEMPERATURE FRONTS

14:45 **Seo, H.**; Kwon, Y.; Park, J.: ON THE EFFECT OF THE EAST/JAPAN SEA SST VARIABILITY ON THE NORTH PACIFIC ATMOSPHERIC CIRCULATION

15:00 **Alexander, M. A.**; Smirnov, D.; Newman, M.; Kwon, Y.; Frankignoul, C.: THE ATMOSPHERIC RESPONSE TO OYASHIO FRONT SHIFTS IN AN ATMOSPHERIC GCM

15:15 **Small, R. J.**; Tomas, R. A.; Bryan, F. O.: ATMOSPHERIC CIRCULATION RESPONSE TO WESTERN BOUNDARY CURRENTS IN THE COMMUNITY ATMOSPHERE MODEL

15:30 **Zhou, G.**; Latif, M.; Greatbatch, R.; Park, W.: THE IMPORTANCE OF EXTRA-TROPICAL SYNOPTIC SST VARIABILITY FOR NORTH PACIFIC SECTOR CLIMATE

15:45 **Shoshiro Minobe, .**; Shogo Takebayashi, .: DIURNAL PRECIPITATION AND CLOUD VARIABILITY OVER THE GULF STREAM AND THE KUROSHIO

046 Bio-Physical Controls On the Initiation and Development of the Spring Phytoplankton Bloom

Chair(s): Paulo H. R. Calil, paulo.calil@furg.br
Stephen M. Chiswell , Steve.Chiswell@niwa.co.nz
Philip Boyd, Philip.Boyd@utas.edu.au

Location: 313 C

14:00 **behrenfeld, m. j.**; boss, e. s.; doney, s. c.; siegel, d. a.; lima, i.: BLOOMS IN THE CONTEXT OF ECOSYSTEM ANNUAL CYCLES

14:15 **Mignot, A.**; Ferrari, R.; Nadeau, L. P.: PHOTOPERIODIC CONTROL OF THE ONSET OF THE SUB-POLAR NORTH ATLANTIC BLOOM

14:30 **Brody, S. R.**; Lozier, M. S.: CHANGES IN DOMINANT MIXING LENGTH SCALES DRIVE SUBPOLAR PHYTOPLANKTON BLOOMS IN THE NORTH ATLANTIC

14:45 **Chiswell, S. M.**; Boyd, P. W.: INTERANNUAL VARIABILITY IN TIMING AND DURATION OF SPRING BLOOMS EAST OF NEW ZEALAN

15:00 **Johnson, L.**; Lee, C.; D'Asaro, E.: THE ROLE OF SUBMESOSCALE INSTABILITIES ON SPRINGTIME MIXED LAYER STRATIFICATION AND PRIMARY PRODUCTIVITY

15:15 **Taylor, J. R.**: LARGE-EDDY SIMULATIONS OF SPRING PHYTOPLANKTON BLOOMS TRIGGERED BY SUBMESOSCALE EDDIES

15:30 LLORT, J.; **TAGLIABUE, A.**; AYATA, S. D.; SALLéE, J. B.; LéVY, M.: SENSITIVITY OF SOUTHERN OCEAN PHYTOPLANKTON PHENOLOGY TO CHANGES IN VERTICAL MIXING AND FERRICLINE DEPTHS

15:45 **Trull, T. W.**; Weeding , B.; Bray, S. G.; Jansen, P.; Schulz, E.: HOURLY OBSERVATIONS AT THE AUSTRALIAN SOUTHERN OCEAN TIME SERIES INDICATE ELEVATED NET COMMUNITY PRODUCTION IN THE STILL-COOLING, LATE-WINTER, DEEP MIXED LAYER

049 Station ALOHA: Celebrating 25 Years of Sustained Ocean Observations

Chair(s): Matt Church, mjchurch@hawaii.edu
Sam Wilson, stwilson@hawaii.edu

Location: 313 B

14:00 **Bidigare, R. R.**; Buttler, F. R.; Christensen, S. J.; Barone, B.; Wilson, S. T.: EVALUATION OF THE UTILITY OF XANTHOPHYLL CYCLE PIGMENT DYNAMICS FOR ASSESSING UPPER OCEAN MIXING PROCESSES AT STATION ALOHA

14:15 **Lukas, R.**; Santiago-Mandujano, F. E.; Plueddemann, A. J.; Weller, R. A.; Duennebier, F. K.: QUANTIFYING THE SURFACE FRESHWATER FLUX AT STATION ALOHA

14:30 **Dore, J. E.**; Sadler, D. W.; The HOT CO2 team, .: THE HOT PROGRAM PRESENTS: A CARBON CAROL: GHOSTS OF CO_2 PAST, CO_2 PRESENT AND CO_2 YET TO COME

14:45 **Fitzsimmons, J. N.**; Zhang, R.; Boyle, E. A.: SHORT- AND LONG-TERM TEMPORAL VARIABILITY OF IRON AT STATION ALOHA

15:00 **Zehr, J. P.**; Carter, B. J.; Foster, R. A.; Thompson, A. W.; Tripp, H. J.: SAME STAGE BUT DIFFERENT ACTORS: 20 YEARS OF CHANGE IN NITROGEN FIXATION AT STATION ALOHA

15:15 **Bryant, J. B.**; Eppley, J. M.; Karl, D. M.; Church, M. J.; DeLong, E. F.: WIND AND SEASON DRIVE MICROBIAL COMMUNITY DIVERSITY IN THE NORTH PACIFIC SUBTROPICAL GYRE AT STATION ALOHA.

15:30 **Barone, B.**; Church, M. J.; Karl, D. M.; Letelier, R. M.; White, A. E.: SIZE STRUCTURE AND PARTICLE MAXIMA IN DIFFERENT LAYERS OF THE WATER COLUMN OF A SUBTROPICAL GYRE: INFLUENCES OF ALGAL ECOLOGY AND DENSITY STRATIFICATION

15:45 **Karl, D. M.**; Clemente, T.; Grabowski, E.; Wilson, S. T.; Church, M. J.: VARIABILITY IN PARTICLE EXPORT AT STATION ALOHA

055 Comparing Physical Processes In Large Lakes and Shallow Seas

Chair(s): Dmitry Beletsky, beletsky@umich.edu
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Jia Wang, jia.wang@noaa.gov

Location: 317 AB

08:00 **Beletsky, D.**; Hawley, N.; Wang, J.; Beletsky, R.; Hu, H.: MODELING WINTER CIRCULATION AND ICE IN LAKE ERIE

08:15 **Wang, J.**; Bai, X.; Luo, L.; Fujisaki, A.; Hu, H.: MODELING GREAT LAKES ICE-CIRCULATION-ECOSYSTEM DURING 1993-2008

08:30 **Troy, C. D.**; Choi, J. M.; Ahmed, S.; Hawley, N.: DOMINATION OF NEAR-INERTIAL WAVES IN LAKE MICHIGAN: OBSERVATIONS AND CONSEQUENCES

08:45 **Bouffard Damien, D.**; Wüest Alfred, A.; Schwefel Robert, R.; Holtermann Peter, P.; Umlauf Lars, L.: PROCESS-BASED MODELING OF LAKE GENEVA

09:00 **Holtermann, P.**; Burchard, H.; Gräwe, U.; Klingbeil, K.; Umlauf, L.: DEEP-WATER DYNAMICS AND BOUNDARY MIXING IN A NON-TIDAL STRATIFIED BASIN: A MODELING STUDY OF THE BALTIC SEA

09:15 **Lagemaa, P.**; Suhhova, I.; Pavelson, J.; Elken, J.: CURRENT SIMULATIONS AND OBSERVATIONS IN THE GULF OF FINLAND

09:30 **Rabe, B.**; Wright, J.: LOCH LINNHE – A DYNAMICALLY WIDE SCOTTISH SEA LOCH

09:45 **Xue, P.**; Eltahir, E.: CONSISTENT ESTIMATES OF THE HEAT BUDGET OF THE PERSIAN GULF USING A REGIONAL TWO-WAY COUPLED OCEAN-ATMOSPHERE MODEL

063 Changes In the Global Ocean Carbon Cycle: From Observations to Models

Chair(s): Richard A. Feely , richard.a.feely@noaa.gov
Jeremy T. Mathis, jeremy.mathis@noaa.gov

Location: 316 A

08:00 **Gruber, N.**; Clement, D.; Tanhua, T.; Ishii, M.; Mathis, J. T.: THE OCEANIC SINK FOR ANTHROPOGENIC CO2 SINCE THE MID 1990S

08:15 **Bullister, J. L.**; Sonnerup, R. E.; Warner, M. J.: ANTHROPOGENIC TRACERS AND CO_2 IN THE ABYSSAL SOUTHWEST PACIFIC OCEAN

08:30 **Sutton, A. J.**; Feely, R. A.; Sabine, C. L.; McPhaden, M. J.; Takahashi, T.: NATURAL AND ANTHROPOGENIC CHANGE SINCE 1997: A SYNTHESIS OF EQUATORIAL PACIFIC SURFACE OCEAN PCO2 OBSERVATIONS ON THE TAO ARRAY

08:45 **Humphreys, M. P.**; Griffiths, A.; Hartman, S. E.; Achterberg, E. P.: INTERIOR CHANGES IN CARBONATE CHEMISTRY OBSERVED IN THE EASTERN NORTH ATLANTIC FROM 1981 TO 2013: THE EXTENDED ELLETT LINE

09:00 **Tjiputra, J.**; Schwinger, J.; Heinze, C.: MECHANISMS AND DETECTABILITY OF BASIN SCALE INTERANNUAL SURFACE PCO2 IN NORTH ATLANTIC AND NORTH PACIFIC OCEANS

THURSDAY

09:15 **Pierre Regnier, .**; Pierre Friedlingstein, .; Philippe Ciais, .; Fred Mackenzie, .; Nicolas Gruber, .: CARBON FLUXES FROM LAND TO OCEAN: PRESENT-DAY ESTIMATES, ANTHROPOGENIC PERTURBATION AND IMPLICATIONS FOR THE GLOBAL OCEAN C BUDGET

09:30 **Matthews, R.**; Weaver, A. J.: COMPARISON OF SEASONAL VARIABILITY AND LONG-TERM TRENDS ACROSS SUBTROPICAL AND SUBPOLAR CARBONATE CHEMISTRY TIME-SERIES

09:45 **Bates, N. R.**; Astor, Y. R.; Dore, J. E.; Olafsson, J.; Gonzalez-Davila, M.: OCEAN TIME-SERIES OBSERVATIONS OF INTERANNUAL CHANGES IN SEAWATER INORGANIC CARBON

14:00 **Sascha Flögel, .**; Wolfgang Kuhnt, .; David Keller, .; Andreas Oschlies, .; Klaus Wallmann, .: BIOGEOCHEMICAL CYCLING DURING CRETACEOUS OCEANIC ANOXIC EVENTS

14:15 **Mysak, L. A.**; Simmons, C. T.; Matthews, H. D.: CURRENT INVESTIGATIONS ON THE NATURAL CARBON CYCLE SINCE THE LAST GLACIAL MAXIMUM USING A MODEL OF INTERMEDIATE COMPLEXITY

14:30 **Fay, A. R.**; McKinley, G. A.: ESTIMATING GLOBAL TRENDS IN SURFACE OCEAN PCO2: DECADAL TO MULTIDECADAL TIMESCALES

14:45 **Lo Monaco, C.**; Metzl, N.; Lenton, A.; Racapé, V.; Gomez, R.: ANTHROPOGENIC AND CLIMATE IMPACTS ON THE TOTAL CO_2 INCREASE OBSERVED IN THE SOUTH INDIAN OCEAN

15:00 **Rodgers, K. B.**; Toyama, K.; Iudicone, D.; Froelicher, T.; Ishii, M.: RE-EMERGENCE OF ANTHROPOGENIC CARBON INTO THE OCEAN'S SURFACE LAYER

15:15 **Lovenduski, N. S.**; Long, M. C.: NATURAL VARIABILITY IN THE SURFACE OCEAN CARBONATE ION CONCENTRATION

15:30 **Hieronymus, J.**; Walin, G.; Nycander, J.: THE POTENTIAL FOR SULFATE REDUCTION AND PYRITE DEPOSITION TO ALTER THE OCEAN ATMOSPHERE CARBON BALANCE DURING AN OCEANIC ANOXIC EVENT

15:45 **Sasse, T. P.**; McNeil, B. I.; Abramowitz, G.: DIAGNOSING GLOBAL PATTERNS OF OCEAN CO_2 VARIABILITY AND CHANGE VIA A NEURAL NETWORK ANALYSIS OF GLOBAL BOTTLE DATA

073 Ocean Salinity and Water Cycle Variability and Change

Chair(s): Paul Durack, pauldurack@llnl.gov
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Bob Marsh, robert.marsh@noc.soton.ac.uk
Tony Lee, tlee@jpl.nasa.gov

Location: 323 ABC

08:00 **Schanze, J. J.**; Lagerloef, G.; Schmitt, R. W.; Hodges, B. A.: SNAKES ON A SHIP: SURFACE SALINITY OBSERVATIONS DURING SPURS

08:15 **Hodges, B. A.**; Fratantoni, D. M.: NEAR-SURFACE VERTICAL STRUCTURE IN TEMPERATURE AND SALINITY IN THE SPURS STUDY AREA

08:30 **Asher, W. E.**; Jessup, A. T.; Clark, D.: POSITIVE SALINITY GRADIENTS AT THE OCEAN SURFACE FORMED BY EVAPORATION MEASURED DURING STRASSE-2012

08:45 **Clayson, C. A.**; St. Laurent, L.; Schmitt, R.: SMALL-SCALE MIXING AND STABLE/UNSTABLE MIXED LAYERS IN THE SPURS REGION

09:00 **Shcherbina, A. Y.**; D'Asaro, E. A.: DAILY, WEEKLY, AND SEASONAL VARIABILITY OF THE UPPER OCEAN STRATIFICATION IN THE NORTH ATLANTIC SALINITY MAXIMUM REGION

09:15 **Farrar, J. T.**; Plueddemann, A. J.; Kessler, W. S.; Rainville, L.; Hodges, B. A.: A PRELIMINARY EVALUATION OF UPPER-OCEAN HEAT AND SALT BUDGETS DURING THE SPURS CAMPAIGN

09:30 **Busecke, J.**; Gordon, A. L.; Li, Z.; Bingham, F. M.; Font, J.: EVIDENCE FOR THE ORIGIN OF THE SUBSURFACE SALINITY MAXIMUM IN THE SUBTROPICAL NORTH ATLANTIC

09:45 **Schmitt, R. W.**; Blair, A.; St Laurent, L.; Schanze, J.: MEAN SALT BALANCE OF THE NORTH ATLANTIC SALINITY MAXIMUM

078 Ecology of Infectious Marine Disease In A Changing Climate

Chair(s): Drew Harvell, cdh5@cornell.edu
Eileen Hofmann, hofmann@ccpo.odu.edu
Colleen Burge, colleenaburge@gmail.com

Location: 304 AB

14:00 **Burge, C. A.**; Mann, W. T.; Mydlarz, L. D.; Weil, E.; Harvell, C. D.: IN SITU RESPONSES OF A BLEACHING RESILIENT CORAL SPECIES DURING THE 2010 CARIBBEAN BLEACHING EVENT

14:15 **Willis, B. L.**; Page, C. A.; Maynard, J. A.; Lamb, J. B.; Pollock, F. J.: BASELINES AND DRIVERS OF CORAL DISEASE ON THE GREAT BARRIER REEF IN A CHANGING CLIMATE

14:30 **Sziklay, Jamie, M.**; Heron, Scott, .; Vargas-Angel, Bernardo, .; Eakin, Mark, .; Donahue, Megan, .: A DECADE OF CORAL DISEASE OBSERVATIONS THROUGHOUT THE HAWAIIAN ARCHIPELAGO

14:45 **Friedman, C. S.**; Wight, N.; Crosson, L. M.; VanBlaricom, G. R.; Lafferty, K. D.: REDUCED DISEASE IN BLACK ABALONE FOLLOWING MASS MORTALITY: PHAGE THERAPY AND NATURAL SELECTION IN THE FACE OF CLIMATE CHANGE

15:00 **Lafferty, K. D.**; Ben-Horin, T.: ABALONE FARM DISCHARGES WS-RLO PATHOGEN INTO THE WILD

15:15 **Groner, M. L.**; Burge, C. A.; Yang, S.; Wyllie-Echeverria, S.; Harvell, C. D.: LOCAL AND CLIMATIC FACTORS AFFECTING THE PREVALENCE OF EELGRASS WASTING DISEASE

15:30 **McComas, K. A.**; Burge, C. A.; Schuldt, J.; Roh, S.; Harvell, C. D.: BACTERIA ON THE HALF SHELL: UNDERSTANDING RISK PERSPECTION OF CLIMATE CHANGE IMPACTS ON PUBLIC AND OYSTER HEALTH

15:45 **Hofmann, E. E.**; Klinck, J. M.; Powell, E. N.; Bushek, D.; The EMID Research Group, .: DEVELOPMENT OF A THEORETICAL BASIS FOR MODELING DISEASE PROCESSES IN MARINE INVERTEBRATES

081 Climate Impacts On Living Marine Resources

Chair(s): Vincent S. Saba, vincent.saba@noaa.gov
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Oystein Varpe, oystein.varpe@akvaplan.niva.no

Location: 313 B

08:00 **Jones, D. O.**; Yool, A.; Wei, C.; Ruhl, H. A.; Gehlen, M.: GLOBAL REDUCTIONS IN SEAFLOOR BIOMASS IN RESPONSE TO CLIMATE CHANGE

08:15 **Ritson-Williams, R.**; Ross, C.; Olsen, K.; Paul, V. J.: RELATIVE IMPACTS OF GLOBAL AND LOCAL STRESSORS ON CORAL RECRUITMENT

08:30 **Zimmerman, R. C.**; Hill, V. J.; Smith, M.; Jinuntuya, M.; Celebi, B.: IMPACT OF CLIMATE WARMING AND OCEAN CARBONATION ON EELGRASS (*ZOSTERA MARINA* L.)

08:45 **Kendall, K. A.**; Olson, M. B.; Love, B. A.; Strom, S. L.; Risenhoover, K.: MARINE MICROZOOPLANKTON ARE INDIRECTLY AFFECTED BY OCEAN ACIDIFICATION THROUGH DIRECT EFFECTS ON THEIR PHYTOPLANKTON PREY

09:00 **Keister, J. E.**; Winans, A. K.; Herrmann, B. L.: EFFECTS OF HYPOXIA ON THE SEASONAL CYCLE OF ZOOPLANKTON COMMUNITIES IN PUGET SOUND, WA

09:15 **Hopcroft, R. R.**; Coyle, K. O.: MEASURING THE PULSE OF THE GULF OF ALASKA: 16 YEARS OF OCEANOGRAPHIC OBSERVATIONS ALONG THE SEWARD LINE, AND WITHIN PRINCE WILLIAM SOUND, ALASKA

09:30 **Cimino, M. A.**; Fraser, W. R.; Saba, V. S.; Oliver, M. J.: LARGE-SCALE AND LOCAL CLIMATE DRIVE ADLLIE PENGUIN CHICK FLEDGING MASS

09:45 **Meyer-Gutbrod, E. L.**; Greene, C. H.: CLIMATE-DRIVEN REGIME SHIFT DRIVES RECOVERY OF NORTH ATLANTIC RIGHT WHALE POPULATION

THURSDAY

091 Advances In Approaches to Monitoring the Occurrence, Distribution, and Behavior of Top Predators

Chair(s): Mark Baumgartner, mbaumgartner@whoi.edu
Daniel Palacios, daniel.palacios@noaa.gov

Location: 310 Theater

08:00 **Block, B. A.**; Carlon, R.; Leroy, F.; Castleton, M.; Kochevar, R. E.: USING WAVE GLIDERS TO DETECT OCEAN WILDLIFE

08:15 **Zitterbart, D. P.**; Richter, S.; Kindermann, L.; Boebel, O.: AUTOMATIC DETECTION AND IDENTIFICATION OF WHALES USING THERMAL AND VISUAL IMAGING FOR CETACEAN CENSUSES AND MARINE MAMMAL MITIGATION

08:30 **Consi, T. R.**; Bingham, S. A.; Moe, B.; Rockey, K. K.: DESIGN OF A UAV FOR AERIAL TRACKING OF RADIO-TAGGED STURGEON

08:45 **Meyer, .**; Nakamura, .; Sato, .: MULTI-INSTRUMENT BIOLOGGING PROVIDES NEW HIGH RESOLUTION INSIGHT INTO SHARK BEHAVIOR AND BIOMECHANICS

09:00 **Scott, R.**; Hays, G. C.; Marsh, R.; Eizaguirre, C.; Biastoch, A.: LAGRANGIAN ANALYSIS OF SEA TURTLE ECOLOGY

09:15 **Parks, S. E.**; Cusano, D.; Stimpert, A. K.; Weinrich, M.; Wiley, D.: READY, SET, GO: EVIDENCE FOR ACOUSTIC COORDINATION OF BOTTOM FEEDING BY HUMPBACK WHALES USING ARCHIVAL ACOUSTIC TAG TECHNOLOGY

09:30 **Holland, K.**; Meyer, C.: DETECTION AND TELEMETRY OF FEEDING EVENTS IN FREE SWIMMING SHARKS AND TUNA

09:45 **Benoit-Bird, K. J.**; Moline, M. A.; Southall, B.: THE WAY TO A WHALE'S HABITAT IS THROUGH HIS STOMACH: A DEEP-DIVING, SQUID-HUNTING AUV PROVIDES INSIGHTS INTO TEUTHIVOROUS WHALE BEHAVIOR

107 Tides and Ocean Mixing: Past, Present, Future

Chair(s): Mattias Green, m.green@bangor.ac.uk
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Brian Arbic, arbic@umich.edu
Rafaele Ferrari, rferrari@mit.edu
Maarten Buijsman, mbuijsma@uno.edu

Location: 316 B

08:00 **Stammer, D.**; Ray, R.; Anderson, O.; Arbic, B.: ACCURACY ASSESSMENT OF GLOBAL OCEAN TIDE MODELS

08:15 **Timko, P. G.**; Arbic, B. K.; Richman, J. G.; Scott, R. B.; Wallcraft, A. J.: ASSESSING MODEL SKILL OF TIDAL CURRENTS IN A 3-DIMENSIONAL GLOBAL FORWARD TIDE MODEL

08:30 **Schmittner, A.**; Egbert, G. D.; Green, M. J.: MODELING TIDAL MIXING: PAST, PRESENT, AND FUTURE

08:45 **Wilmes, S. B.**; Green, J. M.: THE EVOLUTION OF GLOBAL TIDES FROM THE LAST GLACIAL MAXIMUM TO PRESENT

09:00 **Huber, M.**: OCEAN MIXING AND PAST WARM CLIMATES

09:15 **NIkurashin, M.**; Ferrari, R.: OVERTURNING CIRCULATION DRIVEN BY BREAKING INTERNAL WAVES IN THE DEEP OCEAN

09:30 **Luther, D. S.**; Chave, A. D.; Webb, S. C.: PELAGIC INFRAGRAVITY WAVES FORCED BY TIDAL NON-LINEAR INTERACTIONS

09:45 **Yasuda, I.**; Tanaka, Y.; Itoh, S.; Hasumi, H.; Osafune, S.: OBSERVATION AND MODELING OF TURBULENT TIDAL MIXING IN THE KURIL STRAITS AND IMPACT OF ITS 18.6-YEAR PERIOD TIDAL CYCLE ON OCEAN AND CLIMATE

14:00 **Legg, S.**; Melet, A.; Klymak, J. M.; Hallberg, R. W.: PARAMETERIZATIONS OF LOCAL AND REMOTE MIXING BY INTERNAL TIDES AND THE IMPACT ON OCEAN CIRCULATION

14:15 Falahat, S.; **Nycander, J.**; Roquet, F.: GLOBAL COMPUTATION OF TIDAL CONVERSION RESOLVED INTO VERTICAL MODES

14:30 **Dunphy, M.**; Lamb, K. G.: FOCUSSING AND NORMAL MODE SCATTERING OF THE FIRST MODE INTERNAL TIDE BY MESOSCALE EDDY INTERACTION

14:45 **De Boer, A. M.**; Hogg, A. M.: CONTROL OF THE GLACIAL CARBON BUDGET BY TOPOGRAPHICALLY INDUCED MIXING

15:00 **Cronin, M. F.**: DIFFUSIVITY AT THE BASE OF THE MIXED LAYER ESTIMATED FROM HEAT AND SALT BUDGETS

15:15 **Groeskamp, S.**; Zika, J. D.; McDougall, T. J.; Sloyan, B. M.: DIATHERMOHALINE CIRCULATION AND MIXING: AN INVERSE ESTIMATE

15:30 **Richman, J. G.**; Buijsman, M. C.; Wallcraft, A. J.; Shriver , J. F.; Arbic , B. K.: OPTIMIZING TIDES IN A FORWARD BAROTROPIC MODEL

15:45 **Ray, R. D.**; Talke, S. A.: TIDAL ANALYSIS OF HIGH AND LOW WATERS AT EASTPORT (MAINE), 1860--1864, AND IMPLICATIONS FOR LONG-TERM TRENDS

116 Advances In Approaches to Assess Metal-Binding Organic Ligands and Perspectives On the Impacts of Ligands On Metal-Biota Interactions In the Oceans

Chair(s): Maeve Lohan, maeve.lohan@plymouth.ac.uk
Kristen Buck, kristen.buck@bios.edu
Sylvia Sander, sylvias@chemistry.otago.ac.nz

Location: 318 AB

08:00 **Turner, D.**: CLE-CSV TITRATIONS IN SEAWATER: CHEMICAL SPECIATION MODELLING

08:15 **Voelker, C. D.**; Tagliabue, A.: SENSITIVITY OF THE IRON CYCLE TO THE CYCLING OF ORGANIC LIGANDS IN A 3D BIOGEOCHEMICAL MODEL

08:30 **McElhenie, S. D.**; Wozniak, A. S.; Shelley, R. U.; Landing, W. M.; Hatcher, P. G.: SOURCE-SPECIFIC CHARACTERISTICS OF AEROSOL ORGANIC MATTER OVER THE NORTH ATLANTIC OCEAN: IMPLICATIONS FOR THE IDENTITY OF POTENTIAL IRON BINDING LIGANDS

08:45 **Hopwood, M. J.**; Statham, P. J.; Willey, J. D.; Skrabal, S. A.: ESTUARINE IRON(II) LIGANDS AND THEIR EXPORT TO COASTAL WATERS

09:00 **Christel Hassler, S.**; Louiza Norman, .; Marie Sinoir, .; Andrew Bowie, R.; Michael Ellwood, J.: RELATIONSHIP BETWEEN IRON AND ZINC CHEMICAL SPECIATION, ORGANIC LIGANDS AND PHYTOPLANKTON IN THE TASMAN SEA

09:15 **KIM, J.**; Baars, O.; Morel, F. M.: COMPLEXATION OF ZINC BY STRONG AND WEAK ORGANIC LIGANDS AND THE BIOAVAILABILITY OF ZINC TO MARINE PHYTOPLANKTON

09:30 **Semeniuk, D. M.**; Posacka, A.; Bundy, R. M.; Barbeau, K. A.; Maldonado, M. T.: IMPACT OF CU SPECIATION ON PRIMARY PRODUCTIVITY IN THE NORTHEAST SUBARCTIC PACIFIC OCEAN

09:45 Madison, A. S.; **Luther, G. W.**; Sundby, B.; Mucci, A.: ASSESSING THE STRENGTH OF LIGANDS BOUND TO SOLUBLE MN(III) WITH A KINETIC APPROACH

139 Advances In Ocean Technology; Autonomous Instrument Development and Applications

Chair(s): Jim Birch, jbirch@mbari.org
Mike DeGrandpre, michael.degrandpre@umontana.edu

Location: 313 A

08:00 **Birch, J.**; Scholin, C.: THE EVOLUTION OF ECOGENOMIC SENSORS

08:15 **Yamahara, K. M.**; Demir-Hilton, E.; Cornelisen, C.; Boehm, A. B.; Scholin, C. A.: APPLICATION OF IN-SITU AUTONOMOUS SENSORS FOR ROUTINE WATER QUALITY MONITORING.

08:30 **Bresnahan, P. J.**; Martz, T. R.; de Almeida, J. L.; Maguire, P.; Ward, B.: THE DEVELOPMENT OF A MICRO-ROSETTE FOR LOW-VOLUME, LOW-POWER, *IN SITU* PROFILES OF DISSOLVED INORGANIC CARBON

08:45 **Beaton, A. D.**; Cardwell, C. L.; Waugh, E. M.; Pascal, R. W.; Mowlem, M. C.: LAB-ON-A-CHIP SYSTEMS FOR IN SITU NUTRIENT ANALYSIS OF NATURAL WATERS

09:00 **McGill, P. R.**; Henthorn, R. G.; Bird, L. E.; Huffard, C. L.; Smith, K. L.: SEDIMENT TRAP DESIGN FOR IN-SITU IMAGING AND FLUOROMETRY OF SINKING PARTICULATE ORGANIC CARBON

THURSDAY

09:15 **Chao, Y.**: THE NEXT GENERATION PROFILING FLOAT POWERED BY OCEAN TEMPERATURE DIFFERENCES

09:30 **Haldeman III, C.**; Aragon, D.; Roarty, H.; Glenn, S.; Kohut, J.: ENABLING SHALLOW WATER FLIGHT ON SLOCUM GLIDERS

09:45 **Griffith, J. C.**: CROSSING THE PACIFIC OCEAN WITH THE WAVE GLIDER UNMANNED SURFACE VEHICLE

14:00 **Fassbender, A. J.**; Sabine, C. L.; Meinig, C.; Lawrence-Slavas, N.: AUTONOMOUS OCEAN CARBON MONITORING WITH A MOORED DIC SENSOR

14:15 **Kaltenbacher, E.**; Adornato, L.; Dholakia, J.; Byrne, R.; Patsavas, M.: DEVELOPMENT OF A NOVEL SENSOR FOR IN SITU MEASUREMENTS OF CARBONATE ION CONCENTRATIONS IN SEAWATER

14:30 **Clarke, J. S.**; Mowlem, M.; Tyrrell, T.; Achterberg, E.: DEVELOPMENT OF HIGH RESOLUTION IN SITU FLUORESCENCE BASED PH AND PCO_2 SENSORS

14:45 **Aßmann, S.**; Frank, C.; Fietzek, P.; Körtzinger, A.; Linke, P.: REALIZATION OF AN AUTONOMOUS TOTAL ALKALINITY SENSOR FOR SURFACE WATER APPLICATIONS

15:00 **Spaulding, R. S.**; DeGrandpre, M. D.; Peterson, B.; Drupp, P. S.; DeCarlo, E. H.: SAMI-ALK: AUTONOMOUS IN-SITU SEAWATER ALKALINITY MEASUREMENTS

15:15 **Fietzek, P.**; Fiedler, B.; Steinhoff, T.; Körtzinger, A.: QUALITY ASSESSMENT AND RECENT IMPROVEMENTS OF THE HYDROC™/CO2

15:30 **Wang, Z. A.**; Sonnichsen, F. N.; Hoering, K. A.; Chu, S. N.: A BUOY-BASED SENSOR TECHNOLOGY FOR SIMULTANEOUS, IN-SITU MEASUREMENTS OF SEAWATER PH AND TOTAL DISSOLVED INORGANIC CARBON

15:45 **Elrod, V.**; Johnson, K.; Plant, J.; Coletti, L.; Jannasch, H.: A TWO YEAR CONTINUOUS *IN SITU* RECORD OF PH USING A MODIFIED HONEYWELL DURAFET PH SENSOR

143 Fram Strait - New Insights Into Physical and Biological Processes In the Atlantic Gateway to the Arctic Ocean and Their Linkages to Climatic Changes

Chair(s): Peter F. Worcester, pworcester@ucsd.edu
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Hanne Sagen, hanne.sagen@nersc.no
Kathleen J. Vigness-Raposa, kathleen.vigness@marineacoustics.com

Location: 319 AB

14:00 **Beszczynska-Möller, A.**; Schauer, U.; Fahrbach, E.; Hansen, E.: VARIABILITY OF THE ATLANTIC WATER PROPERTIES AND OCEANIC FLUXES IN THE ENTRANCE TO THE ARCTIC OCEAN FROM MOORED OBSERVATIONS IN FRAM STRAIT (1997-2012)

14:15 **Walczowski, W.**: STRUCTURE AND TEMPORAL VARIABILITY OF THE ATLANTIC WATER IN THE FRAM STRAIT REGION

14:30 **Schewe, I.**; Bauerfeind, E.; Jacob, M.; Kraft, A.; Soltwedel, T.: IMPACT OF CLIMATE CHANGE VS. NATURAL VARIABILITY - THE CASE OF THE HAUSGARTEN DEEP-SEA OBSERVATORY IN THE EASTERN FRAM STRAIT

14:45 **Goszczko, I.**; Beszczynska-Moeller, A.; Prominska, A.; Wieczorek, P.; Walczowski, W.: HOW DO RECENT CHANGES IN THE WATER MASS STRUCTURE IN THE EASTERN FRAM STRAIT SHAPE THE ENVIRONMENT FOR THE BIOLOGICAL LIFE?

15:00 **Keul, N.**; deMenocal, P. N.: DOUBLE TROUBLE: TRACING THE EFFECTS OF OCEAN WARMING AND ACIDIFICATION IN THE SHELL CHEMISTRY OF ARCTIC PTEROPODS

15:15 **Kwasniewski, S.**; Gluchowska, M.; Trudnowska, E.; Blachowiak-Samolyk, K.; Walczowski, W.: TRACKING THE ATLANTIC ZOOPLANKTON EN ROUTE TO THE ARCTIC OCEAN THROUGH FRAM STRAIT

15:30 **Sagen, H.**; Worcester, P. F.; Sandven, S.; Geyer, F.; Dushaw, B. D.: SENSING THE FRAM STRAIT OCEAN ENVIRONMENT BY ACOUSTICS

15:45 **Onarheim, I. H.**; Smedsrud, L. H.; Ingvaldsen, R. B.; Nilsen, F.: LOSS OF SEA ICE DURING WINTER NORTH OF SVALBARD

147 Passive and Active Electromagnetic Remote Sensing of Air-Water Interfaces

Chair(s): Andrew T. Jessup, jessup@apl.washington.edu
William E Asher, asherwe@apl.washington.edu
Gordon Farquharson, gordon@apl.washington.edu

Location: 323 ABC

14:15 **Simon Yueh, .**; WENQING TANG, .; ALEXANDER FORE, .; AKIKO HAYASHI, .: AQUARIUS' COMBINED ACTIVE PASSIVE ALGORITHM FOR OCEAN SURFACE SALINITY AND WIND RETRIEVAL

14:30 **Martin, A.**; Boutin, J.; Hauser, D.; Dinnat, E.: ACTIVE-PASSIVE SYNERGY FOR INTERPRETING OCEAN L-BAND RADIOMETRIC SIGNAL: RESULTS FROM AIRBORNE MEASUREMENTS

14:45 **Brown, S.**; Zappa, C. J.; Bell, R. E.; Wick, G. A.; Castro, S.: SEA SURFACE TEMPERATURE VARIABILITY IN POLAR AND TROPICAL ENVIRONMENTS

15:00 **Piotrowski, C. C.**; Anderson, S. P.; Dugan, J. P.; Baxter, R.; Zuckerman, S.: AIRBORNE INFRARED IMAGING AND LIDAR DATA FUSION FOR REMOTE SENSING OF RIVER DYNAMICS

15:15 **Johnson, E. D.**; Cowen, E. A.: REMOTE MONITORING OF VOLUMETRIC DISCHARGE BASED ON THE SURFACE VELOCITY FIELD AND BATHYMETRY INFERRED FROM SURFACE TURBULENCE METRICS

15:30 **Haller, M. C.**; Honegger, D. A.; Mendex, G. D.; Pittman, R.: RIP CURRENTS, TIDAL JETS, AND WILD FRONTAL FEATURES: SOME RECENT OBSERVATIONS WITH X-BAND MARINE RADAR

15:45 **Haus, B. K.**; Laxague, N. J.; Ortiz-Suslow, D. G.: LABORATORY CAL/VAL STUDY OF A POLARIMETRIC VIDEO SLOPE IMAGING SYSTEM

149 Aquatic Microbial Eukaryotes: From Genomes to Ecosystems

Chair(s): Charles Bachy, cbachy@mbari.org
Alexandra Z. Worden, azworden@mbari.org

Location: 319 AB

08:00 **Weiner, A. K.**; Morard, R.; Kucera, M.: EXTENT OF CRYPTIC DIVERSITY IN PLANKTONIC FORAMINIFERA MORPHOSPECIES

08:15 **von Dassow, P.**; Bendif, E. M.; Mella Flores, D.; Herrera, Y.; Díaz, F.: SOUTHEAST PACIFIC COCCOLITHOPHORES: HIGH CALCIFIED EMILIANIA HUXLEYI IN HIGH CO2 UPWELLING , LOW CALCIFIED E. HUXLEY AND OTHER NOELAERHABDACEAE FOUND OFFSHORE

08:30 **Leach, T. S.**; Guannel, M. L.; Carlson, M. G.; Rocap, G.: UNCOVERING THE EVOLUTIONARY HISTORY OF *PSEUDO-NITZSCHIA*: CONNECTING PHYSIOLOGY AND MOLECULAR PHYLOGENY

08:45 **Jimenez, V. F.**; Wong, C. H.; Lin, C. L.; Ngan, C.; Worden, A. Z.: NITROGEN METABOLISM IN GREEN ALGAE: A CASE STUDY USING *MICROMONAS*

09:00 **Groussman, R. D.**; Parker, M. S.; Armbrust, E. V.: DIVERSITY OF DIATOM IRON METABOLISM GENES REVEALED THROUGH WHOLE TRANSCRIPTOME SEQUENCING

09:15 **Campbell, L.**; Errera, R. M.; Ryan, D. E.; Bourdelais, A. J.: COMPARISON OF TRANSCRIPTOMES AND METABOLOMIC PROFILES FOR TWO CLONES OF THE DINOFLAGELLATE *KARENIA BREVIS*

09:30 **Allen, A. E.**; McCrow, J. P.; Hopkinson, B.; Morel, F. M.; Ward, B. B.: DEEP TRANSCRIPT PROFILES OF NITROGEN AND IRON LIMITED EUKARYOTIC PHYTOPLANKTON BLOOMS

09:45 **Jenke-Kodama, H.**; Tamura, M.; Taira, Y.; Reimer, J. D.: ANALYSIS OF PALYTOXIN PRODUCTION IN *PALYTHOA TUBERCULOSA* BY AN INTEGRATED METAGENOMICS AND TRANSCRIPTOMICS APPROACH

156 Circulation, Mixing and Deep Water Formation In the Deep Basins of the North Atlantic and On the Adjacent Continental Shelves

Chair(s): Igor Yashayaev, Igor.Yashayaev@dfo-mpo.gc.ca
Alexander Yankovsky, ayankovsky@geol.sc.edu

Location: 314

08:00 **Stewart, K. D.**; Haine, T. W.: WIND-DRIVEN ARCTIC FRESHWATER ANOMALIES

THURSDAY

08:15 **Jones, S. C.**: CHARTING THE PATHWAYS AND INTER-ANNUAL VARIABILITY OF A SHELF-EDGE CURRENT

08:30 **Bower, A. S.**; Furey, H. H.: NEW DIRECT ESTIMATES OF ICELAND-SCOTLAND OVERFLOW WATER TRANSPORT THROUGH THE CHARLIE-GIBBS FRACTURE ZONE

08:45 **Straneo, F.**; Sutherland, D.; Holte, J.: IMPACT OF SUBPOLAR NORTH ATLANTIC WARMING ON GREENLAND'S GLACIERS

09:00 **Yankovsky, A. E.**; Yashayaev, I.: SURFACE BUOYANT PLUMES FROM MELTING ICEBERGS IN THE LABRADOR SEA

09:15 **Sutherland, D. A.**; Nash, J. D.; Shroyer, E. L.: THE IMPACT OF ICEBERGS ON FRESHWATER DISTRIBUTION AND STRATIFICATION IN THE SUBPOLAR NORTH ATLANTIC OCEAN

09:30 **Holliday, N. P.**; Cunningham, S.; Johnson, C.; Gary, S.: MULTI-DECADAL VARIABILITY OF THE EASTERN NORTH ATLANTIC SUBPOLAR GYRE; RESULTS FROM THE EXTENDED ELLETT LINE

09:45 **Denker, C.**; Klein, B.; Kieke, D.: WATER MASS VARIABILITY OBSERVED AT THE MID-ATLANTIC RIDGE IN THE SUBPOLAR NORTH ATLANTIC

14:00 **Fan, X.**; Send, U.; Karstensen, J.: QUANTIFYING THE MESOSCALE ANTICYCLONIC EDDY CONTRIBUTION TO THE UPPER OCEAN HEAT AND SALT BUDGET IN THE CENTRAL IRMINGER SEA

14:15 **MERCIER, H.**; DESBRUYERES, D.; THIERRY, V.; SARAFANOV, A.; LHERMINIER, P.: VARIABILITY OF THE MERIDIONAL OVERTURNING CIRCULATION AND HEAT TRANSPORT AT THE GREENLAND–PORTUGAL OVIDE SECTION

14:30 **Yashayaev, I.**; Loder, J. W.; Morales Maqueda, M. A.: RECENT WARMING, SUB-SURFACE FRESHENING AND WINTER CONVECTION IN THE LABRADOR SEA, AND ASSOCIATED VARIABILITY DOWNSTREAM

14:45 **Palter, J. B.**; Caron, C. A.; Lavender Law, K.; Willis, J. K.; Yashayaev, I.: DIRECTLY-OBSERVED VARIABILITY OF THE MID-DEPTH SUBPOLAR NORTH ATLANTIC CIRCULATION

15:00 **Holte, J.**; Straneo, F.: DIAGNOSING OVERTURNING AND WATER MASS TRANSFORMATION IN THE LABRADOR SEA FROM ARGO FLOATS

15:15 **Schneider, L.**; Kieke, D.; Jochumsen, K.; Rhein, M.; Yashayaev, I.: VARIABILITY OF LABRADOR SEA WATER EXPORTED THROUGH FLEMISH PASS

15:30 **Kieke, D.**; Steinfeldt, R.; Rhein, M.; Bulsiewicz, K.: SF_6 AND CFC-12 OBSERVATIONS IN THE WESTERN SUBPOLAR NORTH ATLANTIC

15:45 **Nummelin, A.**; Li, C.; Smedsrud, L. H.: ARCTIC OCEAN WATER MASSES UNDER CHANGING RIVER RUNOFF

161 HABS and Invasive Species

Chair(s): Mark L. Wells, mlwells@maine.edu
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Charles Trick, trick@uwo.ca

Location: 315

08:00 **Egerton, T. A.**; Semcheski, M. R.; Muller, M. T.; Filippino, K. C.; Marshall, H. G.: HARMFUL ALGAL BLOOMS IN CHESAPEAKE BAY: RECENT DEVELOPMENTS AND LONG-TERM PERSPECTIVES.

08:15 **Sunda, W. G.**; Shertzer, K. W.: INCREASED CELLULAR TOXICITY UNDER NUTRIENT LIMITATION PROMOTES THE FORMATION AND SEVERITY OF HARMFUL ALGAL BLOOMS: A MODEL STUDY OF RED TIDE

08:30 **Busch, M.**; Peiffer, F.; Hillebrand, H.; Moorthi, S. D.: EFFECTS OF NUTRIENT CONCENTRATIONS, PHAGOTROPHIC FEEDING AND ALLELOPATHY ON BLOOM DYNAMICS OF POTENTIALLY HARMFUL DINOFLAGELLATES

08:45 **Tatters, A. O.**; Xu, K.; Fu, F.; Walworth, N. G.; Hutchins, D. A.: INTERACTIVE EFFECTS OF ENVIRONMENTAL CHANGE VARIABLES ON A MARINE DIATOM COMMUNITY

09:00 **Kim, H.**; Menden-Deuer, S.: EFFECTS OF OCEAN ACIDIFICATION-INDUCED SWIMMING BEHAVIORS ON POPULATION DISTRIBUTIONS AND PRIMARY PRODUCTION OF THE RAPHIDOPHYTE HETEROSIGMA AKASHIWO

09:15 **Ikeda, C. E.**; Bronicheski, C. G.; Trick, C. G.; Cochlan, W. P.: THE COMBINATORIAL EFFECT OF SALINITY AND TEMPERATURE ON CELLULAR PERMEABILITY AND TOXICITY OF *HETEROSIGMA AKASHIWO*, FROM PUGET SOUND, WA

09:30 **Townsend, D. W.**; Pettigrew, N. R.; McGillicuddy, D. J.; Shankar, S.; Hubbard, K. A.: RECENT INCREASES IN WATER MASS VARIABILITY IN THE GULF OF MAINE REGION: EFFECTS ON NUTRIENTS AND HAB SPECIES, ALEXANDRIUM FUNDYENSE AND PSEUDO-NITZSCHIA SPP.

09:45 **Du, X.**: CYANOBACTERIA PREDOMINANCE IN FRESHWATER EUTROPHIC LAKES IS LINKED TO IRON SCAVENGING STRATEGY THAT USES SIDEROPHORES AND TOXINS

14:00 **Briski, E.**; Chan, F.; MacIsaac, H.; Bailey, S.: A CONCEPTUAL MODEL OF COMMUNITY DYNAMICS DURING THE TRANSPORT STAGE OF THE INVASION PROCESS: A CASE STUDY OF SHIPS' BALLAST

14:15 **Hackerott, S. N.**; Valdivia, A.; Green, S. J.; Côté, I. M.; Bruno, J. F.: NATIVE PREDATORS DO NOT INFLUENCE INVASION SUCCESS OF PACIFIC LIONFISH ON CARIBBEAN REEFS

14:45 **Aeby, G. S.**; Shore-Maggio, A.; Minton, D.: EFFECT OF A CORALLIMORPH INVASION ON THE CORAL-FEEDING FISH AT PALMYRA ATOLL

15:00 **Pihana, H. L.**; Jenning-Kam, D.; Steward, K.; Takabayashi, M.: IS THE UPSIDE-DOWN JELLYFISH INVASIVE IN HAWAII? EVALUATION OF FOOD CONSUMPTION RATE IN CASSIOPEA ANDROMEDA

15:15 **Quiocho, V. K.**; Crocket, C.; Pihana, H.; Metchnek, M.; Takabayashi, M.: ASSESSING THE ABUNDANCE AND DISTRIBUTION OF NON-NATIVE UPSIDE-DOWN JELLYFISH IN RELATION TO INVASIVE AND NATIVE PLANTS USED AS SETTLEMENT SUBSTRATE

15:30 **Carter, A. L.**; Smith, J. E.; Deheyn, D. D.; Johnson, M. D.: INVASION AND SUCCESSION OF THE CORALLIMORPH RHODACTIS HOWESII AT PALMYRA ATOLL

15:45 Aronson, R. B.; **Smith, K. E.**; Vos, S.; Thatje, S.; McClintock, J. B.: POTENTIAL FOR EXPANSION OF BATHYAL KING CRABS ONTO THE ANTARCTIC SHELF

167 Ocean Policy and Resource Management Including Marine Agronomy and Aquaculture

Chair(s): Jerry L. Miller, Jerry.L.Miller@ScienceForDecisions.com
Kevin Hopkins, hopkins@hawaii.edu
Mark Capron, markcapron@podenergy.net

Location: 316 C

14:00 Visbeck, M.; **Schmidt, J. O.**; Kiel SDG group, .: SECURING BLUE WEALTH: THE NEED FOR A SPECIAL SUSTAINABLE DEVELOPMENT GOAL FOR THE OCEAN AND COASTS

14:15 **Levin, L.**: DEEP OCEANS UNDER PRESSURE: A STEWARDSHIP IMPERATIVE

14:30 **Capron, M. E.**; N'Yeurt, A.; Bednarsek, N.; Hopkins, K.; Tulip, R.: RESTORING OCEAN HEALTH AND PRIMARY PRODUCTIVITY WITH MANAGED SEAWEED FORESTS: A MASS BALANCE OF CARBON AND NUTRIENT CYCLES

14:45 **Schwing, F. B.**; Brady, M. M.; Bronk, D. A.; Holman, T.: ECOSYSTEM-BASED MANAGEMENT: AN INTEGRATED SCIENTIFIC APPROACH TO IMPLEMENTING THE NATIONAL OCEAN POLICY FOR MORE EFFICIENT INTERAGENCY RESOURCE MANAGEMENT

15:00 **Barrett, M. J.**; McGee, L. A.; Pala, S.: ALL HANDS ON DECK! RALLYING COASTAL MANAGERS FOR MARINE SPATIAL PLANNING

15:15 **Lanier, A. S.**: THE OREGON TERRITORIAL SEA PLAN – A FRAMEWORK FOR MARINE RENEWABLE ENERGY DEVELOPMENT

15:30 **Rosentrater, K. A.**: ECONOMIC FEASIBILITY OF HARVESTING AND TRANSPORTING CULTURED SEAWEED

15:45 **Rickels, W.**; Quaas, M. F.; Visbeck, M.: STRONG AND WEAK SUSTAINABILITY ASSESSMENT FOR THE HUMAN-OCEAN SYSTEM

169 Watersheds, Lakes, Rivers, Estuaries

Chair(s): Michael M. Whitney, michael.whitney@uconn.edu

Location: 317 AB

14:00 **Chen, R. F.**; Gardner, G. B.; Cable, J.; Cherrier, J.; Meile, C.: THE SIGNIFICANCE OF DISSOLVED ORGANIC CARBON (DOC) OUTWELLING FROM SALT MARHES

14:15 **Yarish, C.**; Kim, J. k.; Kraemer, G. P.: SEAWEED AQUACULTURE FOR NUTRIENT BIOEXTRACTION AND OTHER ECOSYSTEM SERVICES IN LONG ISLAND SOUND AND OTHER URBANIZED ESTUARIES IN NORTHEAST AMERICA

14:30 **Schmidt, S. R.**; Whitney, M. M.: MODELING THE INFLUENCE OF COASTAL RIVERS DISTRIBUTED ALONG LONG ISLAND SOUND

14:45 **McKeon, M. A.**; Horner-Devine, A. R.; Giddings, S. N.: SEASONAL CHANGES IN STRUCTURE AND DYNAMICS IN AN URBANIZED SALT WEDGE ESTUARY

15:00 **Schüller, S. E.**; Bianchi, T. S.; Boyd, P. W.; Savage, C.: MECHANISMS GOVERNING DEGRADATION OF PHYTOPLANKTON IN FJORDS

15:15 **Anderson, E. J.**; Fry, L.; Kramer, E.; Campbell, K.; Ritzenthaler, A.: A COUPLED HYDROLOGIC-HYDRODYNAMIC-BACTERIA MODEL FRAMEWORK FOR BEACH QUALITY FORECASTING

15:30 **Jameel, M. Y.**; Bowen, G. J.; Hook, T.; Troy, C.; Wilson, A.: PHYSICAL CHARACTERISTICS AND BIOGEOCHEMISTRY OF SOUTHERN LAKE MICHIGAN RIVER PLUMES

15:45 **Zigah, P. K.**; Schubert, C. J.; Wehrli, B.: METHANE OXIDATION IN TROPICAL LAKE KIVU AND SUB-ALPINE LAKE ZUG: INSIGHTS FROM MOLECULAR AND ISOTOPIC COMPOSITIONS

170 Ecosystems: Processes, Assessment, and Management

Chair(s): To be named, lyndaw@sgmeet.com

Location: 316 C

08:00 **Kramer, K. L.**; Beets, J.; Brown, E.; Smith, J.; Beavers, S.: INVESTIGATING CORAL REEF ECOSYSTEM RESPONSE TO INCREASING NUTRIENTS: HERBIVORY AS A CONTROL OF ALGAL GROWTH IN TWO HAWAI'I NATIONAL PARKS

08:15 **Zador, S. G.**; Renner, H.: RED FLAGS OR RED HERRINGS REVISITED: USING ECOSYSTEM INDICATORS TO TRACK ECOSYSTEM STATUS IN THE GULF OF ALASKA

08:30 **Rohal, M.**; Thistle, D.; Easton, E.: MEIOFAUNAL ABUNDANCES ON THE CONTINENTAL RISE OFF THE COAST OF CALIFORNIA

08:45 **Snelgrove, P.**; Archambault, P.; Juniper, S. K.; Lawton, P.; C McKindsey, A Metaxas, P Pepin, V Tunnicliffe, .: NEW TOOLS TO SUPPORT SUSTAINABLE OCEANS IN CANADA: THE CANADIAN HEALTHY OCEANS NETWORK (CHONE)

09:00 **Counsell, C. W.**; Craig, J. K.; Dimarcio, S.: MARINE HYPOXIA: SHIFTING COMMUNITY DYNAMICS IN THE NORTHWESTERN GULF OF MEXICO

09:15 **Ainsworth, C. H.**; Schirripa, M. J.; Mahmoudi, B.: ECOSYSTEM MODELLING IN THE GULF OF MEXICO SUPPORTING AN INTEGRATED ECOSYSTEM ASSESSMENT

09:45 **Mellin, C.**; Bradshaw, C. J.; Fordham, D. A.; Caley, M. J.: STRONG, BUT OPPOSING, --DIVERSITY-STABILITY RELATIONSHIPS AFFECT CORAL REEF CONSERVATION ON THE GREAT BARRIER REEF, AUSTRALIA

2/27/2014 Posters

002 Understanding Coupled Human-Natural Systems: Multi-Disciplinary Approaches for Addressing Sustainability of the Marine Environment

Chair(s): Geoffrey S. Cook, gcook@rsmas.miami.edu
Jay Pearlman, jay.pearlman@ieee.org
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Christopher R. Kelble, chris.kelble@noaa.gov
John N. Kittinger, jkittinger@gmail.com

Location: Kamehameha Hall III

1545 **Muller, D. L.**; Muller, A. C.: NODAL POINT POLLUTION, VARIABILITY AND SUSTAINABILITY OF WATER QUALITY STRESSORS IN MESOHALINE TIDAL CREEKS

1546 **Cook, G. S.**: QUANTIFYING RELATIVE RISK WITHIN THE GULF OF MEXICO LARGE MARINE ECOSYSTEM

1547 **von Storch, H.**; Kollegen des Instituts für Küstenforschung, -.: UTILITY OF COASTAL SEA SCIENCE

1548 **Hessing-Lewis, M.**; McKechnie, I.; Leposky, S.; Hunt, B.; Salomon, A.: COUPLED, INTERDISCIPLINARY STUDIES ON PACIFIC HERRING; LOW TROPHIC LEVEL FISH IN NEARSHORE SOCIAL-ECOLOGICAL SYSTEMS

1549 **Meinke, I.**; von Storch, H.: UNDERSTANDING LONG-TERM CHANGES OF COASTAL SYSTEMS FOR SUSTAINABLE DECISIONS IN THE BALTIC SEA

1550 **Carey, J. C.**; Ayvazian, S.; Hancock, B.; Brown, D. S.; Fulweiler, R. W.: INVESTIGATING THE ROLE OF OYSTERS IN ALTERING NET N_2 FLUXES USING NOVEL *IN-SITU* EXPERIMENTAL DESIGN

1551 **Carroll, J.**; Juselius, J.: AN ECOSYSTEM-BASED MODELING SYSTEM FOR PREDICTING OIL SPILL IMPACTS IN THE MARINE ENVIRONMENT

1552 **Correggiari, A.**; Remia, A.; Calabrese, L.; Luciani, P.; Perini, L.: HIGH RESOLUTION SHALLOW WATER SEISMIC: A TOOL TO BETTER ADDRESS COASTAL PLANNING

1553 **Wiener, C. S.**: THE DYNAMICS OF NATURAL AND HUMAN SYSTEMS IN MARINE TOURISM: UNDERSTANDING DOLPHIN SWIM EXPERIENCES AND HUMAN PERCEPTIONS

1554 **Nidzieko, N. J.**; Shapiro, K.; VanWormer, E.; Conrad, P. A.; Largier, J. L.: DISPERSION OF TERRESTRIAL PATHOGENS IN COASTAL WATERS OF CENTRAL CALIFORNIA: LINKING SEA OTTERS TO YOUR CAT

1555 **Clemente, T. M.**; Böttjer, D.; Wilson, S. T.; Björkman, K. M.; Karl, D. M.: POTENTIAL ENVIRONMENTAL CONSEQUENCES OF ENHANCED OCEAN UPWELLING

1556 **McCray, J. E.**; Jacobson, S. K.; Carthy, R. R.: SEA TURTLE FRIENDLY LIGHTING IN FLORIDA: UNDERSTANDING THE POLICY IMPLEMENTATION AND ENFORCEMENT PROCESS

1557 **Hanafusa, Y.**; Kaneko, J.; Yasuda, A.; Saito, N.; Hase, H.: DATA MANAGEMENT AND DISSEMINATION IN THE "TOHOKU ECOSYSTEM-ASSOCIATED MARINE SCIENCES (TEAMS)" PROJECT

1558 **Grego, M.**; De Troch, M.; Francé, J.; Kogovšek, T.; Orlando – Bonaca, M.: BENTHIC MICROSCOPIC FAUNA: A MISSING BIOLOGICAL ELEMENT FOR THE ASSESSMENT OF GOOD ENVIRONMENTAL STATUS ACCORDING TO THE MARINE STRATEGY FRAMEWORK DIRECTIVE

1559 **Stephens, D.**; Wright, D.: GIS AS A MULTI-DISCIPLINARY INTEGRATION TOOL FOR MARINE ECOSYSTEMS

1560 **Seegers, B. N.**; Kudela, R. M.; Teel, E. N.; Caron, D. A.; Jones, B. H.: THE UPPER LAYER RESPONSE TO AN EXTENDED SHALLOW DIVERSION OF A WASTEWATER PLUME – WHERE DID ALL THE NUTRIENTS GO?

1561 **Cooley, S. R.**; Rheuban, J. E.; Hart, D.; Hare, J.; Doney, S. C.: AN ATLANTIC SEA SCALLOP INTEGRATED ASSESSMENT MODEL TO EXPLORE OCEAN ACIDIFICATION AND TEMPERATURE RISE

1562 **Delevaux, J. M.**; Oleson, K. L.; Donovan, M.; Friedlander, A.; Kittinger, J. N.: LINKING SOCIAL-ECOLOGICAL SYSTEMS USING SPATIALLY AND TEMPORALLY EXPLICIT ECOSYSTEM SERVICE METRICS TO FOSTER ISLAND SYSTEM RESILIENCE

1563 **Parks, A. B.**; Whitehead, K.; Pastorok, R. A.; Preziosi, D. V.: AN ECOLOGY-BASED APPROACH TO EVALUATION OF ECOSYSTEM SERVICES: OFFSHORE MARINE STRUCTURES AS ARTIFICIAL REEFS

1564 **Puniwai, N.**; Gray, S. A.; Lepczyk, C. A.: HAWAIIAN CULTURAL SEASCAPES

1631 **Malvarez, G.**; Navas, F.; Guisado, E.; Pastres, R.: THE MEDINA E-INFRASTRUCTURE: INTEROPERABLE SPATIAL DATA HUB FOR MONITORING COASTAL AND MARINE ECOSYSTEM STATUS IN NO. AFRICAN COASTS OF THE MEDITERRANEAN SEA

1632 **Martinez, F. A.**; Valdes-Pizzini, M.; Scharer, M.; Dowgiallo, M.: PEOPLE, HABITATS, SPECIES, AND GOVERNANCE: AN ASSESSMENT OF THE SOCIAL-ECOLOGICAL SYSTEM OF LA PARGUERA, PUERTO RICO

1633 **Moritz, H. R.**; Norton, J.; Ott, M.; Smith, G.; Roegner, C.: THE PHYSICS OF DREDGED MATERIAL PLACEMENT WITHIN NEARSHORE WATERS: AS OBSERVED BY A CRAB

TBD **Guannel, G.**; Brenner, J.; Faries, J.; Silver, J.; Thompson, M.: CHANGES IN THE DELIVERY OF ECOSYSTEM SERVICES IN GALVESTON BAY, TX, UNDER DIFFERENT SEA-LEVEL RISE SCENARIOS

005 Air-Sea Gas Exchange

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800 **Lee, J.**; Jeong, K.; Woo, H.; Kang, J.; Lee, D.: EVALUATION FOR METHANE EMISSIONS OF THE INTERTIDAL FLAT SEDIMENTS USING ENCLOSURE CHAMBER TECHNIQUE METHOD, MID-WEST SOUTH KOREA

802 **Wager, N. J.**; Kaiser, J.; Bakker, D. C.; Lee, G. A.: SUMMERTIME DISTRIBUTION AND AIR-SEA FLUXES OF CLIMATICALLY ACTIVE GASES IN EUROPEAN SHELF SEAS.

803 **Haller, M.**; Petersen, W.; Callies, U.: APPLICATION OF CONTINUOUS FERRYBOX DATA SETS TO CARBON FLUX ESTIMATES IN EUROPEAN COASTAL WATERS

804 **Tsai, W.**: THE ROLE OF NON-BREAKING SURFACE WAVES IN AIR-WATER GAS TRANSFER

805 **YU, T.**; HE, Y.; SONG, J.; XIA, Y.; LI, J.: ESTIMATION OF AIR-SEA SURFACE CARBON-DIOXIDE TRANSFER VELOCITY USING ERS-2 DATA

806 **Fredriksson, S. T.**; Arneborg, L.; Nilsson, H.; Handler, R. A.: DIRECT NUMERICAL SIMULATIONS OF NEAR-SURFACE TURBULENCE – AN EVALUATION OF METHODS FOR ESTIMATING AIR-WATER GAS EXCHANGE

807 **Avery, G. B.**; Mead, R. N.; Kieber, R. J.; Willey, J. D.; Skrabal, S. A.: ETHANOL DISTRIBUTION IN AQUATIC SYSTEMS: POTENTIAL IMPACT ON ATMOSPHERIC CONCENTRATIONS

809 **Suzuki, N.**; Donelan, M. A.; Masuda, J.; Komori, S.; Takagaki, N.: ESTIMATION OF THE GLOBAL AIR-SEA CO_2 GAS FLUX CONSIDERING WAVE BREAKING

810 **Kräuter, C.**; Trofimova, D.; Nagel, L.; Jähne, B.: HIGH-RESOLUTION 2-D FLUORESCENCE IMAGING OF GAS TRANSFER AT A FREE WATER SURFACE

811 **Kiefhaber, D.**; Zappa, C. J.; Jähne, B.: MEASUREMENT OF WIND WAVE STATISTICS FROM SPECULAR REFLECTIONS

812 Tavakolinejad, M. D.; **Asher, W. E.**; Jessup, A. T.: THE EFFECT OF SURFACTANTS OF NEAR-SURFACE CONCENTRATION FLUCTUATIONS DUE TO TURBULENCE AND WIND STRESS

813 **Ward, B.**; Sutherland, G.; Miller, S. D.; Saltzman, E. S.; Bell, T. G.: RELATIONSHIP BETWEEN AIR-SEA GAS TRANSFER VELOCITIES AND OCEAN SURFACE DISSIPATION OF TURBULENT KINETIC ENERGY

814 **Scanlon, B.**; Ward, B.: DISCRIMINATING BETWEEN ACTIVE AND MATURING OCEAN WHITECAPS

815 **O'Sullivan, N.**; Landwehr, S.; Miller, S. D.; Ward, B.: MAPPING FLOW DISTORTION ON OCEANOGRAPHIC RESEARCH VESSELS USING COMPUTATIONAL FLUID DYNAMICS

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816 McGillivary, P. A.; **Hackbarth, P. A.**; Sousa, J. T.; Johansen, T. A.: OPTIMIZING SURVEILLANCE BY MULTIPLE INTERACTING UNMANNED AIRCRAFT SYSTEMS (UAS) USING ADAPTIVE ALBATROSS FLIGHT CONTROLS

817 **Tong, D. Q.**; Lei, H.; Pan, L.; Lee, P.; Wang, M.: GLOBAL ESTIMATE OF MARINE ISOPRENE EMISSION BASED ON SOUMI-NPP VIIRS OCEAN COLOR DATA

818 **Liang, J. H.**; Deustch, C. A.; McWilliams, J. C.; Baschek, B. G.; Sullivan, P. P.: PARAMETERIZING BUBBLE-MEDIATED AIR-SEA GAS EXCHANGE AND ITS EFFECT ON OCEAN VENTILATION

893 **Khelif, D.**; Bluth, R.; Jonsson, H.; Barge, J.; Zivko, E.: AIR-SEA INTERACTION MEASUREMENTS FROM THE CONTROLLED TOWED VEHICLE

011 Mapping, Monitoring and Managing Mesophotic Reefs: Scientific Insights and Technologies to Address Coral Resource Management Challenges

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2417 **Brandtneris, V. W.**; Smith, T. B.: MESOPHOTIC REEFS AS ENERGETIC REFUGIA—A CASE STUDY FROM THE US VIRGIN ISLANDS

2418 **Weinstein, D. K.**; Klaus, J. S.; Smith, T. B.: CARBONATE BUDGETS OF STRUCTURALLY DISTINCT MESOPHOTIC REEFS

2419 **Asher, J. M.**; Williams, I.: DISTRIBUTION AND RELATIVE ABUNDANCE OF MAIN HAWAIIAN ISLANDS REEF FISH DETERMINED FROM STEREO-VIDEO SURVEYS IN SHALLOW AND MESOPHOTIC HABITATS

2420 **Yudelman, E. A.**; Slowey, N. C.: CORAL EXTENSION RATE ANALYSIS USING COMPUTED AXIAL TOMOGRAPHY

2422 **John Fitzpatrick, M.**: KUPUNA CORALS, SHARKS, AND FISH NEED OUR HELP AT OLOWALU: USING GIS TO BRIDGE THE DISCONNECT BETWEEN SCIENCE AND THE COMUNITY.

2423 **Moore, C.**; Heyward, A.; Radford, B.; Cappo, M.: HIDDEN HABITAT AND BIODIVERSITY HOTSPOTS: THE IMPORTANCE OF AUSTRALIA'S SUBMERGED OCEANIC SHOALS

2424 **Collin, A.**; Nadaoka, K.: MAPPING THE RESILIENCE OF THE CORAL REEF SOCIO-ECOSYSTEMS IN JAPAN

2426 **Kosaki, R.**; Kane, C.; Pyle, R.; Wagner, D.: TROPHIC STRUCTURE OF MESOPHOTIC FISH ASSEMBLAGES IN THE NORTHWESTERN HAWAIIAN ISLANDS

2427 **Spalding, H. L.**; Smith, C. M.; Sherwood, A. R.: ECOLOGICAL SIGNIFICANCE OF DOMINANT MESOPHOTIC MACROALGAL ASSEMBLAGES ACROSS THE HAWAIIAN ARCHIPELAGO

2428 **Chang, C.**; Wagner, D.; Kosaki, R. K.: THE ABUNDANCE AND DISTRIBUTION OF MACROBENTHIC ORGANISMS AT MESOPHOTIC CORAL REEF ECOSTYSTEMS IN THE NORTHWESTERN HAWAIIAN ISLANDS

2429 **Wagner, D.**; Kosaki, R. K.: DEEP-WATER EXPLORATIONS OF BLACK CORALS IN THE NORTHWESTERN HAWAIIAN ISLANDS

2430 **Englebert, N.**; Bongaerts, P.; Hoegh-Gulberg, O.: THE LOWER MESOPHOTIC ZONE OF THE GREAT BARRIER AND THE CORAL SEA ATOLLS: COMMUNITY STRUCTURE, DEPTH LIMITS AND ENVIRONMENTAL CONDITIONS

2473 **Henderson, L. M.**; Smith, T. B.; Kadison, E.; Brandtneris, V.: DIVERGENT CORAL REEF AND HARD BOTTOM COMMUNITIES OF A MESOPHOTIC SHELF EDGE IN THE US VIRGIN ISLANDS

2474 **Holstein, D.**; Vaz, A. C.; Smith, T. B.; Paris, C. B.: MESOPHOTIC REEFS AS CRITICAL COMPONENTS OF CORAL REPRODUCTIVE NETWORKS

2475 **Kane, C. N.**; Bogeberg, M.; Tissot, B. N.: REFUGE IN THE DEEP: SHALLOW CORAL REEF FISHES UTILIZE MESOPHOTIC REEF HABITATS IN WEST HAWAII

2476 **Boland, R. C.**: SUBSTRATE INFLUENCES ON MESOPHOTIC FISH ASSEMBLAGES IN THE AU'AU CHANNEL OFF OF MAUI, HAWAI'I.

2477 **Zawada, D. G.**; Mazel, C. H.: UNSUPERVISED CLASSIFICATION OF CARIBBEAN CORAL REEF ORGANISMS AND SUBSTRATES BASED ON FLUORESCENCE SPECTRA

012 Oceanic Submesoscale Processes

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1436 **Falder, M.**; White, N.; Caulfield, C.; Sheen, K.: SEISMIC REFLECTION IMAGING OF SUBMESOSCALE STRUCTURE IN THE NORTH ATLANTIC OCEAN, ALLOWING HIGH RESOLUTION MEASUREMENTS OF DIAPYCNAL DIFFUSIVITY

1437 **Song, X.**; Huang, R.; Wu, D.; Qiao, F.: THE OBSERVED COOLING-DIFFUSION SPIRALS IN YELLOW SEA

1438 **Brannigan, L. T.**; Marshall, D. T.; Naveira-Garabato, A. C.; Nurser, G.: DO SUBMESOSCALE FLOWS SHALLOW OR DEEPEN THE OCEAN MIXED LAYER?

1439 **Suzuki, N.**; Hamlington, P. E.; Haney, S.; Van Roekel, L. P.; Fox-Kemper, B.: THE SURFACE WAVE INFLUENCE ON MIXED-LAYER FRONTAL CURRENTS AND MULTISCALE TURBULENCE

1440 **Thyng, K. M.**; Hetland, R. D.: TEXAS-LOUISIANA CROSS-SHELF TRANSPORT DUE TO SUBMESOSCALE EDDIES

1441 **Holmes, R. M.**; Thomas, L. N.; Thompson, L.; Darr, D.: NON-CONSERVATIVE PROCESSES AND MESOSCALE STIRRING DRIVEN BY TROPICAL INSTABILITY VORTICES

1442 **Mantovanelli, A.**; Roughan, M.; Keating, S.; Wyatt, L.; Schaeffer, A.: HAS THE IMPORTANCE OF SUBMESOSCALE FRONTS BEEN UNDERVALUED IN COASTAL AREAS BORDERED BY THE EAST AUSTRALIAN CURRENT (EAC)?

1443 **Van Roekel, L. P.**; Moran, E.; Fox-Kemper, B.: THE INFLUENCE OF MISALIGNED SWELL ON DEVELOPING WIND WAVES

1444 **Pawlowicz, R.**; Scheifele, B.: DOUBLE-DIFFUSIVE INSTABILITIES IN ANCIENT SEAWATER

1445 **Bornstein, G.**; Biescas, B.; Sallarès, V.; Mojica, J. F.: DIRECT TEMPERATURE AND SALINITY ACOUSTIC FULL WAVEFORM INVERSION

1446 **Thomsen, S.**; Kanzow, T.; Krahmann, G.: MESO- AND SUBMESOSCALE VARIABILITY WITHIN THE UPWELLING REGIME OFF PERU OBSERVED BY A FLEET OF GLIDERS.

1447 **Brett, G. E.**; Pratt, L. J.; Rypina, I.: CHAOTIC ADVECTION AND MIXING IN AN IDEALIZED THREE-DIMENSIONAL EDDY MODEL

1448 **Barkan, R.**; Winters, K. B.; Llewellyn Smith, S. G.: ENERGY PATHWAYS AND LOSS OF BALANCE IN AN IDEALIZED OCEAN BASIN FORCED BY WIND STRESS AND BUOYANCY FLUXES

1501 **Kim, S. Y.**; Kosro, P. M.: OBSERVATIONS OF NEAR-INERTIAL SURFACE CURRENTS OFF OREGON: DECORRELATION TIME AND LENGTH SCALES

1502 **Lawrie, A. G.**; Dalziel, S. B.: ANALYSIS OF INTERNAL WAVE SYSTEMS OF COMPLEX FORM GENERATED FROM A FLEXIBLE BOUNDARY

1503 **Mojica, J.**; Sallares, V.; Biescas, B.; Klaeschen, D.; Bornstein, G.: CHARACTERIZATION OF THE ENERGY CASCADE USING HIGH RESOLUTION MULTICHANNEL SEISMIC DATA

1504 **Callies, J.**; Ferrari, R.: THE ROLE OF THE MIXED LAYER IN SUBMESOSCALE TURBULENCE

1505 **Chen, H.**; McKinley, G. A.: DOMINANT FRACTION OF GYRE INTEGRATED SATELLITE CHLOROPHYLL OBSERVED IN SUBMESOSCALE FRONTS

1506 **Kunze, E.**; Klymak, J. M.; Lee, C. M.; Goodman, L.; Lien, R. C.: SUBMESOSCALE WATER-MASS SPECTRA IN THE SARGASSO SEA

1507 **Haney, S.**; Fox-Kemper, B.; Julien, K.: STABILITY OF THE OCEAN MIXED LAYER IN THE PRESENCE OF SURFACE GRAVITY WAVE FORCING

1508 **Llewellyn Smith, S. G.**; Keppel, C. E.: 3D DYNAMICS OF SQG VORTICES AND PASSIVE SCALAR TRANSPORT

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1509 **Cervantes, B. T.**; Levine, M. D.; Pierce, S. D.: FLUORESCEIN DYE STUDIES OF SUBMESOSCALE LATERAL MIXING IN THE OCEAN

1510 **Arobone, E. M.**; Sarkar, S.: FROM BALANCED SHEAR TO TURBULENCE IN AN IDEALIZED SUBMESOSCALE FLOW

1511 **Pearson, K. A.**; Carter, G. S.: IDENTIFYING WATER MASSES OFF THE SOUTH SHORE OF OAHU USING SEAGLIDER DATA

1512 **Wakata, Y.**; Endoh, T.; Yoshikawa, Y.: TIDAL OSCILLATIONS IN EAST CHINA SEA SIMULATED BY LES

1513 **North, R. P.**; Angel-Benavides, I. M.; Baschek, B.; Molemaker, M. J.; Marmorino, G.: QUANTIFYING SUBMESOSCALE FEATURES CAPTURED IN THE COASTAL REGION OF THE SOUTHERN CALIFORNIA BIGHT

1514 **Khymchenko, I. E.**; Tuzhilkin, V. S.; Serebryany, A. N.: ANTICYCLONIC EDDIES IN THE CENTRAL AND COASTAL AREAS OF THE BLACK SEA: STATISTICS AND PARAMETERS OF SALINITY MANIFESTATIONS

1515 **Jong-Kyu Kim, J.**; Byoung-Ju Choi, .; Sang-Ho Lee, .; Young-Tae Son, .: VARIABILITY OF THERMOHALINE FRONT IN RESPONSE TO WIND VARIATION IN THE KOREA STRAIT IN AUTUMN: NUMERICAL SIMULATION

1516 **Shakespeare, C. J.**; Taylor, J. R.: A GENERALISED MODEL FOR SUBMESOSCALE FRONTOGENESIS

1517 **Kersalé, M.**; Petrenko, A. A.; Doglioli, A. M.; Nencioli, F.; Dekeyser, I.: DYNAMICS OF MESO- AND SUBMESOSCALE PROCESSES FROM IN SITU DATA AND NUMERICAL MODELING IN A COASTAL ENVIRONMENT

1518 **Sánchez-Leal, R. F.**; Sanchez-Garrido, J. C.; Bellanco-Esteban, M. J.; Ruiz-Villarreal, M.; Gonzalez-Pola, C.: EARLY TRANSFORMATION OF THE MEDITERRANEAN OUTFLOW WATER (MOW) IN THE GULF OF CADIZ, SW IBERIAN PENINSULA: PATHWAYS, MIXING AND TEMPORAL VARIABILITY.

1519 **Robitaille, J.**; Chavanne, C. P.: SUBMESOSCALE FRONTOLYSIS EVENT IN THE SAINT-LAWRENCE ESTUARY : OBSERVATIONS VS. MIXED-LAYER SURFACE QUASI-GEOSTROPHY PREDICTIONS

1520 **Miller, W. D.**; Smith, G. B.; Marmorino, G. O.; Baschek, B.: AIRBORNE OCEAN COLOR REMOTE SENSING OF SUBMESOSCALE EDDIES NEAR SANTA CATALINA ISLAND

1521 **Harcourt, R. R.**; D'Asaro, E. A.; Lee, C. M.; Shcherbina, A. Y.: TURBULENCE INTENSITY IN BAROCLINIC MIXED LAYERS

1522 **Jinadasa, S. U.**; Lozovatsky, I. D.; Fernando, H. J.; Hong, C. S.; Lee, J. H.: BBL DYNAMICS IN SHALLOW WATERS OF THE EAST CHINA SEA

1523 **Zhang, Q.**; Thompson, A. F.; Stewart, A. L.: THE IMPACT OF TOPOGRAPHY ON CROSS FRONT TRANSPORT AND SUBMESOSCALE TURBULENCE

1524 **Aghassi, E. N.**; Siegel, D. A.; Stassinos, E.; Nelson, N. B.: SURFACE IN-SITU OCEAN OPTICS ON CLIVAR A16N 2013 AND CORRELATIONS TO LAGRANGIAN COHERENT STRUCTURES

1525 **Pierce, S. D.**; Levine, M. D.; Cervantes, B. K.: DIRECT STREAM FUNCTION ESTIMATION FROM UNDERWAY VELOCITY DATA USING TRIGONOMETRIC BASIS FUNCTIONS

1526 **Dong, C.**; Liu, Y.: OCEANIC EDDY SYMMETRY ALONG THE KUROSHIO IN THE EAST CHINA SEA

1591 **de Verneil, A.**; Franks, P. J.; Mahadevan, A.: PHYTOPLANKTON COMMUNITIES AT FRONTS: THE ROLE OF SUBMESOSCALE STIRRING AND MIXING IN NUTRIENT-LIMITED ECOSYSTEMS

1592 **Futch, V. C.**; Flament, P.; Lumpkin, R.; Armi, L.: SEPARATION OF THE NORTH EQUATORIAL CURRENT AT SOUTH PT. HAWAII: A CASE OF DOWNSTREAM INSTABILITY AND VORTEX FORMATION

THURSDAY

014 Physical Processes Along Reef-Protected Coastlines: Current Observations and Future Predictions

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2513 **Barkdull, M. K.**; Monismith, S. G.; Atkinson, M.; Lowe, R.; Falter, J.: BUOYANCY DRIVEN FLOW IN A CORAL REEF-LAGOON SYSTEM

2514 **Viehman, T. S.**; Hench, J. L.; Griffin, S. P.; Piniak, G. A.; Halpin, P. N.: WAVE ENERGY AND SUBSTRATE STABILITY CONSTRAIN CORAL REEF RECOVERY AFTER VESSEL GROUNDINGS

2515 **Herdman, L. M.**; Hench, J. L.; Monismith, S. G.: HEAT BALANCES AND THERMALLY-DRIVEN LAGOON-OCEAN EXCHANGES ON A TROPICAL CORAL REEF SYSTEM

2516 **Winter, G.**; Pomeroy, A. W.; Lowe, R. J.; Hansen, J.: FORCING OF MEAN AND VERY LOW FREQUENCY MOTIONS IN FRINGING REEF ENVIRONMENTS: A COMPARISON OF LAGRANGIAN AND EULERIAN OBSERVATIONS

2517 **Cuttler, M.**; Lowe, R. J.; Falter, J. L.: SPATIAL VARIABILITY OF CARBONATE SEDIMENT TEXTURAL PARAMETERS ACROSS A FRINGING REEF SYSTEM

2518 **Yao, Y.**; Becker, J. M.; Merrifield, M. A.: BOUSSINESQ MODELING OF WAVE TRANSFORMATION OVER FRINGING REEFS: TWO CASE STUDIES OF FIELD OBSERVATIONS

2519 **Pomeroy, A. W.**; Lowe, R. J.; Buckley, M.; Van Dongeren, A. R.; Ghisalberti, M.: A LABORATORY STUDY OF SEDIMENT TRANSPORT IN FRINGING REEF ENVIRONMENTS

2520 **Storlazzi, C. D.**; Berkowitz, P.; Elias, E. P.: THE EFFECTS OF SEA-LEVEL RISE ON WAVES, RUN-UP, AND INUNDATION OF ATOLLS

2521 **Collignon, A. G.**; Pawlak, G.: A COMPARATIVE STUDY OF BED STRESS AND BOUNDARY LAYER DYNAMICS OVER CORAL REEFS

2522 **HUANG, Z. C.**; Tsai, W. T.: FIELD OBSERVATIONS OF TURBULENCE IN THE WAVE-CURRENT BOTTOM BOUNDARY LAYER OVER AN ALGAL REEF

2569 **Donker, J. J.**; van der Vegt, M.; Hoekstra, P.: OBSERVED FLOW PATTERNS NEAR HUMMOCKS IN INTERTIDAL MUSSEL BEDS

2570 **Costa, M. B.**; Araujo, M.; Araujo, T. C.; Siegle, E.: WAVE – REEF INTERACTION CONTROLLING COASTAL PROCESSES: NORTHEAST BRAZIL

2571 **Mariño Tapia, I.**; Enriquez, C.; Franklin, G. L.; Valle-Levinson, A.: CORAL DEGRADATION, SUBMARINE GROUNDWATER DISCHARGES, AND IMPLICATIONS FOR REEF HYDRODYNAMICS

2572 **Lowe, R. J.**; Gruber, R. K.; Falter, J. L.: HYDRODYNAMICS AND THERMODYNAMICS OF THE MACROTIDAL REEF SYSTEMS IN NORTHWESTERN AUSTRALIA

2573 **Hoeke, R. K.**; McInnes, K. L.; Colberg, F.; O'Grady, J.; Kruger, J.: WAVE-DRIVEN EXTREME SEA LEVELS AT OCEANIC ISLANDS AND ATOLLS: DOWNSCALING WAVE CLIMATE TO BETTER UNDERSTAND FUTURE IMPACTS

2575 **Leary, P. R.**; Walter, R. K.; Denny, M. W.; Micheli, F.; Monismith, S. G.: HYPOXIA IN THE KELP FOREST, HYDRODYNAMICS AND SPATIAL VARIABILITY

2576 **Barry, J. H.**: COASTAL PROCESSES AT POIPU BEACH PARK: THE EFFECTS OF A BIMODAL WAVE CLIMATE ON TOMBOLO STABILITY

2577 **Kisabeth, J. K.**: CRUISE SHIP INDUCED SEDIMENT RESUSPENSION CHARACTERISTICS IN CHARLOTTE AMALIE HARBOR AND WEST GREGORIE CHANNEL ST. THOMAS, UNITED STATES VIRGIN ISLANDS.

2578 **Dolan, T.**; Serafy, J.: POWER OF A MULTI-YEAR MONITORING PROGRAM TO DETECT CHANGE IN MANGROVE FISH COMMUNITIES ADJACENT TO A NUCLEAR POWER PLANT

017 Shedding Light On Phytoplankton Biogeography

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2758 **Ferguson, C. E.**; Alderkamp, A. C.; Arrigo, K. R.: BURNING TOO BRIGHT: NON-PHOTOCHEMICAL QUENCHING RESPONSES OF TWO ANTARCTIC PHYTOPLANKTON TAXA

2759 **Cuhel, R. L.**; Aguilar, C.: DEEPER, DEEPER, DEEPER: FUNCTIONAL DEEP CHLOROPHYLL MAXIMA BELOW 50M IN OLIGOTROPHICATED LAKE MICHIGAN.

2760 **Xia, X.**; Liu, H.: SEASONAL VARIATION OF SYNECHOCOCCUS COMMUNITY COMPOSITION IN THE SUBTROPICAL COASTAL WATERS OF HONG KONG

2761 **Aguilar, C.**; Cuhel, R. L.: RECYCLING OF NUTRIENTS FROM THE BOTTOM-UP: TOP PLANKTON PREDATORS GIVE BACK TO THE COMMUNITY

2762 **Chase, A. P.**; Boss, E.; Zaneveld, R.; Bricaud, A.; Claustre, H.: MAPPING PHYTOPLANKTON TYPES USING IN SITU ABSORPTION SPECTRA AND LINKING RESULTS TO FUTURE HYPERSPECTRAL OCEAN COLOR SATELLITES

2763 **Yamaguchi, H.**; Murakami, H.; Miyamura, K.; Siswanto, E.; Ishizaka, J.: UNDERSTANDING THE INHERENT OPTICAL PROPERTY OF HARMFUL DINOFLAGELLATE BLOOM IN THE EASTERN COAST OF KYUSHU, JAPAN

2765 **Downing, A. S.**; Hajdu, S.; Hjerne, O.; Otto, S.; Blenckner, T.: NARROWING DOWN ON SIZE DISTRIBUTION PATTERNS UNDERLYING SPECIES CO-EXISTENCE IN BALTIC SEA PHYTOPLANKTON

2766 **Shang, S. L.**: ON THE FREQUENCIES OF DINOFLAGELLATE BLOOMS IN THE EAST CHINA SEA DURING 2002-2012

2799 **Lew, S. L.**; Martin, A. P.; Anderson, T. R.; Zubkov, M. V.: A POTENTIAL TRADE-OFF IN THE USE OF SOLAR ENERGY IN PROCHLOROCOCCUS CYANOBACTERIA

2800 **Ostrowska, M.**; Wozniak, B.; Dera, J.: QUANTUM YIELDS OF DEACTIVATION OF EXCITATION ENERGY OF PHYTOPLANKTON PIGMENTS ON FLUORESCENCE, PHOTOSYNTHESIS AND HEAT PRODUCTION IN THE WORLD OCEAN

2801 **Ston-Egiert, J.**; Majchrowski, R.; Darecki, M.; Sobiechowska-Sasin, M.; Ostrowska, M.: PHYTOPLANKTON PIGMENT RESPONSES TO DIFFERENT LIGHT CONDITIONS IN BALTIC SEA - MEASURED AND MODELED RESULTS FOR CASE 2 WATERS

2802 **Hickman, A. E.**; Dutkiewicz, S.; Jahn, O.; Follows, M. J.: HOW IMPORTANT ARE PIGMENTS FOR PHYTOPLANKTON BIOGEOGRAPHY?

2803 Carpentier, C.; **Moldaenke, C. F.**: THE USE OF A NEW INSTRUMENT FOR THE FAST DETERMINATION OF MICROBENTHIC ALGAE: PRINCIPLES AND APPLICATIONS OF THE BBE BENTHOTORCH

2804 **Talaber, I.**; France, J.; Flander-Putrle, V.; Mozetic, P.: HOW PHYTOPLANKTON PHYSIOLOGY AND COMMUNITY STRUCTURE ADJUST TO PHYSICAL FORCING IN A COASTAL ECOSYSTEM (NORTHERN ADRIATIC)

2805 **Alderkamp, A. C.**; Van Dijken, G. L.; Lowry, K. E.; Sherrell, R. M.; Arrigo, K. R.: EFFECTS OF GLACIAL MELT ON PHYTOPLANKTON PRIMARY PRODUCTIVITY IN THE AMUNDSEN SEA (ANTARCTICA)

2806 **Celepli, N.**; Ekman, M.; Larsson, J.; Bergman, B.; Ininbergs, K.: BALTIC SEA CYANOBACTERIA: DIVERSITY, DISTRIBUTION AND FUNCTIONAL ADAPTATION

2807 **Moore, T. S.**: PROJECTING THE ENVIRONMENTAL NICHE SPACE FOR SUMMERTIME COCCOLITHOPHORE BLOOMS IN THE NORTH ATLANTIC FROM CPR AND SATELLITE DATA

2842 **Schofield, O. M.**; Saba, G.; Finkel, Z.; Irwin, A.; Ducklow, H.: BIOGEOCHEMICAL AND ECOLOGICAL CONSEQUENCES OF PHYTOPLANKTON COMMUNITY COMPOSITION ALONG A MELTING WEST ANTARCTIC PENINSULA

2843 **Rii, Y. M.**; Duhamel, S.; Bidigare, R. R.; Church, M. J.; Repeta, D. J.: CONTRIBUTION OF PHOTOSYNTHETIC PICOEUKARYOTES TO PRIMARY PRODUCTION AND PARTICLE FLUX IN BIOGEOCHEMICALLY DISTINCT REGIONS OF THE EASTERN SOUTH PACIFIC OCEAN

2844 **Tucker, K. C.**; Morton, S.; Cherrier, J.: HABS IN APALACHICOLA BAY, FL, USA: IMPLICATIONS FOR OYSTER FISHERY RESILIENCE

2845 **Shipe, R. F.**; Leinweber, A.; Gruber, N.: PIER BASED VERSUS OPEN BAY HARMFUL ALGAE SEASONALITY IN SANTA MONICA BAY, CA

2846 **Tiffany Moisan, A.**; Rachel Steinhardt, A.; John Moisan , A.; Mathew Linkswiler, A.: ALGORITHM DEVELOPMENT FOR PREDICTING PHYTOPLANKTON DIVERSITY

018 Advancing the Frontiers of the Si Cycle In Terrestrial, Coastal, and Open Ocean Ecosystems

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2033 **Boutorh, J.**; Moriceau, B.; Suroy, M.; Ragueneau, O.; Bucciarelli, E.: FRUSTULES OF NUTRIENT LIMITED DIATOMS ARE BETTER PRESERVED DURING DISSOLUTION

2034 **Kress, N.**; Fanning, K.; Krom, M. D.: THE SILICA CYCLE IN THE ULTRAOLIGOTROPHIC EASTERN MEDITERRANEAN SEA

2101 **Closset, I.**; Cardinal, D.; Thil, F.; Bray, S.; Trull, T.: SEASONAL VARIATION, ORIGIN AND FATE OF SETTLING DIATOMS IN THE SOUTHERN OCEAN TRACKED BY SILICON ISOTOPE RECORD IN DEEP SEDIMENT TRAPS

2102 **Doering, K.**; Crosta, X.; Frank, M.; Schneider, R.: A COMPARISON OF STABLE SILICON ISOTOPE COMPOSITIONS OF BIOGENIC OPAL AND DIATOM ASSEMBLAGES: A DEGLACIAL TO HOLOCENE RECORD OF THE PERUVIAN UPWELLING

2103 **Zhang, Z. L.**; Dai, M. H.: DEGREE OF SILICATE RECYCLING IN THE NORTHERN SOUTH CHINA SEA INFERRED BY SILICON ISOTOPIC COMPOSITION

2104 **de Villiers, S.**; Ismail, H. E.: SUBMARINE GROUNDWATER DISCHARGE AS A CONTROL ON CONTINENTAL SHELF ANOXIA IN A MAJOR EASTERN BOUNDARY UPWELLING AREA

2105 **Chase, Z.**; Kohfeld, K. E.; Matsumoto, K.: CONTROLS ON OPAL EXPORT IN THE SOUTHERN OCEAN INFERRED FROM 230-THORIUM NORMALIZED BURIAL RATES

2106 **Grasse, P.**; Brzezinski, M. A.; Frank, M.: FACTORS CONTROLLING THE SILICON ISOTOPE COMPOSITION OF DISSOLVED SILICATE AND BIOGENIC SILICA IN THE PERUVIAN UPWELLING

2107 **Gao, S.**; Völker, C.; Lohmann, G.; Butzin, M.; Wolf-Gladrow, D. A.: VARIATION OF GLACIAL-INTERGLACIAL MARINE SILICON ISOTOPIC COMPOSITIONS AND ITS POSSIBLE IMPLICATIONS—A MODELING STUDY

2108 **de Souza, G. F.**; Slater, R. D.; Dunne, J. P.; Sarmiento, J. L.: PARSING THE CONTROLS ON THE OCEANIC SI DISTRIBUTION IN AN OCEAN MODEL USING SI ISOTOPES

023 Mechanisms of Biogeochemical Variability In the Global Oceans

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Location: Kamehameha Hall III

2109 **Fry, C.**; Tyrrell, T.; Hain, M.; Bates, N.: A METHOD FOR ANALYSING PROCESSES AFFECTING SURFACE OCEAN ALKALINITY

2110 **Qin, X.**; van Sebille, E.; Sen Gupta, A.: A LAGRANGIAN ANALYSIS OF BIOGEOCHEMISTRY IN THE EQUATORIAL UNDERCURRENT

2111 **Ben McNeil, .**; Tristan Sasse, .: FUTURE AMPLIFICATION OF CO2 EXTREMES DIAGNOSED USING A NEW GLOBAL MONTHLY OCEAN CARBON CLIMATOLOGY

2112 **Resplandy, L.**; Séférian, R.; Bopp, L.: DECADAL VARIABILITY OF OCEAN CO2 AND O2 FLUXES

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2115 **Lu, Z.**; Gan, J.; Dai, M.; Zhao, X.; Liang, L.: REVISITING NUTRIENT SOURCES AND BUDGET IN THE EAST CHINA SEA

2116 **Belem, A. L.**; Albuquerque, A. L.; Cordeiro, L. G.; Mendoza, U. N.; Fenili, L. H.: OCEANOGRAPHIC BIOGEOCHEMICAL CONTROL OF PARTICULATE MATTER FLUXES IN A WESTERN BOUNDARY UPWELLING SYSTEM

2117 **Hood, R. R.**; Strutton, P. G.; Coles, V. J.; Phillips, H. E.; McPhaden, M. J.: BIOGEOCHEMICAL VARIABILITY IN THE EQUATORIAL INDIAN OCEAN IN RESPONSE TO WYRTKI JET FORCING

2118 **Carter, B. R.**; Toggweiler, J. R.; Key, R. M.; Sarmiento, J. L.: ALK*, A TRACER QUANTIFYING THE INFLUENCE OF CARBONATE CYCLING ON ALKALINITY

2119 **Calil, P.**; Arruda, R.: ON THE MECHANISMS THAT CONTROL PCO2 VARIABILITY IN THE SOUTH-WESTERN ATLANTIC OCEAN: IMPLICATIONS FOR THE CONTINENTAL SHELF PUMP

2120 **Vinu Valsala, .**; Shamil Maksyutov, .; Raghu Murtugudde, .: CLIMATE IMPRINTS ON THE AIR-SEA CO2 FLUXES OF NORTH PACIFIC AND SOUTH INDIAN OCEAN

2121 **Majkut, J. D.**; Sarmiento, J. L.; Rodgers, K. B.: UNDERSTANDING AND DETECTING SOUTHERN OCEAN CO2 UPTAKE CHANGES

2122 **Lietzke, S. C.**; Haidvogel, D. B.; Stock, C. A.; Curchitser, E. N.: ENSO PHASE VARIABILITY IN THE BIOGEOCHEMISTRY OF THE EASTERN AND WESTERN PACIFIC

2123 **Chikamoto, M. O.**; Timmermann, A.; Chikamoto, Y.; Tokinaga, H.; Harada, N.: DECADAL VARIABILITY AND PREDICTABILITY OF BIOGEOCHEMICAL CHANGES IN THE NORTH PACIFIC

024 ASLO Multicultural Program Student Symposium

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Location: Kamehameha Hall III

1655 **Franklin, M. C.**; Doellman, M.; Sorte, C.: BLUE MUSSEL (MYTILUS EDULIS) ABUNDANCE IN THE GULF OF MAINE: A HISTORICAL APPORACH TO DETERMINING POPULATION TRAJECTORIES

1656 **Maldonado, D. A.**; Keppler, C.; Benitez-Nelson, C.; Greenfield, D. I.: COUPLING PHYTOPLANKTON ASSEMBLAGE COMPOSITION AND PHYSIOLOGY WITH SEASONAL NITROGEN AND PHOSPHORUS LEVELS IN CHARLESTON HARBOR AND WINYAH BAY, SOUTH CAROLINA

1657 **Wong-Ala, J. A.**; Michelou, V. K.; Rappe, M. J.: CHARACTERIZING GROWTH PROMOTERS AND INHIBITORS OF THE PROTEORHODOPSIN-CONTAINING MARINE GAMMAPROTEOBACTERIUM HIMB30

1669 Nieves, M.; **Gutierrez, E.**: PATCHY DISTRIBUTION OF LITTORINA LITTOREA PARALLEL TO THE COASTLINE IS INFLUENCED BY ALGAL COVER ON ROCKS

1715 **Perez Delgado, Z. P.**; Tan, J.; Jiang, L.: HOW DO NICHE AND FITNESS DIFFERENCES AFFECT COEXISTENCE AMONG SPECIES?

1716 **Sánchez-Viruet, I. C.**; Mota-Annexy, C. A.; Pierson, J.: PRELIMINARY SPATIAL DISTRIBUTION OF COPEPODS IN THE BIOLUMINESCENT BAY, LAGUNA GRANDE, FAJARDO, PUERTO RICO

1717 **Castro, S. M.**; Krekeler, M. P.: METAL POLLUTION OF LAKE SEDIMENTS IN SOUTHWEST OHIO

1718 **Carmon, B. N.**; Mitchell, J.: ANALYSIS OF GEAR INTERACTIONS WITH PROTECTED SPECIES IN THE GULF OF MEXICO AND SOUTHEAST ATLANTIC

1719 Shamblin, B.; Nairn , J.; Holcomb, K.; Ayala-Díaz, E.; **López-Figueroa, N. B.**: USING MATERNAL DNA TO EVALUATE EGG TRANSLOCATION SUCCESS OF THE LOGGERHEAD SEA TURTLE (CARETTA CARETTA) AT CHINCOTEAGUE NATIONAL WILDLIFE REFUGE (CNWR)

1720 **Quiles-Delgado, T.**; Valentin, G.; Quiñones , A.; Arraras-Garcia, J.: THE EFFECT OF LICL ON INTESTINAL REGENERATION OF *HOLOTHURIA GLABERRIMA*

1721 **Williams, H. A.**: BIOTOXINS IN BUTTER CLAMS (SAXIDOMUS GIGANTEA) AND BLUE MUSSELS (MYTILUS EDULIS) IN THE SALISH SEA

1722 **Owen, T. J.**; McDonnell, C. E.; Hagen, R. A.; Czarnecki, M. F.; Nishimura, C. E.: WORLD WAR I ERA SUBMARINE ON SIDE-SCAN SONAR IMAGERY, CHESAPEAKE BAY REGION

1723 **Kiili, S. H.**; Colbert, S.; Wiegner, T.: EFFECTS OF GEOTHERMALLY HEATED GROUNDWATER ON THE DISSOLVED INORGANIC CARBON SYSTEM AT WAI 'OPAE, HAWAI'I ISLAND

1724 **Kauahi, C.**; Puniwai, N.; Gray, S. A.; Lepczyk, C.: SURF QUALITY IN HILO BAY AS INFLUENCED BY CLIMATE CHANGE

3269 **Kraskura, K.**; Urick, S.; Schwarz, M. H.; Jahncke, M. L.; Horodysky, A. Z.: EFFECTS OF FEEDING RATE AND FEEDING FREQUENCY ON GROWTH OF JUVENILE TILAPIA (OREOCHROMIS NILOTICUS/O.AUREUS)

025 Physical-Biological Interactions In Coral Reefs: A Tribute to Marlin Atkinson

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2609 **Lantz, C. A.**; Atkinson, M. J.; Winn, C.; Kahng, S.: CHEMICAL TECHNIQUES FOR MONITORING THE EFFECTS OF OCEAN ACIDIFICATION ON CORAL REEFS

2610 **Frazier, M. M.**; Takabayashi, M.: ASSESSING THE BIOLOGICAL EFFECTS OF GROWTH ANOMALY IN THE CORAL *MONTIPORA CAPITATA* USING RNA-SEQ

2611 **Speare, K. E.**; Bruno, J. F.; Goodbody-Gringley , G.: SYNERGISTIC EFFECTS OF INCREASED SEDIMENTATION AND WATER TEMPERATURE ON THE SURVIVAL OF JUVENILE CORAL SPAT

2612 **Wurgaft, E.**; Luz, B.; Lazar, B.: LATERAL MIXING PROCESSES AND BASIN-SCALE CARBONATE-MINERALS DEPOSITION IN THE GULF OF AQABA – EVIDENCE FROM ALKALINITY VARIATIONS

2613 **Tansik, A. L.**; Fitt, W. K.; Hopkinson, B. M.: OVERCOMING DIFFUSIVE BOUNDARY LIMITATION ON CO_2 UPTAKE BY EXTERNAL CARBONIC ANHYDRASE IN TROPICAL SCLERACTINIAN CORALS

2614 **Grange, J. S.**; Rybarczyk, H.; Tribollet, A.: SUCCESSIONS OF MICROBIOERODING COMMUNITIES OVER A YEAR PERIOD WITH A MONTHLY RESOLUTION: IMPACT ON CARBONATE DISSOLUTION RATES IN DEAD CORALS (NEW CALEDONIA)

2615 **Toth, L. T.**; Aronson, R. B.: PALEOENVIRONMENTAL VARIABILITY AND THRESHOLD BEHAVIOR OF A CORAL-REEF ECOSYSTEM

2616 **Aliah Irvine, L.**; Narrissa Spies, .; Robert Richmond, .: ALTERNATIVE PRESERVATION METHODS TO ISOLATE DNA FROM CORAL

2617 **Carreón-Palau, L.**; Parrish, C. C.; Pérez-España, H.; Aguiñiga-García, S.: SEASONAL SHIFT OF C: N RATIO, LIPID CLASSES, FATTY ACIDS AND STEROLS IN A GULF OF MEXICO CORAL REEF FOOD WEB WITH RIVER INFLUENCE

2618 **Barkley, H. C.**; Cohen, A. L.; McCorkle, D. C.; Golbuu, Y.; DeCarlo, T. M.: IDENTIFYING UNDERLYING MECHANISMS FOR ACIDIFICATION TOLERANCE IN REEF-BUILDING CORALS

2665 **Burns, J. H.**; Gates, R. D.; Takabayashi, M.; Delparte, D.: UTILIZING STRUCTURE-FROM-MOTION PHOTOGRAMMETRY AS AN INNOVATIVE TECHNIQUE FOR QUANTIFYING 3-DIMENSIONAL CHARACTERISTICS OF CORAL REEFS

2667 **Helbling, A. H.**; Stone, R. P.; Speakman, S. A.; Cohen, A. L.: MINERALOGY AND COMPOSITION OF CALCIUM CARBONATE SKELETONS DETERMINED BY HIGH-RESOLUTION X-RAY POWDER DIFFRACTION AND RIETVELD REFINEMENT

2668 **SAMUEL, L. C.**; MONISMITH, S. G.: THE EFFECT OF POLYP TENTACLE EXTENSION ON CORAL BOUNDARY LAYER THICKNESSES AND MASS TRANSFER

2669 **Gramer, L. J.**; Mariano, A. J.; Thompson, N. B.; Hendee, J. C.: DYNAMICS OF SEA TEMPERATURE VARIABILITY ON FLORIDA'S REEF TRACT: FROM REGIONAL TO REEF-SCALE

2670 **Zhu, X.**; Minnett, P.; Hendee, J.; Manfrino, C.; Berkelmans, R.: LINKING CORAL REEF BLEACHING AND DAILY TEMPERATURE VARIABILITY AT SHALLOW COASTAL SEAS

2671 **Torres, W. I.**; Koweek, D.; Monismith, S. G.; Barkdull, M. K.; Dunbar, R.: THE TURBULENT BOUNDARY LAYER OVER REEF ECOSYSTEM SUBSTRATES

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2672 **Gorbunov, M. Y.**; Kuzminov, F. I.; Falkowski, P. G.: ADVANCED FLUORESCENCE TECHNOLOGIES AND INSTRUMENTATION FOR MONITORING AND ASSESSING OF CORAL REEFS

2673 **Weitzman, J. S.**; Samuel, L. C.; Zeller, R. B.; Monismith, S. G.; Koseff, J. R.: THE USE OF REFRACTION INDEX MATCHED MATERIAL FOR VISUALIZATION AND QUANTIFICATION OF FLOW WITHIN COMPLEX, BIO-INSPIRED BENTHIC STRUCTURES

2674 **Zeller, R. B.**; Weitzman, J. S.; Koseff, J. R.: PARTICLE IMAGE VELOCIMETRY MEASUREMENTS OF HORIZONTAL FLOW STRUCTURE AND WAKE PRODUCTION OF TURBULENCE IN A RIGID SUBMERGED CANOPY EXPOSED TO OSCILLATORY FLOW

2675 **Zabel, C.**; Koweek, D.; Teneva, L.; Dunbar, R.: LINKING BENTHIC COMMUNITY COMPOSITION WITH REEF METABOLISM ON NEAR-PRISTINE BACKREEF ENVIRONMENTS OF PALMYRA ATOLL, CENTRAL PACIFIC

2676 **Herrán, N.**; Westphal, H.: DEVELOPING ECOSYSTEM HEALTH INDEX TO ASSESS THE CHANGES IN CHANGUU CORALLINE ISLAND, ZANZIBAR.

2677 **Martinez, J.**: PHYSICAL HABITAT MODIFICATION BY INVASIVE ALGAE AND PHYSIOLOGICAL IMPACTS TO CORAL IN HAWAII

027 Nearshore Processes

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260 **Restrepo, J. M.**; Venkataramani, S.; Dawson, C.: NEARSHORE STICKY WATERS

261 **Poppe, L. J.**; McMullen, K. Y.: CHARACTER, DISTRIBUTION, AND ECOLOGICAL SIGNIFICANCE OF STORM-WAVE INDUCED SCOUR IN RHODE ISLAND SOUND, USA

262 **Bricheno, L. M.**; Wolf, J.: WHAT EFFECT DOES HIGH MODEL RESOLUTION HAVE ON NEARSHORE WINDS, AND THEREFORE THE COASTAL OCEAN?

299 **Dalyander, P. S.**; Butman, B.: PATTERNS OF STORM DRIVEN WAVE-INDUCED BOTTOM SHEAR STRESS ON THE U.S. EAST COAST CONTINENTAL SHELF

300 **Tian, M.**; Feng, D.; Sheremet, A.; Kaihatu, J.: ON THE BREAKING OF A SOLITON WITH SHORT-WAVES OVER A SLOPING BED

301 **Smith, M. M.**; Raubenheimer, B.; Elgar, S.: SEDIMENT TRANSPORT IN KATAMA BAY AND INLET, MARTHA'S VINEYARD, MASSACHUSETTS

302 **Zippel, S. F.**; Thomson, J.: WAVE BREAKING DUE TO DEPTH AND CURRENTS

303 **Kashima, H.**; Hirayama, K.; Mori, N.: NUMERICAL SIMULARIONS ON FREAK WAVE OCCURRENCE IN SHALLOW WATER REGIONS

304 **Reisdorph, S. C.**; Mathis, J. T.; Cross, J. N.; Danielson, S.; Monacci, N.: ASSESSING NET COMMUNITY PRODUCTION IN GLACIATED ALASKA FJORD

305 **Harrison, S. R.**; Bryan, K. R.; Mullarney, J. C.; Winter, C.: A QUASI-ANALYTICAL MODEL FOR MORPHOLOGICAL EVOLUTION OF EBB-TIDE DELTAS

306 **Sinnett, G.**; Feddersen, F.: CHARACTERIZING HEAT CONTENT AND SPATIO-TEMPORAL VARIABILITY OF TEMPERATURE IN THE SURF-ZONE

327 **Grimes, D. J.**; McNamara, D. E.: THE ANTHROMORPHODYNAMICAM: PREDICTING COASTLINE MORPHODYNAMICS AND THE HUMAN RESPONSE WITH A MONITORING CAMERA.

328 **Smith, J. R.**; Kinsman, N.; Misra, D.: NUMERICAL MODELING OF COASTAL MORPHODYNAMICS IN RESPONSE TO EXTREME STORM EVENTS ON THE GOLOVIN BARRIER SPIT IN NORTHWEST ALASKA

329 **Segura, L. E.**; Hansen, J. E.; Lowe, R. J.; Symonds, G.; Contardo, S.: LONG AND SHORT-TERM MORPHOLOGICAL VARIABILITY OF A SANDY BEACH SYSTEM IN SOUTHWESTERN AUSTRALIA

330 **Castelle, B.**; Coco, G.: SURFZONE FLUSHING THROUGH HEADLAND RIPS

331 **Flagg, C. N.**; Flood, R.; Wilson, R.; Yang, D. M.: GREAT SOUTH BAY AND THE BREACH IN FIRE ISLAND, NY

332 **Ortiz-Suslow, D. G.**; Haus, B. K.; Laxague, N. M.; Williams, N. J.: QUANTIFYING THE SPATIAL AND TEMPORAL VARIABILITY OF WIND-STRESSES ACROSS A TIDAL INLET

333 **Banno, M.**; Seike, K.: RADIOCARBON DATING TO INVESTIGATE THE DISTRIBUTION OF DUMPED SEDIMENT

334 **Kaida, H.**; Uchiyama, Y.; McWilliams, J.: WAVE-CURRENT INTERACTION IN THE SURFZONE-INNER SHELF CIRCULATIONS

335 **Roeber, V.**; Heitmann, T. W.; Cheung, K. F.; Smith, D. A.: MODELING OF NEARSHORE CURRENTS OVER FRINGING REEFS WITH SHOCK-CAPTURING BOUSSINESQ-TYPE EQUATIONS

336 **KIM, T.**; Lee, J.; KIM, D.: BEACH EROSION NEAR THE SEASHORE WIND BREAK FOREST

337 **Mulligan, R. P.**; Berard, N. A.; Ferreira da Silva , A. M.: WAVE BOTTOM BOUNDARY LAYER VARIABILITY ACROSS THE SURF ZONE

417 **Canestrelli, A.**; Bolla Pittaluga, M.; Tambroni, N.; Slingerland, R.; Seminara, G.: NUMERICAL MODELING OF THE MORPHODYNAMIC EQUILIBRIUM OF TIDALLY-DOMINATED ESTUARIES.

418 **Bellingham, J. G.**; Chavez, F. P.; Scholin, C. A.; Zhang, Y.; McPhee-Shaw, E. E.: MEASURING SCALES OF VARIABILITY OF DYNAMIC PROCESSES IN THE COASTAL OCEAN WITH COORDINATED AUVS

452 **Humberston, J. L.**; Lippmann, T. C.: ESTIMATING SURFICIAL SEAFLOOR SEDIMENT MUD FRACTION USING EMPIRICAL ORTHOGONAL FUNCTIONS OF ACOUSTIC BACKSCATTER WAVEFORM PROPERTIES

453 **Diaz Mendez, G. M.**; Haller, M. C.; Honegger, D. A.; Pittman, R. W.: REMOTE SENSING OBSERVAITONS OF WAVE DISSIPATION

454 **Clark, S. J.**; Siegelman, M.; Barnes, A.; Becker, J. M.; Brooks, B. A.: WAVE TRANSFORMATIONS AND BEACH VOLUME CHANGE AT WAIKIKI BEACH IN RESPONSE TO ENERGETIC SUMMER SWELL EVENTS

455 **Mandel, T. L.**; Rosenzweig, I.; Weitzman, J. S.; Koseff, J. R.: EXPLORATION OF A NOVEL HIGH-RESOLUTION SURFACE MEASUREMENT TECHNIQUE FOR DETECTING THE IMPACT OF HETEROGENEOUS BATHYMETRIC FEATURES ON NEAR-SHORE HYDRODYNAMICS

456 **WU, D.**; SHAO, Y.: THE VARIATION PROCESS OF JIUDUANSHA SHOAL IN THE YANGTZE RIVER ESTUARY AND ITS EVOLUTION MECHANISM

457 **Fujimura, A. G.**; Reniers, A. J.; Paris, C. B.; Shanks, A. L.; MacMahan, J. H.: MODELING OF SURF ZONE LARVAL TRANSPORT AT VARIOUS BEACHES

458 **Rivas, D.**: NEAR-SHORE CIRCULATION OFF SOUTHERN TAMAULIPAS AND NORTHERN VERACRUZ, WESTERN GULF OF MEXICO, DURING WINTER 2012-2013

459 **Thornborough, K. J.**; Webster, J. M.; Vila Concejo, A.: CORAL RUBBLE TRANSPORT AND IMPLICATIONS FOR THE DEVELOPMENT OF RUBBLE-DOMINATED REEF FLATS: EVIDENCE FROM THE SOUTHERN GREAT BARRIER REEF

460 **Romero, L.**; Uchiyama, Y.; Ohlmann, J. C.; McWilliams, J. C.; Siegel, D. A.: NEARSHORE ANISOTROPIC RELATIVE DISPERSION IN SOUTHERN CALIFORNIA

461 **Penko, A. M.**; Bordelon, A.; Landry, B. J.; Calantoni, J.: OBSERVATIONS OF SAND BED EVOLUTION UNDER VARYING FORCING CONDITIONS IN A SMALL-OSCILLATORY FLOW TUNNEL USING A LASER SCANNING SYSTEM

462 **Simeonov, J. A.**; Calantoni, J.; Penko, A. M.; Sou, I.: DIRECT NUMERICAL SIMULATIONS OF GRAVITATIONAL SETTLING AND INCIPIENT MOTION OF FINITE-SIZE PARTICLES

463 **Reeder, D. B.**: *IN SITU* LOW-FREQUENCY ACOUSTIC OBSERVATION OF THE ESTUARINE SALT WEDGE

036 An Integrated View of Agulhas Science: Past, Present and Future

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1793 **Durgadoo, J. V.**; Biastoch, A.: AGULHAS LEAKAGE: ITS CONTROL AND ISOLATED IMPACT ON THE SOUTH ATLANTIC

1794 **Rice, A. E.**; Book, J. W.; Fischer, T.; Thomsen, S.; Wood, W. T.: MECHANISMS OF MIXING IN THE AGULHAS RETURN CURRENT FROM MICROSTRUCTURE AND FINESTRUCTURE MEASUREMENTS

1795 **MIYAMOTO, A.**; NAKAMURA, H.; MIYASAKA, T.: SEASONAL AND INTERANNUAL VARIATIONS OF THE MASCARENE HIGH

1796 **Malan, N. M.**; Roberts, M. J.; Ansorge, I. J.: LINKS BETWEEN AGULHAS CURRENT VARIABILITY AND SHELF UPWELLING OFF PORT ALFRED, SOUTH AFRICA.

1797 **Cooper, K.**; Backeberg, B.; Hermes, J.; Veitch, J.; Deshayes, J.: DEVELOPING KEY PERFORMANCE INDICATORS FOR GLOBAL OPERATIONAL OCEAN MODELS FOR THE AGULHAS SYSTEM

1798 **Tozuka, T.**; Cronin, M. F.: ROLE OF THE MIXED LAYER DEPTH IN RELAXATION OF THE SST FRONT IN THE AGULHAS RETURN CURRENT REGION

1887 **Leber, G. M.**; Beal, L. M.: EVIDENCE THAT AGULHAS CURRENT TRANSPORT IS MAINTAINED DURING A MEANDER

1888 **Giddy, I. S.**; Ansorge, I.; Backeberg, B.; Reason, C.; Campos, E.: A HYCOM REPRESENTATION OF LOW FREQUENCY VARIATIONS IN THE AGULHAS RETROFLECTION REGION IN THE SOUTH ATLANTIC

1889 **Quartly, G. D.**; Cameron, R.; Zubkov, M. V.; Holland, R. J.: PHYTOPLANKTON COMMUNITY STRUCTURE IN THE MOZAMBIQUE CHANNEL

1890 **Franzese, A. M.**; Goldstein, S. G.; Hemming, S. R.: TEMPORAL RELATIONSHIPS BETWEEN AGULHAS LEAKAGE AND NADW INTENSITY DURING MIS3 ABRUPT NORTHERN HEMISPHERE WARMINGS

1891 **Elipot, S.**; Beal, L. M.; Houk, A.: TWO-DIMENSIONAL STRUCTURE AND TRANSPORT OF THE AGULHAS CURRENT DURING THE AGULHAS CURRENT TIME-SERIES EXPERIMENT (ACT)

1892 **Oliveira, F.**; Campos, E.: INTERANNUAL TRENDS IN THE SOUTH ATLANTIC MERIDIONAL FLUXES

1893 **Roberts, M. J.**: HIGH FREQUENCY, SUB WATER COLUMN, CURRENT REVERSALS ON THE INSHORE BOUNDARY OF THE AGULHAS CURRENT, SOUTH AFRICA

049 Station ALOHA: Celebrating 25 Years of Sustained Ocean Observations

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Location: Kamehameha Hall III

2433 **Foley, J. M.**: TAKING TIME-SERIES TO THE STREETS: EDUCATIONAL PROGRAMS THAT COMMUNICATE STATION ALOHA RESEARCH

2434 **Luo, Y. W.**; Nicholson, D. P.; Doney, S. C.: HIGH-FREQUENCY BIOGEOCHEMICAL MODELING BASED ON HOE-DYLAN EXPERIMENT AT STATION ALOHA

2435 **Duhamel, S.**; Björkman, K. M.; Doggett, J. K.; Karl, D. M.: MICROBIAL GROUP SPECIFIC UPTAKE OF INORGANIC PHOSPHATE AND ATP AT STATION ALOHA: KINETICS, EFFECT OF LIGHT AND RESPONSE TO RAPID CHANGES IN N:P AVAILABILITY

2436 **Hayes, C. T.**; Boyle, E. A.; McGee, D.; Fitzsimmons, J. N.; Anderson, R. F.: $^{232}TH/^{230}TH$ AT THE HAWAII OCEAN TIME-SERIES STATION ALOHA: A TOOL FOR IRON CYCLING

2437 **Fontanez, K. M.**; DeLong, E. F.: MICROBIAL COMMUNITY STRUCTURE AND FUNCTION ON SINKING PARTICES AT STATION ALOHA

2438 **Martinez-Garcia, S.**; Karl, D. M.: EUPHOTIC AND MESOPELAGIC ZONE MICROBIAL RESPIRATION AT STATION ALOHA

2439 **Poulos, S.**; Fujieki, L.; Watkins, B.; Searson, S.; Karl, D. M.: THE ALOHA SEAGLIDER FLEET

2440 **Church, M. J.**; The HOT Team, .: THE HAWAII OCEAN TIME-SERIES (HOT) PROGRAM TURNS 25: HIGHLIGHTS OF A QUARTER CENTURY OF SUSTAINED OBSERVATIONS IN THE SEA

2441 **Segura-Noguera, M.**; Curless, S. E.; Church, M. J.; Karl, D. M.: AMMONIUM DISTRIBUTION AT STATION ALOHA IN THE NORTH PACIFIC SUBTROPICAL GYRE

2442 **Letelier, R. M.**; White, A. E.; Church, M. J.; Karl, D. M.; Bidigare, R. R.: LOCAL TO BASIN SCALE MODULATION OF PRIMARY PRODUCTIVITY IN THE NORTH PACIFIC SUBTROPICAL GYRE: LESSONS LEARNED FROM THE HAWAII OCEAN TIME-SERIES PROGRAM

2457 **Wai, B. R.**; Church, M. J.; Karl, D. M.; DeLong, E. F.: TEMPORAL VARIABILITY OF AMMONIA-OXIDIZING ARCHAEA AT STATION ALOHA

2458 **Doggett, J. K.**; van den Engh, G.; Doblin, M. A.; Karl, D. M.: HIGH-RESOLUTION FLOW CYTOMETRY PROFILES OF PROCHLOROCOCCUS AT STATION ALOHA

2459 **Sadler, D. W.**; Dore, J. E.; Church, M. J.; Fujieki, L. A.; Karl, D. M.: ASSESSING THE INTERNAL CONSISTENCY OF CO_2 MEASUREMENTS AT STATION ALOHA

2460 **Viviani, D. A.**; Church, M. J.: DISSOLVED ORGANIC MATTER PRODUCTION AND MICROBIAL GROWTH AT STATION ALOHA

2461 **Curless, S. E.**; Björkman, K. M.; Updyke, B.; Mahaffey, C.; Dore, J. E.: ANALYSES OF INORGANIC NUTRIENT POOLS BY THE HAWAII OCEAN TIME-SERIES (HOT) PROGRAM: METHODS, PROCEDURES, AND STANDARDIZATION

2462 **Howe, B. M.**; Lukas, R.: ALOHA CABLED OBSERVATORY: ON-GOING RESULTS AND NEW INSTRUMENTS

2463 **McCoy, D.**; Santiago-Mandujano, F. E.; Weller, R. A.; Plueddemann, A. J.; Lukas, R.: THE WHOI-HAWAII OCEAN TIME-SERIES SITE (WHOTS) MOORING: HIGHLY-RESOLVED UPPER OCEAN TRENDS, VARIABILITY, AND FORCING

2464 **Biegala, I. C.**; Aucan, J.; Desnues, A.; Clavere-Graciette, A.; Raimbault, P.: THE SOUTH PACIFIC OCEAN TIME SERIES (SPOT) STATION: A FIRST FOCUS ON DIAZOTROPHS COMMUNITY

051 Shedding Light On the Dark Ocean: Biogeochemistry and Microbial Oceanography of the Pelagic Realm of the Deep Sea

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86 **Sintes, E.**; De Corte, D.; Yokokawa, T.; Olbrich, K.; Herndl, G. J.: THE ACTIVE MINORITY: PROKARYOTES THRIVING IN THE DEEP ATLANTIC OCEAN

87 **Samo, T. J.**; Karl, D. M.: SINGLE-CELL ANALYSIS OF ALKALINE PHOSPHATASE ACTIVITY ON SINKING PARTICLES: MESOPELAGIC PHOSPHORUS AND CARBON CYCLING IMPLICATIONS

88 **Bayer, B.**; Garcia, J. A.; Vojvoda, J.; De Corte, D.; Herndl, G. J.: CHARACTERIZATION OF THAUMARCHAEOTA ISOLATED FROM THE NORTHERN ADRIATIC SEA

89 Russell, J. A.; Gartman, A.; **Biddle, J. F.**; Luther, G. W.: MICROBIAL CULTIVATIONS FROM MID-ATLANTIC RIDGE HYDROTHERMAL VENT PLUMES

90 **Zakem, E.**; Follows, M.: EXPLORING A MICROBIAL ECOSYSTEM APPROACH TO MODELING DEEP OCEAN BIOGEOCHEMICAL CYCLES

91 **Thomas, S. E.**; Church, M. J.: DIVERSITY AND ACTIVITY OF CHEMOAUTOTROPHIC BACTERIA IN THE APHOTIC WATERS OF THE SUBTROPICAL NORTH PACIFIC OCEAN

052 Current Perspectives On Trophic Ecology: Utilization of Complementary Tracer Methods

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2503 **Sackett, D. K.**; Drazen, J. C.; Choy, C. A.; Popp, B.; Humphries, Jr, R. L.: FORAGING ECOLOGY AND MERCURY SOURCES IN HAWAIIAN BOTTOMFISH

THURSDAY

2504 **Wright, D. L.**; Witteveen, B. H.; Quinn II, T. J.; Wynne, K. M.; Horstmann-Dehn, L. A.: MODELING THE DIET OF KODIAK HUMPBACK WHALES (*MEGAPTERA NOVAEANGLIAE*): IMPLICATIONS FOR MARINE PREDATORS AND COMMERCIAL FISHERIES NEAR KODIAK, ALASKA

2505 Han, D.; **Xue, Y.**; Ren, Y.; Ma, Q.: SPATIAL AND SEASONAL VARIATIONS IN THE TROPHIC SPECTRUM OF DEMERSAL FISH ASSEMBLAGES IN JIAOZHOU BAY, CHINA

2506 **Shiao, J. C.**; Lin, H. Y.; Lin, P. Y.; Kao, S. J.: TROPHIC STRUCTURE OF MEGABENTHIC FOOD WEBS ALONG DEPTH GRADIENTS IN THE SOUTH CHINA SEA AND OFF NORTHEASTERN TAIWAN

2585 **De Troch, .**; Roelofs, .; Riedel, .; Grego, .: STRUCTURAL AND FUNCTIONAL RESPONSES OF HARPACTICOID COPEPODS TO ANOXIA IN THE NORTHERN ADRIATIC: AN EXPERIMENTAL APPROACH WITH TROPHIC MARKERS

2586 **Adams, J. N.**; Brodeur, R. D.; Daly, E. A.; Miller, T. W.: FEEDING ECOLOGY OF JUVENILE CHINOOK (*ONCORHYNCHUS TSHAWYTSCHA*) AND COHO (*O. KISUTCH*) SALMON BASED ON DIET AND STABLE ISOTOPE ANALYSES

2587 **Choi, B. H.**; Shin, K. H.; Ha, S. Y.; Min, J. O.; Chikaraishi, Y.: DETERMINING TROPHIC POSITION OF ORGANISMS LIVING IN SEAGRASS MEADOW USING NITROGEN ISOTOPE RATIO OF INDIVIDUAL AMINO ACID

2588 **Budge, S. M.**: CONCENTRATIONS OF ESSENTIAL OMEGA-3 FATTY ACIDS IN THE SEA CAN BE ESTIMATED USING OCEAN COLOR DATA

2589 **UMEZAWA, Y.**; TAMAKI, A.; KIYAMA, K.; HIRAMATSU, D.; SOMIYA, R.: FOOD SOURCE AND HABITAT CONDITIONS OF THE LARVAE OF THE GHOST SHRIMP ESTIMATED BASED ON STABLE ISOTOPES ANALYSIS OF BULK AND AMINO ACIDS

2590 **Bootsma, H. A.**; Turschak, B. A.; Tyner, E. H.; Mosley, C. M.; Driscoll, Z. G.: TEMPORAL AND SPATIAL SHIFTS IN LAKE MICHIGAN CARBON AND NUTRIENT DYNAMICS AS REVEALED BY STABLE C AND N ISOTOPES

2591 **Garrido, S.**; Caldeira, C.; Santos, A. M.; Ré, P.: TROPHIC ECOLOGY OF SMALL PELAGIC FISH SPECIES: LABORATORY-DERIVED FEEDING EXPERIMENTS BRING NEW LIGHT ON EARLY LIFE HISTORY DYNAMICS

2592 **Søreide, J. E.**; Iken, K.; Bluhm, B.; Gradinger , R.; Renaud, P. E.: STABLE ISOTOPE BASELINES IN MARINE FOOD WEBS: A PAN-ARCTIC REVIEW

055 Comparing Physical Processes In Large Lakes and Shallow Seas

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669 **Rusello, P. J.**; King, A. T.: VERTICAL MIXING IN A LARGE LAKE: COMPARING A 3D HYDRODYNAMIC MODEL, SI3D, WITH VELOCITY MEASUREMENTS MADE FROM AN AUTONOMOUS GLIDER

670 **Xia, M.**; Schwab, D.; Mao, M.: UNDERSTANDING GRAND HAVEN NEARSHORE CIRCULATION USING A COUPLED WAVE-CURRENT BASED MODEL

671 **Nurminen, L. K.**; Niemistö , J.; Zhu, G.; Qin, B.; Ventelä, A.: EFFECT OF WIND AND MACROPHYTES ON SEDIMENT RESUSPENSION IN THE BALTIC SEA AND TWO LARGE LAKES IN FINLAND AND CHINA

672 **Lorenz, R. D.**: CIRCULATION AND STRATIFICATION IN TITAN'S SEAS

673 **Clayton, K.**; Singer, J.: AN INVESTIGATION OF CAUSES AND CHARACTERISTICS OF WATER ELEVATION CHANGES IN THE BUFFALO RIVER, BUFFALO, NY

674 **Pilcher, D. J.**; McKinley, G. A.; Bootsma, H. A.; Bennington, V.: PHYSICAL DRIVERS OF LAKE MICHIGAN BIOGEOCHEMISTRY

675 **Choi, J. M.**; Troy, C. D.; McCormick, M. J.; Wells, M. G.: LATERAL DISPERSION INDUCED BY INTERNAL POINCARE WAVES IN LAKE MICHIGAN

676 **Grunert, B. K.**; Klump, J. V.; Bravo, H. R.; Mouw, C. B.: THE ROLE OF METEOROLOGICAL FORCING ON THE PERSISTENCE AND MIXING OF DISTINCT WATER MASSES IN GREEN BAY, LAKE MICHIGAN

056 Insights Into Marine Ecosystem Dynamics From Acoustic Techniques

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2691 **Escobar-Flores, P. C.**; O'Driscoll, R. L.; Montgomery, J. C.: ACOUSTIC CHARACTERIZATION OF PELAGIC FISH DISTRIBUTION ACROSS THE SOUTH PACIFIC OCEAN

2692 **Haulsee, D. E.**; Fox, D. A.; Wetherbee, B. M.; Breece, M. W.; Oliver, M. J.: UTILIZING AN AUTONOMOUS UNDERWATER VEHICLE WITH INTEGRATED ACOUSTIC TELEMETRY ASSETS TO UNDERSTAND SAND TIGER SHARK HABITAT SELECTIVITY

2693 Nelson, R. J.; Vagle, S.; **Lemon, D. D.**; Buermans, R. J.: USE OF A MULTI-FREQUENCY ACOUSTIC INSTRUMENT FOR ESTIMATION OF ZOOPLANKTON BIOMASS AND VERTICAL ECOSYSTEM STRUCTURE IN THE NORTH BERING AND CHUKCHI SEAS

2694 **Abecassis, M.**; Polovina, J.; Baird, R.; Copeland, A.: CHARACTERIZING A HAWAIIAN ECOSYSTEM HOTSPOT USING PASSIVE AND ACTIVE ACOUSTIC DATA

2696 **Hawthorne, N. C.**; Ogburn, M. B.; McFall, G.; Fangman, S.: ENVIRONMENTAL INTERFERENCE FACTORS AFFECTING DETECTION RANGE IN ACOUSTIC TELEMETRY STUDIES USING FIXED RECEIVER ARRAYS

2697 **Briseño-Avena, C.**; Roberts, P. L.; Jaffe, J. S.; Franks, P. J.: DIVERSE ACOUSTICALLY REFLECTIVE TARGETS IDENTIFIED WITH SIMULTANEOUS STEREOGRAPHIC OPTICAL IMAGING

2698 **Rodriguez, D.**; Parjis, S.; Hernandez, K.: WHERE ARE COD IN THE STELLWAGEN BANK NATIONAL MARINE SANCTUARY?

2699 **Brosnan, I. G.**: LINKING ACOUSTIC TELEMETRY AND OCEANOGRAPHIC MODELS TO DEVELOP AN INDIVIDUAL-BASED MODEL OF JUVENILE PACIFIC SALMON MIGRATION THROUGH THE COLUMBIA RIVER PLUME

2700 **Rosemond, R. C.**; Taylor, J. C.; Ebert, E. E.: PINGING FISH IN A BARREL: DEVELOPING A GENERAL TARGET STRENGTH-SIZE MODEL FOR REEF FISH

2701 Huang, M. J.; Margolina, T.; **Joseph, J. E.**: OBJECT-ORIENTED RULE-BASED WHALE CLASSIFICATION FOR BLUE AND FIN WHALE RECOGNITION

2702 **Chereskin, T. K.**; Koenig, Z.: INTERANNUAL VARIABILITY IN THE UPPER OCEAN SCATTERING LAYER IN DRAKE PASSAGE IN RELATION TO CLIMATE MODES

2703 **Madrigal, B. C.**; Soldevilla, M. S.; Wicker, J. A.; Garrison, L. P.: ESTIMATING NORTH ATLANTIC SPERM WHALE (/PHYSETER MACROCEPHALUS\) </EM> ABUNDANCE IN THE SOUTHEAST UNITED STATES FROM A SHIP-BASED PASSIVE ACOUSTIC SURVEY

2704 **Szczucka, J.**; Hoppe, L.; Trudnowska, E.: ACOUSTIC TESTING OF THE ARCTIC AGING HYPOTHESIS

2771 **Solberg, I.**; Kaartvedt, S.: SURFACING BEHAVIOR AND GAS RELEASE OF THE PHYSOSTOME SPRAT (*SPRATTUS SPRATTUS*) IN ICE-FREE AND ICE-COVERED WATERS

2772 **Prihartato, P. K.**; Kaartvedt, S.; Aksnes, D. L.: SEASONAL PATTERNS IN THE NOCTURNAL DISTRIBUTION OF DIELLY MIGRATING MESOPELAGIC FISH (MAUROLICUS MUELLERI) AT HIGH LATITUDE

2773 **Webster, C. N.**; Hansson, S.; Didrikas, T.; Lehtiniemi, M.; Brierley, A. S.: STUCK BETWEEN A ROCK AND A HARD PLACE: ZOOPLANKTON VERTICAL MIGRANTS AND HYPOXIA IN THE GULF OF FINLAND, BALTIC SEA.

2774 **Wurtzell, K. V.**; Sherwood, G. D.; Baukus, A.; Brown, C.: OBSERVING SPATIAL AND TEMPORAL MOVEMENT OF ATLANTIC HERRING (CLUPEA HARENGUS) SCHOOLS USING ECHOSOUNDERS ON LOBSTER BOATS

2775 **Ariza, A. V.**; Kaartvedt, S.; Røstad, A.; Garijo, J. C.; Hernández-León, S.: THE SUBMARINE VOLCANO ERUPTION OFF EL HIERRO ISLAND: EFFECTS ON THE SCATTERING MIGRANTS AND THE EVOLUTION OF THE PELAGIC COMMUNITIES

2776 **Guihen, D.**; Fielding, S.; Murphy, E. J.; Heywood, K.; Griffiths, G.: ZOOPLANKTON ABUNDANCE AND DISTRIBUTION FROM AN ECHO-SOUNDER MOUNTED ON AN UNDERWATER GLIDER: A CASE STUDY ON ANTARCTIC KRILL.

THURSDAY

2777 **Margolina, T.**; Stimpert, A. K.; Joseph, J. E.: CHANGES IN CETACEAN PRESENCE NEAR POINT SUR, CALIFORNIA IN RESPONSE TO ENVIRONMENTAL VARIABILITY AT DIFFERENT SCALES

2778 **Lavery, A. C.**; Pagniello, C.; Lawson, G. L.; Wiebe, P. H.; Copley, N. J.: CHARACTERIZATION OF A STRONG SCATTERING LAYER IN THE NORTHEAST PACIFIC

2779 **Van Uffelen, L. J.**; Roth, E. H.; Oleson, E.; Howe, B. M.: AMBIENT NOISE MEASUREMENTS ON ACOUSTIC SEAGLIDERS

2780 **Dziak, R. P.**; Matsumoto, H.; Bohnenstiehl, D. R.; Park, M.; Lee, W. S.: SOURCES OF AMBIENT OCEAN SOUND NEAR THE ANTARCTIC PENINSULA: SEASONAL VARIATION AND INTERRELATION OF WIND, WAVES, ICE BREAK-UP AND BALEEN WHALE VOCALIZATIONS

2782 **Lawson, G. L.**; Hückstädt, L. A.; Lavery, A. C.; Wiebe, P. H.; Costa, D. P.: DEVELOPMENT AND TEST DEPLOYMENTS OF AN ANIMAL-BORNE 'SONAR TAG' FOR QUANTIFYING PREY

2790 **Sakihara, T. S.**; Nishimoto, R. T.; Nishiura, L. K.; Shimoda, T. E.; Peyton, K. A.: UNEXPECTED LONG DISTANCE MOVEMENT OF COMMON SHORE FISHES IN HAWAII

2791 **Iverson, S. J.**: THE GLOBAL OCEAN TRACKING NETWORK (OTN) 2010-2016 AND BEYOND: INTEGRATED APPROACHES TO RESEARCH, DATA AND INNOVATION

2792 **Knuth, F. K.**; Levine, N. S.; Sautter, L. R.; Kracker, L.: INTEGRATING BATHYMETRIC AND ACOUSTIC FISH MAPPING DATA TO IDENTIFY AND DESIGNATE FUTURE MARINE PROTECTED AREAS ALONG THE SOUTH ATLANTIC BIGHT

2793 **Comer, A. M.**; Madsen, J. A.; Fox, D. A.: A NON-INVASIVE ASSESSMENT OF REPRODUCTIVELY MATURE ATLANTIC STURGEON (*ACIPENSER OXYRINCHUS OXYRINCHUS*) HABITAT UTILIZATION

2794 **Chou, E.**; Širovic, A.: BLUE WHALE CALLING IN RELATION TO SEA SURFACE TEMPERATURE IN SOUTHERN CALIFORNIA

2795 **McEachen, H. J.**: A COMPARISON OF RELATIVE ZOOPLANKTON ABUNDANCE AND WATER MASS TYPE AT THREE BARROW CANYON MOORINGS

2796 **Sato, M.**; Mackas, D. L.; Dower, J. F.; Dewey, R.: INTER- AND INTRA-ANNUAL VARIABILITY OF ZOOPLANKTON ABUNDANCE IN SAANICH INLET, BRITISH COLUMBIA

2797 **Giorli, G.**; Copeland, A. M.; Au, W. W.; Polovina, J. J.: ESTIMATING DEEP SEA ORGANISM DENSITIES OFF THE KONA COAST USING A DUAL FREQUENCY IDENTIFICATION SONAR (DIDSON) ON A CUSTOM PROFILER.

057 Small Bugs with A Big Impact: Linking Plankton Ecology with Ecosystem Processes

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2852 **McNamara, M. E.**; Lonsdale, D. J.: INTERANNUAL DIFFERENCES IN PLANKTON STRUCTURE DRIVE CHANGES IN THE FECUNDITY AND RECRUITMENT OF MNEMIOPSIS LEIDYI IN A LONG ISLAND ESTUARY

2853 **Daniels, C. J.**; Poulton, A. J.; Tyrrell, T.; Young, J. R.: SPECIES-SPECIFIC CALCITE PRODUCTION IN THE ARCTIC OCEAN REVEALS COCCOLITHUS PELAGICUS AS A KEY CALCIFIER

2854 **Nakamura, Y.**; Yamaguchi, A.; Suzuki, N.; Tuji, A.; Imai, I.: COMPARISON OF STABLE ISOTOPE RATIOS BETWEEN ZOOPLANKTON COMMUNITIES AROUND JAPAN

2855 Su, M.; Sastri, A. R.; Lin, K.; Gong, G.; **Hsieh, C.**: BOTTOM-UP AND TOP-DOWN CONTROL OF TROPHIC TRANSFER EFFICIENCY FROM PHYTOPLANKTON TO ZOOPLANKTON IN THE SEAS AROUND TAIWAN

2856 **Ho, P. C.**; García-Comas, C.; Okuda, N.; Gong, G. C.; Hsieh, C.: PREDATOR-PREY MASS RATIO OF MARINE ZOOPLANKTON IS DETERMINED BY RESOURCE AVAILABILITY

2857 **Ekman, M.**; Celepli, N.; Larsson, J.; Ininbergs, K.; Bergman, B.: CYANOBACTERIAL BLOOMS IN A METAGENOMIC PERSPECTIVE

2858 **Berntzon, L.**; Jonasson, S.; Eriksson, J.; Ronnevi, L. O.; Bergman, B.: TOXIC AND AUTOTOXIC EFFECTS OF THE CYANOBACTERIAL NEUROTOXIN BMAA AND ITS RELATION TO NEURODEGENERATION

2859 **Yoshikawa, C.**; Smith, S. L.; Sasai, Y.; Sasaoka, K.; Fujiki, T.: A NEW ECOLOGICALLY FLEXIBLE TYPES MODELING APPROACH APPLIED TO PHYTOPLANKTON COMMUNITIES OF TWO CONTRASTING TIME-SERIES STATIONS IN THE WESTERN NORTH PACIFIC

2860 **Smith, S. L.**; Pahlow, M.; Yoshikawa, C.: HOW AND WHY THE SIZE-SCALING OF MONOD PARAMETERS FOR PHYTOPLANKTON GROWTH DIFFERS GREATLY FROM THE SCALING OF MICHAELIS-MENTEN UPTAKE PARAMETERS

2861 GALLINA, A.; **CASOTTI, R.**: POLYUNSATURATED ALDEHYDES (PUA)-INDUCED NITRIC OXIDE (NO) AND REACTIVE OXYGEN SPECIES (ROS) PRODUCTION IN MARINE DIATOMS

2862 **Newstead, R. G.**; Wilson, S. E.: GRAZING IMPACT OF ZOOPLANKTON FROM THE AMUNDSEN SEA POLYNYA, ANTARCTICA

2863 **Bjærke, O.**; Bækkedal, K. S.; Nordbotten, M.; Andersen, T.; Titelman, J.: PATERNAL INVESTMENT IN COPEPODS

2864 **Konno, F.**; Yoshiki, T.; Takahashi, K.; Yamamoto, S.; Toda, T.: SEASONAL VARIATIONS IN LIPID AND FATTY ACID COMPOSITIONS OF THE MARINE PLANKTONIC COPEPOD *CALANUS SINICUS* IN SAGAMI BAY, JAPAN

2865 **Yamazaki, H.**; Nakajima, R.; Kurihara, H.; Ichikawa, T.; Sakamaki, T.: SEASONAL VARIATIONS OF ZOOPLANKTON COMMUNITY STRUCTURE AND PRODUCTION IN THE FRINGING REEF OF OKINAWA ISLAND, JAPAN

2866 **Boehnke, R.**; Trudnowska, E.; Falk-Petersen, S.; Hop, H.; Blachowiak-Samolyk , K.: THE LATITUDINAL GRADIENT OF KEY ARCTIC ZOOPLANKTERS DISTRIBUTION AND ITS SIGNIFICANCE FOR ECOSYSTEM FUNCTIONING

2867 **Underwood, P. J.**; Buitenhuis, E.; Watson, A. J.: AN EMERGENT MODEL OF TROPHIC STRUCTURE IN MARINE ECOSYSTEMS

2868 **Conroy, B. J.**; Steinberg, D. K.: ZOOPLANKTON GRAZING IN THE AMAZON RIVER PLUME AND WESTERN TROPICAL NORTH ATLANTIC

2869 **Gosnell, K. J.**; Mason, R.; Balcom, P.; Swarr, G.; Munson, K.: INORGANIC MERCURY AND METHYLMERCURY CONCENTRATIONS IN PACIFIC PHYTOPLANKTON AND ZOOPLANKTON

2870 **Hermosillo, X. M.**; Villareal, T. A.: HIGH RESOLUTION VERTICAL PROFILES OF *TRICHODESMIUM* USING AN OPTICAL PROFILER: ABUNDANCE AND CHLOROPHYLL CONTRIBUTION IN THE NORTHERN GULF OF MEXICO.

2871 **Highland, A. M.**; Brandon, J.; Ohman, M. D.: ZOOPLANKTON GRAZING ACROSS OCEANIC FRONTS IN THE CALIFORNIA CURRENT ECOSYSTEM

2872 **Nishibe, Y.**; Takahashi, K.; Ichikawa, T.; Hidaka, K.; Saito, H.: FEEDING OF ONCAEID COPEPODS ON DISCARDED APPENDICULARIAN HOUSES: ITS ROLE IN MARINE SNOW DEGRADATION

2873 **Garijo, J. C.**; Hernández-León, S.: THE USE OF IMAGE ANALYSIS SYSTEMS FOR THE ASSESSMENT OF ZOOPLANKTON PHYSIOLOGICAL RATES: A COMPARISON WITH ENZYMATIC METHODS

2874 **Sargent, E. C.**; Moore, C. M.; Bibby, T. S.; Poulton, A. J.: DESCRIBING THE FATE OF DIAZOTROPH-DERIVED NEW NITROGEN

2927 **Rodríguez-Marconi, S.**; Rojas-Herrera, M.; von Dassow, P.; Trefault, N.: CHARACTERIZATION OF COASTAL SOUTHEAST PACIFIC PICO- NANO- AND MICRO-PLANKTON COMMUNITIES USING TAG SEQUENCING OF HYPERVARIABLE REGIONS OF 16S AND 18S RRNA.

2928 **Mikan, M. P.**; Salter, I.; Nunn, B. L.; Harvey, H. R.: BACTERIAL COMMUNITY SUCCESSION AND METABOLISM DURING THE EARLY STAGES OF POC DEGRADATION IN THE WESTERN ARCTIC OCEAN

2929 **Messié, M.**; Chavez, F. P.: SIMPLE MATH DESCRIBES COASTAL TO OFFSHORE PHYTOPLANKTON/ZOOPLANKTON DISTRIBUTIONS AND ECOSYSTEM DYNAMICS

2930 **Cass, C. J.**; Taatjes, J.: ENERGY CONTENT OF CALIFORNIA CURRENT ZOOPLANKTON COLLECTED OFF OF TRINIDAD HEAD, CALIFORNIA, USA

2931 **Linacre, L. P.**; Landry, M. R.; Goericke, R.; Taylor, A. G.: SHORT-TERM EVOLUTION OF PHYTOPLANKTON PRIMARY PRODUCTION AND MICROZOOPLANKTON CONSUMPTION DURING AN UPWELLING EVENT IN COASTAL WATERS OFF SOUTHERN CALIFORNIA

2932 **Rimler, R. N.**; Pritchard, C. E.: LARVAL SUPPLY, SETTLEMENT, AND POST-SETTLEMENT MORTALITY AS DETERMINANTS OF THE SPATIAL DISTRIBUTION OF OLYMPIA OYSTERS IN COOS BAY, OR

2933 **Smriga, S.**; Fernandez, V.; Stahl, A.; Ullrich, M.; Stocker, R.: BACTERIAL CHEMOTAXIS CLUSTERS AROUND INDIVIDUAL DIATOMS

2934 **Menden-Deuer, S.**: CHARACTERIZING PLANKTON BEHAVIORS AND THEIR RAMIFICATIONS FOR ECOLOGICAL RATES

2935 **Tommasi, D.**; Hunt, B. P.; Pakhomov, E. A.: DIFFERENTIAL RESPONSE OF DISTINCT COPEPOD LIFE HISTORY TYPES TO SPRING ENVIRONMENTAL FORCING

2936 **Roncalli, V.**; Lenz , P. H.; Christie, A. E.: IDENTIFICATION AND EXPRESSION OF JUVENILE HORMONE DURING DEVELOPMENT IN THE COPEPOD *CALANUS FINMARCHICUS*

2937 **Taatjes, J.**; Cass, C. J.: COMPARISON OF LIPID, PROTEIN, AND CALORIE CONTENT OF THYSANOESSA SPINIFERA AND EUPHAUSIA PACIFICA FROM TRINIDAD, CA AND NEWPORT, OR

2938 **Chakraborty, S.**; Lohrenz, S. E.: PHYTOPLANKTON CHEMOTAXONOMY ACROSS THE CONTINENTAL MARGINS OF GULF OF MEXICO AND ATLANTIC COAST OF UNITED STATES.

2949 **Faltine-Gonzalez, D. Z.**; Lenz, P. H.; Hartline, D. K.: CHANGES IN PHOTOTAXIS OF *BESTIOLINA SIMILIS* DURING NAUPLIAR DEVELOPMENT

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068 Understanding Biogeochemical and Ecosystem Responses to Natural and Human-Induced Interactions, Drivers and Pressures In Coastal Regions

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917 **Huang, I. B.**; Monismith, S. G.: TRENDS AND ENVIRONMENTAL IMPLICATIONS OF X_2 IN NORTHERN SAN FRANCISCO BAY, 1988-2012

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080 Biogeochemistry of Trace Elements and Their Isotopes

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133 **Plancherel, Y.**; Zheng, X.; Khatiwala, S.; Henderson, G. M.: SIMULATING THE TRANSPORT AND SCAVENGING BEHAVIOUR OF RARE EARTH ELEMENTS IN THE GLOBAL OCEAN

134 **Rauch, S. M.**; Allison, M. D.; Chandler, C. L.; Gegg, S. R.; Groman, R. C.: BCO-DMO MANAGEMENT OF U.S. GEOTRACES TRACE ELEMENT AND ISOTOPE DATA

135 **Colman, A. S.**: THE UTILITY OF OXYGEN ISOTOPE DISEQUILIBRIUM IN UNRAVELING MICROBIAL P CYCLING – A MODELING STUDY

136 **Singh, S. K.**; Goswami, V.; Bhushan, R.; Rai, V. K.: LIGHTER MOLYBDENUM IN WATER COLUMN OF THE BAY OF BENGAL

137 **Crusius, J.**; Schroth, A. W.; Campbell, R. W.; Gasso, S.; Resing, J.: THE CONTRIBUTION OF GLACIAL FLOUR-DERIVED DUST FLUXES TO THE IRON BUDGET OF THE NORTHERN GULF OF ALASKA

086 Tsunami Research: Recent Advances In Instrumentation and Modeling

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1805 **ALLGEYER, S.**; CUMMINS, P. R.: RECONCILING THE TIME GAP BETWEEN NUMERICAL SIMULATIONS AND OBSERVATIONS

1806 **Tsushima, H.**; Hino, R.; Osada, Y.; Inazu, D.; Ito, Y.: TSUNAMI SOURCE OF THE 2011 TOHOKU EARTHQUAKE ESTIMATED FROM TSUNAMI DATA OF POP-UP BOTTOM PRESSURE GAUGES INSIDE THE SOURCE

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1808 **Benjamin, L.**; Flament, P.; Cheung, K. F.; Luther, D.: DETECTION OF THE 2011 TOHOKU TSUNAMI SOUTH OF OAHU, HAWAII, BY HIGH FREQUENCY DOPPLER RADAR (HFDR)

1809 **Karaoglu, H.**; Bielak, J.: A MULTI-SYSTEM FINITE ELEMENT METHOD FOR STRONGLY COUPLED EARTHQUAKE-TSUNAMI SIMULATION — AN APPLICATION TO THE 2011 TOHOKU-OKI EARTHQUAKE

1810 **Watada Shingo, .**; Kusumoto Satoshi, .; Satake Kenji, .: SIMULATION OF TSUNAMI WAVEFORMS PROPAGATING OVER THE SELF-GRAVITATING ELASTIC EARTH WITH REAL BATHYMETRY

1811 **Fuji, R.**; Hinata, H.; Fujii, S.; Takahashi, T.: INFLUENCE OF INTEGRATION TIME ON THE ACCURACY OF ESTIMATION OF TSUNAMI INITIAL SEA SURFACE ELEVATION BASED ON INVERSION USING OCEANOGRAPHIC RADAR

1812 **Okamoto, M.**; Seto, S.; Takahashi, T.; Hinata, H.: NUMERICAL EXPERIMENT ON FAR FIELD AND NEAR FIELD TSUNAMIS CONCERNING OCEANOGRAPHIC RADAR OBSERVATION

1813 **Roarty, H. J.**; Glenn, S. M.; Barrick, D. E.; Seroka, G.; Lipa, B.: DETECTION OF A METEOTSUNAMI WITH HF RADAR

1814 **Win-Bin Cheng, .**; J. Y. Lin, .; S. K. Hsu, .; J. J. Dong, .: DETECTION OF SEISMIC ANISOTROPY USING OCEAN BOTTOM SEISMOMETERS AND ITS IMPLICATION ON TSUNAMI GENERATION IN ACCRETIONARY PRISM OFF SOUTHWEST TAIWAN

1878 **Denbo, D. W.**; Pells, C. K.: DESKTOP SIFT: AN OPERATIONAL TSUNAMI GUIDANCE TOOL

1879 **Fine, I. V.**; Cherniawsky, J. Y.; Thomson, R. E.: NEAR FIELD AND FAR-FIELD MODELING OF THE 28 OCTOBER 2012 HAIDA GWAII TSUNAMI

1880 Thomson, R. E.; **Rabinovich, A. B.**; Spear, D. J.; Juhasz, T.: THE 2011 TOHOKU "BAROCLINIC" TSUNAMI WAVES OBSERVED IN A DISTAL ANOXIC CANADIAN FJORD

1881 **Barrick, D. E.**; Lipa, B. J.; Rector, W. C.: INTERPRETATION OF HF RADAR NEAR-FIELD TSUNAMI OBSERVATIONS

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1886 **Becker, N. C.**; McCreery, C. S.; Wang, D.: RAPIDLY DETERMINING REGIONAL TSUNAMI RISK IN THE SAMOAN ISLANDS USING MAPS OF CALCULATED THRESHOLD MAGNITUDE VALUES

090 Data Assimilation and Uncertainty Quantification In Ocean Modeling

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1971 Yaremchuk, M.; **Martin, P.**: SENSITIVITY ANALYSIS IN THE ADJOINT-FREE 4DVAR FRAMEWORK

1972 **Flampouris, S.**; Veeramony, J.; Orzech, M.; Ngodock, H.: DEVELOPMENT OF THE ERROR COVARIANCE FUNCTION FOR ASSIMILATION OF WAVE SPECTRA – THE EXAMPLE OF SWAN

1973 **Jones, E. M.**; Oke, P. R.; Herzfeld, M.: APPLICATIONS OF DATA-ASSIMILATION (DA) ALGORITHMS TO COMPLEX COASTAL REGIONS: A GREAT BARRIER REEF CASE STUDY.

1974 **Halliwell, G. R.**; Kourafalou, V. H.; Le Hénaff, M.; Atlas, R.: DEVELOPMENT, VALIDATION, AND REGIONAL APPLICATIONS OF A NEW OCEAN OSSE SYSTEM

1975 **Zeng, J.**; Nojiri, Y.; Nakaoka, S.; Nakajima, H.: MAPPING GLOBAL SURFACE OCEAN FUGACITY OF CARBON DIOXIDE USING FEED-FORWARD NEURAL NETWORK: 1990-2011

1976 **Kourafalou, V. H.**; Androulidakis, Y. S.: INFLUENCE OF THE LOOP CURRENT SYSTEM ON THE TRANSPORT AND FATE OF MISSISSIPPI RIVER WATERS UNDER FLOODING CONDITIONS: A NESTED MODELING APPROACH

1977 **Carrier, M. J.**; Ngodock, H. E.; Smith, S. R.; Muscarella, P.; Jacobs, G.: IMPACT OF OCEAN VELOCITY OBSERVATIONS INFERRED FROM LAGRANGIAN DRIFTER DATA USING THE NCOM-4DVAR

1978 Garnier, F.; Brasseur, P.; Brankart, J. M.; **Verron, J.**; Cosme, E.: TOWARDS DATA ASSIMILATION IN A COUPLED PHYSICAL-BIOGEOCHEMICAL MODEL OF THE NORTH ATLANTIC: ESTIMATION OF MODEL UNCERTAINTIES USING STOCHASTIC PARAMETRIZATIONS

1979 **Kerry, C. G.**; Powell, B. S.: HOW DO STRONG INTERNAL TIDES AFFECT MESOSCALE PREDICTABILITY IN THE PHILIPPINE SEA?

1980 **Ibrahim Hoteit, .**; Dinh-Tuan Pham, .: MITIGATING OBSERVATIONAL ERROR UNDERSAMPLING IN THE STOCHASTIC ENKF

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1982 **Chaudhuri, A. H.**; Ponte, R. M.; Forget, G.: SENSITIVITY OF OCEAN MODELS TO ATMOSPHERIC FORCING, RELATED UNCERTAINTIES AND IMPLICATIONS FOR OPTIMIZATION PROCEDURES

1983 **Iskandarani, M.**; Srinivasan, A.; Thacker, W. C.; LeHenaff, M.; Knio, O. M.: QUANTIFYING AND REDUCING UNCERTAINTIES IN GULF OF MEXICO CIRCULATION FORECASTS USING POLYNOMIAL CHAOS EXPANSIONS

1984 Xiao, Y.; **Friedrichs, M.**: A CONTINENTAL SHELF ECOSYSTEM MODEL COMPARISON USING DATA ASSIMILATION

1985 **Stroh, J. N.**; Panteleev, G.; Yaremchuk, M.; Weingartner, T. J.: ASSIMILATION OF HIGH-FREQUENCY RADAR DATA IN THE EAST CHUKCHI SEA

2007 **Mayo, T. L.**; Butler, T.; Dawson, C.; Hoteit, I.: DATA ASSIMILATION WITHIN THE ADCIRC MODELING FRAMEWORK FOR THE ESTIMATION OF MANNING'S FICTION COEFFICIENT

2008 **Rayburn, J. T.**: HYCOM AND RNCOM FIDELITY WITH LIMITED IN SITU DATA ASSIMILATIONS

091 Advances In Approaches to Monitoring the Occurrence, Distribution, and Behavior of Top Predators

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2088 **Maurer, J.**; Meyer, C. G.; Burns, E.: NEAR REAL-TIME TIGER SHARK MONITORING AROUND MAUI

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2093 **Nieblas, A. E.**; Jusup, M.; Lett, C.; Estournel, C.; Bonhommeau, S.: IDENTIFYING SUITABLE MEDITERRANEAN SPAWNING HABITAT OF ATLANTIC BLUEFIN TUNA FROM LARVAL GROWTH USING A COUPLED LAGRANGIAN DISPERSAL-BIOENERGETICS MODEL

2094 **Merkens, K. P.**; McDonald, M. A.; Baumann-Pickering, S.; Frasier, K. E.; Hildebrand, J. A.: DEEP-DIVING CETACEANS AND THE DEEPWATER HORIZON OIL SPILL

2132 **Harrison, A.**; Costa, D. P.; Shaffer, S. A.; Bograd, S. J.; Block, B. A.: NATIONAL AND INTERNATIONAL JURISDICTION OVER THE MANAGEMENT OF WIDE-RANGING MARINE PREDATORS

2133 **Fossette, S.**; Bograd, S.; Hazen, E.; Newton, K.; Croll, D.: BODY-SIZE-DRIVEN RESOURCE UTILIZATION DIFFERENCES BETWEEN BLUE WHALES AND HUMPBACK WHALES FORAGING IN MONTEREY BAY, CALIFORNIA

2134 **Stewart, K. R.**; Dutton, P. H.: IDENTIFYING SOURCE POPULATIONS FOR SEA TURTLES CAUGHT IN FISHERIES

2135 **McGarry, L. P.**; Greene, C. H.; Croll, D. A.: DIVING BEHAVIOR AND EFFICIENCY OF A BLUE WHALE (*BALAENOPTERA MUSCULUS*) FORAGING IN ITS THREE-DIMENSIONAL KRILL PREY FIELD

2136 **Hanson, M. B.**; Schorr, G. S.; Webster, D. L.; Emmons, C. K.; Baird, R. W.: INFORMING SOUTHERN RESIDENT KILLER WHALES CRITICAL HABITAT DESIGNATION IN THEIR WINTER RANGE ALONG THE U.S. WEST COAST

2137 **Kuhn, C. E.**: USING NORTHERN FUR SEAL DERIVED TEMPERATURE PROFILES TO MEASURE TEMPORAL CHANGES IN THE BERING SEA COLD POOL

094 Consequences of Fluid Stirring and Mixing: From Organisms to Ecosystems

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872 **Dewey, R.**; Masson, D.; MacCready, P.: FORTNIGHTLY MODULATIONS IN TIDAL MIXING ACTING AS AN IN-SHORE/OFF-SHORE VALVE FOR DEEP WATER NUTRIENT FLUXES

873 **FUKUDA, H.**; KOMATSU, K.; SUZUKI, K.; HIDAKA, K.; SAITO, H.: VARIATION OF PHYSICAL AND CHEMICAL PROPERTIES OF SUSPENDED PARTICLES ALONG TRANSECT ACROSS THE KUROSHIO CURRENT IN LATE SPRING

874 **Najera, M. A.**; Nam, Y. G.; Strickler, R. J.; Chang, W. J.: HERRINGBONE MICRO-MIXER GEOMETRIES ON MIXING EFFICIENCIES IN MICROCHANNEL

935 **Wheeler, J. D.**; Helfrich, K. R.; Anderson, E. J.; Mullineaux, L. S.: DIVING BEHAVIOR OF OYSTER LARVAE (CRASSOSTREA VIRGINICA) IN RESPONSE TO LOCAL HYDRODYNAMIC TRIGGERS

936 **Hitoshi KANEKO, .**; Ichiro YASUDA, .; Kosei KOMATSU, .; Sachihiko ITOH, .: OBSERVATIONS OF VERTICAL TURBULENT NITRATE FLUX ACROSS THE KUROSHIO

937 **Clayton, S.**; Lin, Y. C.; Follows, M. J.; Worden, A. Z.: FINE SCALE ECOLOGY OF PICOEUKARYOTES ACROSS THE KUROSHIO EXTENSION

938 **Carlson, D. F.**; Mantovani, C.; Corgnati, L. P.; Magaldi, M. G.; Zambianchi, E.: LAGRANGIAN TRANSPORT AND CONNECTIVITY IN THE SOUTHERN ADRIATIC SEA FROM SURFACE DRIFTERS, AND HF RADAR OBSERVATIONS

939 **Pavlidis, D.**; Fang, F.; Pain, C. C.; Buchan, A. G.; Navon, I. M.: REDUCED-ORDER MODELLING OF AN UNSTRUCTURED MESH OCEAN MODEL: APPLICATION TO 2D/3D BATHYMETRIES

940 **Miller, L. A.**; Santhanakrishnan, A.; Hamlet, C. L.: MODELING FLOWS GENERATED BY UPSIDE DOWN JELLYFISH

941 **Currie, W. J.**; Bailey, S. A.; Linley, R. D.; Gerlofsma, J.: THE SAMPLING COMPROMISE OF TIME VS. SPACE: A COMPARISON OF PLANKTON COLLECTION VIA TRANSECTS AND STATIONS

095 River Plumes and Buoyancy-Driven Shelf Circulation

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1175 **Rong, Z.**; Hetland, R. D.; Zhang, X.: EFFECTS OF WAVE-CURRENT INTERACTION ON BUOYANCY DRIVEN CIRCULATION OVER THE TEXAS-LOUISIANA SHELF

1176 **Wenfeng, L.**; Jiayi, P.; Yanzhen, G.: STUDY OF THE PEARL RIVER PLUME DYNAMICS BY USING THE UNSTRUCTURED GRID FINITE VOLUME COASTAL OCEAN MODEL (FVCOM)

1177 **TANG, X.**; ASANUMA, I.; SONG, Y.: DISTRIBUTION OF CHLOROPHYLL-A CONCENTRATION IN THE EAST CHINA SEA RELATIVE TO SST AND SALINITY DETERMINED BY EOF

1178 **Zavialov, P.**; Osadchiev, A.; Zhurbas, V.: DO UPWELLING CONDITIONS ENHANCE DEVELOPMENT OF RIVER PLUME OR IMPEDE IT?

1179 **Osadchiev, A.**; Zavialov, P.: LAGRANGIAN MODEL OF A SURFACE-ADVECTED RIVER PLUME

1180 **Jiang, W.**; Feng, S.: 3D ANALYTICAL SOLUTION TO THE TIDE-INDUCED LAGRANGIAN RESIDUAL CURRENT EQUATIONS IN A NARROW BAY

1181 **Pan, J.**; Gu, Y.; Lai, W.: MIXING CHARACTERISTICS OF THE PEARL RIVER PLUME IN SUMMER SEASON

1182 **Couto, P. P.**; Soutelino, R. G.; Calado, L.: THE RESPONSE OF CABO FRIO UPWELLING SYSTEM DYNAMICS TO SPATIALLY VARIABLE WIND FORCING

1184 **Fernandes Mazzini, P. L.**; Barth, J. A.: BUOYANCY-DRIVEN COASTAL CURRENT AND TRANSPORT OBSERVATIONS OFF THE OREGON COAST DURING FALL-WINTER USING AUTONOMOUS UNDERWATER GLIDERS

1185 **Cho, E. B.**; Cho, Y. K.; Gwak, M. T.; Seo, G. H.: INTRATIDAL ASYMMERTY OF THE VELOCITY PROFILE IN THE SUMJIN RIVER ESTUARY, KOREA

1186 **Zhang, C.**; Dai, M. H.: UPTAKE AND RELEASE OF CO_2 IN A RIVER-DOMINATED OCEAN MARGIN (RIOMAR) OFF THE CHANGJIANG ESTUARY

1187 **Yu, X.**; Guo, X.; Takeoka, H.: FORTNIGHTLY VARIATION OF CIRCULATION INDUCED BY BOTTOM COLD WATER IN A SEMI-ENCLOSED SEA

1188 **Yuan, Y.**; Horner-Devine, A. R.: IMPACTS OF LATERAL SPREADING ON AN ENERGETIC RIVER PLUME

1214 **Zhang, L.**; Shang, S. P.; Cheng, P.; Shang, S. L.: IMPACT OF TYPHOON VICENTE ON THE PEARL RIVER PLUME: A NUMERICAL MODELING STUDY

1215 **Luo, L.**; Zhou, W.; Wang, D.: RESPONSES OF THE RIVER PLUME TO THE EXTERNAL FORCING IN PEARL RIVER ESTUARY

1216 **Hoshiba, Y.**; Yamanaka, Y.: ALONG-COAST SHIFTS OF PHYTOPLANKTON BLOOMS DRIVEN BY RIVERINE INPUTS OF NUTRIENTS AND FRESH WATER

1217 **Yin, K.**; He, J.; Lai, Z.: CAN MONSOON INDUCED COASTAL UPWELLING BRING UP DEEP WATER NUTRIENTS IN THE SOUTH CHINA SEA CONTINENTAL SHELF BEYOND THE PEARL RIVER ESTUARY

1218 **Kurapov, A. L.**; Yu, P.; Shearman, R. K.; Allen, J. S.: SST VARIABILITY ALONG THE UPWELLING FRONT OFF THE OREGON COAST INFLUENCED BY THE COLUMBIA RIVER PLUME

1219 **Carroll, D.**; Sutherland, D. A.; Shroyer, E. L.; Nash, J. D.: USING A COUPLED OBSERVATIONAL AND MODELING APPROACH TO INVESTIGATE BUOYANT PLUME STRUCTURE IN A GREENLANDIC OUTLET GLACIAL FJORD

1220 **Jia, Y.**; Whitney, M. M.: TRANSPORT AND MIXING OF CONNECTICUT RIVER WATER THROUGH THE ESTUARY AND ON THE CONTINENTAL SHELF: AN OBSERVATIONAL DRIFTER AND MODELING STUDY

1221 **Sciascia, R.**; Cenedese, C.; Straneo, F.; Heimbach, P.: THE ROLE OF MELTWATER PLUMES ON SUBMARINE MELTING OF GREENLAND GLACIERS

1222 **Du, Y.**; Huang, H.: A NUMERICAL SIMULATION OF LABORATORY FRESHWATER PLUME

1223 **Denamiel, C. L.**; Kamenkovich, V.; Netchaev, D.; Wiggert, J.: CAN SURFACE GRAVITY WAVES INFLUENCE RIVER PLUME DYNAMICS?

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1225 **Honegger, D. A.**; Haller, M. C.; Diaz Mendez, G. M.: SPRING-SUMMER FRONT OBSERVATIONS AT THE COLUMBIA RIVER MOUTH VIA LAND-BASED X-BAND MARINE RADAR

1226 **Williams, W. J.**: SUMMERTIME OBSERVATIONS OF THE MACKENZIE RIVER PLUME OVER THE CANADIAN BEAUFORT SHELF, 2005-2009

1227 **Chant, R. J.**: MIXING IN THE FAR FIELD OF A RIVER PLUME

1228 **Pettigrew, N. R.**; Neary, M. G.; Fleming, R. J.: TEMPORAL AND SPATIAL VARIABILITY OF THE GULF OF MAINE COASTAL CURRENT SYSTEM

1229 **Bhaganagar, K.**: DENSE CURRENTS OVER ROUGH SURFACES: IMPLICATIONS TO DOWNWELLING

101 Ecology and Management of Semi-Enclosed Seas

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3013 **Ripszam Matyas, .**; Peter Haglund, .: A NOVEL METHOD FOR THE DETERMINATION OF WATER-DISSOLVED ORGANIC CARBON (DOC) DISTRIBUTION CONSTANTS OF LEGACY AND EMERGING ORGANIC POLLUTANTS IN BRACKISH WATERS

3014 **Mori, K.**: MONITORING SURVEYS ON MERCURY LEVELS OF BENTHOS AND SEDIMENTS AT INTERTIDAL AREA AROUND MINAMATA BAY, KYUSHU, JAPAN

3015 **Wasmund, N.**; Nausch, G.; Feistel, R.: LONG-TERM TRENDS IN SPRING DIATOM DEVELOPMENT IN THE BALTIC SEA IN DEPENDENCE OF THE MINIMUM WINTER TEMPERATURE

3016 **Figueroa, D. A.**; Rowe, O.; Paczkowska, J.; Andersson, A.: BACTERIAL UTILIZATION OF TERRESTRIAL DISSOLVED ORGANIC MATTER IN AN ESTUARY INFLUENCED BY HIGH INFLOW OF ALLOCHTHONOUS ORGANIC MATTER

3017 **Yang, E.**; Noh, J.; Lee, C. M.; Kwon, M.; Kim, T.: CHARACTERISTIC DISTRIBUTION OF PHYTOPLANKTON AND BACTERIA IN THE ENVIRONMENTAL TRANSITION ZONE OF TROPICAL MANGROVE FOREST

3018 **Bignert, A.**; Anderberg, E.; Chen, Q.; Andersson, A.: PELAGIC HETEROGENEITY IN COASTAL AREAS CONSIDERED TO OPTIMIZE SAMPLING STRATEGY

3019 **Karlberg, M.**; Hassellov, I.; Ytreberg, E.; Wulff, A.: EFFECTS OF SEAWATER SCRUBBING ON KEY PHYTOPLANKTON GROUPS OF THE BALTIC SEA

3020 **Berglund, Å. M.**; Ripszam, M.; Andersson, A.; Haglund, P.; Tysklind, M.: BIOMAGNIFICATION OF PERSISTENT ORGANIC POLLUTANTS IN PRESENT-DAY AND CLIMATE ALTERED FOOD WEBS

3021 **Deutsch, B.**; Bonaglia, S.; Humborg, C.; Bruechert, V.: PHOSPHATE FLUXES AND PHOSPHATE SOURCE IDENTIFICATION IN THE HIMMERFJRRDEN (BALTIC SEA)

3022 **Lindehoff, E.**; Bertos-Fortis, M.; Krueger, K.; Andersson, A.; Legrand, C.: ZOOPLANKTON PRODUCTION VARIABILITY IN THE BALTIC SEA LINKED TO FILAMENTOUS CYANOBACTERIA AND REGIONAL DIFFERENCES IN THE PLANKTONIC FOOD WEB

3023 **van Duren, L. A.**; Ysebaert, T. J.; de Ronde, J. G.; Mulder, J. P.: DROWNING TIDAL FLATS: SCIENCE-BASED AND BEST-GUESS MITIGATION MEASURES

3024 **Martin, G.**; Püss, T.; Martin, K.; Torn, K.: MARINE BIODIVERSITY ASSESSMENT INDICATORS AND MARINE BIODIVERSITY ASSESSMENT TOOL DEVELOPED BY THE EU LIFE MARMONI PROJECT.

3025 **Klawonn, I.**; Adam, B.; Svedén, J.; Kuypers, M. M.; Ploug, H.: N₂ FIXATION AND NH₄⁺ RELEASE BY CYANOBACTERIA SUPPORT THE PLANKTON COMMUNITY WITH NITROGEN IN THE BALTIC SEA

3026 **Joanna Paczkowska, J. P.**; Agneta Andersson, .; Owen Rowe, .; Louise Schluter, .; Francois Guillemette , .: FLUORESCENCE AND ABSORPTION PROPERTIES OF CHROMOPHORIC DISSOLVED ORGANIC MATTER (CDOM) ALONG A TRANSECT THROUGHT THE BALTIC SEA

112 Tropical Cyclone–Ocean Interactions: From Weather to Climate

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1088 **Rabe, T. J.**; Kukulka, T.; Hara, T.; Ginis, I.; D'Asaro, E.: LANGMUIR TURBULENCE UNDER HURRICANE GUSTAV

1089 **Zhao, H.**; Han, G.; Zhang, S.; Wang, D.: TWO PHYTOPLANKTON BLOOMS NEAR LUZON STRAIT GENERATED BY LINGERING TYPHOON PARMA

1090 Ito, K.; **Wada, A.**; Kuroda, T.; Kawabata, T.; Saito, K.: TROPICAL CYCLONE INTENSITY FORECAST AROUND JAPAN USING A COUPLED HIGH-RESOLUTION MODEL

1091 **Zhang, W.**; Chai, F.; Hong, H.: A NEW ESTIMATE OF VOLUME TRANSPORT THROUGH THE TAIWAN STRAIT

1093 **CHAN, J.**; LIN, I.: INVESTIGATION OF THE INTER-ANNUAL VARIABILITY OF TYPHOON'S MAXIMUM POTENTIAL INTENSITY IN THE WESTERN NORTH PACIFIC OCEAN

1094 **LAM, M.**; LIN, I.: INVESTIGATION OF OCEAN'S BARRIER LAYER AND WARM OCEAN FEATURE ON TROPICAL CYCLONE'S INTENSITY CHANGE

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1095 **Chang, Y. L.**: CONNECTION OF THE PHILIPPINES–TAIWAN OSCILLATION WITH TROPICAL CYCLONE GENESIS AND PATHS IN THE WESTERN NORTH PACIFIC

1097 **Huang, F.**; Xu, S. B.; Zheng, C. Y.: IMPACTS OF TWO TYPES OF EL NIOO ON PACIFIC TROPICAL CYCLONE ACTIVITY

1098 **Jullien, S.**; Marchesiello, P.; Menkes, C. E.: TROPICAL CYCLONE-OCEAN INTERACTIONS IN A REGIONAL COUPLED MODEL: CLIMATOLOGY AND PROCESSES

1099 **Pun, I.**; Lin, I.; Ko, D. S.: NEW GENERATION OF SATELLITE-DERIVED OCEAN THERMAL STRUCTURE FOR THE WESTERN NORTH PACIFIC TYPHOON INTENSITY FORECASTING

1100 **Reichl, B. G.**; Hara, T.; Ginis, I.: SEA STATE DEPENDENCE OF WIND STRESS OVER THE OCEAN UNDER HURRICANE WINDS

1101 **Wada, A.**; Kunii, M.: NUMERICAL INVESTIGATIONS ON INTENSIFICATION OF TYPHOONS, SEA SURFACE COOLING AND OCEANIC ENVIRONMENTS IN THE WESTERN NORTH PACIFIC

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113 Big Data, Including Ocean Climate Data: Data Availability, Techniques, and Applications

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116 Advances In Approaches to Assess Metal-Binding Organic Ligands and Perspectives On the Impacts of Ligands On Metal-Biota Interactions In the Oceans

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117 Benthic-Pelagic Coupling and Exchange Across the Sediment-Water Interface

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119 Highly Nonlinear Internal Waves and Bores In Shallow Water

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131 Submarine Canyons: Oceanographic Conditions, Geological Features, and Ecological Settings

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133 Dynamic Physical and Ecological Drivers of Marine Metapopulation Connectivity

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1231 **Gyory, J.**; Jones, B. T.; Grey, E. K.; Taylor, C. Z.: INTRA-ANNUAL AND STOCHASTIC VARIABILITY IN CONNECTIVITY PATTERNS OF BLUE CRABS (CALLINECTES SAPIDUS) IN THE NORTHERN GULF OF MEXICO

1257 **Röhrs, J.**; Sundby, S.; Vikebø, F.; Christensen, K. H.: SURFACE GRAVITY WAVES TRANSPORTING PELAGIC FISH EGGS: STOKES DRIFT AND VERTICAL MIXING

1258 **Phelps, J.**; Polton, J.; Robinson, L.; Souza, A.: LARVAL RETENTION AND SEASONAL SHELF SEA GYRES: A MODELLING INVESTIGATION

1259 **Cetina-Heredia, P.**; Roughan, M.; van Sebille, E.; Coleman, M. A.; Feng, M.: LARVAL TRANSPORT UNDER A CLIMATE CHANGE SCENARIO IN A STRENGTHENING WESTERN BOUNDARY CURRENT

1260 **Mills, S. W.**; Le Bris, N.; Beaulieu, S. E.; Sievert, S.; Mullineaux, L. S.: SUCCESSION FOLLOWING ERUPTIVE DISTURBANCE IN A DEEP-SEA HYDROTHERMAL VENT METACOMMUNITY: ALTERNATIVE STABLE STATE OR RETURN TO STATUS QUO?

1261 **Bulseco-McKim, A.**; Hannigan, R.; Etter, R.; Yund, P.: INFERRING CONNECTIVITY AMONG POPULATIONS OF THE BLUE MUSSEL USING TRACE ELEMENT SIGNATURES: SPATIAL RESOLUTION AND LARVAL FIDELITY

1262 **Lazarre, D. M.**; Paris-Limouzy, C. B.; Die, D. J.: USING CONNECTIVITY MODELING SYSTEM TO RE-CREATE THE LIONFISH INVASION TO TEST INITIAL INVASION SCENARIOS AND EVALUATE METAPOPULATION CONNECTEDNESS

1279 **Mitarai, S.**; Nakamura, M.; Watanabe, H.; Shchepetkin, A.; McWilliams, J. C.: LARVAL DISPERSAL OF HYDROTHERMAL VENT SPECIES IN THE WESTERN PACIFIC

1280 **Bramanti, L.**; Edmunds, P. J.; Guizien, K.: EFFECTS OF CLIMATE CHANGE ON THE MOTILITY OF POCILLOPORA DAMICORNIS LARVAE: IMPLICATIONS FOR CONNECTIVITY

1281 **Carlotti, F.**; Diaz, F.; Eisenhauer, L.; Campbell, R.: MODELING THE SEASONAL DYNAMICS OF THE COPEPOD CENTROPAGES TYPICUS IN THE NORTHWESTERN MEDITERRANEAN SEA USING A 3D ECOSYSTEM MODEL

1282 Burgess, S. C.; **Nickols, K. J.**; Morgan, S. G.; Wilson, J. W.; Botsford, L. W.: BEYOND CONNECTIVITY: HOW EMPIRICAL METHODS CAN QUANTIFY POPULATION PERSISTENCE TO IMPROVE MARINE PROTECTED AREA DESIGN

1283 **Choi, J. k.**; Ju, S. E.: THE PHYLOGENY STRUCTURE OF KUROSHIO INDICATOR SPECIES SAGITTA ENFLATA

1284 **Mayorga Adame, C. G.**; Strub, T.; Batchelder , H. P.: MODELING LARVAL CONNECTIVITY OF CORAL REEF ORGANISMS IN THE KENYAN-TANZANIAN REGION

1297 **Watson, J. R.**; Jonsson, B.: GLOBAL OCEAN CONNECTIVITY

1298 **Rypina, I. I.**; Pratt, L. J.; Llopiz, J. K.; Lozier, M. S.: COUPLED PHYSICAL-BIOLOGICAL NUMERICAL MODELING OF THE MIGRATION OF AMERICAN EEL LARVAE

1299 **Dos Santos, A.**; Pires, R. F.; Pan, M.; Prieto, L.; Santos, A. M.: DECAPOD LARVAL CONNECTIVITY AND TRANSPORT PROCESSES BETWEEN MEDITERRANEAN AND ATLANTIC BASINS

1300 **Williams, J. J.**; Bennett, B.; Toonen, R. J.; Bird, C. E.: HAWAII SHELL GAME: IDENTIFYING CRYPTIC SPECIES WITH PCR

1301 **Rubao Ji, .**; Benjamin Jones, .; Severine Choukroun, .; Simon Thorrold, .; Julie Kellner, .: OCEAN CIRCULATION AND REEF FISH CONNECTIVITY: KIMBE BAY CASE STUDY

1302 **Lindo-Atichati, D.**; Curcic, M.; Paris Limouzy, C. B.; Buston, P. M.: ON THE PHYSICAL CONNECTIVITY ALONG THE BELIZE BARRIER REEF: AN ATMOSPHERIC-HYDRODYNAMIC MODEL TO STUDY THE EFFECT OF LOCAL CIRCULATION ON LARVAL DISPERSAL

1303 **Thorrold, S. R.**; Choukroun, S.; Ji, R.; Kellner, J. B.; Jones, G. P.: ARE COUPLED BIOPHYSICAL MODELS ABLE TO ADEQUATELY DESCRIBE LARVAL DISPERSAL IN REEF FISHES? AN EMPIRICAL TEST FROM KIMBE BAY, PAPUA NEW GUINEA.

1347 **NUNEZ, E.**; PEREZ, M.; Martinez, F.; Laffon, S.: SPATIAL MODELING AND PARTITIONING ANALYSIS OF REEF FISH COMMUNITY COMPOSITION IN A FRINGING REEF SYSTEM AND BANK REEFS OF THE CARIBBEAN AND GULF OF MEXICO

1348 **Preciado-Perez, R.**; Torres-Moye, G.; Montano-Moctezuma, C. G.: ARE THE ISLANDS' KELP FORESTS BENTHIC COMMUNITIES DIFFERENT ALONG THE BAJA CALIFORNIA PENINSULA? IMPLICATIONS FOR CONSERVATION.

137 North Atlantic Ocean Dynamics: From Natural Fluctuations to Externally Forced Response

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2059 **Wienders, N.**; Deremble, B.; Dewar, W. K.: POTENTIAL VORTICITY BUDGETS IN THE NORTH ATLANTIC OCEAN

2060 **Duchez, A.**; Frajka-Williams, E.; Castro, N.; Hirschi, J.: SEASONAL TO INTERANNUAL VARIABILITY IN DENSITY AROUND THE CANARY ISLANDS AND THEIR INFLUENCE ON THE ATLANTIC MERIDIONAL OVERTURNING CIRCULATION AT 26.5°N

2061 **Dukhovskoy, D. S.**; Bourassa, M. A.; Proshutinsky, A.; Timmermans, M. L.: FRESHWATER PATHWAYS IN THE NORDIC SEAS FROM NUMERICAL EXPERIMENTS

2062 **Le Bras, I. A.**; Toole, J. M.: A SIMPLE BUDGET OF POTENTIAL VORTICITY (PV) IN THE WESTERN NORTH ATLANTIC

2063 **Zhang, J.**; Kelly, K. A.; Thompson, L.: THE COHERENCE OF INTERANNUAL ATLANTIC MERIDIONAL HEAT TRANSPORT ANOMALY IN CLIMATE MODELS

2064 **Dai, H.**; Yang, H.: ATLANTIC MERDICIONAL OVERTURNING CIRCULATION RESPONSE TO WIND STRESS PERTURBATION

2065 **Gary, S. F.**; Lozier, M. S.; Kwon, Y. O.; Park, J. J.: THE FATE OF NORTH ATLANTIC SUBTROPICAL MODE WATER IN THE FLAME MODEL

2066 **Zhai, X.**; Johnson, H. L.; Marshall, D. P.: A SIMPLE MODEL OF THE RESPONSE OF THE ATLANTIC TO THE NORTH ATLANTIC OSCILLATION

2067 **Brunnabend, S. E.**; Dijkstra, H. A.; Kliphuis, M. A.: EXTREME SEA LEVEL CHANGE IN THE NORTH ATLANTIC DUE TO ENHANCED FRESHWATER INFLOW AROUND GREENLAND

2068 **Srokosz, M.**; Byfield, V.: THE RAPID PROGRAMME

2069 **Deremble, B.**; Dewar, W. K.: VOLUME AND POTENTIAL VORTICITY BUDGETS OF EIGHTEEN DEGREE WATER

2070 **Shimizu, K.**; Mueller, P.; Marotzke, J.: PROPAGATION OF NON-PLANE BAROCLINIC ROSSBY WAVES IN THE NORTH ATLANTIC

2073 **Sanchez-Franks, A.**: THE GULF STREAM'S TRANSPORT AND INTERANNUAL MIGRATION

2074 **Childers, K. H.**: DIRECT (ADCP) OBSERVATIONS OF CURRENT AND TOPOGRAPHY INTERACTIONS ACROSS THE ICELAND-FAROES-SHETLAND RIDGE

2075 **Pérez-Hernández, M. D.**; Hernández-Guerra, A.; Vélez-Belchí, P.: THE SOURCE OF THE CANARY CURRENT IN FALL 2009

2076 **Kostov, Y.**; Marshall, J.; Armour, K. C.: THE ROLE OF AMOC FOR SEQUESTERING HEAT IN A WARMING WORLD

2077 **Breckenfelder, T.**; Rhein, M.; Roessler, A.; Behrens, E.; Böning, C. W.: VARIABILITY OF THE NORTH ATLANTIC CURRENT: HIGH RESOLUTION MODEL DATA VERSUS IN SITU MEASUREMENTS

2078 **Doddridge, E.**; Marshall, D.: PROPAGATION OF AMOC ANOMALIES IN A SIMPLIFIED LAYER MODEL

2079 **Hernández-Guerra, A.**; Pelegrí, J. L.: MERIDIONAL OVERTURNING TRANSPORTS AT 7.5N AND 24.5N IN THE ATLANTIC OCEAN IN 1992-93 AND 2010-11

THURSDAY

2080 **Griffiths, R. W.**; Vreugdenhil, C.; Hogg, A. M.; Hughes, G. O.: ROLES OF UPPER OCEAN AND ABYSSAL MIXING IN THE MOC

2081 **Gregorio, S. O.**; Penduff, T.; Serazin, G.; Barnier, B.; Molines, J. M.: THE OCEAN-GENERATED COMPONENT OF THE LOW-FREQUENCY AMOC VARIABILITY

2082 **Årthun, M.**; Eldevik, T.; Mork, K. A.; Skagseth, Ø.; Nilsen, J. E.: MECHANISMS FOR PERSISTENCE OF OCEAN THERMOHALINE ANOMALIES IN THE NORTHERN NORTH ATLANTIC

2083 **Todd, R. E.**; Owens, W. B.; Rudnick, D. L.: POTENTIAL VORTICITY IN THE GULF STREAM AND LOOP CURRENT

2084 **Kenigson, J. S.**; Han, W.: QUANTIFYING ACCELERATION OF SEA LEVEL RISE ALONG THE US EAST COAST IN A WARMING CLIMATE

2085 **Huiskamp, W. N.**; Meissner, K. J.; England, M.; Turney, C.: THE SENSITIVITY OF THE CARBON CYCLE TO CHANGES IN THE SOUTHERN HEMISPHERIC WESTERLY WINDS

2086 **Born, A.**; Stocker, T. F.: TWO STABLE EQUILIBRIA OF THE ATLANTIC SUBPOLAR GYRE

2146 **Fischer, M.**; Müller, W. A.; Domeisen, D.; Baehr, J.: MODIFIED SEASONAL CYCLE IN THE ATLANTIC MERIDIONAL HEAT TRANSPORT IN A CLIMATE PROJECTION

2147 **Moffa-Sanchez, P.**; Born, A.; Hall, I. R.; Thornalley, D.; Barker, S.: SOLAR FORCING OF NORTH ATLANTIC CLIMATE OVER THE LAST MILLENNIUM

2148 **Thomas, M. D.**; Treguier, A.; Blanke, B.; Deshayes, J.; Grima, N.: HIGH LATITUDE ORIGINS OF NORTH ATLANTIC DEEP WATER AND ITS IMPACT ON THE MERIDIONAL OVERTURNING CIRCULATION

2149 **Van Nieuwenhove, N.**; Bauch, H. A.; de Vernal, A.; Hillaire-Marcel, C.; Bonnet, S.: ASSESSING HOLOCENE AND LAST INTERGLACIAL DEEP WATER FORMATION FLUCTUATIONS IN THE NORDIC SEAS BASED ON MICROFOSSIL ASSEMBLAGES

2150 **Porter, M.**; Inall, M. E.; Simpson, J. H.; Green, J. M.: HUNTING FOR THE EUROPEAN SLOPE CURRENT

2151 **Schleussner, C. F.**; Divine, D.; Donges, J. F.; Miettinen, A.; Donner, R. V.: EVIDENCE FOR A NON-LINEAR REGIME SHIFT IN THE NORTH ATLANTIC OCEAN CIRCULATION AT THE ONSET OF THE LITTLE ICE AGE

2152 **Dell, R. W.**; Eisenman, I.; Severinghaus, J.: OCEAN DYNAMICS FROM SAND: HEINRICH LAYERS AND PAST NORTH ATLANTIC CIRCULATION

143 Fram Strait - New Insights Into Physical and Biological Processes In the Atlantic Gateway to the Arctic Ocean and Their Linkages to Climatic Changes

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739 **von Appen, W.**; Schauer, U.; Beszczynska-Möller, A.; Fahrbach, E.: ON THE NATURE OF THE ATLANTIC WATER RECIRCULATION IN FRAM STRAIT

740 **Berge/Jørgen, .**; Varpe/Øystein, .; Moline/Mark, .; Renaud/Paul, .; Falk-Petersen/Stig, .: RETENTION OF ICE-ASSOCIATED AMPHIPODS: POSSIBLE CONSEQUENCES FOR AN ICE-FREE ARCTIC OCEAN

741 **Skogseth, R.**; Nilsen, F.; Ersdal, E. A.; Falck, E.: REMOTE SENSING OF MASS CHANGES ON THE WEST SPITSBERGEN SHELF IN EASTERN FRAM STRAIT – PART OF THE REOCIRC PROJECT

742 **Alkire, M. B.**; Morison, J.; Rigor, I.: CONNECTING CHANGES IN THE INVENTORIES OF PACIFIC WATER, METEORIC WATER, AND SEA ICE MELT IN THE CENTRAL ARCTIC AND FRAM STRAIT, 1998-2011

743 **Eli Anne Ersdal, E. E.**; Stefan Muchenhuber, .; Frank Nilsen, .; Ragnheid Skogseth, .; Håvard Muus Falck, .: REMOTE SENSING OF OCEAN CIRCULATION IN EASTERN FRAM STRAIT – PART THE REOCIRC PROJECT

744 **Gluchowska, M.**; Trudnowska, E.; Katarzyna Blachowiak-Samolyk, K.; Kwasniewski, S.: SCALES OF BIOLOGICAL PATCHINESS IN SURFACE WATERS OF FRAM STRAIT MARGINAL ICE ZONE IN SUMMER

745 **Matrai, P.**; Steele, M.; Swift, D.; Riser, S.; Johnson, K.: PHYTOPLANKTON ACTIVITY IN THE GREENLAND SEA: BIO-FLOAT OBSERVATIONS IN ICE-COVERED WATERS

147 Passive and Active Electromagnetic Remote Sensing of Air-Water Interfaces

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1316 **Salisbury, D. J.**; Anguelova, M. D.; Brooks, I. M.: A GLOBAL STUDY OF WHITECAP FRACTION AND ITS VARIABILITY USING SATELLITE-BASED OBSERVATIONS

1317 **Schwendeman, M.**; Thomson, J.: VIDEO WHITECAP MEASUREMENTS IN MIXED SEAS

1318 **MIAO, H. L.**; WANG, X.; WANG, Y. Q.; WANG, G. Z.: DIRECT ESTIMATION MODEL OF SEA STATE BIAS ON SATELLITE ALTIMETER

1319 **WANG, G. Z.**; MIAO, H. L.; ZHANG, J.: COMPARISION OF TWO EMPIRICAL PARAMETRIC MODELS OF SEA STATE BIAS FOR ALTIMETER

1320 **Xu, K. M.**; Hu, Y.: COMPARISONS OF OCEAN SURFACE WIND SPEEDS FROM CALIPSO, AMSR-E AND CLOUDSAT MEASUREMENTS

1321 **Kubota, M.**; Hihara, T.; Okuro, A.: EVALUATION AND INTERCOMPARISON OF GCOM-W1 STANDARD OCEAN PRODUCTS

1322 **Romeiser, R.**; Graber, H. C.: ADVANCED REMOTE SENSING OF OCEANIC INTERNAL WAVES BY SPACEBORNE ALONG-TRACK INTERFEROMETRIC SAR

1323 **Lenain, L. G.**; Melville, W. K.; Romero, L.; Statom, N.: REMOTE SENSING OF SUBMESOSCALE AND SURFACE WAVE PROCESSES ACROSS THE LOOP CURRENT

1324 **Lund, B.**; Collins, C. O.; Graber, H. C.; Terrill, E.; Herbers, T. H.: IMPROVEMENTS TO SHIPBOARD MARINE X-BAND RADAR SURFACE WAVE AND CURRENT RETRIEVAL

1325 **Garcia-Pineda, O.**; MacDonald, I.; Hu, C.; Svejkovsky, J.; Hess, M.: DETECTION OF FLOATING OIL ANOMALIES FROM THE DEEPWATER HORIZON OIL SPILL WITH SYNTHETIC APERTURE RADAR

1326 Branch, R. A.; **Chickadel, C. C.**; Jessup, A. T.: THERMAL INFRARED SIGNATURES AND HEAT FLUXES OF SEA FOAM

1327 **Bourassa, M. A.**; Steffen, J.: WINDS OVER OIL: A COMPARISON OF DATA FROM SATELLITE, BUOYS, AND GRIDDED PRODUCTS

1328 **Jackson, D. L.**; Wick, G. A.: RECENT IMPROVEMENTS TO A MULTI-SENSOR SATELLITE-BASED RETRIEVAL OF NEAR-SURFACE HUMIDITY, TEMPERATURE, AND SURFACE HEAT FLUXES

1329 **Gladkova, I.**; Shahriar, F.; Petrenko, B.; Kihai, Y.; Ignatov, A.: EXPLORING PATTERN RECOGNITION ENHANCEMENTS TO ACSPO CLEAR SKY MASK FOR VIIRS SST

1331 **Monteiro, F. M.**; Romeiser, R.: ADVANCED BATHYMETRY RETRIEVAL FROM SWELL PATTERNS IN HIGH-RESOLUTION SAR IMAGES

153 Using Compound-Specific Stable Isotope Analysis to Advance Population and Community Ecology

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435 **Choy, C. A.**; Popp, B. N.; Hannides, C. C.; Blum, J. D.; Drazen, J. C.: THE INFLUENCE OF DEPTH ON TROPHIC STRUCTURE AND FEEDING INTERACTIONS IN THE PELAGIC: EVIDENCE FROM MULTIPLE BIOCHEMICAL TRACERS

436 **Ogawa, N. O.**; Suga, H.; Yoshikawa, C.; Ohkouchi, N.: ULTRA-SENSITIVE ANALYSIS OF NITROGEN ISOTOPE RATIO AND ITS APPLICATION TO CHLOROPHYLL FOR BIOGEOCHEMICAL STUDIES

503 **Othman-Wilson, A.**; Jahren, A. H.; Schubert, B. A.: BULK AND COMPOUND-SPECIFIC ISOTOPE ANALYSIS OF TERRESTRIAL PLANT MATERIAL: HOW MANY SAMPLES ARE ENOUGH ?

504 **Takano, Y.**; Chikaraishi, Y.; Imachi, H.; Krüger, M.; Ohkouchi, N.: ROLE OF AMINO ACID METABOLISM: IMPLICATION FROM 13C-DEPLETED PROTEIN AMINO ACIDS FROM ANAEROBIC METHANOTROPHIC ARCHAEA OF ANME 1 AND ANME 2 GROUPS.

505 **Wang, S. W.**; Budge, S. M.; Gradinger, R. R.; Horstmann-Dehn, L.; Iken, K. B.: TRACKING SOURCES OF CARBON IN THE BERING SEA FOOD WEB: INSIGHTS FROM FATTY ACIDS AND THEIR STABLE CARBON ISOTOPES

506 **Aita, M. N.**; Kitamura, M.; Kobari, T.; Ishii, R.; Wada, E.: NITROGEN AND CARBON STABLE ISOTOPIC STUDIES OF FOOD CHAINS AT LOWER TROPHIC LEVELS IN THE WESTERN NORTH PACIFIC

507 **Svensson, E.**; Schouten, S.; Hopmans, E. C.; Middelburg, J. J.; Sinninghe Damsté, J. S.: THE $d^{15}N$ OF INTACT POLAR LIPIDS – METHOD DEVELOPMENT AND FIRST RESULTS

508 **Polito, M. J.**; Houghton, L.; Hinke, J.; Goebel, M.; Thorrold, S.: INTEGRATING DIRECT AND ISOTOPIC MEASURES OF ANIMAL MOVEMENTS TO ESTIMATE THE WINTER DISTRIBUTION OF ANTARCTIC MARINE PREDATORS

509 **Grosse, J.**; Boschker, H. T.: RESPONSE OF PHYTOPLANKTON TO RESOURCE LIMITATION – A COMPOUND SPECIFIC ISOTOPE STUDY ON SHIFTS IN MACROMOLECULE BIOSYNTHESIS

510 **Strzepek, K. M.**; Revill, A. T.; Thresher, R. E.; Smith, C. I.; Fallon, S. J.: A CENTURY OF AUSTRALIAN ECOSYSTEM SENSITIVITY ARCHIVED IN THE CARBON AND NITROGEN ISOTOPES OF DEEP-SEA CORAL AMINO ACIDS

512 **Sabadel, A. J.**; Woodward, E. M.; Van Hale, R.; Frew, R. D.; Boyd, P. W.: AMINO ACIDS ALONG A SOUTH ATLANTIC TRANSECT (40 SS)

513 **Goto, H.**; Umezawa, Y.; Amano, M.; Yoshimizu, C.; Tayasu, I.: DIET AND BEHAVIOR OF FINLESS PORPOISES, IN WESTERN KYUSHU, JAPAN, BASED ON STABLE ISOTOPES ANALYSES OF BULK AND AMINO ACIDS

514 **Kruger, B. R.**; Austin-Minor, E. C.; Werne, J. P.: GREAT LAKES FOOD WEBS: INSIGHTS FROM STABLE AND RADIOISOTOPE ANALYSIS OF BULK AND MOLECULAR MATERIAL IN LAKE SUPERIOR

515 **Gelpi, C. G.**; Fry, B.; Dubois, S. F.; Basirico, L.; Portier, R.: WHERE DID ALL THESE BLUE CRABS COME FROM? USING ISOTOPES TO DETERMINE THE MIGRATORY HISTORY OF THE RECENTLY DISCOVERED, OFFSHORE LOUISIANA SPAWNING STOCK

516 **Gier, E.**; Misarti, N.; Finney, B.; Barnes, K.; McCarthy, M.: NITROGEN ISOTOPES OF AMINO ACIDS IN ARCHAEOLOGICAL SHELL: A NEW NITROGEN ISOTOPIC BASELINE TRACER IN NEAR SHORE SYSTEMS?

517 **Brault, E. K.**; Koch, P. L.; McCarthy, M. D.; Gier, E.; Ruiz-Cooley, I.: AN EFFECTIVE METHOD FOR PREPARING TOOTH DENTIN FOR BULK AND COMPOUND-SPECIFIC CARBON (δ13C) AND NITROGEN (δ15N) ISOTOPIC ANALYSES

518 **O'Malley, J. M.**; Popp, B. N.; Drazen, J. C.; Gier, E.; Toonen, R. J.: ISOTOPIC ANALYSES IDENTIFIES PREY AVAILABILITY AS DRIVER OF SPATIAL VARIABILTY IN GROWTH OF LOBSTERS IN THE NORTHWESTERN HAWAIIAN ISLANDS

161 HABS and Invasive Species

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1843 **Lehrer-Brey, G. L.**; Kornis, M. S.: WINTER DISTRIBUTIONAL OVERLAP FACILITATES LAKE WHITEFISH PISCIVORY ON INVASIVE ROUND GOBIES IN GREEN BAY, LAKE MICHIGAN

1844 **Maze, G. M.**; Olascoaga, M. J.; Brand, L.: THE LOOP CURRENT CONNECTION WITH WEST FLORIDA SHELF RED TIDES

1845 **Page, H. M.**; Zaleski, S.; Miller, R. J.; Dugan, J. E.; Schroeder, D. M.: THE EXOTIC BRYOZOAN *WATERSIPORA SUBTORQUATA* ON OFFSHORE OIL PLATFORMS: DISTRIBUTION, ABUNDANCE, DISPERSAL PATHWAYS, AND MANAGEMENT CONSIDERATIONS

1846 **Lozada, J. A.**; Moeller, P.: ASLO MP- PLACEHOLDER ABSTRACT

1847 **Schapira, M.**; Le Gendre, R.; Thorel, M.; Fauchot, J.; et al., .: UNUSUAL RIVER DISCHARGE PATTERN AND TOXIC PSEUDO-NITZSCHIA BLOOMS IN THE BAY OF SEINE (EASTERN ENGLISH CHANNEL)

1848 **Quattrocchi, G.**; Cucco, A.; Marras, S.; Butenschön, M.; Domenici, P.: A MODEL-BASED APPROACH TO EVALUATE THE HABITAT SUITABILITY OF SARPA SALPA AND SIGANUS RIVULATUS IN THE SOUTH WESTERN MEDITERRANEAN SEA

1849 **Onishi, Y.**; Inaba, N.; Wyllie-Echeverria, S.; Trainer, V. L.; Imai, I.: ALGICIDAL ACTIVITY AGAINST THE TOXIC DINOFLAGELLATE *ALEXANDRIUM TAMARENSE* IN BACTERIA ISOLATED FROM SEAGRASS BEDS IN PUGET SOUND, U.S.A.

1850 **Wu, M.**; Wu, J.: ULTRASOUND TECHNOLOGY FOR SHIP BALLAST WATER MANAGEMENT

1851 **Kim, T.**; Park, J.; Choi, J.; Ahn, S.; Noh, J.: CHASING THE RED TIDES IN THE SEA OF KOREA IN 2013

1852 **Greengrove, C. L.**; Masura, J. E.; Moore, S. K.; Bill, B. D.; PS-AHAB Team, .: ALEXANDRIUM BLOOM ECOLOGY IN PUGET SOUND: CYST DYNAMICS, GROWTH, TRANSPORT, AND CLIMATE PATHWAYS

1853 **Dexter, E. D.**; Bollens, S. M.; Rollwagen-Bollens, G.: THE COLUMBIA RIVER AS A HEAVILY INVADED ECOSYSTEM: DISCERNING PATTERNS OF ABUNDANCE OF NATIVE AND NON-NATIVE ZOOPLANKTON

1931 **Spilmont, N.**; Gothland, M.; Seuront, L.; Dauvin, J. C.; Meziane, T.: THE GOOD, THE BAD AND THE UGLY: CARCINUS MAENAS AND TWO SPECIES OF HEMIGRAPSUS COMPETING ON THE FRENCH SHORE

1932 **Carter, M. L.**; McGowan, J. A.; Hilbern, M.; Vu, E. T.: COASTAL BLOOM DYNAMICS IN SOUTHERN CALIFORNIA

1933 **Rollwagen-Bollens, G.**; Bollens, S.; Lee, T.; Boyer, J.; Zimmerman, J.: ASSESSING THE ROLE OF BIOTIC AND ABIOTIC FACTORS ON THE DEVELOPMENT AND DECLINE OF HARMFUL CYANOBACTERIA BLOOMS IN A LARGE, TIDALLY-INFLUENCED FLOOD PLAIN LAKE

1934 **Bollens, S.**; Rollwagen-Bollens, G.; Counihan, T.; Hardiman, J.: INVASIVE MUSSEL MONITORING IN THE COLUMBIA RIVER BASIN — PAST, PRESENT, AND FUTURE

169 Watersheds, Lakes, Rivers, Estuaries

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1310 **Schulte, J. A.**; Najjar, R. G.: THE SPATIAL AND TEMPORAL VARIABILITY OF CHESAPEAKE BAY SALINITY: CLIMATE MODE ASOCIATIONS

1335 **Huang, H.**; Lane, R. R.; Justic, D.; Day, J. W.: HYDROLOGICAL MODELING TO IMPROVE WATER QUALITY IN THE BAYOU BOEUF BASIN, LOUISIANA

1336 **Chua, V. P.**; Huang, J.; Zhang, X. F.; Cheong, H. F.: LONGITUDINAL DISPERSION IN OSCILLATING FLOWS WITH SUBMERGED VEGETATION

1337 **Sharma, R. K.**; Stone, J. J.; Putirka, K. D.: SEDIMENT GEOCHEMISTRY OF THE CHEYENNE RIVER AND ANGOSTURA RESERVOIR DELTA IN THE ABANDONED URANIUM MINING REGION OF THE SOUTHERN BLACK HILLS, SOUTH DAKOTA

1338 **Mueller, A. V.**; Hemond, H. F.: EUTROPHICATION ALONG THE ESTUARINE CONTINUUM: UTILITY OF ION SELECTIVE ELECTRODE ARRAYS FOR MEASUREMENT OF NITROGEN IONS IN INCREASINGLY SALINE WATERS

1339 **Young, T.**; Weidel, B.; Chandra, S.; Jensen, O. P.: NATURAL TROPHIC VARIABILITY IN A SIMPLE, PRISTINE LAKE: WHAT ARE THE IMPLICATIONS FOR STUDYING CHANGE IN OTHER LAKES?

1340 **Gleichauf, K. T.**; Wolfram, P.; Monsen, N.; Fringer, O.; Monismith, S.: DISPERSION MECHANISMS OF A TIDAL RIVER JUNCTION IN THE SACRAMENTO-SAN JOAQUIN DELTA, CA

1341 **Latornell, D. J.**; Allen, S. E.: OPERATIONAL PREDICTION OF THE STRAIT OF GEORGIA SPRING DIATOM BLOOM

1380 **De Carli, E. V.**; Hubble, T. C.; Jaksa, M. B.; Clarke, S. L.; Airey, D. W.: RIVERBANK COLLAPSE ON THE LOWER MURRAY RIVER: RECENT PHENOMENON OR LONG-TERM GEOMORPHIC PROCESS?

1381 **Garreau, F. A.**: WATER QUALITY, AND NUTRIENT FLUX IN THE LUMMI BAY ESTUARY

THURSDAY

1382 **Chow, M. F.**; Shiah, F. K.: LONG TERM TRENDS OF TOTAL ORGANIC CARBON (TOC) CONCENTRATIONS IN A DRINKING-WATER RESERVOIR IN NORTHERN TAIWAN

1383 **DENNIS, J. J.**: PHOSPHORUS FLUX AND WATER QUALITY OF AN ESTUARY IN BELLINGHAM, WA

1384 **McMahon, R. M.**; Kaiser, K.; Amon, R.: INVESTIGATING THE BIOAVAILABILITY OF ORGANIC CARBON IN ARCTIC RIVER WATERSHEDS

1385 **Reeve, J. L.**; Spivak, A. C.; Pohlman, J.: RAPID CARBON CYCLING IN AN EXPERIMENTAL SPARTINA ALTERNIFLORA SYSTEM

1386 **McGehee, A. M.**; Redalje, D. G.: HAS THE PHYTOPLANKTON COMMUNITY COMPOSITION IN THE BAY OF ST. LOUIS, MISSISSIPPI, CHANGED OVER THE PAST TWO DECADES?

1414 **Kerrigan, E. A.**; Cullen, J. J.; Kelley, D. E.; Kienast, M.; Wallace, D.: USING THE ISOTOPE-SALINITY RELATIONSHIP TO TRACE WATER MASSES IN A NORTH ATLANTIC ESTUARY

1415 **Rippy, M. A.**; Ciglar, A.; Grant, S. B.: ARE FECAL INDICATOR BACTERIA LIKE SALT: EVALUATING THE CONTRIBUTION OF FRESHWATER URBAN RUNOFF TO BAY-WIDE BACTERIOLOGICAL WATER QUALITY IN NEWPORT BAY

1416 **Lymperopoulou, D. S.**; Williams, H. N.: PROKARYOTIC COMMUNITY DYNAMICS IN A REGENERATING LAKE: A CASE STUDY OF LAKE MUNSON, FLORIDA

1417 **Johnson, E. E.**; Wiegner, T. N.: WATER COLUMN METABOLISM OF MILO AND KIAWE DOMINATED ANCHIALINE PONDS IN LEEWARD HAWAII

2/28/2014 Orals

175E Tutorials

Chair(s): Mel Briscoe, mel@briscoe.com

Location: 310 Theater

14:00 **Schmitt, R. W.**: THE OCEANS AND THE GLOBAL WATER CYCLE

14:30 **Lovenduski, N. S.**: CARBON IN THE SOUTHERN OCEAN: KNOWN KNOWNS AND KNOWN UNKNOWNS

15:00 **Boetius, A.**: THE CHANGING ARCTIC OCEAN: ECOLOGICAL EFFECTS OF WARMING AND SEA ICE MELT

15:30 **Mills, K. E.**; Pershing, A. J.: CLIMATE CHANGE AND ADAPTATION PLANNING FOR MARINE FISHERIES: AN ASSESSMENT FRAMEWORK AND RESEARCH NEEDS

002 Understanding Coupled Human-Natural Systems: Multi-Disciplinary Approaches for Addressing Sustainability of the Marine Environment

Chair(s): Geoffrey S. Cook, gcook@rsmas.miami.edu
Jay Pearlman, jay.pearlman@ieee.org
Lida Teneva, lteneva@stanford.edu
Hans von Storch, hvonstorch@web.de
Bob Houtman, bhoutman@nsf.gov
Christopher R. Kelble, chris.kelble@noaa.gov
John N. Kittinger, jkittinger@gmail.com

Location: 316 B

14:00 **Williams, A. J.**; Pearlman, J. S.: A RESEARCH COORDINATION NETWORK FOR MOTIVATING INTERDISCIPLINARY RESEARCH

14:15 **Stadmark, J.**; Conley, D. J.; Nielsen, A. B.; Broström, A.; Filipsson, H.: MULTIPLE STRESSORS IN THE BALTIC SEA IN THE PAST, PRESENT AND FUTURE

14:30 **Kittinger, J. N.**: EXPLORING SOCIAL-ECOLOGICAL INTERACTIONS IN CORAL REEFS: IMPLICATIONS FOR MANAGING TOWARDS SUSTAINABILITY

14:45 **Kelble, C. R.**: INTEGRATING HUMAN DIMENSIONS AND NATURAL SCIENCES IN SOUTH FLORIDA'S COASTAL ECOSYSTEM

15:00 **Misarti, N.**; Wood, S.; Finney, B. F.: EXPLORING HUMAN-SEA OTTER INTERACTIONS OVER THOUSANDS OF YEARS IN THE GULF OF ALASKA USING STABLE ISOTOPE RATIOS

15:15 **Oleson, K. L.**; Delevaux, J. M.; Falinski, K.; Htun, H.; Bremer, L.: BUILDING AN ECOSYSTEM SERVICE TOOL TO SUPPORT RIDGE-TO-REEF MANAGEMENT IN HAWAII

15:30 **Reckermann, M.**; Meier, M.; Rutgersson, A.; von Storch, H.: BALTEX, BACC AND BALTIC EARTH: ACHIEVEMENTS AND PROSPECTS FOR INTERDISCIPLINARY SCIENTIFIC NETWORKING IN THE BALTIC SEA REGION

15:45 Waldmann, C.; **Pearlman, J.**; Khalsa, S.; COOPEUS, C.: COOPEUS –CONNECTING RESEARCH INFRASTRUCTURES IN THE ENVIRONMENTAL FIELD ACROSS THE ATLANTIC

011 Mapping, Monitoring and Managing Mesophotic Reefs: Scientific Insights and Technologies to Address Coral Resource Management Challenges

Chair(s): John Rooney, john.rooney@noaa.gov
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Frank Parrish, frank.parrish@noaa.gov
Kimberly Puglise, kimberly.puglise@noaa.gov

Location: 319 AB

14:00 **Puglise, K. A.**; Dowgiallo, M. J.: MESOPHOTIC CORAL ECOSYSTEMS: SCIENCE AND MANAGEMENT PERSPECTIVES

14:15 **Reed, J. K.**; Harter, S.; Farrington, S.; David, A.: MAPPING, CHARACTERIZING, AND INTERRELATIONSHIPS OF MESOPHOTIC CORAL/SPONGE HABITATS AND FISH COMMUNITIES WITHIN SHELF-EDGE MARINE PROTECTED AREAS OFF SE USA

14:30 **Rooney, J.**; DeCarlo, T.; Thompson, W.; Cohen, A.; Spalding, H.: GROWTH RATES OF *LEPTOSERIS HAWAIIENSIS*: DATA REQUIRED FOR MANAGING IMPACTS TO MESOPHOTIC REEFS IN THE MAIN HAWAIIAN ISLANDS

14:45 **Pizarro, O.**; Williams, S. B.; Johnson-Roberson, M.; Steinberg, D.; Bryson, M.: REEF MAPPING AND MONITORING ASSISTED BY MACHINES

15:00 **Harii, S.**; Sinniger, F.; Prasetia, R.; Yorifuji, M.; Bongaerts, P.: CHANGES IN MESOPHOTIC CORAL ECOSYSTEMS IN OKINAWA AFTER 45 YEARS

15:15 **Tenggardjaja, K. A.**; Bowen, B. W.; Bernardi, G.: DO FISH EXHIBIT GENETIC CONNECTIVITY BETWEEN SHALLOW AND MESOPHOTIC REEFS? INSIGHTS FROM THE ENDEMIC HAWAIIAN DAMSELFISH *CHROMIS VERATER*

15:30 **Bongaerts, P.**; van Oppen, M. J.; Hoegh-Guldberg, O.: CONNECTIVITY AND VULNERABILITY OF MESOPHOTIC CORAL ECOSYSTEMS: INSIGHTS FROM MOLECULAR ECOLOGY

15:45 **Nemeth, R. S.**; Smith, T. B.; Brandt, M.; Kadison, E.; Henderson, L.: HABITAT USE OF MESOPHOTIC REEF FISHES: CONSERVATION STRATEGIES BASED ON FISH DISTRIBUTIONS, REPRODUCTIVE BEHAVIORS AND MOVEMENT PATTERNS.

012 Oceanic Submesoscale Processes

Chair(s): Sung Yong Kim, syongkim@kaist.ac.kr
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Cédric Chavanne, cedric_chavanne@uqar.ca

Location: 316 A

08:00 **Smith, K. S.**; Keating, S. R.: THE GENERATION AND ENERGETIC PATHWAYS OF BALANCED UPPER-OCEAN SUBMESOSCALE TURBULENCE

08:15 **Chavanne, C. P.**: MIXED-LAYER SURFACE QUASI-GEOSTROPHY

08:30 **Biescas, B.**; Ruddick, B.; Nedimovic, M.; Sallarès, V.; Bornstein, Mojica, G. J.: RECOVER OF TEMPERATURE, SALINITY AND POTENTIAL DENSITY FROM ACOUSTIC REFLECTIVITY IN THE OCEAN

08:45 **Ruddick, B.**; BIescas Gorriz, B.; Nedimovic, M.; Sallares, V.; Bornstein, B.: SYNTHETIC TRIALS OF A COHERENT-SOURCE MULTICHANNEL SEISMIC SYSTEM FOR OCEANOGRAPHY

09:00 **Zhang, Y.**; Bellingham, J. G.; Ryan, J. P.; Kieft, B.; Stanway, M. J.: THREE-DIMENSIONAL STRUCTURE AND DYNAMICS OF AN UPWELLING FRONT IN MONTEREY BAY AS MAPPED AND TRACKED BY AN AUTONOMOUS UNDERWATER VEHICLE

09:15 **Franks, P. J.**; Roberts, P. L.; Lucas, A. J.; Jaffe, J. S.; Schurgers, C.: A SMALL SWARM OF QUASI-LAGRANGIAN DRIFTERS: QUANTIFYING ACCUMULATION IN INTERNAL WAVES

09:30 **Omand, M. M.**; Mahadevan, A.; Perry, M. J.; D'Asaro, E. A.; Lee, C. M.: SUBMESOSCALE SUBDUCTION OF PARTICULATE ORGANIC CARBON, OXYGEN AND SPICE

09:45 **Pattiaratchi, C. B.**; Mihanovic, H.: PEDDIES (PETITE EDDIES): SUB-MESOSCALE EDDIES ALONG THE CONTINENTAL SHELF OFF SOUTH-WEST AUSTRALIA

10:30 **Ledwell, J. R.**; He, R.; Montuoro, R.; Olascoaga, J.; Xue, Z.: TRACER DISPERSION IN THE MID-DEPTH GULF OF MEXICO

10:45 **Sundermeyer, M. A.**; Birch, D. A.; Ledwell, J. R.; Levine, M. A.; Concannon, B.: OBSERVATIONS OF DYE DISPERSION IN THE SEASONAL PYCNOCLINE: AN EVALUATION OF VERTICAL SHEAR DISPERSION AND EVIDENCE OF SMALL-SCALE STIRRING

11:00 **Early, J. J.**; LeLong, M. P.; Smith, K. S.; Sundermeyer, M. A.; Sykulski, A. M.: SUBMESOSCALE DIFFUSIVITY INFERRED FROM SURFACE DRIFTERS

11:15 **Sanford, T. B.**; Lien, R. C.: OBSERVATIONS OF SUBMESOSCALE VARIABILITY: VORTICAL STRUCTURES, INTERNAL WAVES AND TURBULENCE WITH A SWARM OF EM-APEX AUTONOMOUS PROFILING FLOATS

11:30 **Goodman, L.**: MICROSTRUCTURE OBSERVATIONS IN AN INTRUSION DURING LATMIX I

11:45 **Lelong, P. G.**; Kunze, E.; Sundermeyer, M. A.; Early, J. J.: A NUMERICAL STUDY OF LATERAL DISPERSION IN A FIELD OF OCEAN INTERNAL WAVES

12:00 Ramachandran, S.; Mukherjee, S.; **Tandon, A.**; Mahadevan, A.: SUBMESOSCALE PROCESS EXPERIMENTS INSPIRED BY LATMIX OBSERVATIONS

12:15 **Baschek, B.**; Molemaker, M. J.; Holt, B.; Ohlmann, C.; Smith, G.: THE OBSERVED DYNAMICS AND PHYTOPLANKTON RESPONSE OF SUBMESOSCALE EDDIES AND FRONTS

14:00 **Thomas, L. N.**; Taylor, J. R.; D'Asaro, E. A.; Lee, C. M.; Klymak, J.: INTERACTION OF SYMMETRIC INSTABILITY AND INERTIAL OSCILLATIONS IN THE GULF STREAM

14:15 **Gula, J.**; Molemaker, M. J.; McWilliams, J. C.: SUBMESOSCALE INSTABILITIES AND MIXING ON THE GULF STREAM NORTH WALL

14:30 **Claret, M.**; Tandon, A.; Mahadevan, A.: WAVE ENERGY INJECTION TO DEPTH BY FRONTS

14:45 **Pallas-Sanz, E.**; Candela, J.; Sheinbaum, J.; Ochoa, J.: DEEP OCEAN RESPONSE TO HURRICANES IN THE LOOP CURRENT SYSTEM

15:00 **Nagai, T.**; Inoue, R.; Tandon, A.; Kunze, E.; Mahadevan, A.: SEMI-LAGRANGIAN OBSERVATIONS OF NEAR-INERTIAL SHEAR AND TURBULENCE ALONG THE KUROSHIO FRONT

15:15 **MacKinnon, J. A.**; Lucas, A. J.; Nash, J. D.; Tandon, A.; Ravichandran, M.: SUB-MESOSCALE PROCESSES AND UPPER OCEAN TURBULENT MIXING IN THE BAY OF BENGAL

15:30 **Tanaka, Y.**; Wakamatsu, T.; Ishikawa, Y.; Awaji, T.: EFFECT OF SUBMESOSCALE FLOW ON THE INTER-GYRE MASS TRANSPORT IN KUROSHIO EXTENSION REGION

15:45 **Mensa, J. A.**; Garraffo, Z.; Ozgokmen, T. T.; Haza, A.; Veneziani, M.: SEASONALITY OF THE SUBMESOSCALE DYNAMICS IN THE GULF STREAM REGION

014 Physical Processes Along Reef-Protected Coastlines: Current Observations and Future Predictions

Chair(s): Ryan Lowe, Ryan.Lowe@uwa.edu.au
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Location: 313 C

14:00 **Becker, J. M.**; Merrifield, M. A.; Ford, M.; Yoon, H.: LONG WAVES IN THE MARSHALL ISLANDS: OBSERVATIONS AND THEORY

14:15 **Franklin, G. L.**; Mariño-Tapia, I.; Torres-Freyermuth, A.; Valle-Levinson, A.; Enriquez, C.: OBSERVATIONS OF SPECTRAL WAVE TRANSFORMATION ACROSS THE SURF ZONE OF CORAL REEFS

14:30 **Buckley, M. L.**; Lowe, R. J.; Pomeroy, A. W.; Van Dongeren, A. R.; Hansen, J. E.: FINE-SCALE OBSERVATIONS OF WAVE TRANSFORMATION AND WAVE SETUP ACROSS A MODEL FRINGING REEF WITH AND WITHOUT ROUGHNESS

14:45 **Rogers, J. S.**; Monismith, S. G.; Koweek, D.; Dunbar, R.: HYDRODYNAMICS OF A PACIFIC ATOLL

15:00 **Monismith, S. G.**: FLOW THROUGH A ROUGH, SHALLOW REEF

15:15 **Branyon, J. M.**; Valle-Levinson, A.: INTRATIDAL AND RESIDUAL CIRCULATION ASSOCIATED WITH TWO FRINGING REEF LAGOON INLETS

15:30 **Field, M. E.**; Storlazzi, C. D.; Cacchione, D. A.; Logan, J. B.; Rubin, D. M.: FINE-GRAINED SEDIMENT TRANSPORT ON A FRINGING CORAL REEF FLAT AS ELUCIDATED BY SEDIMENT TRACERS AND OCEANOGRAPHIC MEASUREMENTS

15:45 **Romine, B. M.**; Fletcher, C. H.; Frazer, L. N.; Anderson, T. R.: ANTECEDENT GEOMORPHOLOGY AND SHORELINE CHANGE, NORTHEAST OAHU, HAWAII

023 Mechanisms of Biogeochemical Variability In the Global Oceans

Chair(s): Galen A. McKinley, gamckinley@wisc.edu
Branwen Williams, bwilliams@kecksci.claremont.edu
Michele LaVigne, mlavign@bowdoin.edu
Susan Lozier, s.lozier@duke.edu
Nicole Lovenduski, nicole.lovenduski@colorado.edu

Location: 313 B

14:00 **Feely, R. A.**; Cosca, C. E.; Sutton, A.; Wanninkhof, R.; McPhaden, M.: DECADAL CHANGES OF THE AIR-SEA CO_2 FLUX IN THE EASTERN EQUATORIAL PACIFIC OCEAN

14:15 **Dave, A. C.**; Lozier, M. S.: THE IMPACT OF ADVECTION ON MARINE PRODUCTIVITY VARIABILITY IN THE EQUATORIAL PACIFIC

14:30 **Breeden, M. L.**; McKinley, G. A.; Polzin, D.: DRIVERS OF MULTIDECADAL VARIABILITY IN NORTH ATLANTIC PCO2 AND CO2 FLUXES

14:45 **Komatsu, K.**; Hiroe, Y.; Yasuda, I.: DECADAL VARIABILITY AND BIOGEOCHEMICAL IMPACTS OF NUTRIENT STREAM IN THE KUROSHIO JET REGION

15:00 **Turi, G.**; Lachkar, Z.; Münnich, M.; Gruber, N.; Loher, D.: RECENT TRENDS AND VARIABILITY IN THE CARBON CYCLE OF THE CALIFORNIA CURRENT SYSTEM: INSIGHTS FROM AN EDDY-RESOLVING MODELING STUDY

15:15 **Ayers, J. M.**; Strutton, P. G.; Hood, R. R.; Matear, R. J.; Coles, V. J.: THE INDONESIAN THROUGHFLOW AS A VARIABLE NUTRIENT SOURCE FOR THE INDIAN OCEAN

15:30 **Takano, Y.**; Ito, T.: IMPRINTS OF CLIMATE TRENDS ON THE OCEAN DEOXYGENATION

15:45 **Iudicone, D.**; Rodgers, K. B.; Plancherel, Y.; Aumont, O.; Sarmiento, J. L.: THE IMPORTANCE OF SHALLOW OVERTURNING FOR THE SEQUESTRATION OF ANTHROPOGENIC CARBON

024 ASLO Multicultural Program Student Symposium

Chair(s): Benjamin Cuker, benjamin.cuker@hamptonu.edu
Deidre Gibson, deidre.gibson@hamptonu.edu

Location: 304 AB

08:00 **Yap, J. J.**; Upchurch, S.; Fornal, A.; Tucker, C. R.; Leffler, J.: THE RELATIONSHIPS BETWEEN ABIOTIC ENVIRONMENTAL FACTORS AND VEGETATION IN THE BIG BAY CREEK SALT MARSHES OF THE ASHEPOO-COMBAHEE-EDISTO BASIN, SOUTH CAROLINA

08:15 Seitz, R. D.; **Jackson , N. I.**: A BEFORE-AFTER CONTROL-IMPACT SURVEY OF A LIVING SHORELINE IN LYNNHAVEN BAY, VIRGINIA

08:30 **Hernandez, C. M.**; Paris, C. B.; Kellner, J. B.; Llopiz, J. K.: THE INFLUENCE OF TAXON-SPECIFIC VERTICAL DISTRIBUTION OF CORAL REEF FISH LARVAE ON DISPERSAL AND CONNECTIVITY

08:45 **Jackson, R. L.**; Bandyopadhyay, P.; Safavi-Hemami, H.; Olivera, B.: HYPERVARIABILITY OF CONOTOXIN FOLDING ENZYMES

09:00 **Peart, S. M.**; Arellano, S. M.: ANALYSIS OF SHELLS AND SWIMMING BEHAVIOR OF OLYMPIA OYSTER (*OSTRE LURIDIA*) LARVAE EXPOSED TO OCEAN ACIDIFICATION

09:15 **Rivera, A.**; Ortiz, C.; Canals, M.: JET-SKI BASED BATHYMETRIC SURVEYING SYSTEM: IMPLEMENTATION OF COST-EFFECTIVE DGPS CAPABILITIES

09:30 **Giltz, S. M.**; Grey, E. K.; Taylor, C. M.: ZOOPLANKTON AND LARVAL CRAB DISTRIBUTION IN THE GULF OF MEXICO

09:45 **Cullen, D. W.**; Stevens, B. G.: EXAMINING THE RELATIONSHIP BETWEEN BLACK SEA BASS CATCH IN TRAPS AND SOAK TIME IN THE MID-ATLANTIC BIGHT, USA

025 Physical-Biological Interactions In Coral Reefs: A Tribute to Marlin Atkinson

Chair(s): Stephen Monismith, monismith@stanford.edu
Amatzia Genin, a.genin@mail.huji.ac.il

Location: 320 Theater

08:00 **Hench, J. L.**; Lindeman, M. R.; Viehman, T. S.; Leichter, J. J.; Washburn, L.: STATISTICAL ANALYSIS OF EXTREME PHYSICAL FORCING EVENTS AND DISTURBANCES ON AN ISLAND CORAL REEF SYSTEM

08:15 **Dunckley, J. F.**; Koseff, J. R.; Genin, A.; Monismith, S. G.; Woodson, C. B.: MIXING EFFICIENCY AND VERTICAL DIFFUSIVITY MEASURED DURING DYNAMIC STRATIFICATION CONDITIONS OVER A SLOPING CORAL REEF: EILAT, ISRAEL

08:30 **Wall, M.**; Putchim, L.; Schmidt, G. M.; Khokiattiwong, S.; Richter, C.: ANTAGONISTIC EFFECTS OF LARGE AMPLITUDE INTERNAL WAVES AND MONSOON ON CORAL BLEACHING AND RECOVERY IN THE ANDAMAN SEA

08:45 **Wyatt, A. S.**; Leichter, J. J.; Thibodeau, B.; Miyajima, T.; Carlson, C. A.: LINKING HYDRODYNAMICS AND ORGANIC MATTER FLUXES OFFERS ECOSYSTEM-SCALE UNDERSTANDING OF INPUTS AND RECYCLING OVER CORAL REEF COMMUNITIES

09:00 **Gruber, R. K.**; Lowe, R. J.; Falter, J. L.: LINKAGES BETWEEN PRODUCTIVITY, NUTRIENT UPTAKE, AND ALLOCHTHONOUS NUTRIENT INPUTS ON TROPICAL MACROTIDAL FRINGING REEFS

09:15 **Genin, A.**; Rickel, S.: FLOW AND ZOOPLANKTON CAPTURE BY CORAL-REEF FISH

09:30 **Hanson, K. M.**; Leichter, J. J.: PLANKTIVOROUS FISHES AS CONSUMERS IN PACIFIC CORAL REEF ECOSYSTEMS: A SEASCAPE PERSPECTIVE OF REEF-DERIVED AND OCEANIC RESOURCES IN REEF FOOD WEBS

09:45 **Brinkman, R. M.**: QUANTIFYING THE FOOTPRINT AND IMPACT OF RIVER INFLOWS INTO THE GBR, AND IMPLICATIONS FOR UNDERSTANDING COTS OUTBREAKS – AN APPLICATION OF EREEFS MODELS.

10:30 **Hochberg, E. J.**: LIGHT-USE EFFICIENCY FOR CORAL REEFS

10:45 **Jokiel, P. L.**: SYNTHESIS OF INFORMATION ON REEF CORAL METABOLISM: THE "TWO COMPARTMENT PROTON FLUX MODEL"

11:00 **Perez, D. I.**: MODELING LIGHT-USE EFFICIENCY OF CORAL REEF COMMUNITIES

11:15 **Bahr, K. D.**; Rodgers, K. S.; Jokiel, P. L.: RESPONSE OF HAWAIIAN REEF CORAL, *MONTIPORA CAPITATA*, TO MULTIPLE CLIMATE CHANGE STRESSORS

11:30 **Drenkard, E. J.**; Cohen, A. L.; McCorkle , D. C.; dePutron, S. J.; Starczk, V. R.: HOW CIRCULATION CHANGES IN THE TROPICAL PACIFIC COULD MODULATE THE CORAL CALCIFICATION RESPONSE TO OCEAN ACIDIFICATION

12:00 **Neal, B. P.**; Kline , D. I.; Khen , A.; Treibitz, T.; Mitchell, B. G.: LONG-TERM GROWTH, MORTALITY, AND SYMBIONT COMMUNITY RESPONSE OF CORALS IN BOCAS DEL TORO, PANANA TO THE RECORD THERMAL STRESS AND ASSOCIATED BLEACHING OF 2005

12:15 **Zhang, Z.**; Falter, J. L.; Lowe, R. J.; Ivey, G. N.; McCulloch, M.: ATMOSPHERIC FORCING INTENSIFIES THE EFFECTS OF REGIONAL OCEAN WARMING ON REEF-SCALE TEMPERATURE ANOMALIES DURING A CORAL BLEACHING EVENT

027 Nearshore Processes

Chair(s): Allison M. Penko, allison.penko@nrlssc.navy.mil
Ryan P. Mulligan, mulliganr@civil.queensu.ca

Location: 311

08:00 **Long, J. W.**; Plant, N. G.; Dalyander, P. S.; Thompson, D. M.: A METHOD FOR CONSTRUCTING WAVE TIME-SERIES AT INSHORE LOCATIONS USING MODEL SCENARIOS

08:15 **Janssen, T. T.**; Herbers, T. H.; Pearman, D. W.; van Ettinger, H. D.: NONLINEAR EFFECTS ON WAVE STATISTICS IN A FOCAL ZONE

08:30 **Contardo, S.**; Symonds, G.: INFRAGRAVITY RESPONSE TO VARIABLE WAVE FORCING IN THE NEARSHORE

08:45 Powell, B. S.; **Souza, J.**; Li, N.; Cheung, K. F.: EFFECTS OF COUPLED OCEAN CURRENTS AND WAVES ON THE COASTAL CIRCULATION AND PLUME DISPERSION NEAR WAIKIKI

09:00 **Crosby, S. C.**; O'Reilly, W. C.; Guza, R. T.: IMPROVING COASTAL WAVE ESTIMATES BY COMBINING BUOY OBSERVATIONS WITH GLOBAL WAVE MODELS.

09:15 **Orzech, M. D.**; Veeramony, J.; Flampouris, S.: SWANFAR: A 4DVAR DATA ASSIMILATION SYSTEM FOR SWAN

09:30 **Veeramony, J.**; Condon, A.: A COASTAL SURGE AND INUNDATION PREDICION SYSTEM - VALIDATION AND SENSITIVITY TO MODEL INPUTS

09:45 **Henderson, S. M.**; Arnold, J. L.; Ozkan-Haller, H. T.; Solovitz, S.; Aiken, R.: DEPTH-DEPENDENCE OF SURFZONE EDDIES

10:30 **Conley, D. C.**; Ruju, A.; Foster, D.; Puleo, J.; Austin, M.: BED STRESS ESTIMATES IN THE SWASH AT BARDEX2

10:45 **Wilson, G. W.**; Hay, A. E.; Bowen, A. J.: OBSERVED VERTICAL STRUCTURE OF MEAN FLOW AND WAVE-INDUCED SHEAR STRESS ON A STEEP BEACH

11:00 **Torres-Freyermuth, A.**; Pedrozo-Acuña, A.; Puleo, J. A.; Baldock, T. E.: ON THE ROLE OF UNCERTAINTY IN SWASH ZONE DYNAMICS

11:15 **Brown, J. A.**; MacMahan, J. H.; Reniers, A.; Shanks, A. L.; Morgan, S. G.: MASS TRANSPORT ON A STEEP BEACH

11:30 **Aiken, R. A.**; Özkan-Haller, T.; Henderson, S.; Solovitz, S.: PUSH, PULL, AND TURN: THE IMPACT OF THREE-DIMENSIONAL WAVE FORCING ON NEARSHORE CIRCULATION

11:45 **Carini, R. J.**; Chickadel, C. C.; Jessup, A. T.: ESTIMATING ENERGY DISSIPATION DUE TO WAVE BREAKING IN THE SURF ZONE USING INFRARED IMAGERY

12:00 **Kumar, N.**; Feddersen, F.; Omand, M.; Uchiyama, Y.; McWilliams, J.: MODEL-DATA COMPARISON OF SURFZONE AND INNER-SHELF CIRCULATION DURING HB06

12:15 **Wong, S. H.**; Monismith, S. G.; Boehm, A. B.: SIMPLE ESTIMATE OF ENTRAINMENT RATE OF POLLUTANTS FROM A COASTAL DISCHARGE INTO THE SURF ZONE

14:00 **Traykovski, P. A.**; Geyer, W. R.: OBSERVATIONS OF BEDFORMS, NEAR BED FLOW AND TURBULENCE, AND SEDIMENT TRANSPORT IN THE COLUMBIA RIVER MOUTH

14:15 **Pearman, D. W.**; Janssen, T. T.; Herbers, T. H.; van Ettinger, E.: OBSERVATIONS OF WAVE-CURRENT INTERACTION IN THE MOUTH OF THE COLUMBIA RIVER

14:30 **Gelfenbaum, G.**; Stevens, A.; Sherwood, C. R.; MacMahan, J.; Reniers, A.: IMPACTS OF LARGE-SCALE MORPHOLOGY AND BEDFORMS ON INLET DYNAMICS: MOUTH OF THE COLUMBIA RIVER

14:45 **Akan, C.**; Moghimi, S.; Osborne, J.; Özkan-Haller, T.; Kurapov, A.: ON THE DYNAMICS OF MOUTH OF THE COLUMBIA RIVER: RESULTS FROM A THREE-DIMENSIONAL FULLY COUPLED WAVE-CURRENT INTERACTION MODEL

15:00 **Feddersen, F.**; Olabarietta, M.; Raubenheimer, B.; Elgar, S.; Guza, R. T.: OBSERVATIONS AND MODELING OF DYE TRACER RELEASES AT NEW RIVER INLET, NC, USA

15:15 **Spydell, M. S.**; Feddersen, F.; Guza, R. T.; Chen, J.; Raubenheimer, B.: OBSERVED AND NEARCOM MODELED CURRENTS, MATERIAL TRANSPORT, AND DISPERSION AT THE NEW RIVER INLET, NC

15:30 **Pianca, C.**; Holman, R.; Siegle, E.: MOBILITY OF MESO-SCALE MORPHOLOGY ON A MICROTIDAL EBB DELTA USING VIDEO REMOTE SENSING

15:45 **reniers, a.**; Rynne, P.; Weltmer, M.; MacMahan, J.: 3D TIDAL FLOW MODELING OF NEW RIVER INLET

036 An Integrated View of Agulhas Science: Past, Present and Future

Chair(s): Graham Quartly, gqu@pml.ac.uk
Ian Hall , Hall@cardiff.ac.uk
Tomoki Tozuka, tozuka@eps.s.u-tokyo.ac.jp

Location: 313 B

08:00 **Biastoch, A.**; Rühs, S.; Durgadoo, J. V.; Böning, C. W.: FATE AND IMPACT OF ANTHROPOGENIC AGULHAS LEAKAGE INCREASE

08:15 **Ponsoni, L.**; Maas, L.; Ridderinkhof, H.: LONG TERM DIRECT OBSERVATIONS ON CURRENTS AND VOLUME TRANSPORT IN THE EAST MADAGASCAR CURRENT

08:30 **Weijer, W.**; Zharkov, V.; Nof, D.; Dijkstra, H. A.; de Ruijter, W. P.: AGULHAS RING FORMATION AS A BAROTROPIC INSTABILITY OF THE RETROFLECTION

FRIDAY

08:45 **Putrasahan, D. A.**; Beal, L. M.; Kirtman, B. P.: MODULATION OF THE INTERANNUAL VARIABILITY OF AGULHAS LEAKAGE BY ENSO

09:00 **Krug, M.**; Tournadre, J.; Dufois, F.: INFLUENCE OF NATAL PULSES ON THE EASTERN AGULHAS BANK

09:15 **Beal, L. M.**; Elipot, S. K.; Houk, A.; Leber, G. M.: THE AGULHAS CURRENT TIMES-SERIES EXPERIMENT

09:30 **Book, J. W.**; Ansorge, I.; Rice, A. E.: CROSSROADS OF THE AGULHAS

09:45 Simon, M. H.; Arthur, K. L.; Loveday, B. R.; **Hall, I. R.**: MILLENNIAL-SCALE AGULHAS CURRENT VARIABILITY AND ITS IMPLICATIONS FOR AGULHAS SALT-LEAKAGE

051 Shedding Light On the Dark Ocean: Biogeochemistry and Microbial Oceanography of the Pelagic Realm of the Deep Sea

Chair(s): Gerhard J. Herndl, gerhard.herndl@univie.ac.at
Ramunas Stepanauskas, rstepanauskas@bigelow.org

Location: 318 AB

14:00 **Pelve, E. A.**; Fontanez , K. M.; DeLong, E. M.: SINGLE CELL GENOMIC AND METAGENOMIC CHARACTERIZATION OF DOMINANT BACTERIAL GROUPS ON SINKING PARTICLES AT STATION ALOHA

14:15 **Wright, J. J.**; Woyke, T.; Liu, W. T.; Stepanauskas, R.; Hallam , S. J.: INSIGHTS INTO THE POPULATION STRUCTURE AND METABOLISM OF THE UNCULTIVATED BACTERIAL PHYLUM MARINE GROUP A

14:30 **Bergauer, K.**; Sprenger , R.; Swan, B. K.; Stepanauskas, R.; Herndl, G. J.: A METAPROTEOMIC ASSSESSMENT OF MICROBIAL COMMUNITIES IN THE ATLANTIC OCEAN

14:45 **LI, M.**; Baker, B. J.; Anantharaman, K.; Jain, S.; Dick, G.: UNTANGLING METABOLISMS OF WIDESPREAD UNCULTURED MARINE EURYARCHAEOTA IN THE DEEP OCEANS

15:00 **Swan, B. K.**; Mathyer, M. E.; Sintes, E.; Bergauer, K.; Garcia, J. A.: *NITROSPINA* MAY BE KEY PLAYERS IN DARK OCEAN'S NITROGEN AND CARBON CYCLES

15:15 **Takuro Nunoura, .**; Miho Hirai, .; Shigeru Shimamura, .; Yoshihiro Takaki, .; Ken Takai, .: THE DEEP COLD TRENCH BIOSPHERE: MICROBIAL ECOSYSTEM IN THE CHALLENGER DEEP

15:30 **UCHIMIYA, M.**; OGAWA, H.; WAKITA, M.; HONDA, M.; NAGATA, T.: TEMPORAL VARIABILITY IN HETEROTROPHIC PROKARYOTE PRODUCTION IN THE DARK OCEAN

15:45 **Bailey, B. L.**; Herndl, G. J.; Bochdansky, A. B.: THRESHOLD FEEDING OF MICROBIAL PREDATOR COMMUNITIES

052 Current Perspectives On Trophic Ecology: Utilization of Complementary Tracer Methods

Chair(s): Nicole B. Richoux, n.richoux@ru.ac.za
Tarik Meziane, meziane@mnhn.fr

Location: 319 AB

08:00 Mortillaro, J. M.; Hubas, C.; Passarelli, C.; Abril, G.; **Meziane, T.**: DEGRADATION KINETICS OF TWO AMAZON FLOODPLAINS MACROPHYTES (PASPALUM REPENS AND SALVINIA AURICULATA) FROM A MULTITRACER APPROACH

08:15 **Copeman, L. A.**; Parrish, C. C.; Laurel, B. J.: SOURCES OF ORGANIC CARBON FOR NEARSHORE JUVENILE FISH: LINKING MARINE AND TERRESTRIAL SYSTEMS.

08:30 **Pethybridge, H. R.**; Parrish, C. C.; Young, J. W.; Nichols, P. D.: REGIONAL TROPHIC DIFFERENCES IN ALBACORE TUNA FROM THE SOUTHWESTERN PACIFIC OCEAN – A POTENTIAL 'TROPICALIZATION' SIGNAL INFERRED BY SIGNATURE FATTY ACIDS

08:45 **Turner Tomaszewicz, C. N.**; Seminoff, J. A.; Avens, L.; Peckham, S. H.; Kurle, C. M.: TRACKING HABITAT USE AND LIFE HISTORY PATTERNS OF LOGGERHEAD TURTLES ACROSS THE NORTH PACIFIC USING SKELETOCHRONOLOGY AND STABLE ISOTOPES

09:00 **Tremblay, R.**; Perez, V.; Thébault, L.; Chauvaud, L.; Olivier, F.: TROPHIC RESOURCES OF A BURROWING BIVALVE VENUS VERRUCOSA

09:15 **Hubas, C.**; Passarelli, C.; Meziane, T.; Jeanthon, C.; Jesus, B.: CHEMICAL FINGERPRINTING AS A TOOL TO STUDY MICROBIAL LANDSCAPES IN COASTAL ECOSYSTEMS

09:30 **OLIVIER, F.**; GAILLARD, B.; de Cesare, S.; Richard, J.; Tremblay, R.: COUPLING MULTI-TROPHIC MARKERS AND SCLERO-CHRONOLOGY/-CHEMISTRY METHODS ON ARCTIC BIVALVES TO ASSESS CLIMATE CHANGES' EFFECTS ON THE PELAGIC-BENTHIC COUPLING

09:45 **Richoux, N. B.**: ASPECTS OF BENTHIC-PELAGIC COUPLING BY ROCKY SHORE SUSPENSION-FEEDERS EXPLORED USING FATTY ACID AND STABLE ISOTOPE TRACERS

056 Insights Into Marine Ecosystem Dynamics From Acoustic Techniques

Chair(s): Gareth Lawson, glawson@whoi.edu
Kelly Benoit-Bird, kbenoit@coas.oregonstate.edu
Andone Lavery, alavery@whoi.edu

Location: 316 B

08:00 **Horne, J. K.**: CHARACTERIZING ACOUSTIC DATA FOR RESOURCE MANAGEMENT AND ECOLOGICAL APPLICATIONS

08:15 **Greene, C. H.**; Hufnagle, L.; Chu, D.; Jung, J. B.; Dorn, H.: REAL-TIME, CONTINENTAL-SCALE ACOUSTIC MONITORING OF COMMERCIAL FISH STOCKS IN THE US EXCLUSIVE ECONOMIC ZONE (EEZ)

08:30 **Taylor, J. C.**; Costa, B.; Kracker, L.; Battista, T.; Pittman, S.: MAPPING REEF FISH AND THE SEASCAPE: USING ACOUSTICS TO IDENTIFY BIOMASS HOTSPOTS TO GUIDE ECOSYSTEM MANAGEMENT

08:45 **BEGUER-PON, M.**; SHAN, S.; OHASHI, K.: TRACKING REAL AND VIRTUAL EELS TO UNRAVEL THE MYSTERY OF THEIR OCEANIC MIGRATION

09:00 **Širovic, A.**; Friedman, S.; Johnson, S. C.; Hildebrand, J. A.: CHANGES IN FISH SOUND PRODUCTION IN THE GULF OF MEXICO FOLLOWING THE DEEPWATER HORIZON OIL SPILL

09:15 **Haxel, J. H.**; Dziak, R. P.; Lau, T. K.; Mellinger, D. K.: PATTERNS OF FIN WHALE VOCALIZATION AND AMBIENT SOUND LEVELS IN THE NORTH PACIFIC

09:30 **Copeland, A. M.**; Au, W.; Giorli, G.; Polovina, J. J.: INVESTIGATING THE RELATIONSHIP BETWEEN FORAGING ODONTOCETES AND OCEAN ACOUSTIC BIOMASS OFF THE KONA COAST OF THE ISLAND OF HAWAII

09:45 **Baumgartner, M. F.**; Fratantoni, D. M.: STUDYING LATE FALL OCCURRENCE OF BALEEN WHALES IN THE CENTRAL GULF OF MAINE USING AUTONOMOUS VEHICLES AND REAL-TIME PASSIVE ACOUSTIC DETECTIONS

10:30 **Rose, G. A.**; Fennell, S.: ACOUSTIC DEEP SCATTERING LAYER STRUCTURE SPANS THE NORTH ATLANTIC: "STOVEPIPE" EDDIES, FRONTS AND BIO-TRANSPORT DYNAMICS

10:45 **Fielding, S.**; Schmidt, K.; Schlosser, C.; Tarling, G.; Achterberg, E.: ANTARCTIC KRILL MINE SOUTH GEORGIA SHELF SEABED UNDER COVER OF DARKNESS

11:00 **Ressler, P. H.**; Simonsen, K. A.; De Robertis, A.; Kotwicki, S.; Willtowle, K. R.: EUPHAUSIIDS IN THE BERING SEA AND GULF OF ALASKA: INVESTIGATING DISTRIBUTION, BIOMASS, AND TROPHIC INTERACTIONS USING MULTIFREQUENCY ACOUSTICS

11:15 **SAWADA, K.**; MUKAI, T.; ABE, K.; Matsuura, T.; Kurokawa, T.: ZOOPLANKTON MONITORING IN YAMADA BAY USING A MOORED MULTI-FREQUENCY ACOUSTIC PROFILER

11:30 **Boswell, K. M.**; Kimball, M. E.; Rieucau, G.: EVALUATING FINE-SCALE NEKTON DYNAMICS IN SHALLOW-ESTUARINE ECOSYSTEMS USING MULTI-BEAM ACOUSTICS

11:45 **Røstad, A.**; Kaartvedt, S.: SEDIMENTARY FLUX OF FECAL PELLETS RECORDED WITH AN ECHOSOUNDER

12:00 **Frankel, A. S.**; Goodwin, B.; Kirk, K.; Walsh, M.; Hawthorne, D.: USE OF WAVE GLIDERS IN ACOUSTIC TRACKING OF HUMPBACK WHALES

12:15 **Kaartvedt, S.**; Røstad, A.; Klevjer, T. A.: DIEL VERTICAL MIGRATION AND INDIVIDUAL BEHAVIOR BEYOND THE MESOPELAGIC ZONE

057 Small Bugs with A Big Impact: Linking Plankton Ecology with Ecosystem Processes

Chair(s): Susanne Menden-Deuer, smenden@gso.uri.edu
Thomas Kiorboe, tk@aqua.dtu.dk

Location: 323 ABC

08:00 **Ye, L.**; Chang, C. Y.; Carmen, C. C.; Gong, G. C.; Hsieh, C. H.: INCREASING ZOOPLANKTON SIZE DIVERSITY ENHANCES THE STRENGTH OF TOP-DOWN CONTROL ON PHYTOPLANKTON THROUGH DIET NICHE PARTITIONIN

08:15 **García, F. C.**; López-Urrutia, A.; García-Martín, E. E.; Serret, P.; Zubkov, M. V.: SUPERLINEAR SCALING OF MICROBIAL METABOLIC RATES WITH CELL SIZE IN THE ATLANTIC OCEAN

08:30 **Laas, P.**; Šatova, E.; Lips, I.; Kisand, V.; Metsis, M.: THE DYNAMICS OF 'SMALLEST BUGS' IN THE GULF OF FINLAND (BALTIC SEA)

08:45 **Delmont, T.**; Ducklow, H.; Yager, P.; Post, A.: BACTERIAL COMMUNITY STRUCUTURES IN THE AMUNDSEN SEA POLYNYA ARE SHAPED BY PHAEOCYSTIS ANTARCTICA BLOOMS

09:00 **Inomura, K.**; Follows, M. J.: MODELING THE PHYSIOLOGICAL COST OF NITROGEN FIXATION: WHY DO DIAZOTROPHS GROW SLOWLY?

09:15 **Woodson, C. B.**; Litvin, S. Y.: WHAT CAN FLUID DYNAMICS TEACH ECOSYSTEM MODELS? REPRESENTING FINE-SCALE TROPHIC INTERACTIONS IN THE MARINE ENVIRONMENT USING REYNOLDS DECOMPOSITION

09:30 **Kenitz, K. M.**; Sharples, J.; Williams, R. W.: EXAMINING THE PARADOX OF THE PLANKTON: THE EFFECT OF NUTRIENT SUPPLY ON PHYTOPLANKTON COMMUNITY AND SPECIES DIVERSITY.

09:45 **Martiny, A. C.**; Lomas, M. W.: IMPACT OF PHYTOPLANKTON DIVERSITY ON OCEAN PHOSPHATE UPTAKE RATES

10:30 **Foster, R. A.**; White, A.; Stocker, R.: A CONCEPTUAL APPROACH TO CHARACTERIZE THE PHYCOSPHERE OF SINKING N2 FIXING DIATOM SYMBIOSES

10:45 **Inman, B. G.**; Franks, P. J.: PHYTOPLANKTON WETSUITS? MODELLING THE EFFECTS OF VISCOUS EXUDATES ON MICROSCALE DIFFUSIVE NUTRIENT FLUXES TO PHYTOPLANKTON CELLS.

11:00 **Villareal, T. A.**; Pilskaln, C. H.; Montoya, J. P.; Dennett, M.: UPWARD TRANSPORT OF NITRATE BY PHYTOPLANKTON: CLOSING NUTRIENT BUDGETS IN THE N. PACIFIC OCEAN

11:15 **Taylor, A. G.**; Landry, M. R.: PATTERNS AND VARIABILITY IN PHYTOPLANKTON COMMUNITY SIZE STRUCTURE AND COMPOSITION WITH TROPHIC STATE ACROSS FOUR PACIFIC OCEAN ECOSYSTEMS

11:30 **Smith, H. E.**; Balch, W. M.; Bates, N. R.; Rosengard, S.; Poulton, A. J.: CONTROLS ON COCCOLITHOPHORE AND DIATOM DISTRIBUTION IN THE GREAT CALCITE BELT

11:45 **Durkin, C. A.**; Chan, K. Y.; Alexander, H.; Dyhrman, S. T.; Buesseler, K. O.: INFLUENCE OF INDIVIDUAL PHYTOPLANKTON CELLS AND THEIR PHYSIOLOGY ON PARTICLE EXPORT IN THE SOUTH ATLANTIC OCEAN

12:00 **Maier, M. A.**; Needoba, J. A.; Peterson, T. D.: ROLE OF PHYTOPLANKTON PARASITES IN FOOD WEBS OF THE COLUMBIA RIVER COASTAL MARGIN

12:15 **Suchy, K. D.**; Dower, J. F.; Sastri, A. R.; Varela, D. E.: INFLUENCE OF COPEPOD COMMUNITY STRUCTURE ON THE EFFICIENCY OF ENERGY TRANSFER WITHIN MARINE FOOD WEBS

14:00 **Tiselius, P.**; Belgrano, A.; Andersson, L.; Lindahl, O.: CONTROLLING FACTORS FOR THE PRIMARY PRODUCTION IN A COASTAL ECOSYSTEM-RESULTS FROM A 28-YEAR TIME SERIES IN THE GULLMAR FJORD, WEST COAST OF SWEDEN.

14:15 **Kimmerer, W. J.**; Craig, C.; Vogt, R. A.; Ignoffo, T. R.; Cohen, C. S.: FEEDING CAPABILTIES OF COPEPOD NAUPLII RESEMBLE THOSE OF ADULTS IN PARTICLE-FEEDING SPECIES BUT NOT PREDATORY SPECIES

14:30 **Saiz, E.**; Griffell, K.; Calbet, A.; Isari, S.: FEEDING BEHAVIOUR OF THE NAUPLIUS AND ADULT FEMALE OF THE AMBUSH COPEPOD OITHONA DAVISAE

14:45 **Jungbluth, M. J.**; Lenz, P. H.; Goetze, E.: NAUPLIAR RESPONSES TO ECOSYSTEM PERTURBATIONS IN A SUBTROPICAL EMBAYMENT

15:00 **Möller, K. O.**; Möllmann, C.; St.John, M. A.; Temming, A.; Diekmann, R.: SCALING DOWN FROM POPULATIONS TO INDIVIDUALS – OBSERVATION OF INDIVIDUAL COPEPOD BEHAVIOR IN RESPONSE TO PREDATION RISK

15:15 **Trudnowska, E.**; Gluchowska, M.; Blachowiak-Samolyk, K.; Goszczko, I.; Kwasniewski, S.: SPATIAL PLANKTON HETEROGENEITY ACROSS THE ARCTIC SHELF FRONTAL SYSTEM AND ITS ECOLOGICAL SIGNIFICANCE

15:30 **Greer, A. T.**; Cowen, R. K.; Guigand, C. M.; Hare, J. A.: FINE-SCALE PLANKTONIC HABITAT PARTITIONING AT A SHELF-SLOPE FRONT REVEALED BY A HIGH RESOLUTION IMAGING SYSTEM

15:45 **Penta, B.**; Weidemann, A.; Wesson, J.; Gray, D.; Churnside, J.: CHARACTERIZATION OF SUBSURFACE LAYERS AND THEIR PLANKTONIC COMMUNITY COMPOSITION IN A COASTAL MARINE ECOSYSTEM VIA A MUTLI-SCALE, MULTI-SENSOR APPROACH

068 Understanding Biogeochemical and Ecosystem Responses to Natural and Human-Induced Interactions, Drivers and Pressures In Coastal Regions

Chair(s): Marjorie Friedrichs, marjy@vims.edu
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John Marra, jfm7780@brooklyn.cuny.edu
Makoto Taniguchi, makoto@chikyu.ac.jp
Hanqin Tian, tianhan@auburn.edu

Location: 304 AB

10:30 **Angel, D. L.**; Black, K. D.; Freeman, S. F.; Hughes, A.: INTEGRATED MULTI TROPHIC AQUACULTURE AS A MEANS TO ENHANCE THE SUSTAINABILITY OF MARINE AQUACULTURE

10:45 **van Broekhoven, W.**; Troost, K.; Jansen, H. M.; Smaal, A. C.: NUTRIENT FEEDBACKS BY MUSSEL *MYTILUS EDULIS* SPAT COLLECTORS IN A PRODUCTIVE MACROTIDAL SYSTEM

11:00 **Glibert, P. M.**; Allen, J. I.; Artioli, Y.; Bouwman, L.; Beusen, A.: ANTHROPOGENIC NUTRIENT LOADING AND AQUATIC ECOSYSTEMS: STOICHIOMETRIC CHANGES AND CLIMATE CHANGE ACCELERATE EUTROPHICATION EFFECTS

11:15 **Ni Longphuirt, S.**; O' Boyle, S.; Stengel, D. B.: RESPONSE OF AN IRISH ESTUARY TO CHANGING LAND MANAGEMENT PRACTICES

11:30 **Devol, A. H.**; Newton, J.; Ruef, W. M.: EFFECTS OF N-LOADING IN HOOD CANAL, PUGET SOUND, WA

11:45 **Wilkerson, F.**; Glibert, P.; Parker, A. E.; Dugdale, R.; Blaser, S.: IMPAIRED PHYTOPLANKTON RESPONSES TO CHANGING ANTHROPOGENIC NITROGEN LOADING: THE ROLE OF REDUCED FORMS OF NITROGEN

12:00 **Lanoux, A.**; Abril, G.; Etcheber, H.; Schmidt, S.; Sottolichio, A.: IMPACTS OF CARBON AND NITROGEN FLUXES FROM URBAN WASTEWATER AND RUNOFF ON DISSOLVED OXYGEN IN A MACROTIDAL ESTUARY (GIRONDE, FRANCE)

12:15 **Thomas, F. I.**; Aikau, H.; Dulaiova, H.: UNDERSTNDING THE IMPACT OF RESTORATION OF TRADITIONAL LAND USE ON A HAWAIIAN AHUPUA' A

14:00 **Tian, H.**; Tao, B.; Yang, Q.; Lohrenz, S.; Friedrichs, M.: PROJECTING THE 21ST CENTURY FLUXES OF WATER, CARBON AND NITROGEN FROM LAND TO GULF OF MEXICO AND US EASTERN COAST UNDER CLIMATE AND LAND USE SCENARIOS

14:15 **Loisel, H.**; Vantrepotte, V.; Dinh, D. N.; Anthony, E.; Mangin, A.: ANALYSIS OF THE SUSPENDED PARTICULATE MATTER CONCENTRATION VARIABILITY OF THE COASTAL WATERS UNDER THE MEKONG'S INFLUENCE FROM REMOTE SENSING

14:30 **Abrams, J. F.**; Merico, A.; Hohn, S.: THE IMPACTS OF HUMAN INDUCED DEGRADATION OF INDONESIAN PEATLANDS

14:45 **Tzortziou, M.**; Neale, P. J.; Megonigal, J. P.; Loughner, C. P.: PRESSURES AND BIOGEOCHEMICAL EXCHANGES IN HIGHLY VULNERABLE TIDAL WETLAND ECOSYSTEMS AT THE LAND-OCEAN INTERFACE

FRIDAY

15:00 **Whitney, M. M.**; Vlahos, P.; Elmoznino, J.: AN OBSERVATIONAL AND MODELING STUDY ON PERFLUORINATED COMPOUNDS IN THE HOUSATONIC ESTUARY AND LONG ISLAND SOUND

15:15 **Müller-Karulis, B.**; Gustafsson, B. G.; Savchuk, O. P.: REGIME SHIFTS IN BALTIC SEA BIOGEOCHEMICAL CYCLES DRIVEN BY NUTRIENT LOADS AND CLIMATE CHANGE

15:30 **van Beusekom, J.**; Hofmeister, R.; Geimecke, C.; Dammrich, T.; Staneva, J.: IMPORT OF ORGANIC MATTER BY DENSITY-DRIVEN CIRCULATION EXPLAINS REGIONAL DIFFERENCES IN TIDAL BASIN EUTROPHICATION

15:45 **Huang, W.**; Cai, W.; Wang, Y.; Lohrenz, S. E.: THE CARBON DIOXIDE (CO_2) SYSTEM IN THE MISSISSIPPI RIVER DOMINATED CONTINENTAL SHELF, NORTHERN GULF OF MEXICO — I: DISTRIBUTION AND AIR-SEA FLUX

071 Frontiers of Oceanographic Data and Methods

Chair(s): Jonathan M. Lilly, lilly@nwra.com
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Eleanor Frajka-Williams, e.frajka-williams@noc.soton.ac.uk
Kurt Polzin, kpolzin@whoi.edu

Location: 316 C

08:00 **Palmer, M. R.**; Inall, M. E.; Stephenson, G.; Hopkins, J.; Balfour, C.: USING SHEAR MICROSTRUCTURE MEASUREMENTS FROM AN OCEAN GLIDER TO INVESTIGATE TURBULENT INTERNAL WAVES PROPAGATING ONTO THE CONTINENTAL SHELF

08:15 **Daniel/Ellis, D. P.**; Libe/Washburn, .; Carter Ohlmann, .; Mark Moline, .; Oscar Schofield, .: EVALUATING THE PERFORMANCE OF UNDERWATER GLIDERS AS VIRTUAL MOORINGS OFF PT. SAL, CALIFORNIA

08:30 **Fried, S. E.**; Schmidt, H.: TRACKING CHANGES IN THE ENVIRONMENT IN REAL TIME FROM AMBIENT NOISE RECORDED BY AN AUTONOMOUS UNDERWATER VEHICLE

08:45 **Pelland, N. A.**; Eriksen, C. C.; Cronin, M. F.; Emerson, S. R.: SEAGLIDERS AT OCEAN STATION PAPA, 2008-10: OBSERVATIONS OF MESOSCALE CIRCULATION AND BIOGEOCHEMICAL PROCESSES IN THE SOUTHERN GULF OF ALASKA

09:00 **Phillips, H. E.**; Naveira Garabato, A. C.; Polzin, K. L.; Bindoff, N. L.: SUPPRESSION OF EDDY STIRRING IN THE ANTARCTIC CIRCUMPOLAR CURRENT

09:15 **Leclair, M.**; Peacock, T.: APPLICATION OF LAGRANGIAN COHERENT STRUCTURES TO OCEAN DATA SETS

09:30 **Sykulski, A. M.**; Lilly, J. M.; Olhede, S. C.; Danioux, E.; Early, J. J.: STOCHASTIC MODELS FOR LAGRANGIAN DATA

09:45 **Chinn, B. S.**; Alford, M. H.; Girton, J. B.: OBSERVED VARIATIONS IN THE SHEAR-TO-STRAIN RATIO OF INTERNAL WAVES AND INFERRED TURBULENT DIFFUSIVITY

10:30 **GREMES-CORDERO, S.**; Barron, C.; Spence, P.; Dastugue, J.: ON THE USE OF NEW SATELLITE DATA STREAMS TO IMPROVE PERFORMANCE OF NUMERICAL MODELS OF GLOBAL CIRCULATION

10:45 **Keating, S. R.**; Smith, K. S.: UPPER OCEAN FLOW FROM SUPERRESOLVED SEA-SURFACE TEMPERATURE IMAGES

11:00 **Seung-Sep Kim, .**; Paul Wessl, .: NEW OPPORTUNITY FOR SEAMOUNT DETECTION FROM GLOBAL MARINE GRAVITY DATA

11:15 **Song, H. B.**; Guan, Y. X.; Bai, Y.; Liu, B. R.; Chen, J. X.: STUDIES OF SEAFLOOR PROCESSES BY SEISMIC OCEANOGRAPHY METHODS

11:30 **Zabotin, N.**; Godin, O. A.; Zabotina, L.; Brown, M. G.; Williams, N.: ACOUSTIC NOISE INTERFEROMETRY IN SHALLOW WATER

11:45 **Andersen, O. B.**; Stenseng, L.; Jain, M.; Cheng, Y.; Knudsen, P.: ARCTIC SEA LEVEL, OCEAN CIRCULATION AND FRESHWATER CHANGES FROM GOCE AND GRACE GRADIOMETRY AND ENVISAT/CRYOSAT-2 ALTIMETRY.

12:00 **Evans, D. G.**; Zika, J. D.; Naveira Garabato, A. C.; Nurser, A. G.: SEASONAL WATER MASS CHANGES AND PROCESS ATTRIBUTION IN THE SOUTHERN OCEAN AND DRAKE PASSAGE IN THERMOHALINE COORDINATES

12:15 **Hackett, E. E.**; Merrill, C. F.: PROPER ORTHOGONAL DECOMPOSITION OF OCEAN SURFACE WAVES

14:00 **MacCready, P.**: ENERGY BUDGETS FOR REGIONAL NUMERICAL SIMULATIONS

14:15 **Ivanov, L. M.**; Tokmakian, R. T.: NONLINEAR MODEL SENSITIVITY IN SMALL SIZE ENSEMBLES

14:30 **Bingham, R. J.**; Haines, K.; Lea, D.: HOW WELL CAN WE MEASURE THE OCEAN'S MEAN DYNAMIC TOPOGRAPHY AND ASSOCIATED GEOSTROPHIC SURFACE CURRENTS FROM SPACE?

14:45 **Lee, Z.**; Shang, S.; Du, K.; Wei, J.; Arnone, R.: USABLE SOLAR RADIATION AND ITS ATTENUATION IN THE UPPER WATER COLUMN

15:00 **VERPOORTER, C. V.**; LOISEL, H.; VANTREPOTTE, V.; DESSAILLY, D.: IMPACT OF THE TEMPORAL BINNING ON THE DERIVED BIO-OPTICAL PRODUCTS FROM OCEAN COLOR OBSERVATIONS. APPLICATION TO THE 14 YEARS OF SEAWIFS DATA

15:15 **Sauzède, R.**; Claustre, H.; Jamet, C.; Lavigne, H.; Uitz, J.: CALIBRATION OF IN SITU FLUORESCENCE PROFILES USING A NEURAL NETWORK: A FIRST STEP IN THE DEVELOPMENT OF A 3D GLOBAL CLIMATOLOGY OF PHYTOPLANKTON COMMUNITIES

15:30 **Chavez, F. P.**; Bellingham, J. G.; Ryan, J.; Scholin, C. S.: TRACING PHYTOPLANKTON DYNAMICS WITH AUTONOMOUS SYSTEMS

080 Biogeochemistry of Trace Elements and Their Isotopes

Chair(s): Rob Middag, rob.middag@otago.ac.nz
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Jingfeng Wu, jwu@rsmas.miami.edu

Location: 313 A

08:00 **Frants, M.**; Holzer, M.; Primeau, F. W.; De Vries, T.: DATA-CONSTRAINED ESTIMATES OF THE OCEAN IRON CYCLE

08:15 **Sherrell, R. M.**; Lagerström, M.; Stammerjohn, S.; Yager, P. L.; Schofield, O.: WORKINGS OF AN INTENSE NATURAL IRON FERTILIZATION REGION DURING CLIMATE WARMING: BIOACTIVE METAL DYNAMICS IN AMUNDSEN SEA POLYNYA, WEST ANTARCTICA

08:30 **Wyatt, N. J.**; Milne, A.; Browning, T. J.; Schlosser, C.; Lohan, M. C.: TRACE METAL – NUTRIENT STOICHIOMETRIES IN THE SOUTHEAST ATLANTIC: THE NUTRITIONAL ROLE OF ZN, CO AND CD

08:45 **Twining, B. S.**; Rauschenberg, S.; Sedwick, P. N.; Fitzsimmons, J. N.; Buck, K. N.: IRON QUOTAS OF NORTH ATLANTIC PHYTOPLANKTON REFLECT BIOGEOCHEMICAL ENVIRONMENT

09:00 **Nuester, J.**; Rauschenberg, S.; Chapman, A.; Fields, D. M.; Twining, B. S.: ZOOPLANKTON GRAZING PRODUCES HIGHLY BIOAVAILABLE IRON

09:15 **Dulaquais, G. R.**; Boyé, M.; Middag, R.; Planquette, H.; Puigcorbé, V.: COMPARATIVE ATMOSPHERIC CONTRIBUTIONS TO DISSOLVED COBALT IN THE MIXED LAYER: CASE OF THE WESTERN NORTH ATLANTIC AND MEDITERRANEAN SEA (SECTIONS GA02 & GA04N)

09:30 **Hammerschmidt, C. R.**; Swarr, G. J.; Bowman, K. L.; Lamborg, C. H.; Shelley, R. U.: U.S. GEOTRACES: AIR-SEA EXCHANGE OF MERCURY ALONG ZONAL TRANSECTS OF THE NORTH ATLANTIC AND EASTERN TROPICAL SOUTH PACIFIC OCEANS

09:45 **Shelley, R. U.**; Morton, P. L.; Landing, W. M.: ELEMENTAL COMPOSITION OF NORTH ATLANTIC AEROSOLS (US GEOTRACES)

10:30 **Xie, R. C.**; Galer, S.; Abouchami, W.; Rijkenberg, M.; De Jong, J.: CADMIUM ISOTOPE DISTRIBUTION ALONG THE WESTERN BOUNDARY OF THE SOUTH ATLANTIC

10:45 **Abadie, C.**; Lacan, F.; Radic, A.; Poitrasson, F.: IRON CONCENTRATIONS AND ISOTOPIC COMPOSITIONS IN THE SOUTHERN OCEAN ALONG THE ZERO MERIDIAN

11:00 **Rouxel, O. J.**; Chever, F.; Bennett, S.; Toner, B. M.; German, C. R.: THE ISOTOPIC SIGNATURE OF HYDROTHERMAL IRON SOURCES TO THE OCEAN

11:15 Paul, M.; **van de Flierdt, T.**; Rehkamper, M.; Weiss, D.; Henderson, G. M.: LEAD ISOTOPE AND CONCENTRATION PROFILES FROM THE UK GEOTRACES SOUTH ATLANTIC TRANSECT ALONG 40°S

11:30 Moritz Zieringer, .; **Martin Frank, .**; Ed Hathorne, .: THE DISTRIBUTION OF NEODYMIUM ISOTOPES AND REES IN TROPICAL ATLANTIC SEAWATER: CONTINENTAL INPUTS VS. WATER MASS MIXING

11:45 **Stichel, T.**; Pahnke, K.; Hartman, A. E.; Goldstein, S. L.; Scher, H.: THE GEOCHEMISTRY OF SEAWATER NEODYMIUM ISOTOPES IN THE TAG HYDROTHERMAL PLUME AT THE MID ATLANTIC RIDGE

12:00 **Little, S. H.**; Vance, D.; Lyons, T. W.; McManus, J.; Rijkenberg, M. J.: THE SIGNIFICANCE OF ANOXIC SETTINGS TO THE OCEANIC CYCLING OF CU AND ZN ISOTOPES

12:15 **Moos, S. B.**; Boyle, E. A.: BASIN DISTRIBUTIONS OF TRACE METAL CONCENTRATIONS (BA, CD, CU, NI, PB, ZN) AND PB ISOTOPIC SIGNATURES IN THE 1980'S MEDITERRANEAN SEA

14:00 **Poehle, S.**; Schmidt, K.; Koschinsky, A.: DISTRIBUTION OF ZR, NB, V, MO AND W IN THE WATER COLUMN OF THE ATLANTIC

14:15 **Jacquot, J. E.**; Moffett, J. W.: COPPER DISTRIBUTION AND SPECIATION ACROSS THE U.S. NORTH ATLANTIC GEOTRACES SECTION

14:30 **Zhang, R.**; Zhu, X.; Zhang, J.: IRON TRANSPORT AND LOSS FROM GLACIERS TO KONGSFJORDEN, SVALBARD

14:45 **Grand, M. M.**; Measures, C. I.; Hatta, M.; Morton, P. L.; Landing, W. M.: BIOGEOCHEMISTRY OF DISSOLVED FE AND AL IN THE EASTERN INDIAN OCEAN: INSIGHTS FROM THE ANTARCTIC MARGIN TO THE BAY OF BENGAL ALONG <NOBR>95 °E</NOBR>

15:00 **Angela Milne, .**; Maeve Lohan, .; Christian Schlosser, .; Jessica Klar, .; Eric Achterberg, .: IDENTIFYING THE SOURCES OF IRON TO THE SUBTROPICAL NORTH ATLANTIC: PRESENTING PARTICULATE AND DISSOLVED DATA FROM THE UK GEOTRACES A06 CRUISE

15:15 **van der Merwe, P.**; Bowie, A. R.; Queroue, F.; Trull, T.: LATERAL TRANSPORT OF PARTICLE-LADEN SHALLOW COASTAL WATERS IS FUNDAMENTAL TO IRON FERTILISATION AROUND THE KERGUELEN PLATEAU WITHIN THE SOUTHERN OCEAN

15:30 **Wu, J.**; Roshan, S.; Hatta, M.; Measures, C.; Buck, K.: DISSOLVED FE ENRICHMENT IN THE OXYGEN MINIMUM ZONE OF THE EASTERN TROPICAL NORTH ATLANTIC OCEAN

15:45 **Middag, R.**; Bruland, K. W.; de Baar, H. J.; van Heuven, S. M.: THE RELATIONSHIPS OF CADMIUM, NICKEL AND ZINC WITH MAJOR NUTRIENTS IN THE WEST ATLANTIC OCEAN

086 Tsunami Research: Recent Advances In Instrumentation and Modeling

Chair(s): Eddie Bernard, eddie.bernard@comcast.net
Vasily Titov, vasily.titov@noaa.gov

Location: 313 B

10:30 **Song, Y. T.**: GPS APPROACH DETECTING TSUNAMI ENERGY SCALES IN REAL-TIME FOR EARLY WARNINGS

10:45 **BAI, Y.**; YAMAZAKI, Y.; CHEUNG, K. F.: SURGES AROUND THE HAWAIIAN ISLANDS FROM THE 2011 TOHOKU TSUNAMI

11:00 **Koshimura, S.**; Hayashi, S.: IMPORTANCE OF TSUNAMI FLOW VELOCITY INFORMATION AND ITS VERIFICATION IN NUMERICAL MODELING

11:15 **Fryer, G. J.**; Wang, D.; Becker, N. C.: POTENTIAL LOCAL TSUNAMIS FROM EARTHQUAKES IN HAWAI'I

11:30 **Kameda, C.**; Takahashi, T.: NUMERICAL MODELING ON TSUNAMI INUNDATION WITH DETAILED URBAN MODEL AND ITS VISUALIZATION BY USING AR TECHNOLOGY

11:45 **SETO, S.**; TAKAHASHI, T.; HAYASHI, Y.: UPGRADING TSUNAMI WARNING BY USING THE GPS-MOUNTED BUOYS IN THE NANKAI TROUGH

12:00 **Ohya, Y.**; Nakamura, K.: A NEW DETERMINATION METHOD OF MANNING ROUGHNESS USING TSUNAMI OBSERVED DATA FOR REAL-TIME INUNDATION SIMULATION

12:15 **Mas, E.**; Adriano, B.; Koshimura, S.: COASTAL COMMUNITY RESILIENCE THROUGH MULTILAYER PROTECTION AND EVACUATION BEHAVIOR

090 Data Assimilation and Uncertainty Quantification In Ocean Modeling

Chair(s): Ibrahim Hoteit , ibrahim.hoteit@kaust.edu.sa
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Mohmed Iskandarani, miskandarani@rsmas.miami.edu
Peter Oke, peter.oke@csiro.au
Bruce Cornuelle, bdc@ucsd.edu

Location: 317 AB

14:00 Kalmikov, A.; **Heimbach, P.**: DERIVATIVE-BASED UNCERTAINTY QUANTIFICATION IN OCEAN STATE ESTIMATION: THE CASE OF DRAKE PASSAGE TRANSPORT

14:15 **Karspeck, A. R.**: ON THE PRACTICAL INTER-RELATIONSHIP BETWEEN COVARIANCE INFLATION AND REPRESENTATIVENESS ERROR: INSIGHTS FROM THE NCAR ENSEMBLE OCEAN ASSIMILATION SYSTEM

14:30 **Fang, F.**; Pain, C. C.; Che, Z.; Pavlidis, D.; Buchan, A. G.: OPTIMAL SENSOR LOCATIONS, DATA ASSIMILATION AND APPLICATIONS IN OCEAN MODELLING

14:45 **Lolla, T.**; Lermusiaux, P.: NON-GAUSSIAN NONLINEAR SMOOTHING AND ADAPTIVE SAMPLING FOR THE COASTAL OCEAN

15:00 **Muscarella, P. A.**; Carrier, M. J.; Ngodock, H.; Jacobs, G.; Lipphardt, B. L.: IMPROVEMENTS TO LAGRANGIAN PREDICTABILITY WHEN ASSIMILATING GLAD DRIFTER DATA USING THE NCOM-4DVAR

15:15 **Shulman, I.**; Frolov, S.; Anderson, S.; Gould, R.; Penta, B.: ASSIMILATION OF BIO-OPTICAL OBSERVATIONS INTO COUPLED BIO-OPTICAL, PHYSICAL MODEL

15:30 **Zedler, S. E.**; Jackson , C. S.; Hoteit , I.; Wagman, B. M.: TESTS OF THE K-PROFILE PARAMETERIZATION OF TURBULENT VERTICAL MIXING USING SEASONALLY AVERAGED OBSERVATIONS FROM THE TOGA/TAO ARRAY FROM 2004 TO 2007

15:45 **Gebbie, G.**: HOW WELL WOULD THE MODERN-DAY CIRCULATION BE RESOLVED IF WE WERE LIMITED TO PALEOCEANOGRAPHIC-LIKE OBSERVATIONAL SAMPLING?

094 Consequences of Fluid Stirring and Mixing: From Organisms to Ecosystems

Chair(s): John Crimaldi, crimaldi@colorado.edu
Matthew Reidenbach, reidenbach@virginia.edu
Heidi Fuchs, hfuchs@marine.rutgers.edu
Dick Zimmer, z@biology.ucla.edu

Location: 313 C

08:00 **Mouriño-Carballido, B.**; Hojas, E.; Chouciño, P.; Morán, X. A.; Fernández, B.: DOES TURBULENCE PLAY A ROLE IN THE CONTROL OF PICOPLANKTON COMMUNITY STRUCTURE?

08:15 **Santhanakrishnan, A.**; Dollinger, M.; Hamlet, C. L.; Colin, S. P.; Miller, L. A.: FLOWS GENERATED BY PULSING UPSIDE-DOWN *CASSIOPEA* JELLYFISH: IMPLICATIONS FOR BENTHIC NUTRIENT FLUXES IN SHELTERED MARINE ENVIRONMENTS

08:30 **Litvin, S. Y.**; Genin, A.; Koseff, J. R.; Monismith, S. G.; Woodson, C. B.: VARIABLE DEPLETION OF ZOOPLANKTON THROUGH A ROCKY REEF KELP FOREST

08:45 **Reidenbach, M. A.**; Pravin, S.; Mellon, D.: SIMULTANEOUS SAMPLING OF FLOW AND ODORANTS BY AQUATIC ANIMALS CAN AID SEARCH WITHIN A TURBULENT PLUME

09:00 **Crimaldi, J. P.**; Soltys, M. A.; Bell, A.; Shoaei, F.; Pratt, K.: MULTISCALE INVESTIGATIONS OF STIRRING AND MIXING PROCESSES IN BROADCAST SPAWNING BY BENTHIC INVERTEBRATES

09:15 **Hamlington, P. E.**; Alexander, S. R.; Fox-Kemper, B.; Lovenduski, N.: DISTRIBUTIONS AND DYNAMICS OF BIOGEOCHEMICAL REACTIVE TRACERS IN THE OCEANIC MIXED LAYER

09:30 **Shroyer, E. L.**; Benoit-Bird, K. J.; Nash, J. D.; Moum, J. N.: STRATIFICATION AND MIXING REGIMES IN BIOLOGICAL THIN LAYERS OVER THE MID-ATLANTIC BIGHT

09:45 **Shoaei, F.**; Crimaldi, J. P.: EXPERIMENTAL INVESTIGATION OF THE EFFECT OF UNSTEADY OBSTACLE WAKES ON STIRRING AND MIXING OF GAMETE FILAMENTS

FRIDAY

095 River Plumes and Buoyancy-Driven Shelf Circulation

Chair(s): Robert Hetland, hetland@tamu.edu
Alex Horner-Devine, arhd@uw.edu

Location: 301 AB

08:00 **Kirincich, A. R.**; Lentz, S. L.: ASSESSING THE ROLE OF SPATIAL VARIABILITY IN EXCHANGE ACROSS THE INNER SHELF: RESULTS FROM A HIGH RESOLUTION HF RADAR SYSTEM.

08:15 **Halverson, M.**; Pawlowicz, R.: IMPACT OF WIND, TIDES, AND RIVER FLOW ON CIRCULATION IN THE FRASER RIVER PLUME: THE HF RADAR PERSPECTIVE

08:30 **Polton, J. A.**: BUOYANCY DRIVEN EXCHANGE ACROSS THE NORTH WEST EUROPEAN SHELF BREAK

08:45 **Graewe, U.**; Burchard, H.: WATER EXCHANGE AND RESIDUAL CIRCULATIONS IN THE ENTIRE WADDEN SEA (NORTH SEA)

09:00 **Pietrzak, J.**; Horner-Devine, A.; Souza, A.; Henriquez, M.; Meirelles, S.: UNDERSTANDING TIDAL PLUME FRONT AND STRAINING DYNAMICS ON SEDIMENT TRANSPORT IN THE RHINE ROFI

09:15 **Zhang, w.**; Hetland, R.; DiMarco, S.: PROCESSES CONTROLLING A MID-WATER COLUMN OXYGEN MINIMUM OVER THE TEXAS-LOUISIANA SHELF

09:30 **Giddings, S. N.**; MacCready, P.; Davis, K. A.; Hickey, B. M.; Banas, N. B.: IMPACT OF INTERACTING RIVER PLUMES ON FRESHWATER SOURCES TO THE SHELF

09:45 **Wu, H.**; Zhu, J.; Shen, J.: A MODEL STUDY ON THE CROSS-SHELF PENETRATING FRONTS OF THE BUOYANT COASTAL CURRENT FROM THE CHANGJIANG RIVER

10:30 **Dever, M.**; Drinkwater, K.; Skagseth, Ø.; Sundby, S.; Hebert, D.: IMPROVED METHOD TO CHARACTERIZE COASTALLY-TRAPPED, BUOYANCY DRIVEN CURRENTS: COMPARISON BETWEEN THE NOVA-SCOTIA CURRENT AND THE NORWEGIAN COASTAL CURRENT

10:45 **Hetland, R. D.**: SUBMESOSCALE EDDIES ALONG THE MISSISSIPPI/ATCHAFALAYA RIVER PLUME FRONT

11:00 **Sun, Q.**; Whitney, M. M.; Bryan, F. O.; MacCready, P.; Tseng, Y. H.: BOX MODELS APPROACH FOR IMPROVING THE REPRESENTATION OF RIVERINE FRESHWATER INPUTS IN CLIMATE MODELS

11:15 **Cenedese, C.**: LABORATORY EXPERIMENTS INVESTIGATING THE INFLUENCE OF MULTIPLE SUBGLACIAL DISCHARGES ON SUBMARINE MELTING OF GREENLAND'S GLACIERS

11:30 **Jackson, R. H.**; Straneo, F.; Sutherland, D. A.: THE COMPETITION BETWEEN BUOYANCY FORCING FROM A GLACIER AND REMOTE FORCING FROM SHELF WINDS IN A GREENLANDIC FJORD

11:45 **Rogowski, P.**; Terrill, E.; Middleton, W.; Hazard, L.: MEASUREMENTS OF THE NEW RIVER OUTFLOW JET USING AN AUTONOMOUS UNDERWATER VEHICLE

12:00 **Bailey, C. A.**; Vennell, R.: CURVATURE INDUCED SECONDARY CIRCULATION IN A STRONGLY FORCED SALT WEDGE ESTUARY

12:15 **Chen, S. N.**: ENHANCEMENT OF COASTAL CURRENT TRANSPORT BY TIDES IN SURFACE-ADVECTED RIVER PLUMES

14:00 **Thomson, J.**; Zippel, S.; Horner-Devine, A.; Hetland, R.; MacDonald, D.: DO BREAKING WAVES MIX A RIVER PLUME?

14:15 **Gerbi, G. P.**; Kastner, S.: THE ROLE OF WHITECAPPING IN THICKENING A STRATIFIED SURFACE BOUNDARY LAYER

14:30 **Toberman, M.**; Inall, M.; Boyd, T.; Bell, C.; Dale, A.: BUOYANT PLUMES AND NON-LINEAR INTERNAL WAVES, A VIEW FROM ABOVE AND BELOW: TIME-LAPSE PHOTOGRAPHY AND AUV BASED MICROSTRUCTURE PROFILER OBSERVATIONS.

14:45 **Hetzel, Y. L.**; Pattiaratchi, C. B.; Lowe, R. J.: VARYING EXCHANGE FLOW IN TWO ENTRANCES OF A SUBTROPICAL INVERSE ESTUARY

15:00 **Horwitz, R.**; McCardell, G.; O'Donnell, J.: MODEL AND OBSERVATIONS OF EASTERN LONG ISLAND SOUND

15:15 **Chickadel, C.**; McNeil, C.; Farquharson, G.; Shcherbina, A.; Jessup, A.: SURFACE MIXING FEATURES OF THE COLUMBIA RIVER PLUME LIFT-OFF

15:30 **Jurisa, J. T.**; Nas, J.: MIXING IN A HIGHLY ENERGETIC TIDAL RIVER PLUME FRONT

15:45 **Geyer, W. R.**; Akan, C.; Traykovski, P.: TIDE-INDUCED MIXING AND FRONTOGENESIS AT THE COLUMBIA RIVER MOUTH

101 Ecology and Management of Semi-Enclosed Seas

Chair(s): Agneta Andersson, agneta.andersson@emg.umu.se
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Per Larsson, per.larsson@lnu.se
Mats Tysklind, mats.tysklind@chem.umu.se

Location: 319 AB

10:30 **Andersson, A.**; Legrand, C.; Rowe , O.; Byström , P.; Pacskowska , J.: EFFECTS OF HUMIC-RICH FRESHWATER DISCHARGE ON COASTAL PELAGIC FOOD WEBS IN THE BALTIC SEA

10:45 **Legrand, C.**; Béchemin, C.; Casini, M.: DYNAMICS OF PELAGIC ALGAL AND MICROBIAL PRODUCTION ALONG A NEARSHORE-OFFSHORE GRADIENT IN THE BALTIC SEA

11:00 **Nordström, M. C.**; Snickars, M.; Törnroos, A.; Weigel, B.; Bonsdorff, E.: MACROZOOBENTHIC FUNCTIONAL DIVERSITY WITHIN A FOOD-WEB FRAMEWORK

11:15 **Bidleman, T. F.**; Andersson, A.; Haglund, P.; Tysklind, M.; Wiberg, K.: PERSISTENT CHEMICALS IN THE BALTIC SEA: INVESTIGATIONS OF SOURCES, PATHWAYS AND RESPONSE TO CLIMATE CHANGE UNDER THE ECOCHANGE PROGRAMME

11:30 **Otto, S. A.**; Niiranen, S.; Müller-Karulis, B.; Möllmann, C.; Blenckner, T.: A NOVEL APPROACH TO MODELLING LIFE CYCLE DYNAMICS OF A KEY MARINE SPECIES UNDER PAST AND FUTURE ENVIRONMENTAL CHANGES

11:45 **McKinnon, A. D.**; Ceccarelli, D.: TOWARD MANAGEMENT OF MARINE BIODIVERSITY AND ECOSYSTEM FUNCTION IN TROPICAL MARGINAL SEAS

12:00 **Hylander, S.**; Sylvander, P.; Gonçalves, R.; Snoeijs Leijonmalm, P.; Kiørboe, T.: DEFICIENCY SYNDROMES IN BALTIC SEA TOP PREDATORS AND THE IMPORTANCE OF ZOOPLANKTON FOR VITAMIN AND PIGMENT TRANSFER IN THE PELAGIC FOOD WEB

12:15 **Nyberg, E.**; Danielsson, S.; Faxneld, S.; Eriksson, U.; Bignert, A.: TEMPORAL TRENDS AND SPATIAL PATTERNS OF ORGANIC POLLUTANTS IN SWEDISH MARINE BIOTA

112 Tropical Cyclone-Ocean Interactions: From Weather to Climate

Chair(s): I-I Lin, iilin@as.ntu.edu.tw;iilinasntu@gmail.com
Eric D'Asaro, dasaro@apl.washington.edu
Chunzai Wang, Chunzai.Wang@noaa.gov

Location: 315

08:00 **Knutson, T. R.**; Sirutis, J. J.; Zhao, M.; Tuleya, R. E.; Bender, M. A.: DYNAMICAL DOWNSCALING OF INTENSE TROPICAL CYCLONE ACTIVITY IN A CHANGING CLIMATE

08:15 Jing, Z.; Montuoro, R.; Patricola, C. M.; **Chang, P.**; Wei, M.: A DATA-MODEL COMPARATIVE STUDY OF HURRICANE KATRINA AND ITS IMPACT ON OCEAN MIXING

08:30 **Shay, L. K.**; Jaimes, B.; Uhlhorn, E. W.: ENTHALPY AND MOMENTUM FLUXES DURING HURRICANE EARL RELATIVE TO UNDERLYING OCEAN FEATURES

08:45 **D'Asaro, E. A.**; Hsu, J. H.; Zhao, Z. X.; Sanford, T. B.; Lien, R. C.: ANOMALOUS WAVES AND AIR-SEA FLUXES IN TYPHOON MEGI

09:00 **Jayne, S. R.**; St. Laurent, L. C.; Douglass, E. M.; Lambert, S. M.; Rainville, L.: TURBULENCE IN THE COLD WAKE OF A TYPHOON

09:15 **Bond, N. A.**; Bushinsky, S.; Cronin, M. F.; Kawai, Y.; Sutton, A.: KUROSHIO EXTENSION OBSERVATORY (KEO) MEASUREMENTS OF THE UPPER-OCEAN RESPONSE TO TYPHOON PABUK

09:30 **Lee, C.**; Chen, S. S.: IMPACT OF IN-SITU COLD WAKE ON TC STRUCTURE AND INTENSITY: RESULTS FROM ITOP OBSERVATIONS AND AIR-SEA COUPLED MODEL SIMULATION

09:45 **Pan, G.**; Chai, F.; Tang, D.: WHICH TYPE TYPHOONS CAN TRIGGER PHYTOPLANKTON BLOOMS IN THE SOUTH CHINA SEA

10:30 **Ginis, I.**; Bueti, M. R.; Rothstein, L. A.; Griffies, S. M.: GLOBAL PERSPECTIVES ON TROPICAL CYCLONE-OCEAN INTERACTION

10:45 **Marchesiello, P.**; Jullien, S.: OCEAN COUPLING EFFECT ON TROPICAL CYCLONE INTENSIFICATION: CLIMATOLOGY AND PROCESSES

11:00 **Wang, C.**; Wang, X.: A NEW CLASSIFICATION OF EL NINO EVENTS BASED ON THEIR DIFFERENT IMPACTS ON SOUTHERN CHINA RAINFALL AND TYPHOON LANDFALL ACTIVITY

11:15 **Morey, S. L.**; Dukhovskoy, D. S.: SIMULATIONS AND OBSERVATIONS OF THE DEEP OCEAN RESPONSE TO TROPICAL CYCLONE FORCING

11:30 **Hormann, V.**; Centurioni, L. R.; Rainville, L.; Lee, C. M.: RESPONSE OF UPPER-OCEAN CURRENTS TO TYPHOON FANAPI

11:45 **Liu, W. T.**; Tang, W.; Xie, X.: WIND-STRESS RELATIONS IN TROPICAL CYCLONES REVEALED BY SPACEBASED SENSORS

12:00 **Potter, H.**; Drennan, W. M.; Graber, H. C.; Collins, C. O.; Ramos, R. J.: IN SITU MEASUREMENTS OF MOMENTUM FLUXES IN TYPHOONS

12:15 **Kunii, M.**; Miyoshi, T.; Wada, A.: IMPROVING TROPICAL CYCLONE FORECASTS WITH AN ENSEMBLE KALMAN FILTER AND SST UNCERTAINTIES

14:00 **Vecchi, G. A.**; Delworth, T. L.; Jia, L.; Kapnick, S.; Krishnamurthy, L.: TOWARDS REGIONAL PREDICTIONS OF TROPICAL CYCLONE ACTIVITY AND HYDROCLIMATE

14:15 **Lin, I.**; Pun, L.; Black, P.; Price, J.; Yang, C.: RECENT INCREASE IN HIGH TROPICAL CYCLONE HEAT POTENTIAL REGION IN THE WESTERN NORTH PACIFIC OCEAN AND THE NEW OCEAN COUPLING POTENTIAL INTENSITY INDEX

14:30 **Patricola, C. M.**; Chang, P.; Saravanan, R.: THE IMPACT OF CANONICAL AND NON-CANONICAL EL NIOO ON SEASONAL TROPICAL CYCLONE ACTIVITY: HIGH-RESOLUTION TROPICAL CHANNEL MODEL SIMULATIONS

14:45 **Zhang, H.**; Zhou, L.; Chen, D.: EFFECTS OF TROPICAL CYCLONES ON VERTICAL OCEAN TEMPERATURE VIA HEAT PUMP AND COLD SUCTION

15:00 **Sriver, R. L.**: POTENTIAL IMPACT OF TROPICAL CYCLONES ON EQUATORIAL PACIFIC DYNAMICS AND VARIABILITY

15:15 **Balaguru, K.**; Leung, L. R.; Yoon, J. H.: OCEANIC CONTROL OF NORTHEAST PACIFIC HURRICANE ACTIVITY AT INTERANNUAL TIME SCALES

15:30 **Gentemann, C. L.**: VARIABILITY IN TROPICAL CYCLONE INDUCED UPPER OCEAN COOLING

15:45 **Bell, R.**; Hodges, K.; Vidale, P.; Strachan, J.; Roberts, M.: THE DIFFERENCES BETWEEN A COUPLED AND UNCOUPLED MODEL IN SIMULATING THE GLOBAL ENSO-TROPICAL CYCLONE TELECONNECTION

113 Big Data, Including Ocean Climate Data: Data Availability, Techniques, and Applications

Chair(s): Edward J. Kearns, Ed.Kearns@noaa.gov
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Robert Leben, leben@colorado,edu

Location: 317 AB

08:00 Coughlin, R. A.; **Potemra, J. T.**: OCEANS OF DATA: SUCCESSFUL NAVIGATION THROUGH THE DATA CATALOGING JOURNEY

08:15 **Huang, T.**; Xing, Z.; Armstrong, E. M.: DISTRIBUTED OCEANOGRAPHIC WEBIFICATION SERVICE

08:30 **Kinter, J. L.**: HIGH-PERFORMANCE COMPUTING AND BIG DATA: WHAT CAN WE EXPECT FROM CLIMATE SYSTEM SIMULATIONS WITH GLOBAL MESOSCALE COMPONENT MODELS?

08:45 **Futrelle, J. M.**; Maffei, A. R.; Sosik, H.; Gallager, S.: LIGHTWEIGHT, FLEXIBLE APPROACHES FOR DISSEMINATING HIGH-VOLUME, ACTIVE DATASETS

09:00 **Beaulieu, S. E.**; Maffei, A.; Fox, P.; Di Stefano, M.; Hare, J.: WHY WE NEED A SEMANTIC WEB FRAMEWORK FOR MARINE ECOSYSTEM INDICATORS

09:15 **Howard, M. K.**; Gayanilo, F. C.; Stössel, M.; Baum, S. K.: GCOOS AND GRIIDC: A THIRD COAST PARTNERSHIP FOR BIG OCEAN DATA. TOOLS AND TECHNIQUES FOR DATA TRANSFERS

09:30 **BAUD, B.**; Wright, D.: BATHYMETRY: REDUCING BIG DATA

09:45 **John Kerfoot, M.**; Derrick Snowden, .; Kyle Wilcox, .; Dan Rudnick, .; Jim Potemra, .: THE INTEGRATED OCEAN OBSERVING SYSTEM NATIONAL GLIDER DATA ASSEMBLY CENTER

10:30 **Smith, S. R.**; Woodruff, S. D.; Worley, S. J.; Freeman, J. E.; Kent, E. C.: ICOADS RELEASE 3.0

10:45 **Ignatov, A.**; Zhou, X.; Petrenko, B.; Liang, X.; Dash, P.: TOWARDS STABLE AND CONSISTENT SST AND BRIGHTNESS TEMPERATURE RECORDS FROM MULTIPLE AVHRRS AND QUALITY CONTROLLED IN SITU DATA

11:00 **Domingues, C. M.**; on behalf of the CLIVAR GSOP workshop team, .: IQUOD – INTERNATIONAL QUALITY CONTROLLED OCEAN DATABASE FOR DATA ASSIMILATION EFFORTS AND CLIMATE VARIABILITY AND CHANGE STUDIES

11:15 **Wentz, F. J.**; Gentemann, C.; Hilburn, K.: EXTENDING THE MICROWAVE-DERIVED OCEAN CLIMATE DATA RECORD BY INCLUDING AMSR-2

11:30 **AOYAMA, M.**: GLOBAL NUTRIENTS DATASET 2013

11:45 **Harris, A.**; Mittaz, J.: VOLCANIC AEROSOL EFFECTS IN THE LONG-TERM SEA SURFACE TEMPERATURE RECORD

12:00 **Ricciardulli, L.**; Wentz, F. J.: INTEGRATING MULTIPLE SCATTEROMETER OBSERVATIONS INTO A CLIMATE DATA RECORD OF OCEAN VECTOR WINDS

12:15 **Turpie, K. R.**; Franz, B. A.; Balch, B.; Frouin, R.; Wang, M.: OCEAN COLOR CLIMATE RECORDS FROM THE SUOMI NATIONAL POLAR-ORBITING PARTNERSHIP (S-NPP)

117 Benthic–Pelagic Coupling and Exchange Across the Sediment–Water Interface

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Location: 318 AB

10:30 **Spivak, A. C.**: EUTROPHICATION AFFECTS CARBON EXCHANGE BETWEEN BENTHIC MICROALGAE AND BACTERIA IN SALT MARSH TIDAL CREEKS

10:45 Jäntti, H.; **Hietanen, S.**: PROLONGED BENTHIC HYPOXIA SHIFTS NITRATE REDUCTION FROM DENITRIFICATION TO DNRA

11:00 **Sturdivant, S. K.**: COMPARATIVE ASSESSMENT OF BIOTURBATION IN SUBTIDAL AREAS ADJACENT OILED AND CLEAN MARSHES IN LOUISIANA

11:15 **Rigaud, S.**; Maire, O.; Meysman, F.; Anschutz, P.; Deflandre, B.: IN SITU ASSESSMENT OF ZOSTERA MEADOWS IMPACT ON OXYGEN FLUXES AT THE SEDIMENT-WATER INTERFACE

11:30 **Li, J.**; Katsev, S.: LARGE LAKES AS ANALOGUES FOR SEDIMENT CYCLING OF CARBON AND NITROGEN IN COASTAL AND DEEP OCEAN

11:45 **Tolhurst, T. J.**; Kemp, N.; Hale, R.: BIOTIC AND ABIOTIC INTERACTIONS DRIVING THE ERODIBILITY OF INTERTIDAL SEDIMENTS.

12:15 **Harris, C. K.**; Fennel, K.; Hetland, R. D.: EFFECTS OF RESUSPENSION ON SEDIMENT BED OXYGEN CONSUMPTION: A NUMERICAL MODELING STUDY FOR THE LOUISIANA SHELF.

119 Highly Nonlinear Internal Waves and Bores In Shallow Water

Chair(s): Jack Barth, barth@coas.oregonstate.edu
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Location: 314

08:00 Kelley, D.; **Richards, C.**; Bourgault, D.; Galbraith, P.; Hay, A.: ENERGY FLUXES AND TURBULENCE CAUSED BY SHOALING NONLINEAR INTERNAL WAVES IN THE ST LAWRENCE ESTUARY

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08:15 **Eiji Masunaga, E.**; Hidekatsu Yamazaki, .; Takeyoshi Nagai, .: RESUSPENSION AND TURBULENT MIXING DUE TO NONLINEAR INTERNAL BORES ALONG A SHALLOW SLOPE

08:30 **Willis, S. K.**; Stacey, M. T.; Moniz, R. J.; Monismith, S. G.; Fong, D. A.: SCALING INTERNAL WAVE-INDUCED TURBULENT DISSIPATION RATE ON A STRATIFIED INNER SHELF

08:45 **Diamessis, P. J.**; Sakai, T.; Jacobs, G. B.: NEAR-BOTTOM TURBULENCE BY INTERNAL SOLITARY WAVES IN SHALLOW WATERS

09:00 **Suanda, S. A.**; Barth, J. A.: UNDERSTANDING THE TIMING AND TRANSPORTS OF HIGH-FREQUENCY INTERNAL WAVES ON THE OREGON INNER SHELF

09:15 **Aristizabal, M. F.**; Fewings, M.; Washburn, L.; Dorman, C.: THE INFLUENCE OF INTERNAL WAVES ON THE TEMPERATURE VARIABILITY IN THE SANTA BARBARA CHANNEL

09:30 **Squibb, M. E.**; Monismith, S. G.; Woodson, C. B.; Pawlak, G.; Nash, J.: OBSERVATIONS OF SHOALING INTERNAL WAVES AND EVALUATION OF SURFACE WAVE-TURBULENCE SEPARATION IN MAMALA BAY, HAWAII

09:45 **Sutherland, B. R.**; Ivey, G. N.; Keating, S.; Shrivastava, I.: SHOALING AND TUNNELING INTERNAL SOLITARY WAVES

10:30 **Winters, K.**; Armi, L.: BLOCKING AND THE ESTABLISHMENT OF CONTINUOUSLY STRATIFIED HYDRAULIC CONTROL IN TIDALLY DRIVEN FLOW OVER TOPOGRAPHY

10:45 **White, B. L.**; Helfrich, K. R.: A MODEL FOR INTERNAL BORES IN CONTINUOUS STRATIFICATION

11:00 **Lucas, A. J.**; Pinkel, R.; Nash, J. D.; Fer, I.; Shroyer, E.: DIRECT OBSERVATIONS OF THE UPSHELF EVOLUTION OF BOTTOM BORES DRIVEN BY THE BAROCLINIC M2 TIDE

11:15 **McPhee-Shaw, E. E.**; Cheriton, O. M.; Shaw, W. J.; Raanan, B. Y.: DETACHED BOTTOM BOUNDARY LAYERS AND SHELF SUSPENDED SEDIMENT TRANSPORT CAUSED BY INTERNAL TIDES

11:30 **Leichter, J. J.**; Stokes, M. D.; Vilchis, L. I.; Fiechter, J.: REGIONAL SYNCHRONY OF INTERNAL WAVE FORCING ALONG THE FLORIDA KEYS REEF TRACT

11:45 **Pineda, J.**; Starczak, V.; da Silva, J.; Helfrich, K.; Wiley, D.: ECOLOGICAL CONSEQUENCES OF THE SHOALING OF LARGE AMPLITUDE INTERNAL WAVES AT STELLWAGEN BANK: SIX YEARS OF OBSERVATIONS OF HUMPBACK WHALES AND THEIR PREY

12:00 **Vitousek, S.**; Fringer, O. B.: A NONHYDROSTATIC ISOPYCNAL-COORDINATE OCEAN MODEL

12:15 **Bordois, L.**; Auclair, F.; Paci, A.; Dossmann, Y.; Nguyen, C.: INTERNAL SOLITARY WAVES IN SHALLOW STRAITS

131 Submarine Canyons: Oceanographic Conditions, Geological Features, and Ecological Settings

Chair(s): Amanda W.J. Demopoulos, ademopoulos@usgs.gov
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Location: 314

14:00 **Huvenne, V. A.**; Robert, K.; Ismail, K.; Jones, D. O.; Tyler, P. A.: HABITAT HETEROGENEITY AND BIODIVERSITY IN WHITTARD CANYON, CELTIC MARGIN, NE ATLANTIC

14:15 **Wilson, A.**; Allcock, L.; Johnson, M.; Kiriakoulakis, K.; White, M.: NEPHELOID LAYERS IN THE WHITTARD CANYON, NORTH EAST ATLANTIC.

14:30 **Xu, J. P.**; Rosenberger, K.; Noble, M.: TURBIDITY IN CALIFORNIA SUBMARINE CANYONS

14:45 **Sanchez-Vidal, A.**; Calafat, A.; Canals, M.; Pedrosa-Pàmies, R.: CARBON CYCLE RELEVANCE OF ATMOSPHERE-DRIVEN OCEANOGRAPHIC PROCESSES IN SUBMARINE CANYONS OF THE NW MEDITERRANEAN SEA

15:00 **Robertson, C. M.**; Bourque, J. R.; Duineveld, G.; Mienis, F.; Demopoulos, A.: BENTHIC COMMUNITY STRUCTURE AND FUNCTION IN BALTIMORE CANYON, U.S.A.

15:15 **Morrison, C. L.**; Coykendall, D. K.; Springmann, M. J.: PATTERNS OF AMONG-CANYON CONNECTIVITY FOR TWO COLD-WATER GORGONIAN CORAL SPECIES IN THE WESTERN MID-ATLANTIC REGION

15:30 **Demopoulos, A. W.**; Bourque, J. R.; Brooke, S.; Ross, S. W.: BENTHIC COMMUNITY STRUCTURE AT NEWLY INVESTIGATED HYDROCARBON SEEPS ON THE CONTINENTAL SLOPE OF THE WESTERN NORTH ATLANTIC

15:45 **Rabouille, C.**; Olu, K.; Baudin, F.; Deniellou, B.; Congolobe Party, A.: A MULTIDISCIPLINARY STUDY OF THE CONGO DEEP-SEA FAN LOBES: PRELIMINARY RESULTS FROM THE CONGOLOBE AND WACS CRUISES

133 Dynamic Physical and Ecological Drivers of Marine Meta-population Connectivity

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Location: 313 C

10:30 **Sponaugle, S.**; Paris, C.; Walter, K.; Kourafalou, V.; D'Alessandro, E.: OBSERVED AND MODELED LARVAL SETTLEMENT OF A REEF FISH TO THE FLORIDA KEYS

10:45 **Rossi, V.**; Ser-Giacomi, E.; Lopez, C.; Hernandez-Garcia , E.: OCEANIC PROVINCES AND BASIN-SCALE CONNECTIVITY DERIVED FROM A HYDRODYNAMICAL NETWORK HELP DESIGNING MARINE RESERVES

11:00 **Harrison, C. S.**; Siegel, D. A.; Mitarai, S.: FILAMENTATION AND EDDY–EDDY INTERACTIONS IN MARINE LARVAL ACCUMULATION AND TRANSPORT

11:15 **Nakamura, M.**; Sakai, K.; Higa, Y.; Okaji, K.; Mitarai, S.: LARVAL DISPERSAL AND RECRUITMENT OF SCLERACTINIAN CORALS AND CROWN-OF-THORNS STARFISH AROUND OKINAWA ISLAND, JAPAN

11:30 **Kough, A. S.**; Paris, C. B.: CAPTURING RARE EVENTS IN COUPLED BIOPHYSICAL CONNECTIVITY MODELS.

11:45 **Pinsky, M. L.**: NEW APPROACHES FOR ESTIMATING EMPIRICAL DISPERSAL KERNELS FROM GENETICS

12:00 **Serrano, X. M.**; Baums, I. B.; Smith, T. B.; Jones, R. J.; Baker, A. C.: HORIZONTAL VS. VERTICAL GENETIC CONNECTIVITY IN THE CARIBBEAN REEF CORALS MONTASTRAEA CAVERNOSA AND PORITES ASTREOIDES

12:15 **Kellner, J. B.**; Thorrold, S. R.; Ji, R.; Jones, G. P.; Planes, S.: LOCAL SCALES OF LARVAL DISPERSAL

137 North Atlantic Ocean Dynamics: From Natural Fluctuations to Externally Forced Response

Chair(s): Laure Zanna, zanna@atm.ox.ac.uk
Ed Hawkins, e.hawkins@reading.ac.uk

Location: 312

08:00 **Send, U.**; Lankhorst, M.; Biastoch, A.; Kanzow, T.; Fischer, J.: DECADAL VARIABILITY IN THE DEEP BRANCH OF THE ATLANTIC MERIDIONAL OVERTURNING CIRCULATION OBSERVED AT 16N

08:15 **Smeed, D. A.**; McCarthy, G.; Cunningham, S. A.; Johns, W. E.; Meinen, C. S.: OBSERVED DECLINE OF THE ATLANTIC MERIDIONAL OVERTURNING CIRCULATION 2004 TO 2012

08:30 **Johns, W. E.**; Meinen, C.; Frajka-Williams, E.; McCarthy, G.; Zhao, J.: VARIABILITY OF THE ATLANTIC DEEP WESTERN BOUNDARY CURRENT AT 26.5°N

08:45 **Baringer, M. O.**; Dong, S.: ESTIMATING THE MERIDIONAL HEAT TRANSPORT AND OVERTURNING CIRCULATION FROM XBTS

09:00 **Visbeck, M.**; Fischer, J.; Karstensen , J.; Zantopp, R.; Behrens, E.: 15 YEARS OF DEEP WESTERN BOUNDARY CURRENT OBSERVATIONS AT THE EXIT OF THE LABRADOR SEA AT 53°N

09:15 **Roessler, A.**; Rhein, M.; Mertens, C.; Kieke, D.: FROM DAILY TO INTERANNUAL VARIATIONS: OBSERVED TRANSPORT VARIABILITY OF THE SUBPOLAR GYRE AT THE MID-ATLANTIC RIDGE

09:30 **Curry, R. G.**; Polzin, K.: THE BUOYANCY GAIN PART OF AMOC

09:45 **Mielke, C. L.**; Frajka-Williams, E.; Gary, S. F.; Toole, J. M.; Baehr, J.: OBSERVED AND SIMULATED VARIABILITY OF THE ATLANTIC MERIDIONAL OVERTURNING CIRCULATION AND THE DEEP WESTERN BOUNDARY CURRENT

10:30 **Kelly, K. A.**; Thompson, L.; Dickinson, S.: CONTRIBUTIONS TO LOW FREQUENCY VARIABILITY OF SST IN THE NORTH ATLANTIC

10:45 **Buckley, M. W.**; Forget, G.; Heimbach, P.; Ponte, R. M.: LOW-FREQUENCY SST AND UPPER-OCEAN HEAT CONTENT VARIABILITY IN THE NORTH ATLANTIC

11:00 **Williams, R. G.**; Roussenov, V.; Lozier, M. S.: GYRE-SCALE CONTRASTS IN THERMAL AND HALINE ANOMALIES IN THE NORTH ATLANTIC: THE EFFECT OF CHANGES IN EKMAN AND OVERTURNING CIRCULATIONS

11:15 **Rhines, P. B.**; Xu, X.; Chassignet, E.; Schmitz, W. J.: ATLANTIC WATER-MASS TRANSFORMATION AND THE THETA/S AMOC

11:30 **Yamamoto, A.**; Palter, J. B.; Lozier, M. S.; Bourqui, M. S.: THE RELATIVE IMPORTANCE OF OCEAN TEMPERATURE VERSUS ATMOSPHERIC PATHWAYS IN CONTROLLING WESTERN EUROPEAN CLIMATE VARIABILITY

11:45 **Msadek, R.**; Delworth, T.: NORTH ATLANTIC ATMOSPHERIC RESPONSE TO OCEANIC FRONTS IN HIGH-RESOLUTION GLOBAL COUPLED MODELS

12:00 **Hermanson, L.**; Booth, B. B.; Dunstone, N. J.; Halloran, P. R.; Smith, D. M.: NORTH ATLANTIC MULTI-DECADAL VARIABILITY: INTERNALLY OR EXTERNALLY FORCED?

12:15 **Latif, M.**; Klöwer, M.; Ding, H.; Greatbatch, R. J.; Park, W.: ATLANTIC MERIDIONAL OVERTURNING CIRCULATION AND PREDICTION OF NORTH ATLANTIC SEA SURFACE TEMPERATURE

14:00 **Zhao, J.**; Johns, W.: WIND-DRIVEN INTERANNUAL VARIABILITY OF THE ATLANTIC MERIDIONAL OVERTURNING CIRCULATION

14:15 **Yang, J.**: LOCAL AND REMOTE FORCING OF THE ATLANTIC MERIDIONAL OVERTURNING CIRCULATION (AMOC) TRANSPORT ALONG THE RAPID-MOCHA LINE (26.5N)

14:30 **Nilsson, J.**; Langen, P. L.; Ferreira, D.; Marshall, J.: OCEAN BASIN GEOMETRY AND THE SALINIFICATION OF THE ATLANTIC OCEAN

14:45 **Yeager, S. G.**: TOPOGRAPHIC CONTROL OF THE ATLANTIC MERIDIONAL OVERTURNING CIRCULATION

15:00 **Behrens, E.**; Böning, C. W.; Biastoch, A.: ON THE OCEANIC RESPONSE TO AN ACCELERATED MELTING OF THE GREENLAND ICE-SHEET IN AN EDDYING OCEAN

15:15 **Allison, L. C.**; Smith, R. S.; Hawkins, E.; Woollings, T. J.; Lenton, T. M.: OCEANIC AND ATMOSPHERIC FEEDBACKS ASSOCIATED WITH BISTABILITY OF THE ATLANTIC MERIDIONAL OVERTURNING CIRCULATION IN A COUPLED CLIMATE MODEL

15:30 **Medhaug, I.**; Czaja, A.: USING SURFACE DRIFTERS AS A DIAGNOSTIC OF THE NORTH ATLANTIC OCEAN CIRCULATION AND HEAT TRANSPORT IN A CLIMATE MODEL

15:45 Eldevik, T.; **Nilsen, J. E.**: THE ARCTIC–ATLANTIC THERMOHALINE CIRCULATION

153 Using Compound-Specific Stable Isotope Analysis to Advance Population and Community Ecology

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Brian Popp, popp@hawaii.edu

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08:00 **Chikaraishi, Y.**; Ogawa, N. O.; Tsuchiya, M.; Ohokouchi, N.: FACTORS CONTROLLING THE NITROGEN ISOTOPIC COMPOSITION OF AMINO ACIDS IN FOOD WEBS

08:15 **Bradley, C. J.**; Wallsgrove, N. J.; Choy, C. A.; Hoen, D. K.; Hetherington, E. D.: TROPHIC ENRICHMENT FACTORS IN MARINE TELEOSTS ESTIMATED FROM WILD SAMPLES

08:30 **Hetherington, E. D.**; Olson, R. J.; Drazen, J. C.; Popp, B. N.; Kaufmann, R. S.: FOOD WEB STRUCTURE OF THE EASTERN TROPICAL PACIFIC OCEAN BASED ON COMPOUND-SPECIFIC ISOTOPE ANALYSIS OF AMINO ACIDS

08:45 **Hamady, L.**; Popp, B.; Natanson, L. J.; Skomal, G. B.; Thorrold, S. R.: RETROSPECTIVELY INVESTIGATING WHITE SHARK DIETS IN THE NORTHWEST ATLANTIC OCEAN VIA AMINO ACID $d^{15}N$ ANALYSIS

09:00 **McMahon, K. W.**; McCarthy, M. D.; Guilderson, T. P.: DECADAL TO CENTURY SCALE CHANGES IN NORTH PACIFIC OCEAN PHYTOPLANKTON COMMUNITIES ASSESSED BY 113C COMPOUND-SPECIFIC STABLE ISOTOPE ANALYSIS OF DEEP-SEA CORALS

09:15 **Nielsen, J. M.**; Winder, M.: SEASONAL DYNAMICS OF BALTIC SEA ZOOPLANKTON ASSESSED BY CARBON AMINO ACID STABLE ISOTOPES

09:30 **Close, H. G.**; Hannides, C. S.; Popp, B. N.: COMPOUND-SPECIFIC $<^{13}C$ VALUES AS INDICATORS OF BIOSYNTHESIS AND DEGRADATION IN MARINE PARTICLES, FROM SUBMICRON TO SINKING, STATION ALOHA

09:45 **Moerdijk-Poortvliet, T.**; Stal, L.; Boschker, H.: TRACING CARBON FLOW IN MICROPHYTOBENTHIC COMMUNITIES BY LC/IRMS

FRIDAY

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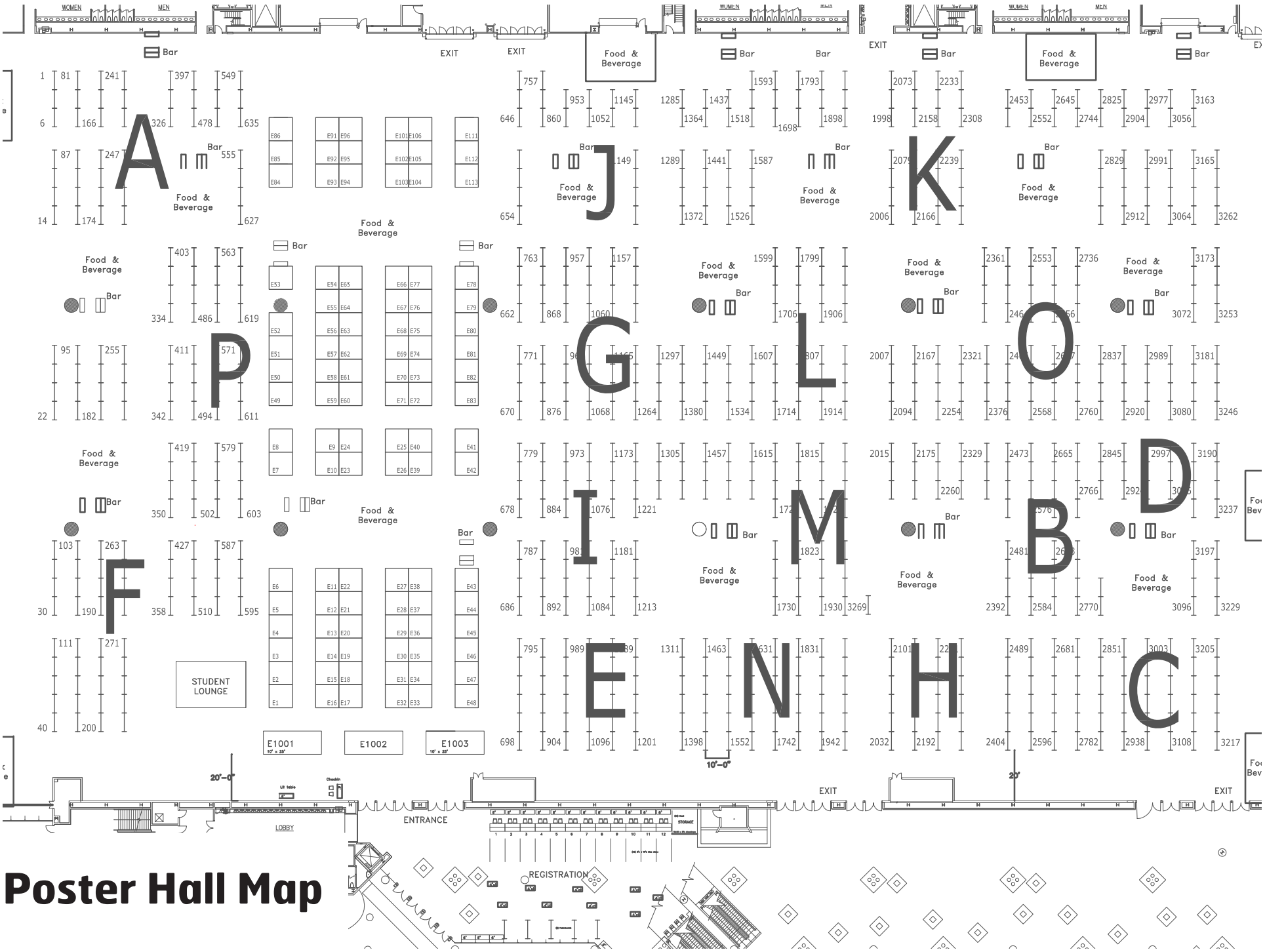

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