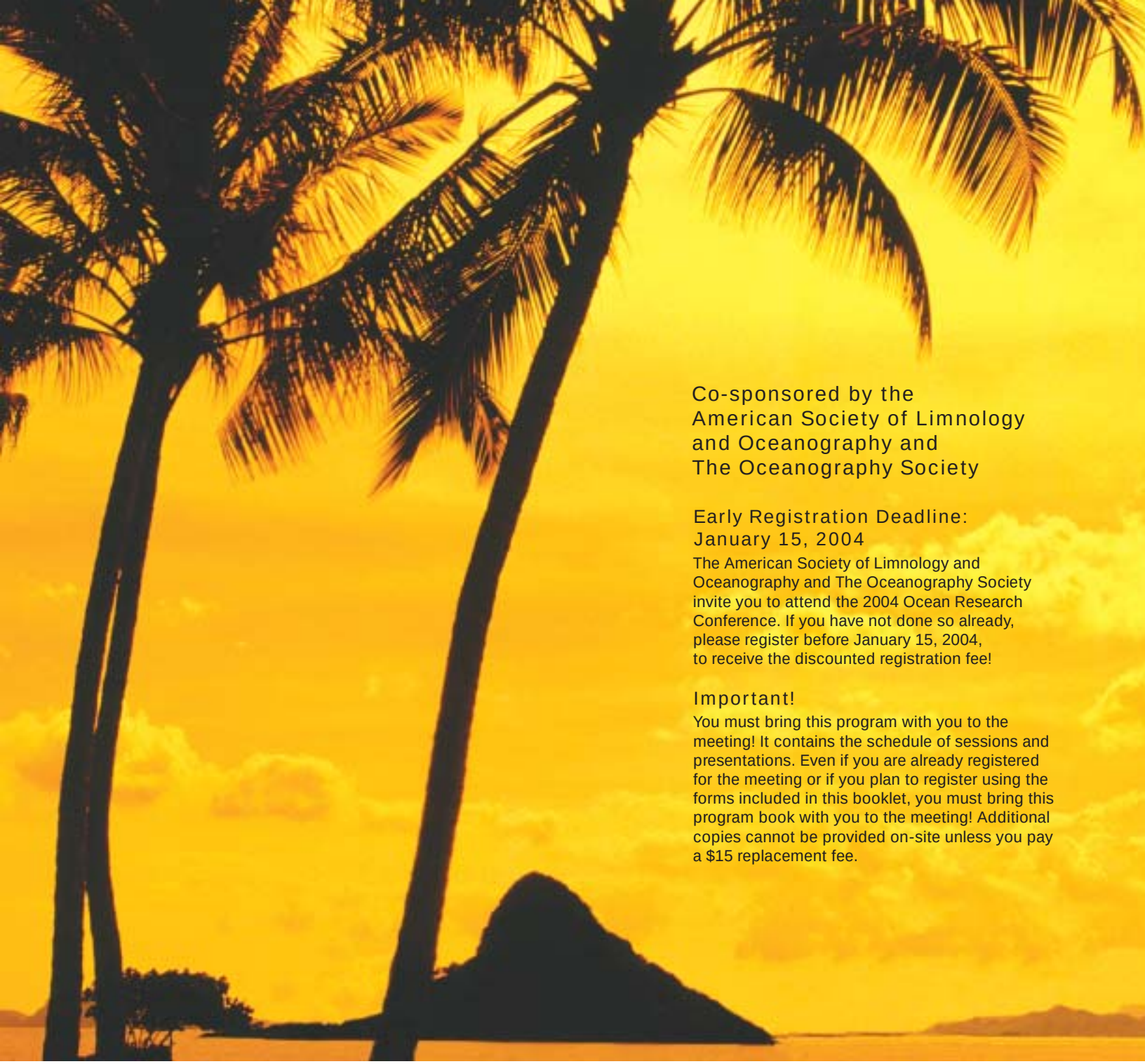

Co-sponsored by the
American Society of Limnology
and Oceanography and
The Oceanography Society

Early Registration Deadline:
January 15, 2004

The American Society of Limnology and Oceanography and The Oceanography Society invite you to attend the 2004 Ocean Research Conference. If you have not done so already, please register before January 15, 2004, to receive the discounted registration fee!

Important!

You must bring this program with you to the meeting! It contains the schedule of sessions and presentations. Even if you are already registered for the meeting or if you plan to register using the forms included in this booklet, you must bring this program book with you to the meeting! Additional copies cannot be provided on-site unless you pay a $15 replacement fee.

Program

ASLO/TOS Ocean Research 2004 Conference

February 15-20, 2004 · Hawaii Convention Center · Honolulu, Hawaii

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Welcome to the 2004 Ocean Research Conference sponsored by ASLO and TOS!

This inaugural meeting brings together the strengths of these two societies and will allow an open exchange of information on issues surrounding ocean research. The 2004 Ocean Research Conference will provide a forum for researchers to highlight recent advances with an emphasis on the integration of aquatic sciences as well as the breadth of ocean research including engineering, industrial, public policy, and marine research.

The scientific program for the 2004 Ocean Research Conference blends the best of both ASLO and TOS meetings and will include plenary presentations, special sessions, and poster sessions. Each day will begin with a set of outstanding plenary presentations. These will be followed by concurrent sessions for oral presentations. Conference poster sessions will be a central part of the meeting and will include an unprecedented number of poster presentations. To emphasize the topical directions of the poster presentations, the poster area will be organized thematically. Authors may present their research during each poster session reception, or they may choose to present only at a preferred time during the week.

2004 Ocean Research Conference Plenary Speakers

Dr. Rita R. Colwell, Director, National Science Foundation

"The Future of Ocean Sciences"

Monday, February 16, 2004, 8:15 to 9:00 a.m.

Ballroom A-B – Hawaii Convention Center

Abstract: Ocean research and exploration have crossed a threshold into a new era of discovery. New scientific capabilities, enhanced by molecular biology, genomics, information and communications technologies, and nano science and engineering are opening new paths to understanding the dynamics and complexity of ocean systems at all levels—from the nano to the planetary. Over the coming decades, collaborative international investigations of earth's oceans will provide the understanding needed to realize the benefits of ocean exploration—from climate forecasting to drug discovery to improved stewardship of ocean resources.

Biography: Rita Colwell became the eleventh director of the National Science Foundation on August 4, 1998. Since taking office, Colwell has spearheaded the agency's emphases in K-12 science and mathematics education, graduate science and engineering education/training and the increased participation of women and minorities in science and engineering.

Her policy approach has enabled the agency to strengthen its core activities, as well as establish support for major initiatives, including nanotechnology, biocomplexity, information technology, social, behavioral and economic sciences and the 21st century workforce. In her capacity as NSF director, she serves as co-chair of the Committee on Science of the National Science and Technology Council.

Under her leadership, the foundation has received significant budget increases, and its funding recently reached a level of more than $5.3 billion. Before coming to NSF, Colwell was president of the University of Maryland Biotechnology Institute from 1991 to 1998, and she remains professor of microbiology and biotechnology (on leave) at the University Maryland. She was also a member of the National Science Board from 1984 to 1990.

Colwell has held many advisory positions in the U.S. government, non-profit science policy organizations, and private foundations, as well as in the international scientific research community. She is a nationally respected scientist and educator and has authored or co-authored 16 books and more than 600 scientific publications. She produced the award-winning film, *Invisible Seas,* and has served on editorial boards of numerous scientific journals.

She is the recipient of numerous awards, including the Medal of Distinction from Columbia University, the Gold Medal of Charles University, Prague, the UCLA Medal from the University of California, Los Angeles, and the Alumna Summa Laude Dignata from the University of Washington, Seattle. Colwell also has been awarded 34 honorary degrees from institutions of higher education, including her alma mater, Purdue University. She is an honorary member of the microbiological societies of the UK, France, Israel, Bangladesh, and the U.S. and has held several honorary professorships, including the University of Queensland, Australia. A geological site in Antarctica, Colwell Massif, has been named in recognition of her work in the polar regions.

Colwell has previously served as chairman of the board of governors of the American Academy of Microbiology and also as president of the American Association for the Advancement of Science, the Washington Academy of Sciences, the American Society for Microbiology, the Sigma Xi National Science Honorary Society, and the International Union of Microbiological Societies. She is a member of the National Academy of Sciences, American Academy of Arts and Sciences, and The American Philosophical Society.

Born in Beverly, Massachusetts, she holds a B.S. in bacteriology and an M.S. in genetics, from Purdue University. Colwell received her Ph.D. in oceanography from the University of Washington.

Dr. Eric J. Lindstrom, Oceanography Program Scientist, Office of Earth Science, NASA Headquarters

"The Role of Ocean Research in Developing an Integrated Ocean Observing System for the United States"

Monday, February 16, 2004, 9:00 to 9:30 a.m.

Ballroom A-B – Hawaii Convention Center

Abstract: Ocean.US is an initiative to promote implementation of an integrated ocean observing system to meet national needs for detecting and forecasting oceanic components of climate variability, facilitating safe and efficient marine operations, ensuring national security, managing resources for sustainable use, preserving and restoring healthy marine ecosystems, mitigating natural hazards, and ensuring public health. The initiative is the U.S. contribution to a Global Ocean Observing System (GOOS) and reflects the increasing interest of both the executive branch and the legislative branch to establish a sustained earth observing system. In October 2000 the Ocean.US Office was established under the auspices of the National Oceanographic Partnership Program, with nine agencies, to date, having signed the memorandum of agreement for this effort. A full-time staff is supplemented by a committee of users, the U.S. GOOS Steering Committee.

A phased implementation plan has been prepared, and regional associations are being formed to coordinate coastal components. These groups consist of research institutions, non-government organizations, and industries, in addition to state, local, and regional public agencies. The system will be a virtual one— a federation of existing and new elements, providing full and open access to ocean data. Successful implementation and operation of the envisioned IOOS will require unprecedented support of the research community and will, in turn, benefit research efforts significantly. The nation's investment in oceanographic research and development provides the foundation for the initial design, and implementation of IOOS and continued research and development will assure the system remains efficient and effective in the future.

The large scale and permanent observing elements of IOOS will benefit research by providing the framework of observations in time and space required to place research efforts in the context of larger scale systems and permit scaling up and integration with other observations and models. IOOS will require research and development to fulfill its mission. For example new sensors and platform technologies, operational ecosystem models, and advances in telecommunications will be required. Many parts of IOOS cannot be developed until the relevant part of the ocean is better understood. The sustained observations of IOOS will greatly enhance research to understand the causes and consequences of variability revealed by IOOS.

The IOOS will benefit from research. The scientific knowledge, technologies created by scientists and engineers provide the continuing foundation for the design, implementation, and development of the IOOS, and long-term observations made for science projects contribute to overall IOOS goals.

Biography: Eric Lindstrom is oceanography program scientist in the Office of Earth Science at NASA Headquarters in Washington, D.C. He has degrees in earth and planetary sciences from Massachusetts Institute of Technology (1977) and in physical oceanography from the University of Washington (1983). His scientific interests include the general circulation of the ocean and air-sea exchange processes. Lindstrom spent the early part of his career leading research expeditions in the waters around Australia as a member of Australia's Commonwealth Scientific and Industrial Research Organization (CSIRO). A native of California, he returned permanently to the United States in 1991 to work on planning for several large experiments of the World Climate Research Program (the TOGA Coupled Ocean-Atmosphere Response Experiment and the World Ocean Circulation Experiment). Over the years he has been a passionate advocate for the development of a global ocean observing system. Before coming to NASA he served as director of the Global Ocean Observing System Project Office in NOAA.

The Office of Earth Science at NASA Headquarters recruited Lindstrom in 1997 to lead its oceanography program. In 2001 he was awarded NASA's Exceptional Service Medal for his success in developing a unified oceanography program at NASA that is well integrated with those of other federal agencies. Under Lindstrom's leadership the NASA Oceanography Program has become a substantial contributor to the National Oceanographic Partnership Program and a more active participant with other agencies in developing the integrated global ocean observing systems of the future.

For the past year he was on loan from NASA as the director of the Ocean.US Office, an interagency endeavor supported by nine federal agencies, created under the auspices of the National Oceanographic Partnership Program.

Dr. Oscar Schofield, Associate Professor, Institute of Marine and Coastal Sciences, Rutgers University

"The Utility of Cabled Systems for In Situ and Remotely Sensed Hyperspectral Optics"
Monday, February 16, 2004, 9:30 to 10:00 a.m.
Ballroom A-B – Hawaii Convention Center

Abstract: An existing set of cabled coastal ocean observatories will be augmented in the near future with an expanding network from newly deployed electro-optic and converted retired telecommunication cables. The cables will provide the researcher several large advantages. The cabled systems will effectively provide unlimited band and power and time series ranging from turbid coastal waters to the deep sea, providing researchers time series data spanning a wide optical gradient. The high bandwidth will allow for hyperspectral data to be collected and delivered back to shore in real-time which is not capable with satellite communications where data needs to be degraded spectrally and temporally to allow for delivery back to shore. Real-time data will allow for algorithm tuning based on real-time in-water measurements of the inherent and apparent optical properties allowing the vicarious calibration of ocean color imagery. Examples taken from the cable at the Long-term Ecosystem Observatory during optical closure studies, inversion techniques, diver visibility algorithms, and bioluminescence light propagation illustrate the potential of cables. Currently there are plans to outfit the many regions of the ocean with high bandwidth cables in the next five years, and the fusing of in situ optics to this expanding network offers great opportunities for biological oceanography. Schofield's talk will highlight the pitfalls and the potential pay-offs that might be encountered in the coming decade.

Biography: Oscar Schofield is an associate professor at Rutgers University at the Institute of Marine and Coastal Sciences. He joined Rutgers in 1995. He had worked before as a food flavor quality microbiologist at the United States Department of Agriculture. He received his Ph.D. from the University of California at Santa Barbara working on the bio-optics of phytoplankton. At Rutgers he, in collaboration with Scott Glenn, formed the Coastal Ocean Observation Lab which has focused on building ocean observatories because the ocean is chronically under-sampled. This resulted in the development of the Long-term Ecosystem Observatory and the New Jersey Shelf Observing System (NJSOS). His research interests include the environmental regulation of phytoplankton community composition in aquatic ecosystems, the physiological ecology of phytoplankton, and the evolution of the modern algae and hydrological optics in optically-complex coastal waters.

Thomas M. (Zack) Powell, Professor, Department of Integrative Biology, University of California, Berkeley

"Links Between Biological and Physical Processes in Lakes, Estuaries, and the Ocean: From the Individual to Global Scales"

Tuesday, February 17, 2004, 8:00 to 8:45 a.m.

Ballroom A-B – Hawaii Convention Center

Abstract: Biota in lakes, estuaries, and the ocean encounter the characteristic physical features and processes of aquatic habitats. In most of these environments some (or all) life history stages are planktonic. Accordingly, physical transports play an important role in the flows of energy and the cycling of essential nutrients. Moreover, patterns of population success (e.g., population growth and survival) and community dynamics (e.g., temporal association and succession) are substantially affected. This presentation will review salient examples of the influence that physical transports exert on biological processes (primarily ecological processees) at the individual, population, community, and ecosystem level — up to ocean basin and global scales. Powell will point out insights he has gained from recent studies in lakes, estuaries, and the ocean.

Biography: Zack Powell is a professor in the Department of Integrative Biology, University of California, Berkeley, where he also chairs the Energy and Resources Group. Powell chaired the Scientific Steering Committee for the U. S. GLOBEC program (a contribution to the U.S. Global Change Research Program) from 1992 through 1997, and presently chairs the Steering Committee for Ocean Information Technology (an NSF initiative). He has worked for more than 30 years on physical and biological processes in lakes, estuaries, and the ocean. All have been directed toward the question: How do physical processes, like mixing and turbulence, currents and circulation, or mass and energy transfer at the surface, affect the biological processes in planktonic ecosystems? Most of these investigations have addressed this question directly with field measurements. In addition, with statistical and modeling approaches, Powell has studied the impact of climate, the utilization of remote sensing, and the construction of mathematical and numerical models for aquatic ecosystems. Computer models of planktonic ecosystems in the California Current System, including the larval stages of fish and benthic invertebrates, are a present focus of studies in Powell's laboratory.

Dr. Charles S. Yentsch, Senior Research Scientist, Bigelow Laboratory for Ocean Sciences

"What CZCS Gave Oceanography"

Tuesday, February 17, 2004, 8:45 to 9:15 a.m.

Ballroom A-B – Hawaii Convention Center

Abstract: What initiated the interest in ocean color? A short answer: Scandinavian scientists, namely, Sverdrup, Steemenn-Nielson and Jerlov. These early researchers recognized that the color of the ocean could be correlated with the abundance of phytoplankton and hence primary production. For reasons that now seem obscure to the oceanographic community, it took considerable time to realize the value of ocean color. The emergence of satellite measurement happened much sooner. First, a meeting at the National Academy in 1960 largely fleshed out the value of measuring color from space. Secondly, the formation of the CZCS Net Team, NASA's science group for ocean color. The goals of the Net Team were (1) to specify the scientific objectives, and develop algorithms and protocols for measurements and (2) to act as overseers for the validation of products to be dispersed by NASA. The highlight of this effort was a series of research cruises to obtain sea truth. The combination of these efforts provided the basis for image production of regional and global dimensions of chlorophyll and water transparency.

Biography: Charles Yentsch is a senior research scientist at Bigelow Laboratory for Ocean Sciences in West Boothbay Harbor, Maine. He received his B.S. in biology from the University of Louisville, his M.S. in oceanography from Florida State University, and his Ph.D., Honorus causa, from Southampton College, University of Long Island. He also holds degrees in entrepreneurship and intrepreneurship from MIT Sea Grant/NASA.

Since childhood, Yenstch has been a student of the oceans. His understanding of ocean productivity and ocean processes grew during service in the U.S. Navy. This was followed with formal education at Florida State University and the University of Washington, Seattle. He went on to become a scientific leader at Woods Hole Oceanographic Institution and other laboratories. Learning about the sea is his passion. Creating a positive learning environment for others is his obsession. His research and teaching have always been about light - in the lab, at sea, or from space. Semi-retirement allowed a return of attention to tropical waters and coral reef research. Yentsch's focus is the big picture and thus has an outlook of synthesis and systems. The sea is his unit of study. Accordingly, he has led the field of biological oceanography in satellite remote sensing. He was a member of the pioneering NASA Coastal Zone Color Scanner Nimbus-Net Design Team for sensors of ocean color/phytoplankton pigments.

Yentsch has been instrumental in the early starts of several oceanographic institutions including Nova University in Fort Lauderdale, Florida, and the University of Massachusetts, Gloucester Marine Station. In 1974 he was the founder of Bigelow Laboratory for Ocean Sciences, West Boothbay Harbor, Maine. Always a major career researcher in addition to being an administrator, he has had principal funding from the NSF, ONR and NASA. Yentsch serves on several editorial boards and national and international committees. His original research and subsequent publications (in excess of 80) have appeared in peer-reviewed professional journals, reviews, and chapters in books. Yentsch was the recipient of the 1999 American Society for Limnology and Oceanography Lifetime Achievement Award.

Robert A. Arnone, Head, Ocean Science Branch, Ocean Division, Naval Research Laboratory, Stennis Space Center

"Satellite Ocean Color for Coastal Processes: The Next Step....."

Tuesday, February 17, 2004, 9:15 to 9:45 a.m.

Ballroom A-B – Hawaii Convention Center

Abstract: Advances in satellite ocean color sensing have opened a path for future development in understanding coastal processes. New opportunities for ocean monitoring through the use of space borne spectroscopy offer unique understanding of the pathways of biological, chemical and geological processes, especially in coastal regions. Building on previous ocean color satellite research, advances in in-situ optical instrumentation coupled with quantitative precision radiometric control are facilitating new tools for uncoupling

the optical signatures that can be applied to current and future space borne sensors. These tools extend beyond the traditional chlorophyll monitoring and include the spectral decomposition of in-water optical signatures. These include methods for characterizing coastal particles, dissolved organics matter, phytoplankton pigment compositions and bottom contributions. For the first time, ocean color satellites permit description of the spatial and temporal changes in biological, chemical and geological processes. Multiple looks per day using satellite color spectroscopy enable methods to track the changes of optical properties (and the associated water composition) and follow their evolution and fate within the coastal margin. For example, it is possible to trace the dispersion of different river plume signatures and monitor biological events and determine growth and decay processes.

However, future directions for coastal oceanography can extend beyond development of new satellite tools for ocean sensing. Within the last 10 years, significant advances have occurred in physical ocean models: advances in computational power permit high horizontal and vertical resolution of physical processes that together with advances in the assimilation of altimeter derived sea surface height, SST and other in situ fields provide for an accurate representation of the physical environment. Within the next decade, new directions will be extended to bio-optical and sediment re-suspension models using space borne ocean sensing capabilities at finer time and spatial scales. Our ability to understand, monitor and predict the coastal environment extends beyond satellite ocean sensing and their limitations. We look for methods to use satellite spectroscopy fused with physical numerical models to determine the coupling of physical and bio-optical processes. However, the new techniques for assimilation of satellite ocean optical properties into bio-optical and geological models are the challenge for the future.

Biography: Robert Arnone is a recognized national and international scientist conducting research in the areas of coastal oceanography and optical processes for the last 20 years. His expertise bridges the basic ocean research with operational oceanography. Presently he heads the Ocean Science Branch in the Ocean Division at the Naval Research Laboratory in Stennis Space Center which is a recognized leader in ocean processes. He leads over 50 world leading oceanographers in naval research, which specializes in 1) ocean optical processes and remote sensing, 2) biological modeling of coupled dynamical processes, and 3) fine scale and meso-scale physical processes. His branch is currently involved in basic, exploratory and applied research in ocean sciences which links research with the operational navy. He has used ocean studies to enhance the performance of navy optical and surveillance systems.

Arnone has led major international expeditions in the Mediterranean, Arabian Sea, Japan Sea, Gin Sea and U.S. coastal waters specializing in physical oceanography, optical remote sensing and biological processes using ships, aircraft and satellite sensors. His branch is a leader in at-sea measurements in advanced optical instrumentation, mooring deployments, and surface wave measurement, in addition to satellite receiving and aircraft remote sensing of the sea surface. His specific research has led to the development of new ocean color algorithms and satellite processing based on new techniques of atmospheric correction and in-water hydro-optical research. His research has pioneered the use of satellite ocean color for understanding coastal ocean processes.

He has been on numerous ocean science teams for NASA and Navy programs and represented the U.S. in delegations in coastal oceanography. Arnone is adjunct faculty to the University of Southern Mississippi Marine Science Department since 1989 and the University of Southern Alabama. He serves on several graduate student committees. He is a board member of the Alliance for Marine Remote Sensing (AMRS). Arnone has received awards for naval honors for science transitions and NRL Alan Berman publication awards. He has received Navy patents and NASA honors for astronaut training programs. He has over 60 publications and 200 presentations. He received a B.S. in geology from Kent State and an M.S. in geochemistry from Georgia Institute of Technology and completed advanced studies in physical oceanography at Louisiana State University.

Dr. Ronald C. Baird, Director, National Sea Grant College Program, and Associate Director for Ocean Research, Office of Oceanic and Atmospheric Research, National Oceanic and Atmospheric Administration

"The Urban Ocean: A New Imperative for Coastal Resource Management"

Wednesday, February 18, 2004, 8:00 to 8:45 a.m.

Ballroom A-B – Hawaii Convention Center

Abstract: The historical trend to urbanization in the distribution of human populations has reached unprecedented levels, and the urban proportion of the global population is expected to grow to 60 percent or higher in a generation or 80 million urban inhabitants per year. In the U.S. alone, 174 million acres, an area larger than the state of Texas is expected to be urbanized (inclusive of suburbs) by 2025. The great majority of urban areas are located on or near the coast. Urbanization is being increasingly recognized as among the most dramatic, complex and dynamic of human induced changes to coastal ecosystems. While adverse impacts are significant and growing, we are far from an adequate understanding of the cumulative impacts of urbanization on associated ecosystems. Furthermore, fragmentation among institutions of governance, lack of resources for environmental management/research and the difficulty of enforcement, contribute to the need for a new national imperative for comprehensive, ecosystem-based approaches to the management of human activity in urban environments. This is an enormous task, and the temporal urgency of the issues mandates timely focus on these emerging multiple challenges by federal/state/local agencies. A comprehensive initiative by the National Sea Grant Program to specifically address urban problems is described. The program involves research, engagement of stakeholders and public education. Four major areas of focus are highlighted: urban dilemmas, non-point pollution, ports/harbors and coastal planning.

Biography: Ronald Baird is the director of the National Sea Grant College Program and the associate director for ocean research within the National Oceanic and Atmospheric Administration's Office of Oceanic and Atmospheric Research (OAR), NOAA's principal line office for research. As Sea Grant's director, Baird manages a national network of over 200 institutions and over 3,000 individuals that engage in scientific research, education, and extension activities in every coastal and Great Lakes state. As OAR's ocean research director, he coordinates the aquatic research efforts of 12 federal laboratories and major extramural programs such as the National Undersea Research Program. Baird currently serves as

the United States' marine resources co-chair for the U.S.-Japan Cooperative Program in Natural Resources and has helped initiate the international Sea Grant network.

He brings a background in science, business, and academic administration to his position at NOAA. He holds a Ph.D. in biological oceanography from Harvard University, an M.A. in zoology from the University of Texas at Austin, and a B.S. in zoology from Yale University.

Prior to joining NOAA, Baird served as vice president of university relations and director of corporate relations at Worcester Polytechnic Institute (WPI), the nation's third oldest engineering college. During that period, he was appointed by the Secretary of Commerce to the National Sea Grant Review Panel and served as its chair from 1992-1994. Before coming to WPI, Baird was president and vice president of Schuster Corporation, an investment holding company. He also served as director of research at Geo-Marine, Inc., an engineering and environmental consulting firm in Dallas, Texas.

He also spent nine years as a professor of marine science at the University of South Florida in St. Petersburg. His published works include contributions to the biology of deep sea fishes, encounter theory and natural resource management. Baird is a lifetime member of Sigma Xi and a fellow of the American Institute of Fisheries Research Biologists. In 2000, he received the Presidential Rank Award for helping position the U.S. as a world leader in marine research and the sustainable development of coastal resources.

Dr. Jonathan P. Zehr, Professor, Department of Ocean Sciences, University of California, Santa Cruz

"Molecular Underpinnings of the Global Nitrogen Cycle: New Perspectives on Old Problems"

Wednesday, Feb. 18, 2004, 8:45 to 9:15 a.m.

Ballroom A-B – Hawaii Convention Center

Abstract: The factors controlling nitrogen uptake and assimilation have been one focus of biological oceanography. The nitrogen cycle, including uptake and assimilation processes, is composed of biogeochemical transformations catalyzed by enzymes encoded on genes within genomes. Recent work on cultivated and uncultivated microorganisms using molecular biology and genomics has shown that the abilities to use different nitrogen sources, including nitrate, urea and dinitrogen, are not universally distributed among microorganisms. Both genomic analyses and environmental data on the distribution of nitrate reductase have shown that cyanobacteria and bacteria are not all capable of using nitrate as a nitrogen source. In contrast, previously unappreciated cyanobacteria have been shown to be important nitrogen fixers in the open ocean, as well as in microbial mats. The genetic capabilities of populations of cyanobacteria to use nitrate, nitrite, ammonium and dinitrogen can be defined in relation to the light-nutrient gradient in surface waters. Coupled with process-oriented interrogation of natural populations by quantifying genes and mRNA of specific organisms, the roles of different cyanobacterial groups in the use of different nitrogen sources is being determined. Ultimately, the future reward of the molecular and genetic approach will be in the application of genetic and genomic information to re-examine the fundamental questions of the sources, fates and fluxes of nitrogen in the ocean.

Biography: Jonathan Zehr has been a professor in the Department of Ocean Sciences at the University of California, Santa Cruz, since 1999. Biological oceanography, microbial ecology, molecular biology, nitrogen cycling, nitrogen fixation are his major interests. Prior to his present position, Zehr was an associate and assistant professor at Rensselaer Polytechnic Institute in Troy, New York, and also worked as the associate director of the Rensselaer Polytechnic Institute's Fresh Water Institute. He was a research assistant professor at State University of New York in Stony Brook, New York, and was a visiting scientist in the Department of Cell Biology at the National Institute of Basic Biology in Okazaki, Japan. Zehr was also a research collaborator at Brookhaven National Laboratory in Upton, New York, and was a graduate research assistant at the University of California in Davis, California.

He received his B.S. degree in biology from Western Washington University and his Ph.D. from the University of California-Davis. His thesis was entitled, "Dissolved organic nitrogen metabolism and bacterial amino acid metabolism in Castle Lake, California" (Ecology-Limnology. 1985.).

Zehr has received a number of honors in his career including Distinguished Visiting Lecturer, Texas A&M University, College Station, Texas, 1996; Bermuda Biological Station Starr Fellowship, 1988; National Research Council Research Associateship, 1985-1986; National Science Foundation Predoctoral Fellowship, 1981-1984; Jastro-Shields Research Fellowship, University of California, Davis, California, 1983 and Outstanding Student in Biology, Western Washington University, 1981. His CV lists over 70 total representative publications.

Mark R. Abbott, Dean and Professor, College of Oceanic and Atmospheric Sciences, Oregon State University

"Ocean Remote Sensing in the Next Decade: Opportunities and Challenges"

Wednesday, Feb. 18, 2004, 9:15 to 9:45 a.m.

Ballroom A-B – Hawaii Convention Center

Abstract: The last two decades have seen significant advances in our understanding of global and mesoscale ocean processes, made possible in part by the availability of research-quality satellite data sets. Spaceborne ocean observations have revealed new phenomena and enabled research of processes that have characteristic time and space scales that are not amenable to in situ sampling. The number of papers utilizing satellite has increased, with nearly 30% of the papers appearing in JGR Oceans in 2001 directly using satellite data. Much of the data used in these analyses is derived from research missions, such as those developed and operated by NASA. The next ten years will experience a fundamental shift as we move from research-driven missions to operations-driven missions. Such a transition may enable the collection of multi-decadal data sets that are essential for the study of climate-scale processes. Such sustained, systematic measurements provide both benefits and risks, and the research community must prepare for a remote sensing environment where science is not the only requirement. Although there remain scientific and technical challenges in satellite remote sensing of the ocean, the programmatic issues associated with building a sustained, research-quality, comprehensive ocean observing system are daunting.

Biography: Mark Abbott is dean and professor in the College of Oceanic and Atmospheric Sciences at Oregon State University. He received his B.S. in conservation of natural resources from the

University of California, Berkeley, in 1974 and his Ph.D. in ecology from the University of California, Davis, in 1978. He has been at OSU since 1988 and has been dean of the college since 2001. Abbott's research focuses on the interaction of biological and physical processes in the upper ocean and relies on both remote sensing and field observations. He chairs the U.S. Joint Global Ocean Flux Study Science Steering Committee for NSF and the Climate Monitoring Working Group for NOAA. He is the incoming chair of the Board of Governors for CORE.

Dr. Scott Doney, Associate Scientist, Marine Chemistry and Geochemistry, Woods Hole Oceanographic Institution

"Interannual Variability of the Extratropical Ocean Carbon System"

Thursday, February 19, 2004, 8:00 to 8:30 a.m.

Ballroom A-B – Hawaii Convention Center

Abstract: The extra-tropical oceans exhibit considerable physical variability on interannual and longer time-scales associated with regional climate modes such as the North Atlantic and Pacific Decadal Oscillations and the Antarctic Circumpolar Wave. Corresponding variability is found in most biological and chemical time-series records of marine productivity, air-sea CO^2 flux and community composition. Growing efforts are attempting to explain mechanistically this variability of the ocean carbon cycle on these time-scales via simple conceptual models involving forcing of mixed layer depth (light), nutrient supply, and dust deposition. Illustrations will be shown that draw from oceanographic time-series and a hierarchy of numerical simulations.

Biography: Scott Doney received his Ph.D. in 1991 from the MIT/WHOI joint program in chemical oceanography and served as a post-doc and scientist from 1991 to 2002 at the National Center for Atmospheric Research. Currently, he is an associate scientist in marine chemistry and geochemistry at Woods Hole Oceanographic Institution.

Dr. Jacqueline Grebmeier, Research Professor, Department of Ecology and Evolutionary Biology, University of Tennessee

"Biological Implications of Arctic Change to Carbon Shelf-Basin Exchange"

Thursday, February 19, 2004, 8:30 to 9:00 a.m.

Ballroom A-B – Hawaii Convention Center

Abstract: The detection of biological change in the Arctic marine environment coincides with recent observations of high-latitude environmental change, including a seasonal reduction in the extent and duration of sea ice, increased seawater temperature, and changing hydrographic conditions. High latitude ecosystems are projected to be particularly sensitive to climate change, and the shallow, productive features of the Bering Strait region may dictate its role as a sentinel indicator of global change effects. Recent studies show that the northern Bering Sea is shifting towards an earlier spring transition between ice-covered and ice-free conditions, with coinciding changes in both primary and secondary trophic level production. These apparent changes could lead to dramatic impacts for higher-trophic level fauna, including some species such as benthic-feeding walrus, bearded seals, gray whales and diving seaducks that are of cultural and subsistence significance to Arctic Native peoples. Ecosystem change on the shallow shelves of the northern Bering and Chukchi Seas are intimately connected to systems further to the north. Current studies as part of the Western Arctic Shelf-Basin Interactions (SBI) global change project are investigating the production, transformation and fate of carbon at the shelf-slope interface in the northern Chukchi and Beaufort Seas, downstream of these productive shallow western Arctic shelves, as a prelude to understanding the impacts of a potential warming of the Arctic. The importance of the Ameriasian Arctic region in the context of pan-Arctic shelf-basin exchange will be discussed.

Biography: Jacqueline Grebmeier is a research professor in the Department of Ecology and Evolutionary Biology at the University of Tennessee. Her research interests include pelagic-benthic coupling, benthic carbon cycling, and benthic faunal population structure in the marine environment; understanding how water column processes influence biological productivity in Arctic waters and sediments, how materials are exchanged between the sea bed and overlying waters, and documenting longer-term trends in ecosystem health of Arctic continental shelves. Some of her research includes analyses of the importance of benthic organisms to higher levels of the Arctic food web, including walruses, gray whale, and diving sea ducks, and studies of radionuclide distributions of sediments and within the water column in the Arctic as a whole. Grebmeier is the director of the Shelf-Basin Interactions Project Office, member of the National Academies Polar Research Board, chair of the Pan-Arctic Shelf-Basin Exchange working group for the Arctic Ocean Sciences Board, science steering committee member for the Study of Environmental Arctic Change (SEARCH) program, member of the U.S. International Polar Year 07/08 planning group, and a past member of the U.S. Arctic Research Commission. She earned her Ph.D. in biological oceanography in 1987 from the University of Alaska, Fairbanks.

Dr. John Pandolfi, Curator, Paleobiology Department, National Museum of Natural History

"The Nature, Timing, and Causes of Global Coral Reef Decline"

Thursday, February 19, 2004, 9:00 to 9:30 a.m.

Ballroom A-B – Hawaii Convention Center

Abstract: There is now overwhelming evidence that ecological change is occurring everywhere on living coral reefs, resulting in altered communities with potentially reduced species diversity. Throughout the Caribbean, Pleistocene data indicate a structure to reef coral communities that persisted to the 1980's, when rapid habitat degradation led to the collapse or severe alteration of coral communities. Paleo time-series data (biological and proxy) provides an effective means of linking the pristine and seemingly stable pre-human state of reefs with their present degraded and seemingly changing state. Degradation of coral reef ecosystems began centuries to millennia ago. Trajectories of decline are strikingly similar worldwide. These historical analyses can now be used to predict future ecosystem states – allowing managers to anticipate probable losses of species and habitats at individual locations through an understanding of the characteristic pattern of ecosystem decline. Overfishing and pollution appear to be fundamental causes of reef decline, but more recent episodes of mass mortality following bleaching and disease have heavily damaged already stressed coral reefs.

Biography: John Pandolfi is curator in the paleobiology department at the National Museum of Natural History. His research aims mainly to use the recent past history of reef corals in understanding the ecology of coral reefs. He was awarded his Ph.D. in 1987 from the University of California-Davis, where he examined the evolutionary paleobiology and paleoecology of colonial marine animals. Subsequently, Pandolfi held post-doctoral fellowships at the Australian Institute of Marine Science, the Australian National University, and the Smithsonian Tropical Research Institute in Panamá. He has carried out fieldwork in Papua New Guinea, the Bahamas, Florida, East Africa, Egypt, Brazil, and Colombia. He has published over 50 articles in leading international journals, including Science and in premier journals in the fields of ecology, marine science, and paleobiology, including American Zoologist, Ecological Monographs, Evolution, Limnology and Oceanography, and Paleobiology.

Pandolfi has served as advisor to the U.S. Congress on "Coral Reefs at Risk: Challenges and Solutions," as an invited member of the Scientific Committee on Ocean Research (SCOR) Working Group 104 - "Coral Reef Responses to Global Change: The Role of Adaptation;" as an advisor to the Brazilian government on "Brazilian Coral Reefs: Research, Integrated Management and Conservation"; and as a UNESCO/SCOPE workshop participant on "Coral Reef Ecosystem Function and Biodiversity." He has shared the position of editor-in-chief of Paleobiology with William DiMichele since September 2001. Pandolfi's current research directions include: 1) investigate the ecological dynamics of coral communities over broad spatial and temporal scales; 2) understand the effects of local, regional, and global environmental change on past and present species distribution patterns; 3) aid resource managers in understanding the natural patterns of variation of coral reefs prior to the influence of man; and 4) understand the evolutionary history that has led to the high diversity of reef corals on living coral reefs.

Dr. Barbara Block, Charles and Elizabeth Prothro Professor Chair in Marine Sciences, Stanford University

"Hot Tuna: Oceanographic Insight from Electronic Tagging and Animal Oceanographers"

Thursday, February 19, 2004, 9:30 to 10:00 a.m.

Ballroom A-B – Hawaii Convention Center

Abstract: Top pelagic predators such as tunas, sharks, turtles and marine mammals have historically been difficult to study due to their size, speed and range over the vast oceanic habitat. In recent years the development of small microprocessor-based data storage tags that are surgically implanted or satellite-linked provide marine researchers a novel avenue for examining the movements, physiology and behaviors of pelagic vertebrates. When biological and physical data from the tags are combined with satellite-derived oceanography, the relationship between the movements and behaviors of organisms can be linked to environment. Tag-bearing marine animals can function as autonomous ocean profilers providing oceanographic data wherever their migrations take them. These new animal-collected oceanic data complement more traditional methodologies for ocean observation. Marine organisms provide a level of temporal and spatial coverage in three dimensions that is impossible to replicate using standard sampling methods. The data generated from this approach provides a novel "organism-eye" view of critical habitats and migratory corridors on an ocean basin scale.

Block and her colleagues have deployed over 1000 electronic tags on Northern bluefin tuna in the Atlantic and Pacific oceans. The tagging data are providing new insights into their seasonal movements, habitat utilization, breeding behaviors and population structures in both oceans. In addition, the data are revealing migration corridors, hot spots and physical oceanographic patterns that are key to understanding how northern bluefin tunas use the open ocean environment. Similar data are now being obtained simultaneously for many other pelagic species in the Tagging of Pacific Pelagics (TOPP) program. The TOPP project will employ a range of electronic tags (archival, satellite-linked ARGOS and GPS devices) to examine the distribution and behavior of these pelagic organisms in relationship to the dynamic ocean environment of the North Pacific. Pilot projects involving the simultaneous tagging of tunas, sharks, sea turtles, albatross and elephant seals are generating a novel view of how top predators use the North Pacific ecosystem. TOPP animal oceanographers have to date recorded over a million temperature depth profiles in the North Pacific. These new technologies provide data that are vital for obtaining insights on how these animals use their oceanic habitat. Electronic tagging data sets are an important element in the evolving concept of ecosystem-based fisheries management.

Biography: Barbara Block received her Ph.D. from Duke University and was a post-doctoral fellow at University of Pennsylvania. She currently holds the Charles and Elizabeth Prothro Professor Chair in Marine Sciences at Stanford University. Her research is focused on how large pelagic fishes utilize the open ocean environment. Investigations center upon understanding the evolution of endothermic strategies in tunas, billfishes, and sharks. Block and her colleagues investigate the cellular mechanisms underlying heat generation and force production in skeletal muscle, the evolution of endothermy, and the physiological ecology of tunas and billfishes. Block has become actively engaged in fisheries oceanography and ocean policy. The research in the lab is interdisciplinary, combining physiology, ecology, and genetics with oceanography and engineering.

Block and colleagues at the Monterey Bay Aquarium have also established the Tuna Research and Conservation Center, a unique facility that permits physiological research on tunas. They are employing new techniques in wildlife telemetry and molecular genetics to directly examine the short and long-term movement patterns, stock structure and behavior of tunas and billfishes. The fish are highly exploited in international fisheries and effective management of existing biodiversity requires an understanding of their biology and population structure. The Block lab actively engages in research at sea to understand the movements and physiological ecology of tunas and billfishes and to gain insight into the selective advantage of endothermy in fishes.

She and her colleagues have been conducting research and development of electronic tags for tracking of ocean wildlife. The tags are essentially computers that record navigational information, body temperature, pressure and ambient temperature data. The information gained with these tags will improve our understanding of the biology of these species and increase our knowledge of stock structure. The successful implementation of the novel satellite and archival tag technology has provided marine researchers with new tools for studying inaccessible marine vertebrates.

Block is a recipient of the Presidential Young Investigator Award from the National Science Foundation, the MacArthur Foundation Fellowship, and a Pew Marine Conservation Fellowship.

About the Conference Meeting Site

This meeting is carefully planned to provide an appropriate atmosphere and numerous opportunities to interact with colleagues and friends. All plenary sessions, exhibits, posters, and the special sessions will take place at one venue, the Hawaii Convention Center.

The Hawaii Convention Center is open to the outdoors, inviting the scent of flowers inside to mingle with those who attend the 2004 Ocean Research Conference. Native Hawaiian plants are in abundance. Landscaped grounds, terraces, lanais and courtyards account for more than six acres of the 10-acre site. Inside, over $2 million of original Hawaiian art includes paintings of volcanoes, mountains, ocean, waterfalls, taro, and fishponds displayed alongside images of Hawaiian royalty, gods, and myths. While above, soaring rooftop canopies recall images of Polynesian sailing canoes. The four-story center was designed to offer the utmost in convenience, flexibility, and state of the art features.

About the Aloha State

Described by Mark Twain as "the loveliest fleet of islands that lies anchored in any ocean," Hawaii is a string of 137 islands encompassing a land area of 6,422.6 square miles in the north central Pacific Ocean about 2,400 miles from the west coast of the continental United States. Discovered by Polynesian settlers between the 3rd and 7th centuries A.D. and later by British Captain James Cook in 1778, Hawaii became the 50th state of the United States of America on August 21, 1959. Stretching from northwest to southeast, the major islands are: Niihau, Kauai, Oahu, Molokai, Lanai, Kahoolawe, Maui and Hawaii.

Hawaii's climate features mild temperatures, moderate humidity, and cooling trade winds. Weather on all of the Hawaiian islands is very consistent, with only moderate changes in temperature throughout the year. This is possible due to the year-round warm sea surface temperatures which keep the overlying atmosphere warm as well. In practical terms there are only two seasons in Hawaii: the summer months (called Kau in Hawaiian) that extend from May to October and the winter months (Ho'oilo) that run from November to April. The average day-time summer temperature at sea level is 85 degrees F. (29.4 C) while the average day-time winter temperature is 78 degrees F. (25.6 C). Night-time temperatures are approximately 10 degrees F. lower.

The temperature of Hawaii's near-shore waters stay comfortable throughout the year. The average year round water temperature is 74 degrees F. (23.3 C), with a summer high of 80 degrees F. (26.7 C). Wave action varies a great deal between winter and summer, and between island coasts. Generally summer waters are very gentle on all beaches. This changes in the winter on many north facing beaches, as storms far out into the Pacific drive ocean swells towards the islands, which build into large breaking waves. Wave conditions are often very localized, so if there is too much surf on your beach, you can usually find calmer water by taking a short drive to a beach that is sheltered from the prevailing surf. Swimmers should keep in mind that strong currents can make any beach unsafe at any time during the year, but this is particularly true in the winter. When in doubt, simply ask your hotel staff or a local for their recommendations and also watch for warning flags and posted beach conditions.

The wettest months of the year are from November through March, but these winter rains do not generally disrupt vacationer's plans, since the very localized nature of the weather usually means that if it is raining where you are, there is almost always a sunny spot to be found by a short drive around the coast. The action of trade winds here means that there is always a cooling breeze. The strength of this wind builds as the heat of the day rises and reaches a peak in the afternoon, only to diminish in the evening and start again the following day. Several times during the year the trade winds will stop completely and the wind will switch around to come out of the south or west, bringing stormy or hot sticky weather. Islanders sometimes call this "Kona" weather, because kona is a polynesian word that means leeward or South, and this points to the direction from which these weather systems arrive. Stormy weather does come to the islands, primarily in the winter and sometimes lingers for several days. Severe storms, however, are not a common occurrence here.

Experience Hawaii

With over 750 miles of coastline, Hawaii has golden stretches of postcard-perfect beaches that are consistently ranked among the best in the world. Few places in the world offer options to swim at sunrise, snorkel amidst marine life or catch the spectacular Hawaiian sunset. If that's not enough, there's always a visit to Kauai's Hanalei Valley, Oahu's North Shore, Maui's Hana, Lanai's Hulopoe Bay, Molokai's Kamakou Preserve, and the Big Island's Kilauea volcano.

Hawaii has a stunning variety of beaches that vary in shape, size, wave action and sand color. They can be found on almost every point on the compass on any given island, at any time of the year. Hawaii's beaches offer the visitors and locals alike nearly every water activity under the sun — canoeing, kayaking, scuba, snorkeling, surfing, windsurfing, water skiing and more.

Maybe you just want to lay out and soak up the sun. If so, visit Waikiki Beach, the world's most famous shoreline, with its newly renovated promenade and timeless vistas and gentle surf. Waikiki's two-mile stretch of sand is the home to a plethora of ocean activities. Escape to Kauai's Lumahai Beach, a secluded finger of sand that twists around a rocky cliff. It was here that the classic musical South Pacific was filmed. Little has changed since 1958 when they shot the film.

Want to watch the wind? Then journey to Maui's Hookipa Beach, just outside of Paia and the airport. With a steady and strong breeze and good-sized waves, daring windsurfers perform graceful acrobatics. Share the reef with a World War II Liberty ship run aground at Lanai's appropriately named Shipwreck Beach.

One can get lost in the solitude of Molokai's Halawa Bay, where you can snorkel, fish and swim, protected from the raging surf, far far away. How about visiting the Big Island's Kaunaoa Beach also known as Mauna Kea Beach. This crescent of sand lies at the foot of a steep lava cove. The beach itself is long and wide and is excellent for swimming. You can explore a patch of sand, no matter

how big or small — just make sure you use a designated public beach access.

If you are staying in Waikiki, you can see the birthplace of Hawaii tourism, the famed and refurbished Sheraton Moana Hotel. The first hotel on Waikiki Beach is still shaded by the very banyan tree around which it was built in 1927. An interesting little museum in the hotel is a time capsule of that period. Across Kalakaua Avenue, the broad boulevard that is Waikiki's main drag, stands the Sheraton Princess Kaiulani Hotel on a piece of ground known as "Ainahau." This was the home of the beautiful and tragic Princess Kaiulani. Here was where the famous author Robert Louis Stevenson loved to relax. A short way up the beach stands a statue to the memory of Duke Kahanamoku, Hawaii's most reknown waterman.

History is everywhere. Iolani Palace is an obvious historic site as are the mission houses and the aforementioned Kawaiahao Church. Chinatown is a treasure that has existed in Old Honolulu since the first immigrants came ashore. Other not-to-be-missed sites include Pearl Harbor, the Battle of the Pali, and the Summer Palace.

Nowhere in the world does the lure of adventure find greater expression than in the Hawaiian Islands. If hang-gliding is your thing, you can leap from the heights at Makapu'u and soar high above the beach. The big winter surf at Waimea offers heart-pounding intensity as does the thrill of sailing down the Molokai Channel. One of the more ironic sensations to experience is snow skiing on the slope of sometimes snow-capped Mauna Loa with palm trees in the distance and hard lava coming up.

Adventures a little less terrifying are a bicycle ride down Haleakala or a hike inside its moonscape crater, a ride on a very sensible mule (who's made the trip a thousand times) down the cliffside to Kalapapa and back again, or a glider ride or a parasail.

For more information on visiting Oahu and the other Hawaiian islands, go to http://www.gohawaii.com or visit http://www.ehawaiigov.org/visiting/html/index.html

Honolulu and the Island of Oahu

Honolulu, the capital city, is on the Island of Oahu. Oahu is home to historic Honolulu, exciting Waikiki, legendary North Shore and much more. In Honolulu, visitors will experience the diversity of an island paradise with cosmopolitan conveniences surrounded by breath-taking scenery. You can "hang loose" at the world-famous Waikiki Beach or find your own secluded stretch of sand. A short drive out of town in any direction will bring you face to face with uncrowded beaches, natural wonders and beautiful scenery. Oahu is enchanting for naturalists, offering numerous chances to explore tropical gardens, lush rainforests and miles of white sandy beaches. Adventurous outdoor enthusiasts can hike exotic mountain ranges, kayak in sapphire bays, golf the most challenging courses, and surf at the world's best beaches. The island is fascinating for history buffs to discover Hawaiian plantation history and Pearl Harbor. Visitors can experience local traditions, try quilting, string a lei, learn to surf, eat shaved ice and dance a hula, or one can swim with dolphins, snorkel Hanauma Bay and ride outrigger canoes.

Special Experiences In and Around the Hawaiian Islands

The Hawaiian Islands provide countless opportunities for site seeing, dinner cruises, submarine tours, and sea life experiences. Arrangements can be made through Atlantis Adventures. Atlantis offers exciting adventure tour packages that are designed for every type of adventure traveler. Whether you're looking for exciting underwater adventure tours, thrilling water based excursions, or a guided tour and island adventure, Atlantis offers programs that are sure to create lifetime memories. Atlantis Adventure guides provide visitors the chance to explore everything that Atlantis Adventures offers without having to focus on any one particular destination. However, if you already know where you want to go, they offer a special interactive tour planner. You can get more information and make arrangements via their web site: http://www.atlantisadventures.com, or you can call them at 808-973-9800 or send a fax to 808-973-9840. Reservations are on an individual basis and must be made directly with Atlantis Adventures. Reservations cannot be made via the conference web site, so you must call Atlantis Adventures to make your reservations and to confirm rates, times, and arrangements.

Great Aloha Run

The Great Aloha Run is held each year on President's Day. The next race will be held on February 16, 2004, during the Ocean Research Conference. It is an 8.15 mile route which begins at Aloha Tower in downtown Honolulu and ends in Aloha Stadium. Each year the race averages over 22,000 participants of all ages, and each individual can complete the event at his or her own pace. Carole Kai co-founded the Great Aloha Run in 1985. Since then, it has raised over $5.2 million for over 100 charitable organizations in Hawaii. The race brings people from all around the world to participate in health and fitness, fun, celebration and camaraderie. For more information, including how to register, visit the race's web site at http://www.greataloharun.com/.

Housing Arrangements

Housing arrangements for the ASLO/TOS 2004 Ocean Research Conference have been made at a variety of downtown Honolulu hotels, all within walking distance of the Hawaii Convention Center, and they offer a wide range of room rates that will allow you to select the one that best fits your needs. Single occupancy room rates range from $68 USD per night to $165 USD per night. Hotel reservation information is included in this program with complete room rate and reservation instructions listed for each hotel. We strongly encourage you to support ASLO and TOS by making your hotel reservations at one of the conference hotels listed in this program and on the web site at http://www.aslo.org/honolulu2004/hotels.html.

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Commercial and Nonprofit Exhibitors

An exhibit area will be set up in Kamehameha Hall III of the Hawaii Convention Center. Exhibits will be open Tuesday, February 17, through Thursday, February 19, from 8:00 a.m. to 7:00 p.m. Attendees will have access to the exhibit hall during the conference hours, posters will be on display in the exhibit hall, and morning and afternoon coffee breaks will be set Tuesday, Wednesday, and Thursday in the exhibit area as well.

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Exhibitors are invited to participate in the various social activities associated with the meeting by paying the additional spouse/guest fee of $100.00 USD. The cost to exhibit for a commercial (for-profit) company is $1150.00 USD and non-profit organizations may exhibit for $750.00 USD. Several opportunities are available for sponsorship of various breaks, receptions and other functions throughout the meeting. If your organization is interested in more information, please contact the Exhibits/Sponsorship Coordinator at the ASLO Business Office, (800) 929-ASLO or (254) 399-9635.

Future ASLO Meetings

ASLO 2004 Summer Meeting
June 13-18, 2004
Savannah, Georgia

ASLO 2005 Aquatic Sciences Meeting
February 20-25, 2005
Salt Lake City, Utah

ASLO 2005 Summer Meeting
June 19-25, 2005
Santiago de Compostela, Spain

Presentation Archive

Abstracts of papers presented during the ASLO/TOS 2004 Ocean Research Conference will be published in an abstract book as well as archived on the ASLO web site following the meeting.

For More Information

For more information on the ASLO/TOS 2004 Ocean Research Conference, please contact the Registration Coordinator and Conference Manager:

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Opportunities and Information for Students

DIALOG: Professional-Development Activities for Recent Ph.D. Recipients and Near-Grads

One of the most positively reviewed components of the Dissertations Initiative for the Advancement of Limnology and Oceanography (DIALOG) program has been advice and strategies for professional development, currently offered via the DIALOG web page and symposia. We are "testing the waters" to see if there is general interest in continuing or expanding such professional-development offerings in the context of scientific society meetings. In addition to the DIALOG evening reception on proposal development, we will organize a lunch session on landing a job. At both sessions, a brief "formal" presentation will be used to stimulate questions and discussions of importance to near and recent graduates. Past DIALOG participants as well as other early and mid-career scientists from U.S. and non-U.S. institutions will be on hand to help answer questions and provide broad career perspectives. Information about DIALOG will also be available. Visit http://aslo.org/phd.html for a program overview.

Workshop for Landing the Right Job: Applications to Interviews

Date: Monday, February 16, 2004, 12:00 to 1:15 p.m.

Location: Room 316 C – Hawaii Convention Center

It all begins here… but where to begin? Knowing how to make your application and interview stand out among all the others is one of the keys to getting the offer for that perfect job. We will discuss some "universal" strategies that should help you attain your goal.

Organizers: Dr. Rebecca Shipe, Assistant Professor, UCLA, Dr. Monty Graham, Associate Professor, University of South Alabama, and Dr. C. Susan Weiler, Research Associate, Whitman College

DIALOG Reception: Proposal Development Strategies for new PIs

Date: Tuesday, February 17, 2004, 6:00 to 7:30 p.m.

Location: Room 317 A – Hawaii Convention Center

It takes more than just a good idea to get funded… knowing how to get your message across to the reviewer can substantially improve your chance. We will present an overview of proposal development using a systematic approach. The brief overview of the process will set the stage for questions and discussion. While the presentation will use a U.S. National Science Foundation proposal as a model, past European DIALOG participants and others with successful experience will be on hand to relate these strategies to the European and other systems. Agency representatives have been invited as well. While the focus is on new PI's, everyone is welcome to participate.

Organizers: Dr. Monty Graham, Associate Professor, Dauphin Island Sea Lab, and Dr. C. Susan Weiler, Research Associate, Whitman College

Outstanding Student Poster Awards

Posters presented by ASLO and TOS student members in all areas of ocean science are appropriate for consideration for outstanding student poster awards. This includes posters that present theory, modeling, and laboratory or field experimentation. To be eligible, the student must be an ASLO or a TOS member and first author on

research that has not been presented previously at ASLO, TOS, or other scientific meetings. Presentations will be judged on the basis of innovation/scientific insight, quality of experimental design/methods, and clarity/effectiveness of presentation. All posters submitted by student members are eligible for consideration, and there is no need to apply.

Student posters will be judged immediately following the conclusion of the poster set-up time on Monday afternoon, February 16, 2004. Therefore, posters that are not in place by this time will not be eligible for awards and will not be judged.

Career Link Program

Prospective employers and supervisors are invited to post announcements free of charge at the conference. Likewise, students are invited to post resumes for viewing by employers and supervisors. Electronic versions of ads and resumes will be distributed free of charge after the meeting. To learn more about the Career Link Program, please go to the ASLO web site at http://www.aslo.org/career/careerlink.html.

Volunteers Needed for Poster Judging

Post docs and professionals who are members of either ASLO or TOS are invited to serve as poster judges. Each judge will be responsible for evaluating 10 posters. Please indicate your area of expertise and interest in serving as a volunteer by sending an e-mail to: Letise Houser [lthouser@udel.edu].

Roommates Wanted

Roommates Wanted is a free on-line service to those who are seeking roommates during ASLO meetings. To participate visit the ASLO website: http://www.aslo.org/honolulu2004/students.html

Conference Events

Registration

Dates: Sunday, February 15, 2004 - 1:00 to 9:00 p.m.
Monday, February 16, 2004, through Thursday, February 19, 2004 - 7:00 a.m. to 5:00 p.m.
Friday, February 20, 2004 - 8:00 a.m. to 12:00 p.m.

Location: Kamehameha Hall III Lobby - Hawaii Convention Center

Conference attendees are encouraged to register on Sunday afternoon so that they will have their program and materials prior to the opening reception for the conference on Sunday evening and before the general session begins on Monday morning.

Opening Welcome Mixer Reception

Date: Sunday, February 15, 2004, 6:30 to 9:00 p.m.

Location: Rooftop (Ballroom Level 4) - Hawaii Convention Center

Ocean Research Conference attendees are invited to an opening welcome reception at the convention center. Conference registration will be open during this time as well so that you can check-in for the meeting and receive your registration materials.

Plenary Addresses

Dates: Monday, February 16, through Thursday, February 19, 2004

Location: Ballroom A-B - Hawaii Convention Center

Plenary lectures are planned each morning, Monday through Thursday. Coffee breaks will follow these presentations to allow attendees time to discuss the points of the address further.

Poster Sessions and Receptions

Dates: Tuesday, February 17, through Thursday, February 19, 2004, 5:00 to 7:00 p.m.

Location: Kamehameha Hall III

Poster sessions and receptions will take place in the Hawaii Convention Center on Tuesday, Wednesday, and Thursday evenings. Ocean Research Conference poster sessions will be a central part of the meeting. The program will include an unprecedented number of poster presentations, and thus the poster sessions will be a very prominent and important part of this conference. Posters will be on display three full days, from Tuesday, February 17, through Thursday, February 19, 2004. Poster sessions will be held every afternoon giving the presenters the flexibility to present their research during each poster session and/or only at a preferred time during the week. To emphasize the topical directions of the poster presentations, the poster area will be organized thematically. A reception will take place in the poster hall each afternoon to enhance attendance of the poster sessions.

Wednesday Evening Hawaiian Luau

Date: Wednesday, February 18, 2004. Participants will board busses at the Hawaii Convention Center at 5:00 p.m. and busses will return to the various hotels in the ORC room block following the luau at approximately 10:30 p.m.

Cost: Adults: $55.00 per person, Juniors (Ages 14-20): $45.00 per person, Children (Ages 6-13): $33.00 per person. Price includes round-trip transportation, three complimentary beverage tickets per adult (proper identification required for alcoholic consumption), unlimited soft drinks, multi-course buffet dinner, and pre-dinner and pre-show activities)

This is your chance to experience an authentic Hawaiian luau and be part of a colorful Polynesian revue! Take in the rich cultural heritage of Hawaii and all of the Pacific Islands. You will drink in the spectacular show delivered at the ocean's edge, under the stars and palm trees, amid tropical breezes. This event will feature a marvelous Hawaiian-American buffet complete with roasted pig, mahi mahi, beef, chicken and salmon dishes served with rice, poi, salads, dinner rolls, an array of desserts, and a variety of alcoholic and non-alcoholic tropical, blended and specialty beverages and soft drinks. Make plans to participate and be touched by the magic of ancient Hawaii and its splendor.

Let's Talk About WHOI Discussion Session

Date: Monday, February 16, 2004, 5:00 to 8:00 p.m.

Location: Room 321 B - Hawaii Convention Center

If you were setting up an oceanographic institution, would WHOI be a good model? You are invited to share your views and experience of the Woods Hole Oceanographic Institution — as resident, collaborator, or observer, and potential contributor to a 75th anniversary history of WHOI. The history's author, Vicky Cullen, will moderate, seeking insight into the institution's place in and contributions to the oceanographic community. Comments on both positive and negative influences will be welcome.

National Science Foundation Town Hall Meeting

Date: Monday, February 16, 2004, 5:30 to 8:30 p.m.

Location: Room 316 C - Hawaii Convention Center

These are very active and exciting times for the ocean research community. This town hall meeting will give attendees a chance to hear the latest news from NSF — on infrastructure and research directions as well as budget issues — and will give NSF staff the opportunity to hear from the community. Several NSF staff members will provide informal updates on activities and trends and will be available to respond to questions. All are welcome.

California COSEE Sessions for Local Students and Ocean Science Educators

Dates: Tuesday, February 17, and Thursday, February 19, 2004, 12:00 to 1:30 p.m.

Location: Rooms 323B, 323C and 324 - Hawaii Convention Center

California COSEE has arranged for local high school and community college students to attend portions of the Ocean Research Conference. Selected students and their teachers have been invited to view posters on Tuesday and Thursday from 10:00 a.m. until noon. Poster presenters are encouraged to interact with students during these times. Immediately following the morning poster-viewings, students will participate in panel discussions with invited scientists. All conference participants are welcome to attend. For more information on this event, please contact Tami Lunsford at tlunsford@marinetech.org.

NASA Town Hall Meeting

Date: Tuesday, February 17, 2004, 5:00 to 7:00 p.m.

Location: Room 315 - Hawaii Convention Center

Three main topics will be discussed at the NASA town hall meeting: climate data records for ocean color, update on the status of Terra and Aqua MODIS Oceans data, and overall update on NASA's ocean biology and biogeochemistry program.

A strawman for defining climate data records for ocean color data will be presented. Creating a continuous time-series of ocean color data from which to detail climate change and variability requires strict specifications for accuracy in calibration and cross-calibration, in situ observations and laboratory protocols, data archiving, and quality control. Parameters for which CDR's may be developed include, but are not limited to, chlorophyll a, water-leaving radiances, and sea surface temperature. An update on the status of the MODIS oceans data from both the Terra and Aqua platforms will be presented. A detailed description of major issues in calibration will be discussed. A final discussion session will contain an update on NASA's Ocean Biology and Biogeochemistry programs, including updates to NASA's Earth Science Enterprise Research Strategy, future programs and funding opportunities. The session will be open to all meeting attendees; community input is welcome.

Ocean.US - Development of the Integrated Ocean Observing System (IOOS) Session

Date: Tuesday, February 17, 2004, 5:00 to 8:00 p.m.

Location: Room 316 A - Hawaii Convention Center

The National Office for Sustained and Integrated Ocean Observation (Ocean.US) is coordinating the development the operational Integrated Ocean Observing System (IOOS) for the U.S. The following will be discussed at this session: the two IOOS components – global and coastal; regional associations of observing systems; implementation plans; and initiatives such as surface currents, remote sensing and sensors. Refreshments will be provided. Contact k.stump@ocean.us for more information on this town hall session.

Antarctic Research Vessel Oversight Committee (ARVOC) Meeting

Date: Tuesday, February 17, 2004, 5:00 to 8:00 p.m.

Location: Room 316 B - Hawaii Convention Center

National Ocean Service Initiatives Town Hall Meeting

Date: Tuesday, February 17, 2004, 5:00 to 8:00 p.m.

Location: Room 316 C - Hawaii Convention Center

Richard W. Spinrad, Ph.D., assistant administrator, National Oceanic and Atmospheric Administration (NOAA) Ocean Services and Coastal Zone Management, will lead a town hall discussion forum that will focus on ocean and coastal observation systems, coastal modeling, hydrographic services, and key issues confronting the ocean science community, NOAA and the National Ocean Service. Spinrad has broad experience in marine science, technology, operations and policy. During his career he has worked in a wide range of positions in government, academia, industry and non-governmental organizations. Prior to his current assignment, Spinrad was the technical director to the oceanographer of the Navy. In this position he provided leadership and guidance for the development of the U.S. Navy's oceanographic and meteorological operational support to Naval forces. He also was the editor-in-chief of *Oceanography* magazine and has been an elected member of the council of The Oceanography Society, and has served on numerous professional committees of organizations including the National Academy of Sciences and the American Meteorological Society. In 2003 Spinrad was awarded the Department of Navy Distinguished Civilian Service Award, the highest civilian award that can be given by the Navy Department.

Ocean Science Education and Outreach Lunch

Date: Wednesday, February 18, 2004, 12:15 to 1:15 p.m.

Location: Room 321 B - Hawaii Convention Center

Conference attendees involved in ocean science education and outreach are invited to a special lunchtime discussion session sponsored by the COSEE Central Coordinating Office. This session is intended to encourage informal exchange among those who facilitate ocean scientists' E&O efforts. Lunch will be provided. No pre-registration is necessary.

Bio-Physical Interactions, Fisheries Oceanography, and Fisheries Management Town Hall Meeting

Date: Thursday, February 19, 2004, 5:00 to 8:00 p.m.

Location: Room 314 - Hawaii Convention Center

This town hall meeting will bring together scientists involved with studying bio-physical interactions, fisheries oceanography, and fisheries management from the public, academic, and private sectors. Consideration will be given to the socio - political factors involved in how and why management is using or is not using fisheries oceanographic data to provide for improved decision

making. Through an exchange of ideas, approaches, and experiences the organizers hope that this will lead to an understanding of how to increase the integration of oceanographic, meteorological and other information in fisheries management. The ultimate goal is to improve fish stock assessments, our understanding of fish population dynamics (in different time and space scales) and fisheries policy. Additional focus will be on an evaluation of what research, data products, and tools are needed to improve the accuracy and reliability of forecasting and diagnostic fisheries models and data products. Comparisons of using different in-situ data and information gained from modeling, as well as, from different data collection platforms will provide researchers and policy makers with information needed to prepare to integrate the data derived from the present day and next generation of observational platforms. Refreshments will be provided during the discussion time.

Bering Ecosystem Study (BEST) Program Town Hall Meeting

Date: Thursday, February 19, 2004, 5:00 to 8:00 p.m.

Location: Room 323 B - Hawaii Convention Center

The Bering Ecosystem Study (BEST) Program will hold a town hall meeting to provide a brief presentation on the draft science plan and an opportunity for questions and feedback from the community on ways of making the plan more responsive to community needs. The intent of the BEST science plan is to outline a multi-year research effort that will provide improved understanding of the effects of climate variability on the ecosystems of the eastern Bering Sea. The proposed studies focus on the mechanisms and processes that determine the biological production of the Bering Sea ecosystems and the fate of this production as it is transferred through the ecosystem to upper trophic level consumers, including humans. It is anticipated that the science plan will be followed by an implementation planning process and that, if funding and ships are available, the field program could begin in summer 2005 or 2006. All those with interest in this developing research program are welcome to attend. To download a copy of the draft report see: http://www.arcus.org/bering/draftreview.html. For more information regarding the BEST Program please contact: Dr. George L. Hunt, Jr. (glhunt@uci.edu).

Marine Rodeo

Date: Thursday, February 19, 2004, 7:00 to 10:00 p.m.

Location: Room 316 C - Hawaii Convention Center

This light-hearted evening session will encourage creative scientific thinking through on-the-spot improvisation. Volunteers from the audience will reach into a hat to select five slides (or numbers representing PowerPoint slides) at random from a collection of aquatic science illustrations. Data will include bar graphs and scatter plots from actual research but without axis labels, and an assortment of photographs of marine specimens and shipboard operations will be included. The speaker will have 5-7 minutes to speak on a topic of their choice using the visual aids sight-unseen. The session offers participants from undergraduate to senior scientist status an opportunity to exercise their imaginations within a professional context.

Workshops

Public Policy Workshop I – Effective Communication with Lawmakers

Date: Tuesday, February 17, 2004, 12:15 to 1:15 p.m.

Location: Room 316 C - Hawaii Convention Center

Environmental policy debates revolve around scientific issues. Unfortunately, scientists rarely have training or experience in communicating with policy-makers. In this workshop, ASLO Director of Public Policy Adrienne Froelich will explain the various mechanisms available to scientists to participate in the environmental policy arena. She also will offer tips for effective communication with policymakers based on her experience working on Capitol Hill.

Public Policy Workshop II – What's Going On with Ocean Research Funding and What YOU Can Do About It

Date: Wednesday, February 18, 2004, 12:15 to 1:15 p.m.

Location: Room 316 C - Hawaii Convention Center

Are low proposal success rates getting you down? ASLO Director of Public Policy Adrienne Froelich will provide an update on the status of ocean research funding and will discuss the outlook for initiatives such as the integrated coastal and ocean observatory initiative. She also will provide information about how individual scientists can encourage legislators to continue support of these programs.

Instructions for Poster Presenters, Oral Presenters, and Session Chairs

Abstracts

Abstracts for this meeting will be posted and archived on the ASLO web site (http://www.aslo.org), and a complete book of abstracts will be distributed to registered attendees at the meeting.

Poster Presentations

Posters will be on display in Kamehameha Hall III of the Hawaii Convention Center on Tuesday, Wednesday, and Thursday from 8:00 a.m. until 7:30 p.m. Ocean Research Conference poster sessions will be a central part of the meeting and will include an unprecedented number of poster presentations. To emphasize the topical directions of the poster presentations, the poster area will be organized thematically. Authors should be available for discussion purposes during each poster session reception every afternoon from 5:00 to 7:00 p.m., or they may choose to present their research only at a preferred time during the week.

All poster presenters were notified of their poster number in advance of the meeting. If you did not receive such notification, please contact the conference management office at business@aslo.org or call 800-929-2756 or 254-399-9635.

Actual poster space will be 40 inches high by 44 inches wide (3 ft. 4 in. high by 3 ft. 8 in. wide or 1.016m high by 1.1176m wide) in size. Size requirements must be strictly adhered to so that they fit within the space assigned to them. If your poster exceeds these specifications, it may be subject to removal by the organizing committee.

It is very important that poster presenters adhere to the designated set up and tear down instructions and times. Posters may be set up on Monday, February 16, 2003, from 3:00 to 5:00 p.m. You will set up your poster according to your assigned number and to the sequential numbers on the poster boards. Student posters will be judged immediately following the conclusion of the poster set-up time on Monday afternoon. Therefore, student posters that are not in place by this time will not be eligible for awards and will not be judged.

All posters must be set up and ready for viewing on Tuesday, February 17, prior to the beginning of the first poster session/ reception in the poster/exhibit area.

All posters must be dismantled on Thursday evening, February 19, from 7:00 to 9:30 p.m., after the conclusion of the final poster session reception. If a poster has not been dismantled by the presenting author by this time, it may be discarded by the convention decorator.

Oral Presentations

All concurrent sessions will take place at the Hawaii Convention Center. With the exception of tutorials, oral presentations will be a total of 15 minutes in length, including set up, questions, and discussion. Please plan to allow at least five minutes for questions and discussion time. Session chairs have been instructed to strictly adhere to the schedule so that participants may move quickly among the concurrent session locations. If a presentation should be cancelled for any reason, this time will be used for additional discussion or a stretch break.

Presenters will not be allowed to provide their own laptop computer, and, in fact, personal laptop computers cannot be plugged into projectors in oral session rooms.

Speaker Ready Room

A speaker ready room will be located in Room 325 B of the Hawaii Convention Center for presenters to preview their materials and run-through their presentations. The speaker ready room will be open from 7:00 a.m. to 9:00 p.m. on Sunday and from 7:00 a.m. to 7:00 p.m. on Monday, Tuesday, Wednesday, and Thursday. The speaker ready room will not be open on Friday.

Presentation Room

Audio-visual technicians will be available in Room 325 A of the Hawaii Convention Center from 7:00 a.m. to 9:00 p.m. on Sunday and from 7:00 a.m. to 7:00 p.m. on Monday, Tuesday, Wednesday, and Thursday. The presentation room will not be open on Friday.

If you do not submit your presentation prior to the conference, you must bring your PowerPoint presentation to 325 A at least 24 hours before your presentation. Qualified technicians can help you transfer your presentation from your laptop, if necessary. Speakers will have the ability to review and make changes to their PowerPoint presentations in the presentation room. It is recommended that each presentation be reviewed no less than three hours before the start of the session.

If you are using slides, extra slide carousels will be provided. If you are using one of these carousels, please mark it with your name using the tape and markers that will be provided in the room.

Pre-Conference Presentation Uploading

It is highly recommended that you submit your presentation prior to the conference via the conference FTP site established through AVHQ Speaker Services. All individual presentations will be password protected.

Please follow these easy instructions for pre-conference uploading of your presentation via the secure FTP site:

1. Go to the Ocean Research Conference web site (www.aslo.org/honolulu2004)
2. On the front page of the conference web site, select the link for AVHQ Speaker Services (www.avhqspeakerservices.com)
3. Select “Submit Your Presentation.”
4. Select 2004 ASLO/TOS Ocean Research Conference from the dropdown list of available conference/shows.
5. Select “Presenter Login.”
6. You will be presented with two options: Update “Previously Added Presentation” or “Submit New Presentation.” If you are submitting your presentation for the first time, select “Submit New Presentation.”
7. Click on “Upload New Presentation.”
8. Fill out questionnaire.
9. Click “Submit.”
10. Click the “Upload File” button. An “Upload File” box will open up. Use the Browse button to find your presentation and click “Upload File.”
11. Wait for the website to tell you that your presentation has been submitted.
12. You will receive an immediate confirmation of receipt. Within 72 hours, you will receive another e-mail that your file has been checked and accepted.

This is the best way to submit your presentation. You will receive confirmation of your submitted presentation from AVHQ Speaker Services. You will also find helpful information and tips on creating the better presentations.

If there is a problem with uploading during the submission process, a technician will walk you through the steps on the telephone tech support line. Once uploaded, speaker technicians will open the presentation file to make sure everything will open and execute correctly. If any changes are made, AVHQ will notify the presenter via e-mail or phone and advise them as to whether it is correct or if further work is needed. Regarding security, AVHQ will download the presentations that are uploaded each day, take them off the ftp site, and place them on their local secure server.

Bring a back-up copy of your presentation with you to the meeting on either a disk/CD-ROM or DVD-ROM.

Electronic Presentation Guidelines

All PC computers in the presentation room will be installed with Microsoft Office 2000®. PowerPoint presentations created on the Macintosh platform should work, but Macintosh presentations should be reviewed in the presentation room to make sure all fonts and video clips are present in the form they were created in. Macintosh users should name their presentations with a .ppt suffix (example: presentation.ppt).

Microsoft Office XP

If you are using Microsoft Office XP, please save your PowerPoint presentation down to the PowerPoint 97-2000 version.

"Pack & Go"

The "Pack & Go" utility within Microsoft PowerPoint is a useful tool to use when you place video and/or sound files within your presentation. It is also helpful when using non-standard fonts within your presentation. This utility will compress your presentation along with the associated files into a single compressed file. You can then copy your presentation onto a floppy disk, CD-R, CD-RW, or Zip disk and bring it to the presentation room, where it can be unpacked and reviewed. It is important to remember that Macintosh only offers this option in its Macintosh Office for OS X only.

Laptop Support

A-V technicians will offer support to remove presentations from laptops. This action will require the installation of Zip Disk drivers or the installation of other drivers for removable media. It also might be required to configure the network card. If you plan on having to remove your presentation from your laptop, it is advisable to show up to the presentation room as soon as possible, to work out any unforeseen problems.

Media Support

We recommend you bring at least 2 copies of your presentation to the meeting in case there is a problem with one of them. When bringing your presentation on a disk, it may be on a Zip 100, Zip 250, CD-R, CD-RW, Compact Flash, Memory Stick, or 1.44 floppy. It is recommended that at least one backup copy of your presentation be brought to the presentation room when you check in.

Additional Presentation Guidelines

- Keep animations to a minimum. When using a bulleted list of points, it may be useful to have the points appear.
- Zip Disks, 1.44 Floppy, and CD's will be returned to the speaker.
- All presentations will be deleted at the end of the day. All copies will be deleted at the end of the meeting.
- If you plan to do a PowerPoint presentation, it is highly recommended that you have a backup of your presentation in the form of overhead transparencies.

Audio/Visual Equipment Information

All oral session rooms will be equipped with the following audio-visual equipment:

- 1 computer projector (PowerPoint)
- 1 PC computer
- 1 overhead projector
- 1 screen
- 1 laser pointer
- 1 timer
- 1 lavalier microphone

Internet connectivity is not available in oral session rooms.

Rental of additional audio-visual equipment:

Rental of a VCR, 35 mm slide projector, monitor, audio systems, provision of extra power outlets, extra tables, stands, etc. can be handled for an additional cost. If you did not request extra equipment at the time your abstract was submitted, please contact Ed Berru at AVHQ Speaker Services by phone at 214-210-8075 or by email at eberru@avhq.com.

Any costs for additional equipment will be billed to the abstract's presenting author.

For More information

For any PowerPoint presentation or audio-visual related questions, please contact:

Ed Berru
AVHQ Speaker Services
10540 N. Stemmons Freeway
Dallas, TX 75220
Office: 214-210-8075
Email: eberru@avhq.com

Registration Information

Online registration is preferred and highly recommended. You can register electronically on the conference web site (http://www.aslo.org/honolulu2004). Electronic registrations must include complete credit card information.

Every attempt has been made to allow secure transmissions of your credit card information and transaction, but ASLO and TOS assume no liability for your credit card information when it is released electronically. All credit card transactions will be processed through the conference web site. Transactions are protected and encrypted using a secure socket layer (SSL) certificate provided by Verisign, Inc. SSL technology is the industry-standard method for protecting web communications. The SSL security protocol provides data encryption, server authentication, message integrity, and optional client authentication for a TCP/IP (Internet) connection. Credit card verification and debit services will be provided by Authorize.net, a leading provider of Internet-based transaction services with thousands of online and traditional business customers around the world.

If registration by electronic means is not possible, please complete the registration form included in this book and send to the address listed below with payment or charge card information. Please return mailed-in registrations to:

ASLO Business Office
5400 Bosque Boulevard, Suite 680
Waco, Texas 76710-4446

Please make checks payable to: ASLO (All payments must be in U.S. dollars drawn on a U.S. bank.)

Registrations complete with purchase order or credit card information can be faxed to: (254) 776-3767.

The full registration fee includes admission to all oral and poster sessions, exhibits, town hall meetings, other evening sessions, Sunday welcome reception, poster receptions (Tuesday through Thursday), coffee breaks, book of abstracts, and the program book (sent to all registrants prior to the conference). Optional events such the Wednesday evening luau are not included.

Substantial savings apply if the payment and registration form are received on or before January 15, 2004.

Please indicate on your registration form if you are a member of either or ASLO, TOS, or both and let us know what other associations and societies you support with your membership.

Substitutions or Cancellations

We understand that occasionally other responsibilities and personal obligations prevent you from attending a program for which you have registered. If you find that you will not be able to attend the ASLO/TOS meeting, we encourage you to send a substitute. Substitutions can be made at any time, even on-site at the conference.

If you find it necessary to cancel after you have already paid, we can refund your conference fee (less an $80 USD processing fee) if we receive notice in writing on or before January 15, 2004. Due to the limited number of enrollments available, registrants who cancel on or after January 16, 2004, will be not be eligible for any part of a refund.

To provide cancellation notice and request a refund, please send a letter to: Helen Schneider Lemay, ASLO Business Office, 5400 Bosque Boulevard, Suite 680, Waco, Texas 76710-4446, fax your request to (254) 776-3767, or via e-mail to business@aslo.org.

Registration Fees *

Fees are stated in U.S. dollars and must be paid in U.S. dollars.

* In order to register as an ASLO or TOS member, you must be a current member of either society at the time that you register. Registration fee refunds will not be issued to those who register as a non-member and then later join the society. Likewise, if you join either society before the end of 2003 to take advantage of the member registration fee discount, your membership cannot be applied to 2004.

- ASLO and TOS Members: $350.00 USD on or before January 15, 2004 ($410.00 USD after January 15, 2004)
- Non-members (Those who are neither a member of ASLO nor TOS): $400.00 USD by January 15, 2004 ($460.00 USD after January 15, 2004)
- ASLO and TOS Student Members: $250.00 USD by January 15, 2004 ($310.00 USD after January 15, 2004)
- Non-Member Students: $275.00 USD by January 15, 2004 ($335.00 USD after January 15, 2004)
- One-day registrations: $150.00 USD by January 15, 2004 ($210.00 USD after January 15, 2004)
- Spouse/Guest: $100.00 USD by January 15, 2004 ($160.00 USD after January 15, 2004.) Spouse and guest fees cover only the conference social events such as the Sunday welcome reception, coffee services, and the poster receptions Tuesday through Thursday. Optional events are not included. However, spouses and guests are encouraged to register for the special activities. Spouses and guests cannot be admitted to the sessions without paying the appropriate full registration fee.

A late fee of $60.00 USD will be added to all registrations received after January 15, 2004.

Fees to attend the 2004 Ocean Research Conference must be paid in advance. Registrations are not considered guaranteed until a check, money order, purchase order, or charge card information is received. All fax registrations must include complete credit card information, including number, expiration date, and cardholder name. VISA, MasterCard, and American Express are accepted. Organizations can be billed only if a purchase order accompanies the registration either by fax or by mail.

Registration and any other fees listed on the conference registration form are payable in U. S. currency only.

If desired, confirmation will be sent to attendees upon receipt of each completed and paid registration.

Conference Check-In and Registration

Registration prior to the meeting is strongly encouraged. By doing so, you will greatly reduce the amount of time necessary to complete the on-site registration process and pick up your meeting materials.

Meeting materials, name badges, and registration packets can be picked up on Sunday, February 15, 2004, at the Hawaii Convention Center from 1:00 to 9:00 p.m. Registration will be opened each day at the convention center, from Monday, February 16, through Thursday, February 19, from 7:00 a.m. to 5:00 p.m. and on Friday, February 20, from 8:00 a.m. to 12:00 p.m.

Name badges will be included in your registration packet and must be worn at all times throughout the meeting. Your conference receipt will be included with your badge.

Maps showing the various session and meeting room locations are included at the back of this program.

Miscellaneous Information

For Foreign Participants

The National Academies International Visitors Office suggests making plans as soon as possible for visiting the United States by making sure that your visa or passport is in order. Some travelers under the Visa Waiver Program may need a machine-readable passport (MRP) in order to enter the United States without a visa as of October 1, 2003 (May 15, 2003 for Belgium). The deadline for most countries is October 26, 2004. For the list of countries and their deadlines, see the State Department's Visa Waiver Program web page: http://www.travel.state.gov/vwp.html

If you have questions, please visit the International Visitors Office site: http://national-academies.org/visas or contact visas@nas.edu

Currency Exchange

Cash machines with 24-hour access are available at many convenient locations in Honolulu. The following financial institutions also offer international banking services:

First Hawaiian Bank (located in Waikiki)
2181 Kalakaua Ave.
Honolulu, HI 96815
Phone: 808-943-4670

First Hawaiian Bank (near the Convention Center)
1580 Kapiolani Blvd.
Honolulu, HI 96814
Phone: 808-943-4437

American Savings Bank (located in Waikiki)
321 Seaside Ave.
Honolulu, HI 96815
Phone: 808-923-1102

American Savings Bank (near the Convention Center)
1357 Kapiolani Blvd.
Honolulu, HI 96814
Phone: 808-942-8851

American Savings Bank (near the Convention Center)
1600 Kapiolani Blvd.
Honolulu, HI 96814
Phone: 808-946-2802

Travelex, formerly Thomas Cook Foreign Exchange (near the Convention Center)
1450 Ala Moana Blvd.
Honolulu, HI 96814
Phone: 808-949-2813

Special Needs

If you have a disability or limitation that may require special consideration in order to fully participate, please contact the planning organization to discuss how we can accommodate your needs during the conference. Please contact Helen Schneider Lemay by email at business@aslo.org or call 800-929-ASLO (within the U.S., Canada, and the Caribbean) or 254-399-9635 (all other countries). You also can send a fax to 254-776-3767.

Childcare

Contact Kathy Hew at Kama'aina Kids about childcare for children three years and older. The cost is $10 USD per hour. Please send an email to kathy@kamaainakids.com, call 808-262-3626 or send a fax to 808-261-2051. Because Kama'aina Kids does not offer childcare for children under three years of age, please check with your hotel to see if they offer in-house day care services. Any arrangements made represent a contractual agreement between the individual and the childcare agency/provider selected. ASLO and TOS assume no responsibility for the services rendered.

Message and Jobs Boards

Messages for colleagues can be posted on message boards at the Hawaii Convention Center. A bulletin board also will be available to post job listings. If you know of pertinent job announcements, you are encouraged to take advantage of this opportunity by posting them on this board. If you know of a job opportunity and would like to submit a listing but will not be able to attend the meeting, please e-mail a brief description to either of the student board representatives Letise Houser (lthouser@udel.edu) or Colin Stedmon (cst@dmu.dk) by January 16, 2004.

E-mail Access

E-mail terminals to access electronic mail will be set up in Room 327 of the Hawaii Convention Center during conference hours Monday through Thursday. We also suggest you check with your hotel regarding the e-mail facilities and instructions on access.

Concessions at the Hawaii Convention Center

The Hawaii Convention Center will have concession areas on Monday, February 16, 2004, for lunch service only from 12:00 to 1:30 p.m. Depending upon sales, the convention center concessions will be open Tuesday, February 17, through Friday, February 20, for breakfast and coffee service between the hours of 7:00 and 8:00 a.m. and for lunch from 12:00 to 1:30 p.m.

For More Information

For more information on the ASLO/TOS 2004 Ocean Research Conference, address all correspondence and questions regarding registration, conference logistics, and hotel accommodations to:

Helen Schneider Lemay
ASLO Business Office
5400 Bosque Boulevard, Suite 680
Waco, Texas 76710-4446
business@aslo.org E-mail
http://www.aslo.org/honolulu2004 Web
800-929-ASLO (Within the U.S., Canada, and the Caribbean),
254-399-9635 (All other countries) Phone
254-776-3767 Fax

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.

Hotel and Accommodation Information

ASLO and TOS have selected six hotels, all within walking distance of the Hawaii Convention Center, to host the Ocean Research Conference delegates. These hotels provide a range of sleeping room rates.

Please make your hotel reservations by phone, fax, mail, or Internet by the appropriate reservation cut-off date in order to guarantee the special meeting rates. We strongly encourage you to support ASLO and TOS by making your hotel reservations at one of these conference hotels.

Conference Hotels

Hilton Hawaiian Village Beach Resort & Spa
(Headquarter Hotel for the 2004 ORC)
2005 Kalia Rd.
Honolulu, HI 96815
Phone: (808) 949-4321
Toll Free: (800) HIL-TONS

Web Site: http://www.hiltonhawaii.com (For on line reservations, reference group code AQP)

Rates: $165 for single or double occupancy; $210 for triple occupancy, and $255 for quad occupancy per guestroom plus applicable taxes. The Hilton does have a very limited number of rooms available at government rates.

Reservation Cut-off Date: January 12, 2004

The Hilton Hawaiian Village Beach Resort & Spa is approximately .3 miles from the Hawaii Convention Center, a 10 to 15-minute walk. Located on 22 tropical acres of Waikiki's best beach, tropical flora and exotic wildlife grace the resort and provide a delightful retreat. Discover an international selection of 22 restaurants and lounges, and over 90 shops and specialty boutiques. The Hilton Hawaiian

Village offers six daily activities that range from lei making and hula lessons to aquacise and aerobics. Every Friday evening, the resort's Super Pool becomes the stage for a free King's Jubilee celebration complete with a Polynesian extravaganza, which ends in a fabulous fireworks display over Waikiki. The hotel does not offer complimentary parking.

Ohana Maile Sky Court
2058 Kuhio Avenue
(Located between Namahana and Olohana Streets)
Honolulu, Hawaii 96815-2144
Phone: (800) 325-7171
Fax: (808) 921-6849

E-mail: group.reservations@outrigger.com

Web Site: http://www.ohanamaileskycourt.com (On-line booking thru website not available. Group reservation phone number: 800-325-7171)

Rates: $68 for single or double occupancy per guestroom plus applicable taxes.

Reservation Cut-off Date: January 16, 2004

Located on Kuhio Avenue at the top of Waikiki, the Ohana Maile Sky Court is just steps to shopping, dining, and entertainment. The hotel is about .6 miles from the Hawaii Convention Center, approximately a 15-minute walk. The hotel guestrooms offer panoramic ocean and city and views from upper floors. Kitchenettes available. Rooms include air conditioning, blackout drapes, cable and pay TV movies, card key access to guest room, coffee makers, and a refrigerator. The hotel features a TGIFriday's restaurant. The Cowabunga Kids Club offers supervised activities for children ages five through 13 at Outrigger Reef. The hotel is situated to offer easy access to city bus and trolley routes offering inexpensive transportation to attractions around the city of Honolulu. It is across the street from Nike Town and the Banana Republic flagship store and is a 20-minute walk to Waikiki Beach and the Royal Hawaiian Shopping Center. The hotel does not offer complimentary parking.

Holiday Inn – Waikiki
1830 Ala Moana Boulevard
(Across from Hilton Hawaiian Village, towards Hobron Ln.)
Honolulu, Hawaii 96815
Phone: (888) 9-WAIKIKI
Fax: (808) 947-1799

Web Site: http:// www.waikikihi.holiday-inn.com (On-line booking thru website not available)

Rates: $90 for single or double occupancy; $105 for triple occupancy, and $120 for quad occupancy per guestroom plus applicable taxes.

Reservation Cut-off Date: January 19, 2004

Conveniently located at the doorstep to Waikiki, the Holiday Inn is just minutes away from some of Waikiki's most beautiful beaches, shopping, restaurants and much more. The Hawaii Convention Center is approximately a ½-mile away, a 5 to 10-minute walk. Guests have easy access to all of the sights, sounds and cultural experiences of the world's most famous resort location. Just one block from sunny beaches and a 15-minute walk to central Waikiki makes the Holiday Inn a good location when it comes to convenience and comfort. Rooms feature king or two full-size beds, air conditioning, coffee maker with complimentary coffee, remote controlled color TV, pay-per-view movies, refrigerator, modem connection, and electronic door locks. The hotel does not offer complimentary parking.

Doubletree Alana Waikiki
1956 Ala Moana Boulevard
(Corner of Ala Moana Blvd. and Kalakaua Ave.)
Honolulu, Hawaii 96815-1897
Phone: (808) 941-7275
Fax: (808) 949-0996

Web Site: http://www.DoubletreeAlana.com
(For on line reservations, reference group code: ASL)

Rates: $107 for single or double occupancy; $137 for triple occupancy, and $167 for quad occupancy per guestroom plus applicable taxes.

Reservation Cut-off Date: January 19, 2004

An intimate boutique hotel, the Doubletree Alana Hotel - Waikiki is situated only four miles from downtown Honolulu, a few blocks from the Hawaii Convention Center (approximately .3 miles, or five to 10 minutes to walk) and is within walking distance to the excitement of Waikiki. This hotel is just far enough from the beach and crowds to be enjoyable for either the business or the leisure traveler. The Ala Moana Shopping Center is right around the corner and white sand beaches are only a 10-minute stroll away. Standard rooms have great city and mountain views. Guests enjoy complimentary in-room coffee makers with coffee service, movies on demand, complimentary safes and private balconies. The hotel does not offer complimentary parking.

Renaissance Ilikai Waikiki Hotel
1777 Ala Moana Boulevard
Honolulu, Hawaii 96815-1606
Phone: (808) 949-3811
Toll-Free in USA and Canada: 1-800-2ILIKAI (1-800-245-4524)
Reservations Fax: (808) 947-0892

E-mail: sales@ilikaihotel.com

Web Site: http://www.ilikaihotel.com
(On line reservations are not available.)

Rates: $150 for single or double occupancy; $180 for triple occupancy, and $210 for quad occupancy per guestroom plus applicable taxes.

Reservation Cut-off Date: January 14, 2004

Perfectly situated at the gateway to Waikiki, The Renaissance Ilikai Waikiki Hotel provides ideal access to the world's most popular beaches and the best-known attractions of Honolulu. The Renaissance is approximately .6 miles from the Hawaii Convention Center, about a 10-minute walk. The hotel offers spacious rooms with beautiful ocean and mountain views, color cable TV, pay-per-view movies, Internet service, and laundry room facilities. The Renaissance Ilikai Waikiki Hotel has a medical clinic open seven days a week. The hotel does not offer complimentary parking.

Ala Moana Hotel
410 Atkinson Drive
Honolulu, Hawaii 96814-4722
Phone: (808) 955-4811
U.S. and International Toll-Free: (888) 367-4811
Toll Free from Neighbor Islands: (800) 446-8990
Reservations Fax: (808) 944-6839

Email: reservations@alamoanahotel.com

Web Site: http:// www.alamoanahotel.com (For on line reservations, reference group code 023037. For government rates, group code 0327927)

Rates: $129.00 for single or double occupancy and $154 for triple occupancy per guestroom plus applicable taxes

Reservation Cut-off Date: January 16, 2004

The Ala Moana Hotel is seven miles from Honolulu International Airport and just across the street from the Hawaii Convention Center. The hotel has over 1150 guest rooms featuring picturesque mountain and ocean views, along with a host of amenities. The Ala Moana Shopping Center is adjacent to hotel offering three floors of over 200 shops, services and restaurants. Parking is complimentary to ASLO/TOS conference attendees at the Ala Moana Hotel.

Transportation Information

Special Airline Rates

Special airline rate arrangements have been made with United Airlines. Special meeting fares apply to all attendees of the 2004 Ocean Research Conference who use the Meeting ID Number when booking their reservations. U.S. attendees who call United's toll-free number (1-800-521-4041) to book reservations and refer to Meeting ID Number 516GN will receive a 5% discount off the lowest applicable discount fare, including first class, or a 10% discount off mid-week coach fares, purchased seven (7) days in advance. An additional 5% discount will apply when tickets are purchased at least 30 days in advance of your travel date. Or, you may chose area pricing, set airfare prices based upon geographical locations. Discounts apply on all United and United Express domestic flights. International attendees will receive a 10% discount off the lowest applicable fare (including business class) or a 15% discount off the fully refundable, unrestricted coach fare when they call their local United Airlines reservation number and refer to Meeting ID Number 516GN. (For a list of international reservation numbers, go to the United Airlines web site at http://www.ual.com/ and select "Customer Support.") An additional 5% discount will apply when tickets are purchased at least 60 days in advance of your travel dates. Discounts do not apply to Star Alliance or code share flights.

Local Transportation

Local transportation is available through TheBus, offering 86 routes and 4,000 bus stops to serve the entire island of Oahu. Buses arrive approximately every 30 minutes depending on route number. The current one-way fare is $1.50. For more information, including a route guide and bus schedule, please go to: http:// www.thebus.org. Taxis can be arranged through the conference hotels.

Hawaii Convention Center Parking

The Hawaii Convention Center (HCC) offers parking on Level II. Access to the parking garage is off of Kalakaua Avenue, headed east. The current cost to park at the convention center is $3.00 USD per exit.

Transportation to and from the Airport

The current cost for taxi fare from Honolulu International Airport to Waikiki is $20 to $30 USD.

For a list of airport shuttle operators and companies that provide prearranged ground transportation, please go to: http:// www.state.hi.us/dot/airports/oahu/hnl/hnl_ground_trans.htm

Car Rental

AVIS has been appointed the official car rental company for the ASLO/TOS 2004 Ocean Research Conference in Honolulu. To make reservations if you are calling from the U.S., please call (800) 331-1600. If you live outside the U.S., please visit the website www.avis.com for a list of international numbers to call and select Customer Service. You may also contact your travel agent. The AVIS Worldwide Discount (AWD) Number for this meeting is: D130903. (Please note: AVIS meeting rates will not be available until September 1, 2003, and will be applied to your reservation at that time. Please make sure that the AWD Number "D130903" is noted at the time that you make your reservations so that all applicable discounts can be applied.)

Bicycle Rentals

As a transportation option while you are in Honolulu, you might want to consider renting a bicycle to get to and from the convention center. Following are some companies in the Honolulu area that rent bicycles:

Located near Waikiki:

- Paradise Rent A Car
  Phone: (808) 946-7777 or Toll Free: (888) 882-CARS
- A Big Kahuna Motorcycle Tours & Rental
  Phone: (808) 924-2736.

North and west sides of the island:

- Country Cycles
  Phone: (808) 637-9991
- Hale Nalu Surf Company
  Phone: (808) 696-5897
- Raging Isle Surf & Cycle:
  Phone: (808) 637-7707

Meeting Schedule

Sunday, February 15, 2004

1:00 - 9:00 p.m. Registration
Kamehameha Hall III Lobby – Hawaii Convention Center

6:30 - 9:00 p.m. Opening Welcome Mixer Reception
Rooftop (Ballroom Level 4) – Hawaii Convention Center

Monday, February 16, 2004

7:00 a.m. - 5:00 p.m. Registration
Kamehameha Hall III Lobby – Hawaii Convention Center

7:00 - 8:00 a.m. Coffee Service
Ballroom A-B Foyer – Hawaii Convention Center

8:00 – 8:15 a.m. Conference Opening and Introductions
Ballroom A-B – Hawaii Convention Center

David M. Karl, School of Ocean and Earth Science and Technology, University of Hawaii

Peter Jumars, University of Maine, ASLO President

Eric Hartwig, Naval Research Laboratory, TOS President

Welcome and Introduction of Plenary Speakers
Chuck Trees, Center for Hydro-Optics and Remote Sensing (CHORS), San Diego State University, 2004 ORC Co-chair

Russell Moll, California Sea Grant Program, University of California at San Diego, 2004 ORC Co-chair

8:15 – 9:00 a.m. Plenary Address
Rita Colwell, Director, National Science Foundation

9:00 – 9:30 a.m. Plenary Address
Eric Lindstrom, Oceanography Program Scientist, Office of Earth Science, NASA Headquarters

9:30 – 10:00 a.m. Plenary Address
Oscar Schofield, Associate Professor, Institute of Marine and Coastal Sciences, Rutgers University

10:00 – 10:30 a.m. Break
Ballroom A-B Foyer - Hawaii Convention Center

10:30 a.m. – 12:00 p.m. Morning Concurrent Sessions
Various Rooms – Hawaii Convention Center

12:00 – 1:30 p.m. Lunch
Attendees on their own for lunch

12:00 - 6:00 p.m. Exhibitor Set-up
Kamehameha Hall III – Hawaii Convention Center

12:00 -1:15 p.m. Workshop on Landing the Right Job: Applications to Interviews
Room 316 C – Hawaii Convention Center

1:30 – 3:00 p.m. Afternoon Concurrent Oral Sessions
Various Rooms – Hawaii Convention Center

3:00 – 5:00 p.m. Poster Set-up
Kamehameha Hall III – Hawaii Convention Center

3:00 – 3:30 p.m. Break
Kamehameha Hall III Lobby – Hawaii Convention Center

3:30 – 5:00 p.m. Afternoon Concurrent Oral Sessions
Various Rooms – Hawaii Convention Center

5:00 - 8:00 p.m. Let's Talk About WHOI Discussion Session
Room 321 B - Hawaii Convention Center

5:30 - 8:30 p.m. National Science Foundation Town Hall Meeting
Room 316 C - Hawaii Convention Center

Tuesday, February 17, 2004

7:00 a.m. – 5:00 p.m. Registration
Kamehameha Hall III Lobby – Hawaii Convention Center

8:00 a.m.-7:00 p.m. Exhibits and Posters
Kamehameha Hall III – Hawaii Convention Center

8:00 a.m. Introduction of Plenary Speakers
Ballroom A-B – Hawaii Convention Center

Peter Jumars, University of Maine, ASLO President

Chuck Trees, Center for Hydro-Optics and Remote Sensing (CHORS), San Diego State University, 2004 ORC Co-chair

8:00 – 8:45 a.m. Plenary Address
Thomas (Zack) Powell, Professor, Department of Integrative Biology, University of California, Berkeley

8:45– 9:15 a.m. Plenary Address
Charles Yentsch, Senior Research Scientist, Bigelow Laboratory for Ocean Sciences

9:15 – 9:45 a.m. Plenary Address
Robert Arnone, Head, Ocean Science Branch, Ocean Division, Naval Research Laboratory, Stennis Space Center

9:45 – 10:15 a.m. Break
Kamehameha Hall III - Hawaii Convention Center

10:15 a.m. – 12:00 p.m. Morning Concurrent Sessions
Various Rooms – Hawaii Convention Center

12:00 – 1:30 p.m. Lunch
Attendees on their own for lunch

12:00 - 1:30 p.m. California COSEE Sessions for Local Students and Ocean Science Educators
Rooms 323B, 323C and 324 - Hawaii Convention Center

12:15 - 1:15 p.m. Public Policy Workshop I – Effective Communication with Lawmakers
Room 316 C - Hawaii Convention Center

1:30 – 3:00 p.m. Afternoon Concurrent Sessions
Various Rooms – Hawaii Convention Center

3:00 – 3:30 p.m. Break
Kamehameha Hall III – Hawaii Convention Center

3:30 – 4:45 p.m. Afternoon Concurrent Sessions
Various Rooms – Hawaii Convention Center

5:00 - 7:00 p.m. Exhibits, Poster Session & Reception
Kamehameha Hall III – Hawaii Convention Center

5:00 - 7:00 p.m. NASA Town Hall Meeting
Room 315 - Hawaii Convention Center

5:00 - 8:00 p.m. Ocean.US – Development of the IOOS Session
Room 316 A - Hawaii Convention Center

5:00 - 8:00 p.m. Antarctic Research Vessel Oversight Committee (ARVOC) Meeting
Room 316 B - Hawaii Convention Center

5:00 - 8:00 p.m. National Ocean Service Initiatives Town Hall Meeting
Room 316 C - Hawaii Convention Center

6:00 - 7:30 p.m. DIALOG Reception: Proposal Development Strategies for new PIs
Room 317 A – Hawaii Convention Center

Wednesday, February 18, 2004

7:00 a.m. – 5:00 p.m.	Registration Kamehameha Hall III Lobby – Hawaii Convention Center
8:00 a.m.-7:00 p.m.	Exhibits and Posters Kamehameha Hall III – Hawaii Convention Center
8:00 a.m.	Introduction of Plenary Speakers Ballroom A-B – Hawaii Convention Center
	David Karl, School of Ocean and Earth Science and Technology, University of Hawaii
	Russell Moll, California Sea Grant Program, University of California at San Diego, 2004 ORC Co-chair
8:00 – 8:45 a.m.	Plenary Address Ronald Baird, Director, National Sea Grant College Program, and Associate Director for Ocean Research, Office of Oceanic and Atmospheric Research, National Oceanic and Atmospheric Administration
8:45 – 9:15 a.m.	Plenary Address Jonathan Zehr, Professor, Department of Ocean Sciences, University of California, Santa Cruz
9:15 – 945 a.m.	Plenary Address Mark Abbott, Dean and Professor, College of Oceanic and Atmospheric Sciences, Oregon State University
9:45 – 10:15 a.m.	Break Kamehameha Hall III - Hawaii Convention Center
10:15 a.m. – 12:00 p.m.	Morning Concurrent Sessions Various Rooms – Hawaii Convention Center
12:00 – 1:30 p.m.	Lunch Attendees on their own for lunch
12:15 - 1:15 p.m.	Ocean Science Education and Outreach Lunch Room 321 B - Hawaii Convention Center
12:15 - 1:15 p.m.	Public Policy Workshop II – What's Going On with Ocean Research Funding and What YOU Can Do About It Room 316 C - Hawaii Convention Center
1:30 – 3:00 p.m.	Afternoon Concurrent Sessions Various Rooms – Hawaii Convention Center
3:00 – 3:30 p.m.	Break Kamehameha Hall III – Hawaii Convention Center
3:30 – 4:45 p.m.	Afternoon Concurrent Sessions Various Rooms – Hawaii Convention Center
5:00 - 7:00 p.m.	Exhibits, Poster Session & Reception Kamehameha Hall III – Hawaii Convention Center
5:00 – 10:30 p.m.	Wednesday Evening Hawaiian Luau (Optional Event – Ticket Required.)

Thursday, February 19, 2004

7:00 a.m. – 5:00 p.m.	Registration Kamehameha Hall III Lobby – Hawaii Convention Center
8:00 a.m.-7:00 p.m.	Exhibits and Posters Kamehameha Hall III – Hawaii Convention Center
8:00 a.m.	Introduction of Plenary Speakers Ballroom A-B – Hawaii Convention Center
	David Karl, School of Ocean and Earth Science and Technology, University of Hawaii
	Russell Moll, California Sea Grant Program, University of California at San Diego, 2004 ORC Co-chair
8:00 – 8:30 a.m.	Plenary Address Scott Doney, Associate Scientist, Marine Chemistry and Geochemistry, Woods Hole Oceanographic Institution
8:30 – 9:00 a.m.	Plenary Address Jacqueline Grebmeier, Research Professor, Department of Ecology and Evolutionary Biology, University of Tennessee
9:00 – 9:30 a.m.	Plenary Address John Pandolfi, Curator, Paleobiology Department, National Museum of Natural History
9:30 – 10:00 a.m.	Plenary Address Barbara Block, Charles and Elizabeth Prothro Professor Chair in Marine Sciences, Stanford University
10:00 – 10:15 a.m.	Break Kamehameha Hall III - Hawaii Convention Center
10:15 a.m. – 12:00 p.m.	Morning Concurrent Sessions Various Rooms – Hawaii Convention Center
12:00 – 1:30 p.m.	Lunch Attendees on their own for lunch
12:00 - 1:30 p.m.	California COSEE Sessions for Local Students and Ocean Science Educators Rooms 323B, 323C and 324 - Hawaii Convention Center
1:30 – 3:00 p.m.	Afternoon Concurrent Sessions Various Rooms – Hawaii Convention Center
3:00 – 3:30 p.m.	Break Kamehameha Hall III – Hawaii Convention Center
3:30 – 4:45 p.m.	Afternoon Concurrent Sessions Various Rooms – Hawaii Convention Center
5:00 - 7:00 p.m.	Exhibits, Poster Session & Reception Kamehameha Hall III – Hawaii Convention Center
5:00 – 8:00 p.m.	Bio-Physical Interactions, Fisheries Oceanography, and Fisheries Management Town Hall Meeting Room 314 - Hawaii Convention Center
5:00 – 8:00 p.m.	Bering Ecosystem Study (BEST) Program Town Hall Meeting Room 323 B - Hawaii Convention Center
7:00 – 9:30 p.m.	Exhibit and Poster Teardown Kamehameha Hall III – Hawaii Convention Center
7:00 – 10:00 p.m.	Marine Rodeo Room 316 C - Hawaii Convention Center

Friday, February 20, 2004

8:00 a.m. – 12:00 p.m.	Registration Kamehameha Hall III Lobby – Hawaii Convention Center
8:30 – 9:45 a.m.	Morning Concurrent Oral Sessions Various Rooms – Hawaii Convention Center
9:45 – 10:15 a.m.	Break Kamehameha Hall III Lobby - Hawaii Convention Center
10:15 a.m. – 12:00 p.m.	Morning Concurrent Sessions Various Rooms – Hawaii Convention Center
12:00 p.m.	Conference concludes

MONDAY

Presentation Schedule

Monday, February 16, 2004

SS1.01:
Shelf-Basin Interactions in the Western Arctic

Chair(s): Terry E. Whitledge, terry@ims.uaf.edu
Jackie Grebmeier, jgrebmei@utk.edu

Location: 316 A

1:30 pm Aagaard, K.; Woodgate, R.; Weingartner, T.: THE PACIFIC INFLOW THROUGH BERING STRAIT: 1990 2002*

2:00 pm Williams, W. J.; Carmack, E. C.; Aagaard, K.; MacDonald, R. W.; Woodgate, R.; Ingram, R. G.: SHELF-BREAK EXCHANGE PROCESSES AT A WIDE ARCTIC CANYON: MACKENZIE CANYON, BEAUFORT SEA

2:15 pm Nilsen, F.: AN INVESTIGATION OF THE MESOSCALE EDDY DYNAMICS ALONG THE WEST SPITSBERGEN SLOPE

2:30 pm Pickart, R.; Weingartner, T.; Woodgate, R.; Aagaard, K.: THE CHUKCHI-BEAUFORT SHELF/SLOPE BOUNDARY

2:45 pm Dixon, J. S.; Maslowski, W.; Okkonen, S. R.; Clement, J. L.; Walczowski, W.: CIRCULATION AND PROPERTY FLUXES OVER THE CHUKCHI PLATEAU – MODEL RESULTS

3:30 pm Kadko, D. C.; Muench, R.: EVALUATION OF SHELF-BASIN INTERACTION IN THE WESTERN ARCTIC BY USE OF SHORT-LIVED RADIUM ISOTOPES; EVIDENCE OF THE IMPORTANCE OF JETS AND EDDIES

3:45 pm Cooper, L. W.; Benner, R.; Codispoti, L. A.; Kelly, V.; McClelland, J. W.; Peterson, B. J.; Holmes, R.; Grebmeier, J. M.: TOWARDS UNDERSTANDING SHELF-BASIN INTERACTIONS: SEASONAL VARIABILITY IN THE OXYGEN ISOTOPE COMPOSITION OF ARCTIC WATERS IN CONJUNCTION WITH OTHER TRACERS

4:00 pm Benner, R.; Nelson, B.; Kaiser, K.; Amon, R.: EXPORT OF YOUNG TERRIGENOUS DOM FROM RIVERS TO THE ARCTIC OCEAN*

4:15 pm Osburn, C. L.; O'Sullivan, D. W.; Vincent, W. F.: TRANSPORT AND PHOTOCHEMICAL DEGRADATION OF CHROMOPHORIC DISSOLVED ORGANIC MATTER IN THE MACKENZIE RIVER-DELTA SYSTEM

4:30 pm Comiso, J. C.; Cota, G. F.: VARIABILITY OF PHYTOPLANKTON BLOOMS IN THE ARCTIC AND PERIPHERAL SEAS: RELATIONSHIPS WITH SEA ICE, TEMPERATURE, CLOUDS, AND WIND

4:45 pm Gradinger, R. R.; Eicken, H.: MAGNITUDE AND CONTROL OF SEA-ICE ALGAL GROWTH IN THE CHUKCHI AND BEAUFORT SEAS IN SPRING 2002

SS1.04:
Integration of Meso/Sub-mesoscale Hydrodynamics and Acoustic Propagation in Continental Shelf-break Regions

Chair(s): Pat C. Gallacher, gallacher@nrlssc.navy.mil
Steven Finette, finette@wave.nrl.navy.mil

Location: 316 A

10:30 am Miyamoto, R. T.; Reynolds, S.; Levine, M.; Eggen, C. J.: IMPLICATIONS OF VARIABILITY AND UNCERTAINTY IN ACTIVE ACOUSTIC MODELING*

10:45 am Field, R. L.; Frisk, G.; Ohta, K.; Turgut, A.; Yamamoto, T.: AN OVERVIEW OF THE SHALLOW WATER ACOUSTIC TECHNOLOGY (SWAT) COOPERATIVE RESEARCH PROJECT *

11:00 am Orr, M. H.: SEASONAL VARIABILITY OF INTERNAL WAVES ON THE NEW JERSEY CONTINENTAL SHELF - OBSERVATIONS*

11:15 am Finette, S.; Oba, R.; Shen , C.; Evans, T.: EFFECTS OF INTERNAL GRAVITY WAVES ON ACOUSTIC PROPAGATION IN SHALLOW WATER

11:30 am Walsh, D.; Hallock, Z.: INTERNAL WAVES AND MIXING OBSERVED DURING THE SWAT EXPERIMENT

11:45 am Warn-Varnas, A.; Chin-Bing, S.; King, D.; Hawkins, J.; Lamb, K.; Lynch, J.: OCEAN-ACOUSTIC STUDIES OF NEAR-SURFACE AND NEAR-BOTTOM SOLITON PACKETS

SS2.02:
Biological Microscale Patterns and Processes in the Ocean: Towards a Seascape Topology

Chair(s): Laurent Seuront, laurent.seuront@univ-lille1.fr
James J. Mitchell, Jim.Mitchell@flinders.edu.au

Location: 323 C

10:30 am Patten, N. L.; Mitchell, J. M.: EVIDENCE FOR CENTIMETER AND MILLLIMETER SCALE PHYTOPLANKTON STRUCTURE

10:45 am Mitchell, J. G.; Seuront, L.; Patten, N. L.: STRUCTURE AND COMPLEXITY IN MICROSCALE FLUORESCENCE PROFILES*

11:00 am Waters, R. L.; Mitchell, J. G.; Seuront, L.: RESOLUTION OF TAXON-SPECIFIC SPATIAL PARTITIONING IN MICROSCALE PHYTOPLANKTON DISTRIBUTIONS

11:15 am Seymour, J. R.; Mitchell, J. G.: MICROSCALE DISTRIBUTIONS OF BACTERIOPLANKTON AND VIRUS-LIKE PARTICLES ASSESSED USING FLOW CYTOMETRY

11:30 am Seuront, L.; Leterme, S. C.; Seymour, J. R.; Mitchell, J. G.; , .: SAMPLING THE SAMPLING UNIT: A WORLD IN A BOTTLE

11:45 am Butler, N. M.; Saulnier, P. M.; Younge, K.; Christenson, C.: SPATIAL ANALYSIS OF THE STRUCTURAL CHARACTERISTICS OF PLANKTON SWARMS

1:30 pm Pasour, V. B.; Cowen, E. A.; Ellner, S. P.: TO WHAT EXTENT CAN PLANKTON BEHAVIOR AFFECT ITS DESTINY?

1:45 pm Kunz, T. J.; Diehl, S.: WATER COLUMN TURBULENCE AND ITS EFFECTS ON MARINE PLANKTON

2:00 pm Souissi, S.; Seuront, L.; Ginot, V.; Schmitt, F. G.: DESCRIBING SPACE-TIME MULTISCALE PATTERNS IN AQUATIC ECOLOGY USING STOCHASTIC APPROACHES AND IBMS

2:15 pm McManus, M. A.; Cheriton, O. M.; Holliday, D. V.; Storlazzi, C.; Drake, P.; Greenlaw, C. F.; Donaghay, P. L.: THIN LAYERS AND THE TRANSPORT AND RETENTION OF MARINE PLANKTON IN COASTAL SYSTEMS

2:30 pm Singler, H. R.; Villareal, T. A.: EFFECTS OF IRRADIANCE AND FE-LIMITED GROWTH ON NITROGEN RELEASE BY VERTICALLY MIGRATING RHIZOSOLENIA MATS

(–) represents Tutorial presentations

2:45 pm Hanson, C. E.; Waite, A. M.; Pattiaratchi, C. B.; Pesant, S.: PHYSICAL CONTROLS ON DEEP CHLOROPHYLL MAXIMUM DYNAMICS OFF THE GASCOYNE REGION OF WESTERN AUSTRALIA

3:30 pm Warrior, H. V.; Carder, K. L.: 3D SIMULATION OF THERMOHALINE PLUMES IN THE BAHAMAS

3:45 pm Meiners, K.; Krembs, C.; Wettlaufer, J. S.: EXOPOLYMERIC PARTICLES AND BACTERIAL ACTIVITY IN ARCTIC SEA ICE

4:00 pm Ortmann, A. C.; Suttle, C. A.: VIRUSES, PROKARYOTES AND VIRAL-MEDIATED MORTALITY AT DEEP-SEA HYDROTHERMAL VENTS

SS2.06:
Island and Sea Mount Oceanography: Physics, Biogeochemistry and Fisheries

Chair(s): E.D. Barton, e.d.barton@bangor.ac.uk
Pierre Flament, pflament@soest.hawaii.edu

Location: 319 A-B

10:30 am Arístegui, J.; Barton, E. D.: THE CANARY ISLANDS AREA OF FILAMENT-EDDY EXCHANGES (AFEX)

10:45 am Kaufmann, M. J.; Mohn, C.; Beckmann, A.; v. Broeckel, K.: THE INFLUENCE OF SEAMOUNTS ON SMALL- AND MESOSCALE DISTRIBUTION OF PHYTOPLANKTON – A CASE STUDY OF TWO SUBTROPICAL, NORTH-EASTERN ATLANTIC SEAMOUNTS

11:00 am Turnewitsch, R.; Werk, S.; Reyss, J. L.; Thomson, J.; Springer, B. M.; Graf, G.: EXAMPLES OF EFFECTS OF KILOMETER-SCALE SEAFLOOR TOPOGRAPHY ON DEEP-OCEAN AND SEDIMENT (BIO)GEOCHEMISTRY

11:15 am Lewis, M. R.: TOPOGRAPHICALLY INDUCED MIXING AND OCEAN PRODUCTIVITY

11:30 am Hernández-León, S.; Bordes, F.; Almeida, C.; Rodríguez, J. M.; Barrera, A.: THE "ISLAND EFFECT" IN THE CANARY ISLANDS: FROM ZOOPLANKTON TO FISHERIES

11:45 am Palacios, D. M.; Bograd, S. J.: DYNAMIC EVOLUTION OF THE EQUATORIAL UNDERCURRENT AT THE GALAPAGOS ISLANDS DURING 1993-1994 AND IN APRIL 2000

SS2.08:
Development of Coupled Models and Biological Sampling Strategies to Improve Prediction

Chair(s): Paul Snelgrove, psnelgro@mun.ca

Location: 323 B

10:30 am Pepin, P.: OF SHIPS, NETS AND OCEAN CURRENTS: THE SIGNIFICANCE OF TRANSPORT IN UNDERSTANDING THE DISTRIBUTION AND POPULATION DYNAMICS OF PLANKTON~

11:00 am Richards, K. J.: THE IMPACT OF PATCHINESS ON THE DYNAMICS OF THE MARINE ECOSYSTEM

11:15 am Curtis, K. A.; Checkley, D. M.; Powell, J.: CONNECTING DIMENSIONS: THE CHALLENGE OF HORIZONTAL AND VERTICAL SAMPLING OF PELAGIC FISH EGGS

11:30 am Hernandez, F. J.; Hare, J. A.; Govoni, J. J.: DIEL MODELS OF LARVAL FISH VERTICAL DISTRIBUTIONS IN STRATIFIED-HYPOXIC VS. WELL-MIXED WATERS IN THE NORTHERN GULF OF MEXICO

11:45 am Hans-Harald Hinrichsen, H. H.; Christian Möllmann, C.; Rüdiger Voss, R.; Friedrich Wilhelm Köster, F. W.; Gerd Kraus, G.; Georgs Kornilovs, G.; Frank Hansen, F.: BIOPHYSICAL MODELLING OF BALTIC COD LARVAL GROWTH AND SURVIVAL AND ITS USE FOR RECRUITMENT PREDICTION

1:30 pm Parada, C. E.; Hinckley, S.; Mullon, C.; Fréon, P.: TWO BIOPHYSICAL COUPLED MODELS OF RECRUITMENT VARIABILITY: LEVEL OF COMPLEXITY OF PROCESSES MODELLED, USE OF DATA AND PREDICTIVE VALUE OF THE MODELS

1:45 pm Janssen, J.; Beletsky, D.; Dettmers, J. M.; Schwab, D. J.; McCormick, M.; Mason, D. M.; Jude, D. J.; Clapp, D. F.; Rutherford, E.; Vanderploeg, H. A.: LAKE MICHIGAN YELLOW PERCH: A POND FISH'S RECRUITMENT CHALLENGES IN A MESO-OCEANIC ENVIRONMENT

2:00 pm Sentchev, A.; Korotenko, K. A.; Seuront, L.: EFFECT OF TIDES AND FRONTAL SCALE PROCESSES ON ICHTYOPLANKTON ASSEMBLAGES AND PHYTOPLANKTON DYNAMICS IN THE EASTERN ENGLISH CHANNEL: OBSERVATIONS AND MODELING

2:15 pm Snelgrove, P. V.; Pepin, P.; de Young, B.; Helbig, J.: TEMPORAL AND SPATIAL PERSISTENCE OF ICHTHYOPLANKTON ASSEMBLAGES: THE ROLES OF ADVECTION, DIFFUSION AND BEHAVIOR

2:30 pm Ma, H.; Grassle, J. P.: CROSS-SHELF CIRCULATION AND TEMPORAL AND SPATIAL PATCHINESS IN LARVAL BIVALVE SUPPLY AND SETTLEMENT ON THE INNER CONTINENTAL SHELF OF THE MID-ATLANTIC BIGHT

2:45 pm Carr, S. D.; Hench, J. L.; Luettich, R. A.; Forward, R. B.: PREDICTING OVIGEROUS BLUE CRAB MIGRATORY TRAJECTORIES AND LARVAL RELEASE LOCATIONS WITH A COUPLED BEHAVIORAL-HYDRODYNAMIC MODEL

3:30 pm Reyns, N. B.; Eggleston, D. B.; Luettich, R. A.: PREDICTING EARLY JUVENILE BLUE CRAB SECONDARY DISPERSAL IN A WIND-DRIVEN ESTUARY*

3:45 pm Hatcher, B. G.; Dixon, B.; Fryer, B.; Heath, D.; Kritzer, J.; Ruddick, B.; Sale, P.; Sheng, J.; Tang, L.: CONNECTING THE DOTS: ECOLOGICAL LINKAGES IN LARGE MARINE ECOSYSTEMS

4:00 pm Galindo, H. M.; Palumbi, S. R.: CONNECTIVITY OF MARINE POPULATIONS: COUPLING POPULATION GENETIC AND DISPERSAL MODELING APROACHES

4:15 pm Lermusiaux, P. F.: ECOSYSTEM DYNAMICS IN MASSACHUSETTS BAY AND MONTEREY BAY: BIOGEOCHEMICAL AND BIOGEOCHEMICAL-PHYSICAL BALANCES

4:30 pm Milroy, S. P.; Dieterle, D. A.; He, R.; Kirkpatrick, G. J.; Lester, K. M.; Steidinger, K. A.; Vargo, G. A.; Walsh, J. J.; Weisberg, R. H.: A SIMPLE 3D BIOPHYSICAL MODEL OF KARENIA BREVIS DYNAMICS ON THE WEST FLORIDA SHELF

4:45 pm Benfield, M. C.; Keenan, S. F.: IN SITU ESTIMATES OF EUPHAUSIID DENSITIES AND NEAREST-NEIGHBOR DISTANCES NEAR A FJORD SILL COLLECTED WITH ZOOVIS

(*) represents Invited presentations

MONDAY

SS2.12:
Structure in an Apparently Uniform Environment

Chair(s): George Jackson, gjackson@tamu.edu
Thomas Kiorboe, tk@dfu.min.dk

Location: 318 A-B

10:30 am Alldredge, A. L.: SOURCES OF STRUCTURE IN THE PELAGIC ZONE~

11:00 am Thygesen, U. H.: ON THE UTILITY OF HETEROGENOUS RESOURCES*

11:15 am Cowles, T. J.; Sutor, M.; Kosro, P. M.; Pierce, S.; Barth, J. A.: THE ECOLOGICAL IMPLICATIONS OF PERSISTENT THIN LAYERS OF PLANKTON IN AN INTERMITTENTLY MIXED UPPER OCEAN

11:30 am Menden-Deuer, S.; Grünbaum, D.: AGGREGATION AND RETENTION OF HETEROTROPHIC PROTISTS IN PREY PATCHES: INDIVIDUAL-LEVEL OBSERVATIONS AND POPULATION-LEVEL CONSEQUENCES

11:45 am Woodson, C. B.; Webster, D. R.; Yen, J.: COPEPOD BEHAVIORAL RESPONSES TO ENVIRONMENTAL CUES ASSOCIATED WITH STRUCTURE IN THE OPEN OCEAN

1:30 pm Ploug, H.: SMALL-SCALE FLUID FLOW AROUND AND WITHIN SINKING MARINE SNOW.*

1:45 pm Grossart, H. P.; Kioerboe, T.; Tang, K.; Ploug, H.: BACTERIAL DYNAMICS ON PARTICLES: COLONIZATION, INTERACTIONS, AND GROWTH*

2:00 pm Kiørboe, T.; Auer, B.; Grossart, H. P.; Ploug, H.; Tang, K.: MICROBE-PARTICLE INTERACTIONS IN THE PLANKTON: FLAGELLATE COLONIZATION AND GRAZING ON ATTACHED BACTERIA

2:15 pm Jackson, G. A.; Kiørboe, T.: ZOOPLANKTON USE OF CHEMODETECTION TO FIND AND EAT PARTICLES.

2:30 pm Burd, A. B.: THE EFFECT OF ZOOPLANKTON ON PARTICULATE CARBON TO THORIUM RATIOS

2:45 pm Sansone, F. J.; Rothschild, C. K.; Westley, M. B.: BIOGEOCHEMISTRY MID-WATER SUSPENDED PARTICLE LAYERS, MONTEREY BAY, CALIFORNIA

3:30 pm Long, J. D.; Smalley, G. W.; Anderson, J. T.; Verity, P. G.; Hay, M. E.: CHEMICAL CUES FROM GRAZING COPEPODS SUPPRESS COLONY FORMATION IN PHAEOCYSTIS: WHEN BIGGER ISN'T BETTER

3:45 pm Jakobsen, H. H.; Everett, L. M.; Strom, S.: EVIDENCE OF HYDROMECHANICAL SIGNALING BETWEEN THE CILIATE MESODINIUM PULEX AND ITS PREY

4:00 pm Fields, D. M.; Weissburg, M. J.: MECHANORECEPTION IN MARINE COPEPODS: DETECTING TEMPORAL AND SPATIAL HETEROGENEITY IN MOVING FLUIDS.

4:15 pm Sotiropoulos, F.; Gilmanov, A.; Yen, J.: HYDRODYNAMICS OF PLANKTONIC MICROCRUSTACEAN LOCOMOTION: TURNING WAKE VORTICES INTO COMMUNICATION SIGNALS

4:30 pm Currie, W. J.; Lewis, C. V.; Powell, T. M.: UPWELLING GENERATED HARMFUL ALGAL BLOOMS: A MODELING APPROACH

4:45 pm Osborn, K. J.: DISTRIBUTION OF A HOLOPELAGIC ISOPOD IN THE CALIFORNIA CURRENT SYSTEM: IS DISSOLVED OXYGEN CONTROLLING THEIR DISTRIBUTION?

SS5.01:
Metal Cycling in Coastal Wetlands

Chair(s): Gabriel Filippelli, gfilippe@iupui.edu

Location: 317 B

10:30 am Lin, S.; Wang, K.: SEDIMENT FOCUSING AND SOURCES OF SEVERE HEAVY METAL POLLUTION IN THE COASTAL AREA, TAIWAN

10:45 am Flegal, A. R.; Scelfo, G. M.; Hibdon, S. A.; Conaway, C. H.; Ndung'u, K.: METAL CYCLES IN SAN FRANCISCO BAY: SOURCES, SINKS AND SPECIATION ON DIURNAL, SEASONAL, ANNUAL AND DECADAL SCALES~

11:15 am Choe, K.; Gill, G. A.; Lehman, R. D.; Han, S.; Coale, K. H.; Heim, W. A.: SEDIMENT-WATER EXCHANGE OF TOTAL MERCURY AND MONOMETHYL MERCURY IN THE SAN FRANCISCO BAY-DELTA

11:30 am Lamborg, C. H.; Hammerschmidt, C. R.; Balcom, P. H.; Fitzgerald, W. H.: ORGANIC CONTROLS ON THE BIOGEOCHEMISTRY OF MERCURY IN LONG ISLAND SOUND

11:45 am Shade, C. W.; Hudson, R. J.; Hintelmann, H.: MERCURY METHYLATION ALONG A GRADIENT OF INDUSTRIAL POLLUTION NEAR GARY, INDIANA

SS5.02:
Elemental Cycling Under Suboxic/Anoxic Conditions

Chair(s): James W. Murray, jmurray@u.washington.edu
Mary Scranton, mscranton@notes.cc.sunysb.edu

Location: 317 B

1:30 pm Glazer, B. T.; Luther III, G. W.; Friederich, G. E.; Konovalov, S. K.; Trouwborst, R. E.; Druschel, G.; Kraiya, C.; Romanov, A. S.: TEMPORAL AND SPATIAL VARIABILITY OF THE BLACK SEA SUBOXIC ZONE

1:45 pm Friederich, G. E.; Uysal, T.; Tugrul, S.; Luther, G. W.; Glazer, B. T.; Murray, J. W.: INORGANIC CARBON BETWEEN THE SURFACE AND THE ANOXIC ZONE OF THE BLACK SEA

2:00 pm Fuchsman, C. A.; Murray, J. W.; Callahan, A.; Konovalov, S. K.; Sigman, D. M.: NITROGEN SPECIES AND ISOTOPES IN THE BLACK SEA

2:15 pm Trouwborst, R. E.; Druschel, G. K.; Kraiya, C.; Glazer, B. T.; Howard, R.; Webb, S. M.; Tebo, B. M.; Lewis, B. L.; Luther, G. W.: SOLUBLE MN(III)COMPLEXES PRESENT IN SUBOXIC REGIONS OF THE BLACK SEA AND CHESAPEAKE BAY

2:30 pm Scranton, M. I.; McIntyre, M.; Muller-Karger, F.; Taylor, G. T.; Astor, Y.: DENITRIFICATION AND OTHER PROCESSES IN THE SUBOXIC ZONE OF THE CARIACO BASIN

2:45 pm Taylor, G. T.; Scranton, M. I.; Iabichella-Armas, M.; Varela, R.; Muller-Karger, F.: ENERGY CRISIS IN THE CARIACO BASIN'S REDOXCLINE: DOES MICROBIAL DEMAND EXCEED SUPPLY?

3:30 pm Sun, M. Y.; Zou, L.; Dai, J.; Ding, H.; Culp, R. A.; Scranton, M. I.: STABLE CARBON ISOTOPIC ALTERATIONS OF ALGAL LIPIDS DURING DECOMPOSITION IN CARIACO STRATIFIED OXIC AND ANOXIC SEAWATERS

3:45 pm Benitez-Nelson, C. R.; O'Neill, L. P.; Pellechia, P.; Thunell, R.: PHOSPHORUS SPECIATION UNDER ANOXIC CONDITIONS: INSIGHTS FROM THE CARIACO BASIN

(~) represents Tutorial presentations

4:00 pm Hyacinthe, C.; Van Cappellen, P.: COUPLED IRON AND PHOSPHORUS CYCLING AT THE OXIC/ANOXIC INTERFACE

4:15 pm Berelson, W.; Prokopenko, M.; Graham, A.; Sansone, F.: ENHANCED REMINERALIZATION OF ORGANIC CARBON DURING ANAEROBIC METHANE OXIDATION: THE HOT-SPOT DIAGENTIC ZONE

4:30 pm Nielsen, L. P.; Ingvardsen, S.; Sánchez, A. G.: TRANSPORT AND TURNOVER OF NITRATE BY NITRATE ACCUMULATING BACTERIA IN SEDIMENTS

4:45 pm Aguilar, C.; Cuhel, R. L.: YELLOWSTONE LAKE GEOTHERMAL ECOSYSTEM: MICROBIOGEOCHEMICAL FEATURES OF IN VENT WATER AND SOLID PHASE SAMPLES

SS5.12:
Interactions and Feedbacks Among Marine Pelagic Ecosystems, Biogeochemical Cycles and Climate, in a Globally Changing Environment

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

Location: 315

10:30 am Vezina, A. F.; Pahlow, M.: TOWARDS AN OPTIMIZATION APPROACH TO MODELLING FOOD WEB-BIOGEOCHEMICAL INTERACTIONS˙

11:00 am Richardson, T. L.; Jackson, G. A.; Ducklow, H. W.; Roman, M. R.: PLANKTONIC FOOD WEBS OF THE EQUATORIAL PACIFIC AT 140W: A SYNTHESIS OF EQPAC TIME SERIES CARBON FLUX DATA

11:15 am Bidigare, R. R.; Chao, Y.; Lukas, R.; Letelier, R. M.; Christensen, S.; Karl, D. M.: TEMPORAL VARIATIONS IN PHYTOPLANKTON COMMUNITY STRUCTURE AND PHYSICAL FORCING AT STATION ALOHA (22.75N, 158W)

11:30 am Pena, M. A.: VARIATIONS IN PHYTOPLANKTON PRODUCTION AND COMMUNITY STRUCTURE AND ITS RELATIONSHIP TO ENVIRONMENTAL CONDITIONS IN COASTAL WATERS OF VANCOUVER ISLAND

11:45 am Gregg, W.; Casey, N.: RECENT TRENDS IN GLOBAL OCEAN CHLOROPHYLL*

1:30 pm Legendre, L.; Rivkin, R. B.: INTERACTIONS BETWEEN ANTHROPOGENIC FORCING, CARBON FLUXES AND PELAGIC ECOSYSTEMS IN THE UPPER OCEAN*

1:45 pm Hare, C. E.; DiTullio, G. R.; Tortell, P. D.; Kudela, R. M.; Zhang, Y.; Leblanc, K.; Riseman, S. F.; Hutchins, D. A.: EXPERIMENTAL DETERMINATION OF CLIMATE CHANGE EFFECTS ON BERING SEA BIOGEOCHEMISTRY AND PHYTOPLANKTON COMMUNITY STRUCTURE

2:00 pm Agawin, N. R.; Huisman, J.: THEORETICAL ANALYSIS OF COMPETITION FOR LIGHT AND NITROGEN BETWEEN N2-FIXING AND NON-N2 -FIXING PHYTOPLANKTON

2:15 pm Hood, R. R.; Coles, V. J.; Capone, D. G.: MODELING THE IMPACT OF IRON AND PHOSPHORUS LIMITATION ON TRICHODESMIUM GROWTH IN THE TROPICAL ATLANTIC OCEAN

2:30 pm Kelly-Gerreyn, B. A.; Anderson, T. R.; Holt, J. T.; Gowen, R. J.; Proctor, R.: PHYTOPLANKTON COMMUNITY STRUCTURE AT CONTRASTING SITES IN THE IRISH SEA: A MODELLING INVESTIGATION

2:45 pm Wilkerson, F. P.; Dugdale, R. C.; Lassiter, A.; Marchi, A.; Hogue, V.: THE IMPACT OF DIATOM-BASED FOOD WEBS ON NUTRIENT DRAWDOWN IN COASTAL UPWELLING AREAS AND THEIR INFLUENCE ON BIOGEOCHEMICAL CYCLING*

3:30 pm Montoya, J. P.; Holl, C. M.; Zehr, J. P.; Villareal, T.; Capone, D. G.: QUANTIFICATION OF NITROGEN FIXATION BY UNICELLULAR DIAZOTROPHS IN OLIGOTROPHIC WATERS*

3:45 pm Mills, M. M.; Ridame, C.; Davey, M.; LaRoche, J.; Geider, R. J.: IRON AND PHOSPHORUS CO-LIMIT NITROGEN FIXATION IN THE EASTERN TROPICAL NORTH ATLANTIC*

4:00 pm Altabet, M. A.; Higginson, M. J.: HAS THE MARINE NITROGEN CYCLE BEEN IN STEADY-STATE DURING THE HOLOCENE?

4:15 pm Horst, G. P.; Edmunds, P. J.: THE EFFECTS OF TEMPERATURE AND pH ON CALCIFICATION AND QUANTUM-YIELD EFFICIENCY OF MADRACIS MIRABILIS

4:30 pm Morán, X. A.; Fernández, E.; Pérez, V.: PLANKTONIC BIOMASS AND PRODUCTION IN OLIGOTROPHIC WATERS OF THE N ATLANTIC SUBTROPICAL GYRE: SIZE-FRACTIONATED MEASUREMENTS AND METABOLIC BALANCE

4:45 pm Dowell, M. D.; Runge, J.; Campbell, J. W.; Moore, T. S.: CHARACTERIZING THE RATIO OF ALGAL LOSS TO PRODUCTION: INSIGHT INTO THE STABILITY OF PELAGIC MARINE ECOSYSTEMS AT GLOBAL SCALE*

SS5.13:
Eutrophication of Coastal Waters

Chair(s): Alice Newton, anewton@ualg.pt

Location: 319 A-B

1:30 pm Rabalais, N. N.; Turner, R. E.: ASPECTS OF WIDESPREAD EUTROPHICATION IN THE NORTHERN GULF OF MEXICO*

1:45 pm Savchuk, O. P.; Wulff, F. V.: EXTERNAL VS. INTERNAL DRIVERS OF THE BALTIC SEA EUTROPHICATION

2:00 pm Rosen, G. P.; Weidman, C. R.; Charette, M.; Donnelly, J. P.: THE EUTROPHICATION OF WAQUOIT BAY, MASSACHUSETTS: FROM PRE-AGRICULTURE THROUGH URBANIZATION

2:15 pm Colman, J. A.; Masterson, J. P.: NUTRIENT LOADS AND ELEMENT RATIOS FROM SUBURBAN LAND INPUT OF NUTRIENTS CONTRIBUTED BY GROUND-WATER DISCHARGE TO COASTAL EMBAYMENTS, NORTHEASTERN USA

2:30 pm Evans, G. L.; Horsburgh, K. J.; Williams, P. J.; Shammon, T.: CLIMATIC VERSUS ANTHROPOGENIC EFFECTS ON LONG-TERM CHANGES IN SALINITY AND NUTRIENTS IN THE IRISH SEA

2:45 pm Markager, S.; Storm, L.: RELATIONSHIP BETWEEN NUTRIENT LOADING AND ENVIRONMENTAL STATE FOR THE BALTIC SEA ENTRANCE

3:30 pm Kieber, R. J.; Bradshaw, L. C.; Long, M. S.; Skrabal, S. A.; Willey, J. D.: INCREASING AMMONIUM CONCENTRATIONS IN THE CAPE FEAR RIVER ESTUARY: WHERE IS IT COMING FROM?

3:45 pm Parker, A. E.; Curless, S. E.; Yoshiyama, K.; Sharp, J. H.: AMMONIUM SUPPRESSION OF PRIMARY PRODUCTION IN THE DELAWARE ESTUARY: EVIDENCE FROM MESOCOSM EXPERIMENTS

(*) represents Invited presentations

MONDAY

4:00 pm Heil, C. A.; Murasko, S.; O'Neil, J. M.; Bronk, D. A.; Mulholland, M.: PHOSPHORUS DYNAMICS IN THE EASTERN GULF OF MEXICO: PHOSPHORUS UPTAKE AND REGENERATION RATES WITHIN TRICHODESMIUM AND KARENIA BREVIS BLOOMS

4:15 pm Hudson, J. J.; Taylor, W. D.: RAPID ESTIMATION OF PHOSPHATE AT PICOMOLAR CONCENTRATIONS

4:30 pm York, J. K.; Valiela, I.; Repeta, D. J.: DOES NH4 OR NO3 DRIVE PHYTOPLANKTON PRODUCTION? AN ISOTOPIC ASSESSMENT

4:45 pm Tester, P. A.; Kibler, S. R.; Varnam, S. M.; Vandersea, M. W.; Faust, M. A.; Litaker, R. W.: NATURAL EUTROPHICATION OF THE EASTERN CARIBBEAN SEA

SS5.14:
The Aquatic Gel Phase: Its Role in Biogeochemical Cycles

Chair(s): Pedro Verdugo, verdugo@u.washington.edu

Location: 317 A

10:30 am Boehme, J. R.; Wells, M. L.: FLUORESCENCE VARIATIONS OF MARINE AND TERRESTRIAL COLLOIDS: EXAMINING SIZE FRACTIONS OF CHORMOPHORIC DISSOLVED ORGANIC MATTER IN THE DAMARISCOTTA RIVER ESTUARY

10:45 am Chin, W.; Verdugo, P.: FORMATION MECHANISMS OF MARINE SELF-ASSEMBLED MICORGELS

11:00 am Hung, C. C.; Santschi, P. H.: ACID POLYSACCHARIDES IN MARINE COLLOIDAL ORGANIC MATTER AND MARINE MICROORGANISMS

11:15 am Kerner, M.; Spitzy, A.: FATE OF NITROGEN DURING BUILDUP AND DEGRADATION OF MICROPARTICLES DERIVED FROM DISSOLVED ORGANIC MATTER*

11:30 am Jenkinson, I. R.; Blanc, N.; Claireaux, G.; Leguay, D.; Deschamps, S.; Guillou, G.; Gentien, P.: USING A FISH AS A RHEOMETER: FLUID-MUD FLOW OVER GILLS AS A FUNCTION OF PARTICULATE ORGANIC MATTER CONCENTRATION

11:45 am Thoms, S.; Engel, A.: MODELING THE FORMATION OF TRANSPARENT EXOPOLYMER PARTICLES DURING A BLOOM OF THE COCCOLITHOPHORID EMILIANIA HUXLEYI

SS6.02:
Advanced Underwater Robotics and Their Contributions on Aquatic Sciences

Chair(s): Michio Kumagai, kumagai@lbri.go.jp
Mary Jane Perry, perrymj@maine.edu

Location: 324

10:30 am Ura, T.: AUV DIVERSITY FOR UNDERWATER OBSERVATION- DEVELOPED AUVS BY UNDERWATER ROBOTICS AND APPLICATION (URA) LABORATORY~

11:00 am Kukulya, A. L.; Stokey, R.; von Alt, C.; Packard, G.; Purcell, m.; Forrester, N.; Austin, T.; Goldsborough, R.; Allen, B.: RECENT SCIENCE APPLICATIONS AND ADVANCEMENTS FOR THE REMUS AUV

11:15 am Shearman, R. K.: AUTONOMOUS MEASUREMENTS OF TEMPERATURE, SALINITY AND CURRENTS OVER THE INNER-SHELF AT THE MARTHA'S VINEYARD COASTAL OBSERVATORY

11:30 am Jones, N. L.; Davis, K. A.; Monismith, S. G.; Fong, D. A.; Thompson, J. K.; Genin, A.: APPLICATION OF AN AUTONOMOUS UNDERWATER VEHICLE TO STUDIES OF BENTHIC PELAGIC COUPLING*

11:45 am Buescher, J. G.; Kornegay, K. T.; Welch, S. M.: DESIGN AND IMPLEMENTATION OF A ROBUST, EXPANDABLE AUV PLATFORM WITH DIVERSE OPERATIONAL CAPABILITIES FOR MULTIPLE END USERS *

1:30 pm Tripp, S. T.: THE COAST GUARD IS INCREASING ITS UNDERWATER PRESENCE IN PORTS AND HARBORS*

1:45 pm Singh, H.; Armstrong, R.; Detres, Y.; Garcia-Moliner, G.; Foote, K.; Guild, L.; Lindholm, J.; Nemeth, R.; Valentine, P.: THE SEABED AUV AND ITS USE IN HABITAT CHARACTERIZATION*

2:00 pm Armstrong, R.; Singh, H.; Guild, L.; Garcia-Moliner, G.; Torres, J.: IMAGING DEEP CORAL REEFS USING THE SEABED AUV

2:15 pm Walker, R. F.; Kumagai, M.; Ishikawa, K.: EVALUATION OF JESOGAMMARUS SPECIES BIOMASS USING AUV *

2:30 pm Moline, M. A.; Blackwell, S. M.; Purcell, M.; Kirkpatrick, G.; Hillier, J.; Schofield, O. M.; Bissett, W. P.; Terrill, E.: NEAR-SYNOPTIC AUTONOMOUS SPATIAL SAMPLING OF COASTAL MULTI/HYPERSPECTRAL APPARENT/INHERENT OPTICAL PROPERTIES

2:45 pm rendas, M. J.: MAPPING PATCHY HABITATS WITH AUTONOMOUS OBSERVERS*

3:30 pm Rienecker, E. V.; Ryan , J. P.; Chavez, F. P.; Gashler, D.; Fuhrmann, R.: OPERATIONAL AUV OBSERVATIONS IN MONTEREY BAY

3:45 pm Gashler, D.; Chavez, F. P.; Ryan, J. P.; Rienecker, E. V.; Schlining, B. M.; Fuhrmann, R.; Sibenac, M. R.; Thomas, H. T.: DORADO AUTONOMOUS UNDERWATER VEHICLE OPERATIONS – LESSONS FROM THE FIRST 1000 KM*

4:00 pm Fiorelli, E.; Leonard, N. E.; Bachmayer, R.; Bhatta, P.; Fratantoni, D. M.: ADAPTIVE OCEAN SAMPLING USING COORDINATED AUTONOMOUS UNDERWATER VEHICLE FLEETS: THE AUTONOMOUS OCEAN SAMPLING NETWORK IN MONTEREY BAY 2003 AND BEYOND*

4:15 pm Sackmann, B. S.; Perry, M. J.; Eriksen, C. C.: OPTICAL MEASUREMENTS COLLECTED WITH AN AUTONOMOUS UNDERWATER GLIDER OFF THE WASHINGTON COAST IN SPRING 2002 AND THEIR RELATIONSHIP TO SATELLITE OCEAN COLOR

4:30 pm Ishikawa, K.; Kumagai, M.; Walker, R. F.: 3D-STRUCTURE OF FRESHWATER RED-TIDE UROGLENA AMERICANA EVALUATED BY AUTONOMOUS UNDERWATER VEHICLE*

4:45 pm Goldman, C. R.; Nicholson, C.: PROSPECTS FOR THE USE OF SUBMERSIBLES AND ROV'S IN THE WORLD'S LAKES*

SS6.04:
Using Real-time Environmental Data for Education

Chair(s): Michiko Martin, michiko.martin@noaa.gov
Ken Casey, ken.casey@noaa.gov

Location: 323 A

3:30 pm Matsumoto, G. I.: OVERVIEW: USING REAL-TIME OR NEAR-REAL-TIME DATA FOR EDUCATION~

4:00 pm Stewart, R. H.: USING REAL-TIME DATA IN OCEANOGRAPHY COURSES AT THE COLLEGE LEVEL*

(~) represents Tutorial presentations

4:15 pm Martin, M. J.; Coan, S. M.; Armour, T.: CONNECTING THE NOAA NATIONAL MARINE SANCTUARIES TO CLASSROOMS THROUGH TELEPRESENCE

4:30 pm Joyce, P. S.; Witting, J.; Zettler, E. R.; Watkins, J. M.: ADVANCED INSTRUMENTATION IN AN UNDERGRADUATE PROGRAM IN OCEANOGRAPHY

4:45 pm Hannides, A. K.; Measures, C. I.: THE USE OF REAL-TIME DATA IN THE UNDERGRADUATE INTRODUCTORY OCEANOGRAPHY LABORATORY

SS6.07:
Optical Observation of Phytoplankton Dynamics: Looking Beyond Biomass

Chair(s): Yannick Huot, yhuot@dal.ca
Ricardo Letelier, letelier@coas.oregonstate.edu

Location: 314

10:30 am Sosik, H. M.: NEW INSIGHTS INTO PHYTOPLANKTON DYNAMICS FROM OPTICAL OBSERVATIONS*

11:00 am Boss, E. S.; Behrenfeld, M. J.; Siegel, D.: THE PHYTOPLANKTON CHLOROPHYLL TO CARBON RATIO AND PROSPECTS OF ITS RETRIEVAL FROM IN-SITU OPTICAL MEASUREMENTS AND REMOTE SENSING.*

11:15 am Carder, K. L.; Cannizzaro, J. P.; Chen, F. R.; Heil, C. A.; Vargo, G. A.: KARENIA BREVIS BLOOMS ON THE WEST FLORIDA SHELF: A BRIDGE BETWEEN OPTICS AND PHYSIOLOGY

11:30 am Laney, S. R.; Letelier, R. M.; Abbott, M. R.; Pegau, W. S.: EXAMINING MARINE PHOTOSYNTHETIC RESPONSES USING NATURAL FLUORESCENCE

11:45 am Huot, Y.; Brown, C. A.; Cullen, J. J.: VARIABILITY IN SUN-INDUCED CHLOROPHYLL FLUORESCENCE IN SURFACE WATERS: PHYSIOLOGY OR BIOMASS?

1:30 pm Gorbunov, M. Y.; Falkowski, P. G.; Riebesell, U.: IMPROVED ESTIMATES OF PHYTOPLANKTON BIOMASS FROM CHLOROPHYLL VARIABLE FLUORESCENCE: A NEW APPROACH TO THE OLD PROBLEM

1:45 pm Letelier, R. M.; Abbott, M. R.; Karl, D. M.; Nahorniak, J.; Bidigare, R. R.; Corno, G.: ASSESSING PHYTOPLANKTON BIOMASS AND PHYSIOLOGICAL VARIABILITY AT STATION ALOHA (22 45’N; 158 00’W) USING RADIANCE REFLECTANCE PROFILES

2:00 pm Moore, C. M.; Suggett, D. J.; Ross, O. N.; Kim, Y. N.; Hickman, A. E.; Sharples, J.; Holligan, P. M.: PHYTOPLANKTON PHOTOSYSTEM II ACCLIMATION AND ADAPTATION STRATEGIES IN MIXED AND STRATIFIED WATER COLUMNS

2:15 pm Corno, G.; Letelier, R. M.; Abbott, M. R.; Karl, D. M.: ESTIMATION OF PHOTOSYNTHETIC ACTIVITY, AS DETERMINED BY FAST REPETITION RATE FLUOROMETRY (FRRF), IN THE NORTH SUBTROPICAL GYRE (NSPG)

2:30 pm Kirkpatrick, G. J.; Millie, D. F.; Moline, M. A.; Lohrenz, S. E.; Schofield, O. M.: UTILIZING AUTOMATED, ABSORBANCE-BASED OPTICAL DISCRIMINATION TO MAP PHYTOPLANKTON DISTRIBUTION

2:45 pm Suggett, D. J.; MacIntyre, H. L.; Moore, C. M.; Geider, R. J.: BIOPHYSICAL AND OPTICAL DETERMINATIONS OF LIGHT ABSORPTION BY PHYTOPLANKTON IN VIVO AND IN SITU

3:30 pm Johnsen, G.; Sakshaug, E.: LIGHT UTILIZATION IN 13 DIFFERENT PIGMENT GROUPS OF BLOOMFORMING PHYTOPLANKTON

3:45 pm Marra, J.; Barber, R. T.: THE MEASUREMENT OF PHYTOPLANKTON AND HETEROTROPHIC RESPIRATION IN THE OCEAN

4:00 pm Tiffany A. Moisan, T. A.; Ellisman, M.H. , M. E.; Gina Sosinsky, G. E.: CHLOROPLAST ULTRASTRUCTURE OF PHAEOCYSTIS ANTARCTICA KARSTEN USING ELECTRON TOMOGRAPHY

4:15 pm Morrison, J. R.; Nelson, N. B.: SEASONAL CYCLE OF PHYTOPLANKTON UV ABSORPTION AT THE BERMUDA ATLANTIC TIME-SERIES STUDY (BATS) SITE*

4:30 pm Johnson, K. S.; Chavez, F. C.; Coletti, L. J.; Friederich, G.; Sakamoto, C. M.; Elrod, V. A.: THE SEASONS OF MONTEREY BAY OBSERVED WITH MOORED CHEMICAL AND BIOLOGICAL SENSORS

SS6.08:
IOOS and Regional Observing Systems: Science, Status and Plans

Chair(s): Tom Malone, t.malone@ocean.us
Larry Atkinson, atkinson@ccpo.odu.edu

Location: 316 C

10:30 am Malone, T.; Lindstrom, E.; Atkinson, L.: IMPLEMENTING AN INTEGRATED OCEAN OBSERVING SYSTEM FOR THE UNITED STATES: STATUS AND PLANS*

10:45 am Mundy, P. R.; Musgrave, D. L.; McCammon, M.: THE ALASKA OCEAN OBSERVING SYSTEM: IMPLEMENTING IOOS IN THE NORTHEASTERN PACIFIC & ARCTIC*

11:00 am Seim, H. E.; Kearns, E.; Weisberg, R. H.; Nelson, J. R.; Werner, F. W.; Mooers, C. N.; Fletcher, M.; Thigpen, J.; He, R.: AN OVERVIEW OF SEA-COOS AND THE DEVELOPMENT OF A REGION-WIDE WIND FIELD

11:15 am Bogden, P. S.; Mercer, L.: NORTHERN SHRIMP: FISHERY-MANAGEMENT NEEDS MOTIVATING GOMOOS & NOAA TO COMBINE EFFORTS TO MONITOR AND PREDICT COASTAL OCEAN CLIMATE*

11:30 am Boicourt, W. C.: CHESAPEAKE BAY OBSERVING SYSTEM: LESSONS AND PROSPECTS*

11:45 am Lewis, J. K.: A REGIONAL OBSERVING AND PREDICTION SYSTEM FOR HAWAII

1:30 pm Gardner, B.; Peri, F.; Chen, R. F.; Rudnick, S. M.; Zhang, Z.; Peterson, J.; Litz, L.; Whelan, P.: THE INTEGRATED COASTAL OBSERVATION SYSTEM (ICOS): EXAMPLES OF OBSERVATION CAPABILITIES FROM ITS MAIDEN VOYAGE IN THE HUDSON RIVER AND NEW JERSEY/NEW YORK SHELF

1:45 pm Glenn, S. M.; Schofield, O. M.; , . .: OBSERVING THE OCEAN FROM THE COOLroom: RESULTS FROM A DECADE OF COLLABORATIVE PARTNERSHIPS

2:00 pm Weisberg, R. H.; He, R.; Helber, R. W.; Lichtenwalner, S.; Liu, Y.; Luther, M. E.; Merz, C.; Virmani, J. I.: A COASTAL OCEAN OBSERVING SYSTEM AND MODELING PROGRAM FOR THE WEST FLORIDA SHELF

(*) represents Invited presentations

MONDAY

2:15 pm McLaughlin, B.; Griggs, G.; McManus, M.; Croll, D.; Kudela, R.; Chavez, F.; Paduan, J.; Lonhart, S.; DeVogelaere, A.: FROM WIND TO WHALES: USING AN INTEGRATED OCEAN OBSERVATION SYSTEM TO UNDERSTAND CALIFORNIA'S UPWELLING SYSTEM

2:30 pm Atkinson, L. P.; Paduan, J.: A SURFACE CURRENT INITIATIVE FOR THE IOOS

2:45 pm Ackelson, S.: OCEANOGRAPHIC APPLICATIONS OF IRIDIUM COMMUNICATIONS: CURRENT PROBLEMS & FUTURE SOLUTIONS*

3:30 pm Arzayus, L. F.; Strong, A. E.; Dahl, A. L.: THE CHALLENGE OF OBSERVING CORAL REEFS: REPORT FROM THE CORAL SUB-THEME TO THE INTEGRATED GLOBAL OBSERVING STRATEGY (IGOS) PARTNERS

3:45 pm Bellingham, J. G.; Fratantoni, D. M.; Davis, R. E.; Ramp, S.; Chavez, F.; Haddock, S.; McManus, M.; Moline, M.; Paduan, J.; Healey, A.; Leonard, N.; Chandler, P.; Robinson, A. R.; Chao, Y.; Bachmayer, R.; Case, J. F.; Doyle, J. D.; Haley, P.; Christy, H.; Johnston, S.; Lermusiaux, P. F.; Leslie, W. G.; Majumdar, S. J.; Marsden, J.; Ryan, J.; Sherman, J; Shulman, I.; Thomas, H.: AOSN IN MONTEREY BAY: OBSERVATION AND ADAPTIVE SAMPLING WITH MULTIPLE PLATFORMS

4:00 pm Dickey, T. D.; Hanson, A.; Karl, D.; Moore, C.; Chang, G.; Manov, D.; Spada, F.: THE MULTI-DISCIPLINARY OCEAN SENSORS FOR ENVIRONMENTAL ANALYSES (MOSEAN PROGRAM

4:15 pm He, R.; Weisberg, R. H.; Zhang, H.; Muller-Karger, F. E.; Helber, R. W.: A CLOUD-FREE, SATELLITE-DERIVED, SEA SURFACE TEMPERATURE ANALYSIS FOR THE WEST FLORIDA SHELF

4:30 pm Luther, G. W.; Glazer, B. T.; Nuzzio, D. B.; Theberge, S. M.; Lewis, B. L.: IN SITU VOLTAMMETRY: A SOLID-STATE SENSOR FOR MONITORING ESTUARINE REDOX DYNAMICS*

SS9.03:
Developing Ecosystem-based Products for Ocean and Estuarine Management

Chair(s): Elizabeth Turner, elizabeth.turner@noaa.gov
Andrew Pershing, ajp9@cornell.edu

Location: 316 B

10:30 am Wulff, F. V.; Gren, I. M.; Johansson, S. A.; Savchuk, O. P.; Sokolov, A. V.: COUPLING MANAGEMENT, ECONOMICS AND NATURAL SCIENCES USING A LINKED NEST OF MODELS IN A DECISION SUPPORT SYSTEM FOR THE BALTIC SEA

10:45 am Justic, D.; Rabalais, N. N.; Turner, R. E.: NUTRIENTS, CLIMATE AND HYPOXIA: PREDICTING WATER QUALITY TRENDS IN THE NEXT 50 YEARS

11:00 am Baltz, D. M.; Chesney, E. J.; Li, H. W.; Rossignol, P. A.; Switzer, T. S.: QUALITATIVE MODELING OF NATURAL AND ANTHROPOGENIC STRESSORS ON NEKTON IN LOUISIANA COASTAL SYSTEMS

11:15 am Goebel, N. L.; Kremer, J. N.; Edwards, C. A.: AN EMPIRICAL, GENERAL FORMULATION OF PRIMARY PRODUCTION FOR A MANAGEMENT MODEL OF PELAGIC METABOLISM IN LONG ISLAND SOUND

11:30 am Shapiro, A. C.; Rohmann, S. O.: SUMMIT-TO-SEA MAPPING AND CHANGE DETECTION USING SATELLITE IMAGERY: TOOLS FOR CONSERVATION AND MANAGEMENT OF CORAL REEFS

11:45 am Harding, Jr., L. W.; Adolf, J. E.; Miller, W. D.; Mallonee, M. E.: PREDICTIONS OF PHYTOPLANKTON BIOMASS AND PRIMARY PRODUCTIVITY USING DATA FROM IN-SITU AND REMOTE SENSING OBSERVATIONS IN CHESAPEAKE BAY, USA

1:30 pm Houde, E. D.; Jung, S.; Wood, R. J.; Auth, T. D.; Rilling, G. C.; Bichy, J. B.: HINDCASTING AND PREDICTING BAY ANCHOVY RECRUITMENTS IN CHESAPEAKE BAY

1:45 pm Barrientos, C. S.; Ransibrahmanakul, V.; Stumpf, R. P.: A TIME SERIES OF WATER QUALITY FOR THE COASTAL US FROM AVHRR AND SEAWIFS

2:00 pm Murphy, K. R.; Coble, P. G.; Field, M. P.; Moore, W. S.; Perry, E. S.; Ruiz, G. M.; Waite, T. D.: A MODEL FOR VERIFYING MID-OCEAN BALLAST WATER EXCHANGE USING NATURALLY OCCURRING CHEMICAL TRACERS

2:15 pm Pershing, A. J.; Greene, C. H.; Bailey, B. A.: CLIMATE-BASED ASSESSMENT AND FORECASTING FOR ECOSYSTEMS IN THE GULF OF MAINE*

2:30 pm Hooff, R. C.; Lamb, J. F.; Peterson, W. T.: VARIABILITY AND PREDICTION OF PRODUCTION DYNAMICS IN THE NORTHERN CALIFORNIA CURRENT ECOSYSTEM: WHAT CAN THE COPEPODS TELL US ABOUT FISH PRODUCTION?

2:45 pm Tynan, C. T.; Ainley, D. G.; Spear, L. B.; Barth, J. A.; Cowles, T. J.; Pierce, S. D.: DEVELOPING BIOPHYSICAL MODELS OF CETACEAN DISTRIBUTION IN THE CALIFORNIA CURRENT, AN UPWELLING BOUNDARY CURRENT SYSTEM

3:30 pm Incze, L. S.; Xue, H.; Chen, Y.; Steneck, R.; Wilson, C.; Pettigrew, N.; Lawton, P.; Greenberg, D.; Page, F.; Brooks, D.; Townsend, D. A.; Wahle, R. A.: DATA ASSIMILATION AND MODELING OF SOURCE-SINK RELATIONSHIPS AND FISHERY PRODUCTION OF HOMARUS AMERICANUS IN THE GULF OF MAINE.

3:45 pm Brooks, D. A.: LOBSTERS AND THE MAINE COASTAL CURRENT: CONNECTING SOURCE AND SINK

4:00 pm Chen, C.; Rawson, M.; Liu, H.; Qi, J.; Ji, R.; Lin, H.: A NEW COASTAL AND ESTUARINE MANAGEMENT MODEL SYSTEM: APPLICATIONS TO ESTUARIES IN THE SOUTHEASTERN US COAST

4:15 pm DeVoe, M. R.; Kleppel, G. S.: TOOLS TO SUSTAIN THE INTEGRITY OF RAPIDLY URBANIZING ECOSYSTEMS IN THE COASTAL SOUTHEAST

4:30 pm Threlkeld, S. T.; Greening, H.: ONLINE STRATEGIES FOR DELIVERING SCIENCE TO MANAGERS: RECENT EXPERIENCES WITH THE COASTAL SCIENCES JOURNAL ESTUARIES

(–) represents Tutorial presentations

SS9.04:
Understanding the Physiological and Community Ecology of Invasive Species

Chair(s): Doug Miller, dmiller@udel.edu

Location: 317 A

1:30 pm Grosholz, E. D.: THE ROLE OF POSITIVE INTERACTIONS IN THE INVASION OF COASTAL MARINE SYSTEMS*

1:45 pm Zabin, C. J.: THE UTILITY OF THE MENGE-SUTHERLAND ENVIRONMENTAL STRESS MODEL TO INVASION BIOLOGY: A CASE STUDY OF A CARIBBEAN BARNACLE IN HAWAII*

2:00 pm Kahng, S. E.: THE ECOLOGY AND ECOLOGICAL IMPACT OF A HIGHLY INVASIVE MARINE INVERTEBRATE IN HAWAII'S CORAL REEF COMMUNITIES

2:15 pm Conklin, E. J.; Smith, J. E.: INFLUENCE OF DISPERSAL, GROWTH, AND HERBIVORE SUSCEPTIBILITY ON THE ABILITY OF THREE NON-INDIGENOUS ALGAL SPECIES TO DISPLACE NATIVE COMMUNITIES IN HAWAI'I

2:30 pm Neira, C.; Levin, L. A.; Mendoza, G.; Grosholz, E. D.: ALTERATION OF WETLAND TROPHIC FUNCTION BY A PLANT INVADER

2:45 pm deRivera, C. E.; Ruiz, G. M.; Crawford, M. K.; Gittings, S. R.; Hines, A. H.: BROAD-SCALE PATTERNS OF MARINE NON-INDIGENOUS SPECIES ALONG THE US WEST COAST SANCTUARIES AND RESERVES

3:30 pm Torchin, M. E.; Kuris, A. M.; Lafferty, K. D.: INTRODUCED SPECIES AND THEIR MISSING PARASITES: WHAT'S GAINED BY THEIR LOSS?

3:45 pm Rudnick, D. A.; Tsukimura, B. A.; Veldhuizen, T.; Tullis, R.; Hieb, K. H.; Culver, C.: A LIFE HISTORY MODEL FOR THE CALIFORNIA POPULATION OF THE CHINESE MITTEN CRAB, ERIOCHEIR SINENSIS

4:00 pm Smith, L. D.; Thomas, E. K.: BIOGEOGRAPHIC DIFFERENCES IN CLAW SIZE AND PERFORMANCE IN AN INTRODUCED CRAB PREDATOR: EVIDENCE OF AN EMERGING ARMS RACE?

4:15 pm Brown, J. R.; Miller, D. C.: SHORELINE MODIFICATION AND HABITAT STRUCTURE AS A FACILITATOR FOR ESTABLISHMENT OF INVASIVE SPECIES

4:30 pm Drake, L. A.; Dobbs, F. C.: MICROORGANISMS: POTENTIAL INVASIVE SPECIES IN SHIPS BALLAST-WATER TANKS

4:45 pm Kotta, J.; Orav-Kotta, H.: FIELD MEASUREMENTS ON THE VARIABILITY IN BIODEPOSITION AND GRAZING PRESSURE OF SUSPENSION FEEDING BIVALVES IN THE NORTHERN BALTIC SEA

SS9.07:
Oceans and Human Health

Chair(s): Sunny Jiang, sjiang@uci.edu

Location: 323 A

10:30 am Colwell, R.: OCEANS AND HUMAN HEALTH: A SYMBIOTIC RELATIONSHIP BETWEEN PEOPLE AND THE SEA?*

11:00 am Dearry, A.: INITIATION OF RESEARCH CENTERS ON OCEANS AND HUMAN HEALTH *

11:15 am Holden, P. A.: CHARTING THE COURSE OF HUMAN WASTE MIGRATION, FROM WATERSHEDS THROUGH COASTAL WATERS

11:30 am Anderson, C. R.; Brzezinski, M. A.; Siegel, D. A.; Washburn, L.; Guillocheau, N.: ARE HARMFUL ALGAL BLOOMS RESPONSIBLE FOR THE VARIABILITY IN PHYTOPLANKTON SPECIES COMPOSITION DURING SPRING BLOOMS IN THE SANTA BARBARA CHANNEL?

11:45 am Griffin, D. W.; Kellogg, C. A.; Garrison, V. H.; Shinn, E. A.; Kubilay, N.; Kocak, M.: DESERT DUST IN EARTH'S ATMOSPHERE: THE IMPACT ON OCEAN AND HUMAN HEALTH *

1:30 pm Fujioka, R. S.; Unutoa, T. M.: COMPARATIVE STABILITY AND GROWTH REQUIREMENTS OF S.AUREUS VERSUS FECAL BACTERIA IN SEAWATER*

1:45 pm Kim, J. H.; Grant, S. B.: PUBLIC MIS-NOTIFICATION OF COASTAL WATER QUALITY: A PROBABILISTIC EVALUATION OF POSTING ERRORS AT HUNTINGTON BEACH, CALIFORNIA

2:00 pm Casper, E. T.; Paul, J. H.; Smith, M. C.: CONCENTRATION, DETECTION AND QUANTIFICATION OF ENTEROVIRUSES IN MARINE COASTAL ENVIRONMENTS BY REAL-TIME NASBA

2:15 pm Lipp, E. K.; Griffin, D. W.: PATTERNS OF SEWAGE CONTAMINATION IN CORAL REEFS OF THE FLORIDA KEYS: HUMAN AND OCEAN HEALTH LINKAGES*

2:30 pm Lawrence, J. E.; Brussaard, C. P.; Suttle, C. A.: FLOW-CYTOMETRIC ANALYSIS OF HETEROSIGMA AKASHIWO PERMITS RAPID DETECTION OF VIRAL INFECTIONS

2:45 pm Jiang, S.; Grant, S. B.; Largier, J.; Noble, M.; Digiacomo, P.; Clark, C.; Sobsey, M.; Redman, J.; Noblet, J.: INTEGRATION OF MOLECULAR BIOLOGY, PHYSICAL OCEANOGRAPHY AND REMOTE SENSING TO ILLUMINATE THE SOURCES AND TRANSPORT PATHWAYS OF URBAN COASTAL POLLUTION

(*) represents Invited presentations

TUESDAY

Tuesday, February 17, 2004

SS1.01:
Shelf-Basin Interactions in the Western Arctic

Chair(s): Terry E. Whitledge, terry@ims.uaf.edu
Jackie Grebmeier, jgrebmei@utk.edu

Location: 316 A

10:15 am Cota, G. F.: PRIMARY PRODUCTION IN THE WESTERN ARCTIC OCEAN[~]

10:45 am Bates, N. R.; Hansell, D. A.; Moran, S. B.; Codispoti, L. A.; Swift, J.: SEASONAL AND SPATIAL DISTRIBUTION OF PARTICULATE ORGANIC MATTER (POM) AND NEW PRODUCTION IN THE CHUKCHI SEA

11:00 am Ashjian, C. J.; Gallager, S. M.; Plourde, S.: TRANSPORT OF PLANKTON AND PARTICLES BETWEEN THE CHUKCHI AND BEAUFORT SEAS

11:15 am Kirchman, D. L.; Cottrell, M. T.; Malmstrom, R. R.; Cota, G. F.: BIOMASS, PRODUCTION AND COMMUNITY STRUCTURE OF HETEROTROPHIC BACTERIA IN THE WESTERN ARCTIC

11:30 am Cottrell, M. T.; Malmstrom, R. R.; Kirchman, D. L.: THE BALANCE BETWEEN AUTOTROPHY AND HETEROTROPHY IN THE WESTERN ARCTIC OCEAN

11:45 am Sherr, E.; Sherr, B.; Ashjian, C.; Campbell, R.; Plourde, S.: SBI - MICROZOOPLANKTON AS HERBIVORES AND AS FOOD FOR MESOZOOPLANKTON IN ARCTIC OCEAN FOOD WEBS

1:30 pm Hansell, D. A.; Kadko, D. C.; Bates, N. R.: NON-CONSERVATIVE BEHAVIOR OF TERRIGENOUS DISSOLVED ORGANIC CARBON IN THE WESTERN ARCTIC OCEAN

1:45 pm Moran, S. B.; Kelly, R. P.; Cota, G. F.; Smith, J. N.; Nelson, R. P.; Mulsow, S.; Povinec, P.: POC EXPORT IN THE WESTERN ARCTIC OCEAN

2:00 pm Grebmeier, J. M.; Cooper, L. W.; Codispoti, L. A.; Benner, R.: BENTHIC CARBON CYCLING AND NUTRIENT EXCHANGE IN THE WESTERN ARCTIC SHELF-BASIN INTERACTIONS (SBI) STUDY AREA

2:15 pm Harvey, H. R.; Belicka, L. L.; Macdonald, R. W.: MOLECULAR BIOMARKERS AS TRACERS OF ORGANIC CARBON CYCLING ALONG THE SHELF-BASIN BOUNDARY OF THE WESTERN ARCTIC OCEAN

2:30 pm Devol, A. H.; Chang, B.; Christensen, J. P.: OXYGEN CONSUMPTION, DENITRIFICATION AND SULFATE REDUCTION IN ARCTIC CONTINENTAL MARGIN SEDIMENTS

2:45 pm Dunton, K. H.; Schonberg, S. V.: ADVECTION OF CARBON ON THE WESTERN ARCTIC SHELF: IMPLICATIONS FOR BENTHIC-PELAGIC COUPLING

3:30 pm Bluhm, B. A.; Iken, K. B.; MacDonald, I. R.: MACROBENTHIC COMMUNITIES IN THE HIGH ARCTIC CANADA BASIN: ABUNDANCE, BIOMASS AND TROPHIC STRUCTURE

3:45 pm Carvellas, B. A.: REPORT FROM A TEA TEACHER ON THE 2002 SHELF-BASIN INTERACTIONS (SBI) SUMMER CRUISE

4:00 pm Moore, J. A.; Stossmeister, G. J.; Roberts, S. D.; Dirks, R. A.: DATA MANAGEMENT SUPPORT TO THE WESTERN ARCTIC SHELF BASIN INTERACTIONS (SBI) PROJECT

4:15 pm Cutter, G. A.; Cutter, L. S.: RECORDS OF BIOGENIC FLUXES IN THE WESTERN ARCTIC OCEAN OVER THE LAST 10,000 YEARS

4:30 pm Tortell, P. D.: REAL-TIME MEASUREMENT OF TRACE GAS CONCENTRATIONS IN THE EASTERN BERING SEA VIA MEMBRANE INLET MASS SPECTROMETRY

SS11.03:
New Sensor Technologies for Coastal Ocean Observing Systems

Chair(s): Marlin Atkinson
Mark Luther, luther@marine.usf.edu
Mario Tamburri, tamburri@cbl.umces.edu
Kenneth Tenore, tenore@cbl.umces.edu

Location: 324

10:15 am Garcia-Rubio, L. H.; Alupoaei, C. E.: A NEW METHOD FOR IN-SITU CONTINUOUS DETECTION AND IDENTIFICATION OF MICROORGANISMS*

10:30 am Smith, M. C.; Paul, J. H.; Fries, D. P.; Casper, E. T.; Farmer, A. S.; Gonzalez, G.: TOWARDS AUTONOMOUS IN SITU MICROBIAL MONITORING – THE AUTONOMOUS MICROBIAL GENOSENSOR (AMG).*

10:45 am Ogier, J.; Durant, Y. G.; Miller, G. P.; Claverie, J. P.: MOLECULARLY IMPRINTED POLYMERS (MIP) BASED SENSORS FOR THE DETECTION OF SAXITOXIN

11:00 am Sellner, K. G.: HARMFUL ALGAL BLOOM TECHNOLOGIES IN OCEAN OBSERVING SYSTEMS*

11:15 am Schofield, O.; Glenn, S.; Kirkpatrick, G.; Moline, M.; Jones, C.: MAPPING RED TIDE USING AUTONOMOUS UNDERWATER WEBB GLIDERS*

11:30 am Fratantoni, D. M.; Davis, R. E.: AUTONOMOUS UNDERWATER GLIDER PERFORMANCE DURING AOSN-II

11:45 am Lembke, C. E.; Weisberg, R.; Byrne, R. H.; Russell, R.; Holly, M.; Patten, J.; Tilbury, G.: COASTAL OBSERVING WITH THE BOTTOM STATIONED OCEAN PROFILER

1:30 pm Paduan, J. D.; Lipphardt, B. L.; Cook, M. S.; Atwater, D. P.: SURFACE VELOCITY PATTERNS IN MONTEREY BAY FROM HF RADAR DURING THE AUTONOMOUS OCEAN SAMPLING NETWORK (AOSN) EXPERIMENT

1:45 pm Kohut, J. T.; Roarty, H. J.; Glenn, S. M.: RECENT RESULTS FROM THE HF RADAR NETWORK OF THE NEW JERSEY SHELF OBSERVING SYSTEM (NJSOS) AND THE REGIONAL NORTHEAST OBSERVING SYSTEM (NEOS)

2:00 pm Bosley, K. T.; Bushnell, M.: OBTAINING CURRENT MEASUREMENTS ON US COAST GUARD NAVIGATION BUOYS AS AN ENHANCEMENT TO PORTS®

2:15 pm Lobe, H. J.: BIOFOULING CONTROL METHODS FOR OCEANOGRAPHIC INSTRUMENTATION AS COMPLILED FROM THE NOVEMBER 2003 ACT BIOFOULING WORKSHOP

2:30 pm Heupel, M. R.: USING REMOTE ACOUSTIC SENSORS TO MONITOR THE LONG-TERM MOVEMENT PATTERNS OF SHARKS IN TWO FLORIDA ESTUARIES*

2:45 pm Peterson, K. A.; Sieracki, C. K.; Thibaudeau, W. D.: FLOWCAM TECHNOLOGY: DIGITAL IMAGING Flow Cytometry for Oceanographic Research*

[~] represents Tutorial presentations

3:30 pm Barnard, A. H.; Roesler, C. S.: THE USE OF MULTI-PARAMETER BIO-OPTICAL INSTRUMENT SYSTEMS FOR LONG-TERM OBSERVATIONS OF ECOSYSTEM COMMUNITY STRUCTURE*

3:45 pm Tenore, K. R.; Buckley, E. N.; Tamburri, M. N.: THE ALLIANCE FOR COASTAL TECHNOLOGIES (ACT): DEVELOPING, IMPROVING, AND SHARING INFORMATION ON SENSORS AND SENSOR PLATFORMS

4:00 pm Luther, M. E.; Heinmiller, R. H.; Bogden, P. S.: WIRELESS DATA COMMUNICATIONS FOR THE US COASTAL OCEAN*

SS2.03:
Biological Adaptations to Turbulent Flow

Chair(s): Paul Moore, pmoore@bgnet.bgsu.edu
John Crimaldi, john.crimaldi@colorado.edu

Location: 316 C

10:15 am Malkiel, E.; Garber, D. A.; Katz, J.; Strickler, J. R.: THE USE OF DIGITAL HOLOGRAPHY TO OBSERVE ZOOPLANKTON BEHAVIOR

10:30 am Webster, D. R.; Brathwaite, A.; Rasberry, K. D.; Yen, J.: A NEW LABORATORY APPARATUS TO STUDY THE INTERACTION OF TURBULENCE AND PELAGIC ZOOPLANKTON

10:45 am Wetz, M. S.; Wheeler, P. A.; Letelier, R. M.: LIGHT INDUCED GROWTH OF WINTER PHYTOPLANKTON COLLECTED FROM THE BENTHIC BOUNDARY LAYER OFF OREGON, USA

11:00 am Fuchs, H. L.; Mullineaux, L. S.; Solow, A. R.: SINKING BEHAVIOR OF GASTROPOD LARVAE (ILYANASSA OBSOLETA) IN GRID-STIRRED TURBULENCE

11:15 am Koehl, M. A.; Koseff, J. R.; Reidenbach, M. A.; Strother, J. A.; Crimaldi, J. P.; Wiley, M. B.; Hadfield, M. G.: HOW ANIMALS OF DIFFERENT SIZES ENCOUNTER CHEMICAL CUES IN TUBULENT AMBIENT WATER FLOW~

11:45 am Jumars, P. A.; Karp-Boss, L.; Boss, E.: SOLUTE FLUX IN STEADY AND UNSTEADY FLOWS AROUND PHYTOPLANKTON CELLS

1:30 pm Lamb, J. F.; Peterson, W. T.: MECHANISMS OF ON-SHELF RETENTION OF COPEPODS IN AN UPWELLING SYSTEM

1:45 pm Denton, D. J.; Frick, W. E.; Barber, M. C.: DYNAMIC TUNING OF INSECT AND BIRD WINGS AND COPEPOD AND DAPHNIA APPENDAGES

2:00 pm Crimaldi, J. P.; Browning, H. S.: TURBULENT ENHANCEMENT OF BROADCAST SPAWNING EFFICIENCY

2:15 pm Moore, P. A.: SENSORY AND BEHAVIORAL ADAPTATIONS TO FLOW: LESSONS FROM CRUSTACEANS

2:30 pm Ferner, M. C.; Weissburg, M. J.: DIFFERENTIAL EFFECTS OF TURBULENCE ON OLFACTORY FORAGING BY BENTHIC INVERTEBRATES

2:45 pm Weissburg, M. J.; Smee, D. L.: DOES TURBULENCE MATTER? TESTING THE ROLE OF TURBULENCE IN STRUCTURING PREDATOR-PREY RELATIONSHIPS IN THE FIELD

3:30 pm Wiley, M. B.; Koseff, J. R.; Mead, K. S.; Koehl, M. A.: THE EFFECT OF OSCILLATORY MOTION ON CHEMICAL PLUMES AND HOW STOMATOPODS USE THESE PLUMES TO FIND THE CHEMICAL'S SOURCE

3:45 pm Houser, L. T.; Epifanio, C. E.: THE IMPORTANCE OF SWIMMING BEHAVIOR IN MAINTAINING PATCHES OF LARVAL CRABS: CAN BIOCHEMICAL CUES HAVE AN EFFECT?

4:00 pm Jackson, J. L.; Rahman, S.; Webster, D. L.; Weissburg, M. J.: EFFECT OF BED ROUGHNESS ON SCALAR MIXING AND ODOR PLUME NAVIGATION IN TURBULENT BOUNDARY LAYER FLOWS

4:15 pm Reidenbach, M. A.; Koseff, J. R.; Genin, A.; Monismith, S. G.: THE EFFECT OF CORAL MORPHOLOGY AND FLOW ON MASS TRANSFER IN CORAL COMMUNITIES

4:30 pm Buskey, E. J.; Clarke, R. D.; McKinnon, D.; Gilbert, O.: THE EFFECTS OF WATER MOVEMENT AND ZOOPLANKTON BEHAVIOR ON PLANKTIVORY BY CORAL REEF FISHES

SS2.09:
Physical and Biochemical Evolution of the Eastern Mediterranean in the 90's

Chair(s): Paola Malanotte-Rizzoli, rizzoli@ocean.mit.edu

Location: 317 A

10:15 am Klein, B. A.; Roether, W.; Manca, B. B.: THE EVOLUTION OF THE INTERMEDIATE AND DEEP WATER MASSES OF THE EASTERN MEDITERRANEAN AS SEEN IN TRANSIENT TRACER DATA~

10:45 am Kress, N.; Manca, B. B.; Klein, B.; Herut, B.; Gertman, I.: CONTINUING CHANGES IN THE DISTRIBUTION OF DISSOLVED OXYGEN AND NUTRIENTS IN THE EASTERN MEDITERRANEAN AS A RESULT OF THE TRANSIENT EVOLUTION

11:00 am Manca, B. B.; Ibello , V.; Klein, B.; Kress, N.; Mauri, E.; Papucci, C.; Scarazzato, P.; Tangherlini, M.: DENSE WATER FORMATION IN THE SOUTHERN ADRIATIC SEA: WATER MASS STRUCTURES, PROPERTIES AND CIRCULATION IN THE EASTERN MEDITERRANEAN DURING 2001-2002

11:15 am Crise, A.; Solidoro, C.; Civitarese, G.; Klein, B.; Manca, B. B.; Ribera d'Alcala', M.: EVOLUTION OF THE EAST MEDITERRANEAN BIOCHEMICAL BUDGETS AFTER EMT

11:30 am Santinelli, C.; Civitarese, G.; Conversano, F.; Nannicin, L.; Manca, B. B.; Ribera d'Alcala', M.; Seritti, A.: DOC DYNAMICS IN THE EASTERN MEDITERRANEAN. IMPLICATIONS FOR ITS BUDGET IN THE SUBBASIN AND IN THE WHOLE MEDITERRANEAN SEA~

1:30 pm Malinverno, E.; Corselli, C.; Ziveri, P.; De Lange, G. J.; Hubner, A.; Boldrin, A.; Miserocchi, S.: BIOGEOCHEMICAL FLUXES IN THE IONIAN SEA (EASTERN MEDITERRANEAN) IN RELATION TO HYDROGRAPHIC CONDITIONS

1:45 pm Malanotte-Rizzoli, P.; Christou, E. D.; Siokou-Frangou, I.; Mazzocchi, M. G.: INTERANNUAL VARIATIONS IN THE ABUNDANCE AND TROPHIC STRUCTURE OF EPIPELAGIC MESOZOOPLANKTON IN THE IONIAN SEA

2:00 pm Koppelmann, R.; Weikert, H.; Halsband-Lenk, C.; Jennerjahn, T.; Lahajnar, N.: MESOZOOPLANKTON COMMUNITY RESPIRATION AND ITS RELATION TO PARTICLE FLUX IN THE OLIGOTROPHIC EASTERN MEDITERRANEAN

2:15 pm Crepon, M. R.; Li, L.; Somot, S.: THE MEDWATER PROJECT: METHODOLOGY AND PRELIMINARY RESULTS~

(*) represents Invited presentations

TUESDAY

2:45 pm Saaroni, H.; Ziv, B.: LONG-TERM CHANGES IN THE SUMMER REGIME OVER THE MEDITERRANEAN BASIN

3:30 pm Cardin, V.; Gacic, M.; Civitarese, G.: DECADAL AND YEAR-TO-YEAR VARIATIONS OF AIR-SEA HEAT FLUXES, VERTICAL CONVECTION AND BIOCHEMICAL PROPERTIES IN THE SOUTHERN ADRIATIC

3:45 pm Delfanti, R.; Astraldi, M.; Boudillon, G.; Civitarese, G.; Conversano, F.; Gasparini, G. P.; Lavezza, R. M.; Ortona, A.; Papucci, C.; Ribera d'Alcalà, M.; Tangherlini, M.: THE IMPACT OF THE GEOCHEMICAL PROPERTIES REDISTRIBUTION IN THE WESTERN MEDITERRANEAN DUE TO THE EASTERN MEDITERRANEAN TRANSIENT

4:00 pm La Ferla, R.; Azzaro, F.; Azzaro, M.; Caruso, G.; Decembrini, F.; Leonardi, M.; Maimone, G.; Monticelli, L. S.; Raffa, F.; Zaccone, R.; Ribera d'Alcalà, M.: MICROBIAL PROCESSES CONTRIBUTION TO CARBON BIOGEOCHEMISTRY IN THE MEDITERRANEAN SEA: SPATIAL AND TEMPORAL SCALE VARIABILITY OF ACTIVITIES AND BIOMASS

4:15 pm Marullo, S.; D'Ortenzio, F.; Santoleri, R.; Ribera D'Alcalà, M.; Napolitano, E.; Esposito, S.; Mariani, P.; Vellucci, V.: HOT SPOTS AND SPATIAL GRADIENTS IN THE MEDITERRANEAN TROPHIC REGIME: AN ANALYSIS BASED ON REMOTE SENSING

4:30 pm Saggiomo, V.; Colella, S.; D'Ortenzio, F.; Mangoni, O.; Marullo, S.; Ragni, M.; Santoleri, R.; Ribera d'Alcala', M.: AN UPDATED ESTIMATE OF PRIMARY PRODUCTION IN THE MEDITERRANEAN SEA FROM REMOTE SENSING DATA

SS2.10:
The Role of Bermuda Based Studies in Our Understanding of Ocean and Atmospheric Processes

Chair(s): Anthony Knap, knap@bbsr.edu

Location: 323 B

1:30 pm Michaels, A. F.: TIME-SERIES OCEANOGRAPHY AT THE BERMUDA BIOLOGICAL STATION*

1:45 pm Dickey, T. D.: A DECADE OF HIGH TEMPORAL RESOLUTION INTERDISCIPLINARY OBSERVTATIONS USING THE BERMUDA TESTBED MOORING*

2:00 pm Bates, N. R.; Hansell, D. A.: TEMPORAL VARIABILITY OF EXCESS NITRATE IN THE SUBTROPICAL MODE WATER OF THE NORTH ATLANTIC OCEAN*

2:15 pm Lomas, M. W.; Knap, A. H.; Bates, N. R.: POTENTIAL CONTROLS ON INTERANNUAL PARTITIONING OF ORGANIC CARBON DURING THE WINTER/SPRING PHYTOPLANKTON BLOOM AT THE BERMUDA ATLANTIC TIME-SERIES STUDY SITE

2:30 pm Gundersen, K.; Orcutt, K. M.: SEASONAL PATTERNS OF TRICHODESMIUM C-INCORPORATION AT THE BERMUDA ATLANTIC TIME-SERIES (BATS) SITE

2:45 pm Fu, F.; Bell, P. R.: EFFECTS OF INORGANIC AND ORGANIC PHOSPHOROUS ON THE GROWTH AND ALKALINE PHOSPHATASE ACTIVITY OF THE CYANOBACTERIUM TRICHODESMIUM GBRTRLI101

3:30 pm Cutter, L. S.; Cutter, G. A.; Richards, M.; Sanders, J. G.: ARSENIC AND PHOSPHORUS IN THE WESTERN ATLANTIC: NEW DATA FOR AN OLD PROBLEM

3:45 pm Glover, D. M.; Fach, B. A.; Conte, M. H.: A COUPLED MESO-EPIPELAGIC PARTICLE FLUX MODEL FOR THE BERMUDA ATLANTIC TIME-SERIES STATION (BATS)/ OCEANIC FLUX PROGRAM (OFP) SITE: PHASE 3, INITIAL RESULTS

4:00 pm Klamberg, J. K.; Nelson, N. B.; Siegel, D. A.: SEASONAL MODELING OF COLORED DISSOLVED ORGANIC MATERIAL DYNAMICSAT THE BATS SITE

4:15 pm Sedwick, P. N.; Parsons, R. A.; Knap, A. H.: LAND-TO-OCEAN TRANSPORT OF MICROBES AND IRON IN SOIL DUST: THE AIRBORNE FUNGAL SIDEROPHORE HYPOTHESIS*

SS4.01:
Marine Viromics - The Interaction of Viral Genomes with the Environment

Chair(s): John H. Paul, jpaul@marine.usf.edu
Forest Rohwer, forest@sunstroke.sdsu.edu

Location: 316 B

10:15 am Breitbart, M.; Segall, A. M.; Rohwer, F.: MARINE VIRAL GENOMICS*

10:30 am Sabet, S.; Jiang, S.: BIODIVERSITY AND ECOLOGY OF HALOALKALIPHILIC BACTERIOPHAGE: ESTABLISHMENT OF A GENOMIC LIBRARY OF UNCULTURED PHAGE FROM MONO LAKE

10:45 am Paul, J. H.; Williamson, S. J.; Segall, A.; Rohwer, F.; Mobberly, J.; John, D.: THE PHAGE HSIC GENOME: AN ECLECTIC COMBINATION OF GENES IN A PSEUDOTEMPERATE SIPHOPHAGE*

11:00 am Culley, A. I.; Suttle, C. A.: CHARACTERIZATION OF PICORNA-LIKE VIRUSES FROM A VARIETY OF MARINE ENVIRONMENTS

11:15 am Lindell, D.; Sullivan, M. B.; Johnson, Z. I.; Lee, J. A.; Tolonen, A.; Rohwer, F.; Chisholm, S. W.: PHOTOSYNTHESIS GENES IN PROCHLOROCOCCUS CYANOPHAGE

11:30 am Suttle, C. A.; Lang, A. S.; Tai, V.; Hardies, S. C.; St. John, T. M.; Frederickson, C. M.; Reid, K.; Culley, A. I.; Comeau, A. M.: SEQUENCE ANALYSIS INDICATES MOST VIRUSES IN THE SEA BELONG TO UNKNOWN GROUPS*

11:45 am Bench, S. R.; Williamson, K. E.; Wommack, K. E.: VIRIOPLANKTON OF THE CHESAPEAKE BAY: EXPLORING COMMUNITY DIVERSITY THROUGH METAGENOME ANALYSIS.

SS5.06:
Advances in Diagenetic Modelling

Chair(s): Christof Meile, cmeile@indiana.edu
Philippe Van Cappellen, pvc@geo.uu.nl
B.P. Boudreau, bernie.boudreau@dal.ca

Location: 317 B

10:15 am Middelburg, J. J.; Soetaert, K.; Meysman , F.; Galaktionov, O.; Madani, S.: PAST AND FUTURE EVOLUTION OF DIAGENETIC MODELS: A TUTORIAL~

10:45 am Fossing, H.; Berg, P.; Thamdrup, B.: NON-STEADY STATE MODELLING OF DIAGENETIC PROCESSES IN MARINE SEDIMENTS WITH SPECIAL EMPHASIS ON FIELD DATA

(~) represents Tutorial presentations

11:00 am Schlueter, M.: DIAGENETIC MODELLING BY AN OBJECT ORIENTED PROGRAMMING APPROACH CONSIDERING FLUID FLOW, BIOLOGICAL MEDIATED TRANSPORT AND BIOGEOCHEMICAL PROCESSES

11:15 am Holstein, J. M.; Wirtz, K. W.: INTEGRATED SEDIMENT MODEL: SIMULTING ADAPTION PROCESSES AND STRUCTURE FORMATION IN DYNAMIC ENVIRONMENTS*

11:30 am Maher, K.; Steefel, C. I.; DePaolo, D. J.: COMPARISON OF ESTIMATES OF MINERAL DISSOLUTION RATES IN OCEAN SEDIMENTS BASED ON U-SERIES DISEQUILIBRIUM AND MULTICOMPONENT REACTIVE TRANSPORT MODELING.

11:45 am Rodriguez Aguilera, D.; Jourabchi, P.; Meile, C.; Regnier, P.: A KNOWLEDGE-BASED REACTIVE TRANSPORT APPROACH TO REDOX, PH AND SI DYNAMICS IN SEDIMENTS

1:30 pm Berg, P.; Røy, H.; Wiberg, P.: EDDY CORRELATION ? A NEW TECHNIQUE FOR MEASURING AREAL AVERAGE OXYGEN UPTAKE BY AQUATIC SEDIMENTS

1:45 pm Furukawa, Y.: MULTICOMPONENT INVERSE MODELING FOR DETERMINATION OF DIAGENETIC REACTION RATES AFFECTED BY MACROBENTHOS

2:00 pm Laverman, A. M.; Wieringa, E. B.; Meile, C.; Van Cappellen, P. S.: NITROGEN CYCLING IN INTERTIDAL SEDIMENTS: DETERMINATION OF IN SITU DENTRIFICATION RATES

2:15 pm Katsev, S.; L'Heureux, I.; Rancourt, D. G.: A METHOD FOR INVESTIGATING INTERACTIONS AMONG CHEMICAL SPECIES IN SEDIMENTS: APPLICATION TO SULFATE-ASSISTED PHOSPHORUS MOBILIZATION

2:30 pm KHALIL , K.; RABOUILLE , C.; SOETAERT , K.; GREENWOOD , J.; RAGUENEAU , O.: MATHEMATICAL MODELLING OF SEDIMENT SILICA EARLY DIAGENETIC PROCESSES

2:45 pm Boudreau, B. P.; Mucci, A.: MODELLING TRANSIENT MANGANESE DIAGENESIS: A SIMPLE PREDICTION AND CONFIRMATION

3:30 pm van Lith, Y.; Regnier, P.; Van Cappellen, P.: COMPETITIVE AND COMPLEMENTARY BIOTIC AND ABIOTIC PATHWAYS IN THE SEDIMENTARY MN-FE-S CYCLES – A MODEL APPROACH

3:45 pm L'Heureux, I.; Katsev, S.; Rancourt, D. G.: AN APPROXIMATE TREATMENT OF PH-DEPENDENT ADSORPTION IN REACTION-TRANSPORT MODELS

4:00 pm Mincks, S. L.; Smith, C. R.; DeMaster, D. J.; Thomas, C. J.: MICROBIAL RESPONSE TO SEASONAL PHYTODETRITUS DEPOSITION ON THE WEST ANTARCTIC PENINSULA CONTINENTAL SHELF: A COLD-LIMITATION HYPOTHESIS

SS5.07:
Response of the Upper Ocean to Mesoscale Iron Enrichment

Chair(s): Maurice Lavasseur, maurice.levasseur@bio.ulaval.ca
Atsuschi Tsuda, tsuda@ori.u-tokyo.ac.jp
William Miller, william.miller@dal.ca
William Cochlan, cochlan@sfsu.edu
Richard Rivkin, rrivkin@mun.ca

Location: 318 A-B

3:30 pm Coale, K. H.: OPEN OCEAN IRON ENRICHMENT EXPERIMENTS: WHAT THEY HAVE TOLD US, WHAT THEY HAVE NOT ˜

4:00 pm Cochlan, W. P.; Kudela, R. M.; Herndon, J.; Roberts, A. E.: ENHANCEMENT OF NEW PRODUCTION DURING THE SOUTHERN OCEAN IRON ENRICHMENT EXPERIMENTS (SOFEX)

4:15 pm Baines, S. B.; Twining, B. S.; Fisher, N. S.; Landry, M. R.: DYNAMIC STOICHIOMETRIES IN NANOPLANKTON DURING THE SOUTHERN OCEAN IRON EXPERIMENT (SOFEX)

4:30 pm Brzezinski, M. A.; Cochlan, W. P.; Kudela, R., R.; Barber, R. T.: A SHIFT FROM NON-REDFIELD TO REDFIELD NUTRIENT UPTAKE RATIOS INDUCED BY A SOUTHERN OCEAN IRON FERTILIZATION EXPERIMENT

SS5.08:
Dynamics of Dissolved Organic Material in Marine and Freshwater Environments

Chair(s): James McManus, mcmanus@coas.oregonstate.edu
James Cotner, cotne002@umn.edu

Location: 316 B

1:30 pm Seitzinger, S. P.; Hartnett, H.; Lauck, R.; Mazurek, M.; Minegishi, T.; Spyres, G.; Styles, R. M.: MOLECULAR LEVEL CHEMICAL CHARACTERIZATION AND BIOAVAILABILITY OF DISSOLVED ORGANIC MATTER IN AQUATIC SYSTEMS USING ESI MASS SPECTROMETRY

1:45 pm Yamada, N.; Tanoue, E.: THE INVENTORY AND PARTIAL CHARACTERIZATION OF DISSOLVED PROTEINS IN OCEANIC WATERS

2:00 pm Quan, T. M.; Repeta, D. J.: CHARACTERIZATION OF HIGH MOLECULAR WEIGHT DISSOLVED ORGANIC CARBON USING PERIODATE OVER-OXIDATION

2:15 pm Mopper, K.; Kieber, D. J.; Stubbins, A.; Helms, J.; White, E.: DOC PHOTODEGRADATION AND THE ENHANCEMENT OF MICROBIAL RESPIRATION IN RIVERINE, ESTUARINE AND COASTAL WATERS

2:30 pm Chen, R. F.; Gardner, G. B.; Callahan, J.; Litz, L.; Whelan, P.: CHROMOPHORIC DISSOLVED ORGANIC MATTER (CDOM) IN THE HUDSON RIVER ESTUARY

2:45 pm Skoog, A. C.; Chen, T. Y.; Santana, J.: THE EFFECT OF PHASE TRANSFER ON THE CHEMICAL COMPOSITION OF DISSOLVED AND PARTICULATE ORGANIC MATERIAL

3:30 pm Rearick, R. Y.; Harvey, H. R.; Kirchman, D. L.: UNDERSTANDING THE ROLE OF BACTERIA IN AQUATIC ENVIRONMENTS USING LIPID BIOMARKERS AND PHYLOGENETIC ANALYSIS

3:45 pm Shank, G. C.; Zepp, R. G.; Whitehead, R. F.; Smith, M. L.: VARIATIONS IN THE SPECTRAL PROPERTIES OF ESTUARINE WATER CAUSED BY CDOM PARTITIONING ONTO RIVER AND ESTUARINE SEDIMENTS

4:00 pm Brum, J. R.: CONCENTRATION, PRODUCTION, AND TURNOVER OF VIRUSES AND DISSOLVED DNA AT STATION ALOHA

4:15 pm Carroll, J.; Spitzy, A.; Pettersson, L.; Kjeldstad, B.; Hessen, D.: RIVER-OCEAN EXCHANGE OF TERRIGENOUS SOURCES OF DOC, NUTRIENTS, AND PERSISTENT ORGANIC POLLUTANTS ON THE KARA SEA SHELF, AUGUST 2003

4:30 pm Spyres, G.; Seitzinger, S. P.; Hartnett, H. E.; Lauck, R.: BIOAVAILABLE DOM IN RAINWATER: LINKING COMPOUND-LEVEL INFORMATION TO ECOSYSTEM EFFECTS

(*) represents Invited presentations

TUESDAY

TUESDAY

SS5.12:
Interactions and Feedbacks Among Marine Pelagic Ecosystems, Biogeochemical Cycles and Climate, in a Globally Changing Environment

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

Location: 315

10:15 am Barber, R. T.; Sarmiento, J.; Slater, R.; Bopp, L.; Doney, S. C.; Hirst, A. C.; Kleypas, J.; Matear, R.; Mikolajewicz, U.; Monfray, P.; Soldatov, V.; Spall, S.; Stouffer, R.: RESPONSE OF OCEAN ECOSYSTEMS TO CLIMATE WARMING*

10:30 am Ueyama, R.; Monger, B.: WIND-INDUCED MODULATION OF SPRING PHYTOPLANKTON BLOOMS IN THE NORTH ATLANTIC DERIVED FROM SATELLITE OBSERVATIONS

10:45 am Anderson, M. R.; Hale, M. S.; Li, W. K.; Matthews, P. L.; Bussey, H.; Rivkin, R. B.: NUTRIENT REGULATION OF BACTERIAL GROWTH IN CONTRASTING BIOGEOCHEMICAL PROVINCES OF THE WESTERN ATLANTIC AND THE SUB ARCTIC PACIFIC

11:00 am Björkman, K. M.; Karl, D. M.: PHOSPHORUS UPTAKE KINETICS OF DIFFERENT NATURAL POPULATIONS OF BACTERIOPLANKTON AND EUKAROYTIC PHYTOPLANKTON IN THE NORTH PACIFIC SUBTROPICAL GYRE

11:15 am Monger, B. C.; Maglio, M. J.: INTERANNUAL VARIABILITY IN EKMAN TRANSPORT OF NUTRIENTS ALONG THE PERIPHERIES OF THE NORTH ATLANTIC SUBTROPICAL GYRE

11:30 am Reinthaler, T.; Herndl, G. J.: PROKARYOTIC PRODUCTION AND GROWTH YIELD IN THE NORTH ATLANTIC DEEP WATER

11:45 am Lampitt, R. S.; Sanders, R. J.; Boorman, B.; Brown, L.; Guyard, P. H.; Leaute, F. J.; Popova, E. E.; Saw, K. A.; Turnewitsch, R.; Zubkov, M. V.: PARTICULATE EXPORT IN THE NORTHEAST ATLANTIC: AN INTEGRATED ATTACK USING PRODUCTION RATES, TRACERS AND A NOVEL DRIFTING SEDIMENT TRAP *

1:30 pm Sunda, W.; Kiene, R. P.; Hardison, R.; Harada, H.: FEEDBACK INTERACTIONS BETWEEN NUTRIENTS, DIMETHYLSULFIDE, AND CLIMATE*

1:45 pm Lizotte, M.; Levasseur, M.; Scarratt, M. G.; Merzouk, A.; Michaud, S.; Gosselin, M.: DMS(P) DYNAMICS DURING A SPRING DIATOM BLOOM IN THE NORTHWEST ATLANTIC

2:00 pm Huebert, B. J.; Blomquist, B. W.; Duan, B.; Bates, T. S.; Fairall, C. W.; Hare, J. E.; Johnson, J. E.: EDDY-CORRELATION MEASUREMENTS OF DMS FLUXES AND EXCHANGE COEFFICIENTS ON THE NOAA-TAO CRUISE 2003

2:15 pm Toole, D. A.; Siegel, D. A.: LIGHT-DRIVEN CYCLING OF DIMETHYLSULFIDE (DMS) IN THE SARGASSO SEA – THE STRESS-FORCED REGIME

2:30 pm Mulholland, M. R.; Bernhardt, P.; Bronk, D. A.; O'Neil, J. M.; Heil, C. A.: DOES NITROGEN REGENERATION FROM THE N2 FIXING CYANOBACTERIA TRICHODESMIUM SPP. FUEL KARENIA BREVIS BLOOMS IN THE GULF OF MEXICO?

2:45 pm Redalje, D. G.; Holtermann, K. E.; Phelps, E. I.; Kirk, E. A.; Natter, M. J.; Pluhar, R. J.; Rowe, E. A.; Sawant, P. A.: EVALUATING LONG-TERM ENVIRONMENTAL QUALITY OF THE BAY OF ST. LOUIS, MISSISSIPPI

SS5.13:
Eutrophication of Coastal Waters

Chair(s): Alice Newton, anewton@ualg.pt

Location: 319 A-B

10:15 am Porter, E. T.; Bergeron, C.; Mason, R. P.; Reardon, M.; Sanford, L. P.; Soulen, H. L.: EFFECT OF HARD CLAM DENSITY (MERCENARIA MERCENARIA) AND TIDAL SHEAR STRESS ON SEDIMENT DESTABILIZATION AND WATER QUALITY

10:30 am Kremer, J. N.; Vaudrey, J.: DIEL AND TIDAL VARIATION IN THE VERTICAL STRUCTURE OF OXYGEN, TEMPERATURE, AND SALINITY REVEALED BY AN AUTOMATIC SHALLOW WATER PROFILER.

10:45 am Atilla, N.; Rabalais, N. N.; Turner, R. E.: PHYTOPLANKTON ASSEMBLAGES ACROSS THE BROAD AREA OF HYPOXIA ON THE LOUISIANA SHELF IN MID-SUMMER (1999-2003)

11:00 am Bronk, D. A.; Sanderson, M. P.; Mulholland, M. R.; Heil, C. A.; O'Neil, J. M.: ORGANIC AND INORGANIC NITROGEN AND CARBON UPTAKE KINETICS IN FIELD AND CULTURE POPULATIONS OF KARENIA BREVIS

11:15 am Moore, S. K.; Baird, M. E.; Suthers, I. M.: DEVELOPMENT OF PHYTOPLANKTON BLOOMS FOLLOWING RAIN EVENTS IN A MODIFIED SUB-TROPICAL EAST AUSTRALIAN ESTUARY: A COUPLED HYDRODYNAMIC-ECOLOGICAL MODEL APPROACH

11:30 am Sanderson, M. P.; Bronk, D. A.; Filippino, K. C.; Frischer, M. E.; Verity, P. G.; Nejstgaard, J. C.: INORGANIC AND ORGANIC NITROGEN UPTAKE IN NUTRIENT ADDITION MESOCOSM EXPERIMENTS IN A NORWEGIAN FJORD

11:45 am Ren, L.; Brockmann, U. H.; Duerselen , C. D.; Raabe, T.: BIOGEOCHEMICAL CONVERSION OF NITROGEN IN PELAGIC COASTAL ECOSYSTEMS OF THE GERMAN BIGHT, NORTH SEA: MESOCOSM EXPERIMENT AND MODELING STUDIES

1:30 pm Woods, W. L.; Kester, D. R.: LIGHT LIMITATION IN A NUTRIENT-RICH ESTUARY IMPACTED BY HARMFUL ALGAL BLOOMS

1:45 pm Newton, A.; Icely, J. D.: COASTAL EUTROPHICATION: THE GOOD, THE BAD AND THE UGLY*

2:00 pm Smith, S. V.; Buddemeier, R. W.; Bricker, S. B.; Maxwell, B. A.; Pacheco, P.; Mason, A.: ESTUARINE TYPOLOGY: PERTURBATIONS AND EUTROPHICATION RESPONSES

2:15 pm FERREIRA, J. G.; SIMAS, M. T.; BRICKER, S. B.; WOLFF, W. J.: THE USE OF ASSETS AND PHYTOPLANKTON SPECIES COMPOSITION TO DEFINE TYPE-SPECIFIC REFERENCE CONDITIONS FOR ESTUARINE WATER QUALITY MANAGEMENT*

2:30 pm Mason, A. L.; Lipton, D. W.; Bricker, S. B.: IMPROVING INDICATORS OF WATER QUALITY DEGRADATION IMPACTS FOR MANAGEMENT OF ESTUARIES AND COASTAL WATERS

2:45 pm Hayes, K. C.; Lewitus, A. J.: A EUTROPHIC ASSESSMENT OF LAGOONAL POND SYSTEMS IN SOUTH CAROLINA COASTAL WATERS: HAVE WE OVERLOOKED THEIR IMPACT ON COASTAL DEVELOPMENT?

3:30 pm Orav-Kotta, H.; Kotta, J.: EUTROPHICATION INDUCED CHANGES IN PLANT-HERBIVORE INTERACTIONS IN THE NORTHERN BALTIC SEA

(–) represents Tutorial presentations

3:45 pm Wolowicz, M.; Sokolowski, A.: ECOPHYSIOLOGICAL DIFFERENTIATION OF MYTILUS TROSSULUS (BIVALVIA) IN SOUTHERN BALTIC SEA AS AN EFFECT OF INCREASING EUTROPHICATION.

4:00 pm Boesch, D. F.; Dennison, W. C.: REVERSING EUTROPHICATION IN CHESAPEAKE BAY: WHAT NEXT?*

4:15 pm Culver, D. A.; Conroy, J. D.; Zhang, H.; Dolan, D. M.; Charlton, M. N.: EUTROPHICATION OF COASTAL WATERS: A LARGE LAKE PERSPECTIVE

4:30 pm Piwinski, L. K.; Field, A. L.; Russ, M. E.; Ostrom, N. E.: LAKE ERIE TROPHIC STATUS AND PRIMARY PRODUCTION: EVALUATION BASED ON DELTA 18O OF O2 AND THE DELTA O2/AR

SS5.15:
Biogeochemical Processes Within Freshwater Influenced Coastal Systems

Chair(s): Joseph E. Salisbury, joe.salisbury@unh.edu

Location: 315

3:30 pm Meybeck, M.; Vorosmarty, C. J.: EVALUATION OF GLOBAL RIVERINE FLUXES TO THE COASTAL ZONE*

3:45 pm McClelland, J. W.; Holmes, R. M.; Peterson, B. J.: INCREASING RIVER DISCHARGE IN THE EURASIAN ARCTIC: POTENTIAL CAUSES, AND CONSEQUENCES FOR BIOGEOCHEMICAL CYCLING IN THE COASTAL ZONE

4:00 pm Fulweiler, R. W.; Nixon, S. W.: TERRESTRIAL VEGETATION AND THE SEASONAL CYCLE OF DISSOLVED SILICA IN A SOUTHERN NEW ENGLAND COASTAL RIVER

4:15 pm Kroeger, K. D.; Charette, M. A.; Talbot, J. M.; Abraham, D. M.; Allen, M. C.; Rago, A.; Sholkovitz, E. R.: TRANSPORT AND TRANSFORMATIONS OF NITROGEN AND CARBON IN A SUBTERRANEAN ESTUARY

4:30 pm Wen, L. S.; Jiann, K. T.: ANTHROPOGENIC IMPACT ON NUTRIENT DYNAMICS IN A MACRO-TIDAL SUB-OXIC-ANOXIC ESTUARY

SS6.04:
Using Real-time Environmental Data for Education

Chair(s): Michiko Martin, michiko.martin@noaa.gov
Ken Casey, ken.casey@noaa.gov

Location: 323 A

10:15 am Madin, K. A.; Gallager, S. M.; Morrison, J. R.; Lerner, S.; Harcourt, P.: THE AUTONOMOUS VERTICALLY PROFILING PLANKTON OBSERVATORY PROVIDES REAL-TIME OCEANOGRAPHIC DATA TO EDUCATORS

10:30 am Casey, K. S.; Martin, M. J.: USING OPENDAP AND LIVE ACCESS SERVER TO BRING REAL-TIME DATA TO THE CLASSROOM: LESSONS LEARNED IN TEACHER WORKSHOPS

10:45 am Hotaling, L. A.: USING REAL TIME ENVIRONMENTAL DATA FOR EDUCATION*

11:00 am Schloss, A. L.; Ledley, T. S.; Gould, A. D.; Blaha, D.; Freuder, R.: TWO APPROACHES TO MAKING A LARGE INSTITUTIONAL EARTH SCIENCE DATA SYSTEM ACCESSIBLE TO EDUCATORS AND STUDENTS

11:15 am Zika, R. G.; Woody, C. E.; Dixon, T. H.; Stabenau, E. R.; Kearns, E. J.: A MODEL FOR AN INTERNATIONAL REALTIME OCEAN OBSERVATORY FOR HIGH SCHOOL STUDIES

11:30 am Domenico, B.; Caron, J.; Ledley, T.; Pandya, R.: THREDDS (THEMATIC REAL-TIME ENVIRONMENTAL DISTRIBUTED DATA SERVICES): INTEGRATING ENVIRONMENTAL DATA AND ANALYSIS TOOLS INTO DIGITAL LIBRARIES

1:30 pm Pandya, R.; Domenico, B.; Marlino, M.: SUPPORTING STUDENT LEARNING DATA: THE VIRTUAL GEOPHSYICAL EXPLORATION ENVIRONMENT.

1:45 pm Heyer, C. J.; Trice, T. M.; Takaki, E.; Michael, B. D.; Magnien, R. E.: EYES ON THE BAY BRINGS MARYLAND'S CHESAPEAKE AND COASTAL BAYS TO THE CLASSROOM

2:00 pm Moxey, L. E.; Polovina, J. J.: IN-CLASS ACQUISITION OF REAL-TIME AVHRR SATELLITE DATA DIRECTLY FROM POLAR-ORBITING SPACE PLATFORMS: AN INEXPENSIVE AND MULTIDISCIPLINARY EDUCATIONAL APPROACH*

2:15 pm Bonner, J. S.; Page, C. P.; Cahill, A.; Callicott, K.; Caso , C. R.; Froyd, J.; Kramer, T.; Olivera, F.; John, K.; Uddameri, V.: ENVIRONMENTAL INFORMATICS OF THE COASTAL MARGIN COMBINING RESEARCH WITH CURRICULUM DEVELOPMENT

2:30 pm Tuddenham, P. D.; Bishop, K. O.: EXPERIENCE USING THE BERMUDA ATLANTIC TIMES SERIES IN EDUCATION*

2:45 pm Spoerri, C.; Read, A.; Crowder, L.; Halpin, P.; Best, B.; Freeman, S.; Hyrenback, D.: OBIS-SEAMAP: MAPPING THE GLOBAL DISTRIBUTION OF MARINE MAMMALS, BIRDS AND TURTLES*

3:30 pm Simms, E.; McDonnell, J.; Hotaling, L.; De Luca, M.: BRINGING REAL-TIME OCEAN SCIENCE DATA INTO THE CLASSROOM THROUGH COASTAL OCEAN OBSERVATORIES AND THE MID-ATLANTIC CENTER FOR OCEAN SCIENCES EDUCATION EXCELLENCE*

3:45 pm Bingham, A. W.; Heinz, S.; Rigor, E.: "NEREIDS", DISTRIBUTION OF NEAR-REAL-TIME SATELLITE OCEANOGRAPHY PRODUCTS FOR EDUCATION AND RESEARCH

4:00 pm Saltzman, J.: DEVELOPING SANCTUARY STEWARDS THROUGH HIGH SCHOOL MONITORING PROGRAMS

4:15 pm Peri, F.; Gardner, B.; Chen, R.; Rudnick, S. M.: REAL-TIME MONITORING OF CHROMOPHORIC DISSOLVED ORGANIC MATTER (CDOM) AND WATER QUALITY IN THE NEPONSET RIVER: USE IN LOCAL MIDDLE SCHOOL CLASSROOMS.

4:30 pm Cava, F. M.; Martin, M.; Keener-Chavis, P.: USING DATA IN THE CLASSROOM-WHAT CAN TEACHERS USE?*

SS7.01:
Optical Properties of Oceanic Case 1 Waters: Still an Issue?

Chair(s): Andre' Morel, morel@obs-vlfr.fr
Herve' Claustre, claustre@obs-vlfr.fr

Location: 314

10:15 am Maritorena, S.; Siegel, D. A.; O'Reilly, J. E.: OPTICAL PROPERTIES OF OCEANIC CASE 1 WATERS: STILL AN ISSUE!!~

10:45 am Lee, Z.; Hu, C.; Martinolich, P.; Arnone, R.: OCEAN COLOR VARIATIONS OF BLUE WATERS AND IMPLICATIONS TO REMOTE SENSING

(*) represents Invited presentations

11:00 am MOREL , A.; ANTOINE, D.; BRICAUD, A.: VARIABILITY OF OPTICAL PROPERTIES IN OLIGOTROPHIC CASE 1 WATERS

11:15 am Saitoh, S.; Sasaoka, K.; Yoshida, T.; Miyamura, T.: BIO-OPTICAL RELATIONSHIPS AND OCEAN COLOR ALGORITHMS FOR SUB-ARCTIC NORTH PACIFIC

11:30 am Kahru, M.; Mitchell, B. G.: LONG-TERM TRENDS IN SATELLITE-DERIVED OCEAN COLOR: VALIDATION OF VARIOUS ALGORITHMS IN THE CALIFORNIA CURRENT

11:45 am Signorini, S. R.; Hooker , S. B.; McClain, C. R.: BIO-OPTICAL PROPERTIES OF THE SOUTH ATLANTIC SUBTROPICAL GYRE

1:30 pm Dadashev, A.; Blumberg, D. G.; Dubinsky, Z.; Iluz, D.; Sokoletsky, L.; Yacobi, Y. Z.: A REVIEW OF CHLOROPHYLL CONCENTRATION IN THE GULF OF EILAT (AQABA) OPEN WATERS BY IN SITU MONITORING AND REMOTE-SENSING DERIVED DATA FROM THE PAST TWO DECADES

1:45 pm Lowe, C. D.; Lavender, S. J.; Aiken, J.; Moore, G. F.: LARGE SCALE PATTERNS IN BIO OPTICAL PROPERTIES IN THE ATLANTIC OCEAN

2:00 pm ALVAIN, S.; MOULIN, C.; DANDONNEAU, Y.: SPECTRAL SIGNATURES OF PHYTOPLANCTON ASSEMBLAGES IN CASE I WATERS FROM SATELLITE AND IN-SITU DATA

2:15 pm Westberry, T. K.; Siegel, D. A.; Subramaniam, A.: OCEAN COLOR REMOTE SENSING OF TRICHODESMIUM

2:30 pm CLAUSTRE, H.; UITZ, J.: PIGMENT COMPOSITION IN HIGHLY OLIGOTROPHIC AND EUTROPHIC CASE 1 WATERS : TRENDS AND NUANCES

2:45 pm Bricaud, A.; Claustre, H.; Ras, J.; Oubelkheir, K.: NATURAL VARIABILITY OF PHYTOPLANKTONIC ABSORPTION IN CASE 1 WATERS: DEVIATIONS FROM AVERAGE VALUES, AS RELATED TO THE SIZE STRUCTURE OF ALGAL POPULATIONS

3:30 pm Nelson, N. B.; Siegel, D. A.; Carlson, C. A.; Mishonov, A. V.: MERIDIONAL DISTRIBUTION OF COLORED DOM IN THE NORTH ATLANTIC OCEAN

3:45 pm Balch, W. M.; Vaughn, J. M.; Drapeau, D. T.; Bowler, B. C.; Booth, E.; Vining, C. L.; Novotny, J. F.; Goes, J. I.: CASE I/ CASE II AMBIGUITIES IN ALGAL BLOOMS - THE CASE FOR MINERALS AND VIRUSES

4:00 pm Antoine, D.; Morel, A.; Claustre, H.: SOME PECULIARITIES OF CASE 1 WATERS OPTICAL PROPERTIES IN THE NORTHWESTERN MEDITERRANEAN SEA

4:15 pm Stramski, D.; Wozniak, S. B.; Flatau, P. J.: LIGHT ABSORPTION AND SCATTERING BY ASIAN MINERAL DUST AND EFFECTS ON OCEAN OPTICAL PROPERTIES

4:30 pm Yentsch, C. S.; Phinney, D. A.: INFLUENCE OF BIO- AND NON-BIOGENIC REFLECTANCE ON THE MAGNITUDE OF UPWELLING OF NEAR-INFRA-RED WAVELENGTHS: THE PLUSES AND MINUSES

SS9.06:
Dynamics of Pathogens in Marine Systems

Chair(s): Alexandria B. Boehm, aboehm@stanford.edu
Rachel T. Noble, rtnoble@email.unc.edu

Location: 318 A-B

10:15 am Rose, J. B.: PATHOGEN IMPACTS ON COASTAL WATERS USING QUANTITATIVE MICROBIAL RISK ASSESSMENT~

10:45 am Field, K. G.; Dick, L. K.; Walters, S. P.: DISCRIMINATING THE SOURCE OF FECAL CONTAMINATION WITH PCR MARKERS FROM BACTEROIDETES*

11:00 am Walters, S. P.; Field, K. G.: CULTIVATION INDEPENDENT ASSESSMENT OF METABOLIC ACTIVITY AND PERSISTENCE OF HOST-SPECIFIC BACTEROIDETES FECAL MARKERS*

11:15 am Noble, R. T.; Blackwood, A. D.; Gregory, J. B.: COMBINING TRADITIONAL AND NOVEL MOLECULAR METHODS TO DISCRIMINATE AND QUANTIFY FECAL CONTAMINATION IN RECREATIONAL AND SHELLFISH HARVESTING WATERS

11:30 am Reis, M. P.; Cravo, A.; Martins, F.; Neves, R.; Brito, A. M.; Fernandes, D.; Paulino, A.; Venâncio, A.; Bento, J.: PREDICTING BIVALVE BEDS QUALITY IN RIA FORMOSA (PORTUGAL) BY MODELLING COLIFORM DISPERSION IN WATER AND ACCUMULATION/DEPURATION IN CLAMS (RUDITAPES DECUSSATUS)

11:45 am Craig, D. L.; Fallowfield, H. J.; Cromar, N. J.: THE EFFECT OF SEDIMENT RESUSPENSION ON THE ESTIMATION OF INFECTION RISK AT RECREATIONAL COASTAL SITES

1:30 pm Sinton, L. W.: SUNLIGHT INACTIVATION OF ENTERIC BACTERIA AND BACTERIOPHAGES IN SEAWATER~

2:00 pm Breitbart, M.; Casas, V.; Leeds, S.; Balsley, H.; Telles, S.; Roark, J.; Zurita, I.; Bartlett, D.; Azam, F.; Rohwer, F.: ENVIRONMENTAL RESERVIORS OF EXOTOXIN GENES RESPONSIBLE FOR HUMAN DISEASE

2:15 pm Rabinovici, S. J.; Boehm, A.; Coursey, D. L.; Whitman, R. L.: BEACH CLOSURES: A NO-WIN SITUATION AT FRESH WATER AND MARINE BEACHES?*

2:30 pm Plancherel, Y.; Cowen, J. P.: ON THE RELATIVE IMPORTANCE OF PARTICLE-BOUND FECAL INDICATORS FOR WATER QUALITY ASSESSMENT

2:45 pm Lyons, M. M.; Ward, J. E.; Uhlinger, K. R.; Smolowitz, R.: PATHOGENIC MARINE SNOW: THE POTENTIAL ROLE OF MARINE AGGREGATES IN THE TRANSMISSION OF A SHELLFISH DISEASE

(~) represents Tutorial presentations

Wednesday, February 18, 2004

SS1.03:
Differential Mixing of Salinity and Temperature

Chair(s): Dave Hebert, david.hebert@uri.edu
Chris Rehmann, rehmann@ux1.cso.uiuc.edu

Location: 323 A

10:15 am Gargett, A. E.: DIFFERENTIAL DIFFUSION: AN OCEANOGRAPHIC PRIMER*

10:45 am Ruddick, B. R.; Gargett, A. E.: DIFFERENTIAL MIXING OF HEAT AND SALT BY BREAKING INTERNAL WAVES

11:00 am Rehmann, C. R.; Jackson, P. R.; Saenz, J. A.; Martin, J. E.; Hanazaki, H.: EXPERIMENTS AND RAPID DISTORTION THEORY FOR DIFFERENTIAL DIFFUSION

11:15 am Nash, J. D.; Moum, J. N.; Smyth, W. D.: OCEAN OBSERVATIONS OF THE DISSIPATION SPECTRUM OF SALINITY FROM VERTICAL AND HORIZONTAL MICROSTRUCTURE PROFILES

11:30 am Merryfield, W. J.: DEPENDENCE OF DIFFERENTIAL MIXING ON N AND RRHO

11:45 am Schmid, M.; Dinkel, C.; Wuest, A. J.: FORMATION AND RAPID EXPANSION OF THE DOUBLE DIFFUSIVE LAYERING IN LAKE NYOS (KILLER LAKE, CAMEROON)

1:30 pm Ledwell, J. R.; Schmitt, R. W.; Toole, J. M.; Polzin, K. L.; Montgomery, E. T.: DIFFUSIVITIES OF HEAT, SALT, AND SF6 IN THE THERMOHALINE STAIRCASES EAST OF BARBADOS*

1:45 pm Stuebe, D. A.; Schmitt, R. W.; Toole, J. M.: A MOORED PROFILER TIME SERIES FROM THE SALT FINGER TRACER RELEASE EXPERIMENT

2:00 pm Smyth, W. D.; Moum, J. N.; DeSzoeke, R. A.; Nash, J. D.: DIFFERENTIAL MIXING IN SHEAR-DRIVEN OVERTURNS

2:15 pm Wunsch, S.; Kerstein, A. R.: ODT SIMULATION OF DIFFENTIAL DIFFUSION

2:30 pm Shih, L. H.; Koseff, J. R.; Ivey, G. N.; Ferziger, J. H.: PARAMETERIZING TURBULENT DIFFUSIVITY USING HOMOGENEOUS SHEAR FLOW SIMULATIONS AND LABORATORY DATA

3:30 pm Frick, W. E.; Baumgartner, D. J.: CONSEQUENCES OF NON-LINEAR DENSITY EFFECTS ON BUOYANCY AND PLUME BEHAVIOR

3:45 pm Baddour, R. E.: EFFECT OF NONLINEAR MIXING ON THERMOHALINE CIRCULATION

4:00 pm Leichter, J. J.: REGIONAL SCALE MODULATION OF INTERNAL TIDAL UPWELLING ALONG THE FLORIDA KEYS REEF TRACT

SS10.01:
Webs and Scales

Chair(s): G.-A. Paffenhofer, cmp@skio.peachnet.edu
C.B. Miller, cmiller@oce.orst.edu

Location: 314

10:15 am Checkley, Jr., D. M.: INTRODUCING MIKE MULLIN*

10:45 am Paffenhofer, G. A.: FROM SMALL SCALES TO THE BIG PICTURE

11:00 am Strickler, J. R.: GRAVITY AND PLANKTONIC COPEPODS: TO BE NEUTRALLY BUOYANT IS THE WORST*

11:15 am Lee, R. F.: ROLE OF STORAGE LIPID DURING MARINE ZOOPLANKTON REPRODUCTION*

11:30 am Müller-Navarra, D. C.: ROLE OF BIOCHEMICALS IN ZOOPLANKTON NUTRITION: CONCEPTS, METHODS AND THEIR LIMITATIONS*

11:45 am Koski, M.; Kiørboe, T.; Takahashi, K.: FEEDING AND AGGREGATE COLONISATION OF HARPACTICID COPEPODS MICROSETELLA NORWEGICA AND AMONARDIA NORMANI

1:30 pm Goetze, E.: GENE FLOW AND HABITAT PREFERENCE IN TWO CRYPTIC CIRCUMGLOBAL COPEPOD SPECIES, EUCALANUS HYALINUS 1 AND 2

1:45 pm Olsen, S. N.; Andersen, P. W.; Hansen, B. W.: REAL-TIME QUANTIFICATION OF MICROBIAL DEGRADATION OF COPEPOD FECAL PELLETS BY ISOTHERMAL MICROCALORIMETRY*

2:00 pm Thuesen, E. V.: PHYSIOLOGICAL, BEHAVIORAL AND MOLECULAR RESPONSES OF GELATINOUS ZOOPLANKTON TO HYPOXIA

2:15 pm Gibson, D. M.; Kremer, P.: CLEARANCE RATES OF SALPA ASPERA

2:30 pm Poulsen, L. K.; Kiorboe, T.: COPROPHAGY IN COPEPODS AND IN A NATURAL ZOOPLANKTON COMMUNITY

2:45 pm Saumweber, W. J.; Durbin, E. G.: A NEW RESPIRATION MODEL FOR DIAPAUSING CALANUS FINMARCHICUS: IMPLICATIONS FOR SURVIVAL IN THE GULF OF MAINE

3:30 pm Jónasdóttir, S. H.; Hansen, K. E.; Trung, N. H.; Gartner, S.: PHYTOPLANKTON, FATTY ACIDS AND SECONDARY PRODUCTION OF DOMINANT COPEPOD SPECIES IN THE NORTH SEA.

3:45 pm Silver, M. W.; Brodie, E.; Gulland, F. M.: TRACING FOOD WEB CONNECTIONS WITH A PHYCOTOXIN: THE CASE OF DOMOIC ACID*

4:00 pm Halsband-Lenk, C.; Pierson, J. J.; Frost, B. W.: REPRODUCTION AND RECRUITMENT OF CALANUS PACIFICUS AND PSEUDOCALANUS NEWMANI DURING TWO PHYTOPLANKTON BLOOMS IN DABOB BAY, PUGET SOUND (WA)

4:15 pm Pierson, J. J.; Leising, A. W.; Frost, B. W.; Horner, R. A.; Postel, J. R.; Halsband-Lenk, C.: SPECIES-SPECIFIC GRAZING BY CALANUS PACIFICUS AND PSEUDOCALANUS NEWMANI DURING PHYTOPLANKTON BLOOMS IN DABOB BAY, PUGET SOUND (WA)

4:30 pm Lester , K. M.; Vargo, G. A.; Walsh, J. J.; Heil, C. A.; Neely, M. B.; Spence, D. A.; Murasko, S. M.; Sutton , T. D.; Burghart, S. E.; Remsen, A. D.: INTERACTIONS BETWEEN ZOOPLANKTON AND KARENIA BREVIS IN THE GULF OF MEXICO

(*) represents Invited presentations

SS10.03:
COSEE: Enhancing the Broader Impacts of Ocean Science Research

Chair(s): Linda Duguay, duguay@usc.edu
Judith Lemus, jdlemus@usc.edu

Location: 317 A

10:15 am Leinen, M.: EDUCATION, OUTREACH AND CRITERION 2: OPPORTUNITIES FOR INTEGRATING RESEARCH AND EDUCATION IN THE GEOSCIENCES~

10:45 am Spence, L. L.; Thomas, C. J.; Clair, J. J.; Olsen, M.: STRATEGIES FOR CONNECTING OCEAN SCIENTISTS TO EDUCATORS*

11:00 am De Luca, M. P.; McDonnell, J. M.: CENTERS FOR OCEAN SCIENCES EDUCATION EXCELLENCE; A NEW PARADIGM TO ENRICH COLLABORATION BETWEEN THE RESEARCH AND EDUCATION COMMUNITIES

11:15 am Lemus, J. D.; Michaels, A. F.; Duguay, L. E.; Whitley, L. N.: COSEE-WEST AND MARINE SCIENCE OUTREACH AT THE UNIVERSITY OF SOUTHERN CALIFORNIA

11:30 am Hamner, W. M.; Hamner, P. P.: COSEE-WEST: INSERTING OCEAN SCIENCE INTO LARGE SCHOOL DISTRICTS

11:45 am Tuddenham, P. D.; Bishop, K. O.: COSEE-WEST : BRIDGING THE GAP BETWEEN OCEAN SCIENCE RESEARCH AND EDUCATION USING TECHNOLOGY*

1:30 pm Schubel, J. R.: FREE-CHOICE LEARNING AND THE OCEAN: RAISING PUBLIC AWARENESS AND DEEPENING UNDERSTANDING~

2:00 pm Franks, S. E. R.; Peach, C. L.: CALIFORNIA COSEE: WHAT'S IN IT FOR SCIENTISTS?

2:15 pm Greely, T.; Coble, P.; Cherrier, J.: THE FLORIDA CENTER FOR OCEAN SCIENCE EDUCATION EXCELLENCE

2:30 pm Lunsford, T. L.; Moll, R. A.: ENGAGING HIGH SCHOOL STUDENTS IN AN OCEAN SCIENCES CONFERENCE

2:45 pm Scowcroft, G. A.: BUILDING BRIDGES BETWEEN RESEARCH AND EDUCATION

3:30 pm Fisher, E. M.; Taylor, B.; Greely, T.: LEARNING ABOUT SCIENCE THROUGH THE LOCAL MARINE ENVIRONMENT

3:45 pm Chen, R. F.; Stevenson, R. D.: AN INQUIRY-BASED MIDDLE SCHOOL ACTIVITY BASED ON CHROMOPHORIC DISSOLVED ORGANIC MATTER (CDOM) RESEARCH

4:00 pm Cowles, S. K.: BRINGING OCEAN SCIENCES TO UNDERREPRESENTED POPULATIONS

4:15 pm WHITLEY, L. N.; LEMUS, J. D.: SCIENTISTS, FAMILY AND COMMUNITY LEARNING

4:30 pm Pyrtle, A. J.; Williamson, V. A.: MINORITIES STRIVING AND PURSUING HIGHER DEGREES OF SUCCESS (MS PHD'S) IN EARTH SYSTEM SCIENCE INITIATIVE

SS2.05:
The Effect of Turbulence on Pelagic and Benthic Organisms

Chair(s): Thomas Kiorboe, tk@dfu.min.dk
Joe Ackerman, ackerman@uoguelph.ca

Location: 316 A

10:15 am Visser, A. W.: TURBULENCE AND PLANKTON IN THE MARINE PELAGIC ENVIRONMENT~

10:45 am Rothschild, B. J.; Lanerolle, L. W.; Yeung, P. K.: MODULATION OF OCEAN PRODUCTIVITY BY SMALL-SCALE TURBULENT FLOW*

11:00 am Sharples, J.; Holligan, P. M.; Simpson, J. H.; Rippeth, T. P.: SRING-NEAP PULSES OF PRODUCTION AND EXPORT IN THE SUBSURFACE CHLOROPHYLL MAXIMUM (SCM).

11:15 am Fabian, H.; Hesse, K. J.; Staginnus, D.: EFFECTS OF SMALL-SCALE GRID TURBULENCE ON A TOXIC STRAIN OF ALEXANDRIUM FUNDYENSE

11:30 am Pécseli, H. L.; Mann, J.; Ott, S.; Trulsen, J.: PREDATOR-PREY ENCOUNTERS IN TURBULENT WATERS

11:45 am Waggett, R. J.; Buskey, E. J.: COPEPOD SENSITIVITY TO FLOW FIELDS: CAN COPEPODS DETECT FLOW-GENERATING PREDATORS?

1:30 pm Siegel, D. A.; Kinlan, B. P.; Gaylord, B.; Gaines, S. D.: LAGRANGIAN DESCRIPTIONS OF MARINE LARVAL DISPERSION

1:45 pm Newby, S. G.: TURBULENCE, PREDATORS, AND THE TRANSPORT OF JUVENILE ATLANTIC SURFCLAMS, SPISULA SOLIDISSIMA

2:00 pm Wuest, A. J.; Lorke, A.; Mueller, B.; Maerki, M.: BOTTOM BOUNDARY LAYER STRUCTURES IN STRATIFIED WATERS: ECOLOGICAL IMPLICATIONS OF PERIODIC AND LOW FLOW *

2:15 pm Ackerman, J. D.: THE EFFECT OF TURBULENCE ON THE ECOPHYSIOLOGY OF BENTHIC ORGANISMS

2:30 pm Thomas , F. I.; Bell, S. S.: A MACROALGAE TO SEAGRASS SHIFT IN A BENTHIC CANOPY: EFFECTS ON TURBULENCE, NUTRIENT EXCHANGE, AND INVERTEBRATE POPULATIONS

2:45 pm Kregting, L. T.; Stevens, C. L.; Pilditch, C. A.; Hurd, C. L.; Cornelisen, C. D.: THE INTERACTION BETWEEN TURBULENT FLOW AND THE CANOPY OF THE RED ALGA ADAMSIELLA CHAUVINN

3:30 pm Genin, A.; Monismith, S. G.; Yahel, G.; Reidenbach, M. A.; Koseff, J. R.: INTENSE PHYTOPLANKTON GRAZING IN CORAL REEFS SUSTAINED BY STRONG TURBULENCE OVER ROUGH BOTTOM TOPOGRAPHY

3:45 pm van Duren, L. A.; Petersen, J. K.; Wiles, P. J.; Haese, C.: THE INFLUENCE OF TURBULENT MIXING ON MUSSEL FOOD SUPPLY – IS THE ANSWER BLOWING IN THE WIND OR GOING WITH THE TIDAL FLOW?

4:00 pm Carrington, E.: PREDICTING DISTURBANCE TO MUSSEL BEDS ON TURBULENT ROCKY SHORES: PUTTING THE BIOLOGY IN BIOMECHANICS

4:15 pm O'Donnell, M. J.: SMALL-SCALE VARIATION IN HYDRODYNAMIC FORCES ON WAVE-SWEPT ROCKY SHORES

4:30 pm Wolcott, B. D.: CONSEQUENCES OF SEASONAL PATTERNS OF WAVE EXPOSURE IN THE SIZE AND REPRODUCTION OF AN INTERTIDAL SEAWEED

(~) represents Tutorial presentations

SS4.02:
Ecology and Physiology of Marine Organisms: Insights from Genes, Genomes, and Proteomes

Chair(s): Bethany D. Jenkins, bjenkins@es.ucsc.edu
Jackie L. Collier, jcollier@notes.cc.sunysb.edu

Location: 316 C

10:15 am Armbrust, E. V.: DIATOM GENOME PROJECT: NEW INSIGHTS INTO DIATOM PHYSIOLOGY AND ECOLOGY*

10:45 am Hildebrand, M.: CLONING AND FUNCTIONAL CHARACTERIZATION OF DIATOM AMMONIUM TRANSPORTERS

11:00 am Takabayashi, M.; Griffin, G. A.; Barada, L. P.; Wilkerson, F. P.: APPLICATION OF REAL-TIME PCR TO STUDY THE ENVIRONMENTAL REGULATION OF GENE EXPRESSION OF NITROGEN ASSIMILATION IN DIATOMS

11:15 am Davis, A. K.; Hildebrand, M.; Palenik, B.: CHARACTERIZATION OF A CELL-SURFACE PROTEIN ASSOCIATED WITH THE GIRDLE BAND REGION OF THE DIATOM THALASSIOSIRA PSEUDONANA

11:30 am Boissonneault, K. R.; Bates, S. S.; Milton, S.; Pelletier, J.; Housman, D.: GENE EXPRESSION PROFILING IN THE TOXIC MARINE DIATOM PSEUDO-NITZSCHIA MULTISERIES USING MICROARRAY TECHNOLOGY

11:45 am Rynearson, T. A.; Armbrust, E. V.: SPRINGTIME SUCCESSION OF PLANKTONIC DIATOM BLOOMS: SAME SPECIES, DIFFERENT POPULATIONS?

1:30 pm Schoenfeld, T.; Godiska, R.; Rohwer, F.; Sheets, L.; Patterson, M.; Mead, D.: SINGLE CELL GENOMICS OF HYPERTHERMOPHILES

1:45 pm Foster, R. A.; Carpenter, E. J.; Bergman, B.: A PHYLOGENETIC AND ULTRASTRUCTURAL CHARACTERIZATION OF THE CYANOBACTERIAL PASSENGERS IN AN UNKNOWN TINTINNID SP. AND A SPONGIOSE RADIOLARIAN, DICTYOCORYNE SP.

2:00 pm Mann, E. L.; Barbeau, K. A.; Haygood, M. G.: BACTERIA ASSOCIATED WITH TRICHODESMIUM COLONIES: PHYLOGENETIC DIVERSITY AND POTENTIAL ROLE IN IRON ACQUISITION

2:15 pm Olsen, L. M.; Ozturk, M.; Vadstein, O.; Sakshaug, E.; Johnsen, G.: INTERACTIONS BETWEEN METABOLISM, GEOCHEMISTRY AND BACTERIAL DIVERSITY IN CULTURES OF THE MARINE DINOFLAGELLATE PROROCENTRUM MINIMUM

2:30 pm Blankenship, R. E.; Lince, M. T.; Lang, A. S.; Plumley, F. G.; Overmann, J.; Van Dover, C. L.; Beatty, J. T.: A NEW PHOTOSYNTHETIC GREEN SULFUR BACTERIUM ISOLATED FROM DEEP-SEA HYDROTHERMAL VENTS*

2:45 pm Hofmann, G. E.: USING MOLECULAR APPROACHES TO EXAMINE SPECIES' PHYSIOLOGICAL RESPONSE TO CHANGES IN ENVIRONMENTAL TEMPERATURE

3:30 pm Voznesensky, M.; Lenz, P. H.; Spanings-Pierrot, C.; Towle, D. W.: INDUCTION OF HEAT SHOCK PROTEIN 70 MRNA BY THERMAL STRESS IN CALANUS FINMARCHICUS

3:45 pm Simoniello, C.; Torres, J. J.; Somero, G. N.: KINETIC PROPERTIES AND THERMAL STABILITIES OF A4_LACTATE DEHYDROGENASES OF MESOPELAGIC FISHES EVOLVED TO DIFFERENT THERMAL GRADIENTS

4:00 pm Speekmann, C. L.; Buskey, E. J.: EFFECTS OF ENVIRONMENTAL CONDITIONS ON RNA:DNA RATIO ANALYSIS OF ZOOPLANKTON

4:15 pm Puebla, O.; Sévigny, J. M.; Sainte-Marie, B.; Brêthes, J. C.: POPULATION GENETIC STRUCTURE OF THE SNOW CRAB (CHIONOECETES OPILIO) AT THE NORTHWEST ATLANTIC SCALE: A CASE OF HIGH MARINE CONNECTIVITY

4:30 pm Dawson, M. N.: PERIPATRIC SPECIATION AND EVOLUTIONARY RADIATION OF MASTIGIAS (SCYPHOZOA) IN MARINE LAKES DURING THE HOLOCENE: AN ISLAND BIOGEOGRAPHY FOR THE SEAS?

SS5.04:
Bioturbation: Who, When and Why?

Chair(s): C.R. Smith, csmith@soest.hawaii.edu
B.P. Boudreau, bernie.boudreau@dal.ca

Location: 317 B

1:30 pm Reible, D. D.; Fleeger, J. W.; Lu, X. X.: BENTHIC ORGANISMS AND CONTAMINANT FLUX, AVAILABILITY AND UPTAKE*

1:45 pm Shull, D. H.; Benoit, J. M.: PATTERNS OF BIOTURBATION, BURROW IRRIGATION AND MERCURY METHYLATION IN MARINE SEDIMENTS

2:00 pm Germano, J.: MODELING CONTAMINANT FLUX IN SEDIMENTS: CONFINING BIOTURBATION TO A SIMPLE EXPRESSION

2:15 pm Timmermann, K.; Banta, G. T.; Andersen, O.: EFFECTS OF BIOTURBATION BY THE CONVEYOR BELT FEEDING POLYCHAETE ARENICOLA MARINA ON THE FATE OF PYRENE -INSIGHTS THROUGH MODELLING

2:30 pm Christensen, E. R.: UNMIXING OF HISTORICAL RECORDS OF PARTICLE-ASSOCIATED SUBSTANCES IN LAKE SEDIMENTS

2:45 pm Mertz, L. M.; Jaeger, J. M.; Bentley, S. J.: BIOTURBATION AND THE PRESERVATION POTENTIAL OF EVENT-BEDDING IN A GULF OF MEXICO SALT MARSH

3:30 pm JOHNSON, B. D.; Boudreau, B. P.; Maass, R.: GROWTH OF METHANE BUBBLES IN NATURAL SEDIMENT BY THE MECHANISM OF FRACTURE

3:45 pm Dorgan, K. M.; Jumars, P. A.: UNSTEADY BURROWING BY CRACK PROPAGATION

4:00 pm Woodin, S. A.; Wethey, D. S.: INTERTIDAL INFAUNAL INFRASOUNDS

4:15 pm Plante, C. J.: RECOLONIZATION AND SUCCESSION OF BACTERIAL ASSEMBLAGES FOLLOWING DISTURBANCE OF MARINE SEDIMENTS BY DEPOSIT FEEDING

4:30 pm Kaariainen, J. I.; Kelly-Gerreyn, B. A.; Bett, B. J.; Anderson, T. R.: BODY SIZE STRUCTURE OF THE BENTHOS: MODELLING THE BENTHOS

WEDNESDAY

(*) represents Invited presentations

SS5.06:
Advances in Diagenetic Modelling

Chair(s): Christof Meile, cmeile@indiana.edu
Philippe Van Cappellen, pvc@geo.uu.nl
B.P. Boudreau, bernie.boudreau@dal.ca

Location: 317 B

10:15 am Vallino, J. J.: MODELING DIAGENETIC PROCESSES AS AN OPTIMIZED METABOLIC NETWORK*

10:30 am Meile, C.; Van Cappellen, P.; Tuncay, K.: SCALE DEPENDENCE OF REACTION RATES IN POROUS MEDIA

10:45 am Alperin, M. J.; Hoehler, T. M.: A MICRO-SCALE GEOMICROBIOLOGICAL MODEL OF ANAEROBIC METHANE OXIDATION BY ARCHAEA/SULFATE-REDUCING BACTERIA AGGREGATES

11:00 am Dale, A. W.; Regnier, P.; Van Cappellen, P.: MODELING ANAEROBIC OXIDATION OF METHANE IN MARINE SEDIMENTS

11:15 am Cordes, E. E.; Arthur, M. A.; Shea, K.; Arvidson, R. S.; Fisher, C. R.: COLD SEEP TUBEWORMS MEET THEIR HIGH SULFIDE DEMAND BY ENHANCING MICROBIAL ANAEROBIC METHANE OXIDATION AND DEGRADATION OF HYDROCARBONS

11:30 am Haeckel, M.; Boudreau, B. P.: RISING GAS BUBBLES – A MODEL FOR MIXING POREWATER

11:45 am Gardiner, B.; Boudreau, B. P.; Johnson, B. D.: MODELLING THE GROWTH OF BUBBLES IN SOFT SEDIMENTS: DIAGENESIS MEETS FRACTURE MECHANICS

SS5.07:
Response of the Upper Ocean to Mesoscale Iron Enrichment

Chair(s): Maurice Lavasseur, maurice.levasseur@bio.ulaval.ca
Atsuschi Tsuda, tsuda@ori.u-tokyo.ac.jp
William Miller, william.miller@dal.ca
William Cochlan, cochlan@sfsu.edu
Richard Rivkin, rrivkin@mun.ca

Location: 318 A-B

10:15 am Schultes, S.; Verity, P.; Bathmann, U.: COPEPOD FEEDING IN A DIATOM BLOOM - INSIGHTS FROM AN IRON FERTILIZATION EXPERIMENT IN THE SOUTHERN OCEAN

10:30 am Tsuda, A.; Takeda, S.; Saito, H.; Nishioka, J.; Nojiri, Y.; Kudo, I.: AN IN-SITU IRON ENRICHMENT EXPERIMENT IN THE WESTERN SUBARCTIC PACIFIC (SEEDS): INTRODUCTION AND SUMMARY*

10:45 am Kudo, I.; Noiri, Y.; Nishioka, J.; Kiyosawa, H.; Tsuda, A.: PHYTOPLANKTON COMMUNITY RESPONSE TO FE AND TEMPERATURE GRADIENT IN THE NW AND NE SUBARCTIC PACIFIC OCEAN

11:00 am Boyd, P. W.; Law, C. S.; Nojiri, Y.; Wong, C. S.; Tsuda , A.; Levasseur, M.; Takeda, S.: EVOLUTION, DECLINE AND FATE OF A SUBARCTIC MESOSCALE IRON-INDUCED PHYTOPLANKTON BLOOM*

11:15 am Wong, C. S.; Whitney, F. A.; Johnson, W. K.; Timothy, D. A.: THE RESPONSE OF C, N AND SI TO FE ENRICHMENT IN THE NORTHEAST PACIFIC OCEAN

11:30 am Tremblay, J. E.; Peers, G. S.; Price, N. M.: RESPONSE OF PHYTOPLANKTON TO A MESOSCALE FE ENRICHMENT IN THE SUBARCTIC PACIFIC OCEAN.

11:45 am Sherry, N. D.; Marchetti, A.; Harrison, P. J.: PHYTOPLANKTON RESPONSE TO A MESOSCALE IRON ADDITION IN THE SUBARCTIC NE PACIFIC OCEAN: PRIMARY PRODUCTIVITY

1:30 pm Marchetti, A.; Harrison, P. J.: EFFECTS OF IRON LIMITATION ON THE ELEMENTAL COMPOSITION RATIOS IN PSEUDO-NITZSCHIA, A DOMINANT MARINE DIATOM DURING THE SERIES IRON ENRICHMENT EXPERIMENT

1:45 pm Levasseur, M.; Michaud, S.; Scarratt, M.; Merzouk, A.: SERIES: INFLUENCE OF IRON FERTILISATION ON DIMETHYLSULFIDE (DMS) AND DIMETHYLSULFONIOPROPIONATE (DMSP) DISTRIBUTION IN THE EASTERN SUBARCTIC PACIFIC

2:00 pm Rivkin, R. B.; Hale, M. S.; Li, W. K.; Matthews, P. M.; Agawin, N. S.; Ducklow, H. W.; Oliver, J. L.: BACTERIAL RESPONSE TO MESOSCALE IRON ENRICHMENTS: SYNTHESIS OF FIELD STUDIES

2:15 pm Merzouk, A.; Levasseur, M.; Scarratt, M. G.; Michaud, S.: INFLUENCE OF IRON ON DMS(P) CYCLING DURING A LARGE-SCALE IRON ENRICHMENT IN THE NORTH EAST PACIFIC (SERIES)

2:30 pm Scarratt, M. G.; Levasseur, M.; Rivkin, R.; Merzouk, A.; Michaud, S.; Matthews, P.; Hale, M.; Marchetti, A.; Sherry, N.: THE RESPONSE OF DMS(P) PRODUCTION RATES TO IRON ENRICHMENT IN THE NE PACIFIC: A SHIPBOARD MICROCOSM EXPERIMENT

2:45 pm Denman, K. L.; Voelker, C.: MODELLING EFFECTS OF COMMUNITY STRUCTURE ON THE BIOGEOCHEMICAL RESPONSE TO IRON FERTILIZATION DURING THE 2002 SERIES EXPERIMENT

3:30 pm Miller, W. L.: THE ROLE OF PHOTOCHEMISTRY IN A MESOSCALE FE ADDITION EXPERIMENT

3:45 pm Bouillon , R. C.; Miller, W. L.: PHOTOCHEMISTRY OF DMS IN AN IN SITU IRON-INDUCED NORTHEAST PACIFIC OCEAN BLOOM

4:00 pm Moore, R. M.; Wang, L.: THE INFLUENCE OF IRON FERTILIZATION ON FLUXES OF ISOPRENE AND METHYL IODIDE FROM OCEAN TO ATMOSPHERE IN THE NE PACIFIC

4:15 pm Wadleigh, M. A.; Burridge, C. C.; Norman, A. L.; Scarrat, M.; Levasseur, M.; Sharma, S.: ATMOSPHERIC DMS DURING SERIES: FLUXES AND CONCENTRATIONS

4:30 pm Phinney, L. A.; Leaitch, W. R.; Lohmann, U.; Worsnop, D.; Boudries, H.; Wadleigh, M.; Sharma, S.: AEROSOL PROCESSING OVER THE NORTH PACIFIC OCEAN

SS5.08:
Dynamics of Dissolved Organic Material in Marine and Freshwater Environments

Chair(s): James McManus, mcmanus@coas.oregonstate.edu
James Cotner, cotne002@umn.edu

Location: 316 B

10:15 am Whitehead, R. F.; Reid, S.; Kieber, R. J.; Willey, J. D.: RAINWATER CHROMOPHORIC DISSOLVED ORGANIC MATTER: CHARACTERISTICS AND PHOTOREACTIVITY

(–) represents Tutorial presentations

10:30 am Cole, J. J.; Pace, M. L.; Carpenter, S. R.; Kitchell, J. F.; Hodgson, J. R.; Van de Bogert, M.; Bade, D. L.; Gille, C. M.: DOES TERRESTRIAL C FUEL THE AQUATIC FOOD WEB IN SMALL LAKES? FURTHER RESULTS FROM WHOLE-LAKE 13C ADDITIONS

10:45 am Wiegner, T. N.; Kaplan, L. A.; Newbold, J. D.; Ostrom, P. H.; Gandhi, H.: DISSOLVED ORGANIC CARBON UPTAKE IN A PIEDMONT STREAM DETERMINED BY A WHOLE-STREAM 13C-DOC TRACER ADDITION

11:00 am Cotner, J. B.; Biddanda, B. A.; Budd, J. W.: MAJOR DISSOLVED ORGANIC CARBON FLUXES MEDIATED BY MICROBES IN LAKE MICHIGAN

11:15 am Hessen, D. O.: LINKED FLUXES OF DISSOLVED ORGANIC CARBON, NITROGEN AND SILICA IN NORTHERN WATERSHEDS

11:30 am Homewood, J. M.; Purdie, D. A.; Shaw, P. J.: CHEMICAL COMPOSITION AND BIOAVAILABILITY OF DISSOLVED ORGANIC MATTER (DOM) IN A RIVER / ESTUARINE SYSTEM

11:45 am Richey, J. E.; Aufdenkampe, A. A.; Remington, S.; Krusche, A. K.; Mayorga, E.: ROMBUS: A MODEL OF DOM MOBILIZATION AND REACTION *

1:30 pm Lang, S. Q.; Butterfield, D. A.; Hedges, J. I.: THE EFFECT OF HYDROTHERMAL CIRCULATION ON THE DEEP DOC CYCLE

1:45 pm Reinthaler, T.; Williams, P. J.; Herndahl, G. L.; Robinson, C.; Cummings, D.: MEASUREMENT OF GROWTH AND RESPIRATION IN THE DARK OCEAN

2:00 pm Stedmon, C. A.; Markager, S.: TRACING THE PRODUCTION AND DEGRADATION OF AUTOCHTHONOUS FRACTIONS OF DISSOLVED ORGANIC MATTER

2:15 pm Landolfi, A.; Purdie, D. A.; Sanders, R.: TON AND TOP STOICHIOMETRY AND DISTRIBUTION ACROSS THE INDIAN OCEAN SUBTROPICAL GYRE

2:30 pm Ruttenberg, K. C.; Dyhrman, S. T.: REGULATION AND UTILIZATION OF DISSOLVED ORGANIC PHOSPHORUS IN THE COASTAL OCEAN

2:45 pm O'Neil, J. M.; Heil, C. A.; Mulholland, M. R.; Bronk, D. A.: EFFECT OF COPEPOD GRAZERS ON ALKALINE PHOSPHATASE ACTIVITY IN TRICHODESMIUM SPP. FROM THE GULF OF MEXICO

3:30 pm Moore, L. R.; Chisholm, S. W.: COMPARATIVE PHOSPHORUS PHYSIOLOGY OF PROCHLOROCOCCUS ISOLATES

3:45 pm Del Castillo, C. E.; Hall, C. M.: ORGANIC MATTER CHARACTERIZATION WITHIN HYPOXIC AREAS OF THE NORTHERN GULF OF MEXICO

4:00 pm Lyon, P. E.; Hoge, F. E.: CHROMOPHORIC DISSOLVED ORGANIC MATTER VARIABILITY INTHE WAKE S OF HURRICANES AND TYPHOONS: RECENT FINDINGS

4:15 pm Conmy, R. N.; Coble, P. G.; Heil, C. A.: SEASONAL CDOM DISTRIBUTION ON THE SOUTHWEST FLORIDA SHELF

4:30 pm See, J. H.; Bronk, D. A.; Lewitus, A. J.: DIRECT UTILIZATION OF HUMIC NITROGEN BY COASTAL PHYTOPLANKTON

SS5.10:
Marine Biodiversity and Ecosystem Functioning

Chair(s): John J. Stachowicz, jjstachowicz@ucdavis.edu
J. Emmett Duffy, jeduffy@vims.edu

Location: 323 C

1:30 pm Pomeroy, L. R.: ECOSYSTEMS, FOOD WEBS, AND FASHIONS~

2:00 pm Azam, F.: MICROBIAL CONTROL OF OCEANIC CARBON CYCLE AND IMPLICATIONS FOR ECOSYSTEM STRUCTURE AND MARINE CONSERVATION~

2:30 pm Levin, L. A.; Snelgrove, P. V.: BIODIVERSITY AND FUNCTION IN MARINE SEDIMENTS: A MUDDLE OR A SOLVABLE MYSTERY?*

2:45 pm Stachowicz, J. J.; Byrnes, J. E.; Whitlatch, R. B.: BIODIVERSITY ENHANCES THE TEMPORAL CONSISTENCY AND INVASION RESISTANCE OF SESSILE MARINE INVERTEBRATE COMMUNITIES

3:30 pm Morris, J. T.; Christian, R. R.: FOOD WEB SIZE, COMPLEXITY AND FUNCTION*

3:45 pm Duffy, J. E.; Richardson, J. P.; France, K. E.: INTERACTIVE EFFECTS OF BIODIVERSITY AND TROPHIC STRUCTURE ON ECOSYSTEM FUNCTIONING IN SEAGRASS BEDS *

4:00 pm Spivak, A. C.; Canuel, E. A.; Duffy, J. E.; Waterson, E. J.: TROPHIC STRUCTURE, BIODIVERSITY, AND CARBON CYCLING: EVIDENCE OF CASCADING EFFECTS IN AN EXPERIMENTAL EELGRASS SYSTEM*

4:15 pm Bruno, J. F.; Boyer, K. E.; Lee, S. E.; Duffy, J. E.: BIODIVERSITY AND ECOSYSTEM FUNCTIONING IN MULTI-TROPHIC SYSTEMS: EXPERIMENTAL TESTS IN A BENTHIC MARINE COMMUNITY*

4:30 pm Moorthi, S. D.; Hillebrand, H. L.; Wahl, M.; Berninger, U. G.: DOES DIVERSITY ENHANCE STABILITY AND PRODUCTIVITY IN BENTHIC CILIATE COMMUNITIES?

SS5.15:
Biogeochemical Processes Within Freshwater Influenced Coastal Systems

Chair(s): Joseph E. Salisbury, joe.salisbury@unh.edu

Location: 315

10:15 am da Cunha, L. C.; Giraud, X.; Buitenhuis, E. T.; Ludwig, W.; Le Quéré, C.: NUTRIENT SOURCES AND FATE IN THE COASTAL ZONE*

10:30 am White, J. R.; Malecki, L. M.: FLUX OF N AND P FROM SEDIMENT IN THE ST. JOHNS RIVER ESTUARY

10:45 am Del Castillo, C. E.: OPTICAL CONSEQUENCES OF CHANGES IN ORGANIC MATTER COMPOSITION IN THE MISSISSIPPI RIVER PLUME*

11:00 am Salisbury, J. E.; Campbell , J. W.; Meeker, L. D.; Muller-Karger, F. E.; Vorosmarty, C. J.: COASTAL RIVER PLUMES OF THE GULF OF MAINE: LINKING SALINITY VS. ABSORPTION RELATIONSHIPS TO TERRESTRIAL DOC FLUXES *

11:15 am Sherrard, J. C.; Miller, W. L.; White, E. M.; Kieber, D. J.: THE PHOTOCHEMICAL TRANSFORMATION OF DISSOLVED ORGANIC CARBON TO DISSOLVED INORGANIC CARBON IN THE ESTUARINE ENVIRONMENT

WEDNESDAY

(*) represents Invited presentations

11:30 am Schwehr, K. A.; Santschi, P. H.; Elmore, D.: 129I/127I OF DISSOLVED ORGANIC IODINE: A NOVEL TOOL FOR TRACING TERRESTRIAL ORGANIC MATTER IN ESTUARINE SURFACE WATERS OF GALVESTON BAY, TEXAS

11:45 am Beman, J. M.; Matson, P. A.: INFLUENCE OF TERRESTRIAL AGRICULTURAL ACTIVITIES ON MARINE ECOSYSTEM PROCESSES IN THE GULF OF CALIFORNIA: EVIDENCE FROM REMOTE SENSING

1:30 pm Mitchelson-Jacob, E. G.; Evans, G. L.; Williams, P. J.: ANALYSIS OF COASTAL TIME SERIES (SEAWATER) TEMPERATURE OBSERVATIONS

1:45 pm Dellwig, O.; Koelsch, S.; Brumsack, H. J.; Reuter, R.: BEHAVIOUR OF REDOX-SENSITIVE TRACE METALS IN A FRESHWATER INFLUENCED BACKBARRIER TIDAL FLAT, NW GERMANY

2:00 pm Dedieu, K.; Rabouille, C.; Bombled, B.; Soetaert, K.: DISTRIBUTION AND DYNAMICS OF OXYGEN IN COASTAL SEDIMENTS: STUDY BY IN SITU MICRO-ELECTRODES

2:15 pm Tomlinson, M. S.; De Carlo, E. H.: MEASURING DISSOLVED TRACE ELEMENTS IN SUBTROPICAL FRESHWATER AND ESTUARINE ENVIRONMENTS WITH DGTS

2:30 pm Ringuet, S.; Hoover, D. J.; Narod, S.; Mackenzie, F. T.: BASEFLOW AND STORM-RUNOFF IMPACTS ON AN URBANIZED SUBTROPICAL ESTUARY

3:30 pm Bozec, Y.; Thomas, H.; Elkalay, K.; de Baar, H. J.: THE NORTH SEA: A "CONTINENTAL SHELF PUMP" FOR THE ABSORPTION OF ATMOSPHERIC CO2

3:45 pm Elkalay, K.; Helmuth, T.; Bozec, Y.; Ruardij, P.; De baar, H. J.: MODELLING THE CARBON AND NUTRIENT CYCLING IN THE NORTH SEA USING ERSEM II

4:00 pm Ostrom, N. E.; Piwinski, L. K.; Twiss, M. R.; Carrick, H. J.: DETERMINATION OF PRIMARY PRODUCTION IN LAKE ERIE BY MULTIPLE PROXIES

4:15 pm Childers, D. L.: FACTORS CONTROLLING ECOSYSTEM PRODUCTIVITY AND LAND-OCEAN INTERACTIONS IN OLIGOTROPHIC UPSIDE-DOWN ESTUARIES OF THE FLORIDA EVERGLADES*

4:30 pm Erlandsson, C. P.; Stigebrandt, A.; Arneborg, L.: PROCESSES BEHIND OBSERVED TRENDS IN OXYGEN CONCENTRATION IN THE GULLMAR FJORD, SWEDEN

SS7.02:
Hyperspectral Signatures of Case 2 Waters

Chair(s): Robert Arnone, arnone@nrlssc.navy.mil

Location: 319 A-B

10:15 am Schofield, O.; Glenn, S.: THE UTILITY OF CABLED SYSTEMS FOR IN SITU AND REMOTELY SENSED HYPERSPECTRAL OPTICS*

10:30 am Davis, C. O.: HYPERSPECTRAL IMAGING AS PART OF A COORDINATED SAMPLING OF COASTAL ENVIRONMENTS

10:45 am Corson, M. R.; Bowles, J. H.; Chen, W.; Davis, C. O.; Dorris, C. E.; Gallelli, K. H.; Korwan, D. R.; Snyder, W. A.: THE HYGEIA PROGRAM FOR HYPERSPECTRAL IMAGING FROM THE INTERNATIONAL SPACE STATION

11:00 am Costa, M.; Telmer, K.: HYPERSPECTRAL REMOTE SENSING OF THE FRASER RIVER PLUME, BC, CANADA

11:15 am Darecki , M.; Wozniak, B.: SPECTRAL CHARACTERISTIC OF THE LIGHT BACKSCATTERING COEFFICIENT IN THE CASE 2 WATERS (BALTIC SEA) ESTIMATED FROM THE IRRADIANCE AND REFLECTANCE MEASUREMENTS.

11:30 am Sydor, M.; Arnone, R. A.; Gould, R. W.; Goode, W.: THE QUESTION OF UNIQUENESS IN REMOTE SENSING OF THE INHERENT OPTICAL PROPERTIES OF OCEAN WATER*

11:45 am Wozniak, S. B.; Stramski, D.: MODELING THE INFLUENCE OF MINERAL PARTICLES SUSPENDED IN SEAWATER ON OCEAN REFLECTANCE AND CHLOROPHYLL RETRIEVAL FROM REMOTE SENSING ALGORITHMS

1:30 pm Lavender, S. J.; Nagur, C. R.; Doxaran, D.: THE IDENTIFICATION AND CLASSIFICATION OF BIO-GEOPHYSICAL PARAMETERS IN PLYMOUTH COASTAL WATERS, UK.

1:45 pm Gould, R. W.; Weidemann, A. D.; Arnone, R. A.; Stavn, R. H.; Lamela, G. M.: SHIP, SATELLITE, AND AIRCRAFT ASSESSMENT OF COASTAL OPTICAL VARIABILITY IN MISSISSIPPI SOUND NEAR MOBILE BAY, ALABAMA

2:00 pm Stavn, R. H.; Spiering, B. A.; Gould, R. W.: BIOGEO-OPTICS: OPTICAL SCATTERING CROSS SECTIONS FOR SUSPENDED MINERAL AND ORGANIC MATTER OF COASTAL AND NEAR-COASTAL WATERS

2:15 pm Zaneveld, J. R.; Pegau, W. S.: A ROBUST UNDERWATER VISIBILITY PARAMETER

2:30 pm Liew, S. C.; Heng, A.; Chang, C. W.; Kwoh, L. K.: RETRIEVING THE ABSORPTION COEFFICIENT AND SUSPENDED SEDIMENT CONCENTRATION OF COASTAL WATERS FROM HYPERSPECTRAL AND MULTISPECTRAL SATELLITE DATA

2:45 pm Wang, M.: OCEAN COLOR REMOTE SENSING FOR THE CASE-2 WATERS: ATMOSPHERIC CORRECTION USING THE LONGER NIR BANDS

3:30 pm Stamnes, K.; Li, W.; Eide, H.: AEROSOL RETRIEVALS OVER CASE 2 WATERS USING HYPERSPECTRAL DATA

3:45 pm Montes, M. J.; Gao, B. C.; Davis, C. O.: ATMOSPHERIC CORRECTION OF OCEAN COLOR DATA IN CASE-II ENVIRONMENTS

4:00 pm Piller, C.; Costa, M.; Telmer, K.; Gallagher, L.: USING HYPERSPECTRAL AIRBORNE AND SPACEBORNE SENSORS TO MONITOR CASE-II WATERS OF VANCOUVER ISLAND

4:15 pm Donato, T. F.; Weidemann, A. D.; Bachmann, C. M.; Gould, R. W.; Rhea, J.; Bisset, W. P.: AN EXAMINATION OF SPECTRAL SIGNATURES FROM CASE 2 WATERS USING EMPIRICAL MODE DECOMPOSITION

4:30 pm Dall'Olmo, G.; Gitelson, A. A.; Rundquist, D. C.: ALGORITHM FOR CHLOROPHYLL ESTIMATION IN CASE 2 PRODUCTIVE WATERS: THEORETICAL DEVELOPMENT, SENSITIVITY TO INTERFERING FACTORS, AND VALIDATION

(~) represents Tutorial presentations

SS9.01:
Ecosystem Science Practiced in an Urbanized Estuary: South San Francisco Bay

Chair(s): James E. Cloern, jecloern@usgs.gov

Location: 324

10:15 am Foxgrover, A. C.; Higgins, S. A.; Ingraca, M. K.; Jaffe, B. E.; Smith, R. E.: SEDIMENTATION AND HABITAT CHANGE IN SOUTH SAN FRANCISCO BAY: 1858 - 1983*

10:30 am Monismith, S. G.: ON THE HYDRODYNAMICS OF SOUTH SAN FRANCISCO BAY: WHY EVERYTHING FROM TIDES TO TURBULENCE MATTERS*

11:00 am Cloern, J. E.: SOUTH SAN FRANCISCO BAY: AN HNLC MARINE ECOSYSTEM SURROUNDED BY SILICON VALLEY*

11:15 am Koseff, J. R.; Lucas, L. V.; Cloern, J. E.; Monismith, S. G.; Thompson, J. K.: MODELING AND FIELD OBSERVATIONS OF ALGAL BLOOMS IN SOUTH SAN FRANCISCO BAY, 1: PHILOSOPHY AND INITIAL APPROACHES*

11:30 am May, C. L.; Koseff, J. R.; Lucas, L. V.; Cloern, J. E.; Schoellhamer, D. H.: MODELING AND FIELD OBSERVATIONS OF ALGAL BLOOMS IN SSFB, 2: SPATIAL AND TEMPORAL VARIABILITY IN LIGHT*

11:45 am Lucas, L. V.; Koseff, J. R.; Cloern, J. E.; Monismith, S. G.; Thompson, J. K.: MODELING AND FIELD OBSERVATIONS OF ALGAL BLOOMS IN SOUTH SAN FRANCISCO BAY, 3: INTRATIDAL PHYSICAL PROCESSES*

1:30 pm Thompson, J. K.; Koseff, J. R.; Monismith, S. G.; Lucas, L. V.: MODELING AND FIELD OBSERVATIONS OF ALGAL BLOOMS IN SOUTH SAN FRANCISCO BAY, 4: INTEGRATION OF NUMERICAL MODELS AND FIELD OBSERVATIONS *

1:45 pm Shellenbarger, G. G.; Schoellhamer, D. H.; Lionberger, M. A.: A SOUTH SAN FRANCISCO BAY SEDIMENT BUDGET: WETLAND RESTORATION AND POTENTIAL EFFECTS ON PHYTOPLANKTON BLOOMS

2:00 pm Dugdale, R. C.; Hogue, V.; Marchi, A.; Wilkerson, F. P.: IMPACT OF ANTHROPOGENIC AMMONIUM ON PHYTOPLANKTON ECOLOGY IN AN URBANIZED ESTUARY: SAN FRANCISCO BAY *

2:15 pm Fisher, K. E.: COUPLING AND DECOUPLING OF PHYSICAL AND BIOLOGICAL DISTRIBUTIONS IN THE SOUTH SAN FRANCISCO BAY SYSTEM IN WET AND DRY YEARS: FRACTAL AND MULTIFRACTAL MEASURES

2:30 pm Buck, K. N.; Bruland, K. W.: COPPER SPECIATION IN SAN FRANCISCO BAY

2:45 pm Gee, A. K.; Bruland, K. W.: A NOVEL APPROACH TO TRACKING EQUILIBRIUM AND KINETIC PARTITIONING OF CADMIUM AND LEAD BETWEEN DISSOLVED AND PARTICULATE FORMS IN SOUTH SAN FRANCISCO BAY, CA

3:30 pm Canuel, E. A.: COMPOSITION OF ORGANIC MATTER IN SOUTH SAN FRANCISCO BAY: SEASONAL VARIATIONS AND LINKAGES BETWEEN WATER COLUMN PRODUCTION AND SEDIMENT ORGANIC MATTER*

3:45 pm Lesen, A. E.: TROPHIC ECOLOGY OF ESTUARINE MEIOFAUNA: RELATIONSHIP BETWEEN BENTHIC FORAMINIFERA AND FOOD RESOURCES IN SOUTH SAN FRANCISCO BAY, CA, U.S.A

4:00 pm Rollwagen Bollens, G. C.; Bollens, S. M.; Penry, D. L.: ZOOPLANKTON DYNAMICS IN THE LOWER SAN FRANCISCO ESTUARY: ROLE OF MICROZOOPLANKTON

4:15 pm Bollens, S. M.; Avent, S. A.; Hooff, R.; Gewant, D.; Rollwagen Bollens, G. C.: ZOOPLANKTON DYNAMICS IN THE LOWER SAN FRANCISCO ESTUARY: ROLE OF MESO- AND MACROZOOPLANKTON

4:30 pm Schafer, K. L.: LONG TERM OBSERVATIONS OF FISH POPULATIONS IN SOUTH SAN FRANCISCO BAY*

(*) represents Invited presentations

Thursday, February 19, 2004

SS1.02:
Oceanography and Ecology of the Aleutian Archipelago

Chair(s): George L. Hunt Jr., glhunt@uci.edu
Carol Ladd, carol.ladd@noaa.gov

Location: 323 B

10:15 am O'Rourke, D. H.; West, D. L.; Coltrain, J. B.: HUMAN PRESENCE AND IMPACT IN THE PREHISTORIC ALEUTIAN ISLANDS˜

10:45 am Corbett, D. G.; Causey, D.; Lefevre, C.; West, D. L.: ALEUTS, URCHINS AND OTTERS: SIX THOUSAND YEARS OF ECOSYSTEM INTERACTIONS IN THE WESTERN ALEUTIAN ISLANDS, ALASKA*

11:00 am Rodionov, S. N.; Overland, J. E.; Bond, N. A.: SPATIAL INHOMOGENEITY OF ALEUTIAN ISLANDS CLIMATE VARIABILITY

11:15 am Maslowski, W.; Clement, J. L.; Okkonen, S. R.; Stabeno, P. J.: MODELING OF OCEAN CIRCULATION AND PROPERTY TRANSPORT THROUGH THE EASTERN ALEUTIAN ISLAND PASSES

11:30 am Ladd, C.; Hunt, G.; Mordy, C.; Salo, S.; Stabeno, P.: MARINE ENVIRONMENT OF THE CENTRAL AND EASTERN ALEUTIAN ISLANDS

11:45 am Zeeman, S. I.: SPATIAL TRENDS OF PRIMARY PRODUCTION IN THE ALEUTIAN ISLANDS, A POSSIBLE FACTOR IN STELLER SEA LION DECLINE

1:30 pm Coyle, K. O.: ZOOPLANKTION DISTRIBUTION, ABUNDANCE AND BIOMASS RELATIVE TO WATER MASSES IN THE EASTERN AND CENTRAL ALEUTIAN ISLAND PASSES

1:45 pm Jahncke, J.; Coyle, K. O.; Hunt, G. L.: SPATIAL PATTERNS OF SEABIRD DISTRIBUTION, ABUNDANCE AND DIETS IN THE CENTRAL AND EASTERN ALEUTIAN ISLANDS

2:00 pm Call, K. A.; Loughlin, T. R.: AN ECOLOGICAL CLASSIFICATION OF ALASKAN STELLER SEA LION (EUMETOPIAS JUBATUS) ROOKERIES

2:15 pm Sinclair, E.; Moore, S.; Friday, N.; Zeppelin, T.; Waite, J.: PHYSICAL MECHANISMS INFLUENCING REGIONAL DISTRIBUTION AND ABUNDANCE OF APEX PREDATORS: RELEVANCE TO ECOSYSTEM MANAGEMENT*

2:30 pm Zerbini, A. N.; Wade, P. R.; Waite, J. M.: SUMMER ABUNDANCE AND DISTRIBUTION OF CETACEANS IN COASTAL WATERS OF THE WESTERN GULF OF ALASKA AND THE EASTERN AND CENTRAL ALEUTIAN ISLANDS

2:45 pm Logerwell, E. A.; Aydin, K.; Barbeaux, S.; Brown, E.; Conners, M. E.; Lowe, S.; McDermott, S.; Orr, J.; Ortiz, I.; Reuter, R.; Spencer, P.: GEOGRAPHIC PATTERNS IN THE DEMERSAL ICHTHYOFAUNA OF THE ALEUTIAN ISLANDS SHELF

3:30 pm Jung, K. M.; Kim, S. A.; Kang, S. K.: ECOLOGICAL CHARACTERISTICS OF WALLEYE POLLOCK EGGS AND LARVAE IN THE SOUTHEASTERN BERING SEA DURING THE 1970'S REGIME SHIFT PERIOD

3:45 pm McDermott, S. F.; Fritz, L. W.; Haist, V.: ESTIMATING MOVEMENT AND ABUNDANCE OF ATKA MACKEREL (PLEUROGRAMMUS MONOPTERYGIUS) WITH TAG RELEASE DATA

4:00 pm Heifetz, J.; Stone, R. P.; Reynolds, J. R.; Woodby, D. A.; Malecha, P. W.; Courtney, D. L.; Wing, B. L.: CORAL AND SPONGE HABITATS OF THE ALEUTIAN ARCHIPELAGO ˜

SS10.01:
Webs and Scales

Chair(s): G.-A. Paffenhofer, cmp@skio.peachnet.edu
C.B. Miller, cmiller@oce.orst.edu

Location: 314

10:15 am Turner, J. T.; Ianora, A.; Esposito, F.; Carotenuto, Y.; d'Ippolito, G.; Romano, G.; Fontana, A.; Guisande, C.; Miralto, A.: COPEPOD EGG PRODUCTION AND EGG HATCHING SUCCESS IS REDUCED BY MATERNAL DIETS OF A NON-TOXIC STRAIN OF THE DINOFLAGELLATE ALEXANDRIUM TAMARENSE

10:30 am Bi, H.; Benfield, M. C.: MORTALITY OF THE COPEPOD CLAUSOCALANUS FURCATUS IN THE NORTHERN GULF OF MEXICO

10:45 am Vance, P. M.; Peterson, W. T.: ONTOGENETIC AND OCEANOGRAPHIC EFFECTS ON THE ONSET AND MAGNITUDE OF DIEL VERTICAL MIGRATION OF THE EUPHAUSIID, EUPHAUSIA PACIFICA

11:00 am Yen, J.; Brown, J.: WAKE SIGNATURES OF FREELY SWIMMING PLANKTON

11:15 am Shaw, C. T.; Feinberg, L. R.; Peterson, W. T.: MOULTING AND GROWTH RATES OF TWO SPECIES OF EUPHAUSIIDS OFF THE OREGON COAST: SEASONAL, SPATIAL AND LIFE STAGE DIFFERENCES

11:30 am Feinberg, L. R.; Shaw, C. T.; Peterson, W. T.: LONG-TERM LABORATORY OBSERVATIONS OF EUPHAUSIA PACIFICA FECUNDITY: A COMPARISON OF TWO POPULATIONS

11:45 am Kremer, P.; Gibson, D. M.: ESTIMATING GROWTH RATES AND GENERATION TIMES FROM MEASUREMENTS OF FEEDING, DEFECATION AND METABOLISM: DOES THE WHOLE EQUAL THE SUM OF THE PARTS?

1:30 pm Thor, P.; Koski, M.; Tang, K. W.; Colin, S. P.; Selander, E.; Jonasdottir, S. H.: INFLUENCE OF COPEPOD ABSORPTION EFFICIENCY ON PELAGIC ORGANIC MATTER FLUX

1:45 pm Leising, A. W.: EFFECTS OF INTERANNUAL VARIABILITY ON THE POPULATION DYNAMICS OF A DOMINANT CALIFORNIA CURRENT COPEPOD: APPLICATION OF AN INDIVIDUAL-BASED MODEL

2:00 pm Welschmeyer, N. A.: A C-14 BASED METHOD FOR DETERMINING MICROZOOPLANKTON GRAZING RATES

2:15 pm Landry, M. R.; Calbet, A.: MICROZOOPLANKTON ROLES AND RATES IN MARINE FOOD WEBS*

2:30 pm Sherr, B.; Sherr, E.: MICROZOOPLANKTON AS A FOOD RESOURCE FOR MESOZOOPLANKTON *

2:45 pm Liu, H.; Dagg, M. J.: EFFECTS OF ZOOPLANKTON (COPEPODS) GRAZING ON MICROBIAL FOODWEB STRUCTURE: STUDIES CONDUCTED IN THE MISSISSIPPI RIVER PLUME AND IN THE COASTAL GULF OF ALASKA

3:30 pm Jakobsen, H. H.; Strom, S.; Strom, S.: IMPLICATIONS OF CIRCADIAN CYCLES IN HETEROTROPHIC PROTISTS

THURSDAY

(~) represents Tutorial presentations

3:45 pm Mazzocchi, M. G.; Paffenhöfer, G. A.: THE ROLE OF OITHONIDS AND ONCAEIDS IN SUBTROPICAL/TROPICAL FOOD WEBS

4:00 pm Le Borgne, R.; Landry, M. R.; Brown, S. L.; Champalbert, G.; Gaudy, R.; Le Bouteiller, A.: THE EQUATORIAL PACIFIC UPWELLING PLANKTONIC FOOD-WEB: STRUCTURE AND FUNCTIONING

4:15 pm Fulmer, J. H.; Bollens, S. M.: THE POPULATION BIOLOGY OF THE CHAETOGNATH, SAGITTA ELEGANS, IN DABOB BAY, WA, AS MEDIATED BY DIATOM-COPEPOD INTERACTIONS

4:30 pm Deibel, D.; Businski, T.: PELAGIC TUNICATES: CONSUMERS AND CONSUMED

SS11.01:
Food-web Dynamics and C Flux in an Era of Climatic Variability: A Pan-Arctic Perspective

Chair(s): Jackie Grebmeier, jgrebmei@utk.edu
Paul Wassmann, paulw@nfh.uit.no
Eddie Carmack

Location: 319 A-B

1:30 pm Nielsen, T. G.: FUNCTION OF PELAGIC ECOSYSTEMS IN GREENLAND COASTAL WATERS~

2:00 pm Hodal, H. L.; Kristiansen, S.; Falk-Petersen, S.; Hop, H.: SPRING BLOOM DYNAMICS IN AN ARCTIC FJORD

2:15 pm Reigstad, M.; Wexels Riser, C.; Arashkevich, E.; Ratkova, T. N.; Wassmann, P.: ON THE ROLE OF MESOZOOPLANKTON GRAZING FOR VERTICAL FLUX REGULATION IN THE NORTHERN BARENTS SEA

2:30 pm Schmid, M. K.; Piepenburg, D.: TROPHIC DYNAMICS AND CARBON FLUX IN THE LAPTEV SEA

2:45 pm Lalande, C.; Grebmeier, J. M.; Wassmann, P.; Moran , S. B.; Cooper, L. W.: VERTICAL EXPORT OF PARTICULATE ORGANIC CARBON AND CALIBRATION OF SEDIMENT TRAPS USING 234TH IN THE BARENTS SEA

3:30 pm Wassmann, P.; Olli, K.; Reigstad, M.: C FLUX AND PELAGIC-BENTHIC COUPLING DURING A LAGRANGIAN DRIFT STUDY CLOSE TO THE NORTH POLE

3:45 pm Renaud, P. E.; Hobson, K. A.; Ambrose, W. G.; Clough, L. M.; Carroll, M.: THE USE OF STABLE ISOTOPES TO DESCRIBE FOOD WEB DYNAMICS AND CARBON CYCLING AT MULTIPLE SITES IN THE ARCTIC: WHAT HAVE WE LEARNED?

4:00 pm Carroll, M. L.; Highsmith, R. C.; Coyle, K. O.; Denisenko, S.; Carroll, J.: SPATIAL AND TEMPORAL PATTERNS OF MARINE BENTHIC COMMUNITY VARIABILITY IN ARCTIC MARGINAL SEAS AND POSSIBLE LINKAGES TO CLIMATIC VARIATIONS

4:15 pm Lovvorn, J. R.; Cooper, L. W.; Grebmeier, J. M.; Brooks, M. L.; De Ruyck, C. C.; Bump, J. K.: ORGANIC MATTER PATHWAYS TO ZOOPLANKTON AND BENTHOS UNDER PACK ICE IN WINTER AND OPEN WATER IN LATE SUMMER IN THE NORTHERN BERING SEA

4:30 pm Highsmith, R. C.; Bluhm, B. A.; Coyle, K. O.; Konar, B.: GRAY WHALE FEEDING IN THE CHUKCHI SEA

SS2.04:
Effects of Small-scale Turbulence at the Community and Ecosystem Levels

Chair(s): Francesc Peters, cesc@icm.csic.es
Harry Havskum, hhavskum@zi.ku.dk

Location: 324

10:15 am Estrada, M.: UNDERSTANDING PLANKTONIC ECOLOGY IN A TURBULENT ENVIRONMENT: AN INTERDISCIPLINARY CHALLENGE~

10:45 am Metcalfe, A. M.: MODELLING PLANKTON COMMUNITIES SUBJECT TO TURBULENCE

11:00 am Nerheim, S.; Svendsen, H.; Stiansen, J. E.; Utne-Palm, A. C.: GRID-GENERATED TURBULENCE IN A MESOCOSM ECOSYSTEM EXPERIMENT

11:15 am Baird, M. E.; Suthers, I. M.: THE EFFECTS OF SMALL-SCALE TURBULENCE IN A PELAGIC ECOSYETEM MODEL WITH BIO-MECHANICAL DESCRIPTIONS OF GRAZING

11:30 am Peters, F.; Marrase, C.; Alcaraz, M.; Dolan, J. R.; Guadayol, O.; Havskum, H.; Jacobsen, A.; Stiansen, J. E.; Vidal, M.: PLANKTON COMMUNITY LEVEL RESPONSES TO TURBULENCE AND NUTRIENT LOAD: IMPLICATIONS FOR COASTAL ZONES

11:45 am Duboz, R.; Ramat, E.: COUPLING AGENT BASED MODELS AND DIFFERENTIAL EQUATION SYSTEMS: FROM THE INDIVIDUAL TO POPULATION SCALES

1:30 pm Latz, M. I.; Rohr, J.; Allen, J.: WHEN THE AVERAGE IS NOT ENOUGH: EFFECT OF UNSTEADY FLOW ON DINOFLAGELLATE POPULATION GROWTH*

1:45 pm Havskum, H.; Hansen, P. J.; Berdalet, E.: AGGREGATE FORMATION OF THE DINOFLAGELLATE CERATIUM TRIPOS CAUSED BY TURBULENCE – IMPLICATIONS FOR PREDATOR:PREY INTERACTIONS

2:00 pm Piera, J.; Catalan, J.: NON-LOCAL TURBULENT MIXING MODELS: EMPIRICAL PARAMETERIZATION AND POTENTIAL APPLICATIONS FOR MODELING

2:15 pm Ross, O. N.; Sharples, J.: ALGAL MOTILITY IN VARIABLE TURBULENCE

2:30 pm LAGADEUC, Y.; POGGIALE, J. C.: NUTRIENT UPTAKE BY PHYTOPLANKTON IN TURBULENT ENVIRONMENT : DO SURGE UPTAKE COULD CHANGE GROWTH AND COMPETITION ?

2:45 pm Malits, A.; Dolan, J. R.: TURBULENCE AND RESPIRATION RATES: EFFECTS BELOW THE KOLMOGOROV MICROSCALE (LK)

3:30 pm Penalva-Arana , D. C.; Lovern, S. B.; Nihongi, A.; He, X.; Strickler, J. R.: MALE DAPHNIA ATTACHMENT FORCES DURING MATING EXAMINED BY ATOMIC FORCE MICROSCOPY (AFM)

3:45 pm Nihongi, A.: DIFFERENCES OF MATING BEHAVIORS BETWEEN DAPHNIA PULEX AND DAPHNIA MAGNA

4:00 pm Keen, T. R.; Furukawa, Y.: A COUPLED COHESIVE SEDIMENT ENTRAINMENT AND BIOTURBATION MODEL*

4:15 pm Cobb, C. M.; Keen, T. R.; Furukawa, Y.: SENSITIVITY OF A 1-D COUPLED COHESIVE SEDIMENT ENTRAINMENT AND BIOTURBATION MODEL TO ENVIRONMENTAL FORCING

(*) represents Invited presentations

SS3.02:
Coral Reef Estuaries

Chair(s): Ernie Matson, eamatson@uog9.uog.edu

Location: 317 A

10:15 am Guinotte, J. M.; Buddemeier, R. W.; McLaughlin, C. J.: ESTUARINE CORALS: PARADOX OR PARADIGM?~

10:45 am Wolanski, E.; Richmond, R. H.: A MODEL OF ESTUARINE CORAL REEF ECOHYDROLOGY*

11:00 am Richmond, R. H.; Wolanski, E.; Golbuu, Y.; Victor, S.: FACTORS AFFECTING SURVIVAL, RESILIENCE AND RECOVERY OF ESTUARINE CORAL REEFS*

11:15 am Victor, S.; Golbuu, Y.; Wolanski, E.; Richmond, R. H.: EFFECTS OF LAND USE CHANGE ON ESTUARINE CORAL REEFS IN PALAU*

11:30 am Fisher, E. M.; Hallock, P.; Woodley, C. M.: RELATIONSHIP BETWEEN SEDIMENTATION AND REGENERATION IN MONTASTREA SPP. (SCLERACTINIA)

11:45 am Matson, E. A.: TERRESTRIAL NUTRIENTS ON MICRONESIAN REEFS

1:30 pm Andersson, A. J.; Mackenzie, F. T.: SHALLOW-WATER OCEAN: A SINK OR SOURCE OF ATMOSPHERIC CO2?~

2:00 pm Strong/Alan, A. E.: CORALS AND CLIMATE - BEYOND NATURAL VARIABILITY?

2:15 pm Liu, G.; Strong, A. E.; Skirving, W.; Brainard, R.; Kenyon, J.; Wong, K. B.: SATELLITE DETECTION OF 2002 CORAL BLEACHING IN THE HAWAIIAN ARCHIPELAGO

2:30 pm Tchernov, D.; Gorbunov, M. Y.; de Vargas, C.; Haggblom, M.; Falkowski, P. G.: THYLAKOID MEMBRANE LIPID COMPOSITION IS THE MECHANISTIC BASIS FOR UNDERSTANDING AND DIAGNOSING CORAL BLEACHING PATTERNS

2:45 pm Barton, A. D.; Casey, K. S.: CLIMATOLOGICAL CONTEXT FOR LARGE SCALE CORAL BLEACHING OBSERVED SINCE 1979

3:30 pm Watling, L.: INVERTEBRATE ASSOCIATES OF DEEP WATER ALCYONACEANS*

3:45 pm Thomas, J. D.: PREDICTING BIODIVERSITY PATTERNS IN DEEP WATER CORAL ECOSYSTEMS: LESSONS FROM PHYLOGENETIC STUDIES OF SHALLOW WATER CORAL REEF CRUSTACEA*

4:00 pm Falter, J. L.; Atkinson, M. J.; Coimbra, C. F.: EFFECTS OF ROUGHNESS SCALE AND FLOW ENVIRONMENT ON NUTRIENT MASS TRANSFER TO CORAL REEF COMMUNITIES: EVIDENCE FROM THE DISSOLUTION OF PLASTER FORMS

4:15 pm Sebens, K. P.: ENVIRONMENTAL CONTROLS ON TISSUE AND SKELETAL GROWTH IN REEF CORALS

SS4.02:
Ecology and Physiology of Marine Organisms: Insights from Genes, Genomes, and Proteomes

Chair(s): Bethany D. Jenkins, bjenkins@es.ucsc.edu
Jackie L. Collier, jcollier@notes.cc.sunysb.edu

Location: 316 C

10:15 am Palenik, B.; Brahamsha, B.; McCarren, J.: ECOLOGICAL INSIGHTS FROM GENETICS AND GENOMICS~

10:45 am Hess, W. R.; Steglich, C.; Frankenberg, N.: THE MINIMAL GENOME FOR PHOTOSYNTHESIS: ON THE FUNCTION OF PHYCOERYTHRIN IN PROCHLOROCOCCUS*

11:00 am Rocap, G.; McKay, J. F.; Ahlgren, N. A.: GENETIC DIVERSITY IN FIELD POPULATIONS OF PROCHLOROCOCCUS AND SYNECHOCOCCUS

11:15 am Zinser, E. R.; Coe, A.; Johnson, Z.; Chisholm, S. W.: A QUANTITATIVE PCR ASSESSMENT OF THE POPULATION STRUCTURE AND DYNAMICS OF THE MARINE CYANOBACTERIUM, PROCHLOROCOCCUS, IN THE NORTH ATLANTIC OCEAN

11:30 am Ahlgren, N. A.; Hook, H. E.; Rocap, G.: A NOVEL CLADE OF MARINE SYNECHOCOCCUS DEFICIENT IN NITRATE UTILIZATION

11:45 am Jenkins, B. D.; Gibson, A.; Campbell, L.; Wilkerson, F. P.; Zehr, J. P.: DIVERSITY OF NITROGEN ASSIMILATION GENES IN NATURAL CYANOBACTERIAL POPULATIONS

1:30 pm Proctor, L. M.; Peglar, M.: COMPARISON OF N CYCLING GUILDS IN MICROBIAL BIOFILM COMMUNITIES FROM VEGETATED AND NONVEGETATED ESTUARINE ENVIRONMENTS.*

1:45 pm Church, M. J.; Jenkins, B. D.; Karl, D. M.; Short, S. M.; Omoregie, E. O.; Zehr, J. P.: DIVERSITY AND VERTICAL DISTRIBUTIONS OF NITROGEN-FIXING BACTERIA IN THE OLIGOTROPHIC NORTH PACIFIC OCEAN

2:00 pm Short, S. M.; Jenkins, B. D.; Zehr, J. P.: NITROGENASE GENE EXPRESSION IN THE CHESAPEAKE BAY

2:15 pm Francis, C. A.; Ward, B. B.: DIVERSITY OF NITRITE REDUCTASE GENES IN THE WATER COLUMN OF PERMANENTLY ICE-COVERED LAKE BONNEY, ANTARCTICA

2:30 pm Dyhrman, S. T.; Webb, E. A.; Orchard, E.: PHOSPHORUS SCAVENGING MECHANISMS IN TRICHODESMIUM

2:45 pm Williams, H. N.; Stine, O. C.; Sahaniuk, G. E.; Pineiro, S. A.: DISTRIBUTION OF DIVERSE GENOTYPES OF HALOPHILIC BDELLOVIBRIONACEAE IN OCEANS, SEAS, ESTUARIES AND A SALT LAKE

3:30 pm Lever, M. A.; Teske, A.: VERTICAL DISTRIBUTION OF METHANOGEN COMMUNITIES IN ORGANIC-RICH SUBSURFACE SEDIMENTS OF THE PERU TRENCH

3:45 pm Klepac-Ceraj, V.; Polz, M.: HIGH OVERALL DIVERSITY AND DOMINANCE OF MICRODIVERSITY AMONG CO-EXISTING SALT-MARSH SULFATE REDUCERS

4:00 pm Lovejoy, C.; Massana, R.; Pedrós-Alió, C.; Carmack, E.; Vincent, W. F.: MOLECULAR BIODIVERSITY OF PICO-EUKARYOTES IN THE ARCTIC OCEAN

4:15 pm Wieneke, S. G.; Armbrust, E. V.; Olson, R. J.; McGillicuddy, D. J.: DIVERSITY OF EUKARYOTIC NANOPLANKTON IN SARGASSO SEA EDDIES

4:30 pm Zhang, H.; Hou, Y.; Miranda, L.; Lin, S.: SPATIAL AND SEASONAL VARIATION IN DINOFLAGELLATE DIVERSITY IN LONG ISLAND SOUND ANALYZED WITH MITOCHONDRIAL CYTOCHROME B

THURSDAY

(~) represents Tutorial presentations

SS5.03:
The Biogeochemical Cycling of Iron in the Ocean – From Genes to Gyres

Chair(s): Philip Boyd, pboyd@alkali.otago.ac.nz
Mike McKay, rmmckay@bgnet.bgsu.edu
Steve Wilhelm, wilhelm@utk.edu
Russell Frew, rfrew@alkali.otago.ac.nz

Location: 315

10:15 am Hutchins, D. A.: THE EVOLUTION OF OUR UNDERSTANDING OF THE MARINE IRON BIOGEOCHEMICAL CYCLE ˜

10:45 am Bowie, A. R.; Sedwick, P. N.; Ussher, S. J.; Marsay, C. M.; Church, T. M.: EFFECT OF MINERAL DUST DEPOSITION ON IRON(II) DISTRIBUTION IN THE SARGASSO SEA*

11:00 am Landing, W. M.; Measures, C. I.; Buck, C. S.; Brown, M.: A NORTH ATLANTIC OCEAN SECTION FOR DISSOLVED FE AND AL

11:15 am Buck, C. S.; Landing, W. M.; Resing, J.; LeBon, G. T.: THE SPECIATION AND SOLUBILITY OF AEROSOL IRON AND ALUMINUM IN THE NORTH ATLANTIC OCEAN: RESULTS FROM THE 2003 CLIVAR A16N EXPEDITION

11:30 am Elrod, V. A.; Berelson, W. M.; Coale, K. H.; Johnson, K. S.: THE FLUX OF IRON FROM CONTINENTAL SHELF SEDIMENTS: A MISSING SOURCE FOR GLOBAL BUDGETS?

11:45 am Rogers, D. R.; Edwards, K. J.; Bach, W.: THE UNSEEN IRON POOL: IS THERE A BIOGEOCHEMICAL IRON CYCLE IN THE OCEAN CRUST?

1:30 pm Sohrin, Y.; Kinugasa, M.; Okamura, K.; Takeda, S.; Nishioka, J.; Tsuda, A.: DYNAMICS OF BIOACTIVE TRACE METALS DURING THE SUBARCTIC PACIFIC IRON EXPERIMENT FOR ECOSYSTEM DYNAMICS STUDY (SEEDS2001)

1:45 pm Boyd, P. W.; Hutchins, D. A.; Law, C. S.; Wilhelm, S. W.; McKay, R. M.; Frew, R. D.; Maldonado, M.; Abraham, E.; Hall, J.; Nodder, S.: FECYCLE – A SULFUR HEXAFLUORIDE LABELLED MESOSCALE STUDY OF IRON BIOGEOCHEMISTRY IN UNPERTURBED HNLC WATERS

2:00 pm Higgins, J. L.; Cumming, A.; Poorvin, L.; Hall, J. A.; Wilhelm, S. W.: VIRAL PRODUCTION RATES IN THE ANTARCTIC SUBTROPICAL CONVERGENCE: ESTIMATES OF FE REGENERATION

2:15 pm Fones, G. R.; Moffett, J. W.: ORGANIC COMPLEXATION OF SOLUBLE AND COLLOIDAL IRON THE SUBARCTIC NORTH PACIFIC AND BERING SEA

2:30 pm Mioni, C. E.; Handy, S. M.; Twiss, M. R.; Sudre, J.; Frew, R. D.; Jeffrey, W. H.; Boyd, P. W.; Garçon, V.; Wilhelm, S. W.: DEPLOYMENT OF A HETEROTROPHIC BIOLUMINESCENT BIOREPORTER TO ESTIMATE THE BIOAVAILABILITY OF IRON IN SEAWATER*

2:45 pm Orcutt, K. M.; Wells, M. L.: A LIPOSOME-BASED NANODEVICE FOR SEQUESTERING SIDEROPHORE-BOUND FE

3:30 pm Lam, P. J.; Bishop, J. K.; Waychunas, G. A.; Marcus, M. A.: IRON HOTSPOTS IN MARINE AGGREGATES OF THE SUBARCTIC PACIFIC

3:45 pm Strzepek, R. F.; Maldonado, M. T.; Boyd, P. W.; Frew, R.: UPTAKE OF IRON FROM ORGANIC COMPLEXES BY PLANKTON IN THE SOUTHERN OCEAN*

4:00 pm Shaked, Y.; Kustka, A. B.; Morel, F, M. M.: HOW DO DIATOMS ACQUIRE IRON? NEW OBSERVATIONS AND A UNIFYING MODEL

4:15 pm Castruita, M.; Saito, M.; Schottel, P. C.; Stiefel, E. I.; Morel, F. M.: CLONING AND OVEREXPRESSION OF AN IRON STORAGE PROTEIN IN TRICHODESMIUM ERYTHRAE

4:30 pm Twining, B. S.; Baines, S. B.; Fisher, N. S.; Landry, M. R.: ACCUMULATION AND REMINERALIZATION OF IRON BY PLANKTON DURING THE SOUTHERN OCEAN IRON EXPERIMENT

SS5.04:
Bioturbation: Who, When and Why?

Chair(s): C.R. Smith, csmith@soest.hawaii.edu
B.P. Boudreau, bernie.boudreau@dal.ca

Location: 317 B

10:15 am Meysman, F. J.; Boudreau, B. P.; Middelburg, J. J.: WHY DOES BIOTURBATION RESEMBLE FICKIAN DIFFUSION? *

10:30 am Reed, D.; Boudreau, B. P.; Huang, K.: BEHAVIOR OF SHORT-LIVED AND SHORT-TRANSIENT TRACERS IN A LATTICE-AUTOMATON MODEL OF BIOTURBATION

10:45 am Grigg, N. J.; Webster, I. T.; Ford, P. W.: COUPLING BIOGEOCHEMISTRY WITH BIOIRRIGATION AND BIOTURBATION IN SHRIMP BURROWS

11:00 am McCraith, B. J.; Gardner, L. R.; Wethey, D. S.; Moore, W. S.: A MODEL FOR THE EFFECT OF FIDDLER CRAB BURROWING ON SEDIMENT MIXING AND RADIONUCLIDE PROFILES IN A SOUTHEASTERN SALT MARSH

11:15 am Norling, K.; Rosenberg, R.: BIOTURBATION RATES OF BENTHIC MACROFAUNA*

11:30 am Mulsow, S.; Krieger, Y.: BIOTURBATION OR NOT BIOTURBATION: EXTREME LABILE ORGANIC LOADING IN COASTAL AREAS

11:45 am Finelli, C. M.; Stanzel, C. K.; Chauvin, D. P.; Prerost, J. E.: CAN BURROW VENTILATION BY MACRO-INFAUNA ENHANCE POREWATER FLOW: EVIDENCE FROM THE NORTHERN GULF OF MEXICO

SS5.08:
Dynamics of Dissolved Organic Material in Marine and Freshwater Environments

Chair(s): James McManus, mcmanus@coas.oregonstate.edu
James Cotner, cotne002@umn.edu

Location: 316 B

10:15 am Sharp, J. H.: UNIFORM ABILITY TO MEASURE DISSOLVED ORGANIC NITROGEN IN WATER

10:30 am Beauregard, A. Y.; Lomas, M. W.; Sharp, J. H.: ROLE OF CORAL-ZOOXANTHELLAE SYMBIOSES IN THE SEASONAL UREA CYCLE ON BERMUDA PLATFORM

10:45 am Roth, L. C.; Harvey, H. R.: DEGRADATION AND MODIFICATIONS OF DISSOLVED PROTEIN BY NATURAL MICROBIAL ASSEMBLAGES

(*) represents Invited presentations

11:00 am Voparil, I. M.; McCarthy, M. D.: RADIOCARBON AGE OF AMINO ACIDS DISSOLVED IN THE CENTRAL PACIFIC OCEAN

11:15 am Waite, A. M.; Gustafsson, O.; Lindahl, O.; Tiselius, P.: SINKING FRACTIONATION OF CARBON IN A SWEDISH FJORD

11:30 am Leonardos , N.; Geider, R. J.: INTERACTIONS OF LIGHT, NUTRIENTS AND CARBON LIMITATION ON C:N:P STOICHIOMETRY IN EMILIANIA HUXLEYI

11:45 am Kieber, D. J.; White, E. M.; Mopper, K.; Sherrard, J. C.; Miller, W. L.; Zafiriou, O. C.; Xie, H.: PHOTOCHEMICAL FORMATION OF CARBON MONOXIDE AND DISSOLVED INORGANIC CARBON IN THE DELAWARE ESTUARY AND NORTHWEST ATLANTIC OCEAN

SS5.09:
Dynamic Interactions Between Particulate and Dissolved Mineral and Organic Matter

Chair(s): Rob Armstrong, rarmstrong@notes.cc.sunysb.edu
Yoshimi Suzuki, seysuzu@ipc.shizuoka.ac.jp

Location: 316 B

1:30 pm Passow, U.: BUDGETING BIOGEOCHEMICAL CYCLES – SOME TRIPPING STONES*

1:45 pm Lee, C.; Armstrong, R. A.; Wakeham, S. G.; Cochran, J. K.; Miquel, J. C.; Masque, P.; Goutx, M.: MEDFLUX: ASSOCIATION OF ORGANIC MATTER WITH BALLAST MINERALS IN SINKING PARTICLES~

2:00 pm Azam, F.: ROLE OF BACTERIAL CELL SURFACE ENZYMES IN MODIFYING THE BIOGEOCHEMICAL BEHAVIOR OF ORGANIC MATTER IN THE OCEAN*

2:15 pm Suzuki, Y.; Haneda, A.; Fujii, M.; Smith, L.: ROLE OF DECOMPOSITION, AGGREGATION AND DISSOLUTION OF DIATOMS IN THE SINKING FLUX OF ORGANIC MATTER TO THE MESOPELAGIC LAYER

2:30 pm Casareto, B. E.; Suzuki, Y.; Niraula, M. P.; Furuta, A.: ORGANIC MATTER BEHAVIOR DURING MESOCOSM INCUBATION OF UNDISTURBED MESOPELASGIC WATERS

2:45 pm Smith, S. L.; Casareto, B. E.; Niraula, M.; Furuta, A.; Suzuki, Y.; Annan, J. D.; Hargreaves, J. C.: SIMULATIONS OF THE LOWER TROPHIC LEVEL MARINE ECOSYSTEM AND SILICON AND NITROGEN CYCLES IN INCUBATION EXPERIMENTS

3:30 pm Niraula, M. P.; Casareto, B. E.; Hanai, T.; Suzuki, Y.: FATE OF NUTRIENTS AND THE COMPOSITION AND SIZE OF PHYTOPLANKTON IN THE MESOPELAGIC WATERS OF SURUGA BAY, JAPAN, DURING INCUBATION EXPERIMENT

3:45 pm Pahlow, M.: A MODEL LINKING CHLOROPHYLL-NITROGEN DYNAMICS TO THE REDFIELD N:C RATIO

4:00 pm Skrabal, S. A.; Smith, M. L.; Kieber, R. J.; Shank, G. C.; Whitehead, R. F.: DISSOLVED COPPER IN ORGANIC-RICH ESTUARINE WATERS: INTERACTIONS OF LIGHT AND SUSPENDED SEDIMENTS IN ALTERING SPECIATION

4:15 pm Moffett, J. W.; DuPont, C. L.; Ahner, B. A.: COPPER COMPLEXATION IN THE NORTH PACIFIC AND BERING SEA: RELATION TO THIOL DISTRIBUTION AND IMPLICATIONS FOR BIOAVAILABILITY

4:30 pm Dupont, C. L.; Moffett, J. W.; Ahner, B. A.: DISSOLVED AND PARTICULATE THIOLS IN THE NORTH PACIFIC AND BERING SEA: THE POTENTIAL IMPORTANCE IN COPPER SPECIATION

SS5.10:
Marine Biodiversity and Ecosystem Functioning

Chair(s): John J. Stachowicz, jjstachowicz@ucdavis.edu
J. Emmett Duffy, jeduffy@vims.edu

Location: 323 C

10:15 am Stumm, K.; Auer, B.; Berninger, U. G.: INVESTIGATION OF THE DIVERSITY AND FUNCTION OF PROTISTS IN BENTHIC MICROBIAL FOOD WEBS

10:30 am Smith, J. E.; Conklin, E. J.: INVASIVE MACROALGAE ON HAWAII'S CORAL REEFS: INFLUENCE OF BIODIVERSITY ON INVASION SUCCESS AND ULTIMATE CONSEQUENCES TO ECOSYSTEM FUNCTION

10:45 am Irigoien, X.; Harris, R. P.; Huisman, J.: BIODIVERSITY PATTERNS OF MARINE PHYTOPLANKTON

11:00 am Modigh, M.; Carrada, G. C.; Castaldo, S.; Mangoni, O.; Saggiomo, M.; Santarpia, I.; Fabiano, M.; Misic, C.; Povero, P.; Saggiomo, V.: DIVERSITY OF MICROBIAL ASSEMBLAGES ALONG A TRANSECT FROM 42°N AND 43°S THROUGH THE INDIAN OCEAN

11:15 am Franck, V. M.: A TRANSECT OF SILICA PRODUCTION ACROSS THE NORTH PACIFIC GYRE

11:30 am Kamenir , Y. G.; Dubinsky, Z.; Zohary, T.: SIZE STRUCTURE STABILITY OF PHYTOPLANKTON IN A MESO-EUTROPHIC SUBTROPICAL LAKE

11:45 am Button, D. K.: NUTRIENT-BIOMASS EQUILIBRIA, COMPROMISING FOR SUCCESS

1:30 pm Zhang, Y. P.; Stocks, K. I.; Grassle, J. F.: THE OCEAN BIOGEOGRAPHIC INFORMATION SYSTEM AS A RESOURCE FOR OCEAN RESEARCH AND MANAGEMENT

1:45 pm Allen-Requa, L. C.; Edmunds, P. J.: THE RESPONSE OF JUVNENILE CORALS TO MICROENVIRONMENTAL CONDITIONS CREATED BY MACROALGAE

2:00 pm Yoshioka, P. M.: BEDLOAD PREVENTS CORAL REEF DEVELOPMENT IN CARIBBEAN 'HARD GROUND' HABITATS

2:15 pm Schoch, G. C.; Dethier, M. N.; Berry, H.; Ruesink, J.: THE CONSEQUENCES OF SCALE: ASSESSING THE DISTRIBUTION OF BENTHIC POPULATIONS IN A COMPLEX ESTUARINE FJORD

2:30 pm Wing, S. R.; Frew, R. D.: FOODWEB STRUCTURE AND CARBON FLUX IN THE NEW ZEALAND FJORDS

2:45 pm Thorne, R. E.; Thomas, G. L.: INTERRELATIONSHIPS BETWEEN PACIFIC HERRING IN PRINCE WILLIAM SOUND AND THE ABUNDANCE AND FORAGING BEHAVIOR OF SELECTED MARINE MAMMALS AND BIRDS

3:30 pm Smith, C. R.; Baco, A. R.; Hannides, A.: DEAD WHALES, ROTTING WOOD AND PUTRID KELP: BIOGENIC CHEMOSYNTHETIC HABITATS AT THE DEEP-SEA FLOOR

3:45 pm Vetter, E. W.; Smith, C. R.: IMPACTS OF ELEVATED CO2 ON DEEP-SEA SCAVENGERS

THURSDAY

(~) represents Tutorial presentations

4:00 pm Matsumoto, G. I.; Raskoff, K. A.; Robison, B. H.; Lindsay, D. J.: TWO NOVEL SCYPHOMEDUSAE FROM THE DEEP SEA, REPRESENTING TWO NEW SUBFAMILIES WITHIN THE FAMILY ULMARIDAE

SS6.05:
Ocean Observing Systems: Novel Approaches to Studying and Monitoring Large Marine Ecosystems and Their Living Resources

Chair(s): Charles Greene, chg2@cornell.edu

Location: 316 A

10:15 am Greene, C. H.: A BIOACOUSTIC OCEAN OBSERVATORY ON HAWAI'I ISLAND

10:30 am Holland, K. N.: SONIC TELEMETRY IN MARINE FISHES: PAST, PRESENT AND FUTURE ˜

11:00 am Clark, T. B.: REMOTE TRACKING OF THE MANTA RAY (MANTA BIROSTRIS) IN HAWAII

11:15 am Jaffe, J. S.; Holland, K. N.: TOWARDS A SMART FAD: MONITORING PELAGIC FISH WITH A SCANNING SONAR*

11:30 am Benoit-Bird, K. J.; Au, W. W.: OBSERVING THE DIEL MIGRATION DYNAMICS OF AN ISLAND-ASSOCIATED SOUND-SCATTERING LAYER

11:45 am Costa, D. P.; Hofman, E.; Klinck, J. M.; Tremblay, Y.; Burns, J. M.; Crocker, D. E.; Fedak, M. E.: MARINE MAMMALS AS OCEANOGRAPHERS*

1:30 pm Polovina, J. J.; Howell, E.; Seki, M.; Hawn, D.: OBSERVING ECOSYSTEMS WITH SATELLITE REMOTELY SENSED OCEANOGRAPHIC DATA AND FLEETS OF ANIMALS WITH ELECTRONIC TAGS

1:45 pm McGarry, L. P.; Rau, A. V.: BLUE WHALE FORAGING DIVES WITHIN DENSE KRILL SOUND-SCATTERING LAYERS OF THE MONTEREY BAY SUBMARINE CANYON

2:00 pm Teo, S. L.; Boustany , A.; Blackwell, S.; Walli, A.; Weng, K. C.; Block, B. A.: VALIDATION OF GEOLOCATION ESTIMATES BASED ON LIGHT LEVEL AND SEA SURFACE TEMPERATURE FROM ELECTRONIC TAGS*

2:15 pm Basedow, S. L.; Edvardsen, A.; Tande, K. S.: TOWARDS SATELLITE BASED LOCATING OF COPEPODS

2:30 pm Churnside, J. H.; Demer, D. A.; Hunter, J. R.; Griffith, D. A.: RESULTS OF A LARGE-AREA FISH LIDAR SURVEY IN THE NE PACIFIC

2:45 pm Guttormsen, M. A.; Wilson, C. D.; Churnside, J. H.; Brown, E. D.: A COMPARISON OF LIDAR AND ECHOSOUNDER MEASUREMENTS OF FISH AGGREGATIONS IN THE GULF OF ALASKA

3:30 pm Kiyofuji, H.; Saitoh, S.: DETECTION OF POSSIBLE JAPANESE COMMON SQUID MIGRATION ROUTES IN THE SEA OF JAPAN FROM NIGHTTIME VISIBLE IAMGES

3:45 pm Wehde, H.; Petersen, W.; Petschatnikov, M.; Schroeder, F.; Colijn, F.: DEVELOPMENT AND DISTRIBUTION OF PLANKTON OBSERVED WITH A FERRYBOX SYSTEM FOR MONITORING COASTAL WATERS

4:00 pm Haddock, S. H.; Herren, C. M.; Brewster, J.; Orrico, C. M.; Case, J. F.: DISTRIBUTION OF BIOLUMINESCENCE AND ZOOPLANKTON IN MONTEREY BAY, CALIFORNIA

4:15 pm Mitchell, M. R.: CANADA'S ATLANTIC ZONE MONITORING PROGRAM: A MULTIDISCIPLINARY COASTAL OCEAN OBSERVING SYSTEM

4:30 pm Stabenau, E. R.; Zanardi-Lamardo, E.; Moore, C. A.; Zika, R. G.; Kearns, E. J.: INTERNATIONAL OCEANOGRAPHIC AND METEOROLOGICAL MONITORING NETWORK EXPANSION AND NEW APPLICATIONS

SS7.02:
Hyperspectral Signatures of Case 2 Waters

Chair(s): Robert Arnone, arnone@nrlssc.navy.mil

Location: 319 A-B

10:15 am Gitelson, A. A.; Dall'Olmo, G.: CHARACTERISTICS OF THE REFLECTANCE PEAK AROUND 700 NM IN PRODUCTIVE TURBID WATERS – CONSEQUENCES OF VARIATION IN CONSTITUENT CONCENTRATIONS

10:30 am Dierssen, H. M.; Ryan, J. P.; Kudela, R. M.; Zimmerman, R. C.; Bissett, W. P.; Steward, R. G.; Kohler, D. D.; Moline, M. A.: HYPERSPECTRAL SIGNATURES AND REMOTE SENSING OF A RED TIDE EVENT IN MONTEREY BAY USING AVIRIS AND PHILLS2 AIRBORNE IMAGERY*

10:45 am Lohrenz, S. E.; Kirkpatrick, G. J.; Schofield, O. M.; Mahoney, K. L.; Kerfoot, J.; Lee, Z. P.: HYPERSPECTRAL ASSESSMENT OF BLOOM EVENTS OF THE HARMFUL ALGA, KARENIA BREVIS

11:00 am Gege, P.; Albert, A.: WASI - A TOOL FOR AUTOMATIC ANALYSIS OF SPECTRAL SIGNATURES OF DEEP AND SHALLOW WATERS

11:15 am Gallagher, L.; Telmer, K.; Costa, M.; Piller, C.: FLUXES FROM LAND TO SEA: OPTICAL PROPERTIES AND GEOCHEMISTRY OF INLAND AND COASTAL WATERS IN BRITISH COLUMBIA, CANADA

11:30 am Del Vecchio, R.; Subramaniam, A.: SPATIAL AND TEMPORAL VARIABILITY OF THE OPTICAL PROPERTIES OF CHROMOPHORIC DISSOLVED ORGANIC MATTER (CDOM) IN THE WESTERN TROPICAL ATLANTIC OCEAN

11:45 am Subramaniam, A.; Del Vecchio, R.; Carpenter, E.; Capone, D.: EFFECTS OF THE AMAZON RIVER PLUME ON PHYTOPLANKTON SPECIES COMPOSITION IN THE WESTERN TROPICAL ATLANTIC OCEAN (WEQAT)

SS8.03:
Operational Fisheries Oceanography

Chair(s): Mitchell A. Roffer, roffers@bellsouth.net

Location: 318 A-B

10:15 am Sharp, G. D.: THE APPLIED SCIENCE OF FISHERIES OCEANOGRAPHY, WHERE AWAY?˜

10:45 am Hyder, P.; Bigelow, K. A.: MIGRATION AND ABUNDANCES OF BIGEYE TUNA (THUNNUS OBESUS) INFERRED FROM CATCH RATES AND THEIR RELATION TO VARIATIONS IN THE OCEAN ENVIRONMENT

11:00 am Langley, A. D.: THE INFLUENCE OF OCEAONGRAPHIC CONDITIONS ON THE LONGLINE CATCH RATE OF ALBACORE TUNA IN THE SUBEQUATORIAL REGION OF THE SOUTH PACIFIC

11:15 am Mitchum, G.; Polovina, J.; Holland, C.: INTERANNUAL VARIABILITY OF SWORDFISH CATCH NORTH OF HAWAII

11:30 am Zeidberg, L. D.; Hamner, W. M.; Nezlin, N.; Henry, A.: THE CALIFORNIA MARKET SQUID, LOLIGO OPALESCENS, FISHERY 1981-2002

THURSDAY

(*) represents Invited presentations

11:45 am Walli, A. G.; Block, B. A.; Teo, S. L.; Boustany, A.; Dewar, H.; Farwell, C.; Williams, T.; Prince, E.: ELECTRONIC TAGGING OF ADOLESCENT AND MATURE WEST ATLANTIC BLUEFIN TUNA (THUNNUS THYNNUS)*

1:30 pm Roffer, M. A.: GAINS AND SACRIFICES OF USING DIFFERENT SCALES OF DATA IN FISHERIES OCEANOGRAPHIC ANALYSES

1:45 pm Thomas, G. L.; Bakun, A.; Thorne, R. E.: REDEFINING THE ROLE OF OPERATIONAL FISHERIES OCEANOGRAPHY IN MARINE ECOSYSTEM OBSERVING PROGRAMS *

2:00 pm Humston, R.; Newlands, N. K.; Ault, J. S.; Luo, J.; Larkin, M. F.: SPATIAL MODELING OF FISH DISTRIBUTION AND ABUNDANCE: RESOLVING BEHAVIORAL RESPONSES OF FISH TO CHANGES IN THE INSHORE MARINE ENVIRONMENT.*

2:15 pm Fiechter, J.; Mooers, C. N.: NUMERICAL SIMULATIONS OF FLORIDA CURRENT FRONTAL EDDIES WITH IMPLICATIONS FOR MESOSCALE BIOPHYSICAL PROCESSES AND FISHERIES OCEANOGRAPHY

2:30 pm Hammann, M. G.; Stathoplos, L.: ORBIMAGE'S OPERATIONAL FISHERIES OCEANOGRAPHY AND VESSEL MONITORING SERVICES FOR FISHERMEN, FLEET MANAGERS AND RESOURCE MANAGERS*

2:45 pm Gertseva, V. V.; Wainwright, T. C.; Gertsev, V. I.: MATHEMATICAL MODEL OF JUVENILE SALMON SURVIVAL IN COASTAL WATERS OFF OREGON

3:30 pm Wilson, D. R.; Zimmerman, C. E.; Richards, P.; Tingey, T.; Nielsen, J. L.: USE OF ACOUSTIC TAGS AND MOORED-RECIEVERS TO DESCRIBE BEHAVIOR AND FRESHWATER TO MARINE MIGRATION OF POST-SPAWN STEELHEAD, NINILCHIK RIVER, ALASKA.*

3:45 pm Simpfendorfer, C. A.; Heupel, M. R.: REFINING SHARK STOCK ASSESSMENTS USING TELEMETRY DATA

4:00 pm Wilson, C. D.; Hollowed, A. B.; Shima, M.; Walline, P.; Stienessen, S. C.: INTERACTIONS BETWEEN COMMERCIAL FISHING AND WALLEYE POLLOCK

4:15 pm Mora, C.; Chittaro, P. M.; Sale, P. F.; Kritzer, J. P.; Ludsin, S. A.: DETERMINANTS OF DIVERSITY PATTERNS OF CORAL REEF FISHES*

4:30 pm Eckert, G. L.: DUNGENESS CRAB LARVAL AND SETTLER ABUNDANCE IN AN ALASKAN MARINE RESERVE

(~) represents Tutorial presentations

Friday, February 20, 2004

SS10.01:
Webs and Scales

Chair(s): G.-A. Paffenhofer, cmp@skio.peachnet.edu
C.B. Miller, cmiller@oce.orst.edu

Location: 314

8:30 am Dam, H. G.; McManus, G. B.; Smith, A. N.: MESOZOOPLANKTON-INDUCED TROPHIC CASCADE EFFECT ON PICOPLANKTON IN THE NORTHEAST ATLANTIC

8:45 am Jiang, H.; Paffenhöfer, G. A.: RELATION OF BEHAVIOR OF COPEPOD JUVENILES TO POTENTIAL PREDATION BY OMNIVOROUS COPEPODS: AN EMPIRICAL-MODELING STUDY

9:00 am Tönnesson, K.; Tiselius, P.: FEEDING OF CARNIVOROUS ZOOPLANKTON IN THE SKAGERRAK DURING TWO SEASONS

9:15 am Durbin, E. G.; Casas, M. C.: SPATIAL VARIABILITY OF COPEPODS ON GEORGES BANK IS CONTROLLED BY PHYSICAL PROCESSES AND LIFE HISTORY CHARACTERISTICS *

9:30 am Towanda, T.; Thuesen, E. V.: THE SYMBIOTIC ASSOCIATION OF THE GRACEFUL CRAB (CANCER GRACILIS) AND THE FRIED EGG JELLYFISH (PHACELLOPHORA CAMTSCHATICA) IN PUGET SOUND

10:15 am Taylor, L. E.; Shellito, S. M.; Jumars, P. A.: SPATIAL COHERENCE OF ESTUARINE EMERGENCE PATTERNS

10:30 am Strzelecki,, J.; Koslow, , A. J.; Ashrafi, B.; Muhling, B.; Paterson, H.; Pearce, A.; Pesant, S.: ZOOPLANKTON DISTRIBUTION IN COASTAL AND OCEANIC WATERS IN THE INDIAN OCEAN OFF SOUTH WEST OF AUSTRALIA

10:45 am Sato, R.; Dagg, M. J.: DISTRIBUTION, SPECIES COMPOSITION AND PRODUCTION OF APPENDICULARIANS IN THE NORTHERN GULF OF MEXICO

11:00 am Pieper, R. E.; Holliday, D. V.; Greenlaw, C. F.; McGehee, D. E.: MEASURING SPATIAL AND TEMPORAL SCALES OF ZOOPLANKTON DISTRIBUTIONS USING HIGH-FREQUENCY ACOUSTICS: METHODS, BENEFITS AND LIMITS

11:15 am Kleppel, G. S.; Paerl, H. W.: IMPLICATIONS OF TEMPORAL, SPATIAL AND NUTRITIONAL VARIABILITY TO PLANKTON COMMUNITY FUNCTION IN PAMLICO SOUND, NORTH CAROLINA*

11:30 am Head, E. J.: EXCEPTIONAL HADDOCK RECRUITMENT ON THE SCOTIAN SHELF: CAN A MISMATCH BE BETTER THAN A MATCH?*

11:45 am Donaghay, P. L.; Holliday, D. V.; Rines, J. E.; Sullivan, J. M.: MECHANISMS CONTROLLING THE DYNAMICS AND IMPACTS OF THIN LAYERS*

SS2.07:
PARADIGM: The Partnership for Advancing Interdisciplinary Global Modeling

Chair(s): Lewis M. Rothstein, lrothstein@gso.uri.edu

Location: 317 A

8:30 am Doney, S. C.; Jenkins, W. J.: THE SUBTROPICAL NUTRIENT SPIRAL

8:45 am Cullen, J. J.; Brown, C.; Davis, R. F.; Dowd, M.; Huot, Y.; Kirchhoff, S.; Lehmann, M. K.; Normandeau, C.; Schallenberg, C.: OPTICAL PROXIES OF BIOLOGICAL PROPERTIES FOR ASSIMILATION INTO MODELS OF ECOSYSTEM DYNAMICS

9:00 am Spitz, Y. H.; Abbott , M. R.; Richman, J. G.; Miller, R. N.: IMPACT OF SURFACE CHLOROPHYLL-A FROM SATELLITE REMOTE-SENSED OBSERVATIONS ON IMPROVING ECOSYSTEM MODELS

9:15 am McGillicuddy, D. J.; Anderson, L. A.; Doney, S. C.; Maltrud, M. E.: EDDY-DRIVEN SOURCES AND SINKS OF NUTRIENTS IN THE UPPER OCEAN: RESULTS FROM A 0.1 DEGREE RESOLUTION MODEL OF THE NORTH ATLANTIC

9:30 am Fennel, K.; Wilkin, J.; Goodman, P.; Haidvogel, D.: NITROGEN AND CARBON BUDGETS FOR THE NE U.S. CONTINENTAL SHELVES – A COUPLED PHYSICAL-BIOLOGICAL MODELING STUDY

10:15 am Voelker Christoph, C.; Denman, Kenneth L., K. L.: MODELLING SILICON DYNAMICS AT STATION P IN THE SUBARCTIC PACIFIC

10:30 am Dutkiewicz, S.; Parekh, P.; Follows, M.: SENSITIVITY OF AN ECOSYSTEM MODEL TO AEOLIAN FLUXES OF IRON

10:45 am Lehmann, M. K.; Edwards, A. M.; Gentleman, W.; Cullen, J. J.: DYNAMICS OF A SIZE-STRUCTURED MODEL OF PLANKTON ECOSYSTEMS WITH FLUCTUATING ENVIRONMENTAL FORCING

11:00 am Kindle, J. C.; Metzger, E. J.; deRada, S.; Shulman, I.: HIGH RESOLUTION MODELING OF THE NORTH PACIFIC AND ALONG THE US WEST COAST USING A NESTED HYCOM MODEL

11:15 am Olascoaga, M. J.; Chassignet, E.; Kindle, J.; Wallcraft, A.: SENSIVITY OF BIOPHYSICAL MODELING TO MODEL'S VERTICAL COORDINATE REPRESENTATION

11:30 am Daniels, R. M.; Ducklow, H. W.; Richardson, T. L.; Jackson, G. A.; Roman, M. R.; Fraser, W. R.; Ross, R. M.; Quetin, L. B.: INVERSE MODEL ANALYSIS OF PLANKTON FOOD WEBS IN THE NORTH ATLANTIC AND WESTERN ANTARCTIC PENINSULA

11:45 am Cahill, B. E.; Rothstein, L. M.; Durbin, E. G.: A REGIONAL INTERCOMPARISON BETWEEN TWO SHELF ECOSYSTEMS IN THE NORTH ATLANTIC: A DIAGNOSIS OF THE SEASONAL CYCLE IN THE IRISH SHELF SEAS

FRIDAY

(*) represents Invited presentations

SS2.11:
The Newest Generation of Deep Sea Exploration

Chair(s): Stephen R. Hammond, stephen.r.hammond@noaa.gov
Margot Bohan, margot.bohan@noaa.gov

Location: 323 C

8:30 am Hammond, S. R.: THE NEWEST GENERATION OF DEEP SEA EXPLORATION

8:45 am Keener-Chavis, P.: ENHANCING ENVIRONMENTAL LITERACY THROUGH NOAA OCEAN EXPLORATION

9:00 am Fisher, C. R.; Cordes, E. E.; Predmore, B. L.; Redding, M. L.; Hourdez, S. M.; Carney, R. S.; Young, C. M.: EXPLORATION, BIOGEOGRAPHY AND BIODIVERSITY OF COLD SEEP FAUNA IN THE GULF OF MEXICO

9:15 am Ruppel, C.; Hornbach, M. J.; Holbrook, W. S.; Van Dover, C. L.: OCEAN EXPLORATION OF GAS HYDRATE-RELATED ECOSYSTEMS ON THE BLAKE RIDGE: PHYSICAL PREDICTORS FOR BIOLOGICAL SYSTEMS

9:30 am Carney, R. S.: EXPLORING WITH THE VALJEUX EXPERIMENT: PROOF OF METHOD AND INITIAL LARGE-SCALE DEPLOYMENT OF SEEP-SIMULATING SULFIDE BIOGENERATORS *

10:15 am Shank, T. M.; Reysenbach, A. L.: EMERGING GEOBIOLOGICAL PATTERNS OF FAUNAL EVOLUTION AND MICROBIAL DIVERSITY IN DEEP-SEA CHEMOSYNTHETIC ECOSYSTEMS: WHERE TO NEXT?*

10:30 am Widder, E. A.; Robison, B. H.: EYE-IN-THE-SEA: A DEEP SEA OBSERVATORY FOR UNOBTRUSIVE OBSERVATIONS OF ANIMAL BEHAVIOR*

10:45 am Vecchione, M.; Wilson, R. R.; Gebruk, A.: IN-SITU OBSERVATIONS ON NEKTON AND EPIBENTHIC MEGAFAUNA OF THE CHARLIE GIBBS FRACTURE ZONE, MID-ATLANTIC RIDGE.*

11:00 am Raskoff, K. A.; Hopcroft, R. R.; Purcell, J. E.; Youngbluth, M. J.: GELATINOUS ZOOPLANKTON OF THE ARCTIC OCEAN: IN SITU ROV OBSERVATIONS UNDER THE ICE

11:15 am Robison, B. H.; Reisenbichler, K. R.; Sherlock, R. E.; Osborn, K. J.: EXPLORING THE GULF OF CALIFORNIA: THE INFLUENCE OF THE OXYGEN MINIMUM LAYER ON MIDWATER ECOLOGY*

11:30 am Sutton, T. T.: TROPHIC ECOLOGY OF THE DEEP-SEA FISH MALACOSTEUS NIGER: AN ENIGMATIC FEEDING STRATEGY SUPPLIES CHLOROPHYLL FOR VISION?

11:45 am Baguley, J. G.; Montagna, P. A.: PHYSICAL-BIOLOGICAL INTERACTIONS CONTROLLING MEIOFAUNA STANDING STOCKS IN THE NORTHERN GULF OF MEXICO DEEP SEA

SS4.02:
Ecology and Physiology of Marine Organisms: Insights from Genes, Genomes, and Proteomes

Chair(s): Bethany D. Jenkins, bjenkins@es.ucsc.edu
Jackie L. Collier, jcollier@notes.cc.sunysb.edu

Location: 316 C

8:30 am Karl, D. M.: A NOVEL, EMERGENT PARADIGM FOR THE ECOLOGY OF MARINE PICOPLANKTON*

8:45 am Simu, K. M.; Hagström, Å. F.: OLIGOTROPHIC BACTERIOPLANKTON WITH A NOVEL SINGLE-CELL LIFE STRATEGY

9:00 am Kolber, Z. S.; Haffa, A.; Koblizek, M.; Klimov, D.: EFFICIENCY OF PHOTOSYNTHETIC LIGHT UTILIZATION IN AEROBIC ANOXYGENIC PHOTOHETEROTROPHS (AAPS)

9:15 am Goericke, R.: THE ABUNDANCE AND DISTRIBUTION OF BACCHL A IN THE TEMPERATE, SUBTROPICAL AND TROPICAL PACIFIC*

9:30 am Waidner, L. A.; Cottrell, M. T.; Kirchman, D. L.: UNIQUE ANOXYGENIC PHOTOSYNTHESIS GENES AND OPERONS IN UNCULTURED BACTERIA IN THE DELAWARE ESTUARY

10:15 am Sieracki, M. E.; Gilg, I. C.; Thier, E. C.; Poulton, N. J.: DISTRIBUTIONS OF AEROBIC, ANOXYGENIC PHOTOHETEROTROPHIC BACTERIA CELLS AND BIOMASS IN THE NORTHWEST ATLANTIC OCEAN*

10:30 am Fuhrman, J. A.; Hewson, I.; Schwalbach, M.; Brown, M.: TEMPORAL AND GEOGRAPHIC PATTERNS OF MARINE BACTERIAL COMMUNITY COMPOSITION

10:45 am Thompson, J. R.; Randa, M. A.; Marcelino, L. A.; Tomita-Mitchell, A.; Lim, E.; Polz, M. F.: DIVERSITY AND DYNAMICS OF A NORTH ATLANTIC COASTAL VIBRIO COMMUNITY

11:00 am Wommack, K. E.; Chen, F.: DIVERSITY AND COMMUNITY COMPOSITION OF VIRIOPLANTKTON OVER AN ANNUAL BIOLOGIAL CYCLE OF THE CHESAPEAKE BAY.

11:15 am Malmstrom , R. R.; Kiene, R. P.; Cottrell, M. T.; Kirchman, D. L.: CONTRIBUTION OF SAR11 BACTERIA TO DISSOLVED ORGANIC MATTER FLUX IN THE NORTH ATLANTIC OCEAN

11:30 am Teira, E.; Herndl, G. J.: UPTAKE OF D- VS. L- AMINO ACIDS BY THE MAIN PROKARYOTES IN THE MESO- AND BATHYPELAGIC WATERS OF THE NORTH ATLANTIC

11:45 am Evans, C. T.; Van Mooy, B.; Keil, R. G.; Greengrove, C.; Chin-Leo, G.: ISOLATION OF DNA FROM ACTIVELY GROWING HETEROTROPHIC BACTERIA USING 5-BROMO-2'-DEOXYURIDINE (BRDU)

SS5.03:
The Biogeochemical Cycling of Iron in the Ocean – From Genes to Gyres

Chair(s): Philip Boyd, pboyd@alkali.otago.ac.nz
Mike McKay, rmmckay@bgnet.bgsu.edu
Steve Wilhelm, wilhelm@utk.edu
Russell Frew, rfrew@alkali.otago.ac.nz

Location: 315

8:30 am Kustka, A.; Milligan, A.; Morel, F. M.: INVESTIGATING THE REDUCTIVE MECHANISM OF FE ACQUISITION BY MARINE DIATOMS

8:45 am Maldonado, M. T.; Chong, J.; Leus, D.; Karpenko, N.; Harris, S. L.: THE ROLE OF COPPER IN THE HIGH-AFFINITY IRON TRANSPORT SYSTEM OF MARINE DIATOMS

9:00 am Wells, M. L.; Trick, C. G.; Hughes, M. P.: THE SYNERGY OF IRON, COPPER AND THE TOXICITY OF DIATOMS*

9:15 am Trick, C. G.; Wells, M. L.; Cochlan, W.; Pickell, L.; McClintock, L.; Ladizinsky, N. C.: IRON LIMITATION AND COPPER EFFECTS IN THE JUAN DE FUCA EDDY

9:30 am Harris, S. L.; Maldonado, M. T.: COPPER REQUIREMENTS OF FE-LIMITED COASTAL AND OCEANIC DIATOMS

FRIDAY

(–) represents Tutorial presentations

10:15 am Armstrong, R. A.: AN OPTIMALITY-BASED MODEL OF IRON:NITROGEN:LIGHT LIMITATION OF PHYTOPLANKTON GROWTH AND CHLORPHYLL:CARBON RATIO

10:30 am Weber, L.; Voelker, C.; Schartau, M.; Oschlies, A.; Wolf-Gladrow, D. A.: THE IRON SPECIATION IN THE OCEANIC MIXED LAYER: A MODELING PERSPECTIVE

10:45 am Parekh, P.; Follows, M. J.; Boyle, E. A.: DECOUPLING OF FE AND PHOSPHATE IN THE GLOBAL OCEAN

11:00 am Hutchins, D. A.; Hare, C. E.; DiTullio, G. R.; Leblanc, K.; Hall, J.; Crossley, A. C.; Frew, R.: SIMULATING NATURAL IRON INPUTS TO THE SOUTHERN OCEAN USING A SHIPBOARD CHEMOSTAT SYSTEM

11:15 am Twiss, M. R.; Gouvêa, S. P.; McKay, R. M.; Wilhelm, S. W.; Mistry, A.; Patey, T. D.; Polet, D.: RESPONSES OF PELAGIC GREAT LAKES PHYTOPLANKTON COMMUNITIES TO TRACE METAL (FE, CO, CD, ZN) ENRICHMENTS

11:30 am Saito, M. A.; Xu, Y.; Wisniewski, R.; Wallsgrove, R. J.; Moffett, J. W.; Popp, B. N.: IRON AND COBALT CO-LIMITATION IN THE CENTRAL NORTH PACIFIC AND THE BERING SEA

11:45 am Leblanc, K.; Hare, C.; Boyd, P.; Ellwood, M.; Lohan, M.; Buck, K.; Bruland, K.; Hutchins, D.: FE AND ZN IMPACT ON PHYTOPLANKTON GROWTH IN TWO HNLC SYSTEMS IN THE PACIFIC SUB-ANTARCTIC AND SUB-ARCTIC REGIONS

SS6.03:
Analysis of Zooplankton Distributions Using the Optical Plankton Counter

Chair(s): Henry A. Vanderploeg, Henry.Vanderploeg@noaa.gov
Michael R. Roman, roman@hpl.umces.edu

Location: 316 B

8:30 am Herman, A.: TWO GENERATIONS OF THE OPTICAL PLANKTON COUNTER: EVOLUTION, APPLICATIONS AND FUTURE DIRECTIONS~

9:00 am Vanderploeg, H. A.; Liebig, J. R.; Cavaletto, J. F.; Lang, G. A.: FACTORS AFFECTING THE PERFORMANCE OF THE OPTICAL PLANKTON COUNTER IN LARGE LAKES: INSIGHTS FROM LAKE MICHIGAN*

9:15 am Remsen, A. W.; Hopkins, T. L.; Samson, S.: UNDERSTANDING OPC SAMPLING PERFORMANCE USING AN IN-SITU IMAGING SYSTEM

9:30 am Edvardsen, A.; Fossheim, M.: OPC SIZE SIGNATURES OF LIVE ZOOPLANKTON

10:15 am Hopcroft, R. R.; Robison, B. H.: PARTICLE SIZE-SPECTRA IN MESOPELAGIC WATERS OF MONTEREY BAY, CALIFORNIA

10:30 am Huntley, M. E.; Zhou, M.: SEASONAL DYNAMICS AND ECOSYSTEM IMPACT OF ZOOPLANKTON IN THE OLIGOTROPHIC PACIFIC OCEAN, ESTIMATED FROM OPTICAL PLANKTON COUNTER

10:45 am Kimmel, D. G.; Zhang, X.; Roman, M. R.; Boicourt, W. C.: SPATIAL AND TEMPORAL VARIABILITY OF MESOZOOPLANKTON BIOMASS SIZE SPECTRA IN CHESAPEAKE BAY AS MEASURED BY AN OPTICAL PLANKTON COUNTER

11:00 am Zhang, X.; Roman, M.; McGilliard, C.; Boicourt, W.: TEMPORAL AND SPATIAL VARIABILITY IN PATTERNS, COHERENCE AND COVARIANCE OF HYDROGRAPHIC VARIABLES AND ZOOPLANKTON BIOMASS ALONG THE AXIS OF THE CHESAPEAKE BAY

11:15 am Roman, M.; Zhang, X.; Kimmel, D.; Spear, A.; Boicourt, W.: OPTICAL, ACOUSTIC AND NET ESIMATES OF ZOOPLANKTON BIOMASS IN THE GULF OF MEXICO: PATTERNS OF ZOOPLANKTON BIOMASS AND ITS RELATION TO HYDROGRAPHIC VARIABLES

11:30 am Sprules, W. G.: EFFECTS OF SPATIAL DISTRIBUTIONS ON TROPHIC EFFICIENCIES: AN APPROACH USING AN OPTICAL PLANKTON COUNTER*

11:45 am Checkley, D. M.; Powell, J.: USE OF THE IN-SITU OPTICAL PLANKTON COUNTER IN CALCOFI 1998 TO PRESENT

SS6.05:
Ocean Observing Systems: Novel Approaches to Studying and Monitoring Large Marine Ecosystems and Their Living Resources

Chair(s): Charles Greene, chg2@cornell.edu

Location: 316 A

8:30 am Skirving, W. J.; Steinberg, C. R.; Heron, S. F.: THE HYDRODYNAMICS OF A CORAL BLEACHING EVENT

8:45 am Hochberg, E. J.; Atkinson, M. J.: SPECTRAL REFLECTANCE OF CORAL, ALGAE AND SAND AND IMPLICATIONS FOR CORAL REEF REMOTE SENSING

9:00 am Gilbes, F.; Arce, J.: REMOTE SENSING OF BENTHIC HABITATS IN SOUTHWESTERN PUERTO RICO

9:15 am Beuchel, F.; Gulliksen, B.: MONITORING OF ROCKY-BOTTOM MACROBENTHIC COMMUNITIES USING DIGITAL IMAGE ANALYSIS: TEMPORAL AND SPATIAL CHANGES

9:30 am Fowler, C.; Nichols, N.; Cohen, A.; Singh, H.: THREE-DIMENSIONAL ANALYSIS OF CORAL GROWTH USING COMPUTER TOMOGRAPHY

10:15 am Reysenbach, A. L.; Page, A.; Tivey, M. K.; Stakes, D.; Bradley, A.; Seewald, J.; Koski, R. A.; Wheat, G.; Leg 2 GOC Scientific Party, .: THE USE OF THERMOCOUPLE ARRAYS TO INVESTIGATE THE MICROBIAL COLONIZATION WITHIN ACTIVELY FORMING CHIMNEY DEPOSITS IN GUAYMAS BASIN

10:30 am Gallager, S. M.; Whelan, J.: THE NEXT GENERATION OF IN SITU BIOLOGICAL AND CHEMICAL SENSORS IN THE OCEAN: A WORKSHOP REPORT WITH RECCOMMENDATIONS

11:00 am Blackwell, S. M.; Moline, M. A.; Chao, Y.; Terrill, E.: SIMULTANEOUS ASSESSMENT OF RELATIVE AUTOTROPHY AND HETEROTROPHY IN COASTAL REGIMES

11:15 am Farmer, A. S.; Fries, D.; Paul, J.; Smith, M.; Gonzalez, G.: A TUNABLE AUTOMATED NUCLEIC ACID SENSOR

11:30 am Melrose, D. C.; Oviatt, C. A.; O'Reilly, J. E.; Berman, M. S.: UNDERWAY PROFILING OF PHOTOSYNTHESIS IN NARRAGANSETT BAY, RI USING A FAST REPETITION RATE FLUOROMETER

FRIDAY

(*) represents Invited presentations

SS6.09:
Assimilation of Observing System Data into Ocean Models

Chair(s): Gregg A. Jacobs, jacobs@nrlssc.navy.mil
Christopher N.K. Mooers, cmooers@rsmas.miami.edu

Location: 319 A-B

8:30 am Barron, C. N.; Rhodes, R. C.; Rowley, C. D.; Smedstad, L. F.; Kara, A. B.; Dastugue, J. M.: OPERATIONAL GLOBAL OCEAN ASSIMILATION AND MODELING WITH THE NAVY COASTAL OCEAN MODEL

8:45 am Robinson, A. R.; Bellingham, J. G.; Chao, Y.; Chavez, F.; Davis, R. E.; Fratantoni, D.; Haddock, S.; Leonard, N. E.; McManus, M. A.; Paduan, J.; Ramp, S.; Bachmayer, R.; Bhatta, P.; Chandler, P.; Choi, J. K.; Fiorelli, E.; Haley, P. J.; Lermusiaux, P. F.; Leslie, W. G.; Li, Z.; Marsden, J. E.: AOSN IN MONTEREY BAY: MODELING AND PREDICTING MULTIPLE SCALES FOR ADAPTIVE SAMPLING

9:00 am Leslie, W. G.; Lermusiaux, P. F.; Evangelinos, C.; Haley, P. J.; Robinson, A. R.; Majumdar, S. J.: REAL-TIME ERROR FORECASTING, DATA ASSIMILATION AND ADAPTIVE SAMPLING IN MONTEREY BAY DURING AOSN-II USING THE ERROR SUBSPACE STATISTICAL ESTIMATION SYSTEM

9:15 am Chao, Y.; McWilliams, J. C.; Li, Z.; Choi, J.; Marchesiello, P.; Capet , X.: A REAL-TIME MODELING AND DATA ASSIMILATION SYSTEM FOR THE CENTRAL CALIFORNIA COASTAL OCEAN

9:30 am Lekien, F.; Coulliette, C.; Marsden, J.; Haller, G.: EXTRACTING CURRENTS FROM TRACER INFORMATION

10:15 am Mooers, C. N.; Bang, I.: TOWARDS DATA ASSIMILATION FOR PRINCE WILLIAM SOUND, ALASKA OCEAN CIRCULATION NOWCAST/FORECAST SYSTEM

10:30 am Rowley, C.; Cummings, J.: REGIONAL OCEAN DATA ASSIMILATION AND FORECAST MODELING USING NCODA

10:45 am Lebedev, K. V.; Yaremchuk, M. I.; Mitsudera, H.; Nakano, I.; Yuan, G.: DYNAMICALLY CONSTRAINED SYNTHESIS OF THE ACOUSTIC TOMOGRAPHY, SATELLITE ALTIMETER AND IN SITU DATA IN THE KUROSHIO EXTENSION REGION

11:00 am Mariano, A. J.; Chin, T. M.; Ozgokmen, T.: ON THE USE OF STOCHASTIC BOUNDARY CONDITIONS IN NUMERICAL CIRCULATION MODELS

11:15 am Smedstad, O. M.; Hurlburt, H. E.; Wallcraft, A. J.; Hogan, P. J.; Chassignet, E. P.; Baraille, R.: A NEAR REAL-TIME 1/12 DEGREE ATLANTIC HYCOM NOWCAST/FORECAST SYSTEM

11:30 am Rodrigues, R. R.; Wimbush, M.; Rothstein, L.: COMBINING SUBSURFACE FLOAT AND HISTORIC HYDROGRAPHIC DATA TO OBTAIN ABSOLUTE TRANSPORT POTENTIAL FOR THE BRAZIL AND SOUTH ATLANTIC CURRENTS

SS8.03:
Operational Fisheries Oceanography

Chair(s): Mitchell A. Roffer, roffers@bellsouth.net

Location: 318 A-B

8:30 am Bellucci, J. L.; Torres, J. J.; Van Vleet, E. S.; Geiger, S. P.: SEASONAL EFFECTS ON THE METABOLISM OF COPEPODS, EUPHAUSIDS AND THYSONESSIDS OFF THE WESTERN ANTARCTIC PENINSULA: RESULTS FROM ASSAYS AND RESPIRATION STUDIES

8:45 am Joppe-Mercure, K.; Durbin, E. G.: THE BAY ANCHOVY: DO THEY EXHIBIT NATAL HOMING?

9:00 am Chittaro, P. M.; Mora, C.; Usseglio, P.; Hogan , J. D.; Fryer , B. J.; Arias, E.; Sale, P. F.: USING OTOLITH CHEMISTRY TO MEASURE CONNECTIVITY AMONG FISH POPULATIONS: DIFFICULTIES ADDRESSED IN AN EXPERIMENT USING BICOLOR DAMSELFISH, STEGASTES PARTITUS

9:15 am Sohn, D.; Kim, S.; Kang, S.: STOCK IDENTIFICATION OF CHUM SALMON (ONCORHYNCHUS KETA) USING MICROCHEMISTRY OF OTOLITH

9:30 am Yang, Y. S.; Kim, S.; Kang, S.: OXYGEN STABLE ISOTOPES IN OTOLITHS OF WALLEYE POLLOCK, THERAGRA CHALCOGRAMMA AS EVIDENCE OF ENVIRONMENTAL CHARACTERISTICS

SS9.02:
Sources, Transport, and Fate of Contaminants in the Southern California Bight

Chair(s): Burton Jones, bjones@usc.edu
Libe Washburn, washburn@icess.ucsb.edu

Location: 324

8:30 am Noble, M. A.; Lee, H. J.; Xu, J. P.; Robertson, G. L.: CONTAMINANT TRANSPORT PROCESSES IN THE CENTRAL SOUTHERN CALIFORNIA BIGHT*

8:45 am Lee, H. J.; Noble, M. A.; Xu, J.; Edwards, B. D.; Alexander, C. R.: CONTAMINATED SEDIMENT TRANSPORT AND DEPOSITION IN THE LOS ANGELES URBAN OCEAN*

9:00 am Orzech, K. M.; Warrick, J. A.: DRAMATIC CHANGES IN SEDIMENT DISCHARGE AND RUNOFF FROM A RAPIDLY URBANIZING COASTAL WATERSHED

9:15 am Jones, B. H.; Noble, M.; Rosenfeld, L.; Robertson, G.: OCEAN OUTFALL PLUME VARIABILITY AND OCEAN DYNAMICS OFF HUNTINGTON BEACH, CALIFORNIA

9:30 am Hamilton, P.; Noble, M.; Largier, J.; Rosenfeld, L. K.; Robertson, G.: SUBTIDAL TRANSPORT PROCESSES ON THE SAN PEDRO SHELF DURING SUMMER, 2001

10:15 am Colbert, S. L.; Hammond, D. E.: NEARSHORE TRANSPORT RATES IN SAN PEDRO BAY DERIVED FROM THE DISTRIBUTION OF RADIUM ISOTOPES

FRIDAY

(–) represents Tutorial presentations

10:30 am Fringer, O. B.; Boehm, A.: CROSS SHELF TRANSPORT INDUCED BY INTERNAL TIDES

10:45 am Rosenfeld, L. K.; McGee, C. D.; Robertson, G. L.; Xu, J.: FECAL INDICATOR BACTERIA PATTERNS IN THE HUNTINGTON BEACH SURF ZONE

11:00 am Robertson, G. L.; McGee, C. D.; Rosenfeld, L. K.; Xu, J.: THE EFFECT OF DISINFECTION OF AN OFFSHORE OCEAN OUTFALL EFFLUENT AND SURFZONE BACTERIA LEVELS

11:15 am Xu, J. P.; Noble, M. A.; Rosenfeld, .; Robertson, G. L.; McGee, C. D.: FREQUENCY-DOMAIN CHARACTERISTICS OF SURFZONE BACTERIA, HUNTINGTON BEACH, CA

11:30 am Baumgartner, D. J.; Molina, M.; Khangaonkar, T.; Robertson, G. L.; Frick, W. E.: USING PUBLIC-DOMAIN MODELS TO ESTIMATE BEACH BACTERIA CONCENTRATIONS

11:45 am Oram, J. J.; Stolzenbach, K. D.; McWilliams, J. C.; Marchesiello, P.; Capet, X.: APPLICATION OF THE REGIONAL OCEAN MODELING SYSTEM TO ESTIMATE THE RESIDENCE TIMES AND FLUSHING RATES OF SANTA MONICA BAY, CA

FRIDAY

(*) represents Invited presentations

Posters

1. DeLorenzo, A. S.; Durbin, E. G.; Mayo, C. A.: INTERANNUAL VARIATION IN THE PHYSICAL AND BIOLOGICAL ENVIRONMENT OF CAPE COD BAY AND ITS SUITABILITY AS A RIGHT WHALE FEEDING GROUND

THEME: Mid- and High-Latitude Oceanography

SS1.01:
Shelf-Basin Interactions in the Western Arctic

2. Grebmeier, J. M.; Drobot, S.; Elfring, C.: INTERNATIONAL POLAR YEAR 2007-2008
3. Stockwell, D. A.; Gradinger, R.: EXOPOLYMERIC SUBSTANCES OVER THE WESTERN ARCTIC SHELF: A PRELIMINARY ASSESSMENT OF WATER COLUMN AND PACK ICE DISTRIBUTIONS
4. Plourde, S.; Campbell, R. G.; Ashjian, C. J.: EGG PRODUCTION AND HATCHING SUCCESS OF CALANUS GLACIALIS/MARSHALLAE: A DOMINANT COPEPOD IN THE SBI STUDY REGION DURING 2002
5. Mathis, J. T.; Swift, J. H.: SBI DATA COMPARSION FOR 2002-2003: TEMPERATURE, SALINITY, DISSOLVED OXYGEN, AND SILICATE AT REPEATED SECTIONS IN THE WESTERN ARCTIC OCEAN
6. Hill, V. J.; Cota, G. F.; Stockwell, D.: SEASONAL SUCCESSION OF PHYTOPLANKTON IN THE CHUKCHI SEA
7. Aumack, C. F.; Swift, J. H.: COMPARISON OF SHALLOW WATER NUTRIENT DYNAMICS ACROSS BARROW CANYON IN THE WESTERN ARTIC OCEAN: COMPARISON BETWEEN SBI CRUISES
8. Llinas, L.; Swift, J. H.; Smith, S. L.: WESTERN ARCTIC SURFACE SEAWATER CHARACTERIZATION DURING 2002 AND 2003 SHELF-BASIN INTERACTIONS CRUISES
9. Skogseth, R.; Fer, I.; Haugan, P. M.: DENSE-WATER PRODUCTION AND OVERFLOW FROM AN ARCTIC COASTAL POLYNYA IN STORFJORDEN (SVALBARD ARCHIPELAGO)
10. Smith, S. L.; Lane, P. V.; Llinas, L.; Pilz, D.: DISTRIBUTION AND BIOMASS OF MESOZOOPLANKTON IN THE BEAUFORT AND CHUKCHI SEAS DURING SUMMER, 2002
11. Walczowski, W.; Maslowski, W.; Dixon, J. S.; Clement, J. L.: SHELF-BASIN INTERACTIONS AND CIRCULATION IN THE WESTERN ARCTIC OCEAN: 1979-2002 MODEL RESULTS
12. Scorzetti, G.; Pilz, D.; Fell, J. W.; Smith, S. L.; Llinas, L.: MOLECULAR ANALYSES OF COPEPOD SPECIES FROM THE WESTERN ARCTIC
13. Lee, S. H.; Whitledge, T. E.: EFFECTS OF VARIABILITY IN HYDROGRAPHIC STRUCTURES ON BIOLOGICAL ACTIVITY IN BERING STRAIT OVER FOUR YEARS, 2000-2003
14. Swift, J. H.: FIRST HYDROGRAPHIC RESULTS FROM THE 2003 SBI SURVEY CRUISE
15. Etherington, L. L.; Hooge, P. N.; Hooge, E. R.: OCEANOGRAPHIC PATTERNS IN A GLACIALLY-FED FJORD ESTUARY: IMPLICATIONS FOR BIOLOGICAL PRODUCTIVITY AND HOTSPOTS

SS1.02:
Oceanography and Ecology of the Aleutian Archipelago

16. Stabeno, P. J.; Ladd, C.; Mordy, C. W.; Sullivan, M. E.: TRANSPORT THROUGH THE ALEUTIAN PASSES
17. Eisner, L. B.; Farley, E. V.; Helle, J. H.: COMPARISON OFJUVENILE SALMON DISTRIBUTIONS, WATER MASS CHARACTERISTICS AND PHYTOPLANKTON BIOMASS IN THE EASTERN BERING SEA DURING FALL 2003
18. Rooper, C. N.: DISTRIBUTION OF JUVENILE ROCKFISH OF THE ALEUTIAN ARCHIPELAGO IN RELATION TO BENTHIC HABITAT AND OCEANOGRAPHIC FEATURES
19. Mordy, C. W.; Ladd, C.; Newsome, S. D.; Stabeno, P. J.; Wisegarver, D. P.; Zeeman, S. I.: NUTRIENTS AND PRIMARY PRODUCTION ALONG THE EASTERN AND CENTRAL ALEUTIAN ISLAND ARC

SS1.04:
Integration of Meso/Sub-mesoscale Hydrodynamics and Acoustic Propagation in Continental Shelf-break Regions

20. Fox, D. N.; Gallacher, P.; Warn-Varnas, A.; Broome, R.: CLUSTER-BASED CHARACTERIZATION OF OCEAN VARIABILITY
21. Vinogradov, S.; Caruthers, J. W.; Sidorovskaia, N. A.: THE USE OF TOMOGRAPHIC DATA IN NUMERIC SIMULATION OF EDDY PROPAGATION INTO THE NORTHEASTERN GULF OF MEXICO BY ASSIMILATION INTO THE NUMERIC MODEL
22. Gallacher, P. C.; Piacsek, S.; Schaferkotter, M.: THE IMPACT ON THE SOUND SPEED FIELD OF INTERNAL BORES AND LARGE AMPLITUDE INTERNAL WAVES IN THE CONTINENTAL SHELF/SLOPE REGION
23. Shen, C. Y.; Evans, T. E.; Finette, S. I.: A TIDAL INTERNAL WAVE MODEL FOR SIMULATING SHELF-BREAK ACOUSTIC ENVIRONMENTS
24. Vinogradova, N.; Nechaev, D.: SHELF/SLOPE EXCHANGE IN THE MISSISSIPPI BIGHT: MEASUREMENTS AND MODELING
25. Bassin, C. J.; Washburn, L.; McPhee-Shaw, E.: SUB-MESOSCALE EDDIES ALONG THE NORTHERN SANTA BARBARA CHANNEL: A POSSIBLE MECHANISM FOR PARTICLE TRANSPORT ACROSS THE INNER SHELF
26. Rasmussen, L.; Gawarkiewicz, G.; Owens, B.; Buesseler, K.; Charette, M.: GULF STREAM INFLUENCE ON COASTAL BIOGEOCHEMICAL TRANSPORT IN THE MID-ATLANTIC BIGHT
27. Buckingham, C. E.: A NEW TECHNIQUE FOR THE EXAMINATION OF INTERNAL WAVE STRUCTURE

THEME: Coupled Physical-Biological Processes

SS2.02:
Biological Microscale Patterns and Processes in the Ocean: Towards a Seascape Topology

28. Vopel, K.; Thistle, D.; Ott, J. A.; Bright, M.: TITLE: WAVE-INDUCED VENTING SUSTAINS A CHEMOAUTOTROPHIC SYMBIOSIS
29. Ignoffo, T. R.; Bollens, S. M.; Bochdansky, A. B.: THE EFFECT OF THIN LAYERS ON THE VERTICAL DISTRIBUTION OF THE ROTIFER BRACHIONUS PLICATILIS

(~) represents Tutorial presentations

POSTERS

SS2.03:
Biological Adaptations to Turbulent Flow

30. Rines, J. E.; McFarland, M. N.; Donaghay, P. L.: EFFECTS OF PERSISTENT SMALL-SCALE TURBULENCE ON THE GROWTH, SIZE, MORPHOLOGY, AND INHERENT OPTICAL PROPERTIES OF THREE DIATOMS FROM THE FAMILY CHAETOCEROTACEAE

31. Larsson, A. I.; Jonsson, P. R.; Berntsson, K. M.: LARVAL SETTLEMENT AS A FUNCTION OF THE DISTRIBUTION OF INSTANTANEOUS FORCES IN A TURBULENT BOUNDARY-LAYER

32. Granhag, L. M.; Jonsson, P.: ALGAL SPORE SETTLEMENT IN THE VISCOUS SUBLAYER STUDIED WITH PARTICLE IMAGE VELOCIMETRY (PIV)

SS2.04:
Effects of Small-scale Turbulence at the Community and Ecosystem Levels

33. Jonsson, P. R.; van Duren, L. A.: MAKING WATER FLOW: THE HYDRODYNAMIC CHARACTERISTICS OF DIFFERENT BIOLOGICAL FLUME TANKS

34. Marrasé, C.; Peters, F.; Egge, J.; Jacobsen, A.; Vidal, M.; Guadayol, O.; Roldan, C.; Berdalet, E.; Stiansen, J. E.; Thingstad, T. F.: THRESHOLDS FOR PLANKTON YIELD IN COASTAL WATERS. SIGNIFICANCE OF INTEGRATED APPROACHES TO NUTRIENT INPUTS AND TURBULENCE CONDITIONS

35. Beauvais, S.; Pedrotti, M. L.: EFFECT OF TURBULENCE AND TROPHIC CONDITIONS ON THE DYNAMICS OF TRANSPARENT EXOPOLYMERIC PARTICLES (TEP): A MESOCOSM EXPERIMENT

SS2.05:
The Effect of Turbulence on Pelagic and Benthic Organisms

36. Katano, T.; Kanzaki, N.; Takeoka, H.; Nakano, S.: EFFECTS OF BOTTOM INTRUSION AND KYUCHO ON PHYTOPLANKTON ABUNDANCE AND COMPOSITION IN THE UWA SEA

37. Strother, J. A.; Koehl, M.; Reidenbach, M. A.; Koseff, J. R.; Hadfield, M. G.: EFFECTS OF TURBULENCE AND BEHAVIOR ON LARVAL SETTLEMENT IN WAVE-DRIVEN FLOW

38. Holm, H. E.; Kjerfve, B.; Heyman, W.; Requena, N.: HORIZONTAL DISPERSION OF EGGS OF CUBERA SNAPPER, LUTJANUS CYANOPTERUS, AT A REEF PROMONTORY IN BELIZE

39. Hepburn, C.; Holborow, J.; Hurd, C. L.; Wing, S. R.; Frew, R.: SEASONAL MASS-TRANSPORT LIMITED GROWTH OF THE GIANT KELP MACROCYSTIS PYRIFERA

SS2.06:
Island and Sea Mount Oceanography: Physics, Biogeochemistry and Fisheries

40. Caldeira, R. M.; Katsumata, K.; DiGiacomo, P. M.: MULTIPLATFORM APPROACH TO STUDY ISLAND OCEANOGRAPHY

41. Wiesenburg, D. A.: PHYTOPLANKTON PIGMENT DISTRIBUTIONS OVER FIEBERLING GUYOT

42. Werk, S.; Springer, B. M.; Turnewitsch, R.; Graf, G.: EVIDENCE FOR THE DEPENDENCY OF THORIUM SORPTION ON PARTICLE COMPOSITION BASED ON LABORATORY EXPERIMENTS AND FIELD DATA FROM A SEAMOUNT SYSTEM

43. Firing, J. B.; Hoeke, R.; Brainard, R.: SURFACE VELOCITY AND PROFILING DRIFTERS TRACK POTENTIAL LARVAL PATHWAYS, NORTHWESTERN HAWAIIAN ISLANDS

44. Stocks, K. I.; Boehlert, G. W.: TOWARDS AN INTERNATIONAL RESEARCH PROGRAM ON SEAMOUNT ECOLOGY AND BIOGEOGRAPHY

45. Cuhel, R. L.; Janssen, J.; Aguilar, C.; Gu, T.; Gu, M.: THE MID-LAKE REEF COMPLEX OF LAKE MICHIGAN: A MAJOR FISHERIES RESOURCE UNDER INVASION BY QUAGGA MUSSELS.

SS2.07:
PARADIGM: The Partnership for Advancing Interdisciplinary Global Modeling

46. Mouw, C. B.; Yoder, J. A.: PRIMARY PRODUCTION CALCULATIONS IN THE MID-ATLANTIC BIGHT, INCLUDING EFFECTS OF PHYTOPLANKTON COMMUNITY SIZE STRUCTURE

47. Morris, P.; Bjorkman, K.; McAndrew, P.; Dafner, E.; Gregory, T.; Shea, A.; Williams, P.; Karl, D.: THE NET METABOLIC BALANCE OF THE OPEN OCEAN: A TEST OF THE NUTRIENT LOADING HYPOTHESIS

48. White, A. E.; Letelier, R. M.; Spitz, Y. H.: USING LABORATORY AND IN SITU PHYSIOLOGICAL PARAMETERS TO MODEL TRICHODESMIUM SPP. FLEXIBLE ELEMENTAL STOICHIOMETRY AND VERTICAL MIGRATION CAPACITY IN THE NPSG

49. Follows, M.; Dutkiewicz, S.: CONSTRAINING A PARAMETERIZATION OF EXPORT PRODUCTION USING A NUMERICAL MODEL AND ITS ADJOINT

50. Clemente, T.; Bjorkman, K.; Dafner, E.; Fujieki, L.; Jachowski, N.; Sadler, D.; Corno, G.; Letelier, R.; Church, M.; Zehr, J.; Karl, D.: REGIONALIZATION OF THE HAWAII OCEAN TIME-SERIES (HOT) OBSERVATIONS

SS2.08:
Development of Coupled Models and Biological Sampling Strategies to Improve Prediction

51. Tapia, F. J.; Pineda, J.: BIOCOMPLEXITY: SPATIAL VARIABILITY IN THE REPRODUCTIVE OUTPUT OF INTERTIDAL BARNACLES IN SOUTHERN AND BAJA CALIFORNIA – EFFECTS ON DISTRIBUTION AND DYNAMICS

52. Guild, L.; Ganapol, B.; Kramer, P.; Armstrong, R.; Gleason, A.; Torres, J.: CLUES TO CORAL REEF ECOSYSTEM HEALTH: SPECTRAL ANALYSIS COUPLED WITH RADIATIVE TRANSFER MODELING

53. Senyk, N. A.; Siegel, D. A.: USING REMOTELY SENSED DATA TO DESCRIBE SPATIAL AND TEMPORAL HABITAT DISTRIBUTIONS OF GIANT KELP, MACROCYSTIS PYRIFERA

54. Pantalone, P.; Hatcher, B. G.; Ruddick, B.; Sheng, J.; Tang, L.; Thompson, K. R.: A NUMERICAL BIOPHYSICAL MODEL OF CONNECTIVITY AMONG CORAL REEFS: QUANTITATIVE PREDICTIONS OF LARVAL FISH DISPERSAL PATTERNS

(*) represents Invited presentations

POSTERS

55. Sarma, V. S.; Saino, T.: PLANKTON NET COMMUNITY PRODUCTION (NCP) IN THE ARABIAN SEA USING OXYGEN BUDGETS

56. deRada, S.; Kindle, J. C.; Anderson, S.; Shulman, I.; Penta, B.: OCEAN MODEL SENSITIVITY TO BATHYMETRIC CONDITIONING

57. Jarrett, J. N.; Pineda, J.; DiBacco, C.: COMPLEXITY IN MARINE BENTHIC POPULATION DYNAMICS

58. Moisan, J. R.; Miller, A. J.; Di Lorenzo, E.; Wilkin, J.: RESOLVING NITROGEN, CARBON AND OXYGEN CYCLES FOR THE U.S. CONTINENTAL MARGIN WITH COUPLED CIRCULATION/BIOGEOCHEMICAL MODELS

59. Penta, B.; Kindle, J. C.; de Rada, S.; Anderson, S. C.; Shulman, I.: PHOTOSYNTHETICALLY AVAILABLE RADIATION (PAR) IN THE NAVY COASTAL OCEAN MODEL (NCOM): ECOSYSTEM SENSITIVITY TO PAR TEMPORAL/ SPATIAL RESOLUTION AND DATA SOURCES

60. DuRand, M. D.; McKenzie, C. H.; Parrish, C. C.; Thompson, R. J.: PHYTOPLANKTON COMMUNITY DYNAMICS, ENVIRONMENTAL CONDITIONS, AND MYTILUS SPP. GROWTH AT TWO MUSSEL AQUACULTURE SITES IN NEWFOUNDLAND, CANADA

61. Pineda, J.; Starczak, V.; DiBacco, C.: BIOCOMPLEXITY: REGIONAL VARIABILITY IN REPRODUCTIVE TIMING, SETTLEMENT AND RECRUITMENT OF AN INTERTIDAL BARNACLES IN THE US NORTHEAST COAST

62. Ladah, L. B.: REMOTELY FORCED PHYSICAL PROCESSES AND THEIR LOCAL BIOLOGICAL CONSEQUENCES: INTERNAL WAVES AND KELP FORESTS ALONG THE BAJA CALIFORNIA COASTLINE

63. Tande, K. S.; Pedersen, O. P.; Fossheim, M.; Zhou, M.; Edvardsen, A.: COUPLED PHYSICAL-BIOLOGICAL PROCESSES AND RECRUITMENT OF CAPELIN LARVAE IN COASTAL WATERS OF NORWAY

64. Orrico, C. M.; Haddock, S. H.; Johnson, K.; Blackwell, S.; Moline, M.; Herren, C. M.; Maynard, K.; Case, J. F.: MODELED BIOLUMINESCENCE RESPONSE DURING AN UPWELLING-RELAXATION PERIOD IN MONTEREY BAY, CA

SS2.09:
Physical and Biochemical Evolution of the Eastern Mediterranean in the 90's

65. Nittis, K.; Lascaratos, A.; Theocharis, A.: DENSE WATER FORMATION IN THE AEGEAN SEA DURING THE EASTERN MEDITERRANEAN TRANSIENT

SS2.11:
The Newest Generation of Deep Sea Exploration

66. Jakuba, M. V.; Yoerger, D. R.: HYDROTHERMAL PLUME DETECTION WITH AN AUTONOMOUS UNDERWATER VEHICLE

67. Martinez, R. J.; Mills, H. J.; Sobecky, P. A.: MOLECULAR DIVERSITY AND METABOLICALLY ACTIVE MICROBIAL COMMUNITIES OF A MUD VOLCANO SITE IN THE GULF OF MEXICO

68. Do Carmo, D. A.; Meireles, R. P.; Suarez, P. S.: SIZE VARIATION OF VESTIBULE IN KRITHE GNOMA: CORRELATION OF PHYSICAL-CHEMICAL PROPERTIES AND POTENTIAL TO PALEOCEANOGRAPHIC ANALYSES

69. Mills, H. J.; Martinez, R. J.; Story, S.; Sobecky, P. A.: IDENTIFICATION OF METABOLICALLY ACTIVE MICROBIAL POPULATIONS ASSOCIATED WITH BEGGIATOA SP. MAT COMMUNITIES FROM GULF OF MEXICO COLD SEEP SEDIMENTS

70. Blankenship, L. E.; Yayanos, A. A.: BIODIVIERSITY IN THE HADAL ZONE: IMPLICATIONS FROM AN AMPHIPOD DIET ANALYSIS

71. Van Dover, C. L.; Gilhooly, W.; Heyl, T.; Mills, A.; Ruppel, C.: EXPLORATION OF THE BLAKE RIDGE DIAPIR: RELATIONSHIPS BETWEEN VESICOMYID CLAM POPULATIONS AND SEDIMENT-POREWATER PARAMETERS

SS2.12:
Structure in an Apparently Uniform Environment

72. Nelson, J. R.; Robertson, C. Y.; Jahnke, R. A.; Richards, M.: PRIMARY PRODUCTION IN A SHELF EUPHOTIC ZONE THAT INCLUDES SURFACE SAND SEDIMENTS

73. Kline, T. C.: FROM INDIVIDUALS TO POPULATIONS OF NEOCALANUS CRISTATUS: PROCESSES INFERRED FROM STABLE ISOTOPES

74. Donowick, T. G.; Osburn, C. L.; Boyd, T. J.: THE RELATIONSHIPS BETWEEN SEDIMENT PARTICLE SIZE AND ITS ORGANIC GEOCHEMISTRY IN ESTUARINE SEDIMENTS

THEME: Coral Reefs

SS3.02:
Coral Reef Estuaries

75. MacDonald, S. S.; Wooller, M. J.; Fogel, M.; Smallwood, B.: DELINEATING DWARF AND TALL RHIZOPHORA MANGLE STAND STRUCTURES USING STABLE CARBON COMPOUND SPECIFIC ISOTOPIC ANALYSES

76. Auer, C. L.: NOAA'S COASTAL OCEAN PROGRAM: CORAL REEF ECOSYSTEM RESEARCH

THEME: Molecular Ecology

SS4.01:
Marine Viromics - The Interaction of Viral Genomes with the Environment

77. McDaniel, L.; Paul, J. H.: LYTIC AND LYSOGENIC PHAGE-HOST INTERACTIONS IN SYNECHOCOCCUS ISOLATES.

SS4.02:
Ecology and Physiology of Marine Organisms: Insights from Genes, Genomes, and Proteomes

78. Robidart, J. C.; Campbell, B. J.; Cary, S. C.; Felbeck, H.: TEMPERATURE TOLERANCE OF THE UNCULTURED SYMBIOTIC COMMUNITY OF THE VENT POLYCHAETE, ALVINELLA POMPEJANA, AS INFERRED FROM STABILITIES OF MALATE DEHYDROGENASES

79. Miranda, L. N.; Zhang, H.; Hargraves, P.; Lin, S.: PHYTOPLANKTON DIVERSITY ALONG THE EASTERN-WESTERN NUTRIENT GRADIENT IN LONG ISLAND SOUND: TAXONOMIC AND PHYLOGENETIC APPROACHES

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80. Longnecker, K.; Homen, D. S.; Sherr, B. F.; Sherr, E. B.: USING MICROFISH TO IDENTIFY BIOSYNTHETICALLY METABOLICALLY ACTIVE BACTERIOPLANKTON IN THE OREGON UPWELLING SYSTEM

81. Moore, M.; Manahan, D. T.: LIPID METABOLISM IN INVERTEBRATE LARVAE: ISSUES WITH ACCURACY AND INTERPRETATIONS

82. Kellogg, C. A.; Stone, R. P.: A PILOT STUDY OF DEEP WATER CORAL MICROBIAL ECOLOGY

83. Green, A. J.; Manahan, D. T.: HIGH GROWTH EFFICIENCIES IN ANTARCTIC LARVAE

84. Soltysiak, K. A.; Patton, J. C.; Gold, J. R.; Campbell, L.: MOLECULAR “FINGERPRINTS” USED TO IDENTIFY AND DIFFERENTIATE DINOFLAGELLATE SPECIES IN THE GULF OF MEXICO

85. Thamatrakoln, K.; Hildebrand, M.: ISOLATING NEW SILICIC ACID TRANSPORTERS FROM DIATOMS FOR COMPARATIVE SEQUENCE ANALYSIS

86. Simu Karin, M.; Hahström Åke, F. K.: ABUNDANT SLOW GROWING OLIGOTROPHIC BACTERIOPLANKTON SHOW LOW VIABILITY IN DILUTION CULTURES

87. Dantzler, M. M.; Kemp, P. F.; Aller, J. Y.; Dhadwal, H. S.: ADVANCEMENTS IN THE USE OF A NUCLEIC ACID HYBRIDIZATION BASED CAPILLARY WAVEGUIDE BIOSENSOR FOR MARINE MICROBIAL PROCESS STUDIES

88. Sorensen, K. B.; Teske, A.: ARCHAEAL PHYLOTYPES IN A METAL-RICH, LOW-ACTIVITY DEEP SUBSURFACE SEDIMENT OF THE PERU BASIN (ODP LEG 201, SITE 1231)

89. Horak, R. E.; Forsyth, M. H.; Van Dover, C. L.: LIGHT PRODUCTION BY SULFIDE-OXIDIZING BACTERIA? A POSSIBLE LIGHT SOURCE FOR CHLOROPLAST-SEQUESTERING FORAMINIFERANS

90. McFadden, M. A.; Cowles, D. L.: BLOOD AND TISSUE CHARACTERISTICS OF HEMISQUILLA CALIFORNIENSIS (CRUSTACEA: STOMATOPODA), A BURROW-DWELLING MANTIS SHRIMP WHICH ROUTINELY ENCOUNTERS HYPOXIA

91. Wolfe, F. L.; Schofield, O. M.; Falkowski, P. G.: THE DIVERSE MOLECULAR EVOLUTION OF IRON AND MANGANESE SUPEROXIDE DISMUTASES IN OXYGENIC PHOTOAUTOTROPHS

92. Lauer, A.; Teske, A.: ARCHAEAL DIVERSITY IN A DEEP SEA SEDIMENT OF THE AEQUATORIAL PACIFIC OCEAN BASED ON 16S RDNA ANALYSES

93. Wisniewski, R. J.; Dyhrman, S. T.; Moffett, J. W.: THE EFFECT OF METAL SUPPLY ON ALKALINE PHOSPHATASE ACTIVITY IN CULTURES OF EMILIANIA HUXLEYI

94. Collier, J. L.; Baker, K. M.: UREA-DEGRADING MICROORGANISMS IN CHESAPEAKE BAY

95. Flores, J. F.; Carney, S. L.; Schaeffer, S. W.; Fisher, C. R.: PHYSIOLOGICAL AND GENETIC CHARACTERIZATION OF HEMOGLOBIN IN A PHENOTYPICALLY PLASTIC HYDROTHERMAL VENT TUBEWORM

96. Pace, D. A.; Ginsburg, D. W.; Manahan, D. T.: MOLECULAR PHYSIOLOGICAL BASES OF HIGH GROWTH EFFICIENCY IN INVERTEBRATE LARVAE FROM COLD ENVIRONMENTS

97. Lin, S.; Mulholland, M.; Zhang, H.; Carpenter, E. J.: MOLECULAR AND ECOLOGICAL CHARACTERIZATION OF THE PFIESTERIA-LIKE DINOFLAGELLATE CRYPTOPERIDINIOPSIS SP

98. Manahan, D. T.; Meyer, E.; Haag, A.; Von Dippe, P.; Hedgecock, D.: GENOMIC STUDY OF THE PHYSIOLOGICAL BASES OF DIFFERENTIAL GROWTH IN INVERTEBRATE LARVAE

99. Bibby, T. S.; Mary, I.; Nield, J.; Partensky, F.; Barber, J.: LOW-LIGHT-ADAPTED PROCHLOROCOCCUS SPECIES POSSESS SPECIFIC ANTENNA FOR EACH PHOTOSYSTEM

100. Jiao, N. Z.; Zhang, Y.: DYNAMICS OF AEROBIC ANOXYENIC PHOTOTROPHIC BACTERIA IN THE EAST CHINA SEA

101. Hagman, K.; Simu, K.; Riemann, L.; Hagström, Å.: OPTIMIZATION OF DNA EXTRACTION FOR QUANTITATIVE MARINE BACTERIOPLANKTON COMMUNITY ANALYSIS.

102. Brown, M. V.; Fuhrman, J. A.: TRACKING TEMPORAL PATTERNS OF MOLECULAR BIODIVERSITY, MICRODIVERSITY AND COMMUNITY STRUCTURE AT VARIOUS DEPTHS IN THE SAN PEDRO CHANNEL, CALIFORNIA.

103. Lam, P.; Cowen, J. P.; Jones, R. D.; Popp, B. N.; Teske, A.: MOLECULAR ANALYSES OF AUTOTROPHIC AMMONIA-OXIDIZING BACTERIA IN DEEP-SEA HYDROTHERMAL VENTS ENVIRONMENTS

104. Jeffrey, W. H.; Meador, J. D.; Pakulski, J. D.; Douki, T. A.; Baldwin, A. J.; Mitchell, D. L.: SOLAR INDUCED DNA PHOTOPRODUCTS ACROSS A LATITUDINAL GRADIENT IN THE EASTERN PACIFIC OCEAN

105. Ginsburg, D. W.; Manahan, D. T.: NUTRITIONAL STATUS OF INVERTEBRATE LARVAE IN THE OCEAN

106. Yu, Y.; Rohwer, F.: FASTGROUP II: A WEB-BASED BIOINFORMATICS PLATFORM FOR ANALYSES OF LARGE 16S RDNA LIBRARIES

107. Pascale, M.; Worden, A. Z.; Zehr, J. P.: A PEPTIDE NUCLEIC ACID (PNA)-BASED FLUORESCENT IN SITU HYBRIDIZATION METHOD FOR WHOLE CELL DETECTION OF CROCOSPHAERA SP. (SYNECHOCYSTIS SP.) WH8501

108. Yu, P. C.; Moran, A. L.; Manahan, D. T.: GENETIC VARIATION IN SURVIVAL AND GROWTH RECOVERY FOLLOWING PROLONGED STARVATION OF INVERTEBRATE LARVAE

109. Erdner, D. L.; Anderson, D. M.: GLOBAL GENE EXPRESSION ANALYSIS OF NITROGEN AND PHOSPHORUS STRESS IN THE TOXIC DINOFLAGELLATE ALEXANDRIUM FUNDYENSE

110. Chistoserdov, A. Y.; Madrid, V. M.; Aller, J. Y.; Aller, R. C.: PHYLOGENETIC DIVERSITY OF RIBULOSE-1,5-BIPHOSPHATE CARBOXYLASE/OXYGENASE GENES OF MICROBIAL COMMUNITIES FROM MOBILE DELTAIC SEDIMENTS

111. Madrid, V. M.; Chistoserdov, A. Y.; Aller, J. Y.; Aller, R. C.: DISSIMILATORY SULFATE REDUCTION POTENTIAL OF PROKARYOTIC COMMUNITIES FROM MOBILE DELTAIC SEDIMENTS

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112. Chin-Leo, G.; Keil, R. G.; Greengrove, C.; Evans, C. T.: BACTERIOPLANKTON DYNAMICS IN INTERMITTENTLY ANOXIC FJORDS OF VANCOUVER ISLAND, BRITISH COLUMBIA

113. Clarke , M. A.; Balkwill, D.; Gragg, R.: COMPARING IMPACT OF PHOTOOXIDIZED AND UNPHOTOOXIDIZED PETROLEUM ON MARINE BACTERIA COMMUNITIES USING TERMINAL RESTRICTION FRAGMENT LENGTH POLYMORPHISM *

114. Tartarotti, B.; Torres, J. J.: INDUCTION OF STRESS PROTEINS IN THE COPEPOD ACARTIA TONSA

115. Poulton, N. J.; Gilg, I. C.; Thier, E. C.; Sieracki, M. E.: DISCRIMINATION BETWEEN CTC-ACTIVE BACTERIA AND PROCHLOROCOCCUS FROM NATURAL SAMPLES USING DUAL BEAM FLOW CYTOMETRY

116. Shoemaker, D. J.; von Dassow, P.; Latz, M. I.; Moline, M. A.: LIGHT AND TIME-SENSITIVE REGULATION OF BIOLUMINESCENCE IN THE DINOFLAGELLATE LINGULODINIUM POLYEDRUM

117. Hou, Y.; Lin, S.: ANALYSIS OF DIFFERENTIALLY EXPRESSED PROTEINS IN PFIESTERIA PISCICIDA IN SEARCH OF GROWTH-RELATED PROTEINS

118. Gobler, C. J.; Pererya, G.; Downes-Gastrich, M.; Anderson, O. R.; Wilhelm, S. W.: CHARACTERIZATION OF VIRUSES ISOLATED FROM NEW YORK ESTUARIES CAPABLE OF LYSING THE HARMFUL BROWN TIDE ALGA, AUREOCOCCUS ANOPHAGEFFERENS

119. Cesar, D. E.; Cottrell, M. T.; Kirchman, D.: CARBON LIMITATION OF BACTERIAL PRODUCTION IN DELAWARE BAY

120. Robertson, D. L.; Gershenovich, M.: GLUTAMINE SYNTHETASE ISOENZYME EXPRESSION IN THE MARINE DIATOM SKELETONEMA COSTATUM

121. Dollhopf, S. L.; Smith, A. C.; Hunter, E.; Kostka, J. E.: QUANTIFICATION OF SULFATE- AND IRON(III)-REDUCING BACTERIA WITH REVERSE TRANSCRIPTION REAL-TIME PCR IN BIOTURBATED AND NONBIOTURBATED SALTMARSH SEDIMENTS

122. Short, C. M.; Church, M. J.; Montoya, J. P.; Zehr, J. P.: TEMPORAL VARIABILITY IN NITROGENASE GENE (NIFH) EXPRESSION IN THE SUPTROPICAL NORTH PACIFIC OCEAN

123. Huang, B. Q.; Chen, J. X.; Jiao, N. Z.; Hong, J. S.; Chen, F.: FLUORESCENT IN SITU HYBRIDIZATION WITH OLIGONUCLEOTIDE PROBES TO IDENTIFY ALEXANDRIUM TAMARENSE AND GENUS ALEXANDRIUM

124. Murphy, J. L.; Savill, M. G.; Sobsey, M. D.: COMPARISON OF STANDARD AND MOLECULAR METHODS FOR CAMPYLOBACTER IDENTIFICATION AND ENVIRONMENTAL SOURCE IDENTIFICATION

125. Haffa, A. L.; Klimov, D.; Kolber, Z.: DEVELOPMENT OF AN OXYGEN SENSOR BASED ON QUENCHING OF PORPHYRIN PHOSPHORESCENCE

THEME: Biogeochemical Cycles

SS5.01:
Metal Cycling in Coastal Wetlands

126. Chen, C. Y.; Dionne, M.; MacKenzie, R. A.; Bilgili, A.: TROPHIC TRANSFER OF METALS IN INTERTIDAL FOOD WEBS OF THE GULF OF MAINE

127. Jiann, K. T.; Wen, L. S.: REDOX CONTROL ON SPECIATION AND REMOVAL OF TRACE METALS IN A PARTLY ANOXIC ESTUARY

128. Strasser, C. A.; Mills, S. W.; Mullineaux, L. S.; Thorrold, S. R.: TRACE ELEMENT COMPOSITION OF LARVAL BIVALVE SHELLS REFLECTS NATAL ENVIRONMENT

129. Lee, B.; Lee, J.; Jung, S.: RELATIONSHIP BETWEEN CLEARANCE AND UPTAKE RATES OF CD, SE AND ZN IN THE BIVALVES, M. CALIFORNIANUS, P. AMURENSIS, M. BALTHICA AND C. FLUMINEA

130. Filippelli, G. M.; Souch, C. J.; Dollar, N. L.; Mastalerz, M.: METAL MOBILITY AND BIOAVAILABILITY IN WETLAND SEDIMENTS FROM THE INDUSTRIALIZED SOUTHERN SHORE OF LAKE MICHIGAN, USA

131. Lee, B.; Yu, X.; Jung, S.; Choi, K.; Ngo, T.: CHRONIC PHYSIOLOGICAL AND REPRODUCTIVE EFFECTS OF WATERBORNE AG TO THE CLAM RUDITAPES PHILIPPINARUM

SS5.02:
Elemental Cycling Under Suboxic/Anoxic Conditions

132. Clement, B. G.; Tebo, B. M.; Kraiya, C.; Glazer, B. T.; Luther, III, G. W.: OXYGEN IS THE OXIDANT OF MN(II) IN THE BLACK SEA SUBOXIC LAYER

133. Paull, C. K.; Ussler III, W.; Lorenson, T.; Dallimore, S.; Blasco, S.; Melling, H.; McLaughlin, F.; Nixon, M.: DETECTION OF METHANE LEAKAGE FROM THE ARCTIC SHELF

134. Oakley, B. B.; Srinivasan, S.; Staley, J. T.: DIVERSITY OF SUB-OXIC N-CYCLING MICROBES IN THE BLACK SEA

135. Murray, K. J.; Tebo, B. M.: CHROMIUM OXIDATION BY MN-OXIDIZING BACTERIA FROM THE BLACK SEA

136. Klein, S. M.: RELEASE OF SEDIMENT POREWATER AND SOLUTES DURING EBULLITION

137. Martens, C. S.; Mendlovitz, H. P.; Moura, J. M.: CONTROLS ON THE CONCENTRATION AND STABLE ISOTOPIC OF GAS BUBBLE METHANE FROM ORGANIC-RICH MARINE AND RIVERINE SEDIMENTS

SS5.03:
The Biogeochemical Cycling of Iron in the Ocean – From Genes to Gyres

138. Achilles, K. M.; Hutchins, D. A.; Church, T. M.: BIOAVAILABILITY OF IRON FOR CYANOBACTERIA CULTURES

139. Aguilar-Islas, A. M.; Bruland, K. W.: Mn AS A TRACER IN THE BERING SEA

140. Tagliabue, A.; Arrigo, K. R.: THE IMPORTANCE OF IRON CYCLE COMPLEXITY WHEN PREDICTING C-CYCLE RESPONSE TO FE FERTILIZATION

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141. Barbeau, K.; Roe, K. L.; Mann, E. L.; Haygood, M.: FERRISIDEROPHORE UTILIZATION BY TRICHODESMIUM AND OTHER MARINE MICROOORGANISMS

142. Oliver, J. L.; Carlson, C. A.; Ducklow, H. W.: GROWTH ENHANCEMENT OF BACTERIA BY A NATURAL IRON CHELATOR, DESFERRIOXAMINE B (DFOB)

143. Tian, F.; Frew, R. D.; Sander, S. G.; Hunter, K. A.: FE(III) SPECIATION IN SURFACE TRANSSECTS AND DEPTH PROFILES ACROSS A FRONTAL ZONE: THE CHATHAM RISE, NEW ZEALAND

144. DiTullio, G. R.; Geesey, M. E.; Maucher, J. M.; Alm, M. B.; Riseman, S. F.; Bruland, K. W.: INFLUENCE OF IRON ON ALGAL COMMUNITY COMPOSITION AND PHYSIOLOGICAL STATUS IN THE PERU UPWELLING SYSTEM

145. King, A. L.; Barbeau, K.: OBSERVATIONS OF IRON LIMITATION IN A NON-HNLC REGIME: RAPID GROWTH RESPONSE TO IRON ADDITION

146. Iwade, S.; Kuma, K.; Yoshida, M.; Isoda, Y.; Kudo, I.; Nishioka, J.: IMPACT OF SUPERSATURATED IRON ON IRON UPTAKE AND GROWTH OF A COASTAL MARINE DIATOM

147. Kudela, R. M.; Roberts, A. E.; Armstrong, M. A.: MICROGRAZER-DILUTION EXPERIMENTS IN THE HNLC WATERS OF THE BERING SEA: A NOVEL APPROACH TO ESTIMATING IRON STIMULATION

148. Bonnet, S.; Guieu, C.: THE EFFECT OF NUTRIENTS AND IRON ADDITIONS ON THE PHYTOPLANKTON DYNAMIC IN THE NORTHWESTERN MEDITERRANEAN SEA

149. Kondo, Y.; Takeda, S.; Nishioka, J.; Saito, H.; Suzuki, K.; Furuya, K.: IRON LIMITATION STATUS OF PHYTOPLANKTON COMMUNITY IN THE OYASHIO REGION DURING SPRING

SS5.04:
Bioturbation: Who, When and Why?

150. Cowles, D. L.: METABOLIC ADAPTATIONS (AND THE LACK THEREOF) TO OXYGEN LIMITATION IN A BURROW-DWELLING CRUSTACEAN

151. Marinelli, R. L.; Woodin, S. A.; Engstrom, S. J.; Waldbusser, G. G.; Douglass, K.; Wethey, D. S.; Berke, S.: EFFECTS OF GEOCHEMICAL CUES ON ARENICOLA: ONTOGENETIC SHIFTS IN RECRUITMENT VS GROWTH *

SS5.06:
Advances in Diagenetic Modelling

152. Darrow, B. P.: SAND FILTERS FOR THE SHELF

SS5.07:
Response of the Upper Ocean to Mesoscale Iron Enrichment

153. Lohan, M. C.; Crawford, D. W.; Statham, P. J.; Purdie, D. A.; Bruland, K. W.: PHYTOPLANKTON RESPONSE TO LOW ZINC CONCENTRATIONS UPON THE ADDITION OF IRON IN THE HNLC NE PACIFIC OCEAN

154. Le Clainche, Y.; Levasseur, M.; Vézina, A.; Saucier, F. J.: SIMULATION OF THE OCEAN DMS(P) POOLS DURING SERIES IN THE NORTH-EAST PACIFIC

155. Marote, C. L.; Shipe, R. F.; Carpenter, E. J.; Capone, D.: EFFECTS OF FE, P, AND DUST ADDITIONS ON SILICON POOLS IN THE WESTERN TROPICAL ATLANTIC OCEAN

156. Lance, V. P.; Hiscock, M. R.; Bidigare, R. R.; Buesseler, K. O.; Smith, W. O.; Barber, R. T.: PRIMARY PRODUCTIVITY AND CHLOROPHYLL RESPONSE SIGNATURES FOR AN IN SITU MESOSCALE PACIFIC SECTOR SOUTHERN OCEAN FE ENRICHMENT EXPERIMENT (SOFEX) AT 55S AND 66S

157. Hiscock, M. R.; Lance, V. P.; Apprill, A.; Bidigare, R. R.; Mitchell, B. G.; Barber, R. T.: IRON ELEVATES PHOTOSYNTHETIC EFFICIENCY OF MOST, BUT NOT ALL, PHYTOPLANKTON: IMPLICATIONS FOR SOUTHERN OCEAN IRON ENRICHMENT AND PRIMARY PRODUCTION ALGORITHMS

158. Powell, R. T.; Wilson-Finelli, A.: IRON SPECIATION DURING THE NORTHEAST PACIFIC IRON ENRICHMENT EXPERIMENT

159. Takeda, S.; Boyd, P. W.: INTERMEDIATE GROWTH RATES OF IRON-STRESSED DIATOMS INDUCE SILICATE DEPLETION RELATIVE TO NITRATE IN THE SUBARCTIC PACIFIC WATERS

160. Ziolkowski, L. A.; Miller, W. L.: IN SITU UV OPTICAL PROPERTIES DURING THE EVOLUTION OF AN FE-STIMULATED PHYTOPLANKTON BLOOM

161. Yoshie, N.; Fujii, M.; Yamanaka, Y.: CHANGES OF THE ECOSYSTEM WITH THE IRON FERTILIZATION IN THE WESTERN NORTH PACIFIC SIMULATED BY A ONE-DIMENSION ECOSYSTEM MODEL

162. Peloquin, J. A.; Smith, W. O.: DELINEATING THE RESPONSE OF PHYTOPLANKTON DURING THE SOUTHERN OCEAN IRON EXPERIMENT BY EXAMINING CHANGES OF PHOTOCHEMICAL EFFICIENCY

163. Adly, C. L.; Armstrong, E.; Peers, G. S.; Tremblay, J. E.; Price, N. M.: IRON LIMITATION OF HETEROTROPHIC BACTERIA IN THE SUBARCTIC PACIFIC OCEAN

164. Yoshimura, T.; Ogawa, H.; Nishioka, J.; Imai, K.; Nojiri, Y.; Koike, I.; Tsuda, A.: DISSOLVED ORGANIC CARBON DYNAMICS DURING IN-SITU IRON ENRICHMENT EXPERIMENT IN THE WESTERN AND EASTERN SUBARCTIC PACIFIC

165. Crawford, W. R.; Whitney, F. A.; Brickley, P. J.; Thomas, A. C.: HOW MESOSCALE OCEAN PROCESSES INFLUENCED THE SERIES PROGRAM IN THE GULF OF ALASKA.

166. Harrison , P. J.; Marchetti, A.; Sherry, N. D.: PHYTOPLANKTON RESPONSE TO IRON ENRICHMENT IN THE SUBARCTIC NE PACIFIC OCEAN

167. Nishioka, J.; Takeda, S.; Kudo, I.; Tsumune, D.; Yoshimura, T.; Kuma, K.; Ono, T.; Saito, H.; Tsuda, A.: IRON LIMITATION PROCESSES IN THE NW SUBARCTIC PACIFIC

168. Shipe, R. F.; Kustka, A.; Carpenter, E. J.; Capone, D. G.: EFFECTS OF FE, P, SI AND DUST ADDITIONS ON PHYTOPLANKTON PRODUCTIVITY IN THE WESTERN TROPICAL ATLANTIC OCEAN

169. Hale, M. S.; Rivkin, R. B.; Li, W. K.; Agawin, N. S.; Matthews, P.: BACTERIAL RESPONSE TO A MESOSCALE IRON ENRICHMENT IN THE NORTHEAST SUBARCTIC PACIFIC

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170. Saito, H.; Suzuki, K.; Hinuma, A.; Ota, T.; Fukami, K.; Kiyosawa, H.; Saino, T.; Tsuda, A.: RESPONSES OF MICROGRAZERS TO THE MESOSCALE IRON FERTILIZATION IN THE WESTERN SUBARCTIC PACIFIC (SEEDS)

SS5.08:
Dynamics of Dissolved Organic Material in Marine and Freshwater Environments

171. Hamdan, L. J.; Jonas, R. B.: PHYTOPLANKTON PRODUCTION AND CHEMICAL COMPOSITION OF EXTRACELLULARLY RELEASED ORGANIC CARBON IN THE CHESAPEAKE BAY AND DELAWARE BAY

172. Rauschenberg, C. D.; Jones, W. B.; Cifuentes, L. A.: USING GC/C/IRMS ANALYSES OF PLFAS TO IDENTIFY BACTERIAL OM SOURCES IN GULF OF MEXICO SEDIMENTS

173. Shibata, A.; Goto, Y.; Kikuchi, T.; Taguchi, S.: DISCREPANCY OF BACTERIAL COUNTS MADE WITH SYBR GREEN I AND DAPI MEHTODS

174. Manganelli, M.; Puddu, A.; Zoppini, A.; Amalfitano, S.; Fazi, S.; Rosati, M.; Scenati, R.; Simeone, A.; Stefanelli, M.: SEASONAL VARIATIONS OF DOC, CHLOROPHYLL a AND MICROBIAL ACTIVITY IN TWO LAGOONS IN CENTRAL ITALY: ORBETELLO LAGOON (TUSCANY) AND PAOLA LAKE (LATIUM).

175. Obayashi, Y.; Suzuki, S.: EXISTENCE OF ENDOPEPTIDASES AND EXOPEPTIDASES IN SEAWATER: IMPLICATION OF EFFICIENTLY DOWNSIZING OF DOM BY MICROBIAL EXTRACELLULAR ENZYMES?

176. Wang, X.; Chen, R. F.; Callahan, J.: VARIABILITY IN SOURCES AND RADIOCARBON AGES OF MAJOR BIOCHEMICAL COMPOUND CLASSES OF HIGH MOLECULAR WEIGHT DISSOLVED ORGANIC MATTER IN ESTUARIES

177. Creed, I. F.; Molot, L. A.; Beall, F. D.; Jeffries, D. S.; Dillon, P. J.: MEASUREMENT AND MODELING OF DISSOLVED ORGANIC CARBON IN FRESHWATER LANDSCAPES

178. Filippino, K. C.; Bronk, D. A.; Sanderson, M. P.; See, J. H.: METHODS TO MEASURE DISSOLOVED ORGANIC NITROGEN CONCENTRATIONS AND FLUX RATES: THE GOOD, THE BAD, AND THE UGLY-REVISITED

179. Navarro, N.; Duarte, C. M.: DOC USE AND PLANKTON METABOLISM IN THE NW MEDITERRANEAN COAST

180. Meador, T. B.; Aluwihare, L. I.: CHEMICAL CHARACTERIZATION AS A TOOL FOR IDENTIFYING A DIAZOTROPH CONTRIBUTION TO DISSOLVED ORGANIC NITROGEN (DON) ACCUMULATING IN SURFACE MARINE WATERS

181. Herszage, J.; Barbeau, K. A.; Aluwihare, L. I.: PHOTOCHEMICAL REACTIVITY OF LOW AND HIGH MOLECULAR FRACTIONS OF MARINE DOM

182. de Jesus, R. P.; Aluwihare, L. I.: CHEMICAL STRUCTURE AND CYCLING OF DISSOLVED ORGANIC MATTER (DOM) IN THE SOUTHERN CALIFORNIA BIGHT

183. Powell, M. J.; Timperman, A. T.: RECOVERY AND CHARACTERIZATION OF THE DISSOLVED PROTEINS IN SEAWATER USING TANGENTIAL FLOW ULTRAFILTRATION AND TANDEM MASS SPECTROMETRY.

184. Hansman, R. L.; Aluwihare, L. I.: FATE OF DOC IN THE DEEP OCEAN: INSIGHTS FROM RADIOCARBON ANALYSIS OF PROKARYOTIC NUCLEIC ACIDS

185. Otis, D. B.; Carder, K. L.: CDOM EFFECTS ON THE UNDERWATER LIGHT FIELD: SIMULATIONS OF ULTRAVIOLET RADIATION INCIDENT UPON CORAL REEFS

186. Novak, M. G.: MEASURING SEASONAL VARIATION IN THE DISSOLVED ORGANIC CARBON (DOC) POOL OF THE COASTAL, OFFSHORE, AND ESTUARINE REGIONS OF THE GULF OF MAINE

187. Fukuda-Sohrin, R.; Sempéré, R.; Lefévre, D.; Desaubies, Y.: BASIN-SCALE DISTRIBUTION OF DISSOLVED ORGANIC CARBON IN THE DEEP NORTHEAST ATLANTIC: ITS SIGNIFICANCE IN CARBON AND OXYGEN DYNAMICS IN DEEP WATER

SS5.09:
Dynamic Interactions Between Particulate and Dissolved Mineral and Organic Matter

188. Trull, T. W.: QUANTIFYING THE IMPORTANCE OF PHYTOPLANKTON SIZE TO EXPORT USING 13C

189. Buesseler, K. O.; Andrews, J. E.; Bishop, J. K.; Boyd, P. W.; Dehairs, F.; Matear, R.; Sarin, M. M.; Siegel, D. A.; Silver, M. W.; Steinberg, D. K.; Trull, T. W.; Valdes, J. R.: VERTIGO HERE WE GO

190. Xue, J.; Armstrong, R. A.: MEDFLUX: COMBINING FLUX AND CONCENTRATION DATA INTO A SEAMIESS DESCRIPTION OF SINKING FLUXES

191. Stewart, G. M.; Cochran, J. K.; Masque, P.; Miquel, J. C.; Rodriguez, A. M.: MEDFLUX: 210PO AND 210PB CONCENTRATIONS, FLUXES, AND PARTICLE SETTLING VELOCITIES AT THE DYFAMED SITE, NORTHWESTERN MEDITERRANEAN

192. Fukuda, H.; Sohrin, R.; Nagata, T.; Koike, I.: FULL-DEPTH PROFILE OF NANOFLAGELLATES AND THE STRUCTURE OF MICROBIAL FOOD WEBS IN OCEAN'S INTERIOR

193. Peterson, M. L.; Wakeham, S. G.; Lee, C.; Miquel, J. C.: MEDFLUX: VERTICAL PARTICLE FLUX SAMPLING IN THE TWILIGHT ZONE

194. Liu, Z.; Stewart, G. M.; Lee, C.; Cochran, J. K.; Armstrong, R. A.; Hirschberg, D.; Miquel, J. C.; Gasser, B.: MEDFLUX: COMPARISON OF POC MEASUREMENTS IN BOTTLES AND IN-SITU PUMPS—TEST OF PRESSURE AND ADSORPTION EFFECTS

195. Doblin, M. A.; Cutter, L. S.; Cutter, G. A.: NUTRIENT AND SELENIUM DYNAMICS IN A SHALLOW WATER SYSTEM

196. Wakeham, S. G.; Lee, C.; Liu, Z.; Peterson, M. L.: MEDFLUX: ORGANIC MATTER COMPOSITION FROM TIME-SERIES AND SINKING-VELOCITY SEDIMENT TRAPS IN THE "TWILIGHT ZONE" IN THE MEDITERRANEAN

197. Cochran, J. K.; Miquel, J. C.; Fowler, S. W.; Gasser, B.; Szlosek, J.; Rodriguez-Ybaena, A.; Hirschberg, D. J.; Stewart, G.; Masque, P.: MEDFLUX: RELATIONSHIPS AMONG BALLAST, PARTICULATE ORGANIC CARBON AND TH-234 ACTIVITIES AND FLUXES IN THE UPPER WATER COLUMN

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198. Coe, A. L.; Zinser, E. R.; Chisholm, S. W.: OPTIMIZING TECHNIQUES FOR GROWING AND PRESERVING THE CYANOBACTERIUM PROCHLOROCOCCUS

199. Trites, M.; Kaczmarska, I.; Hicklin, P. W.; Ehrman, J. M.; Ollerhead, J.: DIATOMS FROM TWO MACRO-TIDAL MUDFLATS IN CHIGNECTO BAY, UPPER BAY OF FUNDY, CANADA

200. Gamfeldt, L.; Hillebrand, H.; Jonsson, P.: EXAMINING HOW CHANGING DIVERSITY OF PRODUCERS AND CONSUMERS IN SHALLOW MARINE SYSTEMS CAN AFFECT PRIMARY AND SECONDARY PRODUCTION

201. Okuda, N.; Omori, K.: HOW TO ESTIMATE ECOLOGICAL ROLES OF COMMERCIALLY IMPORTANT FISHERY SPECIES AND HUMAN IMPACTS ON ECOSYSTEM FUNCTIONING USING STABLE-ISOTOPE RATIOS

202. Knight, E. P.; Watling, L.: THE IMPACTS OF TRAWLING ON BENTHIC HABITATS: AN ANALYSIS OF RECOVERY IN THE WESTERN GULF OF MAINE CLOSURE

203. Jamieson, C.; Augustin, C.; Boersma, M.: DIFFERENTIAL AFFECTS OF NUTRITIONAL STRESS ON CLOSELY RELATED SPECIES

204. Baldwin, A. J.; Pakulski, J. D.; Jeffrey, W. H.: EFFECTS OF PROLONGED SOLAR EXPOSURE ON BACTERIAL RESPONSE TO UVR ALONG A LATITUDINAL GRADIENT

205. Jaschinski, S.; Brepohl, D. C.: STABLE ISOTOPES AND FATTY ACIDS AS BIOMARKERS IN A SEAGRASS ECOSYSTEM

206. Madin, L. P.; Madin, K. A.: VITREOSALPA GEMINI, A NEW SPECIES OF MESOPELAGIC SALP

207. Van Dijken, G. L.; Robinson, D. H.; Kropuenske, L. R.; Arrigo, K. R.: DEFINING THE PARAMETERS REGULATING ANTARCTIC PHYTOPLANKTON SPECIES DISTRIBUTION: GROWTH RATES

208. Kropuenske, L. R.; Robinson, D. H.; Van Dijken, G. L.; Arrigo, K. R.: DEFINING THE PARAMETERS REGULATING ANTARCTIC PHYTOPLANKTON SPECIES DISTRIBUTION: NUTRIENT UTILIZATION

209. Robinson, D. H.; Van Dijken, G. L.; Kropuensky, L. R.; Arrigo, K. R.: DEFINING THE PARAMETERS REGULATING ANTARCTIC PHYTOPLANKTON SPECIES DISTRIBUTION: PHOTOPHYSIOLOGY

210. UMEZAWA, Y.; KOMATSU, T.; YAMAMURO, M.; KOIKE, I.: VARIOUS PHYSICAL FORCING CONTROLLING CHEMICAL COMPOSITIONS OF SUSPENDED MATTERS IN WATER COLUMN OF SEAGRASS BEDS IN A THAILAND ESTUARY

211. Pakulski, J. D.; Baldwin, A. J.; Stephens, R. W.; Moss, J. A.; Jeffrey, W. H.: VARIABLE RESPONSES OF HETEROTROPHIC BACTERIA TO SURFACE SOLAR IRRADIANCE IN THE PACIFIC OCEAN

212. Sano, E. B.; Carlson, S.; Wegley, L.; Breitbart, M.; Rohwer, F. L.: ABILITY OF PHAGE TO PERSIST IN NEW ENVIRONMENTS

SS5.12:
Interactions and Feedbacks Among Marine Pelagic Ecosystems, Biogeochemical Cycles and Climate, in a Globally Changing Environment

213. Berreville, F. C.; Thompson , K. R.; Vézina , A. F.: EXPLORATORY ANALYSIS OF FOOD WEB STRUCTURE AND DYNAMICS IN ARCTIC POLYNYAS

214. Arndt, C. E.; Pavlova, O.; Lønne, O. J.: ON THE FATE OF ICE FAUNA IN THE FRAM STRAIT - SVALBARD AREA

215. Iseda, M.; Hashimoto, S.; Matsumoto, K.; Yokouchi, Y.: VOLATILE ORGANIC COMPOUNDS IN THE OCEAN AND THE MARINE ATMOSPHERE IN THE EQUATORIAL PACIFIC

216. Capone, D. G.; Subramaniam, A.; Michaels, A. F.; Burns, J. A.; Carpenter, E. J.: GLOBALLY-SCALED ESTIMATES OF TRICHODESMIUM NITROGEN FIXATION

217. Steele, J. A.; Hewson, I.; Capone, D. G.; Fuhrman , J. A.: EFFECTS OF INORGANIC IRON, PHOSPHORUS, AND DUST ADDITION ON PROKARYOTE COMMUNITY DYNAMICS IN THE NORTH PACIFIC SUBTROPICAL GYRE

218. Seibel, B. A.; Robison, B. H.; Gilly, W. F.: ENVIRONMENTAL CONSTRAINTS ON VERTICAL MIGRATION IN THE JUMBO SQUID, DOSIDICUS GIGAS

219. Venn, C.; Taylor, K. A.; Hranitz, J. M.: VARIATION IN SURFACE DISTRIBUTION OF CONCHODERMA AURITUM ACROSS THE TROPICAL PACIFIC

220. Alldredge, A. L.: DISCARDED APPENDICULARIAN HOUSES CONTRIBUTE SIGNIFICANTLY TO PARTICULATE CARBON FLUX

221. Burns, J. A.; Sohm, J.; Carpenter, E. J.; Foster, R.; Capone, D. G.: RELATIVE CONTRIBUTIONS OF FILAMENTOUS CYANOBACTERIA TO NITROGEN FIXATION IN THE TROPICAL NORTH PACIFIC

222. Finzi, J. A.; Burns, J. A.; Subrmaniam, A.; Hood, R. R.; Capone, D. G.: NITROGEN FIXATION AND PHOTOSYNTHETIC PARAMETERS OF TRICHDESMIUM SPP. IN THE SUBTROPICAL NORTH PACIFIC

223. Bernhardt, P. W.; Mulholland, M. R.; O'Neil, J. M.; Bronk, D. A.; Heil, C. A.: N2 FIXATION AND N REGENERATION IN TRICHODESMIUM IMS101 GROWN IN CHEMOSTATS AT VARIOUS GROWTH RATES

224. Dunne, J. P.; Armstrong, R. A.; Gnanadesikan, A.; Sarmiento, J. L.: COUPLING OF BIOGEOCHEMICAL CYCLES OF THE ELEMENTS THOUGH ECOSYSTEM STRUCTURE WITHIN A GLOBAL OCEAN GENERAL CIRCULATION MODEL

225. Irvine, G. V.; Carpenter, S. J.; Mann, D. H.; Schaaf, J. M.: OCEAN PRODUCTIVITY THROUGH TIME AS REVEALED THROUGH STABLE ISOTOPE ANALYSIS OF ARCHEOLOGICAL MIDDEN MATERIALS IN THE GULF OF ALASKA: INITIAL RESULTS

226. Eskinasy, A. H.; Winn, C. D.; Popp, B. N.: TEMPORAL VARIABILITY IN pH IN THE NORTH PACIFIC: A COMPARISON OF RECENT MEASUREMENTS WITH DATA COLLECTED ON THE WOCE GLOBAL CARBON SURVEY

227. Sohm, J. A.; Mahaffey, C.; Carpenter, E. J.; Capone, D. G.: PHOSPHORUS ACQUISITION IN TRICHODESMIUM AND OTHER NITROGEN FIXERS IN THE SUBTROPICAL NORTH ATLANTIC AND PACIFIC

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228. Zhang, C. Y.; Shang, S. L.; Hong, H. S.; Shang, S. P.; Chen, D. W.: INTER-ANNUAL VARIABILITY OF SATELLITE-MEASURED CHLOROPHYLL A IN THE TAIWAN STRAIT DURING MONSOON TRANSITION FROM 1999 TO 2001

229. Mahaffey, C.; Subramaniam, A.; Burns, J.; Capone, D. G.: DIVERGENCE BETWEEN BIOLOGICAL AND GEOCHEMICAL SIGNALS OF N2 FIXATION IN THE TROPICAL WESTERN ATLANTIC

230. Mino, Y.; Saino, T.: INORGANIC CARBON ACQUISITION OF PHYTOPLANKTON POPULATION IN THE OLIGOTROPHIC ATLANTIC

231. Kinoshita, M.; Iseda, M.; Ioriya, T.; Hashimoto, S.: SEASONAL VARIATIONS IN PHYTOPLANKTON ASSEMBLAGE AND TRACE GASES AFFECTING THE CLIMATE IN COASTAL AREA OF JAPAN

232. Moore, T. S.; Dowell, M. D.: GLOBAL MAPS OF PHYTOPLANKTON CARBON:CHLOROPHYLL USING AN EMPIRICAL RELATIONSHIP

233. Pennington, J. T.; Michisaki, R. P.; Collins, C. A.; Kuwahara, V.; Lance, V. P.; Marinovic, B.; Chavez, F. P.: ALONGSHORE VARIABILITY OF THE CALIFORNIA CURRENT SYSTEM FROM CENTRAL TO BAJA CALIFORNIA IN WINTER AND SPRING 2003: PHYSICAL, CHEMICAL AND BIOLOGICAL PROPERTIES

234. Govil, S. R.; Hewson, I.; Capone, D.; Carpenter, E. J.; Fuhrman, J.: CYANOPHAGE MAY PLAY IMPORTANT ROLES IN TRICHODESMIUM SPP. ECOLOGY IN THE OLIGOTROPHIC OCEAN.

235. Hewson, I.; Steele, J. A.; Capone, D. G.; Fuhrman, J. A.: VIRAL INFLUENCE ON BACTERIOPLANKTON COMMUNITIES IN THE NORTH PACIFIC GYRE

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Eutrophication of Coastal Waters

236. Hoglander, H.; Larsson, U.: NITROGEN FIXING FILAMENTOUS CYANOBACTERIA IN A SWEDISH BALTIC BAY, HIMMERFJAERDEN, AFTER REDUCED NITROGEN LOAD

237. Tozzi, S.; Darrow, E. S.; Condon, R. H.; Haas, L. W.: THE SPRING PHYTOPLANKTON BLOOM IN THE YORK RIVER ESTUARY, VIRGINIA: CHARACTERIZATION AND INTERANNUAL VARIABILITY

238. Juhl, A. R.; Murrell, M. C.: PHYTOPLANKTON GROWTH AND MICROZOOPLANKTON GRAZING RATES IN A GULF OF MEXICO ESTUARY

239. Curran, P.; Gobler, C. J.: CAUSES AND IMPACTS OF EUTROPHICATION IN THE PECONIC RIVER ESTUARY, LONG ISLAND, NY

240. Anderson, I. C.; Stanhope, J. W.; McGlathery, K. J.: CONSTRUCTION OF A NITROGEN BUDGET FOR A TEMPERATE COASTAL LAGOON

241. Mangoni, O.; Modigh, M.; Mozetic, P.; Saggiomo, V.: MESOSCALE VARIABILITY OF PHOTOSYNTHETIC PARAMETERS IN A HIGHLY DYNAMIC FRONTAL AREA (NORTHERN ADRIATIC SEA)

242. Buddemeier, R. W.; Maxwell, B. A.; Smith, S. V.; Bricker, S. B.; Pacheco, P.; Mason, A.: ESTUARINE TYPOLOGY: PERTURBATIONS AND EUTROPHICATION RESPONSES

243. Curless, S. E.; Parker, A. E.; Yoshiyama, K.; Sharp, J. H.: ACCURATE AND PRECISE ANALYSES OF PRIMARY BIOLOGICAL ELEMENTAL POOLS TO SUPPORT ESTUARINE MESOCOSM EXPERIMENTS

244. Spalding, H. L.; Workman, M. N.; Sansone, F. J.; Smith, C. M.: MACROALGAL AND NUTRIENT DYNAMICS ACROSS A DEPTH GRADIENT IN A CORAL REEF COMMUNITY IN WEST MAUI, HAWAII

SS5.14:
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245. Furutani, H.; Prather, K. A.; Aluwihare, L. I.: ASSOCIATION BETWEEN INORGANIC AND ORGANIC MOIETIES WITHIN INDIVIDUAL PARTICLES (0.2 - 3 UM) SUSPENDED IN SEAWATER STUDIED BY SINGLE PARTICLE MASS SPECTROMETRY

246. Kuznetsova, M.; Lee, C.; Aller, J.; Jahns, C.: CHARACTERIZATION OF THE PROTEINACEOUS MATTER IN MARINE AEROSOLS

247. Passow, , U.; Grossart, H. P.: CHARACTERISTICS AND COMPOSITION OF EXOPOLYMERIC GELPARTICLES

248. Goldthwait, S. A.; Alldredge, A. L.: TRANSPARENT EXOPOLYMER PARTICLES (TEP) DEGRADE SLOWLY IN LABORATORY INCUBATIONS

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249. Avery, G. B.; Kieber, R. J.; Willey, J. D.; Shank, G. C.; Whitehead, R. F.: THE IMPACT OF HURRICANES ON THE FLUX OF RAINWATER AND CAPE FEAR RIVER WATER DISSOLVED ORGANIC CARBON TO LONG BAY, SOUTHEASTERN UNITED STATES

250. Wright, V. M.; Del Castillo, C. E.: DYNAMICS OF CDOM IN THE MISSISSIPPI RIVER PLUME*

251. McGowan, M. P.; Glenn, C. R.: SUBMARINE GROUNDWATER DISCHARGE: AN OVERLOOKED PROCESS FOR THE TRANSPORT OF BIOACTIVE CONSTITUENTS INTO HAWAII'S COASTAL ZONE

252. Smith, J. P.; Oktay, S. D.; Brabander, D. J.; Bullen, T. D.; Olsen, C. R.: GEOCHEMICAL EVIDENCE FOR SEASONAL-SCALE VARIATIONS IN SEDIMENT ACCUMULATION IN ABANDONED HARBOR SLIPS OF THE LOWER HUDSON RIVER ESTUARY

253. Pyrtle, A. J.; Wilborn, U. S.; Ingall, E. D.; Grantham, M.; Elliott, W. C.: SAVANNAH, GEORGIA (USA) ESTUARINE, MARSH AND RIVERINE SEDIMENT RADIOGEOCHEMISTRY CHARACTERISTICS

254. Mouradian, M.; Gelinas, Y.; deVernal, A.: USING DINOSTEROLS IN PALEOECOLOGICAL STUDIES: AN EXPLORATORY APPROACH

255. Boyd, T. J.; Paerl, R. W.; Osburn, C. L.: CHANGES IN CDOM OPTICAL PROPERTIES DURING SIMULATED ESTUARINE SALINITY GRADIENTS

256. Arredondo, G.: THE FUNCTIONAL EQUIVALENCY OF HALODULE WRIGHTII, SYRINGODIUM FILIFORME, THALASSIA TESTUDINUM SEAGRASS PATCHES IN CHARLOTTE HARBOR, FLORIDA

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257. Allen, M. C.; Charette, M. A.: THE UTILITY OF A CONTINUOUS RADON MONITOR FOR TRACING WATER MASSES AND SUBMARINE GROUNDWATER DISCHARGE IN THE COASTAL OCEAN

258. Sholkovitz, E. R.; Charette, M. A.: GEOCHEMICAL PROCESSES DRIVEN BY GROUNDWATER-SEAWATER INTERACTION IN A COASTAL AQUIFER: IMPLICATIONS FOR THE OCEANIC CYCLES OF BA, RA AND U

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SS6.01:
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259. Boeing, B.; Owen, R.; Buxton, L.; Bhagooli, R.; Archer, J.; Trapido-Rosenthal, H.: INDUCIBLE NITRIC OXIDE SYNTHASE (INOS) ACTIVITY IN ZOOXANTHELLAE IS ASSOCIATED WITH CORAL BLEACHING *

260. Kirkpatrick, B. A.; Gelsleichter, J.; Dalpra, D.: AN EVALUATION PROCESS TO ASSESS STUDENTS' INTERPERSONAL SKILLS AND CAREERS OUTLOOKS IN AN REU PROGRAM

261. Everett, L. M.; Jakobsen, H. H.: PREY RECEPTION IN MESODINIUM PULEX, FOCUS ON HYDROMECHANICAL SIGNALING*

262. Mojica, K. D.; Cooney, M. J.: DEVELOPMENT OF A NOVEL BIOFILM ASSAY FOR SCREENING BIOLOGICAL EXTRACTS*

263. Garcia, M.; Hinkle, L.; Veillette, P. A.; Specker, J. L.: EFFECT OF CORTISOL AND RU486 ON CORTISOL CONCENTRATIONS AND ON NA+/K+-ATPASE AND GLUCOCORTICOID-LIKE RECEPTOR IMMUNOREACTIVITY IN JUVENILE SUMMER FLOUNDER*

264. Cavatorta, D. J.; Starczak, V. R.; Prada, K. E.; Moore, M. J.: FRICTION OF DIFFERENT ROPES IN RIGHT WHALE BALEEN: A STRATEGY TO REDUCE ENTANGLEMENT*

265. Guggenheim, A.; Fuhrman, J. A.: A COMPARISON OF NONPOINT FECAL CONTAMINANTS IN SANTA MONICA BAY*

266. Armsby, M. L.; Tisch, N.: INTRAGUILD PREDATION AND CANNIBALISM IN A SIZE-STRUCTURED COMMUNITY OF SUBTIDAL AMPHIPODS*

267. Aguiar, A. B.; Morgan, J. A.; Teichberg, M.; Fox, S.; Valiela, I.: TRANSPLANTATION AND ISOTOPIC EVIDENCE OF THE RELATIVE EFFECTS OF AMBIENT AND INTERNAL NUTRIENT SUPPLY ON THE GROWTH OF ULVA LACTUCA*

268. Becker, J.; Cuhel, R. L.: CULTIVATION OF SULFUR OXIDIZING BACTERIA FROM HYDROTHERMALLY ACTIVE YELLOWSTONE LAKE, WY: MICROSCOPY AND MULTIPLE ENRICHMENT TECHNIQUES*

269. Verlinde, J. T.; Holland, L. P.; Coates, K. A.; Trapido-Rosenthal, H. G.: MOLECULAR DIVERSITY OF SYMBIOTIC DINOFLAGELLATES (SYMBIODINIUM SPP) WITHIN ALCYCONACEA OF BERMUDA

270. Berger, C. J.; Cowen, J. P.; Selph, K. E.: ENUMERATION OF HYDROTHERMAL VENT MICROORGANISMS BY FLOW CYTOMETRY

271. Hansen, D.; Heath, R. T.: UPTAKE OF ADENOSINE AND PHOPHATE RELEASED FROM ADENOSINE-5'-TRIPHOSPHATE (ATP) BY FRESHWATER BACTERIOPLANKTON ASSEMBLAGES*

272. Woods, G.; Owen, R.; Lomas, M. W.: CHARACTERIZATION OF TELOMERASE ACTIVITY IN PHYTOPLANKTON

273. Zarubick, L. A.; Heck, K. L.: THE EFFECTS OF NITROGEN CONCENTRATION ON HERBIVORY OF TURTLEGRASS, THALASSIA TESTUDINUM, IN THE FLORIDA KEYS NATIONAL MARINE SANCTUARY*

274. Hollingsworth, L. L.; Lewis, T. D.; Krupp, D. A.; Leong, J. C.: EARLY ONSET AND EXPRESSION OF GREEN FLUORESCENT PROTEINS IN THE LARVAE OF THE MUSHROOM CORAL, FUNGIA SCUTARIA*

275. Jahns, C. J.; Kuznetsova, M.; Aller, J. A.: ENRICHMENT OF THE SEA SURFACE MICROLAYER AND MARINE AEROSOLS BY VIRUSES AND BACTERIA*

276. D'Amico, M.; Bronk, D. A.; Sanderson, M. P.: PHOTOPRODUCTION OF LABILE SUBSTRATES FROM DISSOLVED ORGANIC MATTER PRODUCED BY TRICHODESMIUM

277. Rubiano-Gómez, L.; Sanfors, L. P.; Yates, M.: SIZES AND SETTLING SPEEDS OF SUSPENDED PARTICLES IN THE CHESAPEAKE BAY ESTUARINE TURBIDITY MAXIMUM*

278. Matteson, R. S.; Moline, M. A.; Bellingham, J. G.; Blackwell, S. M.; Chavez, F. P.; Haddock, S.; McManus, M. A.; Oliver, M. J.; Schofield, O. M.: DISTRIBUTION OF OPTICAL CONSTITUENTS IN RESPONSE TO EPISODIC UPWELLING IN MONTEREY BAY

279. Stamoulis, K. A.: TEMPORAL VARIATION IN JUVENILE REEF FISH POPULATIONS AT THE WAI OPAE TIDEPOOLS IN KAPOHO HAWAII. CAN THIS AREA BE CONSIDERED A NURSERY?

280. Riehle, T.: LAYER 2A AT THE SOUTHEAST INDIAN RIDGE, CLUES TO ABYSSAL HILL FORMATION*

281. Paterson, C. F.; Veron, F.: PARTICLE IMAGE VELOCIMETRY ANALYSIS OF RAIN INDUCED MIXING OF THE OCEANIC BOUNDARY LAYER*

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Advanced Underwater Robotics and Their Contributions on Aquatic Sciences

282. Edgington, D. R.; Walther, D.; Cline, D. E.; Sherlock, R.; Koch, C.: DETECTION OF VISUAL EVENTS IN UNDERWATER VIDEO USING A NEUROMORPHIC SALIENCY-BASED ATTENTION SYSTEM

283. YU , S.; URA , T.: VISION BASED MULTI-AUV SYSTEM INTERLINKED WITH 3D POSITIONING SENSORS FOR HIGH-SPEED SCANNING

284. Perry, M. J.; Eriksen, C. C.: SEAGLIDER MEASUREMENT OF EPHEMERAL AND UNPREDICTABLE EVENTS

285. Podder, T. K.; Sibenac, M.; Bellingham, J. G.: REQUIREMENTS OF DOCKED AUV FOR SCIENCE MISSIONS

286. Davis, D. L.; Edgington, D. A.: GETTING SIZE SCALE FROM A SINGLE MOVING UNDERWATER CAMERA

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287. Hou, W.; Carder, K. L.; Costello, D. K.; English, D. C.: LARGE-SCALE, MULTI-CHANNEL VIDEO MOSAICS OF A CORAL REEF AUTOMATICALLY CONSTRUCTED FROM IMAGERY ACQUIRED USING AN AUTONOMOUS UNDERWATER VEHICLE

288. Doolittle, D. F.; Patterson, M. R.: NEURAL NETWORK CLASSIFICATION OF FISHES USING HIGH FREQUENCY SIDE SCAN SONAR DEPLOYED FROM A FETCH-CLASS AUTONOMOUS UNDERWATER VEHICLE

SS6.03:
Analysis of Zooplankton Distributions Using the Optical Plankton Counter

289. Herman, A.; Harvey, M.; States, G.; Phillips, T.; Furlong, A.; Pittman, M.: LASER-OPC AND NET SAMPLE INTERCOMPARISON OF MONITORING STATIONS IN THE GULF OF ST. LAWRENCE

290. Liebig, J. R.; Vanderploeg, H. A.; Ruberg, S. A.; Skripnik, S.; Bundy, M. H.: FACTORS AFFECTING THE PERFORMANCE OF THE OPTICAL PLANKTON COUNTER IN LARGE LAKES: INSIGHTS FROM LABORATORY STUDIES

SS6.04:
Using Real-time Environmental Data for Education

291. Whitmer, A. C.; Blanchette, C. A.; Caron, B. .: BRINGING REAL-TIME DATA INTO THE CLASSROOM TO STUDY OCEAN SCIENCE

SS6.05:
Ocean Observing Systems: Novel Approaches to Studying and Monitoring Large Marine Ecosystems and Their Living Resources

292. Gargett, A. E.; Wells, J.: DO LANGMUIR 'SUPERCELLS' DOMINATE SEDIMENT RESUSPENSION AND TRANSPORT IN SHALLOW SEAS?

293. Tafader, M. K.; Zafar, M.; Chowdhury, M. I.; Alam, M. N.: ASSESSMENT OF RADIOACTIVITY IN SOIL, SEDIMENT AND GRASS ON KUTUBDIA ISLAND IN BANGLADESH USING HIGH RESOLUTION GAMMA-RAY SPECTROMETRY

294. Berman, M. S.; Oviatt, C.; Melrose, D. C.: NARRAGANSETT BAY WINDOW, A PROTOTYPE OCEAN OBSERVING SYSTEM

295. Bayler, E. J.; Fuckar, N. S.: ON THE ROLE OF OCEANIC ROSSBY WAVE CONTRIBUTIONS TO HEAT STRESS EVENTS IN CORAL REEF ECOSYSTEMS

296. Senga, Y.; Suzuki, T.; Uematsu, M.: DEVELOPMENT OF A SELF-CRUISING OCEAN OBSERVATION PLATFORM

297. Shellito, S. M.; Self, R. L.; Taylor, L. E.; Abellot, H. A.: COMPARING EMERGENCE BEHAVIORS OF TWO SEPARATE POPULATIONS OF NEOMYSIS SPP.

SS6.07:
Optical Observation of Phytoplankton Dynamics: Looking Beyond Biomass

298. Yoshino, K.; Fukumoto, T.; Okuda, N.; Ohmori, K.: THE PRIMARY PRODUCTION PROCESS OF AN AREA OF SAND BANKS IN AKI-NADA, THE COAST OF SHIKOKU ISLAND, JAPAN

299. Mengelt, C.; Prezelin, B. B.: UV PHOTOECOLOGY OF TOXIGENIC DIATOMS PSEUDO-NITZSCHIA AUSTRALIS AND MULTISERIES

300. Swan, C.; Prezelin, B. B.: UVA PHOTOECOLOGY OF SUBSURFACE CHLOROPHYLL-A MAXIMA OF THE SANTA BARBARA CHANNEL

301. Mckagan, S. C.; Prezelin, B. B.: BWF ARCHITECT AND ITS BEAR: MONTE CARLO MODELING AND ERROR ANALYSES OF BIOLOGICAL WEIGHTING FUNCTIONS REQUIRED FOR UVR-CORRECTED PRIMARY PRODUCTION MODELS.

302. Briggs, E.; Byrne, R. H.; Perry, M. J.: USING SMALL CHANGES IN PH TO ASSESS THE NET AUTOTROPHIC / HETEROTROPHIC STATE OF PLANKTON ASSEMBLAGES IN SUBSURFACE LAYERS

303. Prezelin, B. B.: ABSOLUTE DEPENDENCY OF MARINE PRIMARY PRODUCTION ON ATMOSPHERIC OZONE CONCENTRATION : UV-B RADIATION AMPLIFICATION FACTORS IN CALIFORNIA COASTAL WATERS

304. PABI, S.; ARRIGO, K. R.: DETERMINING TAXON–SPECIFIC PARTICULATE ORGANIC CARBON WITH OPTICAL BACKSCATTER.

305. Mizerek, T.; Prezelin, B.: DIEL PERIODICITY OF PHOTOSYNTHESIS COMPARED FOR DIATOM- AND PHYTOFLAGELLATE- DOMINATED ASSEMBLAGES IN CONTINENTAL SHELF WATERS OF THE WEST ANTARCTIC PENINSULA

306. Briggs, A. L.; Cowles, T. J.; Pegau, W. S.: SHAPE AND VARIABILITY OF THE SPECTRAL BACKSCATTER SPECTRUM IN THE MID-ATLANTIC BIGHT

307. Ondrusek, M. E.: QUANTUM YIELD INVESTIGATIONS IN THE PACIFIC OCEAN IN RELATION TO REMOTE SENSING TECHNIQUES

308. Prieto, L.; Vaillancourt, R. D.; Marra, J.: ON THE RELATIONSHIP BETWEEN CARBON FIXATION EFFICIENCY AND BIO-OPTICAL CHARACTERISTICS OF PHYTOPLANKTON

309. Niang, A.; Dandonneau, Y.; Higgins, H. W.; Thiria, S.: A CLASSIFICATION OF PHYTOPLANCTON PIGMENTS ASSEMBLAGES FROM THE GEOCHEMISTRY, PHYTOPLANKTON AND COLOR OF THE OCEAN WORLDWIDE SAMPLING (GEP&CO, 1999-2002)

310. Sosik, H. M.; Olson, R. J.; Shalapyonok, A.: PHYTOPLANKTON DYNAMICS ON THE NEW ENGLAND INNER SHELF: TIME SERIES OBSERVATIONS AT THE MARTHA'S VINEYARD COASTAL OBSERVATORY

311. Leong, S. C.; Taguchi, S.: A POSSIBLE PREDICTING APPROACH FOR THE TOXIC DINOFLAGELLATE ALEXANDRIUM TAMARENSE USING OPTICAL PROPERTIES

POSTERS

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312. Wynne, T. T.; Stumpf, R. P.; Villareal, T. A.: ON USING OCEAN COLOR IMAGERY TO DISTINGUISH RESUSPENDED BENTHIC CHLOROPHYLL WITH CHLOROPHYLL FROM HARMFUL ALGAL BLOOMS

313. Ostrowska, M.; Majchrowski, R.; Ficek, D.; Kaczmarek, S.; Wozniak, B.; Dera, J.: FLUOROMETRIC ALGORITHM FOR DETERMINING PHOTOSYNTHETIC PHYTOPLANKTON CHARACTERISTICS

314. Fujiki, T.; Yoshikawa, T.; Furuya, K.; Suzue, T.; Kimoto, H.; Saino, T.: MEASUREMENT OF PHOTOSYNTHESIS-IRRADIANCE RESPONSE CURVE USING FAST REPETITION RATE FLUOROMETRY

SS6.08:
IOOS and Regional Observing Systems: Science, Status and Plans

315. Kallin, D. M.; Briggs, E.; Perry, M. J.: USE OF DYES IN CALIBRATING AND DIAGNOSING DRIFT OF IN-SITU ABSORBTION AND ATTENUATION METERS

316. Thigpen, J. F.; Bacon, R. H.; Spence, L.; Spranger, M. S.; Gates, K. W.; Goble, P. G.; Esliger, S.: INTEGRATING OUTREACH AND EDUCATION INTO A REGIONAL OBSERVING SYSTEM: THE SEA-COOS EXAMPLE*

317. Edwards, C. R.; Haines, S. M.; Seim, H. E.; Nelson, J. R.; Moore, T.: SEASONAL AND INTERANNUAL VARIABILITY ON THE GEORGIA BIGHT

318. Chavez, F. R.; McNutt, M.; McManus, M. A.; Griggs, G.: THE CENTRAL CALIFORNIA OCEAN OBSERVING SYSTEM: CENCOOS

319. Williams, E. J.; Kearns, E. J.: VOS CONTRIBUTIONS FROM THE EXPLORER OF THE SEAS TO THE SEACOOS OBSERVATIONAL NETWORK

320. Stearns, L. P.; Muglia, M.; Seim, H. E.; Bane, J.: SURFACE CURRENTS OFF THE OUTER BANKS OF NORTH CAROLINA

321. Scott, J. F.: LOW LEVEL NUTRIENT ANALYSIS IN SEA AND ESTUARINE WATERS USING FLUOROMETRIC METHODS VIA A CONTINUOUS FLOW ANALYZER

322. Coale, J.; Garfield, N.: CSU CENTER FOR INTEGRATIVE COASTAL OBSERVATION, RESEARCH AND EDUCATION (CI-CORE)

SS6.09:
Assimilation of Observing System Data into Ocean Models

323. Shulman, I.; Kindle, J. C.; Paduan, J. D.; Ramp, S. R.; Rosenfeld, L. K.; Haddock, S.; McGillicuddy, D. J.; Moline, M. A.; Nechaev, D.; DeRada, S.; Anderson, S. C; Phelps, M. W.: MODELED CIRCULATION PATTERNS AND BIOLUMINESCENCE DISTRIBUTION PREDICTIONS DURING UPWELLING AND RELAXATION EVENTS IN THE MONTEREY BAY AREA

324. Peng, T. H.; Li, Y. H.: RE-EVALUATION OF PREFORMED ALKALINITY IN THE OCEANS FOR ESTIMATING THE ANTHROPOGENIC CO2 INVENTORY

THEME: Ocean Color Observations

SS7.01:
Optical Properties of Oceanic Case 1 Waters: Still an Issue?

325. Johnson, B. C.; Flora, S. J.; Feinholz, M. E.; Yarbrough, M. A.; Brown, S. W.; Clark, D. K.: RADIOMETRIC STRAY LIGHT CHARACTERIZATION AND ITS SIGNIFICANCE TO OCEAN COLOR SCIENCE

326. LOISEL, H.; NICOLAS, J. M.; MOULIN, C.; RASSON, O.; DESCHAMPS, P. Y.: IMPROVEMENTS IN OCEAN COLOR OF CASE I WATERS FROM POLDER-2 IMAGERY

327. Tomohiro Horiuchi, T.; Senga Yasuhiro, .: ESTIMATION OF PICO-PHYTOPLANKTON DISTRIBUTION IN WESTERN PACIFIC OCEAN FROM OCEAN COLOR AND SST IMAGES

328. FICHOT, C. G.; MILLER, W. L.: REMOTE SENSING OF UV DIFFUSE ATTENUATION AND GELBSTOFF (CDOM) ABSORPTION FOR USE IN PHOTOCHEMISTRY

329. Majewski, L. J.; Klonowski, W. M.; Fearns, P. R.; Clementson, L. A.; Lynch, M. J.: VALIDATION OF REMOTELY SENSED OCEAN COLOUR PRODUCTS IN WESTERN AUSTRALIAN COASTAL WATERS

330. Moore, T. S.; Marra, J.; Matear, R. J.: PHYTOPLANKTON VARIABILITY AND THE WINTER BLOOM ON THE WESTERN AUSTRALIAN SHELF: CHARACTERISTICS AND CAUSES

331. Dandonneau, Y.; Vega, A.; Loisel, H.; du Penhoat, Y.; Menkes, C.: NON ALGAL PARTICLES IN EXCESS MAY EXPLAIN SEA COLOR ANOMALIES IN SUBTROPICAL GYRES ROSSBY WAVES SYSTEMS

332. Mueller, J. L.; Clark, D. K.; Koval, L.; Kim, Y. S.: SELF-SHADING OF UPWELLED RADIANCE BY MOBY AND INSTRUMENTS WITH OTHER SHADOWING SHAPES

333. Shen, S.; Savtchenko, A.; Acker, J.; Gerasimov, I.; SIMBIOS, .: MODIS AND SEAWIFS DATA AT DIAGNOSTIC DATA SET SITES FROM GES DAAC

334. Sakshaug, E.; Olsen, L.; Sandvik, R.: IMPORTANCE OF BIO-OPTICAL VARIATION AND THE SPECTRAL QUALITY OF LIGHT IN NORTHERN WATERS FOR ESTIMATING PRIMARY PRODUCTIVITY

335. Tan, C. K.; Ishizaka, J.: SEASONAL AND INTERANNUAL VARIATION OF SEAWIFS CHLOROPHYLL A IN MALACCA STRAITS

SS7.02:
Hyperspectral Signatures of Case 2 Waters

336. Chang, G. C.; McPhee-Shaw, E. E.; Dickey, T. D.: OPTICAL CHARACTERIZATION OF PHYTOPLANKTON BLOOMS IN THE SANTA BARBARA CHANNEL

337. Chen, F. R.; Carder, K. L.; Steward, R.; Ivey, J.; Lee, Z.; Bissett, P.: BATHYMETRY RETRIEVALS FROM PHILLS FLOWN OVER TURBID WATERS

338. Kostadinov, T. S.; Siegel, D. A.; Maritorena, S.; Guillocheau, N.: ASSESSMENT OF OPTICAL CLOSURE USING THE PLUMES AND BLOOMS IN-SITU OPTICAL DATASET, SANTA BARBARA CHANNEL, CALIFORNIA

339. Tzortziou, M.; Herman, J.; Subramaniam, A.; Neale, P.; Gallegos, C.; Harding, L.: A CLOSURE EXPERIMENT FOR IN-WATER OPTICAL PROPERTIES AND RADIATION IN THE CHESAPEAKE BAY ESTUARINE WATERS

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POSTERS

340. Zhang, H.; Voss, K. J.: COMPARISONS OF MEASURED AND MODELED BRDF OF PREPARED SURFACES

341. Feng, H.; Dowell, M. D.; Campbell, J. W.; Moore, T. S.: THE EFFECT OF THE STATISTICS OF OPTICAL-ACTIVE CONSTITUENTS ON MODEL-BASED INVERSIONS OF OCEAN COLOR

342. Yuan, J.; Dagg, M. J.: IN-PIXEL VARIATIONS IN CHL A FLUORESCENCE IN THE NORTHERN GULF OF MEXICO AND IMPLICATIONS FOR CALIBRATING REMOTELY SENSED CHL A AND OTHER PRODUCTS

343. Keith, D. J.; Yoder, J. A.; Freeman, S. A.; Mouw, C.; Latimer, J. S.: APPLICATION OF THE SEAWIFS OC4 CHLOROPHYLL ALGORITHM TO THE WATERS OF NARRAGANSETT BAY, RHODE ISLAND

344. Schroeder, T.; Schaale, M.; Zhang, T.; Fischer, J.: RETRIEVAL OF WATER CONSTITUENTS IN CASE-2 WATERS FROM MERIS MEASUREMENTS: A COMPARISON OF DIRECT AND INDIRECT INVERSION SCHEMES

345. Fischer, J.; Schaale, M. A.; Schroeder, T.; Zhang, T.: EFFECTS OF THE MERIS DESIGN ON THE RETRIEVAL OF WATER-LEAVING RADIANCES BY NEURAL NETWORKS

346. Sullivan, J.; Twardowski, M.; Moore, C.; Rhodes, B.; Zaneveld, J.; Miller, R.; Freeman, S.: FIELD AND LABORATORY CHARATERIZATION OF A NEW HYPER-SPECTRAL AC METER (THE AC-S)

347. Spiering, B. A.; Stavn, R. H.; Del Castillo, C.; Hall, C. H.; Wright, V.: EFFECT OF SUSPENDED PARTICLES ON WATER OPTICAL PROPERTIES IN THE MISSISSIPPI RIVER PLUME

348. Shang, S. L.; Wu, J. Y.: EMPIRICAL FUNCTION REDEFINING OF MODIS SEMIANALYTIC ALGORITHM FOR THE PEARL RIVER ESTUARY BASED ON ABSORPTION MEASUREMENTS

349. Snyder, W. A.; Rhea, W. J.; Lamela, G. M.; Davis, C. O.; Gould, R. W.; Arnone, R. A.; Sydor, M.: REMOTE SENSING REFLECTANCE AND THE OPTICAL PROPERTIES OF THE COASTAL AND ESTUARINE WATERS OF LEO-15 DURING JULY 2001

350. Wang, P.; Boss, E.; Roesler , C.: A METHOD TO QUANTIFY THE UNCERTAINTIES ASSOCIATED WITH SEMI-ANALYTIC ALGORITHM FOR INVERSION OF OCEAN COLOR

351. Clark, D. K.; Yarbrough, M. A.; Feinholz, M. E.: REDUCING UNCERTAINTIES IN THE MEASUREMENT OF APPARENT OPTICAL PROPERTIES USING AN ROV FIBER OPTICALLY COUPLED SPECTROMETER

352. Wood, A. M.; Gould, R. W.; Pegau, S.; Li, W. K.: PHYCOERYTHRIN SIGNATURES IN THE COASTAL OCEAN

353. Kinkade, C. S.; Yuen-Murphy, M. A.; Houlihan, T.: INSTRUMENT INTERCOMPARISON OF CHROMOPHORIC DISSOLVED ORGANIC MATTER (CDOM) MEASUREMENTS IN OLIGOTROPHIC AND COASTAL WATERS

354. Malick, L. A.; Carder, K. L.; Cannizzaro, J. P.; Ivey, J. E.: VARIATION OF PIGMENT COMPOSITION IN RESPONSE TO LIGHT QUALITY

355. Moore, C. C.; Rhodes, B. K.; Derr, A. R.; Zaneveld, J. R.: AN INSTRUMENT FOR HYPERSPECTRAL CHARACTERIZATION OF INHERENT OPTICAL PROPERTIES IN NATURAL WATERS

THEME: Pacific Fisheries / Census of Marine Life

SS8.03:
Operational Fisheries Oceanography

356. Kearns, E. J.; Montgomery, J.: THE DETECTION OF SARGASSUM WEED DISTRIBUTIONS IN THE NORTH ATLANTIC OCEAN USING MODIS IMAGERY

357. Bothwell, M. L.; Holtby, L. B.; Hamilton, S.; Lynch, D.: EFFECTS OF NATURAL SOLAR ULTRAVIOLET RADIATION ON THE DEVELOPMENT OF JUVENILE COHO SALMON: IMPLICATIONS FOR OCEAN SURVIVAL

358. Yeung, C.; Lamkin, J.; Jones, D.; Criales, M.; Lara, M.; Richards, W.: CATCHING EDDIES IN THE FLORIDA KEYS: AN EXPERIMENT TO TEST THE EDDY TRANSPORT OF PRE-SETTLEMENT STAGES FROM COASTAL OCEAN TO ESTUARINE NURSERY GROUND

359. Kobayashi, D. R.; Howell, E. A.: PREDICTING BIGEYE TUNA (THUNNUS OBESUS) LONGLINE CATCH AT PALMYRA ATOLL USING A GENERALIZED ADDITIVE MODEL

THEME: Urban Ocean (Coastal Ocean Near Centers of Urban Populations)

SS9.01:
Ecosystem Science Practiced in an Urbanized Estuary: South San Francisco Bay

360. Mooney, T. A.; Au, W. W.; Nachtigall, P. E.: TARGET STRENGTH AND PREDICTED BIOSONAR DETECTION RANGES OF THREE EXPERIMENTAL GILLNETS: A METHOD TO REDUCE MARINE MAMMAL BYCATCH

361. Conaway, C. H.; Flegal, A. R.: INVESTIGATION OF AIR-WATER EXCHANGE OF MERCURY IN SAN FRANCISCO ESTUARY*

362. Griggs, R. B.; Kaufmann, R. S.: TEMPORAL AND SPATIAL PATTERNS OF MEROPLANKTON IN MISSION BAY, SAN DIEGO, CALIFORNIA

363. Knoff, A. J.; Macko, S. A.; Hohn, A. A.: BOTTLENOSE DOLPHIN (TURSIOPS TRUNCATUS) POPULATION STRUCTURE ALONG THE MID-ATLANTIC COAST OF THE U.S.: A STABLE ISOTOPE APPROACH

364. Swope, B. L.; Kaufmann, R. S.: SPATIAL AND TEMPORAL DYNAMICS OF PHYTOPLANKTON IN MISSION BAY OVER A COMPLETE ANNUAL CYCLE

365. Kaufmann, R. S.; Boudrias, M. A.; Stransky, B. C.: TEMPORAL AND SPATIAL VARIABILITY OF MEIOFAUNAL COMMUNITIES IN MISSION BAY, SAN DIEGO, CALIFORNIA

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SS9.02:
Sources, Transport, and Fate of Contaminants in the Southern California Bight

366. Grant, S. B.; Kim, J. H.; Jones, B. H.; Jenkins, S.: SURF ZONE ENTRAINMENT AND LONG-SHORE TRANSPORT OF FECAL POLLUTION FROM TIDAL OUTLETS*

367. Edwards, B. D.; Dartnell, P.; Chezar, H.: IMPACTS OF CONTAMINATED SEDIMENT ON BENTHIC FAUNA IN THE LOS ANGELES URBAN OCEAN AS REVEALED BY SEAFLOOR PHOTOGRAPHY

368. Carter, M. L.; Largier, J. L.; Scearce, C.; Rasmussen, L.; Clarke, L.; Roughan, M.; Terrill, E.: FECAL CONTAMINATION OF IMPERIAL BEACH – HOW WOULD ONE KNOW IF THE SOUTH BAY OUTFALL IS THE SOURCE?

369. Nezlin, N. P.: IMPACT OF RAINSTORMS ON COASTAL WATER OFF SOUTHERN CALIFORNIA OBSERVED BY SEAWIFS

SS9.03:
Developing Ecosystem-based Products for Ocean and Estuarine Management

370. Bailey , B. A.; Pershing, A. J.: DEVELOPING ECOLOGICAL FORECASTS FROM TIME-SERIES DATA

371. Sokolov, A. V.; Rodriguez Medina, M. A.; Wulff, F. V.: THE BALTIC ENVIRONMENTAL DATABASE AND TOOLS FOR DATA ANALYSIS

372. Ainley, D.; Spear, L.; Tynan, C.; Barth, J.; Pierce, S.; Cowles, T.: OCCURRENCE PATTERNS OF SEABIRDS IN THE CALIFORNIA CURRENT: MODELING PHYSICAL AND BIOLOGICAL HABITAT FEATURES

373. Adolf, J. E.; Jordan, C. J.; Miller, W. D.; Mallonee, M. E.; Harding, L. W.: PHYTOPLANKTON FLORAL COMPOSITION AND PRIMARY PRODUCTION IN CHESAPEAKE BAY, USA

374. Fujieki, L. A.; Karl, D. M.: HOT-DOGS: A USER-FRIENDLY INTERFACE FOR ACCESS TO THE HAWAII OCEAN TIME-SERIES DATA

375. Yarincik, K. M.; O'Dor, R.: CENSUS OF MARINE LIFE: MARINE BIOGEOGRAPHIC INFORMATION – PAST, PRESENT AND FUTURE

376. Kim, E. W.; Park, M. K.; Levandowsky, M.: PHYTOPLANKTON OF THE LOWER HUDSON AND EAST RIVERS, NY: THE INFORMATION CONTENT OF CATEGORICAL DATA

SS9.04:
Understanding the Physiological and Community Ecology of Invasive Species

377. Miller, D. C.; Dale, R. K.; Brown, J. R.; Huggins, P. D.: TEMPERATURE AND SALINITY TOLERANCE OF VIETNAMESE BAIT WORMS, NAMALYCASTIS SP.: IMPLICATIONS FOR ESTABLISHMENT OF A TROPICAL IMPORT IN THE SOUTHEASTERN USA

SS9.06:
Dynamics of Pathogens in Marine Systems

378. Park, M. G.; Kim, S. J.; Yih, W. H.: INFECTION OF THE BLOOM-FORMING DINOFLAGELLATES ALEXANDRIUM AFFINE AND GONYAULAX SPINIFERA BY THE PARASITE AMOEBOPHRYA

379. Boehm, A. B.; Davis, K. A.; Winant, C. D.; Lluch-Cota, D. B.; Monismith, S. G.: CO-VARIATION OF COASTAL WATER TEMPERATURE AND MICROBIAL POLLUTION AT INTERANNUAL TO TIDAL PERIODS

380. Harvey, E. L.; Wetzel, D. L.: TOXICITY, DUE TO PERMANONE31-66, TO THE INLAND SILVERSIDE, MENIDIA BERYLLINA AND MYSID, MYSIDOPSIS BAHIA

381. Ferguson, D. M.; Moore, D. F.; Zhowandai, M. H.; Getrich, M. A.: OCCURRENCE OF ENTEROCOCCI IN OCEAN WATER, SEDIMENTS, STORM DRAINS, SOIL AND SEAGULLS AT BABY BEACH, DANA POINT HARBOR, CALIFORNIA

382. Chigbu, P.; Gordon, S.; Strange, T.: EFFECTS OF EL NINO-SOUTHERN OSCILLATION EVENTS ON FECAL COLIFORM LEVELS IN MISSISSIPPI SOUND

383. Jenkins, T. M.; Woodall, M. R.; Scott, T. M.; Rose, J. B.: PRESENCE OF BACTERIAL AND VIRAL INDICATORS AND HUMAN ENTERIC VIRUSES IN MICHIGAN WATERWAYS

384. Davis, K.; Boehm, A.; Paytan, A.; Shellenbarger, G.: SUBTERREANEAN GROUNDWATER, A POSSIBLE SOURCE OF MICROBIAL POLLUTION AT HUNTINGTON BEACH, CA, A RADIUM ISOTOPES STUDY.

385. Kiesling, T. L.; Diaz, M.; Goodwin, K. D.; Cotton, S.; Fell, J. W.: HYBRIDIZATION BASED DETECTION OF FECAL BACTERIAL CONTAMINANTS USING THE LUMINEX 100 SYSTEM

386. Reeves, R. L.; Mrse, R. D.; Oancea, C. C.; Sanders, B. F.; Boehm, A. B.; Grant, S. B.: SOURCES, MANAGEMENT, AND SCALING OF FECAL INDICATOR BACTERIA IN RUNOFF FROM A COASTAL URBAN WATERSHED IN SOUTHERN CALIFORNIA

387. Hokama, Y.; Higa, N.; Suma, C.; Chun, K. F.; Yabusaki, K.: EVIDENCE FOR THE PRESENCE OF CIGUATOXIN (CTX) IN CRUDE CTX EXTRACTS OF CIGUATERA IMPLICATED FISH: IMMUNOLOGICAL, TOXICITY, CELL CULTURE, AND PHYSICAL-CHEMICAL

SS9.07:
Oceans and Human Health

388. Scholin, C.; Marin III, R.; Jensen, S.; Feldman, J.; Roman, B.; Massion, E.: THE ENVIRONMENTAL SAMPLE PROCESSOR (ESP): A NOVEL DEVICE FOR DETECTING MICROORGANISMS REMOTELY, SUBSURFACE, IN NEAR REAL TIME

389. Vigilant, V. L.; Silver, M. W.: HOW ARE OCEANOGRAPHIC CONDITIONS RELATED TO THE PRESENCE OF DOMOIC ACID, A HARMFUL ALGAL BLOOM TOXIN, IN BENTHIC FISH IN MONTEREY BAY, CA, USA?

390. O'Connor, A.; Clark, C. D.; Foley, D.; De Bruyn, W.: CORRELATION BETWEEN FECAL INDICATOR BACTERIA LEVELS AND OPTICAL PROPERTIES OF COLORED DISSOLVED ORGANIC MATTER (CDOM) IN POLLUTED COASTAL WATERS

(*) represents Invited presentations

POSTERS

391. Antrobus, R. J.; Silver, M. W.: TEMPORAL DYNAMICS OF NUTRIENTS AND PHYTOPLANKTON BIOMASS IN CENTRAL CALIFORNIA AS THEY RELATE TO THE PRESENCE OF ALEXANDRIUM CATENELLA, A HAB SPECIES

392. Dalpra, D.; Kirkpatrick, B.; Fleming, L. E.; Backer, L.; Wanner, A.; Bean , J.; Abraham, W.; Zais, J.; Bossart, G.; Baden, D. G.; Naar, J.; Cheng, Y. S.; Pierce, R.: AN EPIDEMIOLOGIC STUDY TO EXAMINE THE EFFECTS OF THE AEROSOLIZED FLORIDA RED TIDE TOXINS ON PEOPLE WITH REACTIVE AIRWAY DISEASE

393. Pierce, R. H.; Henry, M. S.; Blum, P. C.; Hamel, S. L.: CHANGES IN THE COMPOSITION OF HARMFUL ALGAL TOXINS DURING BUBBLE-MEDIATED PRODUCTION OF BIOTOXIN-CONTAINING MARINE AEROSOL IN THE SURF ZONE

394. Fowler, T. L.; Tice, A. D.; Ishikawa, A.; Fujioka, R. S.: DETECTION OF METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS (MRSA) IN POPULAR MARINE RECREATIONAL BEACHES IN HAWAII*

395. Schaeffer, B. A.; Kamykowski, D.; Milligan, E. J.; McKay, L. L.; Sinclair, G.: KARENIA BREVIS LIPID PATTERNS DURING DIEL VERTICAL MIGRATION IN NITRATE DEPLETE AND REPLETE MESOCOSMS

THEME: Uncategorized Sessions

SS10.01:
Webs and Scales

396. Adamik, P.; Gallager, S. M.; Horgan, E. F.; Madin, L. P.; Govindarajan, A.; Alatalo, P.: THE EFFECT OF TURBULENCE ON THE FEEDING RATE OF A PELAGIC PREDATOR: THE PLANKTONIC HYDROID CLYTIA GRACILIS

397. Suchman, C. L.; Brodeur, R. D.; Krutzikowsky, G. K.: DISTRIBUTION OF LARGE MEDUSAE OFF THE COASTS OF WASHINGTON AND OREGON, USA: SEASONAL AND INTERANNUAL VARIABILITY IN RELATION TO ENVIRONMENTAL CONDITIONS

398. Fredrickson, K. A.; Strom, S. L.: BETA-DIMETHYLSULFONIOPROPIONATE (DMSP) AS A GRAZING DETERRENT IN COASTAL PHYTOPLANKTON COMMUNITIES

399. Sommer, F.; Sommer, U.: LOW NITROGEN STABLE ISOTOPE SIGNALS OF SUMMER ZOOPLANKTON IN THE BALTIC SEA: AMMONIA RECYCLING OR TRANSFER OF DIAZOTROPHIC NITROGEN?

400. Drazen, J. C.; Reisenbichler, K. R.; Robison, B. H.: A COMPARISON OF ASSIMILATION EFFICIENCIES BETWEEN SHALLOW AND DEEP LIVING FISHES

401. Slater, L. M.; Hopcroft, R. R.: DEVELOPMENT AND GROWTH RATES OF THE COPEPOD CENTROPAGES ABDOMINALIS IN THE SUBARCTIC PACIFIC

402. Takahashi , K.; Kuwata, A.; Saito, H.: SEASONAL VARIATION OF IN SITU GRAZING RATE OF THE COPEPOD COMMUNITY IN THE OYASHIO RIGION OF THE SUBARCTIC PACIFIC OCEAN

403. Rose, J. M.; Caron, D. A.; Vora, N. M.; Gast, R. J.; Moran, D. M.: EFFECT OF TEMPERATURE AND FOOD TYPE ON THE GROWTH OF AN ANTARCTIC NANOFLAGELLATE

404. Peters, J.; Dutz, J.; Renz, J.; Hagen, W.: REGIONAL AND SEASONAL CHANGES IN THE FOOD QUALITY OF SESTON AND ITS IMPLICATION FOR LIPIDS AND PRODUCTION OF COPEPODS IN THE BALTIC SEA

405. Sherlock, R. E.; Robison, B. H.; Schlining, K. L.: FREE SWIMMING AND PREGNANT: THE FATE OF THE GIANT LARVACEAN?

406. Hunt, G. L.; Stabeno, P. J.; Napp, J. M.; Sambrotto, R.: BERING ECOSYSTEM STUDY PROGRAM (BEST)

407. Ozaki, K.; Uye, S.; Kusumoto, T.; Hagino, T.: INTERANNUAL CHANGES IN THE SEASONAL AND REGIONAL POPULATION OCCURRENCE OF CALANUS SINICUS IN THE KII CHANNEL, THE PACIFIC SHELF WATER OF SOUTHWESTERN JAPAN

408. Pinchuk, A. I.; Hopcroft, R. R.; Coyle, K. O.: GROWTH RATES OF EUPHAUSIIDS IN THE NORTHERN GULF OF ALASKA IN 2001-2003

409. Byrd, A. G.; Hopcroft, R. R.; Coyle, K. O.: ABUNDANCE, BIOMASS AND PRODUCTION OF OITHONA SIMILIS IN THE GULF OF ALASKA

410. Burdick, D.; Rodrigues, G.; Hartline, D. K.; Lenz, P. H.: QUANTITATIVE DIFFERENCES IN ESCAPE PERFORMANCE IN CALANOID COPEPODS

SS10.03:
COSEE: Enhancing the Broader Impacts of Ocean Science Research

411. Simoniello, C.; Butler, H.; West, S.; Greely, T.: MAKING PHYSICS FUN: APPLIED OCEANOGRPAHY IN A MIDDLE SCHOOL SETTING

412. Mariano, A. J.; Ryan, E. H.; Bischof, B.; Gyory, J.: AN EDUCATIONAL WEB-BASED OCEAN CURRENT SITE

413. Holt Cline, A.; Campbell, J.: BRIDGING THE GAP BETWEEN COASTAL OBSERVATION RESEARCH AND THE COMMUNITY

414. Weiler, C. S.: A CAPSTONE PROGRAM TO FOSTER INTERDISCIPLINARY UNDERSTANDING AND PEER NETWORKING AMONG RECENT PHD RECIPIENTS

SS11.01:
Food-web Dynamics and C Flux in an Era of Climatic Variability: A Pan-Arctic Perspective

415. Clement, J. L.; Maslowski, W.; Cooper, L. W.; Grebmeier, J. M.; Walczowski, W.: OCEAN CIRCULATION AND EXCHANGES THROUGH THE NORTHERN BERING SEA – 1979-2001 MODEL RESULTS

416. Kristiansen, S.; Hodal, H. L.: PRIMARY PRODUCTION IN THE MARGINAL ICE ZONE IN THE BARENTS SEA*

417. Lavoie, D.; Denman, K. L.: MODELLING THE BIOLOGICAL CO2 PUMP IN SEASONALLY ICE-COVERED REGIONS OF THE ARCTIC OCEAN

418. Pirtle-Levy, R.; Grebmeier, J. M.; Cooper, L. W.: QUANTITATIVE IMPORTANCE OF MACROFAUNA: A TEST OF SIEVE MESH SIZE BIASES ON SAMPLING IN A HIGH BENTHIC BIOMASS AREA

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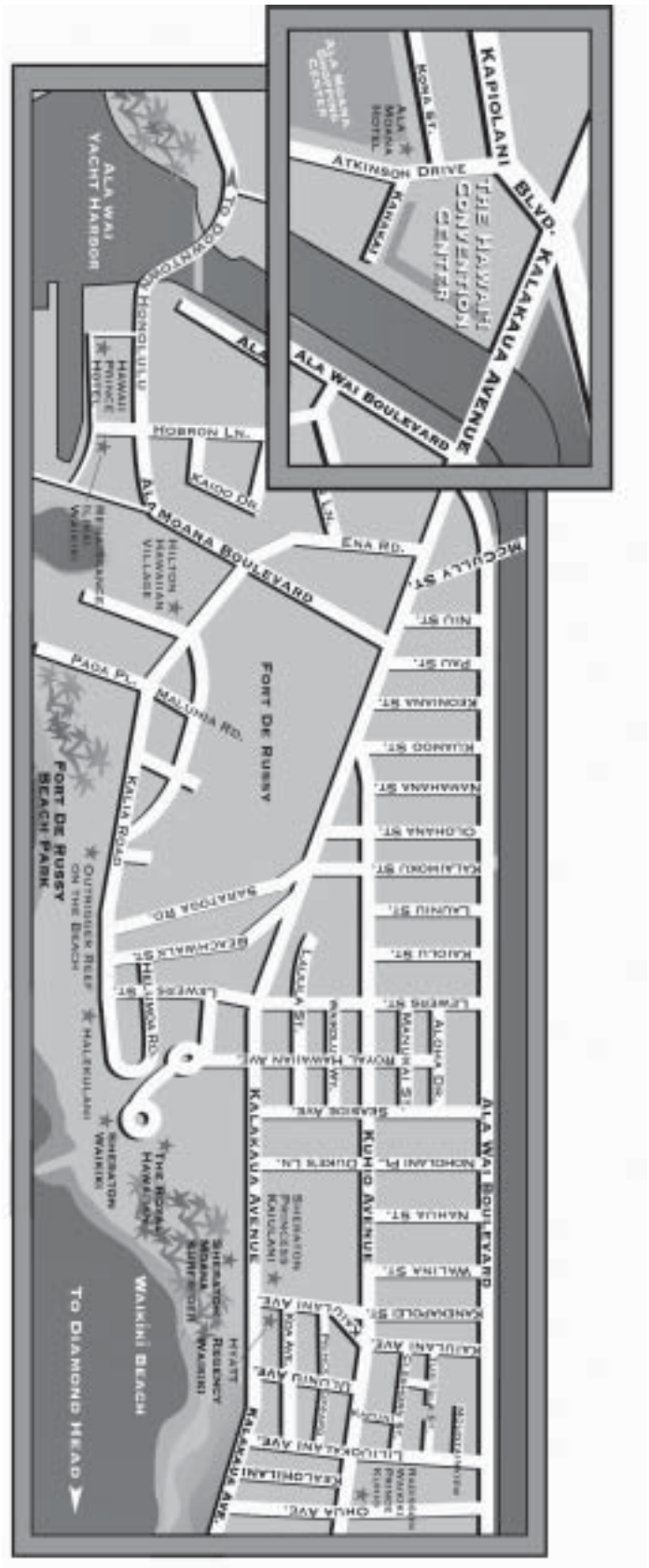
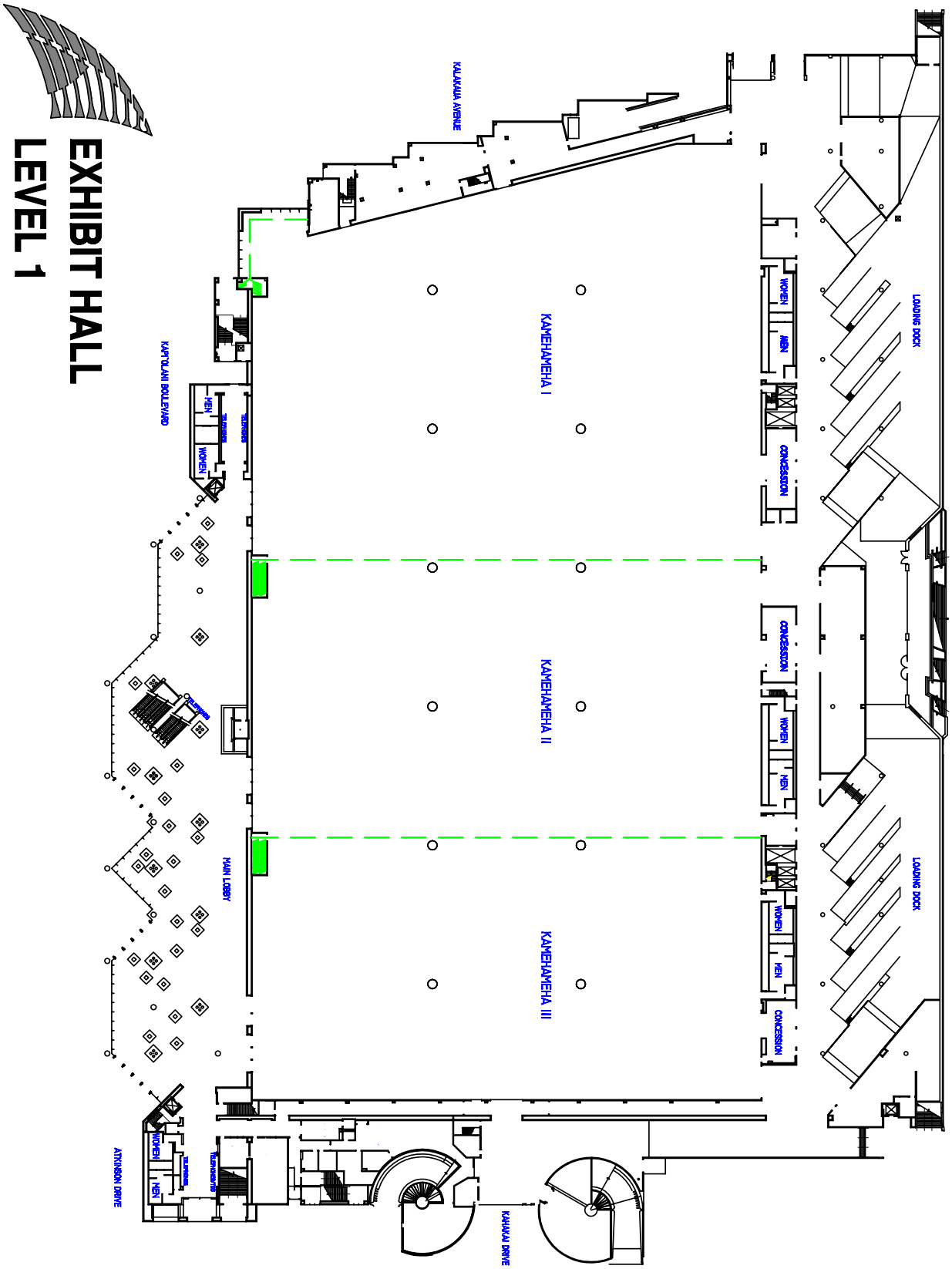
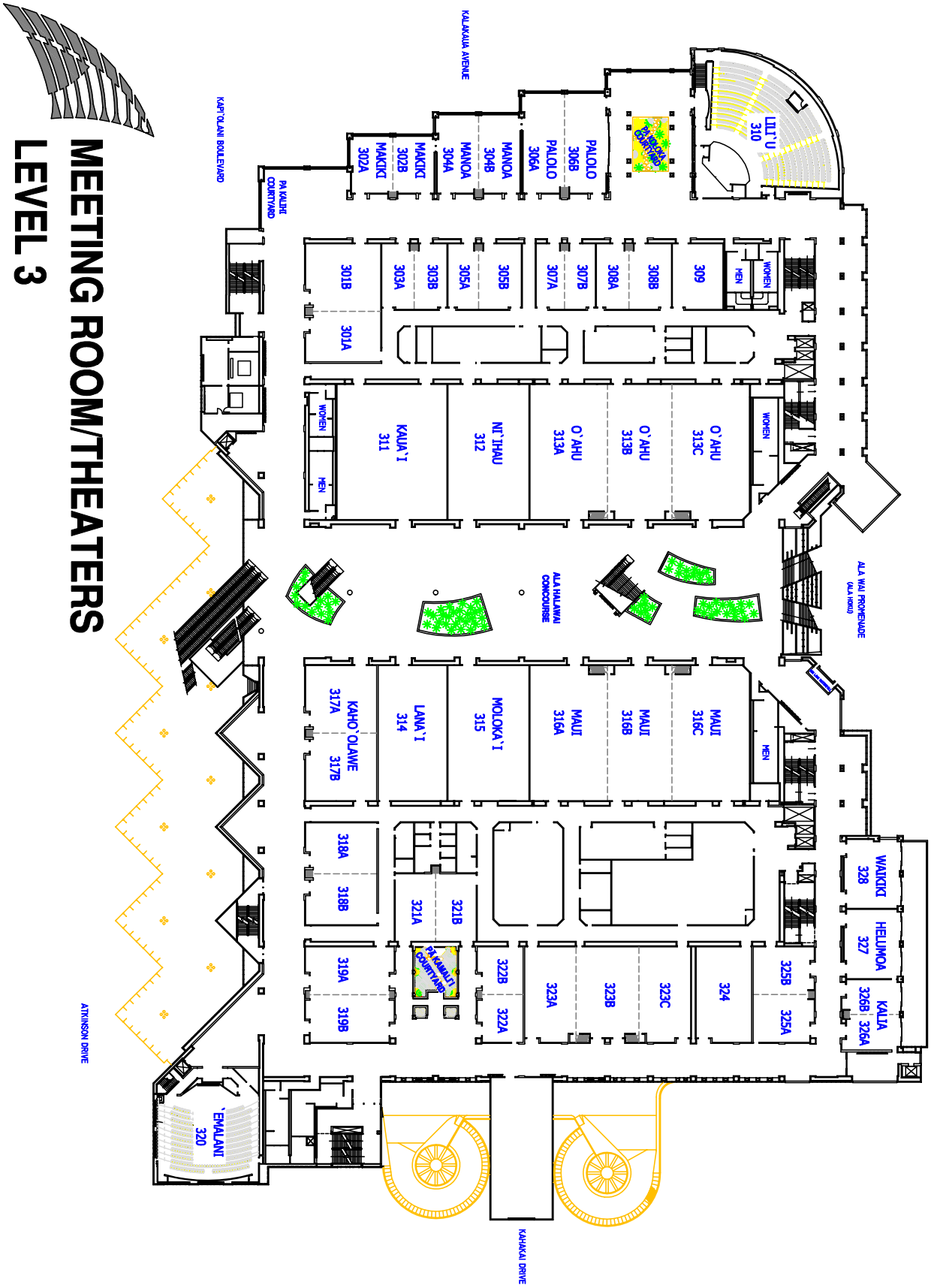
Map of Waikiki



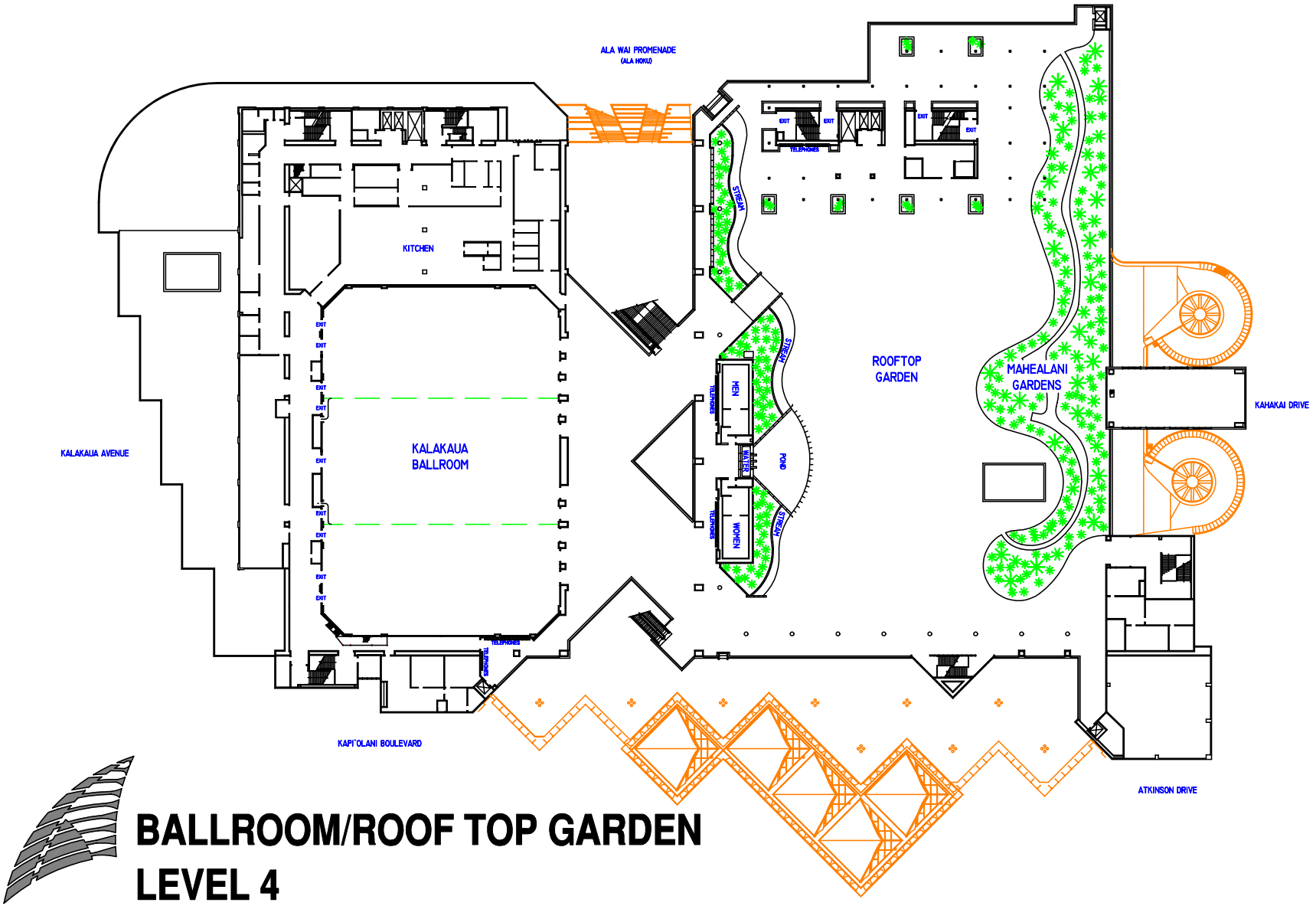
Convention Center Level 1 (Exhibit Hall)



Convention Center Level 3 (Meeting Rooms)



Convention Center Level 4
(Ballroom/Rooftop Garden)



BALLROOM/ROOF TOP GARDEN
LEVEL 4

Program Matrix - Sunday

1-9 PM	Registration - Kamehameha Hall III Lobby
7 AM-9 PM	Speaker Ready Room - Room 325 B
7 AM-9 PM	Presentation Room - Room 325 A
6:30-9 PM	Opening Welcome Mixer Reception - Rooftop

All session are located at the Hawaii Convention Center, unless otherwise noted.

Program Matrix - Monday

7 AM-5 PM	Registration - Kamehameha Hall III Lobby					
7 AM-5 PM	Email Room - Room 327					
7 AM-7 PM	Speaker Ready Room - Room 325 B					
7 AM-7 PM	Presentation Room - Room 325 A					
7:00-8:00 AM	Complimentary Coffee Service - Ballroom A-B Foyer					
8:00-8:15 AM	Conference Opening and Introductions - Ballroom A-B					
8:15-9:00 AM	Plenary Address - Ballroom A-B					
	Dr. Rita R. Colwell, Director, National Science Foundation					
	The Future of Ocean Sciences					
9:00-9:30 AM	Plenary Address - Ballroom A-B					
	Dr. Eric J. Lindstrom, Oceanography Program Scientist, Office of Earth Science, NASA Headquarters					
	The Role of Ocean Research in Developing an Integrated Ocean Observing System for the United States					
9:30-10:00 AM	Plenary Address - Ballroom A-B					
	Dr. Oscar Schofield, Associate Professor, Institute of Marine and Coastal Studies, Rutgers University					
	The Utility of Cabled Systems for In Situ and Remotely Sensed Hyperspectral Optics					
10-10:30 AM	BREAK					
	314	315	316A	316B	316C	317A
Session	SS6.07	SS5.12	SS1.04	SS9.03	SS6.08	SS5.14
Title	Optical Observation of Phytoplankton Dynamics: Looking Beyond Biomass	Interactions and Feedbacks Among Marine Pelagic Ecosystems, Biogeochemical Cycles and Climate, in a Globally Changing Environment	Integration of Meso/Sub-mesoscale Hydrodynamics and Acoustic Propagation in Continental Shelf-break Regions	Developing Ecosystem-based Products for Ocean and Estuarine Management	IOOS and Regional Observing Systems: Science, Status and Plans	The Aquatic Gel Phase: Its Role in Biogeochemical Cycles
10:30 AM	Sosik, H. M.	Vezina, A. F.	Miyamoto, R. T.	Wulff, F. V.	Malone, T.	Boehme, J. R.
10:45 AM	Sosik, H. M.	Vezina, A. F.	Field, R. L.	Justic, D.	Mundy, P. R.	Chin, W.
11:00 AM	Boss, E. S.	Richardson, T. L.	Orr, M. H.	Baltz, D. M.	Seim, H. E.	Hung, C. C.
11:15 AM	Carder, K. L.	Bidigare, R. R.	Finette, S.	Goebel, N. L.	Bogden, P. S.	Kerner, M.
11:30 AM	Laney, S. R.	Pena, M. A.	Walsh, D.	Shapiro, A. C.	Boicourt, W. C.	Jenkinson, I. R.
11:45 AM	Huot, Y.	Gregg, W.	Warn-Varnas, A.	Harding, Jr., L. W.	Lewis, J. K.	Thoms, S.
12:00-1:30 PM	LUNCH					
12:00-1:15 PM	Landing the Right Job: Applications to Interviews Workshop - Room 316 C					
12:00-6:00 PM	Exhibitor Set-Up - Kamehameha Hall III					
	314	315	316A	316B	316C	317A
Session	SS6.07 (con't.)	SS5.12 (con't.)	SS1.01	SS9.03 (con't.)	SS6.08 (con't.)	SS9.04
Title	Optical Observation of Phytoplankton Dynamics: Looking Beyond Biomass	Interactions and Feedbacks Among Marine Pelagic Ecosystems, Biogeochemical Cycles and Climate, in a Globally Changing Environment	Shelf-Basin Interactions in the Western Arctic	Developing Ecosystem-based Products for Ocean and Estuarine Management	IOOS and Regional Observing Systems: Science, Status and Plans	Understanding the Physiological and Community Ecology of Invasive Species
1:30 PM	Gorbunov, M. Y.	Legendre, L.	Aagaard, K.	Houde, E. D.	Gardner, B.	Grosholz, E. D.
1:45 PM	Letelier, R. M.	Hare, C. E.	Aagaard, K.	Barrientos, C. S.	Glenn, S. M.	Zabin, C. J.
2:00 PM	Moore, C. M.	Agawin, N. R.	Williams, W. J.	Murphy, K. R.	Weisberg, R. H.	Kahng, S. E.
2:15 PM	Corno, G.	Hood, R. R.	Nilsen, F.	Pershing, A. J.	McLaughlin, B.	Conklin, E. J.
2:30 PM	Kirkpatrick, G. J.	Kelly-Gerreyn, B. A.	Aagaard, K.	Hooff, R. C.	Atkinson, L. P.	Neira, C.
2:45 PM	Suggett, D. J.	Wilkerson, F. P.	Dixon, J. S.	Tynan, C. T.	Ackelson, S.	deRivera, C. E.
3:00-3:30 PM	BREAK					
3:00-5:00 PM	Poster Set-Up - Kamehameha Hall III					
	314	315	316A	316B	316C	317A
Session	SS6.07 (con't.)	SS5.12 (con't.)	SS1.01 (con't.)	SS9.03 (con't.)	SS6.08 (con't.)	SS9.04 (con't.)
Title	Optical Observation of Phytoplankton Dynamics: Looking Beyond Biomass	Interactions and Feedbacks Among Marine Pelagic Ecosystems, Biogeochemical Cycles and Climate, in a Globally Changing Environment	Shelf-Basin Interactions in the Western Arctic	Developing Ecosystem-based Products for Ocean and Estuarine Management	IOOS and Regional Observing Systems: Science, Status and Plans	Understanding the Physiological and Community Ecology of Invasive Species
3:30 PM	Johnsen, G.	Montoya, J. P.	Kadko, D. C.	Incze, L. S.	Arzayus, L. F.	Torchin, M. E.
3:45 PM	Marra, J.	Mills, M. M.	Cooper, L. W.	Brooks, D. A.	Bellingham, J. G.	Rudnick, D. A.
4:00 PM	Moisan, T. A.	Altabet, M. A.	Benner, R.	Chen, C.	Dickey, T. D.	Smith, L. D.
4:15 PM	Morrison, J. R.	Horst, G. P.	Osburn, C. L.	DeVoe, M. R.	He, R.	Brown, J. R.
4:30 PM	Johnson, K. S.	Morán, X. A.	Comiso, J. C.	Threlkeld, S. T.	Luther, G. W.	Drake, L. A.
4:45 PM		Dowell, M. D.	Gradinger, R. R.			Kotta, J.
5:00-8:00 PM	Climate Data Records for Ocean Color Town Hall Meeting - Room 315					
5:00-8:00 PM	Let's Talk about WHOI Discussion Session - Room 321 B					
5:30-8:30 PM	National Science Foundation Town Hall Meeting - Room 316 C					

All session are located at the Hawaii Convention Center, unless otherwise noted.

Program Matrix - Sunday

Registration - Kamehameha Hall III Lobby	1-9 PM
Speaker Ready Room - Room 325 B	7 AM-9 PM
Presentation Room - Room 325 A	7 AM-9 PM
Opening Welcome Mixer Reception - Rooftop	6:30-9 PM

All session are located at the Hawaii Convention Center, unless otherwise noted.

Program Matrix - Monday

Registration - Kamehameha Hall III Lobby							7 AM-5 PM
Email Room - Room 327							7 AM-5 PM
Speaker Ready Room - Room 325 B							7 AM-7 PM
Presentation Room - Room 325 A							7 AM-7 PM
Complimentary Coffee Service - Ballroom A-B Foyer							7:00-8:00 AM
Conference Opening and Introductions - Ballroom A-B							8:00-8:15 AM
Plenary Address - Ballroom A-B							8:15-9:00 AM
Dr. Rita R. Colwell, Director, National Science Foundation							
The Future of Ocean Sciences							
Plenary Address - Ballroom A-B							9:00-9:30 AM
Dr. Eric J. Lindstrom, Oceanography Program Scientist, Office of Earth Science, NASA Headquarters							
The Role of Ocean Research in Developing an Integrated Ocean Observing System for the United States							
Plenary Address - Ballroom A-B							9:30-10:00 AM
Dr. Oscar Schofield, Associate Professor, Institute of Marine and Coastal Studies, Rutgers University							
The Utility of Cabled Systems for In Situ and Remotely Sensed Hyperspectral Optics							
BREAK							10-10:30 AM
317B	318A-B	319A-B	323A	323B	323C	324	
SS5.01	SS2.12	SS2.06	SS9.07	SS2.08	SS2.02	SS6.02	Session
Metal Cycling in Coastal Wetlands	Structure in an Apparently Uniform Environment	Island and Sea Mount Oceanography: Physics, Biogeochemistry and Fisheries	Oceans and Human Health	Development of Coupled Models and Biological Sampling Strategies to Improve Prediction	Biological Microscale Patterns and Processes in the Ocean: Towards a Seascape Topology	Advanced Underwater Robotics and Their Contributions on Aquatic Sciences	Title
Lin, S.	Alldredge, A. L.	Arístegui, J.	Colwell, R.	Pepin, P.	Patten, N. L.	Ura, T.	10:30 AM
Flegal, A. R.	Alldredge, A. L.	Kaufmann, M. J.	Colwell, R.	Pepin, P.	Mitchell, J. G.	Ura, T.	10:45 AM
Choe, K.	Thygesen, U. H.	Turnewitsch, R.	Dearry, A.	Richards, K. J.	Waters, R. L.	Kukulya, A. L.	11:00 AM
Lamborg, C. H.	Cowles, T. J.	Lewis, M. R.	Holden, P. A.	Curtis, K. A.	Seymour, J. R.	Shearman, R. K.	11:15 AM
Shade, C. W.	Menden-Deuer, S.	Hernández-León, S.	Anderson, C. R.	Hernandez, F. J.	Seuront, L.	Jones, N. L.	11:30 AM
	Woodson, C. B.	Palacios, D. M.	Griffin, D. W.	Hinrichsen, H. H.	Butler, N. M.	Buescher, J. G.	11:45 AM
LUNCH							12:00-1:30 PM
Landing the Right Job: Applications to Interviews Workshop - Room 316 C							12:00-1:15 PM
Exhibitor Set-Up - Kamehameha Hall III							12:00-6:00 PM
317B	318A-B	319A-B	323A	323B	323C	324	
SS5.02	SS2.12 (con't.)	SS5.13	SS9.07 (con't.)	SS2.08 (con't.)	SS2.02 (con't.)	SS6.02 (con't.)	Session
Elemental Cycling Under Suboxic/Anoxic Conditions	Structure in an Apparently Uniform Environment	Eutrophication of Coastal Waters	Oceans and Human Health	Development of Coupled Models and Biological Sampling Strategies to Improve Prediction	Biological Microscale Patterns and Processes in the Ocean: Towards a Seascape Topology	Advanced Underwater Robotics and Their Contributions on Aquatic Sciences	Title
Glazer, B. T.	Ploug, H.	Rabalais, N. N.	Fujioka, R. S.	Parada, C. E.	Pasour, V. B.	Tripp, S. T.	1:30 PM
Friederich, G. E.	Grossart, H. P.	Savchuk, O. P.	Kim, J. H.	Janssen, J.	Kunz, T. J.	Singh, H.	1:45 PM
Fuchsman, C. A.	Kiørboe, T.	Rosen, G. P.	Casper, E. T.	Sentchev, A.	Seuront, L.	Guild, L.	2:00 PM
Trouwborst, R. E.	Jackson, G. A.	Colman, J. A.	Lipp, E. K.	Snelgrove, P. V.	Cheriton, O. M.	Walker, R. F.	2:15 PM
Scranton, M. I.	Burd, A. B.	Evans, G. L.	Lawrence, J. E.	Ma, H.	Singler, H. R.	Moline, M. A.	2:30 PM
Taylor, G. T.	Sansone, F. J.	Markager, S.	Jiang, S.	Carr, S. D.	Hanson, C. E.	Rendas, M. J.	2:45 PM
BREAK							3:00-3:30 PM
Poster Set-Up - Kamehameha Hall III							3:00-5:00 PM
317B	318A-B	319A-B	323A	323B	323C	324	
SS5.02 (con't.)	SS2.12 (con't.)	SS5.13 (con't.)	SS6.04	SS2.08 (con't.)	SS2.02 (con't.)	SS6.02 (con't.)	Session
Elemental Cycling Under Suboxic/Anoxic Conditions	Structure in an Apparently Uniform Environment	Eutrophication of Coastal Waters	Using Real-time Environmental Data for Education	Development of Coupled Models and Biological Sampling Strategies to Improve Prediction	Biological Microscale Patterns and Processes in the Ocean: Towards a Seascape Topology	Advanced Underwater Robotics and Their Contributions on Aquatic Sciences	Title
Sun, M. Y.	Long, J. D.	Kieber, R. J.	Matsumoto, G. I.	Reyns, N. B.	Warrior, H. V.	Rienecker, E. V.	3:30 PM
Benitez-Nelson, C. R.	Jakobsen, H. H.	Parker, A. E.	Stewart, R. H.	Hatcher, B. G.	Meiners, K.	Gashler, D.	3:45 PM
Hyacinthe, C.	Fields, D. M.	Heil, C. A.	Martin, M. J.	Galindo, H. M.	Ortmann, A. C.	Fiorelli, E.	4:00 PM
Berelson, W.	Sotiropoulos, F.	Hudson, J. J.	Watkins, J. M.	Lermusiaux, P. F.		Sackmann, B. S.	4:15 PM
Nielsen, L. P.	Currie, W. J.	York, J. K.	Hannides, A. K.	Milroy, S. P.		Ishikawa, K.	4:30 PM
Aguilar, C.	Osborn, K. J.	Tester, P. A.		Keenan, S. F.		Goldman, C. R.	4:45 PM
Climate Data Records for Ocean Color Town Hall Meeting - Room 315							5:00-8:00 PM
Let's Talk about WHOI Discussion Session - Room 321 B							5:00-8:00 PM
National Science Foundation Town Hall Meeting - Room 316 C							5:30-8:30 PM

All session are located at the Hawaii Convention Center, unless otherwise noted.

Program Matrix - Tuesday

7 AM-5 PM	Registration - Kamehameha Hall III Lobby					
7 AM-5 PM	Email Room - Room 327					
7 AM-7 PM	Speaker Ready Room - Room 325 B					
7 AM-7 PM	Presentation Room - Room 325 A					
8 AM-7 PM	Exhibits & Posters - Kamehameha Hall III					
8:00 AM	Plenary Introductions - Ballroom A-B					
8:00-8:45 AM	Plenary Address - Ballroom A-B					
	Thomas M. (Zack) Powell, Professor, Department of Integrative Biology, University of California, Berkeley					
	Links Between Biological and Physical Processes in Lakes, Estuaries, and the Ocean: From the Individual to Global Scales					
8:45-9:15 AM	Plenary Address - Ballroom A-B					
	Dr. Charles S. Yentsch, Senior Research Scientist, Bigelow Laboratory for Ocean Sciences					
	What CZCS Gave Oceanography					
9:15-9:45 AM	Plenary Address - Ballroom A-B					
	Robert A. Arnone, Head, Ocean Science Branch, Ocean Division, Naval Research Laboratory, Stennis Space Center					
	Satellite Ocean Color for Coastal Processes: The Next Step…					
9:45-10:15 AM	BREAK					
	314	315	316A	316B	316C	317A
Session	SS7.01	SS5.12 (con't.)	SS1.01 (con't.)	SS4.01	SS2.03	SS2.09
Title	Optical Properties of Oceanic Case 1 Waters: Still an Issue?	Interactions and Feedbacks Among Marine Pelagic Ecosystems, Biogeochemical Cycles and Climate, in a Globally Changing Environment	Shelf-Basin Interactions in the Western Arctic	Marine Viromics - The Interaction of Viral Genomes with the Environment	Biological Adaptations to Turbulent Flow	Physical and Biochemical Evolution of the Eastern Mediterranean in the 90's
10:15 AM	Maritorena, S.	Barber, R. T.	Cota, G. F.	Rohwer, F.	Malkiel, E.	Klein, B. A.
10:30 AM	Maritorena, S.	Ueyama, R.	Cota, G. F.	Sabet, S.	Webster, D. R.	Klein, B. A.
10:45 AM	Lee, Z.	Anderson, M. R.	Bates, N. R.	Paul, J. H.	Wetz, M. S.	Kress, N.
11:00 AM	Morel, A.	Björkman, K. M.	Ashjian, C. J.	Culley, A. I.	Fuchs, H. L.	Manca, B. B.
11:15 AM	Saitoh, S.	Monger, B. C.	Kirchman, D. L.	Sullivan, M. B.	Koehl, M. A.	Crise, A.
11:30 AM	Kahru, M.	Reinthaler, T.	Cottrell, M. T.	Suttle, C. A.	Koehl, M. A.	Ribera d'Alcala', M.
11:45 AM	Signorini, S. R.	Lampitt, R. S.	Sherr, E.	Bench, S. R.	Jumars, P. A.	Ribera d'Alcala', M.
12:00-1:30 PM	LUNCH					
12:00-1:30 PM	California COSEE Sessions for Local Students and Ocean Science Educators - Rooms 323B, 323C and 324					
12:15-1:15 PM	Public Policy Workshop I – Effective Communication with Lawmakers - Room 316 C					
	314	315	316A	316B	316C	317A
Session	SS7.01 (con't.)	SS5.12 (con't.)	SS1.01 (con't.)	SS5.08	SS2.03 (con't.)	SS2.09 (con't.)
Title	Optical Properties of Oceanic Case 1 Waters: Still an Issue?	Interactions and Feedbacks Among Marine Pelagic Ecosystems, Biogeochemical Cycles and Climate, in a Globally Changing Environment	Shelf-Basin Interactions in the Western Arctic	Dynamics of Dissolved Organic Material in Marine and Freshwater Environments	Biological Adaptations to Turbulent Flow	Physical and Biochemical Evolution of the Eastern Mediterranean in the 90's
1:30 PM	Dadashev, A.	Sunda, W.	Hansell, D. A.	Seitzinger, S. P.	Lamb, J. F.	Malinverno, E.
1:45 PM	Lowe, C. D.	Lizotte, M.	Moran, S. B.	Yamada, N.	Denton, D. J.	Mazzocchi, M. G.
2:00 PM	Alvain, S.	Huebert, B. J.	Grebmeier, J. M.	Quan, T. M.	Crimaldi, J. P.	Koppelmann, R.
2:15 PM	Westberry, T. K.	Toole, D. A.	Belicka, L. L.	Mopper, K.	Moore, P. A.	Crepon, M. R.
2:30 PM	Claustre, H.	Mulholland, M. R.	Devol, A. H.	Chen, R. F.	Ferner, M. C.	Crepon, M. R.
2:45 PM	Bricaud, A.	Redalje, D. G.	Dunton, K. H.	Skoog, A. C.	Weissburg, M. J.	Saaroni, H.
3:00-3:30 PM	BREAK					
	314	315	316A	316B	316C	317A
Session	SS7.01 (con't.)	SS5.15	SS1.01 (con't.)	SS5.08 (con't.)	SS2.03 (con't.)	SS2.09 (con't.)
Title	Optical Properties of Oceanic Case 1 Waters: Still an Issue?	Biogeochemical Processes Within Freshwater Influenced Coastal Systems	Shelf-Basin Interactions in the Western Arctic	Dynamics of Dissolved Organic Material in Marine and Freshwater Environments	Biological Adaptations to Turbulent Flow	Physical and Biochemical Evolution of the Eastern Mediterranean in the 90's
3:30 PM	Nelson, N. B.	Meybeck, M.	Bluhm, B. A.	Rearick, R. Y.	Wiley, M. B.	Cardin, V.
3:45 PM	Balch, W. M.	McClelland, J. W.	Carvellas, B. A.	Shank, G. C.	Houser, L. T.	Delfanti, R.
4:00 PM	Antoine, D.	Fulweiler, R. W.	Moore, J. A.	Brum, J. R.	Jackson, J. L.	La Ferla, R.
4:15 PM	Stramski, D.	Kroeger, K. D.	Cutter, G. A.	Carroll, J.	Reidenbach, M. A.	Marullo, S.
4:30 PM	Yentsch, C. S.	Wen, L. S.	Tortell, P. D.	Spyres, G.	Buskey, E. J.	Saggiomo, V.
5:00-7:00 PM	Poster Session, Exhibits & Reception - Kamehameha Hall III					
5:00-7:00 PM	NASA Town Hall Meeting - Room 315					
5:00-8:00 PM	Ocean.US - Development of the Integrated Ocean Observing System (IOOS) Session - Room 316 A					
5:00-8:00 PM	Antarctic Research Vessel Oversight Committee (ARVOC) Meeting - Room 316 B					
5:00-8:00 PM	National Ocean Service Initiatives Town Hall Meeting - Room 316 C					
6:00-7:30 PM	DIALOG Reception: Proposal Development Strategies for new PIs - Room 317 A					

All session are located at the Hawaii Convention Center, unless otherwise noted.

Program Matrix - Tuesday

Registration - Kamehameha Hall III Lobby							7 AM-5 PM
Email Room - Room 327							7 AM-5 PM
Speaker Ready Room - Room 325 B							7 AM-7 PM
Presentation Room - Room 325 A							7 AM-7 PM
Exhibits & Posters - Kamehameha Hall III							8 AM-7 PM
Plenary Introductions - Ballroom A-B							8:00 AM
Plenary Address - Ballroom A-B							8:00-8:45 AM
Thomas M. (Zack) Powell, Professor, Department of Integrative Biology, University of California, Berkeley							
Links Between Biological and Physical Processes in Lakes, Estuaries, and the Ocean: From the Individual to Global Scales							
Plenary Address - Ballroom A-B							8:45-9:15 AM
Dr. Charles S. Yentsch, Senior Research Scientist, Bigelow Laboratory for Ocean Sciences							
What CZCS Gave Oceanography							
Plenary Address - Ballroom A-B							9:15-9:45 AM
Robert A. Arnone, Head, Ocean Science Branch, Ocean Division, Naval Research Laboratory, Stennis Space Center							
Satellite Ocean Color for Coastal Processes: The Next Step…							
BREAK							9:45-10:15 AM
317B	318A-B	319A-B	323A	323B	323C	324	
SS5.06	SS9.06	SS5.13 (con't.)	SS6.04 (con't.)			SS11.03	Session
Advances in Diagenetic Modelling	Dynamics of Pathogens in Marine Systems	Eutrophication of Coastal Waters	Using Real-time Environmental Data for Education			New Sensor Technologies for Coastal Ocean Observing Systems	Title
Middelburg, J. J.	Rose, J. B.	Porter, E. T.	Madin, K. A.			Garcia-Rubio, L. H.	10:15 AM
Middelburg, J. J.	Rose, J. B.	Kremer, J. N.	Casey, K. S.			Smith, M. C.	10:30 AM
Fossing, H.	Field, K. G.	Atilla, N.	Hotaling, L. A.			Claverie, J. P.	10:45 AM
Schlueter, M.	Walters, S. P.	Bronk, D. A.	Schloss, A. L.			Sellner, K. G.	11:00 AM
Holstein, J. M.	Noble, R. T.	Moore, S. K.	Zika, R. G.			Schofield, O.	11:15 AM
Maher, K.	Reis, M. P.	Sanderson, M. P.	Domenico, B.			Fratantoni, D. M.	11:30 AM
Rodriguez Aguilera, D.	Cromar, N. J.	Ren, L.				Lembke, C. E.	11:45 AM
LUNCH							12:00-1:30 PM
California COSEE Sessions for Local Students and Ocean Science Educators - Rooms 323B, 323C and 324							12:00-1:30 PM
Public Policy Workshop I – Effective Communication with Lawmakers - Room 316 C							12:15-1:15 PM
317B	318A-B	319A-B	323A	323B	323C	324	
SS5.06 (con't.)	SS9.06 (con't.)	SS5.13 (con't.)	SS6.04 (con't.)	SS2.10		SS11.03 (con't.)	Session
Advances in Diagenetic Modelling	Dynamics of Pathogens in Marine Systems	Eutrophication of Coastal Waters	Using Real-time Environmental Data for Education	The Role of Bermuda Based Studies in Our Understanding of Ocean and Atmospheric Processes		New Sensor Technologies for Coastal Ocean Observing Systems	Title
Berg, P.	Sinton, L. W.	Woods, W. L.	Pandya, R.	Michaels, A. F.		Paduan, J. D.	1:30 PM
Furukawa, Y.	Sinton, L. W.	Newton, A.	Magnien, R. E.	Dickey, T. D.		Roarty, H. J.	1:45 PM
Van Cappellen, P. S.	Breitbart, M.	Smith, S. V.	Moxey, L. E.	Bates, N. R.		Bosley, K. T.	2:00 PM
Katsev, S.	Rabinovici, S. J.	Ferreira, J. G.	Bonner, J. S.	Knap, A. H.		Lobe, H. J.	2:15 PM
Khalil, K.	Plancherel, Y.	Mason, A. L.	Tuddenham, P. D.	Gundersen, K.		Heupel, M. R.	2:30 PM
Boudreau, B. P.	Lyons, M. M.	Hayes, K. C.	Spoerri, C.	Fu, F.		Peterson, K. A.	2:45 PM
BREAK							3:00-3:30 PM
317B	318A-B	319A-B	323A	323B	323C	324	
SS5.06 (con't.)	SS5.07	SS5.13 (con't.)	SS6.04 (con't.)	SS2.10 (con't.)		SS11.03 (con't.)	Session
Advances in Diagenetic Modelling	Response of the Upper Ocean to Mesoscale Iron Enrichment	Eutrophication of Coastal Waters	Using Real-time Environmental Data for Education	The Role of Bermuda Based Studies in Our Understanding of Ocean and Atmospheric Processes		New Sensor Technologies for Coastal Ocean Observing Systems	Title
van Lith, Y.	Coale, K. H.	Orav-Kotta, H.	Simms, E.	Cutter, G. A.		Barnard, A. H.	3:30 PM
L'Heureux, I.	Coale, K. H.	Wolowicz, M.	Bingham, A. W.	Glover, D. M.		Tenore, K. R.	3:45 PM
Mincks, S. L.	Cochlan, W. P.	Boesch, D. F.	Saltzman, J.	Klamberg, J. K.		Luther, M. E.	4:00 PM
	Baines, S. B.	Culver, D. A.	Peri, F.	Sedwick, P. N.			4:15 PM
	Brzezinski, M. A.	Piwinski, L. K.	Cava, F. M.				4:30 PM
Poster Session, Exhibits & Reception - Kamehameha Hall III							5:00-7:00 PM
NASA Town Hall Meeting - Room 315							5:00-7:00 PM
Ocean.US - Development of the Integrated Ocean Observing System (IOOS) Session - Room 316 A							5:00-8:00 PM
Antarctic Research Vessel Oversight Committee (ARVOC) Meeting - Room 316 B							5:00-8:00 PM
National Ocean Service Initiatives Town Hall Meeting - Room 316 C							5:00-8:00 PM
DIALOG Reception: Proposal Development Strategies for new PIs - Room 317 A							6:00-7:30 PM

All session are located at the Hawaii Convention Center, unless otherwise noted.

Program Matrix - Wednesday

7 AM-5 PM	Registration - Kamehameha Hall III Lobby					
7 AM-5 PM	Email Room - Room 327					
7 AM-7 PM	Speaker Ready Room - Room 325 B					
7 AM-7 PM	Presentation Room - Room 325 A					
8 AM-7 PM	Exhibits & Posters - Kamehameha Hall III					
8:00 AM	Plenary Introductions - Ballroom A-B					
8:00-8:45 AM	Plenary Address - Ballroom A-B					
	Dr. Ronald C. Baird, Director, National Sea Grant College Program, & Associate Director for Ocean Research, NOAA					
	The Urban Ocean: A New Imperative for Coastal Resource Management					
8:45-9:15 AM	Plenary Address - Ballroom A-B					
	Dr. Jonathan P. Zehr, Professor, Department of Ocean Sciences, University of California, Santa Cruz					
	Molecular Underpinnings of the Global Nitrogen Cycle: New Perspectives on Old Problems					
9:15-9:45 AM	Plenary Address - Ballroom A-B					
	Mark R. Abbott, Dean and Professor, College of Oceanic and Atmospheric Sciences, Oregon State University					
	Ocean Remote Sensing in the Next Decade: Opportunities and Challenges					
9:45-10:15 AM	BREAK					
	314	315	316A	316B	316C	317A
Session	SS10.01	SS5.15 (con't.)	SS2.05	SS5.08 (con't.)	SS4.02	SS10.03
Title	Webs and Scales	Biogeochemical Processes Within Freshwater Influenced Coastal Systems	The Effect of Turbulence on Pelagic and Benthic Organisms	Dynamics of Dissolved Organic Material in Marine and Freshwater Environments	Ecology and Physiology of Marine Organisms: Insights from Genes, Genomes, and Proteomes	COSEE: Enhancing the Broader Impacts of Ocean Science Research
10:15 AM	Checkley, Jr., D. M.	da Cunha, L. C.	Visser, A. W.	Whitehead, R. F.	Armbrust, E. V.	Leinen, M.
10:30 AM	Checkley, Jr., D. M.	White, J. R.	Visser, A. W.	Cole, J. J.	Armbrust, E. V.	Leinen, M.
10:45 AM	Paffenhofer, G. A.	Del Castillo, C. E.	Rothschild, B. J.	Wiegner, T. N.	Hildebrand, M.	Spence, L. L.
11:00 AM	Strickler, J. R.	Salisbury, J. E.	Sharples, J.	Cotner, J. B.	Takabayashi, M.	De Luca, M. P.
11:15 AM	Lee, R. F.	Sherrard, J. C.	Fabian, H.	Hessen, D. O.	Davis, A. K.	Lemus, J. D.
11:30 AM	Müller-Navarra, D. C.	Santschi, P. H.	Pécseli, H. L.	Homewood, J. M.	Boissonneault, K. R.	Hamner, W. M.
11:45 AM	Koski, M.	Beman, J. M.	Waggett, R. J.	Richey, J. E.	Rynearson, T. A.	Tuddenham, P. D.
12:00-1:30 PM	LUNCH					
12:15-1:15 PM	Ocean Science Education and Outreach Lunch - Room 321 B					
12:15-1:15 PM	Public Policy Workshop II – What's Going On with Ocean Research Funding and What YOU Can Do About It - Room 316 C					
	314	315	316A	316B	316C	317A
Session	SS10.01 (con't.)	SS5.15 (con't.)	SS2.05 (con't.)	SS5.08 (con't.)	SS4.02 (con't.)	SS10.03 (con't.)
Title	Webs and Scales	Biogeochemical Processes Within Freshwater Influenced Coastal Systems	The Effect of Turbulence on Pelagic and Benthic Organisms	Dynamics of Dissolved Organic Material in Marine and Freshwater Environments	Ecology and Physiology of Marine Organisms: Insights from Genes, Genomes, and Proteomes	COSEE: Enhancing the Broader Impacts of Ocean Science Research
1:30 PM	Goetze, E.	Mitchelson-Jacob, E. G.	Siegel, D. A.	Lang, S. Q.	Schoenfeld, T.	Schubel, J. R.
1:45 PM	Hansen, B. W.	Dellwig, O.	Newby, S. G.	Williams, P. J.	Foster, R. A.	Schubel, J. R.
2:00 PM	Thuesen, E. V.	Dedieu, K.	Wuest, A. J.	Stedmon, C. A.	Mann, E. L.	Franks, S. E. R.
2:15 PM	Gibson, D. M.	Tomlinson, M. S.	Ackerman, J. D.	Landolfi, A.	Olsen, L. M.	Greely, T.
2:30 PM	Poulsen, L. K.	Hoover, D. J.	Thomas , F. I.	Ruttenberg, K. C.	Blankenship, R. E.	Lunsford, T. L.
2:45 PM	Saumweber, W. J.		Kregting, L. T.	O'Neil, J. M.	Hofmann, G. E.	Scowcroft, G. A.
3:00-3:30 PM	BREAK					
	314	315	316A	316B	316C	317A
Session	SS10.01 (con't.)	SS5.15 (con't.)	SS2.05 (con't.)	SS5.08 (con't.)	SS4.02 (con't.)	SS10.03 (con't.)
Title	Webs and Scales	Biogeochemical Processes Within Freshwater Influenced Coastal Systems	The Effect of Turbulence on Pelagic and Benthic Organisms	Dynamics of Dissolved Organic Material in Marine and Freshwater Environments	Ecology and Physiology of Marine Organisms: Insights from Genes, Genomes, and Proteomes	COSEE: Enhancing the Broader Impacts of Ocean Science Research
3:30 PM	Jónasdóttir, S. H.	Bozec, Y.	Genin, A.	Moore, L. R.	Lenz, P. H.	Fisher, E. M.
3:45 PM	Silver, M. W.	Elkalay, K.	van Duren, L. A.	Hall, C. M.	Simoniello, C.	Chen, R. F.
4:00 PM	Halsband-Lenk, C.	Ostrom, N. E.	Carrington, E.	Lyon, P. E.	Speekmann, C. L.	Cowles, S. K.
4:15 PM	Pierson, J. J.	Childers, D. L.	O'Donnell, M. J.	Conmy, R. N.	Puebla, O.	Whitley, L. N.
4:30 PM	Lester , K. M.	Erlandsson, C. P.	Wolcott, B. D.	See, J. H.	Dawson, M. N.	Pyrtle, A. J.
5:00-7:00 PM	Poster Session, Exhibits & Reception - Kamehameha Hall III					
5:00-10:30 PM	Wednesday Evening Hawaiian Luau (Optional)					

All session are located at the Hawaii Convention Center, unless otherwise noted.

Program Matrix - Wednesday

Registration - Kamehameha Hall III Lobby							7 AM-5 PM
Email Room - Room 327							7 AM-5 PM
Speaker Ready Room - Room 325 B							7 AM-7 PM
Presentation Room - Room 325 A							7 AM-7 PM
Exhibits & Posters - Kamehameha Hall III							8 AM-7 PM
Plenary Introductions - Ballroom A-B							8:00 AM
Plenary Address - Ballroom A-B							8:00-8:45 AM
Dr. Ronald C. Baird, Director, National Sea Grant College Program, & Associate Director for Ocean Research, NOAA							
The Urban Ocean: A New Imperative for Coastal Resource Management							
Plenary Address - Ballroom A-B							8:45-9:15 AM
Dr. Jonathan P. Zehr, Professor, Department of Ocean Sciences, University of California, Santa Cruz							
Molecular Underpinnings of the Global Nitrogen Cycle: New Perspectives on Old Problems							
Plenary Address - Ballroom A-B							9:15-9:45 AM
Mark R. Abbott, Dean and Professor, College of Oceanic and Atmospheric Sciences, Oregon State University							
Ocean Remote Sensing in the Next Decade: Opportunities and Challenges							
BREAK							9:45-10:15 AM
317B	318A-B	319A-B	323A	323B	323C	324	
SS5.06 (con't.)	SS5.07 (con't.)	SS7.02	SS1.03			SS9.01	Session
Advances in Diagenetic Modelling	Response of the Upper Ocean to Mesoscale Iron Enrichment	Hyperspectral Signatures of Case 2 Waters	Differential Mixing of Salinity and Temperature			Ecosystem Science Practiced in an Urbanized Estuary: South San Francisco Bay	Title
Vallino, J. J.	Schultes, S.	Schofield, O.	Gargett, A. E.			Foxgrover, A. C.	10:15 AM
Meile, C.	Tsuda, A.	Davis, C. O.	Gargett, A. E.			Monismith, S. G.	10:30 AM
Alperin, M. J.	Kudo, I.	Corson, M. R.	Ruddick, B. R.			Monismith, S. G.	10:45 AM
Dale, A. W.	Boyd, P. W.	Costa, M.	Rehmann, C. R.			Cloern, J. E.	11:00 AM
Cordes, E. E.	Wong, C. S.	Darecki , M.	Nash, J. D.			Koseff, J. R.	11:15 AM
Haeckel, M.	Tremblay, J. E.	Sydor, M.	Merryfield, W. J.			May, C. L.	11:30 AM
Boudreau, B. P.	Sherry, N. D.	Wozniak, S. B.	Wuest, A. J.			Lucas, L. V.	11:45 AM
LUNCH							12:00-1:30 PM
Ocean Science Education and Outreach Lunch - Room 321 B							12:15-1:15 PM
Public Policy Workshop II – What's Going On with Ocean Research Funding and What YOU Can Do About It - Room 316 C							12:15-1:15 PM
317B	318A-B	319A-B	323A	323B	323C	324	
SS5.04	SS5.07 (con't.)	SS7.02 (con't.)	SS1.03 (con't.)		SS5.10	SS9.01 (con't.)	Session
Bioturbation: Who, When and Why?	Response of the Upper Ocean to Mesoscale Iron Enrichment	Hyperspectral Signatures of Case 2 Waters	Differential Mixing of Salinity and Temperature		Marine Biodiversity and Ecosystem Functioning	Ecosystem Science Practiced in an Urbanized Estuary: South San Francisco Bay	Title
Reible, D. D.	Marchetti, A.	Lavender, S. J.	Ledwell, J. R.		Pomeroy, L. R.	Thompson, J. K.	1:30 PM
Shull, D. H.	Michaud, S.	Gould, R. W.	Stuebe, D. A.		Pomeroy, L. R.	Shellenbarger, G. G.	1:45 PM
Germano, J.	Rivkin, R. B.	Stavn, R. H.	Smyth, W. D.		Azam, F.	Dugdale, R. C.	2:00 PM
Timmermann, K.	Merzouk, A.	Zaneveld, J. R.	Wunsch, S.		Azam, F.	Fisher, K. E.	2:15 PM
Christensen, E. R.	Scarratt, M. G.	Liew, S. C.	Koseff, J. R.		Levin, L. A.	Buck, K. N.	2:30 PM
Mertz, L. M.	Denman, K. L.	Wang, M.			Stachowicz, J. J.	Gee, A. K.	2:45 PM
BREAK							3:00-3:30 PM
317B	318A-B	319A-B	323A	323B	323C	324	
SS5.04 (con't.)	SS5.07 (con't.)	SS7.02 (con't.)	SS1.03 (con't.)		SS5.10 (con't.)	SS9.01 (con't.)	Session
Bioturbation: Who, When and Why?	Response of the Upper Ocean to Mesoscale Iron Enrichment	Hyperspectral Signatures of Case 2 Waters	Differential Mixing of Salinity and Temperature		Marine Biodiversity and Ecosystem Functioning	Ecosystem Science Practiced in an Urbanized Estuary: South San Francisco Bay	Title
Johnson, B. D.	Miller, W. L.	Stamnes, K.	Frick, W. E.		Morris, J. T.	Canuel, E. A.	3:30 PM
Dorgan, K. M.	Bouillon , R. C.	Montes, M. J.	Baddour, R. E.		Duffy, J. E.	Lesen, A. E.	3:45 PM
Woodin, S. A.	Moore, R. M.	Piller, C.	Leichter, J. J.		Spivak, A. C.	Rollwagen Bollens, G. C.	4:00 PM
Plante, C. J.	Wadleigh, M. A.	Donato, T. F.			Bruno, J. F.	Bollens, S. M.	4:15 PM
Kaariainen, J. I.	Phinney, L. A.	Dall'Olmo, G.			Moorthi, S. D.	Schafer, K. L.	4:30 PM
Poster Session, Exhibits & Reception - Kamehameha Hall III							5:00-7:00 PM
Wednesday Evening Hawaiian Luau (Optional)							5:00-10:30 PM

All session are located at the Hawaii Convention Center, unless otherwise noted.

Program Matrix - Thursday

7 AM-5 PM	Registration - Kamehameha Hall III Lobby					
7 AM-5 PM	Email Room - Room 327					
7 AM-7 PM	Speaker Ready Room - Room 325 B					
7 AM-7 PM	Presentation Room - Room 325 A					
8 AM-7 PM	Exhibits & Posters - Kamehameha Hall III					
8:00 AM	Plenary Introductions - Ballroom A-B					
8:00-8:30 AM	Plenary Address - Ballroom A-B					
	Dr. Scott Doney, Associate Scientist, Marine Chemistry and Geochemistry, Woods Hole Oceanographic Institution					
	Interannual Variability of the Extratropical Ocean Carbon System					
8:30-9:00 AM	Plenary Address - Ballroom A-B					
	Dr. Jacqueline Grebmeier, Research Professor, Department of Ecology and Evolutionary Biology, University of Tennessee					
	Biological Implications of Arctic Change to Carbon Shelf-Basin Exchange					
9:00-9:30 AM	Plenary Address - Ballroom A-B					
	Dr. John Pandolfi, Curator, Paleobiology Department, National Museum of Natural History					
	The Nature, Timing, and Causes of Global Coral Reef Decline					
9:30-10:00 AM	Plenary Address - Ballroom A-B					
	Dr. Barbara Block, Charles and Elizabeth Prothro Professor Chair in Marine Sciences, Stanford University					
	Hot Tuna: Oceanographic Insight from Electronic Tagging and Animal Oceanographers					
10-10:15 AM	BREAK					
	314	315	316A	316B	316C	317A
Session	SS10.01 (con't.)	SS5.03	SS6.05	SS5.08 (con't.)	SS4.02 (con't.)	SS3.02
Title	Webs and Scales	The Biogeochemical Cycling of Iron in the Ocean – From Genes to Gyres	Ocean Observing Systems: Novel Approaches to Studying and Monitoring Large Marine Ecosystems and Their Living Resources	Dynamics of Dissolved Organic Material in Marine and Freshwater Environments	Ecology and Physiology of Marine Organisms: Insights from Genes, Genomes, and Proteomes	Coral Reef Estuaries
10:15 AM	Turner, J. T.	Hutchins, D. A.	Greene, C. H.	Sharp, J. H.	Palenik, B.	Buddemeier, R. W.
10:30 AM	Bi, H.	Hutchins, D. A.	Holland, K. N.	Beauregard, A. Y.	Palenik, B.	Buddemeier, R. W.
10:45 AM	Vance, P. M.	Bowie, A. R.	Holland, K. N.	Roth, L. C.	Hess, W. R.	Wolanski, E.
11:00 AM	Yen, J.	Landing, W. M.	Clark, T. B.	Voparil, I. M.	Rocap, G.	Richmond, R. H.
11:15 AM	Shaw, C. T.	Buck, C. S.	Jaffe, J. S.	Waite, A. M.	Zinser, E. R.	Victor, S.
11:30 AM	Feinberg, L. R.	Elrod, V. A.	Benoit-Bird, K. J.	Leonardos , N.	Ahlgren, N. A.	Fisher, E. M.
11:45 AM	Kremer, P.	Rogers, D. R.	Costa, D. P.	Kieber, D. J.	Jenkins, B. D.	Matson, E. A.
12:00-1:30 PM	LUNCH					
12:00-1:30 PM	California COSEE Sessions for Local Students and Ocean Science Educators - Rooms 323B, 323C and 324					
	314	315	316A	316B	316C	317A
Session	SS10.01 (con't.)	SS5.03 (con't.)	SS6.05 (con't.)	SS5.09	SS4.02 (con't.)	SS3.02 (con't.)
Title	Webs and Scales	The Biogeochemical Cycling of Iron in the Ocean – From Genes to Gyres	Ocean Observing Systems: Novel Approaches to Studying and Monitoring Large Marine Ecosystems and Their Living Resources	Dynamic Interactions Between Particulate and Dissolved Mineral and Organic Matter	Ecology and Physiology of Marine Organisms: Insights from Genes, Genomes, and Proteomes	Coral Reef Estuaries
1:30 PM	Thor, P.	Sohrin, Y.	Polovina, J. J.	Passow, U.	Proctor, L. M.	Andersson, A. J.
1:45 PM	Leising, A. W.	Boyd, P. W.	McGarry, L. P.	Lee, C.	Church, M. J.	Andersson, A. J.
2:00 PM	Welschmeyer, N. A.	Wilhelm, S. W.	Teo, S. L.	Azam, F.	Short, S. M.	Strong/Alan, A. E.
2:15 PM	Landry, M. R.	Fones, G. R.	Basedow, S. L.	Suzuki, Y.	Francis, C. A.	Liu, G.
2:30 PM	Sherr, B.	Mioni, C. E.	Churnside, J. H.	Casareto, B. E.	Dyhrman, S. T.	Tchernov, D.
2:45 PM	Liu, H.	Orcutt, K. M.	Guttormsen, M. A.	Smith, S. L.	Williams, H. N.	Barton, A. D.
3:00-3:30 PM	BREAK					
	314	315	316A	316B	316C	317A
Session	SS10.01 (con't.)	SS5.03 (con't.)	SS6.05 (con't.)	SS5.09 (con't.)	SS4.02 (con't.)	SS3.02 (con't.)
Title	Webs and Scales	The Biogeochemical Cycling of Iron in the Ocean – From Genes to Gyres	Ocean Observing Systems: Novel Approaches to Studying and Monitoring Large Marine Ecosystems and Their Living Resources	Dynamic Interactions Between Particulate and Dissolved Mineral and Organic Matter	Ecology and Physiology of Marine Organisms: Insights from Genes, Genomes, and Proteomes	Coral Reef Estuaries
3:30 PM	Jakobsen, H. H.	Lam, P. J.	Saitoh, S.	Niraula, M. P.	Lever, M. A.	Watling, L.
3:45 PM	Mazzocchi, M. G.	Strzepek, R. F.	Wehde, H.	Pahlow, M.	Klepac-Ceraj, V.	Thomas, J. D.
4:00 PM	Le Borgne, R.	Shaked, Y.	Haddock, S. H.	Skrabal, S. A.	Lovejoy, C.	Falter, J. L.
4:15 PM	Fulmer, J. H.	Castruita, M.	Mitchell, M. R.	Moffett, J. W.	Wieneke, S. G.	Sebens, K. P.
4:30 PM	Deibel, D.	Twining, B. S.	Stabenau, E. R.	Dupont, C. L.	Lin, S.	
5:00-7:00 PM	Poster Session, Exhibits & Reception - Kamehameha Hall III					
5:00-8:00 PM	Bio-Physical Interactions, Fisheries Oceanography, and Fisheries Management Town Hall Meeting - Room 314					
5:00-8:00 PM	Bering Ecosystem Study (BEST) Program Town Hall Meeting - Room 323 B					
7:00-10:00 PM	Marine Rodeo - Room 316 C					
7:00-9:30 PM	Poster & Exhibit Tear-Down					

All session are located at the Hawaii Convention Center, unless otherwise noted.

Program Matrix - Thursday

Registration - Kamehameha Hall III Lobby							7 AM-5 PM
Email Room - Room 327							7 AM-5 PM
Speaker Ready Room - Room 325 B							7 AM-7 PM
Presentation Room - Room 325 A							7 AM-7 PM
Exhibits & Posters - Kamehameha Hall III							8 AM-7 PM
Plenary Introductions - Ballroom A-B							8:00 AM
Plenary Address - Ballroom A-B							8:00-8:30 AM
Dr. Scott Doney, Associate Scientist, Marine Chemistry and Geochemistry, Woods Hole Oceanographic Institution							
Interannual Variability of the Extratropical Ocean Carbon System							
Plenary Address - Ballroom A-B							8:30-9:00 AM
Dr. Jacqueline Grebmeier, Research Professor, Department of Ecology and Evolutionary Biology, University of Tennessee							
Biological Implications of Arctic Change to Carbon Shelf-Basin Exchange							
Plenary Address - Ballroom A-B							9:00-9:30 AM
Dr. John Pandolfi, Curator, Paleobiology Department, National Museum of Natural History							
The Nature, Timing, and Causes of Global Coral Reef Decline							
Plenary Address - Ballroom A-B							9:30-10:00 AM
Dr. Barbara Block, Charles and Elizabeth Prothro Professor Chair in Marine Sciences, Stanford University							
Hot Tuna: Oceanographic Insight from Electronic Tagging and Animal Oceanographers							
BREAK							10-10:15 AM
317B	318A-B	319A-B	323A	323B	323C	324	
SS5.04 (con't.)	SS8.03	SS7.02 (con't.)		SS1.02	SS5.10 (con't.)	SS2.04	Session
Bioturbation: Who, When and Why?	Operational Fisheries Oceanography	Hyperspectral Signatures of Case 2 Waters		Oceanography and Ecology of the Aleutian Archipelago	Marine Biodiversity and Ecosystem Functioning	Effects of Small-scale Turbulence at the Community and Ecosystem Levels	Title
Meysman, F. J.	Sharp, G. D.	Gitelson, A. A.		O'Rourke, D. H.	Stumm, K.	Estrada, M.	10:15 AM
Boudreau, B. P.	Sharp, G. D.	Dierssen, H. M.		O'Rourke, D. H.	Smith, J. E.	Estrada, M.	10:30 AM
Grigg, N. J.	Hyder, P.	Lohrenz, S. E.		Corbett, D. G.	Irigoien, X.	Metcalfe, A. M.	10:45 AM
McCraith, B. J.	Langley, A. D.	Gege, P.		Rodionov, S. N.	Modigh, M.	Svendsen, H.	11:00 AM
Norling, K.	Mitchum, G.	Gallagher, L.		Maslowski, W.	Franck, V. M.	Baird, M. E.	11:15 AM
Mulsow, S.	Zeidberg, L. D.	Del Vecchio, R.		Ladd, C.	Kamenir , Y. G.	Peters, F.	11:30 AM
Finelli, C. M.	Walli, A. G.	Subramaniam, A.		Zeeman, S. I.	Button, D. K.	Duboz, R.	11:45 AM
LUNCH							12:00-1:30 PM
California COSEE Sessions for Local Students and Ocean Science Educators - Rooms 323B, 323C and 324							12:00-1:30 PM
317B	318A-B	319A-B	323A	323B	323C	324	
	SS8.03 (con't.)	SS11.01		SS1.02 (con't.)	SS5.10 (con't.)	SS2.04 (con't.)	Session
	Operational Fisheries Oceanography	Food-web Dynamics and C Flux in an Era of Climatic Variability: A Pan Arctic Perspective		Oceanography and Ecology of the Aleutian Archipelago	Marine Biodiversity and Ecosystem Functioning	Effects of Small-scale Turbulence at the Community and Ecosystem Levels	Title
	Roffer, M. A.	Nielsen, T. G.		Coyle, K. O.	Zhang, Y. P.	Latz, M. I.	1:30 PM
	Thomas, G. L.	Nielsen, T. G.		Jahncke, J.	Allen-Requa, L. C.	Havskum, H.	1:45 PM
	Humston, R.	Hodal, H. L.		Call, K. A.	Yoshioka, P. M.	Piera, J.	2:00 PM
	Fiechter, J.	Reigstad, M.		Sinclair, E.	Schoch, G. C.	Ross, O. N.	2:15 PM
	Hammann, M. G.	Schmid, M. K.		Zerbini, A. N.	Wing, S. R.	Lagadeuc, Y.	2:30 PM
	Gertseva, V. V.	Lalande, C.		Logerwell, E. A.	Thorne, R. E.	Malits, A.	2:45 PM
BREAK							3:00-3:30 PM
317B	318A-B	319A-B	323A	323B	323C	324	
	SS8.03 (con't.)	SS11.01 (con't.)		SS1.02 (con't.)	SS5.10 (con't.)	SS2.04 (con't.)	Session
	Operational Fisheries Oceanography	Food-web Dynamics and C Flux in an Era of Climatic Variability: A Pan Arctic Perspective		Oceanography and Ecology of the Aleutian Archipelago	Marine Biodiversity and Ecosystem Functioning	Effects of Small-scale Turbulence at the Community and Ecosystem Levels	Title
	Wilson, D. R.	Wassmann, P.		Jung, K. M.	Smith, C. R.	Lovern, S. B.	3:30 PM
	Simpfendorfer, C. A.	Renaud, P. E.		McDermott, S. F.	Vetter, E. W.	Nihongi, A.	3:45 PM
	Wilson, C. D.	Carroll, M. L.		Heifetz, J.	Matsumoto, G. I.	Keen, T. R.	4:00 PM
	Mora, C.	Lovvorn, J. R.				Cobb, C. M.	4:15 PM
	Eckert, G. L.	Highsmith, R. C.					4:30 PM
Poster Session, Exhibits & Reception - Kamehameha Hall III							5:00-7:00 PM
Bio-Physical Interactions, Fisheries Oceanography, and Fisheries Management Town Hall Meeting							5:00-8:00 PM
Bering Ecosystem Study (BEST) Program Town Hall Meeting - Room 323 B							5:00-8:00 PM
Marine Rodeo - Room 316 C							7:00-10:00 PM
Poster & Exhibit Tear-Down							7:00-9:30 PM

All session are located at the Hawaii Convention Center, unless otherwise noted.

Program Matrix - Friday

8 AM-12 PM	Registration - Kamehameha Hall III Lobby					
	314	315	316A	316B	316C	317A
Session	SS10.01 (con't.)	SS5.03 (con't.)	SS6.05 (con't.)	SS6.03	SS4.02 (con't.)	SS2.07
Title	Webs and Scales	The Biogeochemical Cycling of Iron in the Ocean – From Genes to Gyres	Ocean Observing Systems: Novel Approaches to Studying and Monitoring Large Marine Ecosystems and Their Living Resources	Analysis of Zooplankton Distributions Using the Optical Plankton Counter	Ecology and Physiology of Marine Organisms: Insights from Genes, Genomes, and Proteomes	PARADIGM: The Partnership for Advancing Interdisciplinary Global Modeling
8:30 AM	Dam, H. G.	Kustka, A.	Skirving, W. J.	Herman, A.	Karl, D. M.	Doney, S. C.
8:45 AM	Jiang, H.	Maldonado, M. T.	Hochberg, E. J.	Herman, A.	Hagström, Å. F.	Cullen, J. J.
9:00 AM	Tönnesson, K.	Wells, M. L.	Gilbes, F.	Vanderploeg, H. A.	Kolber, Z. S.	Spitz, Y. H.
9:15 AM	Durbin, E. G.	Trick, C. G.	Beuchel, F.	Remsen, A. W.	Goericke, R.	McGillicuddy, D. J.
9:30 AM	Towanda, T.	Harris, S. L.	Fowler, C.	Edvardsen, A.	Waidner, L. A.	Fennel, K.
9:45-10:15 AM	BREAK					
	314	315	316A	316B	316C	317A
Session	SS10.01 (con't.)	SS5.03 (con't.)	SS6.05 (con't.)	SS6.03 (con't.)	SS4.02 (con't.)	SS2.07 (con't.)
Title	Webs and Scales	The Biogeochemical Cycling of Iron in the Ocean – From Genes to Gyres	Ocean Observing Systems: Novel Approaches to Studying and Monitoring Large Marine Ecosystems and Their Living Resources	Analysis of Zooplankton Distributions Using the Optical Plankton Counter	Ecology and Physiology of Marine Organisms: Insights from Genes, Genomes, and Proteomes	PARADIGM: The Partnership for Advancing Interdisciplinary Global Modeling
10:15 AM	Taylor, L. E.	Armstrong, R. A.	Reysenbach, A. L.	Hopcroft, R. R.	Sieracki, M. E.	Voelker, C.
10:30 AM	Strzelecki,, J.	Weber, L.	Gallager, S. M.	Huntley, M. E.	Fuhrman, J. A.	Dutkiewicz, S.
10:45 AM	Sato, R.	Parekh, P.	Blackwell, S. M.	Kimmel, D. G.	Thompson, J. R.	Lehmann, M. K.
11:00 AM	Pieper, R. E.	Hutchins, D. A.	Farmer, A. S.	Zhang, X.	Wommack, K. E.	Kindle, J. C.
11:15 AM	Kleppel, G. S.	Twiss, M. R.	Melrose, D. C.	Roman, M.	Malmstrom , R. R.	Olascoaga, M. J.
11:30 AM	Head, E. J.	Saito, M. A.		Sprules, W. G.	Teira, E.	Daniels, R. M.
11:45 AM	Donaghay, P. L.	Leblanc, K.		Checkley, D. M.	Evans, C. T.	Cahill, B. E.

All session are located at the Hawaii Convention Center, unless otherwise noted.

Program Matrix - Friday

Registration - Kamehameha Hall III Lobby							8 AM-12 PM
317B	318A-B	319A-B	323A	323B	323C	324	
	SS8.03 (con't.)	SS6.09			SS2.11	SS9.02	Session
	Operational Fisheries Oceanography	Assimilation of Observing System Data into Ocean Models			The Newest Generation of Deep Sea Exploration	Sources, Transport, and Fate of Contaminants in the Southern California Bight	Title
	Bellucci, J. L.	Rhodes, R. C.			Hammond, S. R.	Noble, M. A.	8:30 AM
	Joppe-Mercure, K.	Robinson, A. R.			Keener-Chavis, P.	Lee, H. J.	8:45 AM
	Chittaro, P. M.	Lermusiaux, P. F.			Fisher, C. R.	Orzech, K. M.	9:00 AM
	Sohn, D.	Chao, Y.			Hornbach, M. J.	Jones, B. H.	9:15 AM
	Yang, Y. S.	Lekien, F.			Carney, R. S.	Hamilton, P.	9:30 AM
BREAK							9:45-10:15 AM
317B	318A-B	319A-B	323A	323B	323C	324	
		SS6.09 (con't.)			SS2.11 (con't.)	SS9.02 (con't.)	Session
		Assimilation of Observing System Data into Ocean Models			The Newest Generation of Deep Sea Exploration	Sources, Transport, and Fate of Contaminants in the Southern California Bight	Title
		Mooers, C. N.			Reysenbach, A. L.	Colbert, S. L.	10:15 AM
		Cummings, J.			Widder, E. A.	Fringer, O. B.	10:30 AM
		Lebedev, K. V.			Vecchione, M.	Rosenfeld, L. K.	10:45 AM
		Mariano, A. J.			Raskoff, K. A.	Robertson, G. L.	11:00 AM
		Chassignet, E. P.			Robison, B. H.	Xu, J. P.	11:15 AM
		Rodrigues, R. R.			Sutton, T. T.	Baumgartner, D. J.	11:30 AM
					Baguley, J. G.	Oram, J. J.	11:45 AM

All session are located at the Hawaii Convention Center, unless otherwise noted.

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If you are unable to register electronically on the web at http://www.aslo.org/honolulu2004, please mail completed registration form and payment to: ASLO, 5400 Bosque Boulevard, Suite 680, Waco, Texas 76710-4446, USA. Registrations complete with purchase order or credit card information can be faxed to: (254) 776-3767.

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Enter no more than four in order of priority.
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