

22ND BIENNIAL CONFERENCE OF THE
COASTAL AND ESTUARINE RESEARCH FEDERATION



CERF 2013
SAN DIEGO CALIFORNIA

TOWARD RESILIENT COASTS AND ESTUARIES,
SCIENCE FOR SUSTAINABLE SOLUTIONS

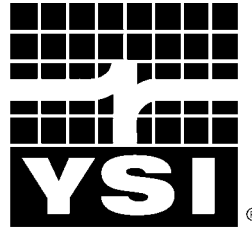
3-7 NOVEMBER 2013 • SAN DIEGO, CALIFORNIA, USA
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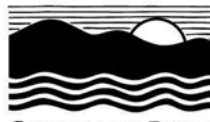
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22ND BIENNIAL CONFERENCE OF THE
COASTAL AND ESTUARINE RESEARCH FEDERATION

**TOWARD RESILIENT COASTS AND ESTUARIES,
SCIENCE FOR SUSTAINABLE SOLUTIONS**

3-7 NOVEMBER 2013 • SAN DIEGO, CA

CERF 2013 Conference Leadership Committee	2
CERF Governing Board, Committees, Journal and Staff	3
CERF 2013 Conference Schedule-at-a-Glance	4-5
Welcome	7
General Information	8-9
Registration	8
Presentation Room	8
Wireless Internet Access (Wi-Fi)	8
Social Media.....	8
Social Media Policy.....	8
Recording Policy.....	8
Parking.....	9
Restaurants & Concessions	9
Carbon Neutral Footprints	9
Overview of Opening Sessions	9
Keynote Address	10
Scientific Awards	10-11
Odum Award for Lifetime Achievement.....	10
William A. Niering Award for Outstanding Educator	10
Cronin Award for Early Career Achievement	11
Donald W. Pritchard Award for Estuaries and Coasts Geophysics Paper.....	11
Programming	11-15
Plenary Session: Managing Nutrients in a Changing World	11
Plenary Session: Sea Level Rise – New, Certain, and Everywhere	12
Plenary Session: Acidification Impacts on Estuaries	13
Plenary Session: Anthropogenic Facilitation of Species Invasions.....	14
Workshops	15-17
Field Trips	17-18
Special Meetings & Events	18-21
Other Meetings & Events	21
Silent Auction	22-23
Oral Sessions	26-49
Monday Oral Sessions.....	26-31
Tuesday Oral Sessions.....	32-37
Wednesday Oral Sessions.....	38-43
Thursday Oral Sessions.....	44-49
Exhibit Hall Diagram	50
Poster Sessions	51-62
Monday Poster Sessions	51-56
Wednesday Poster Sessions	57-62
Exhibitors	64-65
Town and Country Resort & Conference Center Map	66
Author Index	67-80

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Translation: Marcela Wong Vilchez

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Membership: sg Meeting and Marketing Services

CERF 2013 CONFERENCE SCHEDULE-AT-A-GLANCE

SUNDAY, 3 NOVEMBER

Various Times (See page 17)	Field Trips	Hotel Lobby Entrance
Various Times (See page 15)	Workshops	Various
11:00 am -12:30 pm	Student Worker Training	California
1:00 - 6:00 pm	Registration Opens	Atlas Foyer
5:00 - 5:45 pm	Orientation for First-Time CERF Conference Attendees	California
4:00 - 5:30 pm	Awardee & Sustaining Members Reception (By Invitation)	San Diego
6:00 - 7:30 pm	Keynote Address and Scientific Awards	Town & Country
8:00 - 10:00 pm	Presidents' Welcome Reception	Grand Hall & Foyer

MONDAY, 4 NOVEMBER

6:45 - 8:00 am	CESN Editorial Board Breakfast (By Invitation Only)	Esquire
8:00 - 10:00 am	Morning Sessions	Various
10:00 - 10:30 am	Break	Grand Hall
10:30 am - 12:00 pm	Plenary Session - Managing Nutrients in a Changing World	Town & Country
12:00 - 1:30 pm	Lunch	On Your Own
12:15 - 1:25 pm	Ignite Session - What Doesn't Kill You Makes You Stronger (Or At Least A Better Scientist)	Town & Country
1:30 - 3:00 pm	Early Afternoon Sessions	Various
3:00 - 3:30 pm	Break	Grand Hall
3:30 - 5:00 pm	Late Afternoon Sessions	Various
4:00 pm	Silent Auction Opens	Grand Hall
5:00 - 7:00 pm	Poster Sessions/Happy Hour - Sponsored by Seabird Coastal	Grand Hall
6:30 - 7:30 pm	Affiliate Society Meetings ACCESS AERS CAERS GERS NEERS PERS SEERS	Various: Windsor Royal Palm Salons 1-3 Royal Palm Salons 4-6 Sheffield Hampton Sunrise Sunset
7:30 - 9:30 pm	Student & Recent Graduate Career Networking Dinner	Town & Country
8:30 - Close	Student Pub Night	Offsite – See page 19

TUESDAY, 5 NOVEMBER

8:00 - 10:00 am	Morning Sessions	Various
10:00 - 10:30 am	Break	Grand Hall

10:30 am - 12:00 pm	Plenary Session - Sea Level Rise – New, Certain, and Everywhere Sponsored by The Coastal Society	Town & Country
12:00 - 1:30 pm	Lunch	On Your Own
12:00 - 1:30 pm	Women in Science Networking Lunch (Ticketed Event)	San Diego
1:30 - 3:00 pm	Early Afternoon Sessions	Various
3:00 - 3:30 pm	Break	Grand Hall
3:30 - 5:00 pm	Late Afternoon Sessions	Various
5:00 pm	Silent Auction Closes	Grand Hall
6:00 - 10:00 pm	Cruising San Diego Bay Social Event (Ticketed Event)	Offsite – See page 20

WEDNESDAY, 6 NOVEMBER

6:45 - 8:00 am	President's Breakfast (By Invitation Only)	Esquire
6:30 am	"CERF the Turf" 5K Fun Run/Walk	See page 20
8:00 - 10:00 am	Morning Sessions	Various
10:00 - 10:30 am	Break	Grand Hall
10:30 am - 12:00 pm	Plenary Session - Acidification Impacts on Estuaries	Town & Country
12:00 - 1:30 pm	Lunch	On Your Own
12:00 - 1:30 pm	Estuaries & Coasts Editorial Board Lunch (By Invitation Only)	Esquire
12:15 - 1:25pm	Ignite Session - The Power of Observations	Town & Country
1:30 - 3:00 pm	Early Afternoon Sessions	Various
3:00 - 3:30 pm	Break	Grand Hall
3:30 - 5:00 pm	Late Afternoon Sessions	Various
5:00 - 7:00 pm	Poster Sessions/Happy Hour	Grand Hall
6:30 - 7:30 pm	Annual CERF Business Meeting	California
7:30 - 10:00 pm	CERF Bowl	Town & Country

THURSDAY, 7 NOVEMBER

6:45 - 8:00 am	CERF 2015 Breakfast (By Invitation Only)	Esquire
8:00 - 10:00 am	Morning Sessions	Various
10:00 - 10:30 am	Break	Grand Hall
10:30 am - 12:00 pm	Plenary Session - Anthropogenic Facilitation of Species Invasions	Town & Country
12:00 - 1:30 pm	Lunch	On Your Own
1:30 - 3:00 pm	Early Afternoon Sessions	Various
3:00 - 3:30 pm	Break	Grand Hall
3:30 - 5:00 pm	Late Afternoon Sessions	Various
5:30 - 8:30 pm	Close-Out Party and Student Awards Presentation	Town & Country

FRIDAY, 8 NOVEMBER

8:30 - 11:30 am	2013-2015 CERF Governing Board Meeting (By Invitation Only)	Sunrise
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WELCOME

CERF 2013 marks the 22nd biennial conference of the Coastal & Estuarine Research Federation.

As always, our goal is to provide a forum to share the best science, across multiple disciplines in an effort to advance our understanding and wise stewardship of global coastal and estuarine environments.

We are excited to present a robust and relevant program as well as a distinguished line-up of speakers, and engaging schedule of special meetings and events.

This conference would not be possible without the many dedicated volunteers who undertook the design and coordination of the conference program. Please look carefully at the CERF 2013 Conference Leadership Team, and thank them for their contribution to the success of this conference.

Finally, thank you! Your attendance and participation is the ultimate measure of success. We hope you find your CERF 2013 conference experience enriching.

Sincerely,



Walter Boynton, CERF President 2011-2013

GENERAL INFORMATION

REGISTRATION

Conference check-in for pre-registered attendees and registration of on-site attendees will take place in the Atlas Foyer adjacent to the Atlas Ballroom and Grand Hall. The registration desk will be open during the following hours:

Sunday, 3 November.....	1:00 pm to 6:00 pm
Monday, 4 November.....	7:00 am to 5:30 pm
Tuesday, 5 November.....	7:00 am to 5:30 pm
Wednesday, 6 November.....	7:30 am to 7:00 pm
Thursday, 7 November.....	7:30 am to 5:30 pm

PRESENTATION ROOM

The Presentation Room will be located in Terrace Salon 2 & 3 and will be open during the following hours for on-site submission, review and editing of PowerPoint presentations:

Sunday, November 3	Noon – 5:00 pm
Monday, November 4	7:00 am – 5:00 pm
Tuesday, November 5	7:00 am – 5:00 pm
Wednesday, November 6.....	7:00 am – 5:00 pm
Thursday, November 7	7:00 am – 5:00 pm

Check in the day before your session if possible to preview your presentation or at least 4 hours prior to the start of your session. PowerPoint technicians will be on hand to help preview and/or edit your presentation as necessary. Uploaded presentations will be available on one of three PC laptops and one MacBook Pro laptop with Keynote. This will allow you to make any on-site changes and conversion to PowerPoint if necessary.

You may edit your presentation up to 4 hours prior to the session start time. View the full Oral Presentation Guidelines at www.sgmeet.com/cerf2013/presentation.asp for more information about PowerPoint presentation submission, review and editing.

WIRELESS INTERNET ACCESS (WI-FI)

Free wireless Internet access (Wi-Fi) is available to conference attendees in all contracted meeting rooms and the exhibit hall via the CERF2013 network. There is no password required, although some devices may require a restart before web connection can be established.

The Town and Country Resort & Conference Center offers free Wi-Fi access to customers at each of their four dining establishments and provides Wi-Fi access in all guest rooms for a modest fee.

SOCIAL MEDIA

Regular updates and reminders about conference activities will be posted to the CERF Facebook pages and Twitter account.



CERF on Facebook (facebook.com/CERF.Estuaries.Coasts)
CERF Students on Facebook (facebook.com/CERFStudents)



@CERFScience on Twitter

Participants are encouraged to tag their posts, photos and tweets with the following tags:

- **#CERF2013** if you are planning to post about your general CERF 2013 experience;
- **#CERFStudents** if you are a student or recent graduate interested in connecting with your cohort or learning more about student and recent graduate opportunities through CERF; and
- **#CERF2013Live** if you want to follow live tweets from the keynote address and plenary speaker presentations

CERF will also be hosting a CERF 2013 Conference Photo Contest. Interested attendees are encouraged to capture and share their best moments at the conference for a chance to win prizes. Entries must be posted to Facebook or Instagram and tagged with **#iloveCERF** by November 11, 2013 to be eligible to win. Maximum 4 photo entries per person. See the ad on page 9 for more information.

SOCIAL MEDIA POLICY

CERF permits and encourages the use of social media, such as Facebook, Twitter and blogging as a way to summarize, highlight, excerpt, review, critique, and/or promote presentations, exhibit materials, and the conference in general, provided that the material is not shared in full, and the author or speaker is referenced and cited appropriately in each case.

We Encourage You To:

- Stay connected and check out our Facebook and Twitter pages;
- Blog, post, and tweet highlights of and comments on the conference;
- Suggest sessions and workshops to attend and events to enjoy; discuss favorite speakers and posters; chat about products and services in the Exhibit Hall; post job openings and opportunities;
- Request the permission of speakers if you would like to take their photograph before or after a session; and
- Provide polite, constructive feedback to conference organizers (perhaps discuss topics and/or speakers of interest for the next CERF conference, make suggestions for sessions, or comment on the format.)

Please Refrain From:

- Using photo, audio, and/or video recording devices to capture, transmit, or redistribute the bulk of the material presented in a session or presentation. Doing so infringes on the intellectual property rights of the speakers.
- Blogging, posting, and/or tweeting about the content of a plenary lecture, scientific session, workshop, etc. when the organizer or speaker has explicitly requested that some or all of the information presented is not to be captured or shared.

RECORDING POLICY

No workshop, presentation, event, or exhibit at CERF 2013 shall be photographed, videotaped, broadcast or recorded for personal or commercial use, sale or distribution of any kind without the express written consent of CERF headquarters.

PARKING

Attendees staying at the Town and Country Resort & Conference Center can park for a reduced rate of \$8.00 per day with in-and-out privileges. All other attendees arriving by car can park for a reduced rate of \$3.00 per hour, not to exceed \$12.00 per day, with in-and-out privileges.

RESTAURANTS & CONCESSIONS

The Town and Country Resort & Conference Center offers a range of on-site dining options for breakfast, lunch, dinner and everything in between including the Terrace Café & Deli, Trellises Garden Grille, Kelly's Steakhouse, and Charlie's Food, Fun & Spirits. More information about each establishment can be found on the Town and Country website at www.towncountry.com.

CARBON NEUTRAL FOOTPRINTS

The CERF 2013 Conference Carbon Emissions Offset Fund was established in recognition of the unfortunate fact that conference activities generate carbon emissions and contribute to climate change. Please consider donating to the fund if you haven't already done so during the pre-conference registration process. Your contribution will go to support a carbon sequestration project in the southern California region. More information about the project selected is available at the registration desk in the Atlas Foyer.

Announcing the...

CERF 2013 Photo Contest!

Share Your Best Conference
Photos on Facebook or Instagram
and Tag Them **#iloveCERF**
to win prizes!



Four entries per person. Deadline is November 11.
Winners will be announced on November 16.

Contact Melanie Garate at
melanie_garate@my.uri.edu for more information.

OVERVIEW OF OPENING SESSIONS

Sunday, 3 November from 6:00 – 7:30 pm
Town & Country Room

WELCOME, INTRODUCTIONS & PRESIDENT'S ADDRESS

Walter Boynton, CERF President 2011-2013

DISTINGUISHED SERVICE AWARDS

Susan Williams, Professor, Bodega Marine Laboratory, University of California - Davis, Davis, California

Chris Tanner, Professor, Department of Biology, St. Mary's College of Maryland, St. Mary's City, Maryland

SCIENTIFIC AWARDS

Walter Boynton, CERF President 2011-2013

Odum Award for Lifetime Achievement

Ivan Valiela, Senior Research Scientist, The Ecosystems Center, Marine Biological Laboratory, Woods Hole, Massachusetts and Emeritus Professor, Boston University Marine Program, Boston, Massachusetts

William A. Niering Award for Outstanding Educator

Paul A. Montagna, Endowed Chair for Ecosystems and Modeling, Harte Research Institute and Coordinator, Coastal & Marine System Science Doctoral Program, Texas A & M University, Corpus Christi, Texas

Cronin Award for Early Career Achievement

Robinson "Wally" Fulweiler, Assistant Professor, Earth & Environment and Biology Departments, and Associate Director, Marine Sciences Program, Boston University, Boston, Massachusetts

Donald W. Pritchard Award for Estuaries and Coasts Geophysics Paper

Tidal and groundwater fluxes to a shallow, microtidal estuary: constraining inputs through field observations and hydrodynamic modeling.

Neil K. Ganju, Melanie Hayn, Shih-Nan Chen, Robert W. Howarth, Patrick J. Dickhudt, Alfredo L. Aretxabaleta, and Roxanne Marino

CONFERENCE CHAIR'S ADDRESS

Steve Weisberg, Executive Director, Southern California Coastal Water Research Project

KEYNOTE ADDRESS

Jerry Zucker, Zucker Productions and The Science & Entertainment Exchange

Portraying Scientists as Geeks and Madmen: Can Hollywood Reverse the Trend it Started?

CLOSING REMARKS

Kenneth Heck, CERF President 2013-2015

All attendees are invited to attend the Presidents' Welcome Reception from 7:30 – 9:00 pm in the Grand Hall and Foyer immediately following the opening sessions for a Mexican fiesta and hosted bar courtesy of the Town and Country Resort & Conference Center.

KEYNOTE ADDRESS



JERRY ZUCKER

Portraying Scientists as Geeks and Madmen: Can Hollywood Reverse the Trend it Started?

Iconic Hollywood writer, director and producer, Jerry Zucker, will be delivering the keynote address “Portraying Scientists as Geeks and Madmen: Can Hollywood Reverse the Trend It Started?” on the opening night of CERF 2013.

Mr. Zucker is regarded as one of the most influential figures in the history of cinematic comedy and his repertoire includes such notable films as *Airplane!*, *Naked Gun*, *Ruthless People* and *Ghost*. In addition to his contributions to the entertainment industry, Jerry and his wife Janet have also been strong supporters of science and research. Jerry’s keynote address will introduce *The Science and Information Exchange*, which he and Janet launched in 2008 in cooperation with the National Academy of Sciences.

The Exchange uses the vehicle of popular entertainment media to deliver powerful messages about science by connecting entertainment industry professionals with top scientists and engineers, and enhancing the synergy between accurate science and engaging storylines. This connection offers scientists the opportunity to expand the reach of their work by moving their research out of the lab and into the public eye, potentially improving attitudes toward science and galvanizing interest in further discovery.

SCIENTIFIC AWARDS

ODUM AWARD FOR LIFETIME ACHIEVEMENT

Ivan Valiela

The Odum Award is named for the three outstanding ecological scientists in the Odum family: Dr. Howard T. Odum; Dr. Eugene P. Odum; and Dr. William E. Odum, III. This award recognizes the lifetime achievements of an outstanding estuarine scientist whose sustained accomplishments have made important contributions to our understanding of estuaries and coastal ecosystems.

Dr. Ivan Valiela is a Senior Research Scientist at The Ecosystems Center, Marine Biological Laboratory in Woods Hole, Massachusetts and an Emeritus Professor at the Boston University Marine Program. Like the Odum’s, he is recognized for contributing to a broad-based understanding of coastal marine ecosystems, addressing critical management questions, serving the scientific community, and educating multiple generations of students. He is well known for leading groundbreaking studies on salt marshes at Sippewissett Marsh and Waquoit Bay where he developed tools to assess nutrient loading to coastal ecosystems, evaluated groundwater transport of nutrients, and assessed population dynamics of marine organisms.

A recent Web of Science search found 227 indexed publications that yielded 8,674 citations and an h-index of 49. His seminal paper published in *Limnology and Oceanography* in 1997 elucidated the critical roles of macroalgal blooms in coastal eutrophication

and eelgrass decline; and received 490 cites. Another seminal paper published in *Estuaries* in 1992, he was one of the first to demonstrate couplings of watersheds and coastal waters; and received 349 cites. Dr. Valiela’s scholarship is characterized as advancing basic scientific principles, typically with an applied angle, focusing on how to improve the quality of coastal environments and meeting needs of society. He has published three books: *Marine Ecological Processes*, *Global Coastal Change*, and *Doing Science*, which is a must-read for graduate students.

Dr. Valiela served on numerous boards and review panels, at both the international and national levels; including serving as a Member-at-Large on the CERF Governing Board from 2007-2010, and as Editor in Chief for *Estuarine, Coastal and Shelf Sciences* since 2006. Dr. Valiela’s has also been a life-long educator teaching at BU for more than 40 years, and in Argentina, Spain, Mexico, Brazil, Italy, and Trinidad. He has advised more than 50 M.S. and Ph.D. students, many of whom have gone on to highly successful careers. Testimonials from former students indicate that Dr. Valiela was always there fighting for them, pushing them to be a critical thinker, and to always strive for excellence.

WILLIAM A. NIERING AWARD FOR OUTSTANDING EDUCATOR

Paul A. Montagna

To recognize the central role that education plays in achieving the objectives of our society, CERF’s Governing Board established an award named for a leader in estuarine education, Dr. William A. Niering. The award is for an individual who has played a particularly important role in education at any level – from primary school to the graduate level, inside or out of the classroom, or in the education of the general public through outreach activities.

Dr. Paul A. Montagna’s devotion to education began in 1971, the same year that ERF was formed, as a teaching assistant at Northeastern University. In many ways, the evolution of his career trajectory and educational approach parallels that of the Federation. Paul received his PhD from the University of South Carolina in 1983 and shortly after began his long adventure studying the ecosystems of southwestern Texas. Paul invested nearly twenty years of service at the University of Texas’s Marine Science Institute where he taught courses in statistics, modeling, ecology and invertebrate biology, and held leadership positions in numerous professional societies. While at UTMSI Paul lead the effort to establish the Mission Aransas National Estuarine Research Reserve, a feat accomplished through teamwork, tenacity to overcome barriers and effective communication of scientific and sociological reasoning.

Paul has contributed directly to K-12 public education through his extensive volunteer activities, including a decade of service as President of the Port Aransas, TX Independent School District Board. He frequently visits local elementary and middle schools to encourage and inspire the next generation of aquatic scientists.

Paul is currently the Endowed Chair for Ecosystems and Modeling at the Harte Research Institute and Coordinator of the Coastal & Marine System Science Doctoral Program at Texas A & M University in Corpus Christi. Despite a heavy administrative load, he currently mentors 10 graduate students, and during his approximately 40 year long career has directly supervised 33 graduate students and 19 postdoctoral scientists. His students describe him

as supportive, thoughtful and honest, and what can only be termed a beloved mentor. He not only teaches about science, but what it means to be a scientist, and the responsibility that his students and colleagues have to communicate science. His model is very much in the spirit of CERF and the Niering Award, in that he draws from the past for instruction, focuses on the problems of today, and bequeaths to his students the skills to plan for the emerging challenges of the future.

CRONIN AWARD FOR EARLY CAREER ACHIEVEMENT

Robinson “Wally” Fulweiler

The Cronin Award is named for Dr. L. Eugene Cronin, Sr., the first president of ERF and a significant contributor to estuarine science and our organization. This award recognizes the significant accomplishments of an estuarine scientist who is in the early stages of his/her career development. The recipient will have shown great promise with work carried out during the first six years after acquiring their Ph. D.

Robinson “Wally” Fulweiler, Assistant Professor in the Earth and Environment and Biology Departments and the Associate Director of the Marine Sciences Program at Boston University, completed her Ph.D. at the Graduate School of Oceanography at the University of Rhode Island in 2007 with Dr. Scott Nixon and held a post-doctoral position in the Department of Oceanography and Coastal Sciences at Louisiana State University. Wally has 26 peer reviewed publications (12 first-authored) in top journals, including *Estuaries and Coasts*, and serves on the governing board of the New England Estuarine Research Society (NEERS). She has advised 7 graduate students since joining Boston University in 2010, including her first PhD student who finished in 2012. Wally is a biogeochemist and ecosystems ecologist, whose research is focused on answering fundamental questions about energy flow and biogeochemical cycling of nutrients, carbon, and oxygen in a variety of environments. Her recent focus has been on how climate change may influence the nitrogen cycle in estuarine and shelf systems and how anthropogenic impacts alter coastal nutrient cycles.

DONALD W. PRITCHARD AWARD FOR ESTUARIES AND COASTS GEOPHYSICS PAPER

Tidal and groundwater fluxes to a shallow, microtidal estuary: constraining inputs through field observations and hydrodynamic modeling.

Neil K. Ganju, Melanie Hayn, Shih-Nan Chen, Robert W. Howarth, Patrick J. Dickhudt, Alfredo L. Aretxabaleta, and Roxanne Marino

This award was established to honor Dr. Donald W. Pritchard, whose insightful research on the physical dynamics of coastal systems set the stage for much of the research in physical oceanography that is being conducted today. The Pritchard Award recognizes the author(s) of the best physical oceanography paper published in *Estuaries and Coasts* within the two-year interval between CERF conferences.

The paper “Tidal and groundwater fluxes to a shallow, microtidal estuary: constraining inputs through field observations and hydrodynamic modeling” by N.K. Ganju, M. Hayn, S.-N. Chen, R.W. Howarth, P.J. Dickhudt, A.L. Aretxabaleta, and R. Marino presents a novel application of new physics to the difficult problem of estimat-

ing groundwater flux into shallow estuaries. In shallow, confined coastal bays, groundwater is often the dominant source of freshwater flux and associated nutrients, and such systems are especially susceptible to eutrophication. Extracting the residual flux due to freshwater flux using current meters alone can be difficult because of the small ratio of freshwater flux to instantaneous tidal flux. However, tidal water fluxes along with concurrent salinity measurements can be used to estimate estuarine total exchange flow (TEF).

Measurement of the groundwater discharge through a salt balance is possible because the TEF method amplifies the relatively small freshwater signal, and salinity sensors can measure the dilution of salt water with high accuracy.

The authors of this impressive work applied the TEF method to quantify freshwater fluxes over an 8-week period at the entrance of West Falmouth Harbor, Massachusetts, a eutrophic, groundwater-fed estuary. A three dimensional hydrodynamic model was used to verify the application of TEF and the mechanisms that control the time-varying nature of the freshwater flux. The estimated mean freshwater flux (0.19 m³/s) for the 8-week period was mainly due to groundwater input with secondary contributions from precipitation to the estuary surface and removal by evaporation. Combining this type of field campaign with hydrodynamic modeling provides guidance for estimating both magnitude of groundwater input and estuarine storage of freshwater and sets the stage for robust estimation of the nutrient load in groundwater.

PROGRAMMING

FOUR SYMPOSIA WITHIN A CONFERENCE

CERF 2013 breaks the mold by introducing key plenary sessions that lay the foundation for topical invited sessions. These four “internal symposia” cover topics that challenge both scientists and resource managers alike. This meeting architecture was designed to promote a deeper exchange by attracting leading experts and those charged with identifying policy options on these key issues. While CERF retains its tradition of excellence on diverse issues with a robust scientific program, the addition of the plenary-led themes will gather those with interests in these cross-cutting issues and set the tone for connecting science in these areas with management actions.

PLENARY SESSION: MANAGING NUTRIENTS IN A CHANGING WORLD

Date & Time: Monday, 4 November from 10:30 am – 12:00 pm

Location: Town & Country

Convened by: Martha Sutula (marthas@sccwrp.org)

Jim Hagy (hagy.jim@epa.gov)

Suzanne Bricker (suzanne.bricker@noaa.gov)

This 90-minute plenary session will feature two keynote speakers. The first will address the challenges in establishing water quality goals for nutrients within the constraints of existing regulatory structures and uncertainty in science. The second will provide perspectives of how water quality goals must evolve to improve our ability to adaptively manage ecosystems through a discussion of biologically-based water quality goals, estuarine tipping points, and restoration trajectories.



DANIEL CONLEY, PROFESSOR
GEOBIOSPHERE SCIENCE CENTRE,
DEPARTMENT OF GEOLOGY, LUND
UNIVERSITY, SWEDEN

Daniel Conley is a Professor in Biogeochemistry at the GeoBiosphere Science Centre, Department of Geology at Lund University, Sweden. His research focuses on perturbation of nutrient cycles by human activities

and the responses of marine ecosystems to changes in human impact and climate. Conley's personal and professional goals are to provide managers with a sound scientific basis for developing policies, measures and practices to protect the marine environment. Daniel holds a Ph.D. from University of Michigan, a M.Sc. from University of Wisconsin – Green Bay, and a B.S. from Tulane University. He held a European Union Marie Curie Chair (2007-2009) at Lund University and is currently both a Pew Marine Conservation Fellow and a Wallenberg Scholar.



EPHRAIM S. KING, U.S. EPA -
RETIRED

Ephraim King is a national expert on the development of public policy and regulatory requirements under the Clean Water and Safe Drinking Water Acts. He has over 32 years experience with the U.S. Environmental Protection Agency in working with scientists, state leaders, and stakeholders

across the country in applying peer-reviewed research, cutting edge technology, quantitative assessment, economic analysis, and national environmental data to support state and national water program implementation.

As the Director of the Office of Science and Technology (2005-2011) Mr. King led the development of water quality policy, technical guidance, science-based water quality criteria, best management practices, technology-based effluent guidelines, and drinking water public health criteria. Prior to OST, he was a Division Director and Branch Chief in the Office of Ground Water and Drinking Water (years?) and Chief of the National Pollutant Discharge Elimination System (NPDES) State Programs Branch (1987 to 1996). He also served in the Administrator's office and General Counsel's office (1979 to 1986).

Mr. King holds a B.A. degree from Harvard University and a J.D. from the University of Maine School of Law. He now provides policy and program implementation advice in the areas of regulatory and non-regulatory tools, water quality, fracking, and nutrients.

PLENARY SESSION:
SEA LEVEL RISE - NEW, CERTAIN, AND EVERYWHERE

Date & Time: Tuesday, 5 November from 10:30 am – 12:00 pm
Location: Town & Country
Convened by: Megan Bailiff (mdbailiff@gmail.com)

Given the increasing importance of Sea Level Rise worldwide, there is a need for new and innovative approaches to communication. This uniquely structured symposium is the result of a



collaboration between CERF and The Coastal Society. Both

societies have worked in parallel for many years with mutual interests and intersecting memberships and hope this partnership will generate many more productive, cooperative efforts over time.

SEA LEVEL RISE IN THREE STORIES

Sea Level Rise is NEW. For about 8,000 years human societies were built on the assumption that sea level is unchanging. But about 150 years ago that phase ended as sea level began to rise. Sea Level Rise is CERTAIN. Some people have gotten the impression that by reducing carbon emissions “we can beat this thing,” but current projections no longer support that perspective, at least not in this century. Eventually Sea Level Rise will be virtually EVERYWHERE -- not just far-flung places like Micronesia. We will see it inland with rising water tables and it will be made worse by extreme events like the “Super Charged Storm Surge” experienced during Tropical Storm Sandy. And yet, there are solutions to these challenges, such as simply moving and adapting.

THIS SESSION'S NOVEL APPROACH

Designed by communications expert and plenary speaker, Randy Olson, this session has been constructed so that not only will he and two science and policy experts present their arguments -- YOU THE AUDIENCE will be the fourth and equally important voice in the session through your CROWDSOURCED contributions of imagery and ABT (And, But, Therefore) Statements. Your contributions will be woven in throughout the plenary discussion itself.

This is a session that will help you grasp the increasing urgency of Sea Level Rise through four sources: Science, Policy, Communications and You.

SCIENCE (COASTAL GEOLOGIST):



GARY GRIGGS, DISTINGUISHED
PROFESSOR OF EARTH &
PLANETARY SCIENCES, AND
DIRECTOR, INSTITUTE OF MARINE
SCIENCES, UNIVERSITY OF
CALIFORNIA, SANTA CRUZ

Dr. Griggs received his B.A. in Geology from the University of California, Santa Barbara and a Ph.D. in Oceanography

from Oregon State University. He has been a Professor of Earth Sciences at the University of California, Santa Cruz since 1968 and has been the Director of the Institute of Marine Sciences since 1991. In 2008 he was appointed to the first Science Advisory Team of the California Ocean Protection Council, and chaired the Team from 2010 to 2011. From 2010 to 2012 he served on the National Research Council Committee on Sea-Level Rise for the Coasts of California, Oregon and Washington. His research and teaching have been focused on the coast of California and include coastal processes, hazards, engineering and sea-level rise. Dr. Griggs has received numerous awards and written over 170 articles for professional journals as well as authored or co-authored seven books.

POLICY (COASTAL POLICY ANALYST):



MIKE ORBACH, PROFESSOR OF MARINE AFFAIRS & POLICY AND DIRECTOR OF THE COASTAL ENVIRONMENTAL MANAGEMENT PROGRAM, NICHOLAS SCHOOL OF THE ENVIRONMENT, DUKE UNIVERSITY

Dr. Orbach has worked as Social Anthropologist and Social Science Advisor with the National Oceanic and Atmospheric Administration; Associate Director of the Center for Coastal Marine Studies at the University of California at Santa Cruz; and Professor of Anthropology in the Department of Sociology and Anthropology at East Carolina University. He joined the Duke Marine Laboratory in 1993, and was Director of the Marine Laboratory from 1998 to 2006. Mike has performed research and has been involved in coastal and marine policy on all coasts of the U.S. and in Mexico, Central America, the Caribbean, Southeast Asia, Europe, Alaska and the Pacific, and has published widely on social science and policy in coastal and marine environments. He was a formal advisor to both the U.S. Commission on Ocean Policy and the Pew Ocean Commission, has served on the Ocean Studies Board of the National Research Council, and has held numerous other appointments to Boards and Commissions, both public and private. He currently serves on the Board of Directors of the Ocean Conservancy and the National Advisory Board for the Sea Grant College Program. His recent research and policy work has involved developing marine managed areas in Belize, Brazil, Fiji and Panama, coastal adaptation to climate change in the U.S. and Europe, marine spatial planning in Portugal, and conservation and urban design Southeast Asia.

COMMUNICATIONS (SCIENTIST-TURNED-FILMMAKER):



RANDY OLSON, WRITER, DIRECTOR & PRODUCER, PRAIRIE STARFISH PRODUCTIONS

Randy Olson is the writer and director of the feature films, "Flock of Dodos: The Evolution-Intelligent Design Circus," (Tribeca '06, Showtime '07), "Sizzle: A Global Warming Comedy" (Outfest '08) and author of, "Don't Be Such a Scientist: Talking Substance in an Age of Style" (Island Press '09). His work focuses on the challenges involved in communicating science to the general public, and the current attacks on mainstream science in fields such as evolution and climate science. He is a former marine biologist (Ph.D. Harvard University) who achieved tenure at the University of New Hampshire before changing careers to filmmaking by obtaining an M.F.A. in Cinema from the University of Southern California. His production company, Prairie Starfish Productions, is based at Raleigh Studios in Los Angeles. His new book for fall, 2013 is, "Connection: Hollywood Storytelling Meets Critical Thinking," with Dorie Barton and Brian Palermo.

PLENARY SESSION: ACIDIFICATION IMPACTS ON ESTUARIES

Date & Time: Wednesday, 6 November from 10:30 am – 12:00 pm

Location: Town & Country

Convened by: Jan Newton (newton@ocean.washington.edu)

Libby Jewett (libby.jewett@noaa.gov)

Karen McLaughlin (karenm@sccwrp.org)

This symposium will have plenary speakers set the stage of the science, economic impacts, and management responses of ocean acidification in estuaries. The plenary will be followed up by special sessions that will include both invited and contributed talks. The symposium will also include a workshop led by the Alliance of Coastal Technologies on making acidification measurements, and on sensor technologies. This symposium will offer new insights relating to ocean acidification as the focus is on acidification in estuaries and in other freshwater-influenced waters, rather than on the open sea. Moreover, it will highlight an increasingly recognized topic, and one that is of increasing urgency, as witnessed by the attention given to the Washington State Governor who established a Blue Ribbon Panel on Ocean Acidification in Washington's coastal and inland waters.



RICHARD A. FEELY, SENIOR FELLOW, NOAA PACIFIC MARINE ENVIRONMENTAL LABORATORY

Dr. Richard A. Feely is a NOAA Senior Fellow at the NOAA Pacific Marine Environmental Laboratory in Seattle. He also holds an affiliate full professor faculty position at the University of Washington School of Oceanography. His major research areas are carbon cycling in the oceans and ocean acidification processes. He received a B.A. in chemistry from the University of St. Thomas, in St Paul, Minnesota in 1969. He then went to Texas A&M University where he received both a M.S. degree in 1971 and a Ph.D. degree in 1974. Both of his post-graduate degrees were in chemical oceanography. He is the co-chair of the U.S. CLIVAR/CO2 Repeat Hydrography Program, member of the Steering Committee for the U.S. Carbon and Biochemistry Program, and a member of the American Geophysical Union and the American Association for the Advancement of Science. Dr. Feely has authored more than 230 refereed research publications and was awarded the Department of Commerce Gold Award in 2006 for research on ocean acidification. In 2007, Dr. Feely was elected to be a Fellow of the American Geophysical Union. In November 2010 he was awarded the Heinz Award for his pioneering research on ocean acidification.

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SAM DUPONT, RESEARCHER AND COORDINATOR, SVEN LOVÉN OCEAN ACIDIFICATION FACILITIES, DEPARTMENT OF BIOLOGICAL & ENVIRONMENTAL SCIENCES, UNIVERSITY OF GOTHENBURG, SWEDEN

Sam Dupont is a marine ecophysiologicalist. His main research topic is on the impact of increased CO₂ and related changes on marine species and ecosystems. His work aims at revealing the mechanisms behind species responses and at developing the needed unifying theory for large scale predictions. He is in direct contacts



with various stakeholders, both at local and global level. He is a member of the Advisory Board of the Ocean Acidification International Coordination Centre (OAICC) and hired as expert by the Swedish Agency for Marine and Water Management. He is also in contact with economists through his role as theme leader in a working group on economics of ocean acidification that brings together

scientists from many international scientific initiatives (EPOCA, BIOACID, UK-OA), economists, and representatives of major international organizations including UNESCO, FAO, OECD, World Bank, IGBP, and the CIESM. He is an active partner in several science education projects, including “Inquiry-to-Insight”, a collaboration between the University of Gothenburg and Stanford University, and the recently funded “VirtualLab project” which is a collaboration between the Faculty of Education and Faculty of Sciences at the University of Gothenburg.



ALAN BARTON, PRODUCTION MANAGER, WHISKEY CREEK SHELLFISH HATCHERY & PROJECT COORDINATOR, PACIFIC COAST SHELLFISH GROWERS ASSOCIATION MONITORING PROGRAM

Alan Barton is the Production Manager and Research Coordinator at Whiskey Creek Shellfish Hatchery

in Netarts, Oregon, a major supplier of oyster larvae to shellfish farms throughout the Pacific Northwest. He is heavily involved in efforts to understand the effect of deteriorating water chemistry on production at the hatchery, and recently collaborated with Oregon State University (OSU) researchers to publish the first evidence linking ocean acidification to mortality of oyster larvae in naturally occurring seawater. Alan also serves as the Project Coordinator for the Pacific Coast Shellfish Growers Association (PCSGA) Monitoring Program, a collaborative effort established between shellfish growers and members of the research community, with the expressed goal of accurately monitoring seawater quality in areas of commercial shellfish production. Alan’s educational background includes an undergraduate degree in Industrial Engineering from the Georgia Institute of Technology, and a Master’s Degree in Marine Science from the University of Georgia. He has worked extensively over the past decade in support of the shellfish industry, as an employee of OSU’s oyster breeding program, the Molluscan Broodstock Program, from 2004-2008, and in his current capacity as an employee at Whiskey Creek.

JAY MANNING, PARTNER, CASCADIA LAW GROUP

Jay Manning rejoined Cascadia Law Group in 2011 after more than six years as the Director of the Washington Department of Ecology and Chief of Staff to Washington State Governor Christine Gregoire. His law practice focuses on environmental and energy matters, providing consulting and legal services to clients involved in significant issues of public policy, major projects



seeking government approval and/or funding, and on difficult management challenges. As Chief of Staff from 2009 to July of 2011, Jay worked closely with the Governor and her Cabinet and Senior Staff to address budgetary and public policy challenges facing state government. As Director at Ecology from 2005 to 2009, Jay’s primary areas of focus were managing the state’s water resources, including

implementing the new Columbia River Water Program and guiding the effort to bring the Puget Sound back to good health by 2020. Jay co-chaired the Washington State Blue Ribbon Panel on Ocean Acidification in 2012, which led to an Executive Order directing the state’s implementation of the panel’s recommendations for a coordinated, regional response.

**PLENARY SESSION:
ANTHROPOGENIC FACILITATION OF SPECIES INVASIONS**

Date & Time: Thursday, 7 November from 10:30 am – 12:00 pm
Location: Town & Country
Convened by: Jeff Crooks (jcrooks@trnerr.org)
Jim Eckman (jeckman@ucsd.edu)

This plenary session will address the role of anthropogenic activities in accelerating species invasions of estuarine habitats, and the compromises faced by environmentalists, managers, and regulators who must use extremely limited resources to choose which invasions to attempt to control and how control efforts must be approached. Three keynote speakers will present different, and possibly discordant, perspectives on this topic.



GREGORY M. RUIZ, SMITHSONIAN ENVIRONMENTAL RESEARCH CENTER

Greg Ruiz is a Marine Ecologist with broad research interests in invasion biology, biogeography, and ecology in coastal marine ecosystems. A major component of his research focuses on spatial and temporal variation in marine invasion dynamics and factors that limit the success (establishment,

abundance, and impact) of non-native species. Greg holds a Ph.D. in Zoology from University of California, Berkeley and a B.A. in Aquatic Biology from the University of California, Santa Barbara. Greg is author or coauthor on over 100 scientific articles.



STEVEN S. RUMRILL, SHELLFISH PROGRAM LEADER, OREGON DEPARTMENT OF FISH & WILDLIFE

Steve Rumrill is a marine and estuarine ecologist who has worked over the past three decades primarily in the shallow sub-tidal zones, kelp beds, rocky intertidal areas, eelgrass beds, salt marshes, and soft-

sediment habitats of California, Oregon, Washington, and British Columbia. He received his academic training as an invertebrate zoologist, reproductive biologist, and larval ecologist, and he has taxonomic expertise with communities of echinoderms, mollusks, and crustaceans throughout the Pacific Northwest. As the leader for the Oregon Department of Fish and Wildlife / Shellfish Program, Steve has statewide responsibilities for the conservation and management of shellfish populations and characterization of their habitats. Steve participates regularly in efforts to document the arrival and spread of new non-native species, and he works closely with his colleagues to identify and implement rapid-response actions to minimize the likelihood of establishment by non-native species along the Oregon coast.



CHRIS SCIANNI, ACTING ENVIRONMENTAL PROGRAM MANAGER, MARINE INVASIVE SPECIES PROGRAM, CALIFORNIA STATE LANDS COMMISSION

Chris Scianni is a Senior Environmental Scientist, and Acting Environmental Program Manager, with the California State Lands Commission's Marine Invasive Species Program. He

provides scientific and technical assistance in developing policies and regulations on the prevention of ship-mediated biological invasions. His primary focus is on identifying and better understanding the risk factors associated with ship bio-fouling, and developing policies aimed at reducing risk and preventing invasions. Chris holds a B.Sc. in Marine Biology from California State University, Long Beach, and a M.Sc. in Biological Oceanography from California State University, Stanislaus, through the Moss Landing Marine Laboratories.

WORKSHOPS

CERF 2013 offers a diverse and exciting line-up of workshops. All workshops will be held on Sunday, 3 November during one of four different time slots.

ALL DAY 8:00 AM - 5:00 PM

OCEAN ACIDIFICATION MONITORING INSTRUMENTS

Location: Golden West
Convener: Mario Tamburri (tamburri@umces.edu)

The need to incorporate ocean acidification parameters into new and existing coastal monitoring programs is becoming increasingly apparent. This full day workshop will build off of the information and experience gained through Alliance for Coastal Technologies (ACT) workshops and technology evaluations and will begin with introductions/reviews of impacts of ocean acidification and approaches to in situ measurements of pH and pCO₂.

Presenters will include Dr. Mario Tamburri from the University of Maryland Center for Environmental Science and ACT, Dr. Tom Johengen, University of Michigan and ACT, Dr. Steve Weisberg,

Southern California Coastal Water Research Project and California Current Acidification Network, and Dr. Andrew Dickson from Scripps Institution of Oceanography.

The workshop will begin with introductions and a review of the impacts of ocean acidification, and approaches to in situ measurements of pH and pCO₂. The bulk of this training workshop will involve demonstrations of, and hands-on interactions with, several commercially available in situ pH sensors and pCO₂ analyzers. In one- to two-hour sessions, participants will rotate from station to station where sensor manufacturer representatives will demonstrate the steps required from the proper use of pH and pCO₂ instruments (from set up and calibration to maintenance and data management). The goals of the workshop are to meet experts in the ocean acidification field, and gain experience with existing and emerging technologies that will lead to better monitoring, assessment, and understanding of carbon chemistry in coastal waters. More information on ACT can be found at www.act-us.info.

SCOR WORKING GROUP 137, GLOBAL PATTERNS OF PHYTOPLANKTON DYNAMICS IN ESTUARINE AND COASTAL ECOSYSTEMS

Location: Sunrise
Conveners: Hans Paerl (hpaerl@email.unc.edu)
Kedong Yin (yinkd@mail.sysu.edu.cn)

Phytoplankton biomass and community structure have undergone dramatic changes in estuarine and coastal ecosystems over the past several decades in response to climate variability and human disturbance. These changes have short- and longer-term impacts on global carbon and nutrient cycling, food web structure and productivity, and coastal ecosystem services. The SCOR Working Group 137: "Global Patterns of Phytoplankton Dynamics in Coastal Ecosystems: Comparative Analysis of Time Series Observations" was formed in 2009 to examine the questions: 1) the qualitative character of the ecosystem responses ("what changes"), 2) their amplitudes ("by how much"), and 3) their timing and spatial and temporal scales ("when and where are rates of change the strongest." This two day workshop is the fourth in a series aimed at identifying the underlying processes and measuring rates at which phytoplankton alter coastal ecosystems on a global scale.

Day 1 (2 Nov.) of the workshop is a closed meeting during which SCOR Working Group 137 members will discuss and synthesize long time-series data sets from estuarine and coastal systems worldwide in order to examine patterns of anthropogenic and climate-driven change. Day 2 (3 Nov.) is an open meeting during which CERF members who have experience with decadal observational data from geographically diverse regions are invited to join the Working Group to continue discussions. The wealth of information in these data sets provides an unprecedented opportunity to develop a global analysis and investigation of the dynamics and status of ecosystems where land and sea meet. For more information please visit the SCOR Working Group 137 website: <http://wg137.net/>

1:30 PM - 3:00 PM

CREATING MUTUALLY BENEFICIAL LINKS BETWEEN CITIZEN SCIENCE AND OCEAN AND COASTAL RESOURCE MANAGEMENT

Location: Royal Palm Four
Conveners: Ryan Meyer (ryan.meyer@calost.org)
Aaron McGregor (aaron.mcgregor@calost.org)
Amy Freitag (amy.freitag@calost.org)

Citizen science, also referred to as public participation in scientific research, has many potential benefits. It may involve local communities in rewarding, educational activities, and promote stewardship of natural resources. It can tap knowledge and capacity in areas and at scales beyond the traditional confines of academic science. And it has the potential to inform long-term monitoring and adaptive management of natural resources. This 90 minute workshop will include discussion amongst researchers and practitioners on the different goals of citizen science with particular focus on informing coastal and ocean management decisions, and the challenges this brings. The goal of this workshop is to formulate different models for organizing and sustaining citizen science.

DATA INFRASTRUCTURES FOR ESTUARINE AND COASTAL ECOLOGICAL SYNTHESIS

Location: Royal Palm Five
Conveners: Anne Thessen (annethessen@gmail.com)
Ben Fertig (fertig@marine.rutgers.edu)

Synthesis in estuarine and coastal science has recently been defined as the inferential process whereby new models are developed from analysis of multiple data sets to explain observed patterns across a range of time and space scales. Furthermore, understanding coastal/estuarine resiliency and developing sustainable solutions will be aided by synthesis of large, distributed data sets. Though data sets are becoming accessible for synthesis in increasing quantity and volume, the infrastructures for data sharing, management and integration are often fractured and underutilized. With the advent of the NSF Data Management Plan requirement, EarthCube and DataNet, as well as the increasing scope of the “semantic web” researchers need to be informed about data tools they can use and potential solutions to data issues. This 90 minute workshop will include discussion on available data tools and their utility for large scale analysis. The goal of the workshop is to formulate best practices, available resources, and new technologies that can aid data-centric research/synthesis through discussion amongst academia, government, and industry.

LINKING KNOWLEDGE WITH ACTION: EMPIRICAL EVIDENCE OF WHAT WORKS AND WHAT DOESN'T

Location: Royal Palm Six
Conveners: Kalle Matso (kmatso@wildcats.unh.edu)

The actions science funders, practitioners, policy makers and decision makers take to better connect estuarine ecosystem knowledge with productive action is critical in addressing pressing environmental issues. This 90 minute workshop will include short presentations

based on actual case studies from various actors in the knowledge to action arena (e.g., funders, scientists, boundary spanners, managers) and facilitated discussion. The goal of this workshop is to create the following workshop products, which are designed to be arrayed in a Structured Decision Making—a common collaborative framework—matrix: 1) knowledge to action objectives; 2) indicators of successful linking of knowledge and action; 3) interventions; and 4) high-priority questions to fill information gaps.

GRADUATE STUDENT MENTORING OF UNDERGRADUATES

Location: Hampton
Conveners: Tim Dellapenna (dellapet@tamug.edu)

Research is an important component of the undergraduate experience in the sciences. This 90-minute workshop will focus on what works in mentoring undergraduate researchers. The workshop will include a panel of experienced graduate student mentors who will talk about their mentoring styles and give examples of approaches to specific problems. Topics will include: fostering independence in undergraduate researchers, successful work and meeting schedules, keeping students motivated, responsibilities of graduate student mentors in passing on research ethics and conventions of the discipline, and strategies for dealing with problems or issues. The goal of the workshop is to communicate effective strategies for mentoring undergraduate students.

1:30 - 5:00 PM

A SHORT TUTORIAL ON SCIENTIFIC WRITING: HOW TO OPTIMIZE CHANCES FOR SUCCESS IN PUBLISHING A PAPER IN ESTUARIES AND COASTS

Location: Sunset
Conveners: James Cloern (jecloern@usgs.gov)
Iris Anderson (iris@vims.edu)
Wayne Gardner (wayne.gardner@utexas.edu)

Scientific publication is the cornerstone of research. This is an encore presentation of a popular workshop from two previous CERF meetings on scientific writing and publishing. This workshop will include the following topics: (1) attributes of a well-written paper, including four essential for an excellent manuscript, using examples from a paper that participants will read in advance*; (2) mechanics of submitting a manuscript including how to choose a journal, write a cover letter to the editor, respond to reviewer comments, review papers yourself, authorship ethics, and what to do when your paper is rejected; and (3) How the processes of submission, review, and publication work at Estuaries and Coasts. The goal of this workshop is to familiarize participants with the process of scientific publication with special focus on the CERF association journal.

*Attendees are asked to read the following manuscript prior to the workshop:

Kling et. al. 1987. The 1986 Lake Nyos Gas Disaster in Cameroon, West Africa. *Science*. 236: 169-175 (DOI: 10.1126/science.236.4798.169).

IN SITU NUTRIENT MONITORING AND LONG-TERM WATER QUALITY MONITORING IN COASTAL APPLICATIONS

Location: Windsor
Convener: Nichole Halsey (nhalsey@sea-birdcoastal.com)

An important step in reducing the impact of nutrients is to determine the current sources and levels. Continuous monitoring of nutrient levels when paired with temperature, conductivity, and dissolved oxygen data provides crucial information about daily, seasonal and event based changes in water quality conditions. Discussion will cover ways to maximize data quality and deployment duration in challenging coastal environments. The workshop will include existing customer applications as well as ways in which these sensors can be incorporated into other water quality monitoring programs. Other topics covered include sensor technology, calibration protocols, maintenance protocols and QA/QC guidelines.

3:30 - 5:00 PM

REAL TIME DATA RETRIEVAL AND STORAGE METHODS IN COASTAL DATALOGGING APPLICATIONS

Location: Royal Palm One
Convener: Jeff Adams (jadams@campbellsci.com)

The ability to view data in real time is becoming the touchstone in a number of coastal monitoring programs. This 90 minute workshop will include a discussion of best practices and a hands-on demonstration of available technology for real time data retrieval and storage methods. Discussion will cover factors like quantity and frequency of data collection, accessibility of sites, and availability of service, that help determine best storage and retrieval methods. The second part of the workshop will include the design, configuration, and programming of a wireless datalogger network that measures water quality and meteorological variables. Mobile Apps will be utilized to send programs, view the real time data in numerical and graphical formats, check network status, and collect historical data over cellular or Wi-Fi networks. The goal of the workshop is to gain experience with real time data logging networks for use in coastal settings.

INTEGRATED ECOSYSTEM ASSESSMENT: FROM CONCEPT TO PRACTICE

Location: Royal Palm Two
Conveners: Michael Reiter (reiterm@cookman.edu)
Gary Matlock (gary.c.matlock@noaa.gov)

An Integrated Ecosystem Assessment (IEA) is a scientifically-based synthesis and analysis of existing information on relevant physical, chemical, ecological and human processes in relation to specified societal goals and ecosystem management objectives. An IEA examines the causes and consequences of the current status of an ecosystem, provides a forecast without any changes to current management of the system, examines alternative actions that might be considered to achieve or maintain ecosystem health, estimates the costs and benefits of each alternative, and identifies research priorities. This 90 minute workshop will focus on the purpose, design, and use of IEAs, including presentations of IEA methods such as the Integrated Assessment and Ecosystem Management Protocol and completed IEAs that reach conclusions about the health of coastal and aquatic ecosystems, followed by a panel discussion that examines the utility of IEAs and lessons

learned by managers responsible for achieving healthy ecosystems. The goal of the workshop is to familiarize participants with the process, use, and implementation of IEAs.

ADVANCING EXPERT JUDGMENT OF ECOSYSTEM HEALTH FOR SCIENCE-INFORMED OCEAN MANAGEMENT DECISIONS

Location: Royal Palm Four
Conveners: Erin Meyer (erin.meyer@calost.org)
Ryan Meyer (ryan.meyer@calost.org)

Expert judgment, in which a diverse group of experts is asked to consider a broad range of scientific data and results and to provide a synthetic assessment, is increasingly being used to inform a variety of ocean resource management decisions. Despite different motivations for using expert judgment, there are common themes and approaches in how expert judgment is used. Taken together, these form the basis for an emerging body of practice that can increase the legitimacy of expert judgment processes. This 90 minute workshop will include discussion between scientists, managers and decision-makers exploring the ways in which expert judgment is used in a variety of arenas and how the results of these judgments have been taken up and used to inform management decisions. The goal of this workshop is to formulate best practices for gathering expert judgment and how to utilize it in a variety of settings.

FIELD TRIPS

Escape the traditional conference atmosphere and explore the San Diego area by joining one of the field trips offered at CERF 2013. All field trips will be held on Sunday, November 3, and include lunch and transportation.

TIJUANA RIVER NATIONAL ESTUARINE RESEARCH RESERVE AND U.S./MEXICO BORDER

Duration: 9:00 am – 2:00 pm
Cost: \$25

The Tijuana River Estuary is one of 28 reserves in NOAA's National Estuarine Research Reserve System, and is situated immediately north of the US / Mexico border. The tour will lead participants across the Coronado Bridge over San Diego Bay and down the Silver Strand to Imperial Beach. The tour will stop at the Tijuana Estuary Visitor Center to orient participants to local marsh habitats and the Reserve's many partners (including California State Parks, the Tijuana Slough National Wildlife Refuge, and the Southwest Wetlands Interpretive Association). The tour will continue to the southern Tijuana River Valley and along the international border. Tour stops will demonstrate the complex ecological and social setting of the largest intact coastal wetland in southern California, and highlight efforts underway to understand, protect, and restore this vital area. Box lunch and transportation will be provided.

SCRIPPS INSTITUTION OF OCEANOGRAPHY, THE BIRCH AQUARIUM, AND TIDEPooling IN LA JOLLA

Duration: 10:00 am - 4:30 pm
Cost: \$35

Scripps Institution of Oceanography, part of the University of California San Diego, is a renowned center for ocean, earth, and

atmospheric science research and education. It is also home to the popular San Diego attraction, the Birch Aquarium at Scripps. Trip participants will visit the Aquarium as well as the Scripps Pier, where they will learn more about the activities of the Southern California Coastal Ocean Observing System from Scripps scientists. The trip will conclude by taking advantage of an excellent low tide and exploring the tidepools of the Scripps Coastal Reserve. Box lunch and transportation will be provided.

Attire: Please be prepared for tidepooling (e.g., shoes you don't mind getting wet).

NATURAL AND HUMAN HISTORY AT THE CABRILLO NATIONAL MONUMENT AND TIDEPOLS

Duration: 11:00 am – 5:00 pm
Cost: \$30

The Cabrillo National Monument, part of our National Park System, is a wealth of cultural and natural resources. Situated at the end of the Point Loma peninsula jutting into the Pacific Ocean, the Cabrillo National Monument boasts an unsurpassed view of the coast, San Diego Bay, and the greater San Diego area. Trip participants will visit the Monument's Visitor Center, historic military sites, and the Old Point Loma Lighthouse (one of the original eight lighthouses on the West Coast). The rocky intertidal area at the base of the peninsula is one of the best-protected tidepool systems in southern California, and the trip will conclude with a low tide excursion to this area. Docents are available to provide interpretation. Box lunch and transportation will be provided.

Attire: Please be prepared for tidepooling (e.g., shoes you don't mind getting wet).

THE SAN DIEGUITO WETLANDS RESTORATION PROJECT

Duration: 10:00 am – 3:00 pm
Cost: \$25

At San Dieguito Lagoon, just north of San Diego, the power company Southern California Edison is restoring 150 acres of coastal salt marsh wetlands to mitigate the impact on marine fish populations of the cooling water systems for San Onofre Nuclear Generating Station. The goal of the San Dieguito Lagoon restoration project is to preserve, improve, and create a variety of habitats to increase and maintain fish and wildlife and to ensure the protection of endangered species. Monitoring the success of major environmental restoration projects can be difficult, however, and an independent long-term monitoring plan was developed to assess restoration success. A team of scientists from the University of California Santa Barbara is leading the monitoring program, and they and partners from San Diego State University and California State University Long Beach will show trip participants the core modules of the restoration and discuss the research supporting a better understanding of the functioning and restoration of this coastal lagoon. Box lunch and transportation will be provided.

SPECIAL MEETINGS & EVENTS

SUNDAY, 3 NOVEMBER 2013

AWARDEE & SUSTAINING MEMBERS RECEPTION (BY INVITATION ONLY)

Date & Time: Sunday, 3 November at 4:00 – 5:30 pm
Location: San Diego

CERF invites our sustaining members to attend a special reception to thank you for your support of the Federation, congratulate the 2013 scientific awardees, and meet the keynote speaker, Jerry Zucker.

ORIENTATION FOR FIRST-TIME CERF CONFERENCE ATTENDEES

Date & Time: Sunday, 3 November at 5:00 – 5:45 pm
Location: California

New to CERF? From navigating to networking - this orientation will help you make the most of your first conference experience.

KEYNOTE ADDRESS & CERF SCIENTIFIC AWARDS

Date & Time: Sunday, 3 November at 6:00 -7:00 pm
Location: Town & Country

Join Walter Boynton, CERF President 2011-2013 and Steve Weisberg, CERF 2013 Conference Chair for the keynote address and presentation of the 2013 Distinguished Service Award and Scientific Awards. The CERF 2013 keynote address "Portraying Scientists as Geeks and Madmen: Can Hollywood Reverse the Trend it Started?" will be delivered by iconic Hollywood producer, writer and director Jerry Zucker.

PRESIDENTS' RECEPTION

Date & Time: Sunday, 3 November at 8:00 – 10:00 pm
Location: Grand Hall & Foyer

On behalf of the Federation Presidents', we invite you to attend the Presidents' Reception to greet old friends and new and celebrate our 22nd biennial conference. Plan to kick-off what promises to be the largest CERF conference ever with a Mexican fiesta and hosted bar courtesy of the Town and Country Resort & Conference Center.

MONDAY, 4 NOVEMBER 2013

IGNITE SESSION: WHAT DOESN'T KILL YOU MAKES YOU STRONGER (OR AT LEAST A BETTER SCIENTIST)

Date & Time: Monday, 4 November at 12:15 – 1:25 pm
Location: Town & Country
Organizer & Moderator: Kerry Nickols, Hopkins Marine Station, Stanford University
Speakers: Kerry J. Nickols, Stanford University

I Get By with a Little Help from My Friends
John Largier, University of California, Davis
Youth, Truth and Finding a Deeper Meaning in Oceanography

Karen McLeod, COMPASS
Carving My Path as an Integrator: One Scientist's Survival Story

Jim O'Donnell, University of Connecticut
Surviving Interdisciplinary Education

Sarah Giddings, Scripps Institution of Oceanography
How Birds, Trash, a Few Field Mistakes, and Some Luck Have Shaped My Scientific Interests

George Waldbusser, Oregon State University
Slow Death by the Second Law: Working Against the Gradient.

Denise Reed, The Water Institute
The Tide Comes In and the Tide Goes Out

Ted Grosholz, University of California, Davis
Words Hurt as Much as Sticks and Stones: Overcoming Criticism

CERF 2013 will host two Ignite Sessions - each scheduled during the lunch period on Monday and Wednesday. These 90-minute sessions will be comprised of eight to ten talks grouped around a common theme. Each talk is five minutes, featuring 20 slides that advance automatically every 15 seconds ... when your slides are done, so are you! There are no questions during the talks, but there will be time for discussion afterwards. Ignite Sessions provide a unique way to share ideas and experiences in a fun, animated and fast-paced forum.

As scientists we have all faced obstacles: a failed experiment, manuscripts that never get published, unlucky job searches, conflicts with collaborators, mentees, or mentors. Yet, it is often in these times that we find new inspiration, a discovery that leads us down another path, a change in approach to the question, or a new source of support. In this Ignite Session, scientists will share the stories behind those obstacles and how they ultimately made them a better scientist.

POSTER SESSIONS & HAPPY HOUR - SPONSORED BY SEA-BIRD COASTAL

Date & Time: Monday, 4 November at 5:00 – 7:00 pm
Location: Grand Hall



**SEA-BIRD
COASTAL**

Enjoy light snacks and a cash bar while viewing posters and speaking with presenters. See page 51 for a list of scheduled

poster sessions and presenters for Monday evening.

AFFILIATE SOCIETY MEETINGS

Date & Time: Monday, 4 November at 6:30 – 7:30 pm
Location: Various – see page 4 for room assignments

Connect with colleagues and find out more about coastal and estuarine activities in your area at one of the regional Affiliate Society meetings.

STUDENT & RECENT GRADUATE CAREER NETWORKING EVENT

Date & Time: Monday, 4 November at 7:30 – 9:30 pm
Location: Town & Country

Join us for this popular networking event. Rub elbows with faculty, professionals and other students while enjoying complimentary

pizza and beverages! Get valuable information on various career options, including alternatives to academia, and make connections that may come in handy down the road. Formatted in a “speed-dating” style, participants will be able to sit down and chat with a number of coastal and estuarine science and management professionals. Remember to bring business cards and, if you are job-hunting, resumes!

STUDENT & RECENT GRADUATE PUB NIGHT

Date & Time: Monday, 4 November at 8:30 pm - Closing
Location: The Waterfront Bar & Grill at 2044 Kettner Blvd.

Join fellow CERF students and recent graduates for a fun night out! Grab drinks, chow down on snacks, listen to some tunes, and best of all get to know other students and professionals in your field in a relaxed and casual atmosphere. The event will be held on Monday, November 4 from 8:30 pm to close at The Waterfront Bar and Grill (<http://www.waterfrontbarandgrill.com/>) located at 2044 Kettner Blvd - a few blocks away from the Little Italy Station on the San Diego Trolley Green Line. Please note this event is for participants age 21 and up only. As always, non-students are welcome to attend!

TUESDAY, 5 NOVEMBER 2013

WOMEN IN SCIENCE NETWORKING LUNCH (TICKETED EVENT)

Date & Time: Tuesday, 5 November at 12:00 – 1:30 pm
Location: San Diego
Cost: \$30.00 regular / \$25.00 students



The Women in Science Networking Lunch provides a compelling program and an excellent opportunity to network with colleagues and friends. This year we are happy to present Margaret Spring as the featured speaker.

Margaret Spring joined the Monterey Bay Aquarium in April 2013 as Vice President of the Conservation and Science Division where she provides leadership and strategic guidance for

the Conservation Research, Policy, and Seafood Watch Programs.

Margaret, a graduate of Duke University Law School and Dartmouth College, has had a distinguished career in ocean policy, having recently served as Principal Deputy Under-Secretary for Oceans and Atmosphere and Chief of Staff at NOAA, working closely with NOAA administrator Jane Lubchenco. In this role, she worked to develop and drive strategic priorities for NOAA with a particular focus on external constituents, interagency initiatives, and administration priorities.

Prior to this, Margaret was with The Nature Conservancy's California chapter from 2007 to 2009 as Director of its Coastal and Marine Program, where she led one of the largest U.S. marine programs at the Conservancy, focusing on innovative projects designed to address major threats to marine ecosystems. Before joining the Conservancy she served for many years as Senior Counsel, then General Counsel, to the Senate Committee on Commerce, Science, and Transportation, playing an important role advising members of Congress on ocean issues and developing key ocean legislation.

CRUISING SAN DIEGO BAY SOCIAL EVENT (TICKETED EVENT)

Date: Tuesday, 5 November
Boarding: 6:30 – 7:00 pm
Cruise: 7:00-9:00 pm
Disembark: 9:15-9:30 pm
Location: Grape Street Pier, 1800 N. Harbor Dr. in San Diego
Cost: \$75.00 adult / \$45.00 children ages 4-12 / free for children ages 3 & under



Join us for a private, two-hour cruise around San Diego Bay with Hornblower Cruises & Events on the Inspiration Hornblower charter yacht. This family-friendly cruise has it all: dinner, drinks, dancing, a DJ and a view of the beautiful San Diego skyline at night. The cruise terminal is walking distance from the San Diego trolley line and the tickets are a great deal compared to the public rate of \$120. The yacht has 28,000 ft. of event space, with two enclosed interior decks and an open-air sky deck rising 30 ft. off the water. It should be a fantastic evening!

Public transportation is highly recommended. Ride the San Diego Trolley Green Line to from Fashion Valley to the County Center/ Little Italy station at Pacific Hwy & W Cedar St. and walk approximately 0.5 miles to the pier. Student workers will be on hand to help direct you to the trolley station outside the Town and Country Resort & Conference Center. More information about the San Diego Trolley can be found at www.sdmts.com.

If driving, be sure to leave plenty of time for parking. There are limited metered parking spaces and a number of paid parking lots in the vicinity of the pier. Visit <http://sandiego.bestparking.com/> for more information.

WEDNESDAY, 6 NOVEMBER 2013

"CERF THE TURF" 5K FUN RUN/WALK (PRE-REGISTRATION REQUIRED)

Date: Wednesday, 6 November
Assemble: 6:30 am
Event: 7:00 – 9:00 am
Location: Assemble in the southwest parking lot at the corner of Hotel Circle North & Fashion Valley Rd.
Cost: \$20.00

CERF will once again host a 5K (3.1 mile) fun run/walk as a part of the 2013 biennial conference. This year's run will follow a stretch of the San Diego River offering beautiful riparian views, fun and fresh

air. All paid participants will get a keepsake after the race, and prizes will be awarded to the top male and female finishers. Pre-registration is required before November 6. Interested participants can sign up at registration. Runners/walkers are asked to assemble at the southwest corner of the Town & Country Resort and Convention Center property at 6:30 am the morning of the event.

IGNITE SESSION: THE POWER OF OBSERVATIONS

Date & Time: Wednesday, 6 November at 12:15 – 1:25 pm

Location: Town & Country

Moderator: Zdenka Willis, Integrated Ocean Observing System, NOAA

Speakers: Toby Garfield, San Francisco State University
Science, Spills and Sailors: Oh my!

Gerhard Kuska, Mid-Atlantic Regional Association

Coastal Ocean Observing System (MARACOOS)

Toto, I've Got a Feeling We're Not in Kansas Anymore

...What To Do About Severe Weather in Coastal Areas?

Molly McCammon, Alaska Ocean Observing System (AOOS)

What's Ice Got to do with It?

Libby Jewett, NOAA Ocean Acidification Program

Building an EKG for the Sea

Joe Needoba, Oregon Health and Science University

Tracking the Intractable Columbia River

Frank Kudrna, Board Vice Chair, Great Lakes

Observing System (GLOS)

Its Kind of Erie: HABs and Hypoxia

Cheryl Peach, Scripps Institution of Oceanography

Teaching Students to Navigate Oceans of Data

TBA, National Estuarine Research Reserve

Long-term Trends in Coastal Systems

CERF 2013 will host two Ignite Sessions - each scheduled during the lunch period on Monday and Wednesday. These 90-minute sessions will be comprised of eight to ten talks grouped around a common theme. Each talk is five minutes, featuring 20 slides that advance automatically every 15 seconds ... when your slides are done, so are you! There are no questions during the talks, but there will be time for discussion afterwards. Ignite Sessions provide a unique way to share ideas and experiences in a fun, animated and fast-paced forum.

This Ignite Session will focus on the power we gain from having coastal observational data. Speakers will share diverse stories of where a commitment to sustained observations has shown clear value to society through improved response to events, deeper insight on system functioning that leads to improved management, detection of change, or increased awareness of the marine environment.

POSTER SESSIONS & HAPPY HOUR

Date & Time: Wednesday, 6 November at 5:00 – 7:00 pm

Location: Grand Hall

Enjoy light snacks and a cash bar while viewing posters and speaking with presenters. See page 57 for a list of scheduled poster sessions and presenters for Wednesday evening.

ANNUAL CERF BUSINESS MEETING

Date & Time: Wednesday, 6 November at 6:30 – 7:30 pm

Location: California

Meet with CERF Executive Director, Mark Wolf-Armstrong, and learn more about what is happening within CERF at the annual CERF Business Meeting.

CERF BOWL

Date & Time: Wednesday, 6 November at 7:30 – 10:00 pm

Location: Town & Country

The CERF Bowl is a team-based trivia competition that will show off the extensive estuarine and coastal knowledge of society members. Modeled after NOAA's National Ocean Science Bowl, this evening event promises to be a fun and entertaining venue for members to compete against one another, earn prizes, cheer on colleagues, and meet new people.

THURSDAY, 7 NOVEMBER 2013

CLOSE-OUT PARTY & STUDENT AWARDS PRESENTATION (PRE-REGISTRATION REQUIRED)

Date: Thursday, 7 November at 5:30 pm – 8:30 pm

Cost: Free, but pre-registration is required

Volunteer judges will be evaluating student oral and poster presentations throughout the conference. Tonight, the highest-

ranking students will receive monetary awards and recognition for their exceptional work. Come support the students and celebrate another successful conference. Light hors d'oeuvres and refreshments will be available.


OTHER MEETINGS & EVENTS

THE COASTAL SOCIETY RECEPTION

Date & Time: Monday, 4 November at 6:30 – 7:30 pm

Location: Garden Salon 1 and 2

The Coastal Society (TCS) is an international group of private sector, academic and government professionals and students, who address technical, policy, educational, and management issues with a coastal focus. Through its biennial conference, Bulletin, email notices, student chapters and included subscription to the Coastal Management Journal, TCS provides members with information on coastal news, jobs, policy announcements and research, plus articles on legal issues, legislative action, international events, and coastal management strategies. We invite you to meet with us and learn how TCS provides professional education and development to members by fostering dialogue, partnerships, communications and education.

 RESTORE AMERICA'S ESTUARIES

The Coastal Society

Collaborate to Present

Inspiring Action, Creating Resilience


7th National Summit on Coastal and Estuarine Restoration
and
24th Biennial Meeting of The Coastal Society

November 1-5, 2014

GAYLORD NATIONAL CONVENTION CENTER • WASHINGTON, DC-METRO

Please join us in 2014!

www.estuaries.org/summit



"Last Light" © 2013, John Brandon Sills

The Coastal Society

Welcome to CERF 2013!

Established in 1975, The Coastal Society is an organization of private sector, academic, and government professionals and students.

We are dedicated to actively addressing emerging coastal issues by fostering dialogue, forging partnerships and promoting communications and education.

Visit www.thecoastalsociety.org
for more information.

SILENT AUCTION

Bidding Opens: Sunday, 3 November at 4:00 pm
Bidding Closes: Tuesday, 5 November at 5:00 pm
Payment Due By: Wednesday, 6 November at 5:00 pm
Location: Grand Hall

The Silent Auction is a new addition to CERF conferences. Funds raised through the auction will go to support CERF student participation and development activities. The auction will take place in the Grand Hall where a unique variety of items will be on display and available for bidding. This event will feature CERF inspired art, including original works created for CERF 2013, books, scientific instrumentation, outdoor sport equipment, gift certificates and ERF/CERF memorabilia generously donated by members, conference vendors and businesses.

All bids must be placed prior to the close of the auction. Auction winners can pay for items at the registration desk in the Atlas Foyer, and all payments must be received by 5:00 pm on Wednesday, 6 November. If payment is not received at that time, items will automatically be awarded to the next highest bidder who will be immediately contacted. All items must be collected and transported by auction winners at the time of payment. Join us for a good cause, and great deals on highly prized items!

Here is a just a sampling of the items that will be up for bid. Be sure to drop by our full display in the Grand Hall to see all of the great items up for auction!

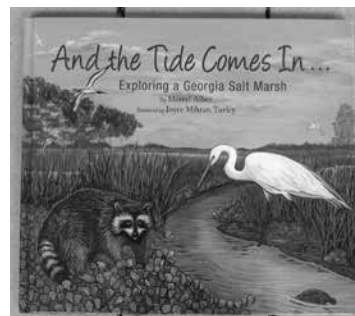
BOOKS



“NORTH CAROLINA'S AMAZING COAST”

This lovely book features an inviting collection of one hundred short, self-contained features about the flora, fauna, and natural history of the fascinating place where the land meets the sea. Each page includes a full-color illustration and breezy, fact-

filled commentary on coastal wildlife. This copy is signed by the author, Terri Kirby-Hathaway, a marine education specialist with North Carolina Sea Grant.



“AND THE TIDE COMES IN: EXPLORING A GEORGIA COASTAL MARSH”

This imaginative book provides a narrative told from the point of view of a young girl who is sharing a Georgia coastal salt marsh with her visiting cousin. This hardcover

copy is signed by the author, Dr. Merry! Alber, a professor in the Department of Marine Sciences at the University of Georgia and the managing editor of CERF's Coastal and Estuarine Science News (CESN)!

ART



UNIQUE HANDMADE RING

This unique and adjustable sterling and resin cocktail statement ring is handmade by sea turtle biologist and metal-worker, Kate Mansfield. It depicts a diver getting ready to dive into a sparkling blue sea for a survey in a subtropical sea with a floor made of real Pensacola Beach sand.



SIX PERSPECTIVES OF NORTH AMERICAN BIRDS

A stunning collection of informed and inspired photographs created by Holly Greening and Gerold Morrison includes six unique perspectives and species of North American birds. Each high-resolution glossy photo measures 8x10 inches and will beautifully adorn any office or home.



OUTDOOR SPORTS & RECREATION



2-DAY WOMEN'S WEEKEND SURF CLINIC

Learn how to hang ten with this certificate for a 2-day Women's Weekend Clinic at Surf Diva Surf School in La Jolla. Surf Diva has taught thousands of women to surf from every corner of the globe since it first opened in La Jolla in 1996. Their most popular program is the Women's Weekend Surf Clinic, held every weekend, year round at La Jolla Shores, close to San Diego, California. This clinic provides the perfect introduction to wave riding and the surfing lifestyle and the group setting makes it a really fun activity to share with friends, colleagues, family or to join in on your own. If you have never surfed before or you want to refresh your skills, this is the perfect item to bid on!

SCIENTIFIC INSTRUMENTS

RBR

RBRsolo T TEMPERATURE RECORDER

Be the envy of your department with your very own RBRsolo T Temperature Recorder! The compact and lightweight single channel recorder offers flexible measurement schedules, fast sampling up to 2Hz, large memory, extra power for extended deployments, fast USB download for large data files, and temperature accuracy of $\pm 0.002^{\circ}\text{C}$! The RBRsolo T is small and streamlined making it the ideal instrument for shallow and deep water applications, down to 1700m (depth). This versatile little gem can be moored, towed, or used in profiling and can be YOURS if you are the highest bidder at the CERF Silent Auction!

MEMORABILIA



VINTAGE CERF COOZIE

A rare and coveted piece of vintage CERF gear is up for auction! This coozie, seasoned by travel to three continents, field work, sporting events and all manner of beverage will be awarded to the highest bidder at the CERF 2013 silent auction. The smart accessory is the perfect companion for all of your estuarine and coastal adventures.

AND MORE!



THE WATER INSTITUTE OF THE GULF

INTEGRATING APPLIED RESEARCH.

LINKING KNOWLEDGE TO ACTION.

BUILDING PARTNERSHIPS.



THEWATERINSTITUTE.ORG



California Ocean Science Trust ensures that state policy and management decisions are supported with a rigorous scientific foundation. We strategically build partnerships across state agencies, California tribes, scientific institutions and citizens, elevating the most innovative thinking from the scientific community.

We are engaged across the spectrum of ocean issues facing California and the West Coast, particularly ocean acidification, fisheries management, and the scientific monitoring of marine protected areas.

Please reach out to us with questions and ideas at www.ost.org

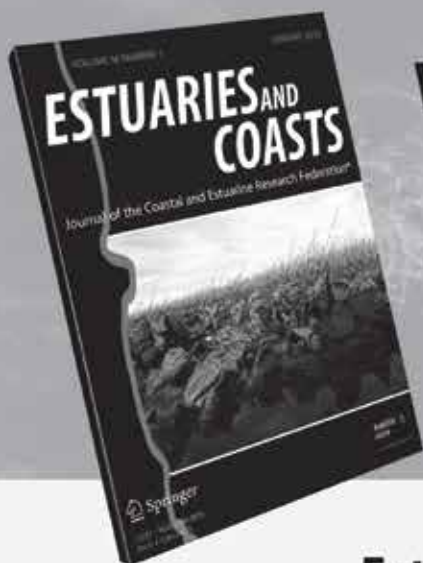


JOIN US!

CERF is dedicated to advancing the understanding and wise stewardship of estuarine and coastal ecosystems worldwide. Our mission is to:

- Promote research in estuarine and coastal ecosystems;
- Support education of scientists, decision-makers, and the public; and
- Facilitate communication among these groups.

Learn more about the benefits of membership at www.erf.org.



Why you should publish your research with Estuaries and Coasts

Estuaries and Coasts

Journal of the Coastal and Estuarine Research Federation

Co-Editors-in-Chief: I. Anderson and W. Gardner



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MONDAY, NOVEMBER 4, 2013 – EARLY MORNING 8:00-10:00 AM

	TOWN & COUNTRY	SAN DIEGO	GOLDEN WEST	CALIFORNIA	ROYAL PALMS (1-3)	ROYAL PALMS (4-6)
	SCI-002 Comparative Understanding of Estuarine Eutrophication Tipping Points and Restoration Trajectories Daniel Conley, Jacob Carstensen, and Holly Greening	SCI-013C Marshes, Storms, and Sea Level Rise: Environmental Records and Ecological Communities Tom Allen	SCI-024A Education: Mentoring Strategies Erin Burge, Janet Nestlerode, Timothy Dellapenna, and Melissa Baustian	SCI-047A Drivers and Ecological Effects of Hypoxia in Coastal Upwelling Systems Larry Crowder and Lisa Levin	SCI-076A Biogeochemistry of Coasts and Estuaries: Greenhouse Gases and C/N Cycling in Coastal Ecosystems Serena Moseman-Valtiera and Alexander Parker	SCI-075A Ecology of Coasts and Estuaries: Dispersal, Recruitment, and Habitat Affinity Steven Morgan and Kathy Boyer
8:00 AM	Double dip "tipping points": recovery from eutrophication in Tampa Bay, Florida. Holly Greening , Anthony Janicki, Edward Sherwood, Raymond Pribble.	Is recent saltmarsh accretion related to sea level change? Examples from Mexico. Ana Carolina Ruiz-Fernández , Joan-Albert Sanchez-Cabeza, José Luis Serrato de la Peña, Sara Bojórquez-Sanchez, Libia Pérez-Bernal, Francisco Flores-Verdugo, Alejandro Cearreta, Guiping Feng, et al.	Student/mentor investigation of HSC population dynamics serves as a vehicle for science, technology, engineering and mathematics (STEM) advancement through College/High School collaboration. Sixto Portilla , Maria Brown, Kathreen Mangaluz, et al.	Coastal hypoxia and ocean acidification as coupled ecosystem stressors: A view from the left coast. Francis Chan , John Barth, Kate Adams.	Are salt marshes sinks or sources of greenhouse gases? How shifts in greenhouse gas fluxes from coastal ecosystems may affect the promise of Blue Carbon. Serena Moseman-Valtiera , Jianwu Tang, Kate Morkeski, Katharine Egan, Timothy Lima, Kevin Kroeger.	Soundscapes and settlement: Habitat-related sound as a cue for larval oysters. Ashlee Lillis , David Eggleston, DelWayne Bohnenstiel.
8:15 AM		Recent environmental records of Global Change: evaluation of sea-level change rates by using 210Pb-dated sedimentary records in Veracruz, Mexico. Sara Bojórquez-Sanchez , Ana Carolina Ruiz-Fernández, Ana Marmolejo Rodríguez, Joan-Albert Sanchez-Cabeza, et al.	Successful mentoring of diverse students in a well-established REU program. Rochelle Seitz , Linda Schaffner.	Physical contributors to hypoxia in coastal upwelling systems: a cross-scale overview. C. Brock Woodson .	Quantifying methane gas fluxes in relation to invading Phragmites Australis in tidal brackish marshes in a tributary of the Chesapeake Bay. Justin Meschter , Peter Mueller, Thomas Mozdzier, Patrick Magonigal, Andrew Baldwin, Kai Jensen, Adam Langley.	The interactive effects of pollination and seed dispersal distance on the dynamics of sexual recruitment in an establishment phase <i>Zostera marina</i> meadow, Shinnecock Bay, NY. Bradley Furman , Lisa Jackson, Eric Bricker, Michelle Waycott, Bradley Peterson.
8:30 AM	Optimizing estuaries. Lora Harris , Nengwang Chen.	Sedimentary geochemical signatures of recent sea-level change in the Estero de Urías coastal lagoon, NW Mexico. Jorge Serrato , Ana Carolina Ruiz-Fernández, Joan-Albert Sanchez-Cabeza, Libia Pérez-Bernal, Ignasi Queralt, Francisco Flores-Verdugo, Alejandro Cearreta.	Supporting the spineless: Creating a backbone to an undergraduate learning experience with invertebrates and beyond. Elizabeth Lacey .	Processes driving shelf hypoxia off the southern California. SungHyun Nam , Uwe Send.	Saltwater intrusion into tidal freshwater marshes alters greenhouse gas production and emissions to the atmosphere. Scott Neubauer , Rima Franklin, David Berrier.	The interactive effects of aerial exposure and competition with fouling organisms determines juvenile oyster size and fitness in an euhaline mid-Atlantic estuary. Michelle Brodeur , Niels Lindquist, F. Joel Fodrie.
8:45 AM	Organic matter composition of eutrophic sediment responds rapidly to reduced nutrient loading: a field and mesocosm experiment. Amanda Spivak .	The effects of sea level rise on the decomposing communities of a restored southern California salt marsh. Nathan McLain , Christine Whitcraft, Jesse Dillon.	Roundtable Discussion.	One if by land, Two if by sea: Nearshore and offshore drivers of hypoxia in coastal zones. Larry Crowder .	Louisiana brackish and salt marsh soil greenhouse gas fluxes following the Deepwater Horizon oil spill and salinity manipulations. Brian Roberts , John Marton.	Geospatial distribution of ribbed mussel (<i>Geukensia demissa</i>) demographics and nutrient removal services across a salt marsh landscape. Joshua Moody , Danielle Kreeger, Angela Padeletti.
9:00 AM	Nutrient and sediment effects on oligohaline marsh plants in the Mississippi River Delta. Sareh Poormahdi , Sean Graham, Irving Mendelsohn.	Meiofaunal analyses of sediment cores to investigate saltmarsh development relative to changes in sea level. Michaela Radl , David Horne, Rob Hughes.	Examples of mentoring success in the Marine Sciences Program at Savannah State University. Mary Curran , Carol Pride, Tara Cox.	Here Today, Gone Tomorrow: A spatio-temporal framework for evaluating ecological consequences of expanding coastal hypoxia on upwelling margins. Lisa Levin , Christina Frieder, Michael Navarro, Kirk Sato, Todd Martz, SungHyun Nam, Uwe Send, Ed Parnell, Kenneth Schiff, John Helly.	Recovery of organic enriched sediments in eutrophic coastal ecosystems. Thomas Valdemarsen , Cintia Quintana, Mogens Flindt, Erik Kristensen.	Habitat associations and shelter use behaviors in the California spiny lobster, <i>Panulirus interruptus</i> . Assessments at landscape and local scales. Amalia DeGroot , Kevin Hovel.
9:15 AM	Building a mosaic of protection from estuarine eutrophication through the adoption of watershed-scale nutrient criteria. Jacques Oliver .	Understanding how climate change and storm events can affect salt marsh wildlife. Karen Thorne , John Takekawa, Kevin Buffington, Thuy-Vy Bui, Danika Tsao, Kyle Spragens.	The Hudson River Foundation's Tibor T. Polgar Fellowship Program: Three Decades on the Hudson River Estuary. David Yozzo , Sarah Fernald, Helena Andreyko.	Macrofaunal biotic responses through the OMZ off San Diego: A space-for-time substitution to explore sediment community diversity and structure with expanding OMZs. Christina Frieder , Guillermo Mendoza, Lisa Levin.	Influence of local forest diversity on decomposition of mangrove leaf litter and sediment quality. Patricia Natin .	Environmental and anthropogenic impacts on survival of juvenile winter flounder in coastal Long Island, NY. Lyndie Hice-Dunton , Anne McElroy, Mark Fast, Michael Frisk.
9:30 AM	Onset of unprecedented toxin-producing cyanobacterial blooms in the Cape Fear River system, North Carolina. Michael Mallin , JoAnn Burkholder, Matthew McIver, Jared Metheny, Wendy Strangman, Paul Zimba, Jeffrey Wright.	Rising seas and fish habitat. Thomas Bigford .	Investing in the workforce through mentoring. Janet Nestlerode , J'Ingrid Mathis, Matthew Harwell.	Winners and losers: ecological and fisheries impacts of coastal hypoxia off Baja California, Mexico. Fioranza Micheli , Charles Boch, Giulio De Leo, Steven Litvin, Rebecca Martone, Stephen Monismith, Andrea Saenz Arroyo, Leonardo Vazquez, C. Brock Woodson.	Nutrient dynamics based on whole-basin ecosystem metabolism following an anoxic water ventilation. Veronica Berounsky , Rahat Sharif, Lucie Maranda, David Borkman, Linda Green, Rosemary Smith, Scott Nixon.	Large-scale spatial dynamics of mussel bed coverage in the German and Dutch Wadden Sea. Elke Folmer , Jan Drent, Karin Troost, Heike Buettger, Norbert Dankers, Jeroen Jansen, Marinix van Stralen, Gerald Millat, Marc Herlyn, Catharina Philippart.
9:45 AM	Discussion.	Long-term stability since 1984 of upper estuarine marshes in Barataria and Terrebonne Bays, Louisiana, U.S.A. Michael Kearney , Alex Riter, R. Eugene Turner.	Delivering professional development in a fiscally constrained environment. Tina Miller-Way , Janet Nestlerode, Timothy Dellapenna.	Implications of California Current hypoxia for water quality management in San Francisco Bay. Naomi Feger , Martha Sutula, David Senn.	Complexities of the benthos: spatiotemporal variability of benthic microalgal communities in Galveston Bay, TX and their relationships with the environment. Allyson Lucchese , Tyra Booe, Rachel Windham, Jamie Steichen, Allison McInnes, Yuelu Jiang, Antonietta Quigg.	Differential transport across the surf zone of reflective and dissipative shores as a determinant of larval supply. Steven Morgan , Alan Shanks, Jamie MacMahan, Ad Reneers, Atsushi Fujimura, Marley Jarvis, Chris Griesemer, Jenna Brown.

BREAK 10:00-10:30 AM

MONDAY, NOVEMBER 4, 2013 – EARLY MORNING 8:00-10:00 AM

SUNSET	SUNRISE	GARDEN BALLROOM	SHEFFIELD	HAMPTON	WINDSOR	
SCI-075D Ecology of Coasts and Estuaries: Animals and Stressors Violet Renick and Kathy Boyer	SCI-062A Global Patterns of Phytoplankton Dynamics in Estuarine and Coastal Ecosystems Hans Paerl, Kedong Yin, James Cloern, and Paul Harrison	SCI-066A Integrating Science and Management to Benefit Estuarine and Coastal Ecosystem Restoration Lynn Wingard, David Rudnick, Frank Marshall, and Patrick Pitts	SCI-075F Ecology of Coasts and Estuaries: Macrobenchos and Sediment Kathy Boyer	SCI-067A Interactions of Bivalves and Estuarine Biogeochemical Processes: Clams and Mussels Mark Luckenbach and Iris Anderson	SCI-034 Planktonic Food Webs in an Era of Global Environmental Change Michael Wetz and David Kimmel	
Do pesticides cause risky fish behavior? Suites of behavioral changes of a common estuarine fish, <i>Fundulus parvipinnis</i> after pesticide exposure. Violet Renick , Doris Vidal-Dorsch.	The phytoplankton composition across the world's coastal ecosystems. Jacob Carstensen , Hans Paerl, James Cloern.	A holistic coastal assessment and reporting framework that balances economic, societal, and environmental perspectives. Rense Kelsey , William Dennison, Caroline Wicks, Jane Thomas, Simon Costanzo.	Open.	Shellfish and water quality: Searching for policy options in Chesapeake Bay cleanup. Mark Luckenbach , Lisa Kellogg.	The challenge of understanding global change influences on plankton dynamics in coastal marine ecosystems. Michael Landry .	8:00 AM
Occurrence of crabs, shrimps and fishes in relation to day and night into subtropical coastal lagoons from Gulf of California. Alfredo Arreola .	Phytoplankton trait based functional diversity as an indicator for stability. Sirpa Lehtinen , Riina Klais, Kalle Olli, Timo Tamminen.	Estimates of decadal to centennial salinity patterns and application to restoration of estuarine ecosystems: an example from south Florida. G. Lynn Wingard , Frank Marshall, Patrick Pitts.	The "Missing" link: Relationship between macrofaunal invertebrate populations and sediment particle size off San Diego, California. Peter Vroom , Ronald Velarde, Timothy Stebbins, Ami Latker, Nick Haring.	Impacts of clam aquaculture on benthic microbial processes. Iris Anderson , Anna Murphy, Mark Luckenbach.		8:15 AM
Assessing species-specific estuarine fish movement patterns through water control structures in managed salt marshes using passive integrated transponder (PIT) technology. Matthew Kimball , Kevin Boswell, Lawrence Rozas.	Long-term phytoplankton dynamics in the North Sea: Dynamics of key species and new arrivals. Alexandra Kraberg , Martin Edwards, Mirco Scharfe, Karen Wiltshire.	Estimates of natural salinity and hydrology in the southern Everglades, Florida: implications for management. Frank Marshall , G. Lynn Wingard, Patrick Pitts.	A unique approach to understanding <i>Limulus</i> population dynamics in the Long Island Sound estuary. Jennifer Mattei , Mark Beekey, Adam Rudman.	Biogeochemical responses to clam aquaculture: Sacca di Goro, Italy and Cherrystone Inlet, US. Anna Murphy , Iris Anderson, Mark Luckenbach.	Microzooplankton grazing experiments using the dilution technique yield repeated positive slopes in a productive, subtropical lagoon. Nikki Dix , M. Dennis Hanisak.	8:30 AM
Dynamics of low-salinity layers and intertidal communities in response to freshwater inputs in New Zealand fiords. Robyn Dunmore , Chris Cornelisen.	The Baltic Sea phytoplankton dataset. Riina Klais , Kalle Olli, Timo Tamminen.	Integrated modeling for water reservation to protect fish and wildlife in St. Lucie River and Estuary. Yongshan Wan , Daniel Hauernt, Detong Sun, Fawen Zheng.	Macrobenthic fauna distribution related to the salt intrusion in a microtidal mexican estuary. Maria Teresa Severino-Murrolas , Rosario Sanay, Hector Perales-Valdivia.	Intensive mollusc farming in coastal lagoons: implications for benthic biogeochemistry. Daniele Nizzoli , David Welsh, Elisa Fano, Marco Bartoli, Mariachiara Naldi, Pierluigi Viaroli.	Relative influence of top down and bottom up controls upon estuarine phytoplankton growth and community composition. Michael Wetz , Emily Cira, David Kimmel, Hans Paerl.	8:45 AM
How well do freshwater tidal estuaries serve as rearing habitat? A case study of otolith growth in juvenile estuarine rearing and migratory Chinook salmon (<i>Oncorhynchus tshawytscha</i>). Pascale Goertler , Charles Simenstad, David Teel, Dan Bottom.	Phytoplankton associations at the LTER-MC station in the Gulf of Naples (Mediterranean Sea). Adriana Zingone , Cristina Tortora, Laurent Dubroca, Francesca Margiotta, Diana Sarno.	Reduced light availability complicates submerged aquatic vegetation restoration in estuaries thought to be controlled by variable salinity. Thomas Frankovich , Stephen Kelly, James Fourqurean.	Environmental controls of polychaete communities in a eutrophic mesohaline estuarine system: variation with depth. Jennifer Bosch , W. Michael Kemp.	Intensive shellfish farming in Mediterranean lagoons: eutrophication controls, feedback loops and community shifts. Pierluigi Viaroli , Mariachiara Naldi, Daniele Nizzoli, David Welsh, Marco Bartoli.	A coastal highway: Plankton in the fast lane of change. Karen Wiltshire , Maarten Boersma, Sopha Mith-kong, Elena Shechkinova, Mirco Scharfe, Kristine Carstens, Silvia Peters.	9:00 AM
Biological and physiological condition of juvenile California halibut (<i>Paralichthys californicus</i>) exposed to a contamination gradient in Mission Bay, CA. Kevin Stolzenbach , Ron Kaufmann, Steve Morrison, Bethany O'Shea, Daniel Schlenk, Wayne Lao.	Diatom and dinoflagellate blooms in Thau lagoon (Southern France) over the last 20 years : dichotomy in controlling factors. Yves Collos , Cécile Jauzein, Widya Ratmaya, Philippe Souchu, Eric Abadie, André Vaquer.	Estuarine impacts on coral reef health and the implications for water resource management in southeast Florida. Joshua Voss , Jeff Beal, Sara Edge, Lisa Cohen, Courtney Klepac, Ashley Sproles, Maureen Williams.	To the shelf, and beyond! Discriminating macrobenthic invertebrate communities on the continental slope off San Diego, California. Timothy Stebbins , Ronald Velarde, Ami Latker, Ed Parnell, Paul Dayton.	Impacts of clam aquaculture on nutrient cycling in a coastal embayment. Michael Owens , Jeffrey Cornwell, Lisa Kellogg.	Grazing by bivalves and zooplankton limits phytoplankton productivity in the upper San Francisco Estuary, requiring a spatial subsidy to achieve mass balance. Wim Kimmerer , Janet Thompson.	9:15 AM
The effects of habitat degradation on reef acoustic cues and fish movement. Andria Salas , Timothy Keitt, Preston Wilson, Andrew Altieri.	Analyses of long-term changes in phytoplankton diversity and biogeography in tropical estuarine and coastal regions. Ramaiah Nagappa , Abdul Alkawri, Naseera Kh, Cindrella Das, Sandip Savant, Elaine Sabu.	Standardized monitoring and adaptive strategies based on locally collected data improve restoration efforts in Chesapeake Bay. Alexandra Fries , Caroline Wicks, Heath Kelsey, William Dennison.	Integrating causal and exploratory techniques to indicate threshold potentials in real world ecosystem dynamics. Simon Thrush , Judi Hewitt, Samantha Parkes, Drew Lohrer, Conrad Pilditch, Carl Van Colen, Sally Woodin, David Wethey, Mariachiara Chiantore, et al.	Long-line mussel production as a tool for mitigation of nutrients in coastal waters. Marianne Holmer , Sandra Thorsen, Marita Carlsson, Berit Hasler, Karen Timmermann, Pernille Nielsen, Ditte Tørring, Martin Larsen, Jens Petersen.	Different feeding in the larval and adult stages of an introduced copepod detected by DNA-based identification of prey in the gut. Carrie Craig , Wim Kimmerer, C. Sarah Cohen.	9:30 AM
Pikeperch (<i>Sander lucioperca</i> (L)) in decline-high mortality of three populations in the northern Baltic Sea. Noora Mustamäki, Ulf Bergström, Kaj Adjers, Alf Sevastik, Johanna Mattila .	Phytoplankton in the Pearl River estuarine coastal waters: Anthropogenic and climate influences. Kedong Yin , Jianzhang He, Paul Harrison.	Increasing ecological uplift using ecological modeling in wetland restoration projects: A novel approach. Mark Laska , Jessie Quinn, Zachary Lehmann.	Assessing ecological community health in coastal estuarine systems impacted by multiple stressors. Joanne Ellis , Judi Hewitt, Dana Clark, Caine Taiapa.	Nitrogen in bivalve shell and soft tissues: Implications for N sequestration and cycling in coastal waters. Ruth Carmichael , Joseph Dalrymple, Peter Biancani, Carolyn Kovacs, William Walton, Elizabeth Darrow.	Effects of zooplanktivores with varying feeding strategies on the structure and diversity of littoral zooplankton communities: the adaptive food web hypothesis approach. Laura Helenius , Anna Aymà Padros, Leena Nurminen.	9:45 AM
BREAK 10:00-10:30 AM						

MONDAY, NOVEMBER 4, 2013 – EARLY AFTERNOON 1:30-3:00 PM

	TOWN & COUNTRY	SAN DIEGO	GOLDEN WEST	CALIFORNIA	ROYAL PALMS (1-3)	ROYAL PALMS (4-6)
	SCI-001A Bridging the Gap Between Eutrophication Assessment Frameworks and Nutrient Water Quality Criteria Martha Sutula, Suzanne Bricker, James Hagy, and Tiffany Crawford	SCI-013A Marshes, Storms, and Sea Level Rise: Synthesis of Ecologic, Geomorphic, and Geospatial Analyses Tom Allen	SCI-042A Resilience in Coastal Ecosystems: Evaluating and Conserving Resilience in Indo-Pacific Coastal Marine Habitats Robert Coles, Len McKenzie, Michael Rasheed, and Marcus Sheaves	SCI-073A Marine Debris Monitoring and Assessment: Research to Guide Prevention Sherry Lippiatt and Shelly Moore	SCI-076B Biogeochemistry of Coasts and Estuaries: Phosphorus/Silicon/Trace Metals Alexander Parker	SCI-075B Ecology of Coasts and Estuaries Kathy Boyer
1:30 PM	Derivation of protective numeric nutrient criteria for south Florida estuaries and coastal waters. Henry Briceno , Joffre Castro, Joseph Boyer, Peter Harlem.	What geospatial analyses reveal about the vulnerability of coastal wetlands to sea-level rise. James Morris , James Edwards.	A field test of resilience: measuring feedback processes in seagrass ecosystems following a flood. Paul Maxwell , Andrew Olds, Kylie Pitt, Dana Burfeind, Rod Connolly.	The NOAA Marine Debris Monitoring and Assessment Project. Sherry Lippiatt , Courtney Arthur, Nancy Wallace.	Iron oxidation in the rhizosphere of the wetlands plants is a phosphorus starvation response. P. Sundareswarar , Lakshminarayan Iyer, Aravind Iyer, Sushil Gautam, Lisa Kunza.	Open.
1:45 PM	Should nutrients or biological response be the basis for regulating effects of eutrophication? Thoughts based on work in southern California bight estuaries. Karen McLaughlin , Martha Sutula, Lilian Busse, Sean Anderson, Jeff Crooks, Rosi Dagit, Doug Gibson, Nikolay Nezlin, Ashmita Sengupta, Lisa Stratton.	High-resolution assessment of salt marsh development in response to sea level rise in the southeastern United States. Clark Alexander , Jay Hodgson, Jay Brandes, Jack Blanton, Alfred Garrett.	Large scale water quality impacts on seagrass communities in the Great Barrier Reef. Michelle Devlin , Catherine Collier, Len McKenzie, Caroline Petus, Michelle Waycott.	With wildlife in mind: citizen science and a threat-based look at marine debris. Julia Parrish , Elizabeth Mack, Jane Dolliver.	Benthic contribution to estuarine silica budgets : results from measurements and modelling. Mélanie Raimonet , Olivier Ragueneau, Karline Soetaert, Emma Michaud, Christophe Rabouille, Karima Khalil, Aude Leynaert, Laurent Mémery.	Response of <i>Spartina alterniflora</i> to chemical and grazing stressors in an experimental system. Rachael Blake .
2:00 PM	Comparison of nutrient drivers and response metrics in Oregon estuaries. Cheryl Brown , James Kaldy, Melanie Frazier, TChris Mochon Collura, Pat Clinton.	Variability in salt marsh biomass: elevation relationships: Implications for model predictions of SLR response and C sequestration. Carolyn Currin , James Morris, John Fear.	Contrasting resilience of deep and shallow tropical seagrass communities to major climate associated losses in north Queensland, Australia. Michael Rasheed , Skye McKenna, Robert Coles.	Tides come and go but bags, butts and bottles seem to stay: a quarter century of ocean trash trends. Nicholas Mallos , George Leonard.	Effect of sediment organic matter and mineral content on the release of silicate and orthophosphate along a salinity gradient. Bhanu Paudel , Paul Montagna.	Biophysical feedbacks in tidal creek formation. Huy Vu , Steven Pennings.
2:15 PM	Using mechanistic models to derive water quality criteria. Stephen Whitlock , James Hagy, Tiffany Crawford, Galen Kaufman, Ed Decker, Stephanie Santell, Janice Alers-Garcia.	Remote sensing-based estimates of plant biomass and nitrogen content to assess coastal wetland sustainability. Kristin Byrd , Jessica O'Connell, Stefania Di Tommaso, Maggi Kelly.	Monitoring inshore seagrasses of the Great Barrier Reef: resistance and recovery in response to water quality and extreme weather events. Len McKenzie , Catherine Collier, Michelle Waycott, Richard Unsworth, Robert Coles, Rudi Yoshida, Naomi Smith.	Entry level sonar – imaging and removing marine debris using low cost systems. Steve Evert , Peter Straub, Mark Sullivan, Melanie Reding.	The bio-amplification of the phosphorus cycling in the sediments of a lagoonal estuary: Implications for eutrophication and cyanobacterial blooms. Todd Scicluna , Adam Kessler, Michael Grace, Perran Cook.	Implications of temporal variations in functional redundancy, and interactions between functions, to resilience. Judi Hewitt , Simon Thrush, Joanna Norkko, Alf Norkko, Vonda Cummings.
2:30 PM	Lessons learned using water quality models to develop numeric nutrient criteria for a Gulf coast estuary. James Hagy , David Beddick, Brandon Jarvis, Richard Greene, Stephen Whitlock.	Hypertemporal land area change analysis in coastal Louisiana. Brady Couvillion , Holly Beck, Michelle Fischer, William Sleavin.	Changes in biodiversity and abundance of eelgrass bed community in northern Japan with the 2011 Tohoku earthquake and tsunami. Masahiro Nakaoka , Katsumasa Yamada, Norio Tanaka.	Spatial extent, patterns of bycatch, and probable loss mechanisms of derelict crab traps in two adjacent southern New Jersey estuaries. Mark Sullivan , Steve Evert, Peter Straub, Melanie Reding.	Downstream increase of arsenic mobility in the arroyo sediments of a desertic arid sedimentary basin affected by remnants of gold mining near San Antonio, southern Baja California. Konstantin Choumiline , Nicolai Mirlean, Evgueni Shumilin.	Habitat classification crosswalk and mapping in Boston Harbor, Massachusetts using CMECS. Kathryn Ford , Mark Rousseau.
2:45 PM	A path to more robust and accessible predictive frameworks to support coastal ecosystem management of nutrients. Robert Magnien .	High-resolution, object-based mapping and classification of coastal marshes in Rachel Carson Reserve, North Carolina. Tom Allen , Margaret Garner.	Light thresholds derived from seagrass loss: an update from the Great Barrier Reef, Australia. Catherine Collier , Len McKenzie, Miwa Takahashi, Michelle Waycott.	Microplastic marine pollution in the surface waters of the Great Lakes with comparisons to the North Atlantic Subtropical Gyre. Marcus Eriksen , Carolyn Box, Stiv Wilson.	The delivery, speciation and fate of trace elements in a shallow estuarine system, St. Louis Bay, Mississippi, USA. Gopal Bera , Alan Shiller, Kevin Yeager.	Classifying saltmarsh ponds and fish assemblages at the Aransas National Wildlife Refuge, TX. Niki Ragan , Jeffrey Wozniak.
BREAK 3:00-3:30 PM						

MONDAY, NOVEMBER 4, 2013 – EARLY AFTERNOON 1:30-3:00 PM

SUNSET	SUNRISE	GARDEN BALLROOM	SHEFFIELD	HAMPTON	WINDSOR	
SCI-075E Ecology of Coasts and Estuaries: Species and Community Feedbacks Rochelle Seitz and Kathy Boyer	SCI-062B Global Patterns of Phytoplankton Dynamics in Estuarine and Coastal Ecosystems Hans Paerl, Kedong Yin, James Cloern, and Paul Harrison	SCI-066B Integrating Science and Management to Benefit Estuarine and Coastal Ecosystem Restoration Frank Marshall, Lynn Wingard, Patrick Pitts, and David Rudnick	SCI-064A Hydrodynamics and Sediment Dynamics in Estuaries and Coastal Seas Parker MacCready and Arnoldo Valle-Levinson	SCI-067B Interactions of Bivalves and Estuarine Biogeochemical Processes: Oysters Pier Viaroli and Mark Brush	SCI-045A Disturbance and Stress Impacts on Microbial Communities and Biogeochemical Feedbacks Brian Roberts, Anne Bernhard, Anne Giblin, and Annette Engel	
Crafting a mechanistic functional indicator: Examining allometric responses of a model species, <i>Capitella teleta</i> , to combined levels of dissolved oxygen and temperature. Chet Rakocinski , Kelsey Burns.	Phytoplankton responses to global change. Abigail McQuatters-Gollop .	San Francisco Bay Transition Zone Conservation and Management Decision Support System. Brian Fulfrost , David Thomson.	Internal waves in the nearshore coastal ocean. Stephen Monismith , C. Brock Woodson, Michael Squibb, Ryan Walter, Maha Al Najjar, Jeffrey Koseff.	Denitrification and nutrient assimilation associated with oyster aquaculture and oyster reef restoration. Lisa Kellogg , Jeffrey Cornwell, Michael Owens, Mark Luckenbach.	Do summer blooms of <i>Thaumarchaeota</i> control DIN dynamics of southeastern salt marsh estuaries? James Hollibaugh , Anna Bratcher, Patrick Hagan, Meredith Ross, Bradley Tolar.	1:30 PM
Anthropogenic stressors affect benthic community structure: upland usage and shoreline development. Rochelle Seitz , Kathleen Knick, Theresa Davenport.	How much of local scale variation in phytoplankton biomass can be explained by progressively larger scale variation? Catharina Philippart , James Cloern, Sirpa Lehtinen, Abigail McQuatters-Gollop, Todd O'Brien, Monika Winder.	Historical analysis of coastal wetlands as a tool to help improve restoration planning for the Ballona Wetlands. Eric Stein , Robin Grossinger, Shawna Dark, Travis Longcore.	Sensitivity of salinity intrusion to channel deepening. George Schramkowski, Henk Schuttelaars , Hans Burchard.	Habitat setting influences oyster-mediated denitrification. Ashley Smyth , Michael Piehler, Jonathan Grabowski.	Community composition of ammonia-oxidizing bacteria in Louisiana marshes impacted by the Deepwater Horizon oil spill. Anne Bernhard , John Marton, Brian Roberts, Anne Giblin.	1:45 PM
Between the bay and a hard place: The effects of bulkheading on diamondback terrapin nesting in Barnegat Bay, New Jersey. Julianne Winters , Harold Avery, Edward Standora, James Spotila.	Biovolume of ecologically important phytoplankton species from time series datasets. Paul Harrison , Adriana Zingone, Hans Jakobsen.	Designing the Ballona Wetlands Restoration as an urban estuary with resiliency to sea-level rise. Nicholas Garrity , Lindsey Sheehan, Robert Battalio, Jeffrey Haltiner, Diana Hurlbert, Shelley Luce, Mary Small.	Fortnightly variability of hydrography and exchange flows in a tropical semi-arid estuary during dry and wet seasons. Carlos Schettini , Arnoldo Valle-Levinson, Ernesto Domingues, Kimberly Arnett, Bárbara Paiva, Jacqueline Branyon, Felipe Frota, Jennifer Ross, José Cavalcante, Sabrina M. Parra.	Environmental effects of oyster aquaculture on nutrient dynamics in Chesapeake Bay. Colleen Higgins , Kurt Stephenson, Bonnie Brown.	Linking functional diversity of microbial and macrofaunal communities with ecosystem functioning in field situations: results from shallow North Sea sediments. Jan Vanaverbeke , Ulrike Braeckman, Maryam Foshtomi, Sofie Derycke, Anne Willems, Magda Vincx.	2:00 PM
Characterizing the pristine oyster reef community of Sabine Lake estuary relative to surrounding marsh edge and non-vegetated bottom habitats. Jaimie Nevins , Jennifer Pollack, Gregory Stunz.	COPEPODITE: An online toolkit for plankton time series data analysis and visualization. Todd O'Brien .	Functional assessment of the Ballona Wetlands Ecological Reserve: 4-year monitoring summary. Karina Johnston , Ivan Medel, Charles Piechowski.	Wind and tidal modulation of density-driven circulation in an inverse estuary. Yasha Hetzel , Charitha Pattiaratchi, Ryan Lowe, Richard Hofmeister.	A study of the effects of cultured vs. wild oysters (<i>Crassostrea virginica</i>) on nitrogen cycling and ecosystems within two similar, eutrophic estuaries in Cape Cod, MA. John Brawley , Matthew Weeks, Matthew Hare, Robinson Fulweiler, Diane Murphy, Joshua Reitsma.	The diversity of bacterial communities across a northern Gulf of Mexico estuary show strong seasonal patterns and rapid recovery from oil exposure. Alice Ortmann , Natalie Ortell.	2:15 PM
Comparison of <i>Fusarium</i> spp. composition between stressed and healthy <i>Spartina</i> spp. in Atlantic marshes in North and South America. Wade Elmer , Pedro Daleo, Juan Alberti, Oscar Iribarne.	Carbon to chlorophyll ratio in temperate coastal waters: seasonal patterns and relationship to nutrients. Hans Jakobsen , Stig Markager.	Incorporating science and adaptive management to facilitate sustainable barrier island restoration practices in Mississippi, USA. Gregory Steyer , Mark Byrnes, Elizabeth Godsey, Michelle Meyers, Steven Underwood, Caree Kovacevich.	Winter storm induced bay oscillations in a western Louisiana estuarine lake and adjacent wetland. Chunyan Li , Kevin Boswell, Matthew Kimball, Lawrence Rozas, Lainey Broussard, Bill Gibson, Jun Lin, Fan Zhang.	Biogeographic patterns of oyster reef effects on benthic microalgal biomass and composition. Michael Piehler , Matthew Waters, Suzanne Thompson, David Kimbro, Jonathan Grabowski, Randall Hughes, James Byers.	The Enigmatic Nitrogen Cycle: Disentangling sediment N ₂ fluxes in a temperate estuary. Silvia Newell , Mark McCarthy, Wayne Gardner, Robinson Fulweiler.	2:30 PM
The Salish Sea Marine Survival Project. Jacques White .	Little Lake Worth Florida, a 'borrow-pit' style coastal lagoon: Use of pigments and water quality to detect anthropogenic perturbations. J. William Louda , Keren Bolter.	Open.	Modeling the small river plumes. Berkay Basdurak , John Largier, Nicholas Nidzieko.	Sediment flux modeling of Bivalve Aquaculture Spatial Impacts on Sediments (BASIS). Damian Brady , Jeremy Testa, Lawrence Sanford, Jeffrey Cornwell, Carter Newell, Roger Newell, John Richardson.	Anthropogenic nutrient supply as a driver of microbial community structure and function in coastal systems: Examining disturbance patterns in response to a major ecological agent of change. Jennifer Bowen .	2:45 PM
BREAK 3:00-3:30 PM						

MONDAY, NOVEMBER 4, 2013 – LATE AFTERNOON 3:30-5:00 PM

	TOWN & COUNTRY	SAN DIEGO	GOLDEN WEST	CALIFORNIA	ROYAL PALMS (1-3)	ROYAL PALMS (4-6)
	SCI-001B Bridging the Gap Between Eutrophication Assessment Frameworks and Nutrient Water Quality Criteria Tiffany Crawford, Martha Sutula, James Hagy, and Suzanne Bricker	SCI-013B Marshes, Storms, and Sea Level Rise: Rates of Change and Response Enrique Reyes and Tom Allen	SCI-042B Resilience in Coastal Ecosystems: Evaluating and Conserving Resilience in Indo-Pacific Coastal Marine Habitats Robert Coles, Len McKenzie, Michael Rasheed, Marcus Sheaves	SCI-073B Marine Debris Monitoring and Assessment: Research to Guide Prevention Sherry Lippiatt and Shelly Moore	Open.	SCI-075C Ecology of Coasts and Estuaries Max Castorani and (Kathy Boyer
3:30 PM	Macroalgae as biocriteria: Thresholds of adverse effects of macroalgal blooms on benthic habitat quality in estuarine intertidal flats. Martha Sutula , Lauri Green, Giancarlo Cicchetti, Naomi Detenbeck, Peggy Fong.	Liberty Island landscape freshwater vegetation response to sea level: a modeling approach. Enrique Reyes .	Environmental tolerances and drivers of deepwater seagrass change - implications and tools for coastal development management. Katie Chartrand , Catherine McCormack, Ross Thomas, Michael Rasheed, Peter Ralph.	Distribution and amount of plastic pellets and debris on beaches in California. Shelly Moore , Carly Beck, Sarice Friedman, Emily Siegel, Dominic Gregorio.		Impacts of blue mussels on eelgrass: evaluating the potential for light to moderate interspecific interactions. Max Castorani , Ronnie Glud, Harald Hasler-Sheetal, Marianne Holmer.
3:45 PM	Intercalibration of chlorophyll and phytoplankton measurements to nutrient enrichment across North East Atlantic. Is it possible? Mike Best , Michelle Devlin.	Rapid changes in Rhode Island salt marsh vegetation communities in response to accelerating sea-level rise. Kenneth Raposa , Marci Cole Ekberg, Robin Weber, Wenley Ferguson.	Seagrass leaf spectral reflectance indicates species resilience to light and tidal variation. Michael Durako , Michael Rasheed.	Plastic pellet abundance in California: Distribution, seasonality, and transport mechanisms. Carly Beck , Michael Hang, Shelly Moore, Dominic Gregorio, Emily Siegel.		The impacts of eutrophication on estuarine bird populations of Long Island, NY. Crystal Crown , John Vanek, James Browne.
4:00 PM	Expressing ecological importance in a risk-based world: linking numeric nutrient criteria to waterbody expectations. Galen Kaufman , Tiffany Crawford, Ed Decker, James Hagy, Jacques Oliver, Stephanie Santell, Stephen Whitlock.	Are <i>Spartina alterniflora</i> plants from different marshes equally productive at similar elevations? Talia Dibbell , Linda Blum, Matthew Kirwan.	Challenging of restoring seagrass bed in Indonesia using seeds. Rohani Ambo-Rappe , Inayah Yasir.	USEPA's beach cleanup partnerships with the Department of Defense and the California State University system to provide identification of sources of marine debris. Anna-Marie Cook .		Assessment of collection methodologies of the mangrove saltmarsh snake, <i>Nerodia clarkii compressicauda</i> . Thomas Chesnes , Joshua Holbrook, Hannah Boss.
4:15 PM	Occurrence and impacts of coastal hypoxia in tropical oligotrophic island systems: Eutrophication risk based on water quality and marine plant assemblages on Bahamian reefs. Kathleen Sealey .	Vegetation diversity and nutrient allocation along a salinity gradient experiencing sea level rise. Lori Sutter , James Perry, Randy Chambers.	Biogeochemical properties and ecological consequences of the 2011 and 2013 Floods in Moreton Bay, Queensland, Australia. Andrew Steven , Russ Babcock, Geoff Carlin.	Regional assessment of trash in Southern California streams. Ted Von Bitner , Ruth Kolb, Andre Sonksen.		A comparison of two different methods for estimating natural mortality rates of juvenile white shrimp <i>Litopenaeus setiferus</i> . Marvin Mace , Lawrence Rozas.
4:30 PM	Assessing the extent, causes and possible remedies for eutrophication in the Middle East - potential application of techniques used in the US and elsewhere. David Tomasko .	Short-term mudflat dynamics drive long-term cyclic salt marsh dynamics: experimental evidence for underlying mechanisms. Tjeerd Bouma , Jim van Belzen, Jeroen van Dalen, Thorsten Balke, Dave Callaghan, Stijn Temmerman, Peter Herman.	Marine park zoning to reduce impacts on seagrass meadows in the Great Barrier Reef World Heritage Area, Queensland, Australia. Robert Coles , Alana Grech, Len McKenzie, Michael Rasheed.	Marine debris in central California: Comparing a baseline survey to recent monitoring tracking tsunami debris in Monterey Bay, CA. Carolyn Rosevelt , Marc Los Huertos, Corey Garza, Hannahrose Nevins, Hannahrose Nevins, Sherry Lippiatt.		Rate of pre-winter temperature decline and the exogenous availability of long chain polyunsaturated fatty acids: implications for juvenile hard clam survival in the temperate zone. Sixto Portilla , Andrea Marques.
4:45 PM	Nutrients in San Francisco Bay: an old issue of emerging concern. David Senn , Naomi Feger, Emily Novick, Martha Sutula.	Holocene shoreline changes in the Mahanadi delta, India: Mangrove palynology. Anjum Farooqui, Ranjana Kumari .	Open.	Swimming in a sea of single-use plastics. Laura Kasa , Brad Hunt.		Cautionary remarks in the auto-correlation analysis of self-similar time series. Sung Yong Kim .

MONDAY, NOVEMBER 4, 2013 – LATE AFTERNOON 3:30-5:00 PM

SUNSET	SUNRISE	GARDEN BALLROOM	SHEFFIELD	HAMPTON	WINDSOR	
Open.	SCI-062C Global Patterns of Phytoplankton Dynamics in Estuarine and Coastal Ecosystems Hans Paerl, Kedong Yin, James Cloern, and Paul Harrison	SCI-079 Socio-Economic Sciences for Coasts and Estuaries David Yoskowitz and Cristina Carollo	SCI-064B Hydrodynamics and Sediment Dynamics in Estuaries and Coastal Seas Henk Schuttelaars, and Arnoldo Valle-Levinson	SCI-030 Shifting Technology Paradigms: A Case for Innovation by Way of Collaboration Tony Hale	SCI-031A Trophic Subsidies in Coastal Ecosystems: Implications for Coastal Management James Nelson	
	Investigating rainfall as the driver of phytoplankton responses to climate variability. Peter Thompson , Todd O'Brien, Jacob Carstensen, Richard Gowen, Paul Harrison, Clarisse Odebrecht, Katja Philippart, N. Ramaiah, Yin Kedong, Hans Pearl, Adriana Zingone.	Beach environmental quality and its management: Evaluating users behaviors, attitudes and perceptions. Aaron McGregor , Philip King.	How to parameterize estuarine mixing? W Rockwell Geyer .	Collaboration as a paradigm for effective decision-making. Tony Hale .	An episodic drought drives unpredictable and persistent changes to a freshwater prey subsidy in a subtropical mangrove estuary. Ross Boucek , Jennifer Rehage.	3:30 PM
	Hydrologic variability associated with climatic change: Its effect on phytoplankton biomass and composition in 2 lagoonal North Carolina estuaries. Hans Paerl , Nathan Hall, Benjamin Peierls, Karen Rossignol.	Recreation proposal for the Sacramento-San Joaquin Delta and Suisun Marsh. Dan Ray, Cheryl Essex , Philomene Smith.	Interpreting shallow water turbulence measurements: Deciphering the muddle caused by waves. Johanna Rosman , Elizabeth Paul, Alberto Scotti.	Building an online community that fosters knowledge of California's ocean health: The launching of OceanSpaces. Holly Rindge , Aaron McGregor.	Sandy beaches as recipient ecosystems: the influence of subsidies on intertidal community structure and higher trophic levels. Jenifer Dugan , David Hubbard, Henry Page.	3:45 PM
	Comparison of phytoplankton dynamics in mid-Atlantic estuaries using long-term data. Lawrence Harding , Jason Adolf, W. David Miller, Hans Paerl, Nathan Hall, Benjamin Peierls, Karen Rossignol.	Public perceptions of coastal ecosystem service values: A Gulf of Mexico-wide survey. Lauren Hutchison , David Yoskowitz.	Tropical cyclone stirring on the inner continental shelf off north-west Australia observed through ocean gliders. Charitha Pattiaratchi , Ben Hollings.	Marrying models and data: Adventures in modeling, data wrangling and software design. Anne Thessen , Elizabeth North, Sean McGinnis, Ian Mitchell.	Mississippi River inflow provides trophic subsidy to the food web of a Louisiana estuary: New insights using sulfur isotopes and energy density of nekton. Kim de Mutsert , James Cowan.	4:00 PM
	Long term variability in annual primary production in the Rhode River subestuary of Chesapeake Bay. Charles Gallegos .	Effects of sex ratio on potential sperm limitation and future stock abundance in blue crab of Chesapeake Bay. Michael Wilberg, Thomas Miller, Sarah Rains .	Bottom stress in Long Island Sound: Observations and models. James O'Donnell , Grant McCardell, Rachel Horwitz, Todd Fake.	www.cramwetlands.org: a collaboration tool built collaboratively. Cristina Grosso , Meredith Williams, Joshua Collins, Sarah Pierce, Kristen Cacye, Patricia Frontiera, Shira Bezalel, Todd Featherstone.	Large euryhaline predators and big floodplain rivers of southwest Florida: what's the connection? Philip Stevens , Gregg Poulakis, David Blewett.	4:15 PM
	Seasonal and interannual variability of winter-spring phytoplankton in Chesapeake Bay: 1988-2010. Younjoo Lee, Walter Boynton, Dong Yoon Lee .	Estimating policy-relevant values for ecosystem services provided by seagrass beds in Sweden. Scott Cole , Per-Olav Moksnes.	Wave-current boundary layer interactions within a <i>Zostera marina</i> seagrass bed. Emily Thomas , Matthew Reidenbach.	Collaborative resource management inspired by joint fact-finding, storytelling and broad access to data: OpenNRM and California's Estuaries. David Osti .	Longitudinal variation in benthic trophic network along a transect from estuary to offshore in the Gwangyang Bay system of Korea. Eun Ah Han , Hyun-Je Park, Jung Hyun Kwak, Taeki An, Dong Hoon Shin, Sung-Gyu Yun, Chang-Keun Kang.	4:30 PM
	Phytoplankton productivity and dynamics in a shallow, microtidal, extensively modified subtropical estuary on the southwest coast of Florida, USA. Loren Mathews , Edward Philips.	Cost-effectiveness of two small-scale salt marsh restoration designs for vegetative growth and nutrient filtration capability. Eric Sparks , Just Cebrian, Craig Tobias, Patrick Biber, Sheehan Kate.	Interactions between waves, sediment, and turbulence on a shallow estuarine mudflat. Lissa MacVean , Jessica Lacy.	Global alert: managing river-to-ocean connections for trash. Douglas Woodring , Joe Purohit.	Using stable isotope analysis to track incorporation of a beach wrack subsidy into its sandy beach recipient community. Sonja Smith , James Fourqurean.	4:45 PM

TUESDAY, NOVEMBER 5, 2013 – EARLY MORNING 8:00-10:00 AM

	TOWN & COUNTRY	SAN DIEGO	GOLDEN WEST	CALIFORNIA	ROYAL PALMS (1-3)	ROYAL PALMS (4-6)
	SCI-005A Nutrient Fluxes and Nutrient Accounting in Coastal Catchments and Water Bodies: Methods and Applications Dennis Swaney	SCI-008 Past and Probable Future Impacts of a Rising Sea on Different Geomorphic Environments Aaron McGregor and David Revell	SCI-014A Drivers and Consequences of Nearshore Ocean Acidification George Waldbusser, Denise Breitburg, Lisa Levin, and Gretchen Hofmann	SCI-047B Drivers and Ecological Effects of Hypoxia in Coastal Upwelling Systems Steve Litvin	SCI-027A Unraveling the "Black Box" of Migration with Novel Methods Benjamin Walther and Karin Limburg	SCI-041A Resilience in Coastal Ecosystems: Impact of Stressors on Resilience, Stability, and Recovery in Communities Dominated by Seagrass or Benthic Algae Benjamin Fertig and Jessie Jarvis
8:00 AM	Introduction.	Application of relative sea-level rise science to the State of Louisiana's protection and restoration program, from 2012 Master Plan analysis to individual project planning and design. James Pahl .	Integrating CO ₂ and nutrient-driven changes across entire seagrass ecosystems: from plant stoichiometry to ecosystem carbon sink. Begoña Martínez-Crego , Irene Olivé, Pedro Arteaga, Rui Santos.	Time-series observations for hypoxia adjacent to the Changjiang estuary during summer. Xiaobo Ni , Daji Huang, Dingyong Zeng, Feng Zhou, Kui Wang, Jianfang Chen.	Validating a method of otolith microchemistry to identify water-mass associations of larval fish in an upwelling region. Sarah Wheeler , Ann Russell.	Linking seagrass status to high-frequency water quality monitoring in the Central Indian River Lagoon, Florida. M. Dennis Hanisak , Kristen Davis.
8:15 AM	Ocean forcing of west-coast estuaries: the 'reach of the ocean' in terms of nutrient and acidification effects of upwelled waters on estuary environments. John Largier .	Considering sea level rise in estuary conservation planning on the British Columbia coast. Bruce Harrison , Dan Buffett, Andre Breault, Kathleen Moore, Jenna Cook.	Seagrass photo-physiological responses in a natural high-CO ₂ environment. João Silva , Irene Olivé, Monya Costa, Isabel Barrote, Gabriele Proccacci, Silvia Mazzuca, Salvatrice Vizzini, Rui Santos.	Wind-driven variations in near-bottom dissolved oxygen over the Central California continental shelf. Erika McPhee-Shaw , Jeff Sevadjian, Olivia Cheriton.	Plasticity of European flounder life history patterns discloses alternatives to catadromy. Pedro Morais , Françoise Daverat, Ester Dias, John Babaluk, Jean Martin, Mélissa Eon, Ronan Fablet, Christophe Pécheyran, Carlos Antunes.	Resilience in coastal ecosystems: Impact of stressors on seagrass population stability. Jessie Jarvis , Benjamin Fertig, Laura Reynolds, Erin Shields, Michael Kennish, Kenneth Moore.
8:30 AM	Modeling primary production and water quality in bay waters under intermittent nutrient load events. Evan Turner , Rae Mooney, Paul Montagna.	Modeling sea level rise impacts to the varied geomorphology of the California coast. David Revell , Elena Vandebroek, James Gregory, Robert Battalio, Sarah Newkirk, Lily Verdone.	CO ₂ effects on the seagrass <i>Cymodocea nodosa</i> : two different approximations. Irene Olivé , João Silva, Monya Costa, Rui Santos.	Subsurface eddies with low-oxygen content in the northern Baja California upwelling region. Jose Gomez-Valdes .	Open.	Three critical scales to manage for seagrass resilience: physiology morphology and landscape. Katherine O'Brien , Michelle Waycott, Gary Kendrick, Angus Ferguson, Paul Maxwell, Peter Scanes, Len McKenzie, James Udy, Kieryn Kilminster, et al.
8:45 AM	Human nutrient source and climate impacts on Puget Sound dissolved oxygen through 2070. Mindy Roberts , Teizeen Mohamedali, Tarang Khangaonkar, Wen Long, Ben Cope, Brandon Sackmann.	Can restored marshes survive future sea-level rise in the Sacramento-San Joaquin Delta? Denise Reed , Ross Del Rio, Lindsay Dunaj.	Benthic composition and biogeochemical cycling on coral reefs: implications for ocean acidification. Nichole Price , Forest Rohwer, Stuart Sandin, Andreas Andersson, Todd Martz, Yuichiro Takeshita, Jennifer Smith.	Hydrodynamic variability of nearshore shelf processes along the California Current eastern boundary region. Maha Alnajjar , Stephen Monismith, Fiorenza Micheli, C. Brock Woodson, Andrea Sáenz-Arroyo, Charles Boch, Leonardo Vazquez.	Poster Speed Talks.	A tale of two seagrasses: Comparing the science and management of <i>Zostera marina</i> and <i>Zostera japonica</i> in the Pacific Northwest, USA. Deborah Shafer, James Kaldy , Jeffrey Gaeckle.
9:00 AM	Increasing nutrients, changes in algal biomass, and large <i>Noctiluca</i> blooms in Puget Sound: Is eutrophication fueling the microbial food web? Julia Bos , Christopher Krembs, Skip Albertson, Laura Friedenber, May Keyzers, Carol Maloy.	Keeping our heads above water: sea level rise adaptation at the Corte Madera Wetlands. Sarah Richmond .	Open.	Reduced bacterial diversity and altered community composition in expanding oxygen minimum zones. Michael Beman .	Reconstructing early life history traits important to ocean survival of juvenile Chinook salmon under differing oceanographic conditions: growth-rate, body size, natal origin, and outmigration strategy. Rachel Johnson , Lindsay Woodson, Brian Wells, et al.	Growth and morphological plasticity of <i>Thalassia testudinum</i> in the Gulf of Mexico. Ashley McDonald , Just Cebrían, Ken Heck, Patricia Prado, Kenneth Dunton, James Fourqurean.
9:15 AM	Untangling the effects of anthropogenic versus natural nutrient sources in the Southern California Bight. Meredith Howard , Karen McLaughlin, Martha Sutula, David Caron, Yi Chao, Hartmut Frenzel, Burton Jones, Raphael Kudela, Nikolay Nezlin, George Robertson.	The use of Global Climate Models, the Coastal Storm Modeling System (CoSMoS), and a user tool to assess the future vulnerability of the California coast. Li Erikson , Patrick Barnard, Amy Foxgrover, Andrea O'Neill, Michael Fitzgibbon, Grant Ballard.	Ocean acidification alters the otoliths of a pan-tropical fish species with implications for sensory function. Sean Bignami , Ian Enochs, Derek Manzello, Su Sponaugle, Robert Cowen.	Response of embryonic market squid, <i>Doryteuthis opalescens</i> , to oxygen, pH and pCO ₂ from upwelling margin environments. Garfield Kwan , Michael Navarro, Lisa Levin.	When to bolt, fry or smolt? Using otolith strontium isotopes to determine juvenile salmon migration pathways and survivorship across phenotypes, populations and hydrologic regimes. Anna Sturrock , John Wikert, Tim Heyne, Carl Mesick, Peter Weber, et al.	Sustainable seagrass restoration in the Virginia coastal bays: modeling distribution based on light, temperature, and sediment characteristics. Alia Al-Haj , Karen McGlathery, Patricia Wiberg, Arthur Schwarzschild.
9:30 AM	Freshwater inputs and coastal productivity in the Pacific Northwest. Kristen Davis , Neil Banas, Samantha Siedlecki, Sarah Giddings, Parker MacCready, Barbara Hickey.	Beach berming for coastal flood defense in southern California. Timu Gallien , Reinhard Flick, William O'Reilly, Robert Guza.	Seasonal variability in CO ₂ sensitivity in early life stages of a coastal marine fish: a case of transgenerational plasticity? Christopher Murray , Alex Malvezzi, Elizabeth Depasquale, Christopher Gobler, Hannes Baumann.	Ecophysiological effects of hypoxia on rockfishes inhabiting a coastal kelp forest of Monterey Bay. Jody Beers , Steven Litvin, C. Brock Woodson, Fiorenza Micheli, George Somero.	Fish otoliths as intrinsic geochemical proxies of hypoxia exposure in the northern Gulf of Mexico. John Mohan , Benjamin Walther.	Beyond the blade: soils in disturbed and restored subtropical seagrass meadows. Amanda Bourque , James Fourqurean.
9:45 AM	Linking nitrogen and carbon cycling in the coastal ocean: Implications for CO ₂ emissions, ocean acidification, and land use. John Zeldis , Kim Currie, Mark Gall.	The big squeeze: California coastal lagoons and sea level rise. Christina Toms , Robert Battalio, Dane Behrens, Peter Baye.	Open.	Year-round spawning of the Market Squid, <i>Doryteuthis opalescens</i> , and associated critical habitat along an upwelling margin. Michael Navarro , Ed Parnell, Lisa Levin.	Using otolith and water chemistry to determine life history strategies of striped bass (<i>Morone saxatilis</i>) in the Albemarle Sound/Roanoke River stock. Coley Hughes , Roger Rulifson.	The effects of genetic relatedness and functional trait differences on the performance of pairs of eelgrass (<i>Zostera marina</i>) genotypes. Jessica Abbott , Jay Stachowicz.
BREAK 10:00-10:30 AM						

TUESDAY, NOVEMBER 5, 2013 – EARLY MORNING 8:00-10:00 AM

SUNSET	SUNRISE	GARDEN BALLROOM	SHEFFIELD	HAMPTON	WINDSOR	
SCI-075G Ecology of Coasts and Estuaries: Ecosystem Function, Diversity, and Shifts Anna Tyler and Kathy Boyer	SCI-007 Translational Science: The Complexities of Watershed and Estuarine Restoration Efforts Mike Allen, Amanda Rockler, Fredrika Moser, and Tamara Newcomer	SCI-056 Science Communication Strategies for Ecosystem-Based Management William Nuttle, Rense Kelsey, Caroline Wicks, and William Dennison	SCI-064C Hydrodynamics and Sediment Dynamics in Estuaries and Coastal Seas Charitha Pattiaratchi and Arnoldo Valle-Levinson	SCI-044 Engineering with Nature: Striving for Sustainable, Multi-Objective Coastal Infrastructure Thomas Fredette, Todd Bridges, and Burton Suedel	SCI-045B Disturbance and Stressor Impacts on Microbial Communities and Biogeochemical Feedbacks Brian Roberts, Anne Bernhard, Anne Giblin, and Annette Engel	
The effects of SAV bed diversity on species growth under variable salinity and sediment conditions. Erin Shields , Kenneth Moore.	New Haven's West River: three restoration projects on a unique urban waterway make one city more resilient. Gwen Macdonald .	Effective science communication strategies to address climate change, environmental management and resource assessment. William Dennison .	Estuarine and coastal mechanical energy. Parker MacCreedy .	Engineering with nature: striving for sustainable, multi-objective coastal infrastructure. Thomas Fredette , Todd Bridges, Burton Suedel.	Spatial and temporal responses of microbial biogeochemistry to chronic and acute environmental triggers. Samantha Joye .	8:00 AM
Biodiversity and ecosystem functioning in aquatic angiosperm communities. Camilla Gustafsson .	A collaborative transdisciplinary approach to urban stormwater. Paul Leisnham, Amanda Rockler , Victoria Chanse, Hubert Montas, Adel Shirmohammadi, John McCoy, Lee Cain.	Communicating Chesapeake Bay science and management. Caroline Wicks , Heath Kelsey, William Dennison, Alexandra Fries.	A comparison of structured and unstructured grid model performance in the Irish Sea. Karen Amoudry , Jennifer Brown, Alejandro Souza.	Applying Mental Modeling Technology™ to develop state-of-the-science stakeholder engagement as part of the Engineering With Nature Initiative for the USACE Environmental Laboratory. Todd Bridges, Sarah Thorne , Gordon Butte, Daniel Kovacs.	Drivers of bacterial community composition in estuarine water columns and sediments: examining seasonality and nitrogen load in Waquoit Bay, MA. Sarah Feinman , Jennifer Bowen.	8:15 AM
Rarity as an indicator of ecosystem health. Adelaide Rhodes , Paul Montagna.	Collaborative science-based loading estimates for use in management decisions. Denise Sanger , Anne Blair, Erik Smith.	ABC is no longer as easy as 123. Advances in school report cards that are applicable to ecological health report cards. Simon Costanzo , Rense Kelsey, William Dennison.	Modelling the Influence of geometric and bathymetric changes on tidal dynamics in estuaries. Mohit Kumar , Henk Schuttelaars, Pieter Roos.	Design for flooding: Towards social-ecological systems. Kees Lokman .	Tidal influences on microbial communities responsible for sedimentary nitrogen cycling in the Cape Fear River Estuary, USA. Jessica Lisa , Bongkeun Song, Craig Tobias, Kimberley Duernberger, David Hines.	8:30 AM
Effects of an infaunal suspension-feeding bivalve on sandflat biodiversity and ecosystem function. Agnes Karlson, Candida Savage, Keith Probert, Daniel Leduc, Conrad Pilditch .	Wetlands from dredge material: Algal blooms, toxicities, and strategies. Kevin Sellner , Judith O'Neil, Eric Schott, Tim Davis, George Bullerjahn, Ann Marie Hartsig, Michelle Osborn.	The State of the Estuary: Communicating environmental health and trends to the interested public. Munoz, Gabriela ; Boicourt, Kate; Nyman, Robert.	Tidal circulation within the curved deepwater navigational channel of the north passage of the Changjiang River Estuary. John Shi .	Development of a shore protection index to guide the selection of ecologically advantageous shore-stabilizing methods in Chesapeake Bay. Evamaria Koch , Cindy Palinkas, Lawrence Sanford, Court Stevenson, Jeffrey Halka.	Elucidating the response of microbial nitrogen fixation in sediments to eutrophication-induced hypoxia. Andraya Ehrlich , Shelley Brown, Laura Coiro, Cassandra Doucet, Annaliesa Jones, Rodrigue Spinette, Christopher Deacutis, Bethany Jenkins.	8:45 AM
Ant diversity and community structure on coastal dunes. Xuan Chen , Benjamin Adams, Cody Bergeron, Alexander Sabo, Linda Hooper-Bui.	Evaluating the success of a restored marsh design using assessments of sediment dynamics and vegetation. Joshua Goff , Shailesh Sharma, Just Cebrian.	So what? Translating science into management: some hurdles. Robert Virnstein .	Hydrodynamic response of the Papaloapan estuary to a potential future sea-level rise. Erick Raul Olvera-Prado , Jorge Zavala-Hidalgo, Maria Elena Osorio-Tai.	Conservation actions along interior rivers of the United States - Contributions to the recovery of a Federally listed bird species. Richard Fischer , Casey Lott, Paul Hartfield.	Bacterial, fungal, and parasitic infestation in Malaysian horseshoe crabs. Faizul Mat Isa , Theng Hueh, Annie Christianus, Yasser Abdel-Hadi.	9:00 AM
Effects of climate change on a restored southern California salt marsh. Anastasia Shippey , Christine Whitcraft.	Salmon, seawalls, and Seattle: Assessing the effects of shoreline modifications on the ecology of fish in Elliott Bay, Washington. Stuart Munsch , Jason Toft, Jeff Cordell, Charles Simenstad.	2012 Coastal Master Plan: Building long-term support networks. Andrea Galinski , Natalie Peyronnin, Melanie Saucier.	Open.	Living shorelines: how much coastal engineering do you need? Bret Webb , Scott Douglass, Kari Servold.	Gene expression to identify and follow likely active diazotrophs along an estuarine gradient. Shelley Brown , Andraya Ehrlich, Christopher Deacutis, Rodrigue Spinette, Bethany Jenkins.	9:15 AM
Interactions between microphytobenthos and macrofauna regulate intertidal sediment stability. Rachel Harris , Conrad Pilditch, Simon Thrush, Judi Hewitt, Andrew Lohrer, Iain MacDonald, Samantha Parkes, Barry Greenfield, Michael Townsend.	Dispersal of fine-grained sediment along the California coast - linking science to management. Jon Warrick, Kristen Goodrich .	Findings of the Science and Engineering Special Team on sustainable restoration of the Mississippi River Delta. Angelina Freeman , John Day, G. Paul Kemp.	Impact of offshore conditions on estuarine residual circulation and nutrient and oxygen supply. Sarah Giddings , Parker MacCreedy, Neil Banas, Kristen Davis, Samantha Siedlecki, Barbara Hickey.	Can a fringe marsh and eelgrass system survive changing hydraulic and anthropogenic impacts without intervention? Lee Weishar .	Artificial reef biofilms in Mississippi Sound: respiration rates and nutrient dynamics. Lynn Wilking , Kevin Dillon.	9:30 AM
Lack of eelgrass recovery in a Danish estuary - evaluated by field evidence, modelling and GIS-analysis. Mogens Flindt , Thomas Valdemarsen, Paula Verges, Erik Kristensen, Erik Rasmussen.	From the office to the ocean: partnering with corporate employees to collect water quality data globally for water quality research and management. Rachel Borgatti , Steven Loiselle.	Building a communications network for ecosystem based management: lessons learned in South Florida. Pamela Fletcher, Chris Kelble, William Nuttle .	Observations and modeling of dye tracer releases at New River Inlet, NC, USA. Falk Feddersen , Maitane Olabarrieta, Robert Guza, Steve Elgar, Britt Raubenheimer.	Evaluating erosion protection and fish habitat use of stabilized and natural shorelines in a hurricane-impacted estuary. Rachel Gittman , Alyssa Popowich, John Bruno, Charles Peterson.	Denitrification and dissimilatory nitrate reduction to ammonium in sediments exposed to oil from the Deepwater Horizon spill. Anne Giblin , Anne Bernhard, John Marton, Jane Tucker, Brian Roberts.	9:45 AM
BREAK 10:00-10:30 AM						

TUESDAY, NOVEMBER 5, 2013 – EARLY AFTERNOON 1:30-3:00 PM

	TOWN & COUNTRY	SAN DIEGO	GOLDEN WEST	CALIFORNIA	ROYAL PALMS (1-3)	ROYAL PALMS (4-6)
	SCI-005B Nutrient Fluxes and Nutrient Accounting in Coastal Catchments and Water Bodies: Methods and Applications Dennis Swaney	Open.	SCI-015A Acidification and Hypoxia in Estuaries Tawrya Peterson	SCI-006 Efficient Watershed Management: Tracking, Trading, and Exchanges in the Chesapeake and Other Coastal Systems Lewis Linker, Gary Shenk, Richard Batiuk, and Lisa Wainger	SCI-027B Unraveling the "Black Box" of Migration with Novel Methods Benjamin Walther and Karin Limburg	SCI-041B Resilience in Coastal Ecosystems: Impact of Stressors on Resilience, Stability, and Recovery in Communities Dominated by Seagrass or Benthic Algae Benjamin Fertig and Jessie Jarvis
1:30 PM	Societal phosphorus metabolism in a coastal region during a period of population migration and economic instability. Eric Roy , John White, Matthew Seibert.		Coastal ocean acidification: The other eutrophication problem. Ryan Wallace , Christopher Gobler.	Lessons from Chesapeake Bay restoration efforts: understanding the role of nutrient reduction activities in improving water quality. Christina Lyerly , Ana Hernández Cordero, Katherine Foreman, Scott Phillips, William Dennison.	Stable isotope analysis of salmon shark vertebrae reveals ontogenetic changes in habitat in a migratory shark. Aaron Carlisle , Kenneth Goldman, Steven Litvin, Daniel Madigan, Jennifer Bigman, Alan Swithenbank, Thomas Kline, Barbara Block.	Long-term changes in fish community in response to fluctuating SAV beds. Leslie Orzetti , Daniel Ryan.
1:45 PM	Nonmarine sources and loading of nitrogen to U.S. estuaries. Naomi Detenbeck , Daniel Sobota, Jana Compton, Todd Plessel.		Ocean's twin assault: The importance of concurrently evaluating the effects of hypoxia and acidification on marine organisms. Christopher Gobler , Elizabeth Depasquale, Andrew Griffith, Hannes Baumann.	Basin-to-basin and nitrogen-to-phosphorus nutrient exchanges in the Chesapeake TMDL. Lewis Linker , Gary Shenk, Lee Currey.	Tracking Atlantic tarpon migration and habitat utilization with chemical signatures in scales: a non-lethal approach. Benjamin Walther , Skye Woodcock.	Spatial dynamics of an omnivorous fish across submerged aquatic vegetation seascapes: Examining niche breadth under differing fragmentation levels. Rolando Santos , Diego Lirman.
2:00 PM	Response of nutrient exports to changes in loadings from different sources on the Chesapeake Bay watershed. Richard Tian , Guido Yactayo, Gary Shenk, Lewis Linker, Ping Wang, Gopal Bhatt, Amanda Pruzinsky.		Does elevated carbon dioxide limit crustacean acclimation to hypoxia? Karen Burnett , Kristin Hardy, Kristin Stover, Charles Rathburn, Louis Burnett.	San Francisco Bay Area nutrient management strategies must address future needs. Michael Connor .	A meta-analysis of stable isotope turnover rates in fishes in the context of connectivity and migration studies. Sharon Herzka , Luis Malpica-Cruz, F. Joel Fodrie, Just Cebrian.	Combined effects of anthropogenic nutrient loading and epibenthic jellyfish blooms on Bahamian seagrass beds. Elizabeth Stoner , Yeager Lauren, Craig Layman, Serina Sebilian, Jennifer Sweatman.
2:15 PM	Where does it come from and where does it go? Determining nitrogen inputs and exports from a coastal watershed in Texas. Rae Mooney , Kiersten Madden, Edward Buskey.		Breathless nights on acid: The effects of co-varying diel-cycling hypoxia and pH on <i>Crassostrea virginica</i> . Andrew Keppel , Denise Breitburg, Rebecca Burrell, Gary Wikfors, Cecily Steppe.	Environmental impacts on Chesapeake Bay resulting from inflow of the Conowingo Reservoir. Mark Noel , Carl Cerco.	Coupled reproduction and settlement, connectivity, and local retention of rocky shore metapopulations in an upwelling region. Sarah Hameed , J. Wilson White, Seth Miller, Kerry Nickols, Steven Morgan.	Additive and opposing effects of multiple environmental stressors across realistic time scales. Brian Cheng , Jillian Bible, Andy Chang, Matthew Ferner, Kerstin Wasson, Chela Zabin, Marilyn Latta, Anna Deck, Edwin Grosholz.
2:30 PM	Spatial variability in nutrient and sediment loads due to climate change in Chesapeake Bay watersheds. Amanda Pruzinsky , Gopal Bhatt, Gary Shenk, Lewis Linker, Guido Yactayo, Richard Tian, Ping Wang.		Ocean acidification study in a mediterranean oyster culture coastal lagoon during two contrasting upwelling conditions in Baja California México. Jose (Martin) Hernandez-Ayon , Richard Feely, Alin Simone, Victor Camacho-Ibar, Andrew Dickson, Mariana Ribas-Ribas, Reginaldo Durazo.	Exchanges of aggregate air nitrogen emissions and watershed nitrogen loads. Robin Dennis , Sergey Napelenok, Mary Jane Rutkowski, Lewis Linker.	Modeling the impact of larval behavior on dispersal and connectivity along the U.S. west coast. Christopher Edwards , Patrick Drake, Steven Morgan, Edward Dever.	Variation in epibiotic load on the macroalgae <i>Furcellaria lumbicalis</i> and <i>Fucus vesiculosus</i> in the Baltic Sea. Priit Kersen , Tiina Paalme, Remi Treier.
2:45 PM	Net anthropogenic nitrogen inputs to major Indian watersheds. Dennis Swaney , Bongghi Hong, Robert Howarth, Ramachandran Ramesh.		Dual stressors, unexpected outcome: Combined effects of hypoxia and ocean acidification on juvenile <i>Macoma balthica</i> . Anna Jansson , Joanna Norkko, Alf Norkko.	Attaining water quality standards in the Chesapeake Bay and its tidal tributaries: a showcase for adaptive management. Ana Hernández Cordero , Richard Tian, Lea Rubin, Michael Mallonee, Richard Batiuk.	Genetic connectivity among populations of <i>Rhizophora mangle</i> L in the Caribbean Sea and Florida. John Paul Kennedy , Donna Devlin, C. Edward Proffitt, Alice Stanford.	Effects of detrital enrichment on intertidal benthic biodiversity and ecosystem function. Clarisse Niemand , Conrad Pilditch, Ian Hogg, Ingrid Kroencke, Drew Lohrer.
BREAK 3:00-3:30 PM						

TUESDAY, NOVEMBER 5, 2013 – EARLY AFTERNOON 1:30-3:00 PM

SUNSET	SUNRISE	GARDEN BALLROOM	SHEFFIELD	HAMPTON	WINDSOR	
SCI-075H Ecology of Coasts and Estuaries: Benthic Ecosystems Amanda Wenczel and Kathy Boyer	SCI-077A Estuarine Restoration: Physical Processes Ken Krauss and John Callaway	SCI-078A Policy and Management of Coasts and Estuaries Skyli McAfee	SCI-064D Hydrodynamics and Sediment Dynamics in Estuaries and Coastal Seas Alejandro Souza and Arnoldo Valle-Levinson	SCI-036 Perceptions of Environmental Models and Stakeholder Participation Michael Paolisso, Kevin Sellner, Raleigh Hood	SCI-072A Mangrove Expansion into Salt Marsh Habitats: Causes and Consequences Candy Feller, Daniel Gruner, John Parker, Rick Osman, Steven Pennings, and Anna Armitage	
Examining bivalve shellfish particle removal efficiencies to enhance restoration and aquaculture implementation within New Jersey waters. Amanda Wenczel , David Bushek.	Development of a superimposed hydraulic network at a hyper-tidal restoration site. Jennifer Graham , Danika van Proosdij, Jeremy Lundholm, Tony Bowron, Nancy Neatt, Ben Lemieux.	Opportunities and challenges for policy makers, managers, and scientists in planning for and implementing Marine Spatial Planning. Jenna Borberg , Stephen Brandt, John Stein, Timi Vann.	Sediment dynamics and the Delaware estuarine turbidity maximum. Robert Chant , Jacqueline McSweeney .	Environmental modeling with coastal stakeholders. Michael Paolisso , Jeremy Trombley, Kevin Sellner, Raleigh Hood.	Biotic interactions mediate the expansion of black mangrove (<i>Avicennia germinans</i>) into salt marshes under climate change. Hongyu Guo , Yihui Zhang, Zhenjiang Lan, Steven Pennings.	1:30 PM
Subtidal bay clam populations in Tillamook Bay, Oregon: Comparison to intertidal populations and implications for shellfish management. Anthony D'Andrea , Stacy Galleher, Amy Hutmacher, Kamala Earl.	Efficacy of wave attenuating structures on restoring shorelines and emergent marsh grasses: a comparative study of two distinct types of breakwaters. Shailesh Sharma , Joshua Goff, Just Cebrían, Ken Heck, Sean Powers.	The United States of America and Mexico perform a historic demonstration of international cooperation in order to conserve water and protect the environment along the Colorado River. Carlos Pena .	The influence of sea surface stratification on the hydrodynamics and suspended sediment distribution in cross-sections of tidal estuaries. Jvan Barbaro , Henk Schuttelaars.	FishSmart: A stakeholder-centered modeling approach to improve fisheries conservation and management. Thomas Miller , Michael Wilberg, David Secor, Thomas Ihde.	Range expansions and reproductive strategy: A mangrove crab in the salt marsh. Megan Riley , Blaine Griffen.	1:45 PM
Benthic macrofauna and ecosystem functioning in the shallow estuary Odense Fjord, Denmark. Erik Kristensen , Thomas Valdemarsen, Mogens Flindt, Cintia Quintana, Matthieu Delefosse.	Surface elevation change in created mangroves along a 20-year chronosequence in Tampa Bay, Florida, USA: A preliminary analysis. Ken Krauss , Michael Osland, Nicole Cormier, Camille Stagg, Darrin Dantin, Andrew From, Marc Russell, Alejandro Almario.	Exploring perceptions and experiences of the U.S. West Coast shellfish industry dealing with ocean acidification. Rebecca Mabardy , George Waldbusser, Flaxen Conway.	The impact of density stratification on sediment transport in the Rhine region of freshwater influence. Alex Horner-Devine , Julie Pietrzak, Alejandro Souza, Marcel Stive, Saulo Meirelles, Martijn Henriquez, Gerben de Boer, Margaret McKeon.	Stakeholder perceptions and priorities: modeling and data in watershed planning in Double Bayou, a rural watershed of an urban estuary. Stephanie Glenn .	Pole-ward expansion of mangroves along the east coast of Florida corresponds to a decrease in the frequency of extreme cold events. Kyle Cavanaugh , James Kellner, Ilka Feller, Alexander Forde, Daniel Gruner, John Parker.	2:00 PM
Ecosystem engineering in a changing coastal environment: context-dependent effects of shellfish on benthic communities. Carl Van Colen , Tom Ysebaert, Sam Parkes, Rachel Harris, Sarah Woodin, David Wethey, Conrad Pilditch, Judi Hewitt, Andrew Lohrer, Magda Vincx, Simon Thrush, .	Where's the ground surface? – Elevation bias in LIDAR-derived digital elevation models due to dense vegetation in Oregon tidal marshes. Michael Ewald , Laura Brophy, Christopher Janousek.	Science Integration: Developing tools, approaches, institutions and careers for connecting knowledge with action. Ryan Meyer .	Three-dimensional dynamics of sediment trapping in tide-dominated estuaries, an exploratory model. Huib de Swart , Erik Ensing, Henk Schuttelaars.	Applying fresh and marine water modeling results to support decisions for local government managers: snow caps to white caps. Andrea Copping , Zhaoqing Yang, Nathalie Voisin, Jonathan Whiting, F. Brie Van Cleve.	Untangling the web: The importance of wetland production to aquatic food webs across the Florida Atlantic salt marsh-mangrove ecotone. Ronald Baker , Ilka Feller.	2:15 PM
Changing sandy beach ecosystems in California: comparisons of intertidal biodiversity three decades apart. Nicholas Schooler , Jenifer Dugan, David Hubbard, Dale Straughan, Adrian Wenner.	Mineral vs. organic contribution to marsh elevation in restored marshes (Ebro Delta, Spain). Juan Calvo-Cubero , Carles Ibáñez, Albert Rovira, Peter Sharpe, Enrique Reno.	Adaption of the dredging strategy to reduce impacts on the Twaite shad. Friederike Piechotta .	Flocculation under the effect of currents and waves. Rafael Ramirez-Mendoza , Alejandro Souza, Laurent Amoudry.	Integrating socio-ecological research and collaborative learning to increase marsh and community resilience to sea-level rise. Brian Needelman, Michael Paolisso, Patricia Delgado, Lisa Wainger, Paul Leisnham, Andrew Baldwin, Robert Tjaden, Dorothea Lundberg, Katherine Johnson, Diane Leason, Natallia Leuchanka .	Ecological implications of black mangrove expansion in the Gulf of Mexico: insights from a large-scale mangrove removal experiment. Steven Pennings , Hongyu Guo, Anna Armitage, Sayatani Dastidar, Carolyn Weaver, Ashley Whitt, Zoe Hughes.	2:30 PM
Local extirpations and regional declines of endemic upper beach invertebrates in southern California. David Hubbard , Jenifer Dugan, Nicholas Schooler, Sloane Viola.	Organic deposition and sediment accretion in the nutrient rich tidal marshes at Poplar Island, MD. Lorie Staver , Court Stevenson, Jeffrey Cornwell, Michael Owens, Philippe Hensel.	Principal coastal functional zoning based on multidimensional decision-making approach. Rong Mu , Luoping Zhang, Weiqi Chen, Qinhua Fang, Paolo Ricci, Ran Zhang, Zheng Yu, Yifan Zhang, Chunxiu Huang, Weiwei Yu, Kankan Wu, .	Residual circulation and sediment transport in the Dutch Wadden Sea. Matias Duran-Matute , Gerben de Boer, Ulf Grawe, Janine Nauw, Theo Gerkema, Hans Burchard.	The role and consequences of collaboration in an ongoing vessel traffic risk assessment for Puget Sound. Todd Hass , JD Ross Leahy, Tom Leschine.	Mangrove expansion into saltmarsh in SE Australia. Neil Sainntilan, Kerrylee Rogers .	2:45 PM
BREAK 3:00-3:30 PM						

TUESDAY, NOVEMBER 5, 2013 – LATE AFTERNOON 3:30-5:00 PM

	TOWN & COUNTRY	SAN DIEGO	GOLDEN WEST	CALIFORNIA	ROYAL PALMS (1-3)	ROYAL PALMS (4-6)
	SCI-005C Nutrient Fluxes and Nutrient Accounting in Coastal Catchments and Water Bodies: Methods and Applications Dennis Swaney	SCI-013D Marshes, Storms, and Sea Level Rise: Marsh History and Migration Tim Webster and Tom Allen	SCI-015B Acidification and Hypoxia in Estuaries Tawnya Peterson	SCI-029 Bio-optical Techniques for In Situ Plankton Research: Where Are We Now? Judy Li and Donald Melrose	SCI-074 South and Central American Estuaries and Coasts Paulina Martinetto, Osmar Moller, Sharon Herzka, and Robert Christian	SCI-041C Resilience in Coastal Ecosystems: Impact of Stressors on Resilience, Stability, and Recovery in Communities Dominated by Seagrass or Benthic Algae Benjamin Fertig and Jessie Jarvis
3:30 PM	Development of multi-scale, multi-state application of a physics-based distributed hydrologic model in the Chesapeake Bay watershed. Gopal Bhatt , Xuan Yu, Chris Duffy, Lorne Leonard, Mukesh Kumar.	Sea level rise and saltmarshes: development, succession and management implications. Rob Hughes , Paul Fletcher.	Mangrove ponds: a model system for studying acidification, hypoxia and increasing water temperatures. Denise Breitburg , Ilka Feller, Keryn Gedan.	The evolution of the FlowCAM – 17 years in the making. Christian Sieracki, Matthew Duplisea, Harry Nelson .	A view from the South: Conclusions on the CERF Inaugural Conference of the Americas. Paulina Martinetto , Oscar Iribarne.	Change analysis of seagrasses on Mississippi barrier islands from 1940 to 2008. Linh Pham , Patrick Biber.
3:45 PM	Seasonal patterns of ¹⁵ N and ¹⁸ O of NO ₃ in the Murderkill River Watershed and Estuary, DE. Sarah Fischer , William Ullman, Joanna York.	Considerations on the use of recent saltmarsh accretion as a proxy of sea level change. Joan-Albert Sanchez-Cabeza , Ana Carolina Ruiz-Fernández.	The effect of ocean acidification on benthic ecosystem functioning in contrasting sediment types. Ulrike Braeckman, Jan Vanaverbeke , Carl Van Colen, Katja Guilini, Liesbet Colson, Magda Vincx.	Use of flow cytometric applications to resolve responses of natural microbial communities to nutrient enrichment in Galveston Bay, Texas. Shepard Alicia , Allison McInnes, Keaton Adams, Antonietta Quigg.	Why compare hemispheres: a case of salt marsh response to sea-level change. Robert Christian , Linda Blum, Eduardo Leorri, Paula Pratolongo.	Puget Sound monitoring shows eelgrass (<i>Zostera marina</i>) declines. Fred Short , Jeffrey Gaeckle, Pete Dowty, Helen Berry, Lisa Ferrier.
4:00 PM	Monitoring nutrient and sediment inputs to Texas bays and estuaries: A comparison of selected high flow events, 2009-13. Michael Lee .	Autonomous adaptation of saline coastal wetlands to climate change: challenges and opportunities identified from southeastern Australia. Kerrylee Rogers , Neil Santilan, Colin Woodroffe, Craig Copeland.	The effects of elevated CO ₂ on the growth and toxicity of field populations and cultures of the PSP-producing dinoflagellate, <i>Alexandrium fundyense</i> . Theresa Hattenrath-Lehmann , Ryan Wallace, Juliette Smith, Donald Anderson, Christopher Gobler.	Measuring changes in total phytoplankton-sized particle volume over time as a proxy for primary production in Narragansett Bay, RI. Christopher Melrose , Jason Krumholz, Conor McManus.	Changes in soil organic carbon storage in salt marshes of the Bahía Blanca Estuary (Argentina), from 1967 to 2005. Paula Pratolongo , Andrea Hawkes, Kyle McDermott.	Seagrass response to dike removal, Nisqually River Delta, Puget Sound, Washington. Renee Takesue , Andrew Stevens.
4:15 PM	Ecological implications of nutrients dynamics in the Julong River-Estuary system, China. Nengwang Chen .	Spatial and temporal variation in aquatic plant and invertebrate communities in Suisun Bay and the Sacramento-San Joaquin Delta, CA. Jennifer Miller , Ace Crow, Eryan Borgnis, Katharyn Boyer.	Role of plankton blooms in mitigating hypoxia the Columbia River estuary. Joseph Needoba , Tawnya Peterson, Curtis Roegner, Antonio Baptista.	Two PAR sensors used to measure light attenuation were not created equal. Tara Schraga , Raphael Kudela, James Cloern.	Scientific tools for sustainable port development: Port of Rio Grande, Brazil. Elisa Fernandes , Débora Cuchiara, Daniel Cueva, Arthur Almeida, Glauber Gonçalves, Wiliam Marques, Osmar Moller.	Multi-scale controls of submerged aquatic vegetation in Chesapeake Bay. Christopher Patrick , Donald Weller.
4:30 PM	Evaluating rain and stormwater nitrogen inputs to Mississippi Sound: a landscape approach. Joshua Allen , Kevin Dillon.	Tidal marshes in the lower Columbia River and estuary: historical perspective, present condition, and future outlook. Amy Borde , Heida Diefenderfer, Ronald Thom, Valerie Cullinan, Cynthia Wright, Shon Zimmerman.	Distributional shifts and species composition during seasonal hypoxia. Halley Froehlich , Timothy Essington, Anne Beaudreau, Shannon Hennessey, Phillip Levin.	Light limitation of primary productivity in the high-nutrient, low-chlorophyll a East River tidal strait, New York City, New York. Yaqin Li , Shannon Meseck, Mark Dixon, Gary Wikfors.	The effect of winds and freshwater discharge on the variability of chlorophyll a concentration in the estuary of Patos lagoon (30S, Brazil). Mauro Andrade, Osmar Möller , Clarisse Odebrecht, Paulo Abreu.	Evaluating spatial and temporal patterns in <i>Zostera marina</i> growth over 28 years in Chesapeake Bay, USA. David Wilcox , Scott Marion, Robert Orth.
4:45 PM	Modeling nitrate loadings from agricultural watersheds in Prince Edward Island, Canada. Pierre Grizard , Kerry MacQuarrie.	Salt marsh migration from sea-level rise in Prince Edward Island, Canada. Tim Webster , Al Hanson, Alicia Daniel, Nathan Parker.	Vertical distribution of dissolved oxygen in the Russian River estuary during periods of inlet closure. Kate Hewett , John Largier.	Using a novel automated identification technique to enhance our understanding of bivalve larvae in a turbid estuarine environment. Jacob Goodwin , Elizabeth North, Christine Thompson, Ian Mitchell.	Numerical modeling of an Amazonian estuarine system. Eduardo Siegle , Nils Asp, Carlos Schettini.	Linking spatial aspects of <i>Zostera marina</i> growth and loss dynamics with environmental drivers in Chesapeake Bay, USA. Scott Marion , David Wilcox, Robert Orth.

TUESDAY, NOVEMBER 5, 2013 – LATE AFTERNOON 3:30-5:00 PM

SUNSET	SUNRISE	GARDEN BALLROOM	SHEFFIELD	HAMPTON	WINDSOR	
SCI-075I Ecology of Coasts and Estuaries: Trophic Dynamics Kathy Boyer	SCI-077B Estuarine Restoration: Oysters and Mussels Megan La Peyre and John Callaway	SCI-054 Exploring Approaches to Understanding Decision Makers' Science Needs Emily Knight and Ryan Meyer	SCI-064E Hydrodynamics and Sediment Dynamics in Estuaries and Coastal Seas Robert Chant and Arnoldo Valle-Levinson	SCI-037 Transferability of Models for Predicting Ecosystem Services Ted DeWitt, Marc Russell, and Jessica Moon	SCI-031B Trophic Subsidies in Coastal Ecosystems: Implications for Coastal Management James Nelson	
Seasonal shift in the relative importance of invertebrate and vertebrate grazers in a San Francisco Bay eelgrass bed. Katharyn Boyer , Stephanie Kiriakopolos, Pamela Reynolds, J. Emmett Duffy.	Comparison of substrates for St. Mary's River oyster reef restoration. Elizabeth Lee , Robert Paul.	Getting the questions right: the role of boundary organizations in advancing understanding of ocean acidification and hypoxia. Emily Knight , Ryan Meyer.	The role of turbulence in the erosion of cohesive sediments. Kevin Briggs , Joseph Calantoni.	A conceptual framework for evaluating the applicability domains of ecological models and their implementation in the ecological production function library. Jessica Moon , Theodore DeWitt, Randall Bruins, Ming Sheng.	Effects of shoreline armoring on beach wrack subsidies to the nearshore ecotone. Sarah Heerhartz , Megan Dethier, Jason Toft, Jeff Cordell, Andrea Ogston, Charles Simenstad.	3:30 PM
Temporal changes in interactions strengths within a kelp forest community: the other trophic cascade. Steven Litvin , Fiorenza Micheli, C. Brock Woodson, Stephen Monismith, Sarah Lee, Kerry Nickols.	Oyster reef restoration in the northern Gulf of Mexico: extent, methods and outcomes. Megan La Peyre , Jessica Furlong, Laura Brown, Kenneth Brown, Bryan Piazza.	Gulf Coast ecosystem restoration science, observation, monitoring and technology program: Engagement approaches to ensure research priorities support management needs. Rebecca Allee , Russell Beard, Shelby Walker, Julien Lartigue, Theresa Davenport.	Modelling biota-sediment interactions in estuarine environments. Francesco Cozzoli , Tjeerd Bouma, Tom Ysebaert, Peter Herman.	Mechanistic models as a transferable framework for projecting effects of habitat change on production and delivery of ecosystem services. Richard Fulford , Marc Russell, David Yoskowitz, John Rogers.	Contrasting community structure, trophic links and ecosystem connectivity of long versus pocket beaches along the California's north-central coast. Karina Nielsen , Jenifer Dugan, Steven Morgan.	3:45 PM
Open.	Oyster reef restoration in the Northern Gulf of Mexico: effect of material and age on nekton and benthic macroinvertebrate assemblages. Laura Brown , Jessica Furlong, Kenneth Brown, Megan La Peyre.	Collaborative science: Engaging end users and scientists to build municipal capacity for coastal stormwater management. Alison Watts , James Houle, Thomas Ballesterro, Robert Roseen.	Accretion, sediment deposition and suspended sediment dynamics in Mugu Lagoon, a southern California coastal estuary. Jordan Rosencranz , Richard Ambrose.	The transferability of the CSIRO estuarine model around Australia's diverse estuarine and coastal systems. Mark Baird , Barbara Robson, Jennifer Skerratt, Farhan Rizvi, Andrew Steven, Peter Thompson.	Importance of reef-derived kelp as a trophic subsidy in seagrass meadows. Glenn Hyndes , Paul Lavery, Christine Hanson, Audrey Cartraud.	4:00 PM
Eating between the lines: Functional feeding response of bonnetheads (<i>Sphyrna tiburo</i>). Andrea Kroetz , Sean Powers.	Oyster reef commensal community colonization response to acute hydrocarbon contamination. Jenessa Kay , Kenneth Brown.	Fostering policy relevant science- Sea Grant in California. Shauna Oh , Phyllis Grifman.	The influence of grain characteristics on sediment deposition within salt marsh and tidal creek systems in the Bay of Fundy. Danika van Proosdij , Casey O'Laughlin, Emma Poirier, Tim Milligan.	On the reliability, uncertainty, scaling and transferability of ecological production functions in ecological periodic tables. Steven Ferraro .	From earth and ocean: Investigating the importance of upstream landscapes, salmon and cross-ecosystem subsidies to estuarine invertebrates. Joel Harding , John Reynolds.	4:15 PM
Landscape and seasonal heterogeneity in the composition of lower to middle trophic levels in Puget Sound's pelagic food web. Casimir Rice , Corrieh Greene, Jeff Cordell, Josh Chamberlin, Jason Hall, Linda Rhodes, Anne Baxter, Sean Naman.	Nearshore linkages: the roles of native oysters and eelgrass as living shorelines in the San Francisco Estuary. Marilyn Latta , Katharyn Boyer, Robert Abbott, Susan De La Cruz, Doug George, Edwin Grosholz, Stephanie Kiriakopolos, Jeremy Lowe, Jen Miller, Rena Oberholte, Cassie Pinnell, Chela Zabin.	It takes two to tango: Fostering two-way engagement between scientists and policymakers. Karen McLeod , Chad English.	Physical and biological reworking of flood event beds as evidenced by radioisotopic profiles: A modeling study. Justin Birchler , Courtney Harris.	Using Ecopath with Ecosim to model power plant impacts in a lagoonal estuary. James Vassilides , Olaf Jensen.	Trophic and nutrient subsidies by nekton in a southeastern U.S. salt marsh estuary. Dennis Allen , Robert Christian, Stacy Luthy.	4:30 PM
The importance of mesopredators on juvenile oyster predation: A field test. John Carroll , John Marion, Christopher Finelli.	Water quality benefits of tidal freshwater mussels in Delaware Estuary. Danielle Kreeger , Roger Thomas, Priscilla Cole, Lance Butler, Melanie Mills, Angela Padeletti.	Bridging the gap between science and management in California. Kenneth Schiff .	Toward unified functional relationship of sediment pickup in coastal models. Laurent Amoudry , Peter Thorne, Alejandro Souza.	Comparison of habitat-specific nutrient removal and release in Pacific NW salt marshes at multiple spatial scales. Theodore DeWitt , Hilmar Stecher, Laura Brown, Caitlin White.	Biomass transfer subsidizes nitrogen to offshore food webs. James Nelson , Christopher Stallings, William Landing, Jefferey Chanton.	4:45 PM

WEDNESDAY, NOVEMBER 6, 2013 – EARLY MORNING 8:00-10:00 AM

	TOWN & COUNTRY	SAN DIEGO	GOLDEN WEST	CALIFORNIA	ROYAL PALMS (1-3)	ROYAL PALMS (4-6)
	SCI-005D Nutrient Fluxes and Nutrient Accounting in Coastal Catchments and Water Bodies: Methods and Applications Dennis Swaney	SCI-010 Cities on the Coast: Present and Future Challenges, with Lessons Learned from Superstorm Sandy John Largier	SCI-014B Drivers and Consequences of Nearshore Ocean Acidification George Waldbusser, Denise Breitburg, Lisa Levin, and Gretchen Hofmann	SCI-025A Research and the Classroom: Connections Between Scientists and Educators Laura Murray, Linda Duguay	SCI-076C Biogeochemistry of Coasts and Estuaries: Nitrogen Cycle Alexander Parker	SCI-041D Resilience in Coastal Ecosystems: Impact of Stressors on Resilience, Stability, and Recovery in Communities Dominated by Seagrass or Benthic Algae Benjamin Fertig and Jessie Jarvis
8:00 AM	Nutrient dynamics in the Mission-Aransas Estuary: impacts on phytoplankton biomass, gross primary production and net ecosystem metabolism. Edward Buskey , Denise Bruesewitz, Rae Mooney, Joseph Myers, Cammie Hyatt, Wayne Gardner.	Applied visualization for hurricane storm surge risk awareness and emergency management. George McLeod , Thomas Allen, Keith VanGraafeiland.	Different developmental responses of bivalve larvae to pCO ₂ , pH, and saturation state. George Waldbusser , Burke Hales, Christopher Langdon, Brian Haley, Matthew Gray, Paul Schrader, Elizabeth Brunner, Iria Gimenez, Rebecca Mabardy, Cale Miller.	Research Experiences for STEM Students. Laura Murray .	The bioavailability of groundwater derived dissolved organic nitrogen. Jennifer Anders , Behzad Mortazavi, Justin Liefer, William Burnett, Hugh MacIntyre.	Synergistic effects of altered salinity and temperature on eelgrass (<i>Zostera marina</i>) seedlings and adult plants. Tiina Salo , Morten Pedersen.
8:15 AM	Changes in nutrient export and import to Yaquina Bay: Using high resolution in-situ sensors to evaluate decadal changes in nutrient dynamics and the effect on primary production in a representative estuary. Corey Koch , Andrew Barnard.	Reduced coastal storm impacts through the Integrated Ocean Observing System. Gerhard Kuska .	A novel technique for determining the impact of ocean acidification on the feeding physiology of bivalve larvae. Matthew Gray , Christopher Langdon, George Waldbusser, Burke Hales, Brian Haley, Paul Schrader.	Improving undergraduate engagement in research through a research intensive module in a marine ecology course. Dana Burfeind , Ian Tibbetts.	Quantifying the effects of nitrogen availability on nitrification, carbon respiration, and their interactions in the coastal ocean. Kelly Henry , Michael Beman.	Biodiversity, environment, and eelgrass ecosystem functioning on a planetary scale. Pamela Reynolds , J. Emmett Duffy.
8:30 AM	Assessing the influence of the Murderkill Estuary on the Delaware Bay using continuous real-time biogeochemical monitoring. Yoana Voynova , William Ullman.	Analyzing 190 years of extreme water level estimates at New York Harbor. Stefan Talke , Philip Orton, David Jay.	Ocean acidification in a variable world: Multi-scale variability of biological responses. Michael O'Donnell .	Flats ecosystems as an outdoor classroom: undergraduate contributions to bonefish research in The Bahamas. John Tiedemann , Christopher Haak, Andy Danylchuk, Aaron Shultz.	Seasonal responses of sediment nitrogen fixation and denitrification in eutrophic mediterranean-climate estuaries – opposite effects of nitrate and salinity. Tonya Kane , Peggy Fong.	The effect of epiphytes on light harvesting and antioxidant responses in the seagrass <i>Posidonia oceanica</i> . Monya Costa , João Silva, Irene Olivé, Isabel Barrote, Ana Alexandre, Silvia Albano, Rui Santos.
8:45 AM	Open.	A multi-tier approach to assessing the condition of salt marshes of the Big Apple. Leah Beckett , Marit Larson, Minona Heaviland, Ellen Hartig, Helen Forgiione.	Temperature determines the vulnerability of mussels to ocean acidification. Kristy Kroeker , Brian Gaylord, Tessa Hill, Jessica Hosfelt, Kelly Laughlin, Seth Miller, Ann Russell, Eric Sanford.	'Who's a Scientist?' Project (WASP): Insights into middle and high school students' perceptions of themselves as future scientists. Samuel Lake , Theresa Davenport, Lindsey Kraatz, Christina Pondell, Jenna Spackeen.	Benthic nitrogen cycling and the fate of nitrate in Weeks Bay, Alabama. Rebecca Bernard , Behzad Mortazavi, Scott Phipps.	Sulfide intrusion and detoxification in seagrasses ecosystems: How to avoid rotting feet. Harald Hasler-Sheetal , Marianne Holmer.
9:00 AM	Nitrogen and carbon dynamics in rivers of the Alto Paraiba do Sul basin, São Paulo State, Brazil. Elizabete Ravagnani , Juliana Antonio, Luciana Coletta, Silvia Lins, Alexsandra Rossete, Edmar Mazzi, Luiz Martinelli.	Preparing California's cities for changes on the coastline. Megan Herzog , Sean Hecht.	Carbon and nitrogen stable isotope dynamics of <i>Crassostrea gigas</i> larvae at Whiskey Creek Shellfish Hatchery. Elizabeth Brunner , George Waldbusser, Burke Hales, Brian Haley, Fredrick Prah.	Restoring a sense of hope: Involving high school students in conservation. Lishka Arata , Megan Elrod, Paula Fogarty, Kathleen Brown, Julian Wood, Melissa Schunck, Melissa Pitkin, Emily Allen.	Urea cycling is important to nitrogen dynamics in the northern Gulf of Mexico. Ruihui Dai, Wayne Gardner .	Predicting changes in macrophyte community composition following a flood disturbance. Dana Burfeind , Kylie Pitt, Rod Connolly.
9:15 AM	U.S. IOOS contributions to monitoring water quality including nutrients and harmful algal blooms. Ru Morrison , Josie Quintrell, Rebecca Baltes, Gabrielle Canonico-Hyde, Mario Tamburri.	Coastal Resilience Ventura: Climate adaptation on an urban coast. Sarah Newkirk , Lily Verdone, David Revell.	Physiological impacts of short-time variable acidification stress on Pacific oyster (<i>Crassostrea gigas</i>) larvae- A proxy measurement and a conceptual framework. Iria Gimenez , George Waldbusser, Burke Hales, Christopher Langdon, Rebecca Mabardy.	Empowering undergraduate students through participation in coastal restoration. Chris Tanner , Bob Paul.	Seasonal patterns of denitrification and nutrient fluxes in coastal marshes of a prograding delta, Wax Lake, Louisiana. Edward Castaneda-Moya , Robert Twilley, Victor Rivera-Monroy, Charles Lindau, Azure Bevington.	Eelgrass resilience to the direct and indirect effects of eutrophication: upwelling-influenced nutrient delivery and hydrodynamics. Margot Hensing-Lewis , Sally Hacker, Bruce Menge, Jeremy Henderson, Sea-oh McConville.
9:30 AM	Resolving the runoff-mediated changes in dynamics of dissolved organic matter in different branches of a large bifurcate estuary - the Changjiang Estuary. Weidong Guo , Liyang Yang, Weidong Zhai, Wenzhao Chen, Xiao Huang.	The view from Ocean Beach: Interagency coastal adaption planning in a constrained urban setting via the Ocean Beach, San Francisco Master Plan. Ben Grant , Robert Battalio.	Influence of surface-sediment Ω aragonite on recruitment, dispersal, and size of juvenile soft-shell clams (<i>Mya arenaria</i>). Jeff Clements , Heather Hunt.	From charismatic megafauna to parasites: incorporating scientific research into K12 activities. Mary Curran , Carolyn Kovacs, Tara Cox, Laela Savigh.	Nutrient processing at the land-water interface in subestuaries of Chesapeake Bay: Effects of proximity to shore and local watershed land cover. Thomas Jordan , Carey Pelc, Donald Weller.	Development of a macroalgal assessment framework to diagnose seagrass bed health. Sarah Bittick , Peggy Fong, Martha Sutula.
9:45 AM	Open.	The horizontal levee: Nature's low cost defense against sea level rise. Jeremy Lowe, Robert Battalio, Steve Crooks, Matt Brennan, Christina Toms, Marc Holmes , Ernie Niemi.	Impact of ocean acidification on metabolism and energetics during early life stages of the intertidal crab <i>Petrolisthes cinctipes</i> . Hayley Carter , Line Ceballos-Osuna, Nathan Miller, Jonathon Stillman.	Developing a salt marsh book for children. Merryl Alber , Venetia Butler.	The role of oyster microbiomes in nitrous oxide emissions from oyster reefs. Ann Arfken , Bongkeun Song.	Population-based variation in resilience to hyposalinity stress in <i>Halophila johnsonii</i> Eiseman. Nathan Gavin , Michael Durako.

BREAK 10:00-10:30 AM

WEDNESDAY, NOVEMBER 6, 2013 – EARLY MORNING 8:00-10:00 AM

SUNSET	SUNRISE	GARDEN BALLROOM	SHEFFIELD	HAMPTON	WINDSOR	
SCI-061A Comparative Approaches to Horseshoe Crab Ecology and Conservation in North America and Southeast Asia Paul Shin, Mark Botton, Siu Gin Cheung, and Ruth Carmichael	SCI-077C Estuarine Restoration: Wetland Vegetation and Seagrasses Mark Hester, John Callaway	SCI-052A Assessing Coastal Condition Using National, Regional, and State Monitoring Programs Treda Grayson, Hugh Sullivan, Virginia Hansen, and Linda Harwell	SCI-064F Hydrodynamics and Sediment Dynamics in Estuaries and Coastal Seas Carl Friedrichs and Arnoldo Valle-Levinson	SCI-033 Can Animal Movements Change Spatially Explicit Trophic Processes in Seascapes? Martha Mather, Linda Deegan, Jack Finn, and James Nelson	SCI-046 Synergistic Effects of Climate and Land-Use Change on Estuarine and Coastal Systems Michael Williams and Raymond Najjar	
Conservation of horseshoe crab through education, restoration, and livelihood changes among local residents in Taiwan. Hwey-Lian Hsieh , Szu-Han Liao, Chang-Po Chen.	Recovery of seagrass beds. Acceleration through planting scale effects and economic incentives. Marieke van Katwijk , Anitra Thorhaug, Nüría Marbà, Chris Pickerell, Kun-Seop Lee, Cynthia Durance, Shinya Hosokawa, Jennifer Verduin, Guillaume Bernard, et al.	USEPA's National Coastal Condition Assessment: status, results and next steps. Treda Grayson , Gregory Colianni, Hugh Sullivan, Virginia Hansen, Linda Harwell.	Influence of turbulent bursting on sediment entrainment on the continental shelf. Sarik Salim , Florence Verspeck, Charitha Pattiaratchi.	Individuals within a diverse predator guild serve as mobile links between disparate habitats of a coastal estuary and adjacent marine waters. Philip Matich , Ross Boucek, David Bryan, Christine Harvey, Michael Heithaus, Jennifer Rehage, Adam Rosenblatt.	Modeling climate change and implications for restoration practices in Chesapeake Bay and its watershed. Michael Williams , Lewis Linker, Raymond Najjar, Mark Bennett, Gary Shenk, Maria Herrmann, Gopal Bhatt, Ping Wang.	8:00 AM
Lessons learned in horseshoe crab conservation in Japan - Can they help prevent its extinction in Asia? Satoquo Seino .	Eelgrass (<i>Zostera marina</i>) restoration techniques in Sweden using seeds. Eduardo Infantes , Per-Olav Moksnes, Louise Karlsson.	Estuarine water quality monitoring in Northeastern US National Parks: Integration at local and regional scales. Hilary Neckles , James Caldwell, John Kiddon, Matthew Nixon, William Monahan, Penelope Pooler, Dennis Skidds, Richard Moore, Sophia Fox.	Seasonal variability in sedimentation and hydrodynamics within a hypertidal salt marsh creek. Emma Poirier , Danika van Proosdij.	Fishing down foodwebs: spatially fragmented foodwebs and the connections lost. Adrian Jordaan .	Climate-change simulations with HSPF phase 5.3.0 model of the Chesapeake Bay watershed. Maria Herrmann , Raymond Najjar, Michael Barnes, Mark Bennett, Lauren Hay, Lewis Linker, Christopher Pyke, Kevin Sellner, Gary Shenk, Denice H. Wardrop.	8:15 AM
Emerging issues in horseshoe crab conservation: A perspective from the IUCN species specialist group. Mark Botton , Paul K. S. Shin, Siu Gin Cheung, Glenn Gauvry, Gary Kreamer, David Smith, John Tanacredi, Kevin Laurie.	Using biomass models to identify sites for restoration of eelgrass (<i>Zostera marina</i>) in Puget Sound. Kate Buenau , Lyle Hibler, Ronald Thom.	Water quality in our Great Lakes National Parks: What we have learned in partnership with the US EPA. Eva DiDonato , William Hobbs, Brenda Lafrancois.	Sediment remobilization by wind, waves, and currents during meteorological frontal passages in a shallow, microtidal bay. Joseph Carlin , Guan-Hong Lee, Timothy Dellapenna, Paul Laverty.	Trophic links drive habitat connectivity for reef fish in subtropical coastal habitats. Jean Davis , Kylie Pitt, Brian Fry, Rod Connolly, Andrew Olds.	Climate change and the management of N export from urban catchments to aquatic ecosystems: A watershed approach. Solange Filoso , Michael Williams.	8:30 AM
Horseshoe crab <i>Tachypleus gigas</i> in the east coast of peninsular Malaysia: Simple white button tagging and determination of population size. Faridah Mohamad , Noraznawati Ismail, Amirrudin Ahmad, Muhammad Zul Fayyadh Azizo Rahman, M Farhan Saiful Bahri, et al.	20% more eelgrass in Puget Sound by 2020: restoration site selection. Ronald Thom , Jeffrey Gaeckle, Lara Aston, Amy Borde, Kate Buenau, Lyle Hibler, Chaeli Judd, James Kaldy, Tarang Khangaonkar, Wen Long, John Vavrinec, Dana Woodruff.	Sediment total organic carbon: is it time to pull the plug on this indicator? Walt Nelson , Melanie Frazier.	Reworking of flood deposits on the Waipaoa Shelf, New Zealand: Buoyant and gravity-driven fluxes. Julia Moriarty , Courtney Harris, Carl Friedrichs, Mark Hadfield.	Assessing movements and the quality of drydown habitat for Everglades recreational fisheries: coastal natural vs. wetland artificial? Jennifer Rehage , Ross Boucek, David Gandy, Jessica Lee.	Application of Robust Decision Making for addressing climate change and other uncertainties on water quality management decisions for the Chesapeake Bay. Jordan Fischbach, Robert Lempert, Thomas Johnson, Susan Julius , Lewis Linker, Gary Shenk.	8:45 AM
Rhythms of locomotion expressed by freely moving horseshoe crabs, <i>Limulus polyphemus</i> , in the Great Bay estuary. Winsor Watson , Suzanne Johnson, Colin Whitworth, Chris Chabot.	Assisted colonization of coastal communities: results of a futuristic transplant garden experiment. Loretta Battaglia .	Assessing the condition of Puget Sound sediments as part of Washington State's Puget Sound Ecosystem Monitoring Program: Changes in sediment quality from 1997 to the present, including declines in benthic invertebrate condition. Margaret Dutch , Valerie Partridge, et al.	Controls on particle settling velocity and bed erodibility in the presence of muddy flocs and pellets as inferred by ADVs, York River estuary, Virginia, USA. Kelsey Fall , Carl Friedrichs, Grace Cartwright.	Landscape setting and connectivity drive fine-scale habitat use and movement behaviors of fish in a temperate estuary: a high-resolution acoustic tracking approach. Matthew Kenworthy , Grabowski Jonathan, Craig Layman, Charles Peterson, et al.	Tracking drought and salinity on the Georgia Coast. Merryl Alber , Joan Sheldon.	9:00 AM
Identifying critical habitats for horseshoe crabs: the importance of understanding chronology in prioritizing conservation efforts. Robert Loveland , Mark Botton.	Insights into vegetation colonization and expansion dynamics at a tidal freshwater restoration site in the Sacramento/San Joaquin Delta, California. Mark Hester , Jonathan Willis, Taylor Sloey.	US Fish and Wildlife Service salt marsh integrity assessment results for 2012: 11 National Wildlife Refuges from Maine to Virginia. Susan Adamowicz , Toni Mikula, Jordan Kramer, Hilary Neckles, Glenn Guntenspergen, Janith Taylor.	Sediment transport in a complex estuarine channel network. Fernanda Achete , Mick van der Wegen, Dano Roelink, Bruce Jaffe.	Green sea turtle diets and the impact of sea turtle grazing in Bermudian seagrass beds. James Fourqurean , Sarah Manuel, W. Judson Kenworthy, Kathryn Coates, Claire Burgett, Mark Outerbridge, Virginia Fourqurean.	Sensitivity of circulation and biogeochemical response in Puget Sound to sea level rise and future climate loads. Tarang Khangaonkar , Wen Long, Mindy Roberts, Brandon Sackmann, Teizen Mohamedali, Alan Hamlet.	9:15 AM
Chronic toxicity of cadmium and tributyltin on embryos and larvae of Asian horseshoe crab <i>Tachypleus tridentatus</i> . Paul K. S. Shin, Alice K. Y. Chan, Siu Gin Cheung .	Application of self-organizing neural networks to the classification of marsh vegetation communities in coastal Louisiana, USA. Gregg Snedden .	Data driven assessments using Louisiana's Coastwide Reference Monitoring System. Sarai Piazza , Craig Conzelmann, Marc Comeaux, Dona Weifenbach.	Observing estuaries sediment dynamics from space: usage of satellite remote sensing to understand the variability of suspended sediment along the Texas climate gradient. Anthony Reisinger , James Gibeaut.	Rethinking the freshwater eel: Salt marsh trophic support of the American eel, <i>Anguilla rostrata</i> . Alyson Eberhardt , David Burdick, Michele Dionne.	The interplay of climate drivers affecting freshwater delivery to a southeastern estuary: watershed scale and regional context. Joan Sheldon , Adrian Burd.	9:30 AM
Heavy metals in <i>Tachypleus gigas</i> eggs. Annie Christianus , Wan Nur Fatih Syafiqah Wan Nawang.	Classification and environmental correlates of tidal wetland vegetation: implications for ecological restoration and monitoring. Caitlin Porter , Jeremy Lundholm, Tony Bowron, Danika van Proosdij, Nancy Neatt, Jennifer Graham, Ben Lemieux.	Preliminary comparison of rapid assessment and intensive monitoring datasets for coastal wetland health in the Mid-Atlantic region. Angela Padeletti , Danielle Kreeger, Martha Maxwell-Doyle, Tracy Eelsey-Quirk.	Where has all the sediment gone? Changes to nearshore habitats following the decommissioning of two dams on the Elwha River. Missisa Foley , Jonathan Warrick, Stephen Rubin, Nancy Elder, Ian Miller, Matthew Beirne, Jeffrey Duda.	Discussion.	Declining sediments and rising seas: An unfortunate convergence for tidal wetlands. Nathaniel Weston .	9:45 AM
BREAK 10:00-10:30 AM						

WEDNESDAY, NOVEMBER 6, 2013 – EARLY AFTERNOON 1:30-3:00 PM

	TOWN & COUNTRY	SAN DIEGO	GOLDEN WEST	CALIFORNIA	ROYAL PALMS (1-3)	ROYAL PALMS (4-6)
	SCI-001C Bridging the Gap Between Eutrophication Assessment Frameworks and Nutrient Water Quality Criteria James Hagy, Martha Sutula, Suzanne Bricker, and Tiffany Crawford	SCI-009A Adapting to Sea Level Rise: California Communities Preparing for the Future Becky Smyth	SCI-020 Acidification Observing Networks and Data Sharing Andrew Dickson, Emilio Mayorga	SCI-025B Research and the Classroom: Connections Between Scientists and Educators Laura Murray, Linda Duguay	SCI-039A Synthesis Research in Estuarine and Coastal Science: Focus on Process and Application William Kemp, Walt Boynton, Jeremy Testa, and Damian Brady	SCI-043A Resilience in Coastal Ecosystems: Resiliency of Coastal and Marine Ecosystems and the Services They Provide David Yoskowitz and James Morris
1:30 PM	Long-term changes in water quality variables related to eutrophication within some Basque estuaries (North of Spain). Marta Revilla, Angel Borja, Juan Bald, Javier Franco, Maialen Garmendia, Manuel González, Victoriano Valencia.	Building capacity to address climate change in California. Alyssa Newton , Phyllis Grifman, Hart Juliette.	Temporal variability in estuarine pH: A decade of high-frequency measurements from 15 U.S. estuaries. Erik Smith , Melissa Ide.	Integration of undergraduates and selected high school students in long term Water Quality Monitoring Program through Dowling College cooperating partnership with NPS-Fire Island National Seashore. John Tanacredi , Sixto Portilla.	Synthesis research in coastal and estuarine science: An overview. W. Michael Kemp , Walter Boynton.	Elucidating the value of ecosystem services in the Gulf of Mexico for the purposes of conservation and resilience: Part 1 – Foundations of Ecosystem Service Resilience. David Yoskowitz , James Morris.
1:45 PM	Setting estuarine nutrient criteria in Florida: Lessons learned – part 2. Anthony Janicki , Holly Greening, Mark Alderson, Lisa Beever, Daryll Joyner.	An overview of regional adaptation efforts in Southern California. Krista Kline .	IOOS contributions to understanding ocean acidification: from regional to national to global. Jan Newton , Elizabeth Jewett, Zdenka Willis.	First-year, graduate student collaborative research in the St. Thomas East End Reserves: An enduring partnership between the University of the Virgin Islands and The Nature Conservancy, St. Thomas, USVI. Kristin Wilson , Tyler Smith, Marilyn Brandt, Anne Marie Hoffman, Paul Jobsis.	Hypoxia and nutrient cycling in coastal ecosystems: insights gained from integrating observations, retrospective analysis, and numerical modeling. Jeremy Testa , W. Michael Kemp.	Elucidating the value of ecosystem services in the Gulf of Mexico for the purposes of conservation and resilience: Part 2-The value of services. Cristina Carollo , David Yoskowitz, Alan Krupnick, Lauren Hutchison, Juha Siikamäki.
2:00 PM	Developing numeric nutrient criteria for southwest Florida tidal creeks. Jay Leverone , Mike Wessel, Anthony Janicki, Kellie Dixon, Edward Sherwood, Judy Ott.	Sea level rise planning in Los Angeles: confronting a rising sea in a coastal metropolitan region. Phyllis Grifman , Alyssa Newton, Juliette Hart.	Open.	Building community in Marine Biology classes: combining authentic research and service-learning. Linda Walters .	Merging MODIS time series and seagrass monitoring data for water quality assessment and seagrass protection in Florida's Big Bend region: Successes and limitations. Paul Carlson , Chuanmin Hu, Laura Yarbro, Jennifer Cannizzaro, Chris McHan, David English, Wayne Magley.	Louisiana commercial fishing industry response to the Deepwater Horizon oil spill. Giovanna McClenachan , R. Eugene Turner.
2:15 PM	Using science to inform the duration and frequency of numeric nutrient criteria. Tiffany Crawford , James Hagy, Galen Kaufman, Stephanie Santell, Lester Yuan, Ed Decker, Charles Delos, Stephen Whitlock.	Collaborative adaptation planning for sea level rise around the San Diego Bay. Nicola Hedge , Brian Holland, Cody Hooven, Brendan Reed.	Hours, seasons, years: temporal pH, CO2 and O2 variability in a coastal marsh habitat. Hannes Baumann , Ryan Wallace, Tristen Tagliaferri, Christopher Gobler.	Research and Education for Students and Teachers about the Ormond Beach Restoration (RESTOR) Project. Monique Myers .	Open.	Impact and resilience of salt marsh benthic communities after the Deepwater Horizon oil spill. Charles Wall , Lora Pride, Amanda Fontenot, Nancy Rabalais.
2:30 PM	Assessing the prevalence of hypoxia via Mo accumulation in coastal sediments: the influence of N loading and local residence time. Warren Boothman , Laura Coiro, Mohamed Abdelrhman, William Nelson.	Collaborative adaptation planning for sea level rise along the US-Mexico border. Danielle Boudreau , Jeff Crooks, Kristen Goodrich.	A sample filtration method for carbonate chemistry analysis of coastal and estuarine seawater. Emily Bockmon , Andrew Dickson.	Using Academic Community Engagement (ACE) to connect academic objectives and community participation. Jeffrey Wozniak .	CaP: The forgotten fraction in modeling sediment-water phosphorus flux in shallow coastal estuaries. Lieke Mulder , Catharina Philippart, Filip Meysman, Jacco Kromkamp, Karline Soetaert.	Resiliency of the coastal recreational for-hire fishing industry to natural disasters. Michelle Savolainen , Richard Kazmierczak, Rex Caffey.
2:45 PM	Spatial and seasonal trends in phytoplankton community composition in response to nitrogen in four South Carolina systems. Michelle Reed , Charles Keppler, Suzanne Kacenas, Sarah Hogan, Dianne Greenfield.	The Adapting to Rising Tides (ART): Collaborative sea level rise adaptation planning on the San Francisco Bay shoreline. Wendy Goodfriend .	Linking coastal information systems to enable data sharing and multiple future use. Jonathan Hodge , Nicholas Car, Andrew Steven.	Using organic molecules as a hook to reel in undergraduate landlubbers. Siddhartha Mitra .	General, idealized models for integrating effects of bivalve grazing with physical habitat attributes to better understand phytoplankton dynamics and inform ecosystem management. Lisa Lucas , Janet Thompson.	Impact of remediation efforts on the diversity of sandy beach microbial communities following the Gulf of Mexico oil spill. Annette Engel , Axita Gupta.
BREAK 3:00-3:30 PM						

WEDNESDAY, NOVEMBER 6, 2013 – EARLY AFTERNOON 1:30-3:00 PM

SUNSET	SUNRISE	GARDEN BALLROOM	SHEFFIELD	HAMPTON	WINDSOR	
SCI-061B Comparative Approaches to Horseshoe Crab Ecology and Conservation in North America and Southeast Asia Mark Botton, Paul Shin, Siu Gin Cheung, and Ruth Carmichael	SCI-077D Estuarine Restoration: Science and Policy Steve Schroeter and John Callaway	SCI-052B Assessing Coastal Condition Using National, Regional, and State Monitoring Programs Treda Grayson, Hugh Sullivan, Virginia Hansen, and Linda Harwell	SCI-064G Hydrodynamics and Sediment Dynamics in Estuaries and Coastal Seas Courtney Harris and Arnoldo Valle-Levinson	SCI-035A Numerical Modeling of Estuarine and Coastal Systems Robert McAdory, Tate McAlpin, and Gaurav Savant	SCI-072B Mangrove Expansion into Salt Marsh Habitats: Causes and Consequences Candy Feller, Daniel Gruner, John Parker, Rick Osman, Steven Pennings, and Anna Armitage	
Egg quality and juvenile demographics of <i>Limulus polyphemus</i> in Long Island Sound. Mark Beekey , Jennifer Mattei, Adam Rudman, Corianna Mascena.	Using macroinvertebrate assemblages to detect recovery status in estuarine wetlands of the Salmon River estuary, Oregon. Karen Haberman , Ayesha Gray, Ivan Kuletz.	Development of a national-scale fish tissue contaminant indicator for the National Coastal Condition Assessment. Linda Harwell , Laura Hunt, Marcus Bowersox, Joseph Bohr, Elizabeth Murphy.	Modeling marsh deposition in a back-barrier estuary: role of hurricane events in sediment-limited systems. Neil Ganju , Tracy Quirk, Zafer Defne.	Large scale numerical modeling of the lower Mississippi River. Jennifer Tate , Gary Brown, Robert McAdory.	<i>Spartina</i> expansion into mangroves in Southern China. Yihui Zhang , Qing Fang, Zhengjie Li, Wenwen Liu.	1:30 PM
Seasonal patterns of horseshoe crab spawning (<i>Limulus polyphemus</i>). H Jane Brockmann , Sheri Johnson, Daniel Sasson, Matthew Smith.	A comparative Life-Cycle Assessment of substrate material used in oyster reef restoration. Mariana Gonzalez , David Yoskowitz, Jennifer Pollack, Richard McLaughlin.	Effect of three ecological group classification schemes on performance of the AZTI marine biotic index in US coastal waters. David Gillett , Treda Grayson, Anna Hamilton, Virginia Hansen, Erik Leppo, Marguerite Pelletier, Stephen Weisberg.	Marsh collapse does not require sea-level rise. Sergio Fagherazzi .	Numerical modeling of the Terrebonne Basin in Southern Louisiana. Tate McAlpin , Joseph Letter, Gaurav Savant, Fulton Carson, Robert McAdory.	Invasive mangroves in Texas: Surveys and high resolution imagery to map distribution, canopy height and cover, and response to a severe freeze. John Schalles , Eryn Carpenter, Alissa Hart, Adam Altrichter.	1:45 PM
Intertidal habitat use by horseshoe crabs during spawning season in the northern Gulf of Mexico. Maurice Estes , Ruth Carmichael, Xiongwen Chen.	Factors affecting the impact of <i>Ampithoe valida</i> on San Francisco Bay eelgrass restoration. Jeffrey Lewis , Katharyn Boyer.	Development of a national-scale indicator of benthic condition for the National Coastal Condition Assessment. Virginia Hansen , Treda Grayson, Anna Hamilton, Erik Leppo, Marguerite Pelletier, David Gillett.	Effect of external overtidal morphodynamic feedbacks. Maitane Olabarrieta , Giovanni Coco, Zeng Zhou.	Numerical simulation of a Lower Mississippi River sediment diversion: morphodynamic implications. Ahmed Gaweesh , Ehab Meselhe, Joao Pereira, Mead Allison, John McCorquodale.	Artificial temperature manipulation to simulate climate change in a mangrove and salt marsh system. Glenn Coldren , Samantha Chapman, Adam Langley, C. Edward Proffitt.	2:00 PM
Effect of different natural diets on growth and cellular health status of captive juvenile <i>Tachypleus tridentatus</i> (Leach, 1819). Billy Kit Yue Kwan , Alice K. Y. Chan, Siu Gin Cheung, Paul K. S. Shin.	Assessing macro-invertebrate abundance and assemblage structure in tidal wetlands: implications for restoration success. Steve Schroeter , Henry Page, Andres Deza, Justin Hoesterey, Katalin Patonai, Emily Blair.	Secondary production – a functional approach to assess the condition of macrobenthic communities. Kevin Byron , Daniel Dauer, Michael Lane, Roberto Llanos, Robert Diaz.	Equilibrium morphology of tidal channels. Stefano Lanzoni , Andrea D'Alpaos.	Investigation of the morphodynamics in the Lower Mississippi River in the vicinity of Bonnet Carre Spillway during and after the 2011 flood. Ehab Meselhe , Kazi Sadid, Hoonshin Jung, Mead Allison, Brian Vosburg, John McCorquodale.	Nutrient effects on <i>Spartina alterniflora</i> and <i>Avicennia germinans</i> . Implications for competition in a marsh-mangrove ecosystem. Carolyn Weaver , Anna Armitage.	2:15 PM
A comment on enhancing horseshoe crab (<i>Tachypleus tridentatus</i>) population size by larvae rearing and juvenile release in Taiwan. Chang-Po Chen , Hwey-Lian Hsieh, Yu-Ting Cheng.	Assessing bird abundance and assemblage structure in tidal wetlands: Implications for restoration success. Andres Deza , Hoesterey Justin, Emily Blair, Kati Patonai, David Hubbard, Paul Lehman, Henry Page, Steve Schroeter.	Habitat-related benthic macrofaunal assemblages of the Southern California Bight 1994-2008. Ananda Ranasinghe , David Gillett, Donald Cadien, Ronald Velarde, Eric Stein, Kenneth Schiff, Cheryl Brantley, Larry Lovell, Tim Mikel, Sheila Holt, Scott Johnson, .	Geomorphological responses to anthropogenic alterations within the Nakdong and Yeongsan Estuaries, South Korea. Joshua Williams , Timothy Dellapenna, Guan-Hong Lee.	An ADH model to support the hydrologic restoration of Cole's Bayou, Teche-Vermilion Basin, Louisiana. Stephen Sanborn , Devyani Kar, Vida Carver, Phillip Parker, Christopher Hall, Christopher Wallen, Erol Karadogan.	Black mangrove expansion into salt marshes of the northern Gulf of Mexico: Will climate change result in significant ecosystem level changes? Whitney Scheffel , Ken Heck, Just Cebrian, Matthew Johnson.	2:30 PM
The use of aquaculture to enhance the <i>Limulus polyphemus</i> population in Delaware Bay. Brenda Landau , David Jones, Mark Botton, Chester Zarnoch.	Living shoreline impacts benthic biomass in a before-after-control-impact study. Theresa Davenport , Kathleen Knick, Rochelle Seitz.	Integrated system of environmental monitoring and assessment in estuaries: A case of Pearl River Estuary in China. Lu Ye , Luoping Zhang, Juan Guo, Lei Yuan, Zhongyuan Wang, Baoxue Zhang.	Effect of tides on mouth bar morphology and hydrodynamics. Nicoletta Leonardi , Sergio Fagherazzi.	Hydrological modeling in the Bayou Boeuf Basin, Louisiana – An application of FVCOM. Haosheng Huang , Robert Lane, Dubravko Jusic, John Day.	Role of frost tolerance versus climate change in mangrove range expansion. John Parker , Susan Cook-Patton.	2:45 PM
BREAK 3:00-3:30 PM						

WEDNESDAY, NOVEMBER 6, 2013 – LATE AFTERNOON 3:30-5:00 PM

	TOWN & COUNTRY	SAN DIEGO	GOLDEN WEST	CALIFORNIA	ROYAL PALMS (1-3)	ROYAL PALMS (4-6)
	SCI-004 Alternative Nutrient Management Strategies: Creative Solutions to a Complex Problem Julie Rose and Suzanne Bricker	SCI-009B Adapting to Sea Level Rise: Local Communities and Their Critical Infrastructure Becky Smyth	SCI-019 Extending Acidification Modeling from the Ocean to Estuaries Samantha Siedlecki	SCI-023 The Relevance of Biological Invasions on Ecosystem Functioning Pedro Morais	SCI-039B Synthesis Research in Estuarine and Coastal Science: Focus on Process and Application Damian Brady, William Kemp, Walt Boynton, and Jeremy Testa	SCI-043B Resilience in Coastal Ecosystems: Resiliency of Coastal and Marine Ecosystems and the Services They Provide David Yoskowitz and James Morris
3:30 PM	Community composition and abundance of bacteria inside a permeable reactive barrier designed to enhance nitrate removal from groundwater through denitrification. Kenly Hiller , Jennifer Bowen.	Risk communication and sea level rise adaptation in North Carolina: perception and policy. Michelle Covi , Donna Kain.	Using existing coastal models to address ocean acidification modeling needs: An inside look at several East- and Gulf-Coast regions. Elizabeth Jewett .	Impacts of invasive-plant management on nitrogen-removal services in freshwater tidal marshes. Mary Alldred , Stephen Baines, Stuart Findlay.	Exploring linkages among watershed-estuary processes in the southern Everglades, Florida Bay using model synthesis. Christopher Madden , Amanda McDonald, Marguerite Koch-Rose, Patricia Glibert, Stephen Kelly, Joseph Stachelek.	Multiple competing stable states, ecosystem engineering, and tidal marsh response to anthropogenic pressures. Marco Marani , Andrea D'Alpaos, Cristina Da Lio, Anna Braswell, Katherine Murray, Michaela Margida.
3:45 PM	Controlled algal growth for water quality improvement within the Chesapeake Bay watershed. Patrick Kangas .	Rising tides and changing attitudes: Community adaptive planning and behavior change in North Kingstown, Rhode Island. Clara Rubin .		Effects of elevated CO ₂ and nitrogen on <i>Phragmites australis</i> invasion. Thomas Mozder , Melissa McCormick, Patrick Megoigal.	A paleoecological record of long term connections between the Chesapeake watershed and estuary. Grace Brush .	Climate change and the resiliency of a globally valued ecosystem service of tidal wetlands – C sequestration. Charles Hopkinson , Wei-Jun Cai, James Morris, Matthew Kirwan.
4:00 PM	The eutrophication fix: Nitrogen extraction potential of oysters in urban and suburban contexts. Jeffrey Levinton , Daria Sebastiano, Michael Doall, Shauna Kamath.	The application of web-based decision support tools for visualizing coastal flooding vulnerabilities and planning for resiliency: the New Jersey Experience. Richard Lathrop , Lisa Auermuller, Jim Trimble, John Bognar.	Modelling ocean acidification in marginal seas: the North Western European shelf case study. Yuri Artioli , Jeremy Blackford, Momme Butenschön, Helmuth Thomas, Alberto Borges, Sarah Wakelin, Jason Holt, Richard Bellerby, Icarus Allen.	Investigating rarity in an endemic wetland thistle. Rosa Schneider , Katharyn Boyer.	The contribution of phytoplankton production to system metabolism in Apalachicola Bay, Florida. Jane Caffrey , Michael Murrell, Kendra Amacker, Jennifer Harper, Lauren Levi.	Assessing coastal Louisiana's resiliency to droughts, floods, and hurricanes utilizing data from the Coastwide Reference Monitoring System. Leigh Anne Sharp , Dona Weifenbach.
4:15 PM	Synergies between Louisiana's Coastal Master Plan and nutrient management efforts throughout the continental Mississippi-Atchafalaya River Basin. Richard Raynie , Gwendolyn Berthelot, Stephanie Braden, Carrie Castille, Charles Killebrew, Keith Lovell, Jennifer Mouton, Linda Pace, Charles Reulet, Dugan Sabins, Karen Vidrine, Amanda Vincent.	Development of a sea level rise vulnerability assessment and adaptation recommendations for the State of Delaware. Robert Scarborough , Susan Love, Carl Yetter, Tricia Arndt, Kelly Valencik, Molly Ellwood.	How well do empirical relationships for estimating carbonate system parameters in the California Current System work in the Salish Sea? Simone Alin , Richard Feely, Burke Hales, Lauren Juranek, Jonathan Reum, Samantha Siedlecki, Debby Ianson, Jay Peterson, William Peterson, Jan Newton, Dana Greeley, Chris Hunt.	A new green macroalgae blooming in a tropical estuary: Are macroalgae the mine-canaries of Biscayne Bay nutrient status? Ligia Collado-Vides , Christian Avila, Stephen Blair, Frederik Leliaert, Deni Rodriguez, Pamela Sweeney, Diego Lirman.	Variation in juvenile Chinook salmon diet composition and foraging success among natural and developed estuaries in the Pacific Northwest. Aaron David , Charles Simenstad, Jeff Cordell, Jason Toft, Ayesha Gray, Christopher Ellings, Hans Berge.	Assessing and comparing the resilience of salt-marsh ecosystems using experimental disturbances. Jim van Belzen , Johan van de Koppel, Peter Herman, Tjeerd Bouma.
4:30 PM	Shellfish aquaculture in the coastal environment: potential for nutrient management and challenges to implementation. Julie Rose , Suzanne Bricker, Gary Wikfors, Lynn Dwyer, Mark Tedesco.	Sea-level rise in local planning policies: The case of Bacacay, Albay, Philippines. Chandyllane Cantre , Juan Pulhin, Maricel Tapia, Rose Jane Peras.	Mechanisms that influence pH and aragonite saturation state in the Strait of Georgia. Ben Moore-Maley , Susan Allen, Debby Ianson.	When gourmet is not enough: Organic matter sources supporting the high production of <i>Corbicula fluminea</i> in an invaded estuary. Ester Dias , Pedro Morais, Carlos Antunes, Joel Hoffman.	Rangia clam decline and resource management: how freshwater inflows influence ecology in Galveston Bay, Texas, USA. Rachel Windham , Antonietta Quigg.	Implications for the future of fisheries as extractive industries in the creation of sustainable places: a case study of seagrass meadows in the Turks and Caicos Islands. Richard Lilley , Ashley West, Richard Unsworth, Leanne Cullen-Unsworth, Heidi Hertler.
4:45 PM	How important is nutrient removal through shellfish harvest in Long Island Sound and Great Bay-Piscataqua Estuary? Suzanne Bricker , Joao Ferreira, Changbo Zhu, Julie Rose, Eve Galimony, Gary Wikfors, Robin Miller, James Wands, Katharine Wellman, Robert B. Rheault, Philip Trowbridge, Raymond Grizzle.	Managing sediment for coastal restoration in response to relative sea level rise. Syed Khalil , Richard Raynie, John Barras.	Hypoxia and Ocean Acidification of the coastal waters of the Pacific Northwest: Evaluation of seasonal predictions from a regional model forced with the Coupled Forecast System (CFS). Samantha Siedlecki , Al Hermann, Nick Bond, Simone Alin, Richard Feely, Burke Hales, Jan Newton.	Novel feeding behavior in an introduced amphipod: a bioassay comparison. Lauren Scheinberg , Katharyn Boyer, Erik Sotka, Pamela Reynolds.	Wetlands and Water Quality: How an ecogeomorphic approach may resolve a pendulum of scientific paradigms, policies and applications. Robert Twilley , John Day, Azure Bevington, Edward Castaneda-Moya, Victor Rivera-Monroy, Douglas Edmonds, William Nardin.	Did acute drought affect ecosystem development in a restored brackish marsh? Antonietta Quigg , Erin Kinney, Katie Bowers, Chuan-Kai Ho, Eric Madrid, Michael Bell, Anna Armitage.

WEDNESDAY, NOVEMBER 6, 2013 – LATE AFTERNOON 3:30-5:00 PM

SUNSET	SUNRISE	GARDEN BALLROOM	SHEFFIELD	HAMPTON	WINDSOR	
SCI-065 Real World Applications of Ecosystem-Based Management to Ocean and Coastal Challenges Margaret Caldwell, Ashley Erickson, Melissa Foley, and Erin Prahler	SCI-077E Estuarine Restoration: Science and Policy Christine Whitcraft and John Callaway	SCI-048A Climate Change and Species Interactions: Implications for Ecosystem Functions and Services Chris Janousek, Erik Bonsdorff, and Walter Nelson	SCI-064H Hydrodynamics and Sediment Dynamics in Estuaries and Coastal Seas Timothy Dellapenna and Arnoldo Valle-Levinson	SCI-035B Numerical Modeling of Estuarine and Coastal Systems Robert McAdory, Tate McAlpin, and Gaurav Savant	SCI-072C Mangrove Expansion into Salt Marsh Habitats: Causes and Consequences Candy Feller, Daniel Gruner, John Parker, Rick Osman, Steven Pennings, and Anna Armitage	
Lessons learned from an ecosystem-based management approach to evaluation of wetland restoration alternatives for the Elkhorn Slough estuary, California. Kerstin Wasson , Becky Suarez, Mark Silberstein, Antonia D'Amore, Erin McCarthy, Ken Johnson, Judith Kildow, Monique Fountain, Andrea Woolfolk, Dave Feliz.	Using environmental histories to assess the wetland restoration potential of agriculture impoundments. Stacy Peterson , R. Eugene Turner.	Shifting species interactions and the tropicalization of the northern Gulf of Mexico. Kenneth Heck , Joel Fodrie, Shanna Madsen, Dottie Byron David.	Temporal and spatial change in grain size and erodibility on a macro-tidal channel-flat complex in Kingsport, N.S., Canada, versus a meso-tidal channel flat complex in Willapa Bay, Washington, USA. Brent Law , Paul Hill, Timothy Milligan, Patricia Wiberg, Jessica Garwood, Vanessa Zions.	Hydrodynamic modeling of the St. Johns River in support of a Water Supply Impact Study. David Christian .	Regime shift in a self-organized coastal wetland ecotone. Jiang Jiang , Donald DeAngelis, Leo Sternberg.	3:30 PM
Chesapeake Bay Shoreline Erosion Control Expert Panel: charge, process, and products. Sadie Drescher , Bill Stack, Neely Law.	Updating Oregon's estuarine wetland habitat maps: Modernizing the foundation for coastal resource management. Laura Brophy , Laura Mattison, Randy Dana, Tanya Haddad, Andy Lanier, Cinamon Moffett.		Multiannual variability of sedimentation on mudflats in a macrotidal estuary (Seine, France). Antoine Cuvilliez , Robert Lafite, Julien Deloffre, Nicolas Massei.	Development of an integrated ecosystem model for the Old Tampa Bay watershed. Edward Sherwood , Holly Greening, Lizanne Garcia, Kris Kaufman, Anthony Janicki, Raymond Pribble, Brett Cunningham, Steve Peene, James Fitzpatrick, Kellie Dixon, Mike Wessel, Dominic DiToro.	Influence of propagule flotation and light availability on establishment and productivity of mangroves transgressing poleward. Lorae Simpson , Ilka Feller.	3:45 PM
Incorporating ecosystem based management principles at the land-sea interface. Ashley Erickson , Melissa Foley, Erin Prahler, Margaret Caldwell.	Ecological re-engineering of a fallow agricultural dykeland for tidal wetland restoration in a macro-tidal system. Tony Bowron , Ben Lemieux, Nancy Neatt, Danika van Proosdij, Jeremy Lundholm, Jennifer Graham.	Ecosystem structure in seagrass habitats: will changing climate alter trophic linkages? Kathryn Sobocinski , Robert Latour.	Interconnectivity of SAV habitat in Chesapeake Bay: Application of a particle-tracking model to predict the dispersal of <i>Zostera</i> reproductive shoots. Dale Booth , Evamaria Koch.	A modeling system constructed to determine factors affecting water quality in Old Tampa Bay, Florida. James Fitzpatrick , Steve Peene, Anthony Janicki, Raymond Pribble, Brett Cunningham, Kellie Dixon, Dominic DiToro, Edward Sherwood, Lizanne Garcia, Kim Clayback, Kevin Flavin, Nataliya Kogan.	Salt marsh-mangrove ecotones in the Northern Gulf of Mexico: a comparison of plant-soil variability across structural gradients. Erik Yando , Michael Osland, Richard Day, Jonathan Willis, Ken Krauss, Mark Hester.	4:00 PM
Developing a dashboard of vital signs for recovery of the Puget Sound ecosystem. Robert Johnston , Robert Duff, Kenneth Dzinbal, Joseph Gaydos, Nathalie Hamel, Alana Knaster, Bill Labiosa, Phillip Levin, Jan Newton, Timothy Quinn, Scott Redman, Katharine Wellman.	Improving watershed health through large-scale wetland restoration. Lorraine Parsons , Amelia Ryan, Rachel Kamman, Greg Kamman, Michael Reichmuth.	Modeling potential habitat for Chesapeake Bay living resources. Adam Schlenger , Elizabeth North.	A study of continuous currents and dissolved oxygen levels in Corpus Christi Bay. Kevin Nelson .	Hydrodynamic modeling of turnover times in Mobile Bay, Alabama and their sensitivity to tides, fluvial discharge, and meteorological forcing. Chris Marr , Bret Webb.	Using multiple spatial scales to understand community responses to spatially and structurally shifting ecological landscapes. Cora Johnston , Daniel Gruner.	4:15 PM
Watershed master plan for freshwater wetlands will improve coordination of wetland science, policy and management: A case study from Tampa Bay, Florida. Lindsay Cross , Thomas Ries, Sandy Scheda, Holly Greening, Rhonda Evans.	Effect of habitat shape and size of restored estuaries on fish use. Ryan Freedman , Christine Whitcraft, Mario Espinoza, Erica Fox, Carrie Espasandin, Thomas Farrugia, Bengt Allen, Christopher Lowe.	Freshwater inflows and blue crabs: Can Texas megalopae find an estuary during drought? Kimberly Bittler, Lindsay Scheef, Edward Buskey .	Effects of resuspension on sediment bed oxygen consumption: a numerical modeling study for the Louisiana Shelf. Courtney Harris , Katja Fennel, Rob Hetland.	Assessing temporal and spatial variability in hypoxia over the inner Louisiana-Texas shelf: Application of an unstructured-grid three-dimensional coupled hydrodynamic-water quality model. Dubravko Justic , Lixia Wang.	Mangrove expansion on the Texas coast: implications for blue carbon storage in coastal wetlands. Anna Armitage , Wesley Highfield, Matthew Norwood, Noah White, Samuel Brody, Patrick Louchouart.	4:30 PM
Ecosystem based management of human activities – an example of seagrass management on the West Coast of Sweden. Kristjan Laas , Lena Gipperth.	Conservation effort to restore Atlantic horseshoe crab populations, <i>Limulus polyphemus</i> at specific sites devastated by commercial harvesting pressure in Great South Bay, Long Island, New York: Release of 10,000 captive reared juveniles John Tanacredi , Sixto Portilla.	Rapid dieback of the foundational temperate seagrass <i>Amphibolis antarctica</i> in a temperate-tropical transition zone following a heat wave. Jordan Thomson , Derek Burkholder, James Fourqurean, Michael Heithaus.	Studies on sediment dynamics using radiotracer for management of dredging works in Hooghly Estuary, India. Kalyan Bhar , Harish Pant, Vijay Sharma, Kalyan Chakraborty, Bikash Chaudhury, Gursharan Singh.	Simulating light availability for seagrass habitat in Caloosahatchee River and Estuary with an enhanced light attenuation model. Silong Lu , Zhijun Liu, Christopher Wallen, Paul Craig.	Examining functional change from mangrove expansion into marshlands in the Northern Gulf of Mexico. Just Cebrian , Ken Heck, Joshua Goff, Shailesh Sharma, Eric Sparks, Aaron Macy, Whitney Scheffel, Dottie Byron David, Matt Johnson.	4:45 PM

THURSDAY, NOVEMBER 7, 2013 — EARLY MORNING 8:00-10:00 AM

	TOWN & COUNTRY	SAN DIEGO	GOLDEN WEST	CALIFORNIA	ROYAL PALMS (1-3)	ROYAL PALMS (4-6)
	SCI-040A Synthesis Research in Estuarine and Coastal Science: A Session in Honor of Scott W. Nixon Lindsey Fields, Robinson Fulweiler, Mark Brush, and Kelly Henry	SCI-012A Sentinel Sites: A National Network to Monitor Sea Level Impacts Philippe Hensel and William Reay	SCI-024B Strategies for Mentoring in Coastal and Estuarine Science Timothy Dellapenna, Erin Burge, Melissa Baustian, and Janet Nestlerode	SCI-021A Dynamics, Impacts, or Control of Invasive Species Jeff Crooks and Jim Eckman	SCI-049A Coastal and Estuarine Carbon Cycling Matthew Kirwan, Thomas Mozdzer, James Fourqurean, and Catherine Lovelock	SCI-063A ICOL, TOCE, and Other Bar-Built Estuaries: Ecology and Management Janine Adams, Charles Simenstad, and John Largier
8:00 AM	Through the Macroscope: The Life and Legacy of Scott W. Nixon. An Introduction to the Session. Mark Brush .	Sentinel Sites: a national network to monitor sea-level impacts. Philippe Hensel , William Reay, Carolyn Currin.	EnvironMentors: Mentoring underrepresented high school students in STEM research and environmental awareness. Stacy Peterson , Valerie Derouen, Joseph Powers.	Three non-native jellyfish in the San Francisco Estuary: distribution, abundance, and potential impacts. Jessica Donald , Lindsay Sullivan, Wim Kimmerer.	Organic matter decomposition sensitivity to soil warming and its role in tidal marsh carbon cycling. Matthew Kirwan , Glenn Guntenspergen, Simon Mudd.	Balancing ecology, management and science in the Russian River estuary. Jessica Martini-Lamb , John Largier, Chris Delaney.
8:15 AM	Long-term trends in eutrophication of the Baltic Sea. Jesper Andersen , Jacob Carstensen, Bo Gustafsson, Ciarán Murray.		High marsh and mudholes: Faculty and peer mentoring of undergraduate researchers in the Salmon River estuary. Karen Haberman , Erin Baumgartner.	A bi-national approach to controlling el Ladron de Agua to ensure Rio Grande water can reach the estuary. Francis Reilly .	Considering tidal marshes in IPCC national greenhouse gas inventories – research needs. Gail Chmura .	
8:30 AM	What can we learn from synthesis of long-term observations in estuaries? Alan Jassby, James Cloern .	Chesapeake Bay Sentinel Site Cooperative: Supporting resilience to sea level change and coastal inundation. William Reay , Philippe Hensel, Christine Gallagher, Sean Corson.	Project Limulus: species conservation and the web of knowledge surrounding the Long Island Sound estuary. Jennifer Mattei , Mark Beekey, Adam Rudman.	Biological control of <i>Arundo donax</i> , an invasive water-using weed in the bi-national Rio Grande Basin. John Goolsby , Francis Reilly, Maricela Martinez Jlmenez, Alan Kirk, Guy Mercadier, Alex Racelis, Prasanna Gowda, Michael Grusak, John Gaskin, , et al.	Carbon storage in coastal ecosystems of Abu Dhabi, United Arab Emirates. Lisa Schile , Boone Kauffman, Patrick Magonigal, Steve Crooks.	Impacts of droughts and low flows on health and productivity in three Texas lagoons. Paul Montagna , Terry Palmer.
8:45 AM	Trends in sediment nutrient cycling dynamics and net ecosystem metabolism over twenty years in Waquoit Bay, MA. Sarah Foster , Robinson Fulweiler.	North Carolina Sentinel Site Cooperative: Progress and lessons learned. John Fear , Rebecca Elin, Whitney Jenkins, Carolyn Currin, Aleta Hohn.	Undergraduate research and communication experiences in marine biology at Fort Johnson, SC. Karen Burnett , Jillian Johnson, Louis Burnett.	Differences in density, allometry, and growth between two populations of <i>Limnoperna fortunei</i> (Mytilidae) from the Rio de la Plata basin, Argentina. Nicolás Bonel, Lia Solari, Julio Lorda .	Carbon burial in salt marshes: A comparison of a coastal lagoon and coastal plain estuary in the Mid Atlantic U.S. Viktoria Unger , Tracy Eisey-Quirk, Chris Sommerfield, David Velinsky.	Invasion success of a non-indigenous aquatic gastropod: chemical cue interactions and implications for the ecology of the St Lucia Estuary, South Africa. Jacqueline Raw , Nelson Miranda, Renzo Perissinotto.
9:00 AM	Responses of benthic-pelagic coupling to anthropogenic and climate-driven ecosystem changes in a temperate estuary. Lindsey Fields , Scott Nixon, Candace Oviatt, Robinson Fulweiler.	Gulf of Mexico Sentinel Site Cooperative: Advancing science and facilitating application to coastal management. David Kidwell , Whitney Gray, Marian Hanisko, Kristen Laursen, Laurie Rounds, Mark Woodrey.	Open inquiry in a non-traditional undergraduate course extends the classroom into the field and lab. Erin Burge .	Spatiotemporal patterns of native and invasive ascidian assemblages in Mission Bay, San Diego, CA, USA. Brianna Tracy , Nathalie Reynolds.	Whole ecosystem estimates of primary production in a New England salt marsh. Inke Forbrich , Anne Giblin.	Ecological and bioenergetics trade-offs of juvenile salmon rearing in the intermittent Russian River estuary, California USA. Charles Simenstad , Erin Seghesio, Jason Toft, Jeff Cordell, Jessica Martini-Lamb, David Manning.
9:15 AM	Guiding Light. Robinson Fulweiler , Scott Nixon.	NOAA San Francisco Bay Area Sentinel Site Cooperative for sea level rise. Rebecca Smyth , Rebecca Lunde, Michael Vasey, Wendy Goodfriend, Maria Brown.	Faculty, graduate student and undergraduate mentoring relationships through experiential learning in marine science/marine biology at a small coastal campus: Texas A&M University at Galveston. Timothy Dellapenna , Joseph Carlin.	The impacts of perennial pepperweed invasion in wetlands along an inundation gradient. Christine Whitcraft , Drew Talley, Rachel Wigginton.	The Holocene burial flux of refractory carbon in mid-Atlantic estuarine and marsh sediments. Siddhartha Mitra , Jeffrey Minnehan, Nidhi Patel, Andrew Zimmerman, Eduardo Leorri, David Mallinson, Steve Culver, Reide Corbett.	Function and management of dynamic seasonal estuaries: Identifying physical and biological drivers of ecosystem function and resilience. Christy Bowles .
9:30 AM	Cross system comparisons-finding the human footprint at a range of spatial scales. Denise Breitbart , Matthew Kornis, Hypofin Working Group.	NOAA's Sentinel Site Program's Hawaiian Cooperative-Bringing communities and government together to address climate change risks. Ed Carlson , Douglas Harper.	The role of research programs in bringing environmental awareness, participation and engagement to a multilevel student group: A transformational experience from the lab, to the field, to the classroom. Ligia Collado-Vides .	Associating genetically diverse tamarisk invaders with their impacts in a salt marsh ecosystem. Tania Asef , Christine Whitcraft, John Gaskin.	Carbon sediment pools and sequestration rates in the Snohomish River Estuary, Washington. John Rybczyk , Steve Crooks, Steve Emmett-Mattox, Nathan Moore, Keeley O'Connell, Katrina Poppe.	Temporarily open / closed estuaries (TOCEs) and changes in water quality, with emphasis on the role of submerged macrophytes and macroalgae in nutrient cycling. Lucienne Human , Gavin Snow, Janine Adams, Sheng-Chi Yang.
9:45 AM	Physical constraints and the comparative ecology of coastal ecosystems across the US Great Lakes, with a coda. John Kelly .	Developing a program for sentinel monitoring of climate change in an urban estuary. Jason Krumholz , Juliana Barrett, Sarah Deonarine, Corinne Fitting, Jennifer Pagach, Mark Parker, Julie Rose, Mark Tedesco.	From the cradle to the cubicle: Mentoring marine science students for careers in public service. Jacques Oliver , Chelsea Berg.	Abiotic limitation of non-native plants in the high salt marsh transition zone. Kellie Uyeda , Doug Deuschman, Jeff Crooks.	Carbon dynamics and sequestration potential in an urbanizing estuary. Geoff Carlin , Andrew Steven, Jonathan Hodge, Chris Moeseneder, Heidi Franklin.	Managing intermittently open tidal wetlands: Can we restore resilient systems? Megan Cooper .
BREAK 10:00-10:30 AM						

THURSDAY, NOVEMBER 7, 2013 – EARLY MORNING 8:00-10:00 AM

SUNSET	SUNRISE	GARDEN BALLROOM	SHEFFIELD	HAMPTON	WINDSOR	
SCI-075J Ecology of Coasts and Estuaries: Nearshore Community Processes Linda Blum and Kathy Boyer	SCI-065A Recent Advances to Understand the Continuing Evolution of the San Francisco Bay Ecosystem Frederick Feyrer, James Cloern, and Tara Schraga	SCI-048B Climate Change and Species Interactions: Implications for Ecosystem Functions and Services Walter Nelson, Chris Janousek, and Erik Bonsdorff	SCI-068A Estuarine Shallows: Biophysical Interactions Jessie Lacy and Heidi Fuchs	SCI-053 Changing the MPA Management Dialogue: An Investment Portfolio for the Future Erin Meyer	SCI-071 Geological and Biogeochemical Processes in the Sediments and Soils of Coastal Wetlands Zhanfei Liu, Alexander	
Examination of <i>Spartina alterniflora</i> root contributions to salt marsh soil volume by CT-imaging. Linda Blum , Earl Davey.	Shifting Shores: patterns of transformation and resilience in the Bay's shoreline. Robin Grossinger , Julie Beagle.	Do shallow-water sediment systems care about climate change? Kristina Sundback , Christian Alsterberg, Stefan Hulth.	Larval dispersal and population connectivity among a network of marine reserves. Brandon Puckett , David Eggleston.	Developing a blueprint for an integrated ocean monitoring program in California. Elizabeth Whiteman , Skylli McAfee.	Ecogeomorphology of developing deltas: Implications for restoration. Alexander Kolker , Alexander Ameen, Ciara Chambers, Ioannis Georgiou, Michael Miner, Brian Roberts, Cyndhia Ramatchandirane, Brad Rosenheim, Caz Taylor, H. D. Weathers.	8:00 AM
Dead-shell assemblages as a new window into biotic shifts on decadal to centennial scales. Susan Kidwell .	The provenance of beach sand in the San Francisco Bay Coastal System through the cross-validation of bed characteristics, geochemical tracers, current measurements, and numerical modeling. Patrick Barnard, Amy Foxgrover, Edwin Elias, Li Erikson , et al.	Early life history responses of tidal wetland plants to sea-level rise and salinization in the Pacific Northwest. Christopher Janousek , Christina Folger, Caya Mayo.	Behavioral and physical controls on optimal patch lengths for larval settlement on oyster reefs. Heidi Fuchs , Matthew Reidenbach.	Marine protected area program effectiveness: the use of performance measurement in NOAA's National Estuarine Research Reserve System (NERRS). Michael Migliori .	Sedimentation patterns in the prograding Wax Lake Delta, LA from 2008 to 2011 as a result of river flooding, hurricanes and frontal passage. Azure Bevington , Robert Twilley, Charles Sasser, Guerry Holm.	8:15 AM
Variation in benthic macrofaunal assemblages in multispecific seagrass meadows in the southern Philippines: effects of different seagrass species on epifauna and infauna. Venus Leopoldas , Wilfredo Uy, Masahiro Nakaoka.	Changing sediment dynamics and mercury re-mobilization in the South San Francisco Bay Salt Pond Restoration Project. Laura Valoppi , John Bourgeois, John Callaway, Bruce Jaffe, Mark Marvin Di-Pasquale, Greg Shellenbarger.	Will climate change influence the recruitment of mangroves? Todd Minchinton , Justin Lathlean, Bess Murphy.	Morphological changes and sediment capture potential of <i>Zizania aquatica</i> under experimental inundation treatments. Jennifer Bryan , Lora Harris, Nathaniel Weston.	Adaptive management for population resilience in marine protected areas. Louis Botsford , J. Wilson White, Lewis Barnett, Marissa Baskett, Flora Cordoleani, Kerry Nickols, Alan Hastings.	Young and restless: rapid carbon burial in a newly emergent marsh. John Gunnell , Brent McKee.	8:30 AM
Oyster spat response to hydrocarbon contamination following the <i>Deepwater Horizon</i> oil spill in Barataria Bay, Louisiana. Maria Vozzo , Jerome La Peyre, Kenneth Brown.	Monitoring change in migratory waterbird populations with estuarine tidal marsh restoration: accountability, responsibility, and reality. John Takekawa , Lacy Smith, Tanya Graham, Stacy Moskal, Katelyn Barry, Susan De La Cruz.	Predicting effects of changing salinity on native and invasive submerged plants in the upper San Francisco Estuary. Katharyn Boyer, Evyann Borgnis .	Water flow and seagrass seed dispersal: comparing seed movement for species with different reproductive strategies. Kelly Darnell , Kenneth Dunton.	Effects of no-fishing marine protected area implementation on macroalga-herbivore trophic interactions. Ben Gilby , Ian Tibbetts, Tim Stevens.	The role of mangrove forests in the modern geomorphic evolution of estuaries. Andrew Swales , Catherine Lovelock, Malcolm Green, Sam Bentley, Vernon Pickett, Paul Denys.	8:45 AM
Assessing the effects of sediment-associated hydrocarbons on bioturbation and sediment properties following the BP oil spill. Kersey Sturdivant .	How do transplant source and restoration site constraints interact in reintroduction efforts of native Pacific cordgrass (<i>Spartina foliosa</i>) in the San Francisco Bay? Whitney Thornton , Katharyn Boyer.	Climatic variability and the diversity of brachyurans (true crabs) in the St Lucia Estuary, South Africa. Nasreen Peer , Renzo Perissinotto, Ricky Taylor, Nelson Miranda.	Interacting ecosystem engineers: bioirrigating lugworms hamper seagrass growth by causing eutrophication and aggravating sulfide stress. Laura Govers , Timon Pieck, Tjeerd Bouma, Wouter Suykerbuyk, Alfons Smolders, Marieke van Katwijk.	Effects of physical manipulation on accretion processes in salt marshes. Tracy Elsey-Quirk , Susan Adamowicz.	The impact of crab bioturbation on the erodibility of marsh sediment and the incision of tidal creeks. Sarah Farron , Zoe Hughes, Duncan FitzGerald.	9:00 AM
Monitored natural recovery and benthic community resilience at a submarine wood waste site: 10 years after baseline. Joseph Germano , Cynda Maxon, Frederick Newton, Lorraine Read.	An application of a hydrodynamic model in the San Francisco-Bay Delta: insights into the impact of rapid sea level rise on regional hydrodynamic and salinity fields. Rosanne Martyr , John Helly, Lisa Lucas, Noah Knowles, Mick van der Wegen, Arthur van Dam.	Response of microbenthic communities occupying shallow marine ecosystems in Marquesas Keys and South Florida estuaries (Florida Bay and Biscayne Bay, USA) to the recent climate change. Anna Wachnicka , G. Lynn Wingard, Andrzej Witkowski.	Spatial and temporal variations in biogeochemical fluxes between a lateral embayment and the Columbia River estuary channel. Jim Lerczak , Fredrick Prahl, Joseph Needoba.	Spatial dynamics of habitat utilization for intertidal oyster reef communities in fragmented habitats. Marc Hanke , Martin Posey, Troy Alphin.	Effects of physical forcing strength on diagenesis of sedimentary organic matter in salt marshes along the Gulf of Mexico coasts. Zhanfei Liu , Dan Breecker, Larry Mayer, Kevin Xu, Alexander Kolker.	9:15 AM
Toward understanding the roles of mangrove and seagrass particulate matter as a nitrogen source in tropical coastal ecosystems. Lucy Gillis , Alan Ziegler, Cecile Cathalot, Peter Herman, Tjeerd Bouma.	How do we support healthy, functional estuarine wetlands in San Francisco Bay for the next hundred years? Letitia Grenier .	A future for barrier islands: Impacts of climate change on key species and habitats on Assateague Island. Marcus Griswold , Heath Kelsey, Jane Hawkey, Bill Hulslander, Courtney Schupp.	Modeling blue crab (<i>Callinectes sapidus</i>) growth in the Chesapeake Bay. Cara Simpson , Michael Wilberg, Emily Rauschert.		Location, location, location! Spatial heterogeneity of salt marsh biogeochemical processes. John Marton , Brian Roberts.	9:30 AM
Improving seagrass mapping for use as a resource management tool in southwest Florida estuaries. Kristen Kaufman .	Demographic impacts of climate change on tidal marsh birds and their habitat: A decision support tool for tidal wetland restoration and management in San Francisco Bay. Nadav Nur , Leonardo Salas, Samuel Veloz, Julian Wood, Dennis Jongsomjit, Grant Ballard.	Long-term effects of climate changes on trophic organization of coastal systems. Robert Livingston .	Reading the signatures of biologic-geomorphic feedbacks in the tidal landscape. Andrea D'Alpaos , Cristina Da Lio, Marco Marani.		Anaerobic ammonium oxidation (anammox) bacteria and associated activity in intertidal sediments of the Yangtze Estuary. Lijun Hou , Min Liu.	9:45 AM
BREAK 10:00-10:30 AM						

THURSDAY, NOVEMBER 7, 2013 — EARLY AFTERNOON 1:30-3:00 PM

	TOWN & COUNTRY	SAN DIEGO	GOLDEN WEST	CALIFORNIA	ROYAL PALMS (1-3)	ROYAL PALMS (4-6)
	SCI-040B Synthesis Research in Estuarine and Coastal Science: A Session in Honor of Scott W. Nixon Lindsey Fields, Robinson Fulweiler, Mark Brush, and Kelly Henry	SCI-012B Sentinel Sites: A National Network to Monitor Sea Level Impacts Philippe Hensel and William Reay	SCI-028A Ecological Tracers in Coastal Ecosystems: Path to Sustainability Joel Hoffman, Autumn Oczkowski, and Jim Kaldy	SCI-021B Dynamics, Impacts, or Control of Invasive Species Jeff Crooks and Jim Eckman	SCI-049B Coastal and Estuarine Carbon Cycling Matthew Kirwan, Thomas Mozdzer, James Fourqurean, and Catherine Lovelock	SCI-063B ICOL, TOCE, and Other Bar-Built Estuaries: Physical Processes and Historical Ecology John Largier, Janine Adams, and Charles Simenstad
1:30 PM	Controlling eutrophication along the watershed-to coastal continuum: Merging freshwater and marine paradigms in designing effective nutrient management strategies. Hans Paerl.	The National Estuarine Research Reserve System Sentinel Sites Program: Monitoring effects of changing water levels on coastal vegetations.... Marie Bundy , Patricia Delgado, Sarah Fernald, Nina Garfield, Emilie Hauser, Artara Johnson, Rosalyn Kilcollins, Scott Lerberg, Whitley Saumweber, Galen Scott, Erik Smith, William Underwood.	Measuring food web change with stable isotopes. Brian Fry , Jean Davis.	Weather, climate, and distributions of native and non-native species in New England. Judith Pederson.	A long-term comparison of carbon sequestration rates in impounded and naturally tidal freshwater marshes along the Lower Waccamaw River, South Carolina, USA. Judith Drexler , Ken Krauss, M. Craig Sasser, Christopher Fuller.	Longitudinal salinity structure in the Russian River Estuary through closure-breaching cycles: a story of intrusion and retention. Matt Robert , Dane Behrens, John Largier.
1:45 PM	Considering the spatiotemporal scales over which cross-system 'load-response' relationships apply in individual estuaries. Mark Brush.	The National Estuarine Research Reserve System (NERRS) Sentinel Site Program. Highlights and lessons learned from a subset of currently 'operational' NERRS sentinel sites. Scott Lerberg , Marie Bundy, Patricia Delgado, Charles Endris, John Fear, Sarah Fernald, Kenneth Raposa, James Rassman, Erik Smith, Tim Smith, Robin Weber, William Underwood.	Using nitrogen stable isotope tracers to track climate change impacts on coastal salt marshes. Autumn Oczkowski , Cathleen Wigand, Elizabeth Watson, Alana Hanson, Erin Markham.	Managing multiple vectors for marine invasions in an increasingly connected world. Susan Williams , Ian Davidson, Jae Pasari, Gail Ashton, James Carlton, Eliot Crafton, Rachel Fontana, Edwin Grosholz, Whitman Miller, Gregory Ruiz, Chela Zabin.	A research agenda to support carbon credit accounting in tidal wetlands. Patrick Megonigal , Brian Needelman, Steve Crooks, Doug Myers, Steve Emmett-Mattox, Igino Emmer.	Long-period wave forcing in bar-built estuaries – observations of surf beat and the March 2011 tsunami in a highly-stratified California estuary. Megan Williams , Mark Stacey.
2:00 PM	An updated synthesis on mechanisms leading to nitrogen control of eutrophication in estuaries. Robert Howarth , Roxanne Marino.	Relative sea level change and coastal inundation in Alaska - monitoring strategies for a data sparse region. Nicole Kinsman , Megan DeRaps, Jacquelyn Smith, Kimber DeGrandpre, Jeff Freymueller.	From the catchment to the estuary - linking nutrient loading to estuarine food web structure. Ryan Woodland , James Thomson, Ralph Mac Nally, Jeffery Walker, Victor Evrard, Tim Luboke, Chris Rüdiger, Charlie Hawkins, Perran Cook.	Invasive hull-fouling species: efficacy and impacts of chemical and mechanical controls. Leigh Johnson , Carolyn Culver, Henry Page, Jenifer Dugan.	Similar soil carbon increases in two young afforested mangrove plantations despite substantially different growth rates. Luzhen Chen , Abby Lunstrum.	The influence of freshwater inflows in California coastal lagoons. Dane Behrens.
2:15 PM	Modeling the ecosystem response to external load reductions in a warmer climate: Primary production, net ecosystem metabolism, and hypoxia. Samuel Lake , Mark Brush.	Sea level observations for understanding coastal marine ecological change through networked sentinel instrumentation - The Smithsonian Tennenbaum Marine Observatories. Marguerite Toscano , Patrick Megonigal, Philippe Hensel, Sergio Dos Santos, Thomas Opishinski.	Ecological evaluation for estuarine habitat restoration of the Herring River using biological indicators. Sophia Fox , Michael Tanis, Holly Bayley, Kelly Medeiros, Karen Vaughan.	The potential for laurel wilt disease-induced host switching in the palamedes swallowtail (<i>Papilio palamedes</i>). Adam Chupp , Loretta Battaglia.	The pearl of the oyster is the carbon: coastal shellfish reefs as sources and sinks on a blue carbon scale. Joel Fodrie , Antonio Rodriguez, Jonathan Grabowski, Niels Lindquist, Charles Peterson, Michael Piehler, Patricia Rodriguez.	From glittering <i>salinas</i> to barren salt flats: a eco-geomorphic history of transformation and resilience in the coastal lagoons of northern San Diego County, California. Erin Beller , Robin Grossinger, Sean Baumgarten, Shawna Dark, Eric Stein, Travis Longcore, Scott Dusterhoff.
2:30 PM	From lagoon mesocosms to coral reef mesocosms. Hsing-Juh Lin , Pi-Jen Liu.	Can we build tidal marshes in estuaries to keep abreast of sea-level rise? Court Stevenson , Lorie Staver, Philippe Hensel, Jeffrey Cornwell, Michael Owens.	Using stable isotopes to estimate habitat-based risk of contaminant exposure in fish. Joel Hoffman , Vicki Blazer, Pat Collins, Zachary Jorgenson, Tracey Ledder.	Development of a theoretical basis for modeling disease processes in marine invertebrates. David Bushek, Susan Ford, Ximing Guo, Daphne Munroe, Eric Powell, Dale Haidvogel, John Wilkin, Julia Levin, John Klinck, Tal Ben-Horin , Eileen Hofmann, .	Quantitative assessment of carbon stocks in seagrass beds of Abu Dhabi, United Arab Emirates. Elizabeth Lacey , Justin Campbell, Rachel Decker, Stephen Crooks, James Fourqurean.	Historic process and closure dynamics in California coastal estuaries from the Bay Bridge to the Mexican border. David Jacobs , Michael Rale, Eric Stein, Travis Longcore, Camm Swift.
2:45 PM	Consequences of increased nutrient loading to marshes belowground. R. Eugene Turner , Edward Bodker, Christopher Swarzenski, Andrew Tweel, Christopher Schultz.	Modernizing heights relative to local water level at Assateague Island National Seashore. Neil Winn.	Ammonium cycling in the rocky intertidal: Remineralization, removal, and retention. Santhiska Pather , Catherine Pfister, Mark Altabet, David Post.	The effect of non-native species on two life-stages of Eastern oyster <i>Crassostrea virginica</i> . Wei Yuan , Linda Walters, Eric Hoffman.	Human and climate impacts on coastal 'blue carbon' sinks. Peter Macreadie , Tim Rolph, Katie Allen, Brendan Kelaher, Peter Ralph, Charles Skilbeck.	Habitat loss and conversion over the past 150 years in 30 bar built estuaries throughout California. Sierra Ryan , Ross Clark, Kevin O'Connor, Walter Heady.
BREAK 3:00-3:30 PM						

THURSDAY, NOVEMBER 7, 2013 – EARLY AFTERNOON 1:30-3:00 PM

SUNSET	SUNRISE	GARDEN BALLROOM	SHEFFIELD	HAMPTON	WINDSOR	
SCI-075K Ecology of Coasts and Estuaries: Nutrients and Phytoplankton Lora Harris and Nengwang Chen	SCI-065B Recent Advances to Understand the Continuing Evolution of the San Francisco Bay Ecosystem Tara Schraga, Frederick Feyrer, and James Cloern	SCI-078B Policy and Management of Coasts and Estuaries Skyli McAfee	SCI-068B Estuarine Shallows: Biophysical Interactions Jessie Lacy and Heidi Fuchs	SCI-035C Numerical Modeling of Estuarine and Coastal Systems Tate McAlpin, Robert McAdory, and Gaurav Savant	SCI-038 Enriching Our Coasts: The Past, Present, and Future of Fertilization Studies as a Management Guide Brita Jessen and David Johnson	
Nutrient signatures from aquaculture outflows impacting coral reef waters in the Spermonde Archipelago, South Sulawesi, Indonesia. Andriani Nasir , Muhammad Lukman, Ambo Tuwo, Hanapi Usman.	Continuous monitoring of dissolved oxygen in San Francisco Bay, California. Maureen Downing-Kunz , Greg Shellenbarger, David Schoellhamer, Tara Schraga.	Comprehensive marsh and water monitoring guides wetland management planning and restoration at Prime Hook National Wildlife Refuge on the Delaware Bay. Susan Guiteras , Annabella Larsen, Robert Scarborough, Mike Mensinger, Drexel Siok, Christina Pinkerton, Kenneth Smith, Bartholomew Wilson.	Improved parameterization of seagrass blade dynamics in wavy flows. Robert Zeller , Joel Weitzman, Jeffrey Koseff, Morgan Abbett, Francisco Zarama, Oliver Fringer.	AdH modeling studies of San Dieguito Lagoon restoration project. Weixia Jin , Joseph Letter.	A forty year fertilization study in Great Sippewissett Marsh, Cape Cod, Massachusetts. Erin Kinney , Ivan Valiela.	1:30 PM
Open.	Nitrification and ammonia-oxidizing microbial communities in the turbid, nutrient-replete waters of San Francisco Bay (CA). Julian Damashak , Karen Casciotti, Christopher Francis.	Developing ecosystem services-based assessment endpoints for determining ecological risks to coastal and estuarine environments. Mace Barron , Steve Jordan, Lawrence Martin, Wayne Munns, Anne Rea, Glenn Suter.	Seasonal growth and senescence of a <i>Zostera marina</i> seagrass meadow alters wave-dominated flow and sediment suspension within a coastal bay. Jennifer Hansen , Matthew Reidenbach.	Estuarine Residence Times estimates based on released drogues within a hydrodynamic model. Janelle Reynolds-Fleming , Rick Luettich.	Direct and indirect effects of nutrient and salinity manipulation on wetland health: herbivory and flooding stress as a function of fertilization. James Ialeggio , John Nyman.	1:45 PM
Importance of copepod grazing on <i>Heterocapsa rotundata</i> in winter blooms. Nicole Millette , Diane Stoecker, James Pierson.	Anatomy of a South San Francisco Bay spring bloom. Richard Dugdale , Alexander Parker, Frances Wilkerson.	Managing the sustainable use of European marine ecosystem services: The Ecosystem Approach. Cordula Scherer , Richard Gowen, Pieter-Jan Schoen, Matt Service.	Wave attenuation by the eelgrass <i>Zostera marina</i> and its dependence on wave energy. Jessica Lacy .	Statistical analysis of sediment dynamics in shallow microtidal lagoons. Luca Carniello , Andrea D'Alpaos, Andrea Defina, Sonia Silvestri, Marco Marani, Andrea Rinaldo.	Benthic metabolism response to two nutrient-enrichment scenarios in a coastal fringe mangrove. Brita Jessen , Candace Oviatt, David Johnson, Scott Nixon.	2:00 PM
Identifying freshwater inflow as a driver of estuarine phytoplankton structure. Tyra Booe , Sam Dorado, Jamie Steichen, Rachel Windham, Allison McInnes, Antonietta Quigg.	San Francisco Bay acts as a reservoir and mixing bowl for both marine and freshwater harmful algal toxins. Raphael Kudela , Tara Schraga, Cecile Mioni, Melissa Peacock.	Setting expectations for Marine Protected Area performance: matching population models to monitoring data. Kerry Nickols , J. Wilson White, Louis Botsford, Dan Malone, Mark Carr, Lewis Barnett, Marissa Baskett, Alan Hastings.	Current- and wave-driven flow within polycultural vegetated canopies. Joel Weitzman , Robert Zeller, Francisco Zarama, Jeffrey Koseff.	Model sensitivity and robustness in the estimation of larval transport. Rachel Simons , David Siegel, Kevin Brown.	Nutrient enrichment effects on roots, rhizomes, and peat in a system dominated by sediment depositional processes. Earl Davey , Cathleen Wigand, Roxanne Johnson, Karen Sundberg, James Morris, Paul Kenny, Erik Smith.	2:15 PM
Seasonal variations of phytoplankton phosphorus stress in the Coastal Waters of China using alkaline phosphatase activity assay. Bangqin Huang , Yu Mo.	What one million fish can tell us about the South San Francisco Estuary. Aaron Tinker , Michael Esgro, Chris Cross, Barbara Cebrian-Paskell.	Coral reef condition and benthic sedimentation threat in four regions of south Puerto Rico. Leah Oliver , William Fisher, Jill Awkerman, Jed Campbell, Peggy Harris, Becky Hemmer, Charles LoBue, Robert Quarles, Mel Parsons, Debbie Santavy, Sherry Vickery, .	Bio-physical interactions in a large submersed plant bed in upper Chesapeake Bay. Cassie Gurbisz , W. Michael Kemp, Jeffrey Cornwell, Nicholas Nidzieko, Lawrence Sanford.	Science based ecosystem management. Anders Erichsen , Hanne Kaas, Karen Timmermann, Rikke Closter, Thomas Uhrenholdt, Erik Rasmussen.	Coastal eutrophication as a driver of salt marsh loss. David Johnson , Linda Deegan, Scott Warren, Bruce Peterson, John Fleeger, Sergio Fagherazzi, Wil Wollheim.	2:30 PM
Open.	Climatic drivers of the San Francisco Estuary fish assemblage. Frederick Feyrer .	Sea level rise and the California Coastal Act: Preparing for the future. Hilary Papendick , Lesley Ewing, Susan Hansch.	The effect of <i>Zostera marina</i> canopy cover on physical conditions and abundance of epifaunal macro-invertebrates in a seagrass meadow in Northern Baja California, Mexico, using a manipulative field experiment. Ana Giraldo Ospina , Lydia Ladah, Luis Gustavo Alvarez, Kevin Hovel.	Resource management informed through modeling in the Firth of Thames, New Zealand. Chris Cornelisen , Hilke Giles, Brett Beamsley, Ben Knight, Vernon Pickett.	Examining the response of denitrification to nutrient enrichment over an annual cycle in New England salt marshes. Leanna Heffner , Anne Giblin, Scott Nixon, Charles Roman.	2:45 PM
BREAK 3:00-3:30 PM						

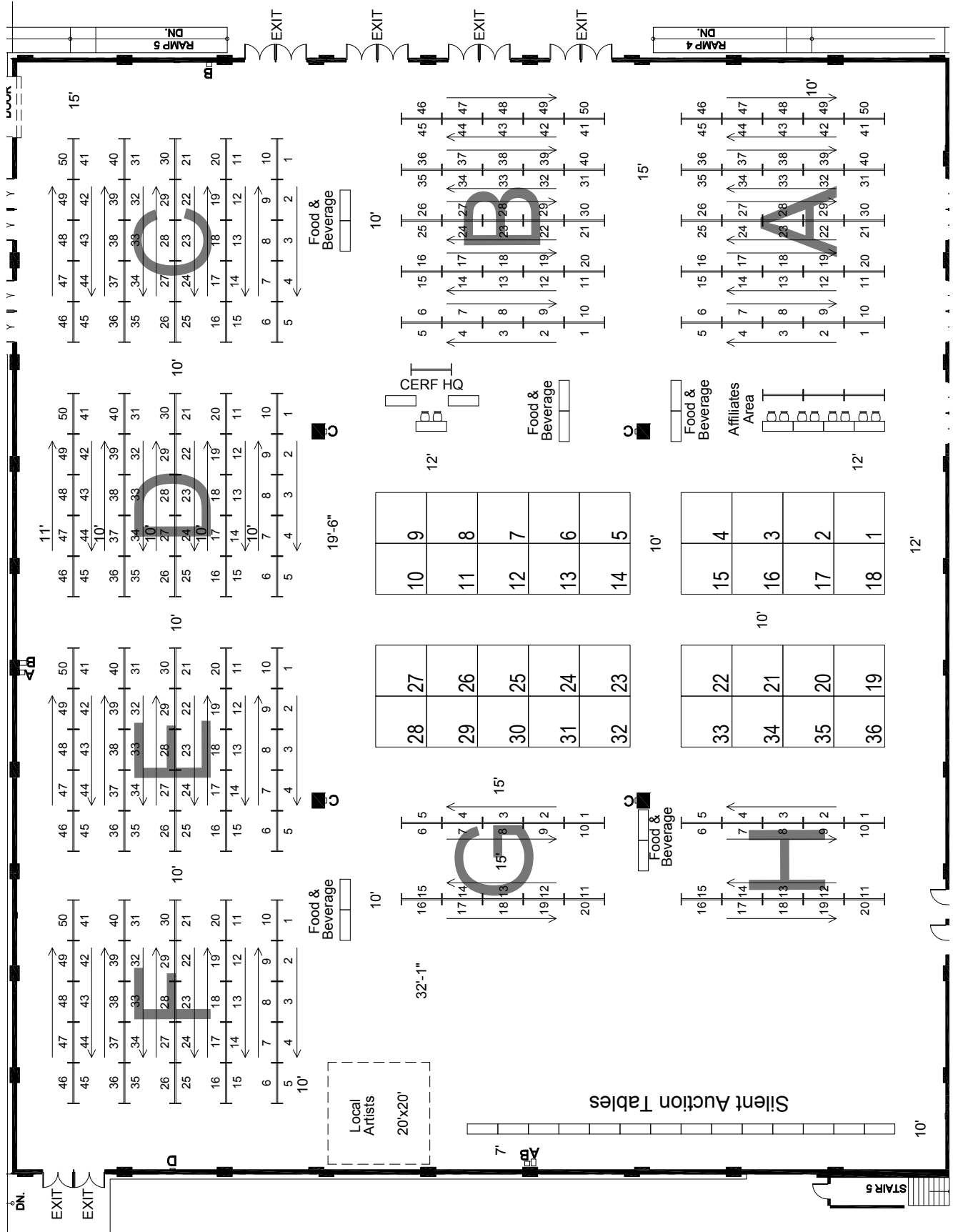
THURSDAY, NOVEMBER 7, 2013 — LATE AFTERNOON 3:30-5:00 PM

	TOWN & COUNTRY	SAN DIEGO	GOLDEN WEST	CALIFORNIA	ROYAL PALMS (1-3)	ROYAL PALMS (4-6)
	SCI-070 Microbial Ecology: Processes, Linkages, and Ecosystem Feedbacks Leila Hamdan, Robert Jonas, and Jennifer Biddle	SCI-011 Storm Effects on Estuaries: Hurricane Irene, Tropical Storm Lee, and Superstorm Sandy Peter Tango	SCI-028B Ecological Tracers in Coastal Ecosystems: Path to Sustainability Joel Hoffman, Autumn Oczkowski, and Jim Kaldy	SCI-022 Restoring Wetland Function by Controlling Invaders: Spartina and Phragmites Joel Gerwein	SCI-049C Coastal and Estuarine Carbon Cycling Matthew Kirwan, Thomas Mozdzer, James Fourqurean, and Catherine Lovelock	SCI-063C ICOL, TOCE, and Other Bar-Built Estuaries: Comparative Insights Charles Simenstad, John Largier, and Janine Adams
3:30 PM	Microbial Cipher: Translating microbiome data to explore aquatic ecosystems. Leila Hamdan.	Oyster mortality in Delaware Bay: Impacts and recovery from Hurricane Irene and Tropical Storm Lee. Daphne Munroe , Aboozar Tabatabai, David Bushek, Eric Powell, John Wilkin.	Elucidating terrestrial nutrient sources to a coastal lagoon, Chincoteague Bay, Maryland, USA. Benjamin Fertig , Judith O'Neil, Kristin Beckert, Carol Cain, David Needham, Tim Carruthers, William Dennison.	Ecological impacts of <i>Spartina</i> invasions on the Pacific Coast of North America: An overview. Joel Gerwein.	Phosphorus enrichment and carbon sequestration in mangroves. Catherine Lovelock , Tegan Davies, Lisa Duckett, Ilka Feller, Loraé Simpson.	Country-wide assessment of estuary health: large versus small estuaries. Lara Van Niekerk , Susan Taljaard, Janine Adams.
3:45 PM	Seasonal and spatial drivers of estuarine bacterial community composition: a comparison of three estuaries. Byron Crump , Colleen Kellogg, Mary Doherty, Caroline Fortunato, James McClelland, Tara Connelly, Kenneth Dunton.	The influence of climate change on submerged aquatic vegetation trends in the Chesapeake Bay. Lea Rubin , Ana Hernández Cordero, Peter Tango.	Is there a characteristic anthropogenic ¹⁵ N signal to Narragansett Bay, RI? Courtney Schmidt , Rebecca Robinson, Scott Nixon.	Resolving competing management goals: Optimal strategies for eradication of invasive hybrid <i>Spartina</i> and recovery of endangered California clapper rails in San Francisco Bay, CA. Edwin Grosholz , Adam Lampert, Alan Hastings.	Carbon sequestration of mangrove flats in Eleuthera, The Bahamas. Pedram Daneshgar , Chelsea Barreto, John Tiedemann.	Responses of temporarily open / closed estuaries to changes in freshwater inflow. Janine Adams , Lara Van Niekerk.
4:00 PM	Microbial ecology of the benthic-pelagic interface within the northern Gulf of Mexico hypoxic zone. Brandi Reese , Laura Zinke, Cruz St. Peter, Heath Mills.	Simple and robust instrumentation for monitoring water level and currents with accelerometer data loggers: example deployments during Irene and Sandy in Waquoit Bay. Vitalii Sheremet , Chris Weidman, James Manning.	Are stable isotopes alone sensitive enough to trace small-scale effects of land-use change? Elizabeth Darrow , Ruth Carmichael, Kevin Calci, William Burkhardt.	Invasive <i>Spartina</i> Project integration of landscape-scale monitoring and treatment to eradicate an invasive ecosystem engineer. Drew Kerr.	Seagrass restoration enhances "blue carbon" sequestration in coastal waters: State changes and tipping points. Karen McGlathery , Jill Greiner, Jennie Rheuban, Alia Al-Haj, Laura Reynolds, Schwarzschild Arthur.	Landscape and local influences on the condition of California's bar-built estuaries. Walter Heady , Kevin O'Connor, Cara Clark, Charles Endris, Sierra Ryan, Sarah Stoner-Duncan, Ross Clark.
4:15 PM	Organic matter and nitrate influence anoxic nitrogen cycling pathways in marine sediments. Amber Hardison , Chris Algar, Anne Giblin, Jeremy Rich.	Effect of TS Lee and Hurricane Isaac on saltmarsh terrestrial arthropods. Brooke Hesson, Xuan Chen, Rachel Strecker, R. Eugene Turner, Linda Hooper-Bui.	The degree of urbanization across the globe is not reflected in the $\delta^{15}N$ of seagrass leaves. Bart Christiaan , Rebecca Bernard, Just Cebrian, Behzad Mortazavi, Alice Ortmann.	Ecological research on <i>Spartina densiflora</i> invasion and removal at Humboldt Bay, California. Annie Eicher, Andrea Pickart, Joel Gerwein.	Re-vegetation facilitates recovery of seagrass carbon sinks. Núria Marbà , Carlos Duarte, Gary Kendrick, Geoff Bastyan, Inés Mazarrasa, Masqué Pere, Jordi Garcia-Orellana, Ariane Arias-Ortiz.	Nutrient and organic matter dynamics in seasonally open and closed lagoon ecosystems along the eastern Alaska Beaufort Sea coast. James McClelland , Tara Connelly, Matt Khosh, Byron Crump, Colleen Kellogg, Kenneth Dunton.
4:30 PM	Impacts of coastal spring discharge on a shallow marine estuary. Damian Menning , James Garey.	Storm-driven sediment transport and deposition in the upper Chesapeake Bay: field observations and model simulations. Cindy Palinkas , Jeffrey Halka, Ming Li, Lawrence Sanford, Peng Cheng.	Tracing agriculturally-derived nitrogen through groundwater into Delaware's Indian River Estuary. Claudia Shuman , Joanna York, Kevin Kroeger.	<i>Spartina</i> in British Columbia-Challenges, partnerships, and progress to date. Dan Buffett, Gary Williams , Leif-Matthias Herborg, Becky Brown, Dave Ralph, Kathleen Moore, Rob Knight, Kim Houghton.	Seagrass meadows are significant deposits of carbonate. Inés Mazarrasa , Carlos Duarte, Núria Marbà, Catherine Lovelock, Oscar Serrano, Paul Lavery, James Fourqurean, Hilary Kennedy, Miguel Mateo, Andrew Steven.	Food webs of Arctic lagoons: Comparative studies from open-water and ice-covered periods. Kenneth Dunton , James McClelland, Tara Connelly, Byron Crump, Colleen Kellogg, Zhanfei Liu, Nathan McTigue.
4:45 PM	Effects of submarine groundwater discharge on bacterial growth efficiency in coastal Hawaiian waters. Kaile'a Carlson , Tracy Wiegner.	Can you manage Susquehanna River sediments stored behind the Conowingo Dam and their impacts to the Chesapeake Bay? Bruce Michael.	Tracing dissolved oxygen stress in oysters. Heather Patterson , Ruth Carmichael, Anne Boettcher.	The role of land use in recovery from Phragmites removal. Eric Hazelton , Karin Kettnering, Melissa McCormick, Liza McFarland, Thomas Jordan, Dennis Whigham.	Seagrass production: linking individual, community and ecosystem carbon fluxes. Rui Santos , João Silva, Irene Olivé, Moryna Mendes, Susana Cabaço, Alberto Borges, Willyam Champenois, John Runcie.	Influence of environmental and climatic variables on eastern oyster populations. Jennifer Beseres Pollack , John Froeschke.

THURSDAY, NOVEMBER 7, 2013 – LATE AFTERNOON 3:30-5:00 PM

SUNSET	SUNRISE	GARDEN BALLROOM	SHEFFIELD	HAMPTON	WINDSOR	
SCI-075L Ecology of Coasts and Estuaries Anna Tyler and Kathy Boyer	SCI-081 San Francisco Bay Upper Estuary Richard Dugdale	SCI-078C Policy and Management of Coasts and Estuaries Skyli McAfee	SCI-069 Estuarine Shallows: Monitoring, Modeling, and Managing Carl Cerco	SCI-035D Numerical Modeling of Estuarine and Coastal Systems Jennifer Tate, Tate McAlpin, Robert McAdory, and Gaurav Savant	SCI-026 Genomic Tools in Marine Ecosystem Monitoring and Assessment, Within Ocean Policy Legislation and Governance Angel Borja, Naiara Rodriguez-Ezpeleta, and Rusty Brainard	
Do mud snails (<i>Ilyanassa obsoleta</i>) enhance or mitigate the effects of eutrophication in shallow estuaries? Anna Tyler , Andrew Altieri, Natalie McLenaghan, Katherine Premo, Charles Yarrington.	Influences of benthic microalgal photosynthesis and invasive bivalves on benthic nutrient fluxes and denitrification in Northern San Francisco Bay and the Sacramento/San Joaquin Delta. Jeffrey Cornwell , Michael Owens, Jeffrey Alexander, Patricia Glibert.	Shell middens as indicators of fishing pressure on the queen conch resource in south Eleuthera, The Bahamas. John Tiedemann , Richard Bastian.	The use of high frequency water quality monitoring results to improve the management and modeling of shallow water habitats. Kenneth Moore , David Parrish, Betty Neikirk.	Salinity intrusion into the Mississippi River near New Orleans, LA. Robert McAdory , Gary Brown.	The potential of genomic tools for environmental status assessment: the development of a genetic Marine Biotic Index as case study. Naiara Rodriguez-Ezpeleta , Eva Aylagas, Angel Borja.	3:30 PM
Herbivory induces an annual life history and selects for semelparity in <i>Zostera marina</i> . Stephanie Kiriakopoulos , Katharyn Boyer.	Nutrient and algal bloom dynamics in San Francisco Estuary: phytoplankton nitrogen uptake and primary production response to changing anthropogenic nitrogen loading and N:P ratios. Frances Wilkerson , Patricia Glibert, Alexander Parker, Richard Dugdale, Sarah Blaser, Adam Pimenta.	Development of a collaborative tool for identification of fecal bacteria sources in coastal waters. Erin Burge , J. Michael Trapp, Susan Libes, Janet Wood.	Measurements and modeling: methods of estimating N inputs to a shallow, groundwater-fed lagoon. Melanie Hayn , Robert Howarth, Neil Ganju, Kenneth Foreman, Roxanne Marino, Anne Giblin.	Integrated approach to assess and formulate restoration measures in the Chenier Plain, Louisiana. William Roth , Ehab Meselhe, Mead Allison, Natalie Peyronnin, Norwyn Johnson.	The use of RNA:DNA ratios as an indicator of nutritional condition in juvenile blue crabs, <i>Callinectes sapidus</i> . Danielle Zaveta , Thomas Miller.	3:45 PM
Facilitation of native and non-native species by intermediate foundation species. Jennifer Dijkstra , Michele Dionne.	Changes in nutrient form and stoichiometry and their role in shaping the phytoplankton community in San Francisco Estuary. Patricia Glibert , Frances Wilkerson, Richard Dugdale, Alexander Parker, Jeffrey Alexander, Sue Murasko, Sarah Blaser.	Assessing No Net Loss and building the capacity of local governments in an urban estuary – a Galveston Bay case study. Lisa Gonzalez , John Jacob, Rebecca DaVanon, Erin Kinney, Bradley Neish.	Hydroacoustic system for quantitative identification of aquatic macrophytes, substrate composition, and bathymetric surveying. Eric Munday , Janusz Burczynski.	Dipole formation by tidal flow at San Quintin Bay. Teresa Vidal-Juarez , Adan Mejia-Trejo, Amaia Ruiz de Alegria-Arzaburu, Oscar Delgado-Gonzalez.	Comparisons of spatial and temporal changes in phytoplankton community composition using visual and DNA barcoding identification techniques in the Altamaha River, GA, USA. Risa Cohen , J. Harrison.	4:00 PM
Brackish marsh species with different patterns of plant regrowth in the dark: Implications for recovery following disturbance. Julia Cherry , Karen McKee.	Linking organismal tolerances & transcriptomic responses to climate change stressors in an endangered fish endemic to the San Francisco Bay-Delta. Lisa Komoroske , Matthias Hasenbein, Joan Lindberg, Richard Connon, Nann Fangue.	The role of science in ports, beach nourishment, and ecosystem restoration in coastal and estuarine systems. Deborah Scerno .	Numerical simulations of flow and water quality for the analysis of management alternatives at the Russian River, California. Fabian Bombardelli , Shreya Hegde, Dane Behrens, John Largier.	Use of a hybrid physical-ecological model for predicting the extent and duration of hypoxia in the estuarine waters of Narragansett Bay, RI, USA. Jamie Vaudrey , Mark Brush, Dave Ullman, James Kremer.	Next-generation sequencing advances for seagrass barcoding. Kor-jent van Dijk , Michelle Waycott, Hugh Cross, Ben Smitheram, Kristina Lemson, Annette Koenders, Kathryn McMahon, Ainsley Calladine.	4:15 PM
Hierarchical evaluation of the impacts of coastal urbanization on salt marsh nekton assemblages and food web structure. Michael Lowe , Mark Peterson.	Unraveling sources of food web support in the Sacramento-San Joaquin Delta's marsh ecosystems using fatty acid biomarkers and multiple stable isotopes. Emily Howe , Charles Simenstad.	Avoidance of pile-driving noise by sturgeon in the Hudson River estuary: Science to inform resource management. Justin Krebs , Fred Jacobs, Arthur Popper.	The relative importance of vegetated and open water ponds to carbon production and material flux in the freshwater tidal wetland Liberty Island within San Francisco Estuary. Peggy Lehman , Shawn Mayr, Bret Larsen, Michael Dempsey.	Modelling variability patterns of suspended sediment and primary production in a shallow coastal lake system using a coupled bio-physical model. Katrin Tirok , Julia Schoen, Scharler Ursula, Derek Stretch.	Preliminary transcriptome analysis of a seagrass toward the development of functional genomic tools. Kirk Cammarata , Natividad Fuentes, Frank Fonseca.	4:30 PM
Shoreline hardening can increase recruitment of sea nettle (<i>Chrysaora quinquecirrha</i>) polyps in the Chesapeake Bay. Heather Soulen , Denise Breitburg.	The power of measurement: using indicators to describe the past and guide future management of freshwater inflow to the San Francisco Bay estuary. Christina Swanson , Andrew Gunther, Judy Kelly.	Assessing the state of marine ecosystems: a holistic approach. Richard Gowen , Paul Tett.	Fecal indicator bacteria (FIB) stratification and loading in a tidally muted salt marsh. Karina Johnston, John Dorsey , Jose Sayez.	Emergy valuation of ecosystem services provided by natural and restored oyster reefs. Brittany Blomberg , Paul Montagna, David Yoskowitz, Jennifer Beseres Pollack.	Using comparative genomic and metagenomic-based approaches to examine effects of copper pollution on marine bacteria. Megan Morris , Julia Busch, Shashank Sathe, Elizabeth Dinsdale.	4:45 PM

EXHIBIT HALL DIAGRAM



MONDAY POSTER SESSIONS

SCI-001P BRIDGING THE GAP BETWEEN EUTROPHICATION ASSESSMENT FRAMEWORKS AND NUTRIENT WATER QUALITY CRITERIA

Santell, Stephanie; Crawford, Tiffany; Kaufman, Galen; Hagy, James; Oliver, Jacques; Decker, Ed. Advancing the science for developing numeric nutrient criteria for estuarine and coastal waters. (Position A1)

Gutierrez, Francisco Jose; Torres, Maria del Rocio; Castañeda, Ofelia. Trophic state of coastal lagoons of the Veracruz State, Mexico (Gulf of Mexico) related to watershed land cover. (Position A2)

Alers-Garcia, Janice; Greene, Richard; Hagy, James; Whitlock, Steve; Yuan, Lester. Approaches to ensure protection of downstream estuaries from nutrient pollution. (Position A3)

De Santiago, Kevin; Beseres Pollack, Jennifer. Response of macrobenthic communities to varying land uses in Oso Bay, Corpus Christi, Texas. (Position A4)

SCI-002P COMPARATIVE UNDERSTANDING OF ESTUARINE EUTROPHICATION TIPPING POINTS AND RESTORATION TRAJECTORIES

Gonzalez-De Zayas, Roberto; Merino-Ibarra, Martin; Castillo-Sandoval, Fermin; Valdespino-Castillo, Patricia; Guimaraes Bermejo, Mayrene. Coexisting alternative stable states at a tropical coastal lagoon (Laguna Larga, Cuba) under eutrophication and hydromorphological stresses. (Position A5)

Page, Heather; Posey, Martin; Alphin, Troy. Particle Overload! The Eastern oyster's role in biogeochemical cycling under chronic exposure of sediment and nitrate. (Position A14)

Browne, James; Vanek, John; Personius, Casey. Differences among salt marsh ditch edges and peat strength when exposed to a spatial gradient in nitrogen concentration over an interval of decades. (Position A15)

SCI-005P NUTRIENT FLUXES AND NUTRIENT ACCOUNTING IN COASTAL CATCHMENTS AND WATER BODIES: METHODS AND APPLICATIONS

Stecher, Hilmar; McKane, Robert; Brookes, Allen; DeWitt, Theodore; Brown, Cheryl; Kaldy, James. Development of an ecohydrological salt marsh model. (Position A11)

Novick, Emily; Senn, David. Quantifying external nutrient loads to San Francisco Bay. (Position A12)

Talavera, Ana; Sanchez, Alberto; Ortiz, Concepcion. Stable isotopes of nitrogen in green turtle (*Chelonia mydas*) from a foraging area at the Mexican Caribbean. (Position A13)

Hernandez, Oscar; Herzka, Sharon; Camacho-Ibar, Victor. Characterization of short-term nitrogen sources for seagrasses and macroalgae in a lagoon subject to coastal upwelling events based on stable isotopes of nitrogen. (Position A21)

Yactayo, Guido. Chesapeake Bay Program Watershed Model Simulations using NLDAS-II Precipitation & Meteorological datasets. (Position A22)

SCI-007P TRANSLATIONAL SCIENCE: THE COMPLEXITIES OF WATERSHED AND ESTUARINE RESTORATION EFFORTS

Newcomer, Tamara; Kaushal, Sujay; Mayer, Paul; Groffman, Peter; Grese, Melissa; **Hodgkins, Casey.** Effects of integrated stormwater management and stream engineering on watershed nitrogen retention. (Position A23)

Dolan, Tara; Serafy, Joseph. Effect of season and scale on power to detect change in mangrove fish assemblages of a converted estuary. (Position A24)

Carlson, Emily; Greene, Corrieh; Rice, Casimir. Comparing salmonid, benthic, and forage fish response to restoration and predicting composition of fish species at proposed restoration sites. (Position A25)

SCI-008P PAST AND PROBABLE FUTURE IMPACTS OF A RISING SEA ON DIFFERENT GEOMORPHIC ENVIRONMENTS

Etheridge, Sherer; Christian, Robert; Brinson, Mark. *Juncus roemerianus* patch stability and community shifts across a marsh. (Position A33)

Poppe, Katrina; Rybczyk, John. An ecogeomorphic field and hybrid modeling approach to predicting a coastal wetland response to sea level rise. (Position A34)

Almukaimi, Mohammad; Dellapenna, Timothy. Enhanced land subsidence and sediment dynamics in Galveston Bay-Implications for geochemical processes and fate and transport of contaminants. (Position A35)

SCI-013P MARSHES, STORMS, AND SEA LEVEL RISE: SYNTHESIS OF ECOLOGIC, GEOMORPHIC, AND GEOSPATIAL ANALYSES

Young, Chanel; Reichmuth, Jessica. A snail's pace: Density, movement, and food choice of the marsh periwinkle. (Position A31)

Corman, Sarah; Ivens-Duran, Morgan; Bertness, Mark; Davey, Earl; Deegan, Linda; Leslie, Heather. Flowering and biomass allocation in the salt marsh foundation species *Spartina alterniflora*. (Position A32)

Walters, Linda; Solomon, Joshua; Donnelly, Melinda; Sacks, Paul. Sea level rise: field simulations with the intertidal oyster *Crassostrea virginica*. (Position A41)

Freeman, Chase; Thorne, Karen; Takekawa, John; Guntenspergen, Glenn; Buffington, Kevin; MacDonald, Glen; Ambrose, Rich; Ganju, Neil; Dugger, Bruce. Assessing the effects of sea-level rise of Pacific coast tidal marsh ecosystems along a latitudinal gradient. (Position A42)

McLenaghan, Natalie; Alber, Merryl; Alexander, Clark. Shoreline stabilization under shifting seas: Urbanization trends and upland connectivity in salt marsh ecosystems. (Position A43)

Garvis, Stephanie; Weishampel, John. Seagrass habitat suitability modeling under varying sea level rise scenarios in the Northern Gulf of Mexico. (Position A44)

Howard, Rob; Allen, Tom; Covi, Michelle. North Carolina Coastal Atlas: a tool for estuarine research and communication. (Position A45)

Eulie, Devon; Corbett, Reide; Walsh, John; Mulligan, Ryan. Estuarine shoreline dynamics: Insights from the Albemarle-Pamlico estuarine system, North Carolina, USA. (Position B41)

Hackney, Courtney; Avery, Brooks. Tidal wetland community response to varying levels of flooding by saline water. (Position B42)

SCI-015P ACIDIFICATION AND HYPOXIA IN ESTUARIES

Afonso, Gelies; Caffrey, Jane. Influence of environmental factors on diversity and abundance of meiofauna in three Florida estuaries. (Position B32)

MONDAY POSTER SESSIONS

Song, Jin Il; Yoon, Byung Il; Kim, Jong Wook; Woo, Seung Buhm. Spatial and temporal variability of bottom dissolved oxygen concentration in Youngsan Reservoir, South Korea. (Position B33)

Burrell, Rebecca; Keppel, Andrew; Clark, Virginia; Breitburg, Denise. A LabVIEW-based automated control system for flow-through diel-cycling hypoxia and pH experiments, and overview of effects on the eastern oyster. (Position B34)

Stoffel, Heather; Coupland, Catherine; Oviatt, Candace; Kiernan, Susan; Requentina, Edwin. Characterizing hypoxic events as an assessment tool for managers within Narragansett Bay, RI. (Position B35)

Chen, Jianfang; Wang, Bin; Jin, Haiyan; Li, Hongliang; Wang, Kui. Biogeochemical processes of the formation of hypoxia water off the Changjiang Estuary. (Position B44)

Lane, Hillary; Paynter, Kennedy; Miller, Thomas. Acidification impacts growth per molt and hardening time of juvenile blue crab *Callinectes sapidus*. (Position B45)

SCI-024P STRATEGIES FOR MENTORING IN COASTAL AND ESTUARINE SCIENCE

Hatch, Marco. American Indian student-driven research at the Salish Sea Research Center. (Position B21)

Boettcher, Anne; Turrens, Julio; **Patterson, Heather.** Undergraduate Research: Opening Doors and Windows. (Position B22)

SCI-029P BIO-OPTICAL TECHNIQUES FOR IN SITU PLANKTON RESEARCH: WHERE ARE WE NOW?

Novoa, Stéfani; Wernand, Marcel. Citizen science, smartphones and the color of natural waters. (Position B24)

Travis, Nicole; Parker, Alexander; Wilkerson, Frances; Dugdale, Richard. PhytoFlash™ active fluorescence probe: applications in a turbid estuary, San Francisco Bay, CA. (Position B23)

SCI-030P SHIFTING TECHNOLOGY PARADIGMS: A CASE FOR INNOVATION BY WAY OF COLLABORATION

Clark, Ryan; Willson, Clinton; Raynie, Richard. Louisiana's Coastal Innovation Partnership Program: Incorporating innovations into project implementation. (Position B25)

SCI-031P TROPHIC SUBSIDIES IN COASTAL ECOSYSTEMS: IMPLICATIONS FOR COASTAL MANAGEMENT

Strong, Shannon; Wilkerson, Frances; Parker, Alexander. Nitrogen and chlorophyll a flux between a restored tidal marsh and an adjacent bay in the San Francisco Estuary. (Position B1)

SCI-034P PLANKTONIC FOOD WEBS IN AN ERA OF GLOBAL ENVIRONMENTAL CHANGE

McGlaughon, Benjamin; **Kimmel, David;** Wetz, Michael; Cira, Emily; Paerl, Hans. Spatial and temporal variability of the mesozooplankton community in relation to the chlorophyll maximum of the Neuse River Estuary, North Carolina USA. (Position B14)

Elliott, David; Bukaveckas, Paul. Temporal dynamics of the dominant zooplankton in the tidal-freshwater James River (1986-2002 and 2013) (Position B11)

Lichti, Deborah; Rinchar, Jacques; Kimmel, David. You are what you eat: determining the zooplankton fatty acid composition in western Albemarle Sound and Chowan River, North Carolina. (Position B12)

Hurley, David; Johnson, Zackary. Effect of Temperature on *Prochlorococcus* Growth Rate and Carbon Uptake. (Position B13)

SCI-036P PERCEPTIONS OF ENVIRONMENTAL MODELS AND STAKEHOLDER PARTICIPATION

Turner, Elizabeth; Fitzpatrick, James. Scenario-based forecasts in support of regional coastal management. (Position B2)

SCI-037P TRANSFERABILITY OF MODELS FOR PREDICTING ECOSYSTEM SERVICES

Sweatman, Jennifer; Fourqurean, James. Light availability and benthic community structure in the Florida Keys. (Position B3)

Dantin, Darrin; Teague, Aarin; Russell, Marc; Harwell, Matthew; Almario, Alex; Harvey, James; From, Andrew. Hydrologic connections and landscape metrics to advance ecosystem goods and services in the Tampa Bay watershed. (Position B4)

SCI-041P RESILIENCE IN COASTAL ECOSYSTEMS: IMPACT OF STRESSORS ON RESILIENCE, STABILITY, AND RECOVERY IN COMMUNITIES DOMINATED BY SEAGRASS OR BENTHIC ALGAE

Rostin, Liis; Martin, Georg. Short- and longterm effects of mechanical disturbance of shallow hardbottom benthic communities in NE Baltic Sea. (Position C1)

Foley, Jessica; Harris, Lora. The effects of local environmental conditions on the specific growth rates of eelgrass seedlings and seed germination. (Position C2)

Landry, J. Brooke; Golden, Rebecca; Karrh, Lee; Lewandowski, Mark. The effects of hardened shorelines on SAV in the Chesapeake and Maryland Coastal Bays. (Position C3)

Voigt, Erin; Hovel, Kevin. The effect of structural complexity on the interaction strength of key consumers in a temperate seagrass ecosystem. (Position C4)

DeYoe, Hudson; Kowalski, Joseph; Pulich, Warren. Freshwater inflow impacts on seagrasses in a subtropical lagoon. (Position C5)

Hunt, Natalie; Caffrey, Jane; Smith, Ashlynn; Fugate, Beth. Seasonal changes of water column chlorophyll a, nutrients and epiphyte biomass in restored and native seagrass beds in Pensacola, FL. (Position C12)

Ferrier, Lisa; Gaeckle, Jeffrey; Short, Fred. SeagrassNet: Seasonal monitoring of two seagrasses, *Zostera marina* and *Zostera japonica*, at Dumas Bay, Washington. (Position C13)

Zimmerman, Richard; Hill, Victoria; Smith, Miranda; Jinuntuya, Malee. Impact of climate warming and ocean carbonation on eelgrass (*Zostera marina* L.) (Position C14)

Celebi, Billur; Cedeno, Tiffany; Zimmerman, Richard; Hill, Victoria. The long term impacts of increasing dissolved CO₂ concentration on leaf optical properties in eelgrass *Zostera marina* L. (Position C15)

SCI-042P RESILIENCE IN COASTAL ECOSYSTEMS: EVALUATING AND CONSERVING RESILIENCE IN INDO-PACIFIC COASTAL MARINE HABITATS

Gwak, Woo Seok; Park, Jun Su; An, Soon Mo. Importance of estuarine habitats for larval and juvenile fishes in Danghang bay, Korea. (Position C11)

MONDAY POSTER SESSIONS

Hori, Masakazu; Hamaoka, Hideki; Shimabukuro, Hiromori; Nakaoka, Masahiro; Yoshida, Goro; Hamaguchi, Masami. Trade-offs between provisioning and regulating services in seagrass ecosystem. (Position C21)

SCI-044P ENGINEERING WITH NATURE: STRIVING FOR SUSTAINABLE, MULTI-OBJECTIVE COASTAL INFRASTRUCTURE

Conley, Keats; Sutherland, Kelly. Substrate selection preferences by planulae of the Pacific sea nettle, *Chrysaora fuscescens*. (Position C22)

SCI-045P DISTURBANCE AND STRESSOR IMPACTS ON MICROBIAL COMMUNITIES AND BIOGEOCHEMICAL FEEDBACKS

Drennen, Chanda; Engel, Annette; Turner, R. Eugene. Response and recovery of microbial communities in Louisiana coastal marshes after the Deepwater Horizon spill and the possible implications for marsh erosion. (Position C23)

Tyrell, Abigail; Feinman, Sarah; Bowen, Jennifer. The effects of decreased microbial diversity on nitrogen cycling in experimental mesocosms. (Position C24)

SCI-047P DRIVERS AND ECOLOGICAL EFFECTS OF HYPOXIA IN COASTAL UPWELLING SYSTEMS

Booth, J. Ashley; Woodson, C. Brock; Micheli, Fiorenza; Weisberg, Steve; Sutula, Martha; Bograd, Steven; Steele, Alex; Schoen, Julia. Patterns of declining oxygen content along the southern California coast. (Position C25)

Sato, Kirk; Navarro, Michael; Nam, SungHyun; Takeshita, Yuichiro; Ballard, John; Hernandez Lopez, Elvira; Neira, Carlos; Grupe, Benjamin; Levin, Lisa; Frieder, Christina. Temporal responses of benthic metazoan communities in persistent hypoxic and hypercapnic environments along San Diego's continental margin. (Position C34)

Hernandez Lopez, Elvira; Neira, Carlos; Mendoza, Guillermo; Frieder, Christina; Levin, Lisa. Meiofauna community response to low oxygen concentration along the San Diego Margin. (Position C35)

SCI-054P EXPLORING APPROACHES TO UNDERSTANDING DECISION MAKERS' SCIENCE NEEDS

Yee, Susan; Fulford, Richard; Carriger, John; Russell, Marc. Linking community values to scientific assessment of decision options with structured decision making. (Position C31)

Leonard, Lynn; Dorton, Jennifer. Approaches to understanding and meeting the needs of decision makers in the Carolinas. (Position C32)

Kitting, Christopher; Furuya, Shoko. Approaches to scale up ecosystem resource restoration and scale down total consumption by humans, as with fresh water supplies around San Francisco Estuary. (Position C33)

SCI-056P SCIENCE COMMUNICATION STRATEGIES FOR ECOSYSTEM-BASED MANAGEMENT

Commagere Hijuelos, Ann; Galinski, Andrea; Marshall, Taylor; Parsons Richards, Carol; Peyronnin, Natalie; Raynie, Rick; Reed, Denise; Speyrer, Nick. Louisiana's coastal report card: Concept and approach. (Position D42)

SCI-062P GLOBAL PATTERNS OF PHYTOPLANKTON DYNAMICS IN ESTUARINE AND COASTAL ECOSYSTEMS

Stark, Kimberle; Hannach, Gabriela. Puget Sound weather, phytoplankton, and nutrients: who's driving this train? (Position C41)

Chen, Changping; Xu, Hualin; Gao, Yahui; Li, Qingyu; Qian, Ling; Zheng, Minhua. Variations of phytoplankton community in Shenzhen Bay, China. (Position C42)

Martin, Charles; Kress, Erica; Schraga, Tara; Cloern, James. Seasonal patterns of three key phytoplankton species in San Francisco Bay. (Position C43)

Flood, Stacie; Burkholder, JoAnn; Cope, W. Gregory. Comparative ecotoxicology of benign and toxigenic estuarine phytoplankton responses to an agricultural herbicide. (Position C44)

SCI-064P HYDRODYNAMICS AND SEDIMENT DYNAMICS IN ESTUARIES AND COASTAL SEAS

Brown, Jenny; Bolaños, Rodolfo; Howarth, Michael; Souza, Alejandro. Extracting sea level residual from short time series in tidally dominated estuarine environments. (Position D11)

Souza, Alejandro; Burchard, Hans. A comparison on the prediction of tidal mixing fronts using the nondimensional Simpson and Hunter parameter and the Stokes number. (Position D12)

Woo, Han Jun; Kang, Jeongwon; Lee, Jun-Ho; Jeong, Kap-Sik. Seasonal changes of sedimentary environment at the macrotidal flat in Gomsu Bay, west coast of Korea. (Position D13)

Blair, Emily; Schroeter, Steve; Page, Mark; Deza, Andres; Patonai, Katalin; Elwany, Hany. Novel use of an Acoustic Doppler Current Profiler to reconstruct long-term tidal prism measurements in a small Southern Californian tidal lagoon. (Position D14)

Tenorio-Fernández, Leonardo; Gómez-Valdés, José; Enríquez, Cecilia; Treviño, Cesar; Mariño-Tapia, Ismael; López-Aguiar, Korinthia. Tides and tidal currents in a coastal lagoon of the Gulf of Mexico. (Position D21)

Garwood, Jessica; Hill, Paul. Seasonal and biofilm effects on sediment erosion and sorting in an intertidal mudflat in the Bay of Fundy, Canada. (Position D22)

Miller-Corbett, Cynthia; Simley, Jeffrey. Linear-referenced coastal geomorphology in the US Geological Survey National Hydrography Dataset. (Position D23)

Yoon, Byung Il; Woo, Seung Buhm; Kim, Jong Wook; Song, Jin Il. The characteristics of along-channel salinity distribution in a macrotidal estuary, Gyeonggi Bay, South Korea: Field measurements and numerical model results. (Position D24)

White, David. Climate change characteristics of warming and weather extremes the focus of intra- and inter-annual change in wetland plant biomass within the Mississippi River delta, Louisiana, among other environmental parameters. (Position D25)

Cartwright, Grace; Friedrichs, Carl. Sediment settling velocity from ADVs and settling tubes: agreement over a range of particle types and hydrodynamic conditions. (Position D31)

Allen, Kerri; Leonard, Lynn. Physical effects of oyster reef rugosity: flume and field studies in a low-flow intertidal environment. (Position D32)

Valle-Levinson, Arnoldo; Schettini, Carlos; Truccolo, Eliane. Response of a subtropical stratified estuary to river pulses. (Position D33)

MONDAY POSTER SESSIONS

Truccolo, Eliane; Schettini, Carlos; Almeida, Luiz; Valle-Levinson, Arnoldo. Depicting short events of river discharge on tidal signal using wavelets. (Position D34)

Chant, Robert. Moored observations of tidal and spring neap variation in stratification and exchange flow across six estuaries. (Position D35)

Anderson, Gordon; Dijkwel, Jan; Lagomasino, David; Price, René; Rivera-Monroy, Victor; Smith, Thomas; Vlaar, Theo. Review of surface and groundwater dynamics from Land-Margin Ecosystem study (1996-2012), Everglades National Park, USA. (Position D43)

Horwitz, Rachel; O'Donnell, James. Model and observations of eastern Long Island Sound. (Position D44)

Sanay, Rosario; Perales-Valdivia, Héctor. Effect of temporal variations of river discharge and wind-stress on the position of salt wedge in a micro-tidal river mouth. (Position D45)

SCI-066P INTEGRATING SCIENCE AND MANAGEMENT TO BENEFIT ESTUARINE AND COASTAL ECOSYSTEM RESTORATION

Wishnek, Benjamin; Adamus, Paul; Bridgeland, Bill. Avian response to tidal salt marsh restoration at Bandon Marsh National Wildlife Refuge in southern Oregon. (Position D1)

Dalrymple, D. Joseph; Carmichael, Ruth. Effects of ontogeny on bioremediation capacity of oysters. (Position D2)

Viola, Sloane; Hubbard, Dave; Dugan, Jenifer; Schooler, Nicholas. Burrowing in beach fill: implications for recovery of sandy beach ecosystems. (Position D3)

Coldren, Sharon; Reed, Patricia; **Gray, Sarah.** A model of science-driven, community-based efforts to mitigate watershed erosion and land-based sedimentation to coral reefs in Coral Bay, US Virgin Islands. (Position D4)

Sears, Whitney; Gray, Sarah; Sturtevant, Lindsay; Hastings, Zoe; Kolupski, Megan; DeGroot, Amalia. Assessing the impact of watershed development and restoration on land-based (terrestrial) sedimentation in coastal bays with coral reefs in St. John, US Virgin Islands. (Position D5)

Teague, Ruby; Harrington, Robert; Gray, Sarah; Hsieh, Yi-Chen. The impact of watershed development on turbidity (TSS) in bays with coral reefs, US Virgin Islands. (Position E1)

Fris, Rebecca; Schlafmann, Debra. Providing science to southern California natural resource managers in the face of climate change: Products of the California Landscape Conservation Cooperative. (Position E2)

SCI-067P INTERACTIONS OF BIVALVE AQUACULTURE AND ESTUARINE BIOGEOCHEMICAL PROCESSES

Emery, Kyle; Rheuban, Jennie; Pace, Michael; McGlathery, Karen. The carbon sink potential of shellfish aquaculture. (Position E11)

Ray, Nicholas; Terlizzi, Daniel; Kangas, Patrick. Upstream and downstream water quality near an oyster aquaculture facility. (Position E12)

Kuschner, Michael; Brush, Mark. Modeling the effect of hard clam (*Mercenaria mercenaria*) aquaculture on system-level processes within Cherrystone Inlet, VA. (Position E13)

Dodd, Luke; Piehler, Michael; Grabowski, Jonathan. Predator effects on oyster filtration. (Position E14)

Ayvazian, Suzanne; Carey, Joanna; Hancock, Boze; Brown, Steven; Fulweiler, Robinson. Oyster reef restoration and aquaculture impacts on denitrification and the benthic community. (Position E15)

SCI-073P MARINE DEBRIS MONITORING AND ASSESSMENT: RESEARCH TO GUIDE PREVENTION

Krimsky, Lisa; **Watson, Mallory;** Lipshultz, Zach. Application of a marine debris reporting system to target removal efforts along the Florida Keys Reef Tract. (Position E33)

Sleight, Victoria; Thompson, Richard; Henry, Theodore. Assessing the bioavailability of microplastic-adsorbed contaminants using larval zebrafish (*Danio rerio*) (Position E34)

Slacum, H. Ward; Methratta, Lisa; Dew-Baxter, Jodi; Corbin, Ryan. An assessment of marine debris on beaches and adjacent ocean surface waters of the Mid-Atlantic Bight using standardized sampling protocols. (Position E35)

SCI-074P SOUTH AND CENTRAL AMERICAN ESTUARIES AND COASTS

Branyon, Jacqueline; Valle-Levinson, Arnoldo. Salt water intrusion at a point source of submarine groundwater discharge in a reef lagoon. (Position E21)

Möller, Osmar; Abe, Marcos; Odebrecht, Clarisse; Abreu, Paulo; Vieira, João; Garcia, Alexandre. The seasonal, interannual and longer term variability of the circulation of Patos lagoon and associated processes. (Position E22)

Liu, Kam-biu; McCloskey, Terrence; Kennedy, Lisa. A 3,400-year history of environmental changes and extreme events from a hypersaline lake on the southwestern coast of the Dominican Republic. (Position E23)

López Angarita, Juliana; Hawkins, Julie; Tilley, Alexander; Roberts, Callum. Mangroves in the Eastern Tropical Pacific: the forgotten interface between land and ocean. (Position E24)

Morales, Sara; Cortes, Octavio; Ramírez, Javier; Herrera-Silveira, Jorge. Assessment of the trophic status of coastal ecosystems in the Gulf of Mexico and Caribbean (Mexican sides) (Position E25)

SCI-075P1 ECOLOGY OF COASTS AND ESTUARIES: ECOSYSTEMS

Port, Alex; Bryan, Karin; Pilditch, Conrad; Bischof, Kai; Hamilton, David. Using simple models to understand estuarine macroalgae blooms. (Position E31)

Howard, Rebecca; Wells, Christopher; Michot, Thomas. Coastal marsh resiliency following disturbance associated with seismic exploration for oil and gas reserves. (Position E32)

Fitzgerald, Megan; Whitcraft, Christine; Allen, Bengt. The relationship between biodiversity and ecosystem function in a coastal wetland. (Position E40)

Robuck, Anna; Mallin, Michael; McIver, Matthew. The impacts of urban, suburban, and rural stormwater runoff on selected metabolic processes within Southeastern North Carolina tidal creeks. (Position E41)

Stachelek, Joseph; Madden, Christopher. High density spatial mapping of water quality patterns reveals impacts of freshwater inputs in Florida Bay, USA. (Position E42)

Remington, Thomas; Searcy, Steven. Settlement patterns of spotted sand bass, *Paralabrax maculatofasciatus* in Mission Bay, San Diego, CA. (Position E43)

Willis, Jonathan; Hester, Mark. Mesocosm assessment of *Spartina alterniflora* growth responses to weathered Macondo well oil applied to aboveground tissues and soil. (Position E44)

MONDAY POSTER SESSIONS

Zhang, Hongyan; Mason, Doran; Stow, Craig; Adamack, Aaron; Brandt, Stephen; Zhang, Xinsheng; Kimmel, David; Roman, Michael; Boicourt, William; Ludsins, Stuart. Impact of hypoxia on habitat quality of pelagic fishes in the northern Gulf of Mexico. (Position E45)

Potter, Elaine; Swanson, J.; Thornber, Carol. Ploidy analysis of the bloom forming macroalgal genus *Ulva* using flow cytometry in Narragansett Bay, RI. (Position F41)

Dietz, Caroline; Engel, Annette. Metagenomic analysis of the *Phacoides pectinatus* endosymbiont consortium reveals metabolic versatility and potential adaptation to anthropogenic disturbances. (Position F42)

Schoenbaechler, Caimee; Guthrie, Carla; McEwen, Tyler. Drought and low inflow conditions in Texas estuaries: Observations from the record-breaking drought of 2011. (Position F43)

Vander Woude, Andrea; Mason, Doran; Zhang, Hongyan; Stow, Craig; Adamack, Aaron; de Mutsert, Kim; Pierson, James; Brandt, Stephan; Roman, Michael. An Atlantis ecosystem-based approach to model effects of hypoxia on the food web of the northern Gulf of Mexico. (Position F44)

Van Diggelen, Amanda; Montagna, Paul. Is salinity variability a benthic disturbance? (Position F45)

SCI-075P2 ECOLOGY OF COASTS AND ESTUARIES: NUTRIENTS AND PHYTOPLANKTON

Rothenberger, Megan; Swaffield, Thomas; Calomeni, Alyssa; Cabrey, Carolyn. Fifty years later: re-examining the cultural eutrophication problem in Raritan Bay, NJ using environmental monitoring and multivariate ordination techniques. (Position F14)

Joo, Hui Tae; Kang, Jae Jung; Park, Jung Woo; Lee, Sang Heon; **Lee, Jang Han.** Seasonal macromolecular compositions of phytoplankton in the Gwangyang Bay, South Sea of Korea. (Position F15)

Lee, Sang Heon; Lee, Jang Han; Joo, Hui Tae; Park, Jung Woo; Kang, Jae Jung. Seasonal variation of phytoplankton productivity in the Gwangyang Bay, Southern Coastal Sea of Korea. (Position F13)

Liu, Xin; Xiao, Wupeng; Wang, Lei; Zhong, Chao; Huang, Bangqin. Seasonal quasi-climatological variations of phytoplankton community structure in the East China Sea. (Position F21)

Li, Hongliang; Chen, Jianfang; Jin, Haiyan; Yu, Xiaoguo; Wang, Kui; Huang, Daji; Wang, Bin; Zhuang, Yanpei. Isotope constraints on particulate organic carbon source and biogeochemical process in the East China Sea. (Position F22)

Cai, Lizhe; Fu, Sujing; Wu, Chen; Zhuo, Yi; Chen, Xinwei; Li, Xiang; Rao, Yiyong. Study of meiofauna in Zhanjiang Mangrove in Guangdong, China. (Position F23)

Younan, Lawrence. Determination of phytoplankton groups using Turner Designs' PhytoFind. (Position F24)

Moon, Cyle; Litton, Gary; Brunell, Mark; Estiandan, Monica; Stringfellow, William. Zooplankton-phytoplankton interactions in the San Joaquin River, CA. (Position F25)

Bredvik, Jessica; Graham, Suzanne; Boerger, Christiana; Lattin, Gwen; Zellers, Ann. Spatial and temporal distribution and abundance of ichthyoplankton from 2012-2013 in San Diego Bay. (Position F31)

Salvador, Bianca; Bersano, José. Zooplankton composition and abundance in a subtropical estuary (Paranaguá Bay, Southern Brazil) (Position F32)

Nascimento, Lorena; Salvador, Bianca; **Bersano, José.** Hydromedusae in the surf zone of a subtropical sandy beach (Pontal do Sul, Southern Brazil) (Position F33)

Dettmann, Edward. Relationships between concentrations of phytoplankton chlorophyll *a* and total nitrogen in ten U.S. estuaries. (Position F34)

Herrera-Silveira, Jorge; Merino, Fany; Aguilar, Ana; Moreno, Iliana; Okolodkov, Yuri; Hernández-Almeida, Oscar; Cruz-Trejo, Giuliana. Harmful algal blooms in the northern Yucatan Peninsula. (Position F35)

SCI-075P3 ECOLOGY OF COASTS AND ESTUARIES: ORGANISMS

Coleman, Austin; Mannix, Sierra; Hammack, April; Reichmuth, Jessica; Abdulovic-cui, Amy. Successfully sequencing swimming crab mitochondrial DNA: Diversity of blue crabs and speckled crabs of the southeastern Atlantic coast. (Position E4)

Pelletier, Marguerite; Frithsen, Jeffrey. Use of historic data to understand benthic community changes in Narragansett Bay. (Position E5)

Thomas, Roger; Kreeger, Danielle; Mills, Melanie; Cole, Priscilla; Butler, Lance. Freshwater mussel diversity and abundance versus depth in the tidal Delaware Estuary. (Position F1)

Gut, Jennifer; Reichmuth, Jessica; Curran, Mary Carla. Abundance and distribution of fishes at estuarine and coastal sites near the mouth of the Savannah River, Georgia. (Position F2)

Tremont, Rachel; Harding, Juliana; Allen, Dennis. Is there an advantage to being early? Lessons from temperate reef fish larvae. (Position F3)

Buchsbaum, Robert; Clark, Wesley. Selection of estuarine feeding habitats by snowy and great egrets in the Plum Island Sound estuary, northeastern Massachusetts. (Position F4)

Hosack, Geoff; Bosley, Katelyn; **Dumbauld, Brett.** Use of intertidal oyster aquaculture, eelgrass and unstructured habitats by juvenile salmon in Willapa Bay, Washington. (Position F5)

Dillon, Kevin; Peterson, Mark. Elucidating food web dynamics of artificial oyster reefs in Mississippi Sound. (Position F11)

De Carion, Denise; Durand, John; Hobbs, James; Young, Matthew; Jeffres, Carson; Perales, Kousei; Montgomery, Jacob; Berridge, Kathleen; Williamson, Brian; Sih, Andrew; Moyle, Peter. Tidal movements of Sacramento splittail in a remnant tidal marsh. (Position F12)

Ries, Thomas; Bell, Susan. Lost River Preserve habitat restoration assessment: Vegetative and nekton sampling. (Position G2)

Lord, Joshua; Whitlatch, Robert. Space race: geographic and temperature-induced changes in fouling communities. (Position G3)

Visser, Jenneke; Soukahn, Bobby. Salinity and fertilization effect on growth and biomass of *Typha domingensis*. (Position G4)

Durant, Daisy; **Raposa, Kenneth.** Predicting the effects of climate change on *Hemigrapsus sanguineus* populations in intertidal cobble beaches. (Position G5)

SCI-075P4 ECOLOGY OF COASTS AND ESTUARIES: SEAGRASS

Bosley, Katelyn; Dumbauld, Brett; Copeman, Louise. Identification of thalassinidean shrimp food sources in an Oregon estuary using fatty acid analysis and stable isotope ratios (C,N,S) (Position G1)

Genazzio, Melissa; Durako, Michael. Diurnal variation in photochemical efficiency of *Thalassia testudinum*, turtle grass, in response to short-term changes in light availability. (Position H1)

MONDAY POSTER SESSIONS

McElroy, Thomas; Smith, Teresa; Araujo, Lucianna; Mutchler, Troy. Population genetic structure and spatial delineation of the seagrasses *Thalassia testudinum* and *Halodule wrightii* in the Gulf of Mexico near the Florida and Alabama coastlines. (Position H2)

Park, Sang Rul; Lee, Kun-Seop; Kang, Yun Hee; Kim, Sangil. Carbon, nitrogen, and phosphorus incorporation by the intertidal seagrass *Zostera japonica* in the intertidal zone. (Position H3)

Sherman, Kate; Ryan, Andrew; Berry, Helen; Ferrier, Lisa; Bailey, Allison; Kenny, Matt. Marine Vegetation Atlas: An ArcGIS server application for sharing and exploring eelgrass and kelp data in Washington. (Position H4)


Virnstein, Robert; **Chamberlain, Robert;** Hanisak, M. Dennis. Testing whether the lack of seagrass recovery is recruitment limited in Indian River Lagoon, FL. (Position H5)

SCI-079P SOCIO-ECONOMIC SCIENCES FOR COASTS AND ESTUARIES


Aven, Allen; Carmichael, Ruth; Ingram, Dianne. Correcting spatial bias in wildlife citizen-surveys: Integrating manatee sighting reports with GPS tag data. (Position G17)

Leuchanka, Natallia; Paolisso, Michael; Wainger, Lisa; Needelman, Brian; Johnson, Katherine; Land, Sasha; Tjaden, Robert; Leason, Diane. Socio-economic assessment and coastal marsh resilience on the Chesapeake Bay. (Position G18)

Freitag, Amy. Ebb and flow: Defining rules of engagement for collaborative research in coastal water quality. (Position G19)



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WEDNESDAY POSTER SESSIONS

SCI-004P ALTERNATIVE NUTRIENT MANAGEMENT STRATEGIES: CREATIVE SOLUTIONS TO A COMPLEX PROBLEM

Lemon, Mary Grace; Posey, Martin; Mallin, Michael; Alphin, Troy. Oyster filtration versus passive structural impacts of *Crassostrea virginica* reefs on removal of particulates. (Position A10)

SCI-009P ADAPTING TO SEA LEVEL RISE: LOCAL COMMUNITIES AND THEIR CRITICAL INFRASTRUCTURE

Boicourt, Kate; Lehmann, Zachary; Munoz, Gabriela; Nyman, Robert. Case studies in sea level rise planning: public access in the NY-NJ Harbor Estuary. (Position A7)

Bourassa, Cristina; Crooks, Jeff; Goodrich, Kristen. Temporal Investigations of Marsh Ecosystems (TIME) (Position A8)

Fuller, Roger; Grossman, Eric; Ferdaña, Zach; Flessner, Laura; Gannel, Greg; Horne, Peter. Tidal wetlands as protective green infrastructure: A new decision support model to guide community investment in green and grey infrastructure. (Position A9)

SCI-010P CITIES ON THE COAST: PRESENT AND FUTURE CHALLENGES, WITH LESSONS LEARNED FROM SUPERSTORM SANDY

Yáñez-Arancibia, Alejandro; Day, John; Reyes, Enrique. Climate change and hurricanes in the Gulf of Mexico: ecological and socio economic implications. (Position A6)

SCI-011P STORM EFFECTS ON ESTUARIES: HURRICANE IRENE, TROPICAL STORM LEE, AND SUPERSTORM SANDY

Poirrier, Michael; Dunn, Crystal; Caputo, Claire; Flowers, George; Adams, Jordan. Rangia clam decline in Lake Pontchartrain: Effects of enhanced storm surges due to sea level rise, an increase in the frequency and severity of hurricanes and marsh and barrier island loss. (Position A16)

SCI-012P SENTINEL SITES: A NATIONAL NETWORK TO MONITOR SEA LEVEL IMPACTS

Stagg, Camille; Sharp, Leigh Anne; McGinnis, Thomas; Snedden, Gregg. Submergence Vulnerability Index development and application to Coastwide Reference Monitoring System sites and Coastal Wetlands Planning, Protection and Restoration Act projects. (Position A17)

SCI-014P DRIVERS AND CONSEQUENCES OF NEARSHORE OCEAN ACIDIFICATION

Shukla, Priya; Edwards, Matthew. Characterizing the effects of climate change on photosynthesis for embryonic and juvenile sporophytes of *Pterygophora californica* and *Laminaria farlowii*. (Position A26)

Coupland, Catherine; Stoffel, Heather; Oviatt, Candace; Kieran, Susan; Requentina, Edwin. Examining ocean acidification in estuarine waters using the Narragansett Bay Fixed Site Monitoring Network. (Position A27)

Basilio, Anthony; Searcy, Steven; Reyns, Nathalie. The effects of elevated CO₂ concentrations on prey capture, growth and mortality in larval white seabass (*Atractoscion nobilis*) (Position A28)

Ávila López, M.Carmen; Hernández-Ayón, J.Martín; Norzagaray López, Orión; Camacho-Ibar, Víctor; Huerta Díaz, Miguel; Siqueiros Valencia, Arturo. Contribution of seagrass and upwelling events on the CO₂ system variability for a Mediterranean coastal lagoon. (Position A29)

Salisbury, Joseph; Vandemark, Douglas. Understanding processes controlling Omega at the UNH CO₂ buoy site using a decade of high frequency observations. (Position A37)

Cho, Jin Hyung; Shin, Dong-Hyeok; Kum, Byeong-Cheol; Jang, Seok. Geochemical Monitoring of Gas Composition and Fluxes with Oxygen Demand at CCS Site in Southwestern East Sea of Korea. (Position A38)

SCI-019P EXTENDING ACIDIFICATION MODELING FROM THE OCEAN TO ESTUARIES

Phillips, Jennifer. Using expert judgments to evaluate the prospects for Great Lakes CO₂-driven acidification. (Position A30)

SCI-020P ACIDIFICATION OBSERVING NETWORKS AND DATA SHARING

Subramanian, Vembu; **Hernandez, Debra;** Porter, Dwayne; Cothran, Jeremy; Ramage, Dan; Dorton, Jennifer. Southeast Coastal Ocean Observing Regional Association Data Management System: Fostering data access and visualization of coastal ocean observations in the Southeast US. (Position A18)

Dunckley, Jamie; Woodson, C. Brock; Monismith, Stephen; Crowder, Larry; Caldwell, Margaret; Kirkwood, William; Walz, Peter. Science and policy objectives for a new ocean observing platform on the south shore of Monterey Bay. (Position A19)

Mayorga, Emilio; **Newton, Jan;** Tanner, Troy; Blair, Rick; Risien, Craig; Seaton, Charles. Addressing multiple marine data needs from local to national scales: The NANOOS/IOOS regional case illustrated with ocean acidification applications. (Position A20)

SCI-021P DYNAMICS, IMPACTS, OR CONTROL OF INVASIVE SPECIES

Obaza, Adam; Williams, Jonathan. The fouling community assemblage of overwater structures within the Southern California Bight. (Position A39)

Sorensen, Kara; Swope, Brandon; Kirtay, Victoria; Harris, Leslie; Phillips, Tony; Bredvik, Jessica; Graham, Suzanne. Marine Ecologic Index Survey of San Diego Bay July 2011. (Position A40)

Bulthuis, Douglas; Bohlmann, Heath; Burnett, Nicole; Shull, Suzanne. Seasonal growth of two seagrasses with overlapping distribution in the Pacific Northwest: The non-native eelgrass, *Zostera japonica* and the native eelgrass, *Zostera marina*. (Position A46)

Young, David; Clinton, Patrick; Specht, David; Mochoncollura, Tchris. Has the exponential expansion of the invasive dwarf eelgrass *Zostera japonica* in Yaquina Estuary, Oregon impacted the distribution of the native eelgrass *Zostera marina*? (Position A47)

Reisalu, Greta; Herkül, Kristjan; Pärnoja, Merli. Habitat differentiation of sympatric native and invasive gammarids (Crustacea, Amphipoda) (Position A48)

Wong, Melissa; Dowd, Michael. Towards an ecosystem model for predicting effects of invasive colonial tunicate fouling on eelgrass (*Zostera marina*) growth. (Position A49)

WEDNESDAY POSTER SESSIONS

Bisson, Beth; Eberhardt, Alyson; Pederson, Judith. A regional approach to preventing the invasion of the Chinese mitten crab in the Gulf of Maine. (Position A50)

Guerra, Vanessa; Cohen, C. Sarah. Population genetic diversity of *Ciona intestinalis* sp. A on the Pacific coast of America. (Position B37)

Nedelcheva, Raya; Thompson, Jonathan; Scianni, Chris; Brown, Christopher; Dobroski, Nicole. Hitchhikers guide to shipping - Vessel traffic and their nonindigenous species management practices at northern California ports. (Position B38)

Reyns, Nathalie; Martinez, David; Tracy, Brianna. The effects of environmental conditions on growth rates of the invasive ascidian *Botrylloides violaceus* in a southern California bay. (Position B39)

Thompson, Jonathan; Nedelcheva, Raya; Scianni, Chris; Brown, Christopher; Dobroski, Nicole. Hitchhikers guide to shipping - Vessel traffic and their nonindigenous species management practices at southern California ports. (Position B40)

Durand, John. Presence of submerged aquatic weed *Egeria densa* as a function of water depth and flow. (Position B46)

Sutton, Hope. Assessing effectiveness of management of a non-native predator in a coastal protected area in North Carolina. (Position B47)

Britton, David; Thompson, Jonathan; Pasko, Susan; Patterson, Mathew. HACCP: Hazard Analysis and Critical Control Point planning—A risk management tool and its use to decrease the movement of invasive species. (Position B48)

Brown, Christopher; Scianni, Chris; Nedelcheva, Raya; Thompson, Jonathan; Dobroski, Nicole. What's the GIS? Using GIS to track the compliance of ballast water management in California. (Position B49)

Scianni, Chris; Brown, Christopher; Nedelcheva, Raya; Thompson, Jonathan; Dobroski, Nicole. The hull nine yards: a complete look at biofouling management, hull husbandry practices, and voyage characteristics of vessels operating in California. (Position B50)

Vincent, Robert. The role of historic wetlands in the establishment and maintenance of *Phragmites australis* in coastal dune habitat of Cape Cod, Massachusetts. (Position B36)

SCI-022P RESTORING WETLAND FUNCTION BY CONTROLLING INVADERS: SPARTINA AND PHRAGMITES

Feinstein, Laura; Thornton, Whitney; **Hann, Courtney;** Grosholz, Ted. How do edaphic characteristics influence native Pacific Cordgrass restoration success across tidal elevations? (Position B31)

SCI-023P THE RELEVANCE OF BIOLOGICAL INVASIONS ON ECOSYSTEM FUNCTIONING

Toothman, Byron; Duernberger, Kimberley. Denitrification within drifting mats of *Gracilaria vermiculophylla*. (Position B29)

Holzer, Kim; Carney, Jenny; Minton, Mark; Miller, Whitman; Ruiz, Greg. A tale of three coasts: Temporal and spatial variation in ballast water management to reduce invasion risk. (Position B30)

SCI-025P RESEARCH AND THE CLASSROOM: CONNECTIONS BETWEEN SCIENTISTS AND EDUCATORS

Cammarata, Kirk; Mozzachiodi, Riccardo. A marine microbiome application for the undergraduate molecular biology laboratory. (Position B20)

SCI-026P GENOMIC TOOLS IN MARINE ECOSYSTEM MONITORING AND ASSESSMENT, WITHIN OCEAN POLICY LEGISLATION AND GOVERNANCE

Aylagas, Eva; **Rodriguez-Ezpeleta, Naiara;** Borja, Ángel. Genomic resources of the AZTI's Marine Biotic Index species: an endeavor in facilitating monitoring and assessment in marine waters. (Position B28)

SCI-027P UNRAVELING THE "BLACK BOX" OF MIGRATION WITH NOVEL METHODS

Limburg, Karin; Wuenschel, Mark. Phylogenetic constraints on elemental uptake in flounder otoliths: aid to interpreting migration and other life history events. (Position B16)

Gieseking, Melissa; Rechimuth, Jessica. Do they stay or do they go? A study of site fidelity among *Mugil cephalus* and *Mugil curema* along the mid-South Atlantic Bight. (Position B17)

Benjamin, Joseph; **Wetzel, Lisa;** Martens, Kyle; Larsen, Kimberly; Connolly, Patrick. Spatio-temporal variability in movement, age, and growth of mountain whitefish (*Prosopium williamsoni*) in a river network based upon PIT tagging and otolith chemistry. (Position B18)

Bush, Eva; Cook, Jon; Ikemiyagi, Naoaki; Ramos, Georgia; Hobbs, James. Otolith strontium isotope life history reconstructions of Delta smelt, *Hypomesus transpacificus*. (Position B26)

Thompson, Christine; North, Elizabeth; Schlenger, Adam. Raman spectroscopy as a technique to study bivalve larvae. (Position B27)

SCI-028P ECOLOGICAL TRACERS IN COASTAL ECOSYSTEMS: PATH TO SUSTAINABILITY

Gaeckle, Jeffrey; Stowe, Jessica; Kreamer, Kiri. The assessment of nutrient, metal, and organic contaminant concentrations in eelgrass (*Zostera marina* L.) in Puget Sound, WA (USA): A project overview. (Position B7)

Anders, Robert; Fisher, Robert; O'Leary, David; Futa, Kyoto; Danskin, Wesley. Evidence for a brackish to hypersaline paleodepositional environment, San Elijo Lagoon, California. (Position B8)

McCormick, Mary; Garza, Corey; Litvin, Steven. Intertidal foraging habits of fished and protected California spiny lobsters of Catalina Island, California. (Position B9)

SCI-035P NUMERICAL MODELING OF ESTUARINE AND COASTAL SYSTEMS

Kim, Jong Wook; Yoon, Byung Il; Song, Jin Il; Woo, Seung Buhm. A numerical study of relationships between freshwater discharge and horizontal isohaline in Yeoungsan River Estuary, South Korea. (Position C6)

Irby, Isaac; Friedrichs, Marjy; Feng, Cathy; Hood, Raleigh; Friedrichs, Carl. Skill assessment of multiple models in the Chesapeake Bay. (Position C7)

Mao, Miaohua; Xia, Meng. Application of unstructured wave model to Lake Michigan and its tributary Grand Haven. (Position C8)

LaBone, Elizabeth; Justic, Dubravko; Rose, Kenneth; Wang, Lixia; Huang, Haosheng. Modeling the effects of hypoxia on fish movement in the Gulf of Mexico hypoxic zone. (Position C9)

Rubio, Juan; Solana, Elena; Uzeta, Olga; Rivas, David. Secondary production of the benthic community associated with *Zostera marina* in Punta Banda coastal lagoon, Ensenada, Baja California, Mexico. (Position C10)

WEDNESDAY POSTER SESSIONS

Marvan, Fernando; Navarro-Olache, Luis; Flores-Vidal, Xavier; Ruiz de Alegria, Amaia; Gil-Silva, Eduardo; Espinoza-Lagunes, Carla. Short term morphodynamics of the Punta Banda coastal lagoon, Ensenada, Baja California. (Position C16)

Marina, Tomás; Herrera-Silveira, Jorge; Medina-Gómez, Israel. An application of an NPZ Model to a coastal upwelling ecosystem in the Yucatan Peninsula, Mexico. (Position C17)

Lisboa, Paulo; Fernandes, Elisa. Anthropogenic influence on the sedimentary dynamics of a sandy spit bar, Patos Lagoon Estuary. (Position C18)

SCI-038P ENRICHING OUR COASTS: THE PAST, PRESENT, AND FUTURE OF FERTILIZATION STUDIES AS A MANAGEMENT GUIDE

Wejrowski, Mark; Reyes, Enrique. Response of a *Spartina patens*-dominated oligohaline marsh to nitrogen enrichment in coastal North Carolina, USA. (Position C19)

Davis, Traci; Reyes, Enrique; Christian, Robert; Ardon, Marcelo; Miller, Richard. Multi-scale investigation of aboveground biomass response to agricultural density in coastal marshes. (Position C20)

SCI-039P SYNTHESIS RESEARCH IN ESTUARINE AND COASTAL SCIENCE: FOCUS ON PROCESS AND APPLICATION

Murrell, Michael; Hagy, James; Aukamp, Jessica; Beddick, David; Craven, William; Duffy, Allyn; Jarvis, Brandon; Marcovich, Dragoslav; Yates, Diane. Environmental drivers of variability in estuarine metabolism gleaned from in situ and experimental measurements at paired sites in a warm temperate Pensacola Bay, Florida. (Position C30)

SCI-040P SYNTHESIS RESEARCH IN ESTUARINE AND COASTAL SCIENCE: A SESSION IN HONOR OF SCOTT W. NIXON

Dean, Britt; Brush, Mark; Anderson, Iris. Modulation of watershed nutrient loads by tidal creek ecosystems on Virginia's Eastern Shore. (Position C28)

SCI-043P RESILIENCE IN COASTAL ECOSYSTEMS: RESILIENCY OF COASTAL AND MARINE ECOSYSTEMS AND THE SERVICES THEY PROVIDE

Carrion, Steven; Wall, Chuck; Rabalais, Nancy. Creatures of the subtidal deep: Examining long-term impacts of the Deepwater Horizon oil spill on infaunal communities in Terrebonne Bay. (Position C26)

Pruett, Catherine; **Ellingson, Kami.** Restoration of a coastal estuarine ecosystem: a tool to increase hydrologic storage capacity and ecological resilience. (Position C27)

Garmestani, Ahjond; Shuster, William; Odom Green, Olivia. Adaptive management of urban watersheds. (Position C36)

SCI-046P SYNERGISTIC EFFECTS OF CLIMATE AND LAND-USE CHANGE ON ESTUARINE AND COASTAL SYSTEMS

Rice, Karen; Hirsch, Robert; Bennett, Mark. Spatial and temporal trends in runoff at long-term stream gauges and implications for climate change effects in Chesapeake Bay watershed. (Position C37)

Al-Hamdan, Mohammad; Estes, Maurice; Mooney, Douglas; Richardson, Norman; Schuetter, Jared; Wightman, Jennifer. Evaluating the impacts of land cover, land use, and climate change on water quality in Weeks Bay, Alabama. (Position C38)

Fisher, Kelsey; Price, Lynn; Hayes, Ken; Wetz, Michael. Phytoplankton and nutrient dynamics in an urbanizing, eutrophic subtropical estuary (Oso Bay, Texas) (Position C39)

Kowalski, Joseph; DeYoe, Hudson; Zimba, Paul; Cammarata, Kirk; Parsons, Jason. Effects of hyposalinity on photosynthesis, respiration, and ion concentration on the seagrass *Halodule wrightii* Aschers. (shoal grass) in a microcosm study. (Position C40)

SCI-048P CLIMATE CHANGE AND SPECIES INTERACTIONS: IMPLICATIONS FOR ECOSYSTEM FUNCTIONS AND SERVICES

Pearl, Samantha; Arellano, Shawn. Analysis of shells and swimming behavior of *Olympia* oyster larvae exposed to ocean acidification. (Position C46)

French, Emily; Moore, Kenneth. The effects of recent seagrass species change on habitat structure and function. (Position C47)

Noto, Akana; Shurin, Jonathan. Sea-level rise impacts on salt marsh communities: the effect of a dominant plant species. (Position C48)

Herlan, James; Rogers, Caroline. Shading may reduce bleaching of corals thriving in a mangrove ecosystem. (Position C49)

Reichmuth, Jessica; **Best, Charles;** Bates, Christopher. Bacteria, biofilms, and bait fish: An investigation of marine biofilms found on two species of forage fish along the Southeastern US. (Position C50)

SCI-049P COASTAL AND ESTUARINE CARBON CYCLING

Hodgson, Christine. Blue Carbon in the Comox Valley: Monetizing the benefits of eelgrass habitat restoration in coastal British Columbia (Position D38)

Gatland, Jackie; Santos, Isaac; Maher, Damien; Duncan, Tahlia; Erler, Dirk. Carbon dioxide and methane dynamics within a tidal freshwater creek draining lowland acid sulphate soils following a flood event. (Position D39)

Doughty, Cheryl; Langley, Adam; Chapman, Samantha. Climate-induced expansion of the Florida mangrove-marsh ecotone: implications for wetland carbon storage. (Position D40)

White, Caitlin; Piehler, Michael; Couper, Lisa; Thompson, Suzanne. Assessing impacts of land use on coastal stream metabolism. (Position D46)

Walker, Julie; Tanner, Christopher. Is seagrass the solution? The effect of eelgrass on Eastern oyster biomineralization. (Position D47)

Brannon, Elizabeth; Kroeger, Kevin; Pohlman, John; Green, Adrian; Ganju, Neil; Valtierra, Serena Moseman. Investigating time variations in DOC concentrations for salt marsh carbon budgets: Testing continuous FDOM measurements as a proxy. (Position D48)

Zhao, Yong; Raymond, Peter. High frequency monitoring of DOC and DIC between a salt marsh and Plum Island Sound. (Position D49)

Darjany, Lindsay; Whitcraft, Christine; **Dillon, Jesse.** Characterization of microbial carbon cyclers in a Southern California salt marsh using DNA stable isotope probing. (Position D50)

SCI-052P ASSESSING COASTAL CONDITION USING NATIONAL, REGIONAL, AND STATE MONITORING PROGRAMS

Parsons Richards, Carol; Raynie, Richard; Pahl, James; Khalil, Syed; Haywood, Edward; Weifenbach, Dona; Peyronnin, Natalie. System-Wide Assessment and Monitoring Program (SWAMP) (Position D26)

WEDNESDAY POSTER SESSIONS

McGinnis, Thomas; Sharp, Leigh Anne; Weifenbach, Dona. Analytical data tools employed by Louisiana's Coastwide Reference Monitoring System. (Position D27)

Kreeger, Danielle; Padeletti, Angela; **Cheng, Kurt;** Maxwell-Doyle, Martha. Comparison of coastal wetland condition among sub-watersheds of the Delaware Estuary that were assessed with the Mid-Atlantic Tidal Rapid Assessment Method. (Position D36)

Blackhart, Kristan; Esselman, Peter. A standardized framework to assess the condition and stresses of estuary ecosystems at regional scales: A case study of the northern Gulf of Mexico. (Position D37)

SCI-061P COMPARATIVE APPROACHES TO HORSESHOE CRAB ECOLOGY AND CONSERVATION IN NORTH AMERICA AND SOUTHEAST ASIA

Cheng, Helen; Watson, Winsor. Evaluating the spawning activity of the American horseshoe crab (*Limulus polyphemus*) in Great Bay Estuary, New Hampshire, USA. (Position D16)

Shin, Paul; Chu, Vicky; Cheung, Siu Gin. Analysis of trophic relationship of juvenile Asian horseshoe crabs on a nursery beach in Hong Kong. (Position D17)

Hieb, Elizabeth; Baggett, Jacy; Aven, Allen; Carmichael, Ruth. Effects of sediment type and tank shape on horseshoe crab growth and survival in culture. (Position D18)

Colon, Christina; Botton, Mark. Quantifying the effects of a beach nourishment project on horseshoe crab (*Limulus polyphemus*) spawning activity, egg deposition, and juvenile habitat on Plumb Beach, Brooklyn, New York. (Position D19)

Gibson, Daniel. Seven fat years and seven lean years: Variations in recruitment of juvenile *Limulus polyphemus* in a Massachusetts salt marsh over a thirty-five year span. (Position D20)

Behera, Satyaranjan; Choudhury, Shri; **Bhadury, Punyasloke.** Population status of Horseshoe Crabs along the East Coast of India- a case study from Odisha. (Position D28)

Iwasaki, Yumiko; Tanacredi, John; Lundstrom, Andrew; Portilla, Sixto. Investigation into the effect of simulated predation on molting behavior of captive juvenile Atlantic horseshoe crabs, *Limulus polyphemus* (Lineaus 1758) (Position D29)

SanRomán, Diane. The American horseshoe crab, *Limulus polyphemus*: Photos of their survival and impairing life events. (Position D30)

SCI-063P ICOL, TOCE, AND OTHER BAR-BUILT ESTUARIES

Mahon, Hillary; Harris, James. Effect of salinity on growth of juvenile Yarra pygmy perch (*Nannoperca obscura*: Percichthyidae) (Position D9)

Nylen, Daniel; Largier, John. Hydrology of a prototypical, small bar-built estuary: Scott Creek (CA) (Position D10)

SCI-065P RECENT ADVANCES TO UNDERSTAND THE CONTINUING EVOLUTION OF THE SAN FRANCISCO BAY ECOSYSTEM

Sommer, Ted; Mejia, Francine. A place to call home: A synthesis of delta smelt habitat in the upper San Francisco Estuary. (Position D6)

Lee, Jamie; Parker, Alexander; Wilkerson, Frances. Nitrogen uptake kinetics of *Microcystis aeruginosa* in the San Francisco Estuary Delta, CA. (Position D7)

Johnson, Allison; Parker, Alexander; Wilkerson, Frances. Climate change effects on cyanobacteria blooms in the San Francisco Delta. (Position D8)

Kress, Erica; Cloern, James; Schraga, Tara. Measurements and potential significance of urea as a nitrogen source for HAB species in San Francisco Bay, California: a one-year pilot study. (Position E6)

Parker, Alexander; Dugdale, Richard; Wilkerson, Frances; Hogue, Victoria; Blaser, Sarah; Pimenta, Adam; DuBose, Melissa; Lorenzi, Allison. Insights into phytoplankton and nutrient interactions in Central San Francisco Bay, CA through a decade of observation. (Position E7)

Blaser, Sarah; Wilkerson, Frances; Parker, Alexander; Dugdale, Richard. Is urea a water quality concern in the San Francisco Estuary? (Position E8)

Windham-Myers, Lisamarie; Drexler, Judith. Tidal marsh vertical accretion processes in the San Francisco Bay-Delta: Are our models underestimating the historic and future importance of plant-mediated organic accumulation? (Position E9)

Dunlavy, Eric; Yigzaw, Simret; Ervin, James. Fifty years of improving water quality in Lower South San Francisco Bay. (Position E10)

SCI-068P ESTUARINE SHALLOWS: BIOPHYSICAL INTERACTIONS

Zarama, Francisco; Zeller, Robert; Weitzman, Joel; Koseff, Jeffrey. Development of turbulence downstream of shallow submerged vegetation. (Position E16)

Housego, Rachel; Rosman, Johanna. Investigating feedbacks between sediment dynamics and oyster reef growth using an idealized 1-d model. (Position E17)

Rosenzweig, Itay; Koseff, Jeffrey. Response of surface turbulence statistics to a submerged canopy. (Position E18)

Gilson, Gina; Schalles, John; O'Donnell, John; Brennan, John. Quantifying spatial variability of microbenthic algae using optical reflectance measurements. (Position E19)

He, Jianzhang; Yin, Kedong. Effects of topography on the formation of low oxygen waters in Pearl River estuarine coastal waters. (Position E20)

George, Doug; Lowe, Jeremy; Vandebroek, Elena; Kunz, Damien; Quiroga, Pablo; Latta, Marilyn; Boyer, Katharyn. Evolving the bed - physical and geomorphic processes of the San Francisco Bay Living Shorelines: Nearshore Linkages Project. (Position E30)

SCI-069P ESTUARINE SHALLOWS: MONITORING, MODELING, AND MANAGING

Cerco, Carl; Noel, Mark; Linker, Lewis. Monitoring, modeling, and managing in the shallow-water regions of Chesapeake Bay. (Position E26)

Green, Lauri; Gawlik, Dale; Lapointe, Brian; Calle, Leonardo. Development of seagrass distribution model to assess wading bird resource selection within the Great White Heron National Wildlife Refuge, Florida Keys. (Position E27)

Duffy, Allyn; Schaeffer, Blake; Le, Chengfeng. The use of a MODIS band-ratio algorithm versus a new hybrid approach for estimating colored dissolved organic matter (CDOM) (Position E28)

Pelc, Carey; Gallegos, Charles. Spatial patterns in optical properties and diffuse attenuation coefficients in Delmarva Coastal Bays. (Position E29)

WEDNESDAY POSTER SESSIONS

Myers, Joseph; Buskey, Edward. Using high spatial resolution sampling to validate the locations of permanent water quality monitoring stations within the Mission-Aransas Estuary. (Position E36)

Heggie, Keira; Kornis, Matthew; Davias, Lori; Breitburg, Denise. Effects of anthropogenic shoreline hardening and watershed land use on condition indices of three fish species. (Position E37)

Baine, Gary; Johnson, Zoe; Williams, Emily; Hale, Quarail; Hartnett, Casey; Lutterschmidt, William; Alford, John; Wozniak, Jeffrey; Swim, Edward. Using mathematical models to simulate coastal marsh hydrology and primary production. (Position E38)

SCI-070P MICROBIAL ECOLOGY: PROCESSES, LINKAGES, AND ECOSYSTEM FEEDBACKS

Hester, Eric; Rohwer, Forest. ARMS: Assessing global microbial diversity through standardized sampling. (Position E39)

Cheng, Bingran; Biddle, Jennifer. Variations of archaeal communities in sediments of coastal Delaware. (Position E46)

Song, Bongkeun; Carini, Steve; Arfken, Ann; Lisa, Jessica; Duernberger, Kimberley; Tobias, Craig. Structural and functional adaptation of anammox and denitrifying communities to seawater intrusion in a tidal freshwater ecosystem. (Position E47)

Nash, Jessica; Ortmann, Alice; Jones, Jessica. *Vibrio cholerae* abundance and diversity is influenced by environmental factors in Mobile Bay, Alabama. (Position E48)

Angell, John; Kearns, Patrick; Bowen, Jennifer. Examining the role of oxygen as a driver of microbial community structure in vegetated and unvegetated salt marsh sediments at sub-millimeter scales. (Position E49)

Lee, Jessica; Francis, Christopher. Denitrification in San Francisco Bay: microbial diversity, abundance, and activity. (Position E50)

SCI-071P GEOLOGICAL AND BIOGEOCHEMICAL PROCESSES IN THE SEDIMENTS AND SOILS OF COASTAL WETLANDS

Takeuchi, Masayuki; Hamersley, M. Robert. Biogenic greenhouse gas fluxes from sediments of an urban wetland fringing Newport Bay, CA. (Position F46)

Nakamura, Ai; **Hamersley, M. Robert.** Groundwater nutrients entering an urban wetland fringing Newport Bay, CA. (Position F47)

Dobbs, Shelby; Garza, Sylvia; Hardison, Amber; Gardner, Wayne. Effects of wind mixing on nutrient dynamics and ammonium processes in a shallow coastal pond. (Position F48)

Xu, Kehui; Liu, Zhanfei; Wang, Zucheng. Texture and characteristics of wetland sediment along the Texas-Louisiana coast. (Position F49)

SCI-072P MANGROVE EXPANSION INTO SALT MARSH HABITATS: CAUSES AND CONSEQUENCES

Osland, Michael; Day, Richard; Enwright, Nicholas; Doyle, Thomas; Stagg, Camille. Climate change and tidal wetland foundation species: thresholds, resilience, and alternative stable states in the northern Gulf of Mexico. (Position F29)

Sandoval-Castro, Eduardo; Enríquez-Paredes, Luis; Riosmena-Rodríguez, Rafael; Dodd, Richard; Tovilla-Hernández, Cristian; Moreno-Medina, Sandra; López-Vivas, Juan; Aguilar-May, Bily; Muñoz-Salazar, Raquel. Post-glacial expansion and population genetic divergence of mangrove species *Avicennia germinans* (L.) Stearn and *Rhizophora mangle* (L.) along Mexican coast. (Position F30)

Duckett, Lisa; Feller, Ilka. Effects of nutrient ratios of woody and herbaceous taxa on ecosystem productivity along a latitudinal gradient. (Position F36)

Day, Richard; Osland, Michael; From, Andrew; Larriviere, Jack. An allometric equation for estimating aboveground biomass of black mangrove (*Avicennia germinans* (L.) L.) shrubs in the northern Gulf of Mexico. (Position F37)

Villanueva-Cubero, Luis; Yu, Mei. Changes in Puerto Rico's wetland coverage after industrial agriculture decline. (Position F38)

Caretti, Olivia; Johnston, Cora. Settle down!: Crab larvae settlement preferences in shifting coastal ecosystems. (Position F39)

Nathan, Mayda; Gruner, Daniel. Pollinator activity as a biotic control of range expansion in the black mangrove, *Avicennia germinans*. (Position F40)

SCI-076P BIOGEOCHEMISTRY OF COASTS AND ESTUARIES

Hanson, Alana; Wigand, Cathleen; Johnson, Roxanne; Oczkowski, Autumn; Watson, Elizabeth; Davey, Earl; Markham, Erin. The response of *Spartina alterniflora* to multiple stressors: eutrophication, precipitation changes, and sea level rise. (Position F6)

Stanhope, Jennifer; Anderson, Iris; Brush, Mark; Currin, Carolyn; Piehler, Michael. Benthic microbial responses to interacting physical-biological drivers in a shallow estuary. (Position F7)

Martin, Rose; Moseman-Valtierra, Serena. Manipulative experiments test effects of invasive *Phragmites australis* and nitrogen enrichment on greenhouse gas fluxes. (Position F8)

Gárate, Melanie; Moseman-Valtierra, Serena. Burrowing macroinvertebrates and excess nutrients may increase greenhouse gas fluxes from coastal ecosystems. (Position F9)

Hoffman, Daniel; Mutchler, Troy; McCarthy, Mark. Comparison of nitrogen transformation rates in vegetated and un-vegetated marine sediments of St. Joseph Bay, FL. (Position F10)

Pérez-Tribouillier, Habacuc; Choumiline, Evgueni; Rodríguez-Figueroa, Griselda. Assessment of the actual levels of trace elements and their sources in marine sediments of the La Paz Lagoon, Baja California Sur, Mexico. (Position F16)

Hernández-López, Julieta; Camacho-Ibar, Víctor; Herzka, Sharon. Isotopic evidence of nitrogen fixation in primary producers in San Quintin Bay, Mexico: a seasonal comparison. (Position F17)

Gautam, Sushil; Sundareshwar, Pallaoor; Kunza, Lisa; Neubauer, Scott; Richardson, Curtis. Interactions between litter and soil nutrients in leaf litter decomposition of coastal wetlands. (Position F18)

Gatagwu, Joel; Ogendi, George; Moturi, Wilkister; Mwangi, Stephen. Implication of heavy metals dynamics in sediment pore-water interface on macro benthic invertebrate assemblage in Makupa Creek, Mombasa. (Position F19)

Potts, Jaimie; Ferguson, Angus; Maher, William; Koop, Klaus; Scanes, Peter. The interaction of catchment flows, salinity induced flocculation and river reach hypsometry have profound effects on the fate of organic matter and nutrients in sediments along the estuarine continuum in riverine estuaries of NSW Australia. (Position F20)

Souza, Afonso; Kim, Il Nam; Dunton, Ken; Gardner, Wayne. Dinitrogen, oxygen, and nutrient fluxes at the sediment-water interface and bottom water mixing ratios on the Eastern Chukchi Sea shelf. (Position F26)

WEDNESDAY POSTER SESSIONS

Tabatabai, Aboozar; Wilkin, John. Evaluation of a biogeochemical model in Delaware Estuary. (Position F27)

SCI-077P ESTUARINE RESTORATION: SCIENCE AND POLICY

Karlsson, Louise; Olofsson, Malin; Infantes, Eduardo; Moksnes, Per-Olav. Assessing methods for restoration of eelgrass (*Zostera marina*) on the Swedish NW coast. (Position G6)

Lee, Kun-Seop; Kim, Young Kyun; Kim, Jong-Hyeob; Kim, Seung Hyeon; Kim, Jae Woo. Growth and genetic structure of restored *Zostera marina* population on the southern coast of Korea. (Position G7)

Graham, Benjamin; Phelps, Josh; Young, Margaret; Crawford, Maurice. Genetic analysis of submerged aquatic vegetation using ISSR and RAPD analysis. (Position G8)

Skinner, Christa; van Proosdij, Danika; Lundholm, Jeremy; Bowron, Tony. Analysis of the relationship between vegetative community structure and geodetic elevation for salt marsh restoration in hyper-tidal systems. (Position G9)

Wrathall, Carly; Lundholm, Jeremy; van Proosdij, Danika. Assessment of primary productivity in the Windsor Salt Marsh. (Position G10)

Patonai, Katalin; Schroeter, Steve; Page, Henry; Deza, Andres; Blair, Emily. Using GIS in wetland restoration and monitoring: time series of brackish marsh expansion in the San Dieguito Wetlands, CA. (Position G11)

Page, Henry; Schroeter, Steve; Deza, Andres; Hoesterey, Justin; Patonai, Katalin; Blair, Emily; Weaver, Crystal. The San Dieguito Wetlands Restoration: A large wetland mitigation project in Southern California. (Position G12)

De La Cruz, Susan; Boyer, Katharyn; Latta, Marilyn; Hollander, Laura; Takekawa, John. Avian and benthic invertebrate responses to eelgrass and native oyster restoration the San Francisco Bay estuary. (Position G13)

Patten, Melissa; Pardini, Eleanor; Knight, Tiffany. Rare plant recovery: Effects of invasive vegetation removal on pre-dispersal seed predation of a coastal dune lupine. (Position G14)

Le Vay, Lewis; Walton, Mark; Vilas, César; Prieto, Ana; Kennedy, Hilary; King, Jonathan; Medialdea, Miguel; Canavate, José Pedro. Can estuarine wetlands constructed for aquaculture production be designed to provide a wider range of ecosystem services? (Position G15)

Hobbs, James; Cook, Jon; Buckmaster, Nick; Crain, Pat; Moyle, Peter. The state of fish and invertebrate assemblages in the South Bay Salt Pond Restoration Program's restoration ponds. (Position H6)

Barber, Alec; Rybczyk, John; Crump, Donald. Sediment and vegetation monitoring during a levee removal project on the Stillaguamish River delta at Port Susan Bay, WA. (Position H7)

Whiting, Allan; Simenstad, Charles; Trask, Phil; Ramirez, Mary. Landscape planning framework for protection and restoration of estuarine habitat using the Columbia River Estuary Ecosystem Classification. (Position H8)

Neatt, Nancy; Bowron, Tony; Graham, Jennifer; Lemieux, Ben; van Proosdij, Danika; Lundholm, Jeremy; Pett, Robert. Macro- and meso-tidal wetland restoration in Canada's Maritime Provinces. (Position H9)

Lindquist, David; Pahl, James; Parsons Richards, Carol; Raynie, Richard; Vosburg, Brian. The use of river diversions by the State of Louisiana and predicted effects of project operations on receiving basins. (Position H10)

Pinnell, Cassie; Boyer, Katharyn; Miller, Jennifer; Kiriakopolos, Stephanie; Stockman, Kevin. Invertebrate and fish responses to eelgrass and oyster restoration in a San Francisco Estuary living shorelines project. (Position H11)

Nestlerode, Janet; Kaack, Katrina; Osland, Michael; Harwell, Matthew. Variability and convergence in benthic communities in created saltmarshes transitioning into mangrove habitats. (Position H12)

Roeske, Kris; Ozbay, Gulnihal; Jivoff, Paul; Scarborough, Bob. Investigating the impact of *Phragmites australis* on blue crab and fish population abundance, sex ratio, molting frequency, age class, and size in Blackbird Creek, Delaware. (Position H13)

Coe, Hannah; Tanner, Christopher. Beyond spat: Faunal colonization of oyster reef restoration materials. (Position H14)

Johnson, Keith. Oyster mortality and growth near Baltimore, MD in more and less polluted locations. (Position G16)

SCI-078P POLICY AND MANAGEMENT OF COASTS AND ESTUARIES

Zenha, Jose. The Tagus estuary case, Lisbon, Portugal. (Position G20)

Ibanez, Atziri; Migliori, Michael. NOAA's National Estuarine Research Reserves - Addressing management needs through civic science engagement. (Position H16)

Haywood, Edward; Khalil, Syed; Raynie, Richard. Tools for managing sediment in Louisiana. (Position H17)

Courtenay, Simon. The Canadian Watershed Research Consortium: developing monitoring frameworks in support of cumulative effects assessment. (Position H18)

Graham, Suzanne; Bredvik, Jessica. Methodology to assess essential fish habitat in San Diego Bay. (Position H19)

Duncan, Benét; Higgason, Kelley; Suchanek, Tom; Largier, John; Stachowicz, John (Jay); Cayan, Dan. Science and management: Climate change indicators for the North-Central California coast and ocean. (Position H20)

Are you a coastal manager
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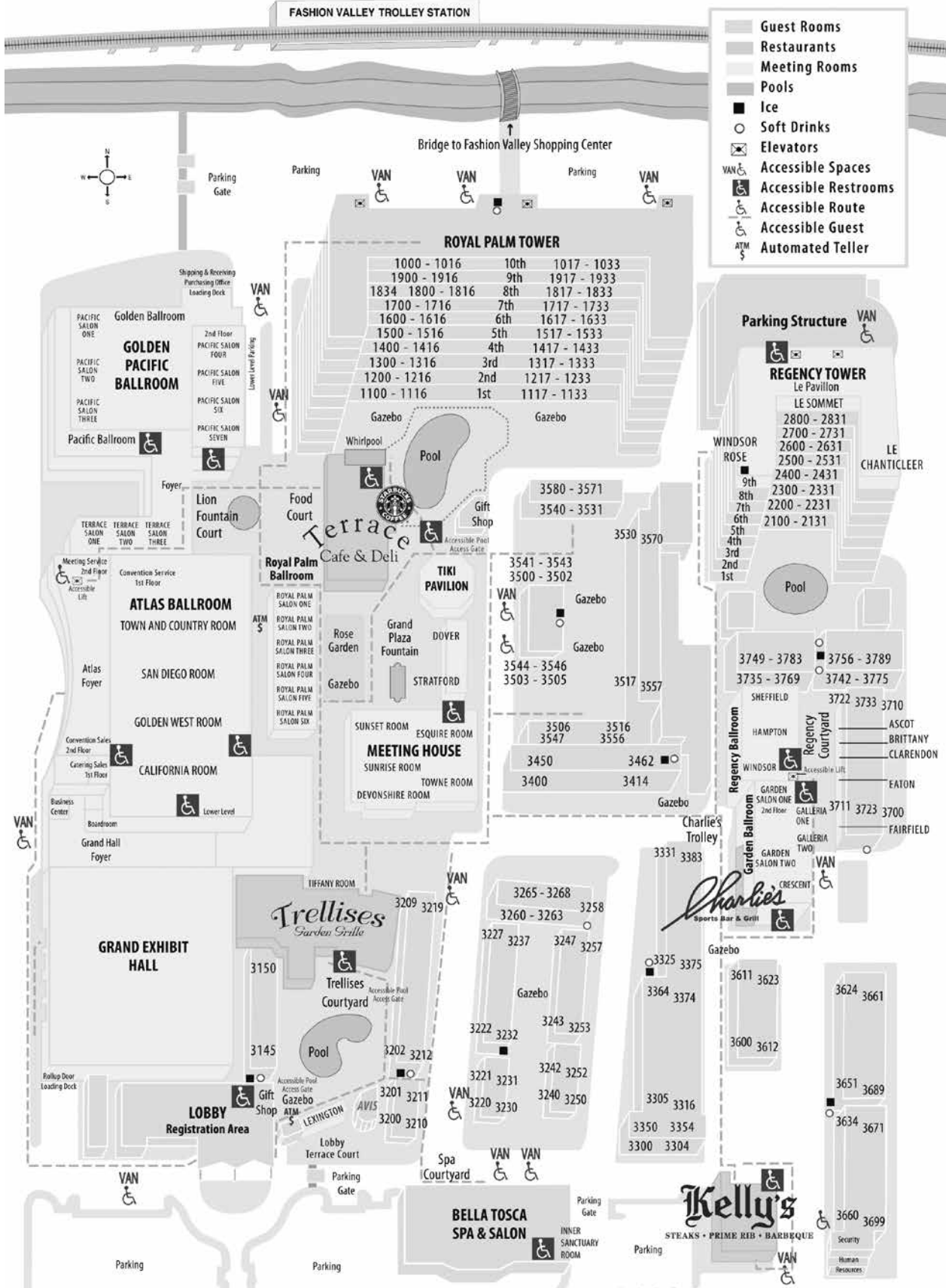
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AUTHOR INDEX

A

Abadie, E. 27
 Abbott, M.E. 47
 Abbott, J.M. 32
 Abbott, R. 37
 Abdel-Hadi, Y.M. 33
 Abdelrhman, M. 40
 Abd Ghaffur, I.
 Abdullah, N.
 Abdulovic-cui, A. 55
 Abe, M.P. 54
 Abreu, P.C. 36, 54
 Achete, F. 39
 Adamack, A.T. 55
 Adamowicz, S. 39, 45
 Adams, B. 33
 Adams, J. 57
 Adams, J.B. 44, 46, 48
 Adams, K. 26, 36
 Adamus, P. 54
 Ådjers, K. 27
 Adolf, J.E. 31
 Afham, M.
 Afonso, G.L. 51
 Aguilar, A. 55
 Aguilar-May, B. 61
 Ahmad, A. 39
 Albano, S. 38
 Alber, M. 38, 39, 51
 Alberti, J. 29
 Albertson, S. 32
 Alderson, M. 40
 Alers-Garcia, J. 28, 51
 Alexander, C. 28, 51
 Alexander, J. 49
 Alexandre, A. 38
 Alford, J. 61
 Algar, C. 48
 Al-Haj, A. 32, 48
 Al-Hamdan, M.Z. 59
 Alia'm, A.
 Alicia, S.K. 36
 Alin, S. 42
 Alkawri, A.S. 27
 Alldred, M. 42
 Allee, R.J. 37
 Allen, B.J. 43, 54
 Allen, D.M. 37, 55
 Allen, E. 38
 Allen, I. 42
 Allen, J.M. 36
 Allen, K. 46
 Allen, K.A. 53
 Allen, S.E. 42
 Allen, T. 26, 28, 30, 36, 38, 51
 Allison, M.A. 41, 49
 Almario, A. 52
 Almario, A.E. 35
 Almeida, A. 36
 Almeida, L.E. 54

Almukaimi, M. 51
 Al Najjar, M. 29
 Alnajjar, M.W. 32
 Alphin, T.D. 45, 51, 57
 Alsterberg, C. 45
 Altabet, M.A. 46
 Altieri, A. 27, 49
 Altrichter, A.E. 41
 Alvarez, L. 47
 Amacker, K.S. 42
 Ambo-Rappe, R. 30
 Ambrose, R. 51
 Ambrose, R.F. 37
 Ameen, A.D. 45
 Amoudry, K.J. 33
 Amoudry, L.O. 35, 37
 Andersen, J.H. 44
 Anders, J.S. 38
 Anderson, D.M. 36
 Anderson, G. 54
 Anderson, I.C. 27, 59, 61
 Anderson, S. 28
 Anders, R. 58
 Andersson, A. 32
 Andrade, M.M. 36
 Andreyko, H. 26
 Angell, J.H. 61
 An, S. 52
 An, T. 31
 Antonio, J. 38
 Antunes, C. 32, 42
 Arata, L. 38
 Araujo, L. 56
 Ardon, M. 59
 Arellano, S.M. 59
 Arfken, A. 38, 61
 Arias-Ortiz, A. 48
 Armitage, A. 35, 41, 42, 43
 Arndt, T. 42
 Arnott, K.D. 29
 Arreola, A. 27
 Arteaga, P. 32
 Arthur, C. 28
 Arthur, S. 48
 Artioli, Y. 42
 Asef, T.S. 44
 Ashton, G. 46
 Asnaghi, V.
 Asp, N.E. 36
 Aston, L. 39
 Auermuller, L. 42
 Aukamp, J.A. 59
 Aven, A. 56, 60
 Aven, A.M. 56, 60
 Avery, B. 51
 Avery, H.W. 29
 Avila, C. 42
 Ávila López, M.C. 57
 Awkerman, J. 47
 Aylagas, E. 49, 58
 Aymà Padros, A. 27
 Ayvazian, S. 54
 Azizo Rahman, M. 39

B

Babaluk, J. 32
 Babcock, R. 30
 Baggett, J.D. 60
 Bailey, A. 56
 Baine, G.C. 61
 Baines, S.B. 42
 Baird, M.E. 37
 Baker, R. 35
 Bald, J. 40
 Baldwin, A. 26, 35
 Balke, T. 30
 Ballard, G. 32, 45
 Ballard, J. 53
 Ballestero, T. 37
 Baltes, R. 38
 Banas, N. 32, 33
 Baptista, A.M. 36
 Barbaro, J. 35
 Barber, A.R. 62
 Barnard, A. 38
 Barnard, P.L. 32, 45
 Barnes, M. 39
 Barnett, L.A. 45, 47
 Barras, J.A. 42
 Barreto, C. 48
 Barrett, J. 44
 Barron, M.G. 47
 Barrote, I. 32, 38
 Barry, K. 45
 Barth, J.A. 26
 Bartoli, M. 27
 Basdurak, B. 29
 Basilio, A. 57
 Baskett, M.L. 45, 47
 Bastian, R. 49
 Bastyan, G.R. 48
 Bates, C. 59
 Batiuk, R. 34
 Battaglia, L. 39, 46
 Battalio, R. 29, 32, 38
 Baumann, H. 32, 34, 40
 Baumgarten, S. 46
 Baumgartner, E. 44
 Baxter, A. 37
 Baye, P. 32
 Bayley, H. 46
 Beagle, J. 45
 Beal, J. 27
 Beamsley, B. 47
 Beard, R.H. 37
 Beaudreau, A. 36
 Beck, C. 30
 Beckert, K.A. 48
 Beckett, L.H. 38




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Beck, H. 28
 Beddick, D.L. 28, 59
 Beekey, M. 27, 41, 44
 Beers, J.M. 32
 Beever, L. 40
 Behera, S. 60
 Behrens, D. 32, 46, 49
 Beirne, M.M. 39
 Bellerby, R. 42
 Beller, E.E. 46
 Bell, M. 42
 Bell, S. 55
 Beman, M. 32, 38
 Ben-Horin, T. 46
 Benjamin, J.R. 58
 Bennett, M.R. 39, 59
 Bentley, S.J. 45
 Bera, G. 28
 Berg, C. 44
 Berge, H. 42
 Bergeron, C. 33
 Bergström, U. 27
 Bernard, G. 39
 Bernard, R.J. 38, 48
 Bernhard, A. 29, 33
 Berounsky, V.M. 26
 Berridge, K.A. 55
 Berrier, D.J. 26
 Berry, H. 36, 56
 Bersano, J.G. 55
 Berthelot, G. 42
 Bertness, M.D. 51
 Beseres Pollack, J. 48, 49, 51
 Best, C.F. 59
 Best, M. 30
 Bevington, A. 38, 42, 45
 Bey, S.
 Bezalel, S. 31
 Bhadury, P. 60
 Bhar, K.K. 43
 Bhatt, G. 34, 36, 39
 Biancani, P. 27
 Biber, P.D. 31, 36
 Bible, J.M. 34
 Biddle, J.F. 61
 Bigford, T. 26
 Bigman, J. 34
 Bignami, S. 32
 Birchler, J.J. 37
 Bischof, K. 54
 Bisson, B. 58
 Bittick, S.J. 38
 Bittler, K.M. 43
 Blackford, J.C. 42
 Blackhart, K. 60
 Blair, A. 33
 Blair, E. 41, 53, 62
 Blair, E.M. 53, 62
 Blair, R. 57
 Blair, S. 42
 Blake, R.E. 28
 Blanton, J. 28
 Blaser, S. 49
 Blaser, S.B. 60
 Blazer, V.S. 46
 Blewett, D.A. 31
 Block, B. 34
 Blomberg, B.N. 49
 Blum, L. 30, 36, 45
 Boch, C. 26, 32
 Bockmon, E.E. 40
 Bodker, E. 46
 Boerger, C. 55
 Boersma, M. 27
 Boettcher, A. 48, 52
 Bognar, J. 42
 Bograd, S. 53
 Bohlmann, H. 57
 Bohnenstiehl, D. 26
 Bohr, J. 41
 Boicourt, K. 33, 57
 Boicourt, W. 55
 Bojórquez-Sanchez, S. 26
 Bolaños, R. 53
 Bolter, K.P. 29
 Bombardelli, F. 49
 Bond, N. 42
 Bonel, N. 44
 Booe, T. 26, 47
 Booth, D.M. 43
 Booth, J.A.T. 53
 Boothman, W.S. 40
 Borberg, J. 35
 Borde, A. 36, 39
 Borgatti, R. 33
 Borges, A. 42, 48
 Borgnis, E. 36, 45
 Borja, A. 58
 Borja, Á. 40, 49
 Borkman, D. 26
 Bosch, J.A. 27
 Bos, J. 32
 Bosley, K. 55
 Bosley, K.M. 55
 Boss, H. 30
 Boswell, K. 27, 29
 Botsford, L.W. 45, 47
 Bottom, D. 27
 Botton, M. 39, 41
 Botton, M.L. 60
 Boucek, R. 31, 39
 Boudreau, D. 40
 Bouma, T. 30, 37, 42, 45
 Bourassa, C. 57
 Bourgeois, J. 45
 Bourque, A. 32
 Bowen, J. 29, 33, 42
 Bowen, J.L. 53, 61
 Bowers, K. 42
 Bowersox, M. 41
 Bowles, C.M. 44
 Bowron, T. 35, 39, 43, 62
 Box, C. 28
 Boyce, C.
 Boyer, J. 28
 Boyer, K. 36, 37, 41, 42, 45, 49, 60, 62
 Boynton, W. 31, 40
 Braden, S. 42
 Brady, D.C. 29, 40, 42
 Braeckman, U. 29, 36
 Brandes, J. 28
 Brandt, M. 40
 Brandt, S. 35, 55
 Brannon, E. 59
 Brantley, C.A. 41
 Branyon, J.M. 29, 54
 Braswell, A. 42
 Bratcher, A.M. 29
 Brawley, J.W. 29
 Breault, A.M. 32
 Bredvik, J. 55, 57, 62
 Breecker, D. 45
 Breitburg, D. 32, 34, 36, 38, 44, 49
 Breitburg, D.L. 52, 61
 Brennan, J. 60
 Brennan, M. 38
 Briceno, H.O. 28
 Bricker, E. 26
 Bricker, S.B. 28, 30, 40, 42
 Bridgeland, B. 54
 Bridges, T. 33
 Briggs, K. 37
 Brinson, M.M. 51
 Britton, D.K. 58
 Brockmann, H. 41
 Brodeur, M.C. 26
 Brody, S.D. 43
 Brookes, A. 51
 Brophy, L. 35, 43
 Broussard, L. 29
 Brown, B. 48
 Brown, B.L. 29
 Brown, C. 28, 51
 Brown, C.W. 58
 Browne, J.P. 30, 51
 Brown, G. 41, 49
 Brown, J. 26, 53
 Brown, J.M. 33
 Brown, K. 38
 Brown, K.M. 37, 45
 Brown, K.S. 47
 Brown, L. 37
 Brown, M. 26, 44
 Brown, S. 54
 Brown, S.M. 33
 Bruesewitz, D. 38
 Bruins, R. 37
 Brunell, M.S. 55
 Brunner, E.L. 38
 Bruno, J.F. 33
 Brush, G.S. 42
 Brush, M.J. 29, 44, 46, 49, 54, 59, 61
 Bryan, D. 39
 Bryan, J. 45
 Bryan, K.R. 54
 Buchsbaum, R.N. 55
 Buckmaster, N. 62
 Buenau, K. 39
 Buettger, H. 26
 Buffett, D. 32, 48
 Buffington, K. 26, 51
 Bui, T. 26
 Bukaveckas, P.A. 52
 Bullerjahn, G. 33
 Bulthuis, D.A. 57
 Bundy, M. 46
 Burchard, H. 29, 35, 53
 Burczynski, J. 49
 Burd, A.B. 39
 Burdick, D. 39
 Burfeind, D. 28, 38
 Burge, E.J. 26, 44, 49
 Burgett, C.M. 39
 Burkhardt, W. 48
 Burkholder, D. 43
 Burkholder, J. 53
 Burkholder, J.M. 26
 Burnett, K.G. 34, 44
 Burnett, L.E. 34, 44
 Burnett, N. 57
 Burnett, W.C. 38
 Burns, K. 29
 Burrell, R. 34, 52
 Busch, J.C. 49
 Bush, E. 58
 Bushek, D. 35, 46, 48
 Buskey, E.J. 34, 38, 43, 61
 Busse, L. 28
 Butenschön, M. 42
 Butler, L. 37, 55
 Butler, V. 38
 Butte, G. 33
 Byers, J. 29
 Byrd, K. 28
 Byrnes, M.R. 29
 Byron David, D. 43
 Byron, K.W. 41

C

Cabaço, S. 48
 Cabrey, C. 55
 Cacye, K. 31
 Cadien, D.B. 41
 Caffey, R.H. 40
 Caffrey, J.M. 42, 51, 52
 Cai, L. 55
 Cain, C.J. 48
 Cain, L. 33
 Cai, W. 42
 Calantoni, J. 37
 Calci, K.R. 48
 Caldwell, J.M. 39
 Caldwell, M. 57
 Caldwell, M.R. 43
 Calladine, A. 49
 Callaghan, D. 30
 Callaway, J. 35, 37, 39, 41, 43, 45
 Calle, L. 60
 Calomeni, A. 55
 Calvo-Cubero, J. 35
 Camacho-Ibar, V.F. 34, 51

- Cammarata, K.V. 49, 58, 59
 Campbell, J. 46, 47
 Canavate, J.P. 62
 Cannizzaro, J. 40
 Canonico-Hyde, G. 38
 Cantre, C.G. 42
 Caputo, C. 57
 Caretti, O. 61
 Carey, J. 54
 Carini, S. 61
 Carlin, G. 30, 44
 Carlin, J. 39, 44
 Carlisle, A. 34
 Carlson, E. 44
 Carlson, E.A. 51
 Carlson, K. 48
 Carlson, P.R. 40
 Carlsson, M.S. 27
 Carlton, J. 46
 Carmichael, R. 27, 39, 41, 48
 Carmichael, R.H. 54, 56, 60
 Carney, J. 58
 Carniello, L. 47
 Car, N.J. 40
 Carollo, C. 31, 40
 Caron, D. 32
 Carpenter, E.J. 41
 Carriger, J. 53
 Carrion, S.A. 59
 Carr, M.H. 47
 Carroll, J.M. 37
 Carruthers, T.J. 48
 Carson, F.C. 41
 Carstensen, J. 26, 27, 31, 44
 Carstens, K. 27
 Carter, H.A. 38
 Cartraud, A. 37
 Cartwright, G.M. 39, 53
 Carver, V. 41
 Casciotti, K.L. 47
 Castaneda-Moya, E. 38, 42
 Castañeda, O. 51
 Castille, C. 42
 Castillo-Sandoval, F.S. 51
 Castorani, M. 30
 Castro, J. 28
 Cathalot, C. 45
 Cavalcante, J. 29
 Cavanaugh, K.C. 35
 Cayan, D. 62
 Cearreta, A. 26
 Ceballos-Osuna, L. 38
 Cebrian, J. 31, 32, 33, 34, 35, 41, 43, 48
 Cebrian-Paskell, B. 47
 Cedeno, T. 52
 Celebi, B. 52
 Cerco, C.F. 34, 49, 60
 Chabot, C. 39
 Chakraborty, K. 43
 Chamberlain, R. 56
 Chamberlin, J. 37
 Chambers, C. 45
 Chambers, R. 30
 Champenois, W. 48
 Chan, A. 39, 41
 Chan, F. 26
 Chang, A. 34
 Chanse, V. 33
 Chanton, J. 37
 Chant, R. 35, 37, 54
 Chao, Y. 32
 Chapman, S. 41, 59
 Chartrand, K. 30
 Chaudhury, B. 43
 Chen, C. 39, 41, 53
 Cheng, B. 61
 Cheng, B.S. 34
 Cheng, H. 60
 Cheng, K. 60
 Cheng, P. 48
 Cheng, Y. 41
 Chen, J. 32, 52, 55
 Chen, L. 46
 Chen, N. 26, 36, 47
 Chen, W. 35, 38
 Chen, X. 33, 41, 48, 55
 Cheriton, O. 32
 Cherry, J.A. 49
 Chesnes, T.C. 30
 Cheung, S. 39, 41, 60
 Chiantore, M. 27
 Chmura, G. 44
 Cho, J. 57
 Choudhury, S.B.C. 60
 Choumiline, E. 61
 Choumiline, K. 28
 Christiaen, B. 48
 Christian, D. 43
 Christian, R.R. 36, 37, 51, 59
 Christianus, A. 33, 39
 Chupp, A.D. 46
 Chu, V. 60
 Cicchetti, G. 30
 Cira, E. 27, 52
 Clark, C. 48
 Clark, D. 27
 Clark, R. 46, 48, 52
 Clark, V. 52
 Clark, W.A. 55
 Clayback, K. 43
 Clements, J.C. 38
 Clinton, P. 28
 Clinton, P.J. 57
 Cloern, J.E. 27, 29, 31, 36, 44, 45, 47, 53, 60
 Closter, R.M. 47
 Coates, K.A. 39
 Coco, G. 41
 Coe, H.C. 62
 Cohen, C. 27
 Cohen, C.S. 58
 Cohen, L. 27
 Cohen, R.A. 49
 Coiro, L. 33, 40
 Coldren, G. 41
 Coldren, S.L. 54
 Cole Ekberg, M. 30
 Coleman, A.L. 55
 Cole, P. 37, 55
 Cole, S.G. 31
 Coles, R.G. 28, 30
 Coletta, L.D. 38
 Colianni, G. 39
 Collado-Vides, L. 42, 44
 Collier, C. 28
 Collins, J. 31
 Collins, P. 46
 Collos, Y. 27
 Colon, C.P. 60
 Colson, L. 36
 Comeaux, M. 39
 Commagere Hijuelos, A. 53
 Compton, J. 34
 Conley, K.R. 53
 Connelly, T.L. 48
 Connolly, P.J. 58
 Connolly, R. 28, 38, 39
 Connon, R.E. 49
 Connor, M.S. 34
 Conway, F. 35
 Conzelmann, C. 39
 Cook, A. 30
 Cook, J. 32, 58, 62
 Cook, P. 28, 46
 Cook-Patton, S. 41
 Cooper, M. 44
 Cope, B. 32
 Copeland, C. 36
 Copeman, L. 55
 Cope, W.G. 53
 Copping, A. 35
 Corbett, R. 44, 51
 Corbin, R. 54
 Cordell, J. 33, 37, 42, 44
 Cordoleani, F. 45
 Corman, S.S. 51
 Cormier, N. 35
 Cornelisen, C. 27, 47
 Cornwell, J. 27, 29, 35, 46, 47, 49
 Corson, S. 44
 Cortes, O. 54
 Costa, M. 32, 38
 Costanzo, S.D. 27, 33
 Cothran, J. 57
 Couper, L.I. 59
 Coupland, C. 52, 57
 Courtenay, S. 62
 Couvillion, B.R. 28
 Covi, M. 42, 51
 Cowan, J.H. 31
 Cowen, R.K. 32
 Cox, T.M. 26, 38
 Cozzoli, F. 37
 Crafton, E. 46
 Craig, C. 27
 Craig, P. 43
 Crain, P. 62
 Craven, W.G. 59
 Crawford, M. 62
 Crawford, T. 28, 30, 40, 51
 Crooks, J. 28, 40, 44, 46, 57
 Crooks, S. 38, 44, 46
 Cross, C. 47
 Coles, R.G. 28, 30
 Cross, L.M. 43
 Crow, A. 36
 Crowder, L. 57
 Crowder, L.B. 26
 Crown, C.A. 30
 Crump, B.C. 48
 Crump, D. 62
 Cruz-Trejo, G.I. 55
 Cuchiara, D.C. 36
 Cueva, D. 36
 Cullen-Unsworth, L.C. 42
 Cullinan, V. 36
 Culver, C.S. 46
 Culver, S. 44
 Cummings, V. 28
 Cunningham, B. 43
 Curran, M. 55
 Curran, M.C. 26, 38
 Currey, L. 34
 Currie, K. 32
 Currin, C. 28, 44
 Currin, C.A. 61
 Cuvilliez, A. 43
- ## D
- Dagit, R. 28
 Dai, R. 38
 Daleo, P. 29
 Da Lio, C. 42, 45
 D'Alpaos, A. 41, 42, 45, 47
 Dalrymple, D.J. 54
 Dalrymple, J. 27
 Damashek, J. 47
 D'Amore, A. 43
 Dana, R. 43
 D'Andrea, A. 35
 Daneshgar, P.P. 48
 Daniel, A. 36
 Dankers, N. 26
 Danskin, W.R. 58
 Dantin, D. 52
 Dantin, D.D. 35
 Danylchuk, A. 38
 Darjany, L. 59
 Dark, S. 29, 46
 Darnell, K.M. 45
 Darrow, E. 27, 48
 Das, C. 27
 Dastidar, S. 35
 Dauer, D.M. 41
 DaVanon, R. 49
 Davenport, T. 29, 37, 38, 41
 Daverat, F. 32
 Davey, E. 45, 47, 51, 61
 Davias, L.A. 61
 David, A.T. 42
 Davidson, I. 46
 Davies, T. 48
 Davis, J. 39, 46

- Davis, K. 32, 33
 Davis, T. 33
 Davis, T.S. 59
 Day, J. 33, 41, 42
 Day, J.W. 57
 Day, R. 43
 Day, R.H. 61
 Dayton, P. 27
 Deacutis, C. 33
 Dean, B.L. 59
 DeAngelis, D. 43
 de Boer, G. 35
 De Carion, D.P. 55
 Deck, A. 34
 Decker, E. 28, 30, 40, 51
 Decker, R. 46
 Deegan, L. 39, 47
 Deegan, L.A. 51
 Defina, A. 47
 Defne, Z. 41
 DeGrandpre, K. 46
 DeGroot, A. 54
 DeGroot, A.M. 26
 De Juan, S.
 De La Cruz, S. 37, 45
 De La Cruz, S.E. 62
 Delaney, C. 44
 Delefosse, M. 35
 De Leo, G. 26
 Delgado-Gonzalez, O.E. 49
 Delgado, P. 35, 46
 Dellapenna, T. 26, 39, 41, 43, 44, 51
 Deloffre, J. 43
 Delos, C. 40
 Del Rio, R. 32
 Dempsey, M. 49
 de Mutsert, K. 31, 55
 Dennison, W. 27, 33, 34, 48
 Dennison, W. C.
 Dennis, R.L. 34
 Denys, P. 45
 Deonarine, S. 44
 Depasquale, E. 32, 34
 DeRaps, M. 46
 Derouen, V. 44
 Derycke, S. 29
 De Santiago, K. 51
 de Swart, H. 35
 Detenbeck, N. 30, 34
 Dethier, M.N. 37
 Dettmann, E.H. 55
 Deutschman, D. 44
 Dever, E.P. 34
 Devlin, D.J. 34
 Devlin, M.J. 28, 30
 Dew-Baxter, J. 54
 DeWitt, T. 51
 DeWitt, T.H. 37
 DeYoe, H.R. 52, 59
 Deza, A.A. 41, 53, 62
 Dias, E. 32, 42
 Diaz, R.J. 41
 Dibbell, T. 30
 Dickson, A.G. 34, 40
 DiDonato, E. 39
 Diefenderfer, H.L. 36
 Dietz, C. 55
 Dijkstra, J. 49
 Dijkwel, J. 54
 Dillon, J. 26, 59
 Dillon, K.S. 33, 36, 55
 Dinsdale, E.A. 49
 Dionne, M. 39, 49
 Di Tommaso, S. 28
 DiToro, D. 43
 Dix, N. 27
 Dixon, K. 40, 43
 Dixon, M. 36
 Doall, M. 42
 Dobbs, S. 61
 Dobroski, N. 58
 Dodd, L.F. 54
 Dodd, R.S. 61
 Doherty, M. 48
 Dolan, T. 51
 Dolliver, J. 28
 Domingues, E.C. 29
 Donald, J.L. 44
 Donnelly, M. 51
 Dorado, S. 47
 Dorsey, J.H. 49
 Dorton, J. 53, 57
 Dos Santos, S. 46
 Doucet, C. 33
 Doughty, C. 59
 Douglass, S.L. 33
 Dowd, M. 57
 Downing-Kunz, M. 47
 Dowty, P. 36
 Doyle, T.W. 61
 Drake, P.T. 34
 Drennen, C. 53
 Drent, J. 26
 Drescher, S. 43
 Drexler, J.Z. 46, 60
 Duarte, C.M. 48
 DuBose, M. 60
 Dubroca, L. 27
 Duckett, L. 48
 Duckett, L.J. 61
 Duda, J.J. 39
 Duernberger, K.A. 33, 58, 61
 Duff, R. 43
 Duffy, A.E. 59, 60
 Duffy, C. 36
 Duffy, J. 37, 38
 Dugan, J. 54
 Dugan, J.E. 31, 35, 37, 46
 Dugdale, R. 47, 49
 Dugdale, R.C. 52, 60
 Dugger, B. 51
 Dumbauld, B. 55
 Dunaj, L. 32
 Duncan, B. 62
 Duncan, T. 59
 Dunckley, J.F. 57
 Dunlavey, E. 60
 Dunmore, R. 27
 Dunn, C. 57
 Dunton, K. 61
 Dunton, K.H. 32, 45, 48
 Duplisea, M. 36
 Durako, M. 30, 38
 Durako, M.J. 55
 Durance, C. 39
 Durand, J.R. 55, 58
 Duran-Matute, M. 35
 Durant, D. 55
 Durazo, R. 34
 Dusterhoff, S.R. 46
 Dutch, M.E. 39
 Dwyer, L. 42
 Dzinbal, K. 43
- ## E
- Earl, K. 35
 Eberhardt, A. 39, 58
 Edge, S. 27
 Edmonds, D. 42
 Edwards, C.A. 34
 Edwards, J. 28
 Edwards, M. 27
 Edwards, M.S. 57
 Egan, K. 26
 Eggleston, D. 26, 45
 Ehrlich, A.L. 33
 Eicher, A. 48
 Elder, N. 39
 Elgar, S. 33
 Elias, E. 45
 Ellings, C. 42
 Ellingson, K. 59
 Ellin, R.C. 44
 Elliott, D.T. 52
 Ellis, J. 27
 Ellwood, M. 42
 Elmer, W.H. 29
 Elrod, M. 38
 Elsey-Quirk, T. 39, 44, 45
 Elwany, H. 53
 Emery, K.A. 54
 Emmer, I. 46
 Emmett-Mattox, S. 44, 46
 Endris, C. 46, 48
 Engel, A. 53, 55
 Engel, A.S. 29, 33, 40
 English, C. 37
 English, D. 40
 Enochs, I.C. 32
 Enríquez, C. 53
 Enríquez-Paredes, L.M. 61
 Ensing, E. 35
 Enwright, N. 61
 Eon, M. 32
 Erichsen, A.C. 47
 Erickson, A.L. 43
 Eriksen, M. 28
 Erikson, L. 32
 Erler, D. 59
 Ervin, J. 60
- ## F
- Fablet, R. 32
 Fagherazzi, S. 41, 47
 Fake, T. 31
 Fall, K.A. 39
 Fang, Q. 35, 41
 Fangue, N.A. 49
 Fano, E.A. 27
 Farooqui, A. 30
 Farron, S. 45
 Farrugia, T.J. 43
 Fast, M.D. 26
 Fear, J. 28, 44, 46
 Featherstone, T. 31
 Feddersen, F. 33
 Feely, R. 34, 42
 Feger, N. 26, 30
 Feinman, S. 33
 Feinman, S.G. 53
 Feinstein, L. 58
 Feliz, D. 43
 Feller, I. 35, 36, 43, 48
 Feller, I.C. 61
 Feng, C. 58
 Feng, G. 26
 Fennel, K. 43
 Ferdaña, Z. 57
 Ferguson, A. 32, 61
 Ferguson, W. 30
 Fernald, S. 26, 46
 Fernandes, E.H. 36
 Fernandes, E.L. 59
 Ferner, M.C. 34
 Ferraro, S.P. 37
 Ferreira, J.G. 42
 Ferrier, L. 36, 52, 56
 Fertig, B. 32, 34, 36, 38, 48
 Feyrer, F. 45, 47
 Fields, L. 44, 46
 Filoso, S. 39
 Findlay, S. 42
 Finelli, C.M. 37
 Fischbach, J. 39
 Fischer, M. 28
 Fischer, R.A. 33

- Fischer, S.J. 36
 Fisher, K. 59
 Fisher, R.N. 58
 Fisher, W.S. 47
 Fitting, C. 44
 FitzGerald, D. 45
 Fitzgerald, M.C. 54
 Fitzgibbon, M. 32
 Fitzpatrick, J. 43, 52
 Flavin, K. 43
 Fleeger, J. 47
 Flessner, L. 57
 Fletcher, P. 33, 36
 Flick, R. 32
 Flindt, M.R. 26, 33, 35
 Flood, S. 53
 Flores-Verdugo, F. 26
 Flores-Vidal, X. 59
 Flowers, G. 57
 Fodrie, J. 26, 34, 43, 46
 Fogarty, P. 38
 Foley, J.L. 52
 Foley, M.M. 39, 43
 Folger, C.L. 45
 Folmer, E. 26
 Fong, P. 30, 38
 Fonseca, F. 49
 Fontana, R. 46
 Fontenot, A. 40
 Forbrich, I. 44
 Forde, A.J. 35
 Ford, K.H. 28
 Ford, S. 46
 Foreman, K. 49
 Foreman, K.L. 34
 Forgione, H. 38
 Fortunato, C.S. 48
 Foshtomi, M.Y. 29
 Foster, S.Q. 44
 Fountain, M. 43
 Fourqurean, J. 27, 31, 32, 39, 43, 44, 46, 48, 52
 Fourqurean, V.L. 39
 Fox, E. 43
 Foxgrover, A. 32, 45
 Fox, S.E. 39, 46
 Francis, C.A. 47, 61
 Franco, J. 40
 Franklin, H. 44
 Franklin, R.B. 26
 Frankovich, T.A. 27
 Frazier, M. 28, 39
 Fredette, T.J. 33
 Freedman, R.M. 43
 Freeman, A.M. 33
 Freeman, C.M. 51
 Freitag, A. 56
 French, E. 59
 Frenzel, H. 32
 Freymueller, J. 46
 Friedenbergl, L. 32
 Frieder, C. 26, 53
 Friedman, S. 30
 Friedrichs, C.T. 39, 53, 58
 Friedrichs, M. 58
 Fries, A.S. 27, 33
 Fringer, O.B. 47
 Frisk, M.G. 26
 Fris, R. 54
 Frithsen, J. 55
 Froehlich, H. 36
 Froeschke, J. 48
 From, A.S. 35, 52, 61
 Frontiera, P. 31
 Frota, F.F. 29
 Fry, B. 39, 46
 Fuchs, H.L. 45, 47
 Fuentes, N.R. 49
 Fugate, B. 52
 Fujimura, A. 26
 Fulford, R. 37
 Fulford, R.S. 53
 Fulfrost, B. 29
 Fuller, C.C. 46
 Fuller, R.N. 57
 Fulweiler, R. 29, 44, 46
 Fulweiler, R.W. 54
 Furlong, J. 37
 Furman, B.T. 26
 Furuya, S. 53
 Fu, S. 55
 Futa, K. 58
- G**
- Gaeckle, J. 32, 36, 39
 Gaeckle, J.L. 52, 58
 Galimony, E. 42
 Galinski, A. 53
 Galinski, A.R. 33
 Gallagher, C. 44
 Gallegos, C.L. 31, 60
 Galleher, S. 35
 Gallien, T. 32
 Gall, M. 32
 Gandy, D.E. 39
 Ganju, N. 41, 49, 51, 59
 Gao, Y. 53
 Gárate, M.H. 61
 Garcia, A.M. 54
 Garcia, L. 43
 Garcia-Orellana, J. 48
 Gardner, W. 61
 Gardner, W.S. 29, 38
 Garey, J. 48
 Garfield, N. 46
 Garmendia, M. 40
 Garmestani, A. 59
 Garner, M. 28
 Garrett, A. 28
 Garrity, N. 29
 Garvis, S.K. 51
 Garwood, J.C. 43, 53
 Garza, C. 58
 Garza, C.O. 30
 Garza, S. 61
 Gaskin, J. 44
 Gatagwu, J.K. 61
 Gatland, J.R. 59
 Gautam, S. 28, 61
 Gauvry, G. 39
 Gavin, N.M. 38
 Gaweesh, A.M. 41
 Gawlik, D.E. 60
 Gaydos, J. 43
 Gaylord, B. 38
 Gedan, K. 36
 Genazzio, M.A. 55
 George, D. 37, 60
 Georgiou, I.Y. 45
 Gerkema, T. 35
 Germano, J. 45
 Gerwein, J. 48
 Geyer, W. 31
 Gibaut, J.C. 39
 Giblin, A. 29, 33, 44, 47, 48, 49
 Gibson, B. 29
 Gibson, D. 28
 Gibson, D.G. 60
 Giddings, S. 32, 33
 Gieseking, M.W. 58
 Gilby, B.L. 45
 Giles, H. 47
 Gillett, D. 41
 Gillis, L.G. 45
 Gil-Silva, E. 59
 Gilson, G.G. 60
 Gimenez, I. 38
 Gipperth, L. 43
 Giraldo Ospina, A. 47
 Gittman, R.K. 33
 Glenn, S. 35
 Glibert, P. 42, 49
 Glud, R.N. 30
 Gobler, C. 32, 34, 36, 40
 Godsey, E. 29
 Goertler, P. 27
 Goff, J. 33, 35, 43
 Golden, R. 52
 Goldman, K. 34
 Gomez-Valdes, J. 32
 Gómez-Valdés, J. 53
 Gonçalves, G. 36
 Gonzalez-De Zayas, R. 51
 Gonzalez, L.A. 49
 González, M. 40
 Gonzalez, M.A. 41
 Goodfriend, W. 40, 44
 Goodrich, K. 33, 40, 57
 Goodwin, J.D. 36
 Goolsby, J.A. 44
 Govers, L.L. 45
 Gowda, P. 44
 Gowen, R. 31, 47, 49
 Grabowski, J. 29, 46
 Grabowski, J.H. 54
 Grace, M.R. 28
 Graham, B. 62
 Graham, J. 35, 39, 43, 62
 Graham, S. 55, 57, 62
 Graham, S.A. 26
 Graham, T. 45
 Grant, B. 38
 Grawe, U. 35
 Gray, A. 42
 Gray, M. 38
 Gray, S.C. 54
 Grayson, T. 39, 41
 Gray, W. 44
 Grech, A. 30
 Greeley, D. 42
 Green, A. 59
 Greene, C. 37, 51
 Greene, R.M. 28, 51
 Greenfield, B. 33
 Greenfield, D.I. 40
 Greening, H. 26, 40, 43
 Green, L. 26, 30, 60
 Green, M.O. 45
 Gregorio, D. 30
 Gregory, J. 32
 Greiner, J. 48
 Grenier, L. 45
 Grieseking, M.W. 58
 Griesemer, C. 26
 Griffen, B.D. 35
 Griffith, A. 34
 Grifman, P. 37, 40
 Griswold, M. 45
 Grizard, P. 36
 Grizzle, R. 42
 Groffman, P.M. 51
 Grosholz, E. 34, 37, 46, 48
 Grosholz, T. 58
 Grossinger, R. 29, 45, 46
 Grossman, E. 57
 Grosso, C. 31
 Gruner, D. 61
 Gruner, D.S. 35, 41, 43
 Grupe, B. 53
 Grusak, M. 44
 Guannel, G. 57
 Guerra, V. 58
 Guilini, K. 36
 Guimaraes Bermejo, M. 51
 Guiteras, S. 47
 Gunnell, J.R. 45
 Guntenspergen, G. 39, 44, 51
 Gunther, A. 49
 Guo, H. 35
 Guo, J. 41
 Guo, W. 38
 Guo, X. 46
 Gupta, A. 40
 Gurbisz, C. 47
 Gustafsson, B. 44
 Gustafsson, C. 33
 Guthrie, C.G. 55
 Gutierrez, F. 51
 Gut, J.A. 55
 Guza, R. 32, 33
 Gwak, W. 52

H

- Haak, C. 38
Haberman, K. 41, 44
Hacker, S. 38
Hackney, C.T. 51
Haddad, T. 43
Hadfield, M.G. 39
Hagan, P. 29
Hagy, J. 28, 30, 40
Hagy, J.D. 51, 59
Haidvogel, D. 46
Hale, Q. 61
Hales, B. 38, 42
Hale, T. 31
Haley, B. 38
Halka, J.P. 33, 48
Hall, C. 41
Hall, J. 37
Hall, N.S. 31
Haltiner, J. 29
Hamaguchi, M. 53
Hamaoka, H. 53
Hamdan, L.J. 48
Hameed, S.O. 34
Hamel, N. 43
Hamersley, M.R. 61
Hamilton, A. 41
Hamilton, D.P. 54
Hamlet, A. 39
Hammack, A. 55
Hancock, B. 54
Han, E. 31
Hang, M. 30
Hanisak, M. 27, 32
Hanisak, M.D. 56
Hanisko, M. 44
Hanke, M.H. 45
Hannach, G. 53
Hann, C. 58
Hansch, S. 47
Hansen, J. 47
Hansen, V. 39, 41
Hanson, A. 36, 46, 61
Hanson, C. 37
Harding, J. 37
Harding, J.M. 55
Harding, L.W. 31
Hardison, A. 48, 61
Hardy, K.M. 34
Hare, M. 29
Haring, N. 27
Harlem, P. 28
Harper, D. 44
Harper, J. 42
Harrington, R. 54
Harris, C.K. 37, 39, 41, 43
Harris, J.O. 60
Harris, L. 26, 45, 47, 57
Harris, L.A. 52
Harrison, B. 32
Harrison, J.S. 49
Harrison, P. 27, 29, 31
Harris, P. 47
Harris, R. 33, 35
Hart, A.C. 41
Hartfield, P. 33
Hartig, E. 38
Hart, J. 40
Hartnett, C. 61
Hartsig, A. 33
Harvey, C. 39
Harvey, J. 52
Harwell, L. 39, 41
Harwell, M. 26, 52, 62
Hasenbein, M. 49
Hasler, B. 27
Hasler-Sheetal, H. 30, 38
Hass, T. 35
Hastings, A. 45, 47, 48
Hastings, Z.C. 54
Hatch, M.B. 52
Hattenrath-Lehmann, T.K. 36
Haunert, D.E. 27
Hauser, E. 46
Hawkes, A. 36
Hawkey, J. 45
Hawkins, C. 46
Hawkins, J. 54
Hayes, K. 59
Hay, L.E. 39
Hayn, M. 49
Haywood, E. 59, 62
Hazelton, E.L. 48
Heady, W. 46, 48
Heaviland, M. 38
Hecht, S.B. 38
Heck, K.L. 43
Hedge, N. 40
Heerhartz, S.M. 37
Heffner, L.R. 47
Hegde, S. 49
Heggie, K. 61
Hein, J.R.
Heithaus, M. 39, 43
He, J. 27, 60
Helenius, L.K. 27
Helly, J. 26, 45
Hemmer, B. 47
Henderson, J. 38
Hennessey, S. 36
Henriquez, M. 35
Henry, K.M. 38, 44, 46
Henry, T.B. 54
Hensel, P. 35, 44, 46
Herborg, L. 48
Herkül, K. 57
Herlan, J.J. 59
Herlyn, M. 26
Hermann, A. 42
Herman, P. 30, 37, 42, 45
Hernández-Almeida, O.U. 55
Hernandez-Ayon, J.M. 34
Hernández-Ayón, J.M. 57
Hernández Cordero, A.L. 34, 48
Hernandez, D. 57
Hernandez Lopez, E. 53
Hernández-López, J. 61
Hernandez, O.G. 51
Herrera-Silveira, J.A. 54, 55, 59
Herrmann, M. 39
Hertler, H. 42
Herzka, S.Z. 34, 36, 51, 61
Herzog, M.M. 38
Hessing-Lewis, M. 38
Hesson, B. 48
Hester, E. 61
Hester, M. 39, 43
Hester, M.W. 54
Hetland, R. 43
Hetzel, Y. 29
Hewett, K. 36
Hewitt, J. 27, 28, 33, 35
Heyne, T. 32
Hibler, L. 39
Hice-Dunton, L.A. 26
Hickey, B. 32, 33
Hieb, E.E. 60
Higgason, K. 62
Higgins, C.B. 29
Highfield, W.E. 43
Hiller, K. 42
Hill, P.S. 43, 53
Hill, T.M. 38
Hill, V.J. 52
Hines, D.E. 33
Hirsch, R.M. 59
Hobbs, J.A. 55, 58, 62
Hobbs, W. 39
Ho, C. 42
Hodge, J. 40, 44
Hodgkins, C.S. 51
Hodgson, C. 59
Hodgson, J. 28
Hoesterey, J. 62
Hoesterey, J.C. 41
Hoffman, A. 40
Hoffman, D. 61
Hoffman, E. 46
Hoffman, J.C. 42, 46, 48
Hofmann, E. 46
Hofmeister, R. 29
Hogan, S. 40
Hogg, I. 34
Hogue, V. 60
Hohn, A.A. 44
Holbrook, J. 30
Holland, B. 40
Hollander, L. 62
Hollibaugh, J.T. 29
Hollings, B. 31
Holmer, M. 27, 30, 38
Holmes, M. 38
Holm, G.O. 45
Holt, J.T. 42
Holt, S. 41
Holzer, K. 58
Hong, B. 34
Hood, R. 35, 58
Hooper-Bui, L. 33, 48
Hooven, C. 40
Hopkinson, C. 42
Hori, M. 53
Horne, D.J. 26
Horne, P. 57
Horner-Devine, A. 35
Horwitz, R. 31, 54
Hosack, G. 55
Hosfelt, J. 38
Hosokawa, S. 39
Houghton, K. 48
Hou, L. 45
Houle, J. 37
Housego, R. 60
Hovel, K. 26, 47, 52
Howard, M.D. 32
Howard, R. 51
Howard, R.J. 54
Howarth, M. 53
Howarth, R. 34, 46, 49
Howe, E.R. 49
Hsieh, H. 39, 41
Hsieh, Y. 54
Huang, B. 47, 55
Huang, C. 35
Huang, D. 32, 55
Huang, H. 41, 58
Huang, X. 38
Hubbard, D. 31, 35, 41, 54
Hu, C. 40
Hueh, T.E. 33
Huerta Díaz, M.A. 57
Hughes, C.S. 32
Hughes, R. 29
Hughes, R.G. 26, 36
Hughes, Z. 35, 45
Hulslander, B. 45
Hulth, S. 45
Human, L.R. 44
Hunt, B. 30
Hunt, C. 42
Hunt, H.L. 38
Hunt, L. 41
Hunt, N.G. 52
Hurlbert, D. 29
Hurley, D. 52
Hutchison, L. 31, 40
Hutmacher, A. 35
Hyatt, C. 38
Hyndes, G. 37

I

- Ialeggio, J.S. 47
Ianson, D. 42
Ibanez, A. 62
Ibáñez, C. 35
Ide, M. 40
Ihde, T.F. 35
Ikemiyagi, N. 58
Infantes, E. 39
Infantes, E.O. 62
Ingram, D. 56
Irby, I. 58
Iribarne, O. 29, 36
Ismail, N. 39

Ivens-Duran, M. 51
Iwasaki, Y. 60
Iyer, A. 28
Iyer, L. 28

J

Jackson, L.J. 26
Jacob, J.S. 49
Jacobs, D.K. 46
Jacobs, F. 49
Jaffe, B. 39, 45
Jakobsen, H. 29
Jang, S. 57
Janicki, A. 26, 40, 43
Janousek, C. 35, 45
Jansen, J. 26
Jansson, A. 34
Jarvis, B.M. 28, 59
Jarvis, J.C. 32, 34, 36, 38
Jarvis, M. 26
Jassby, A.D. 44
Jauzein, C. 27
Jay, D.A. 38
Jeffres, C.A. 55
Jenkins, B.D. 33
Jenkins, W.K. 44
Jensen, K. 26
Jensen, O.P. 37
Jeong, K. 53
Jessen, B.J. 47
Jewett, E.B. 40, 42
Jiang, J. 43
Jiang, Y. 26
Jin, H. 52, 55
Jin, S.
Jinuntuya, M. 52
Jin, W. 47
Jivoff, P. 62
Jobsis, P. 40
Joel Gerwein. 48
Johnson, A. 46
Johnson, A.N. 60
Johnson, D.S. 47
Johnson, J.G. 44
Johnson, K. 43, 62
Johnson, K.J. 35, 56
Johnson, L.T. 46
Johnson, M. 41
Johnson, M.W. 43
Johnson, N. 49
Johnson, R. 47, 61
Johnson, R.C. 32
Johnson, S. 39
Johnson, S.C. 41
Johnson, S.L. 41
Johnson, T. 39
Johnson, Z. 52
Johnson, Z.E. 61
Johnston, C.A. 43, 61
Johnston, K. 29, 49
Johnston, R.K. 43
Jonathan, G.H. 39
Jones, A. 33

Jones, B. 32
Jones, D. 41
Jones, J. 61
Jongsomjit, D. 45
Joo, H.T. 55
Jordaan, A. 39
Jordan, S.J. 47
Jordan, T. 38, 48
Jorgenson, Z. 46
Joye, S.B. 33
Joyner, D. 40
Judd, C. 39
Juliette, H. 40
Julius, S. 39
Jung, H. 41
Juraneck, L.W. 42
Justic, D. 41, 43, 58
Justin, H.C. 41

K

Kaack, K. 62
Kaas, H. 47
Kacenas, S. 40
Kain, D. 42
Kaldy, J. 28, 32, 39
Kaldy, J.E. 51
Kamath, S. 42
Kamman, G. 43
Kamman, R. 43
Kane, T. 38
Kangas, P. 42, 54
Kang, C. 31
Kang, J. 53
Kang, J.J. 55
Kang, Y.H. 56
Karadogan, E. 41
Kar, D. 41
Karlsen, A. 33
Karlsson, L. 39, 62
Karrh, L. 52
Kasa, L. 30
Kasturi, M.
Kate, S.L. 31
Kauffman, B. 44
Kaufman, G. 28, 30, 40, 51
Kaufman, K.A. 45
Kaufmann, R.S. 27
Kaushal, S.S. 51
Kay, J.L. 37
Kazmierczak, R.F. 40
Kearney, M. 26
Kearns, P.J. 61
Kedong, Y. 31
Keitt, T.H. 27
Kelaher, B.P. 46
Kelble, C. 33
Kellner, J.R. 35
Kellogg, C. 48
Kellogg, L. 27, 29
Kelly, J. 49
Kelly, J.R. 44
Kelly, M. 28
Kelly, S.P. 27, 42

Kelsey, H. 27, 33, 45
Kelsey, R.H. 27, 33
Kemp, G. 33
Kemp, W. 27, 40, 47
Kendrick, G. 32, 48
Kennedy, H. 48, 62
Kennedy, J. 34
Kennedy, L.M. 54
Kennish, M.J. 32
Kenny, M. 56
Kenny, P. 47
Kenworthy, M.D. 39
Kenworthy, W. 39
Keppel, A. 52
Keppel, A.G. 34
Keppler, C. 40
Kerr, D.W. 48
Kersen, P. 34
Kessler, A.J. 28
Kettenring, K. 48
Keyzers, M. 32
Khalil, K. 28
Khalil, S.M. 42, 59, 62
Khangaonkar, T. 32, 39
Kh, N. 27
Khosh, M.S. 48
Kiddon, J. 39
Kidwell, D. 44
Kidwell, S. 45
Kiernan, S. 52, 57
Kilcollins, R.F. 46
Kildow, J. 43
Killebrew, C. 42
Kilminster, K. 32
Kimball, M. 27, 29
Kimbrow, D. 29
Kim, I.N. 61
Kim, J.H. 62
Kim, J.W. 52, 53, 58, 62
Kimmel, D. 27
Kimmel, D.G. 52, 55
Kimmerer, W. 27, 44
Kim, S. 30, 56, 62
Kim, Y. 62
King, J. 62
King, P. 31
Kinney, E. 42, 47, 49
Kinsman, N. 46
Kiriakopolos, S. 37, 49
Kiriakopolos, S.L. 62
Kirk, A. 44
Kirkwood, W. 57
Kirtay, V. 57
Kirwan, M. 30, 42, 44, 46, 48
Kitting, C.L. 53
Klais, R. 27
Klepac, C. 27
Klinck, J. 46
Kline, K. 40
Kline, T. 34
Knaster, A. 43
Knick, K.E. 29, 41
Knight, B. 47
Knight, E. 37

Knight, R. 48
Knight, T.M. 62
Knowles, N. 45
Koch, C. 38
Koch, E. 33, 43
Koch-Rose, M. 42
Koenders, A. 49
Kogan, N. 43
Kolb, R. 30
Kolker, A.S. 45
Kolupski, M.L. 54
Komoroske, L.M. 49
Koop, K. 61
Kornis, M. 44
Kornis, M.S. 61
Koseff, J. 29, 47
Koseff, J.R. 60
Kovacevich, C. 29
Kovacs, C. 27, 38
Kovacs, D. 33
Kowalski, J.L. 52, 59
Kraan, C.
Kraatz, L.M. 38
Kraberg, A.C. 27
Kramer, J. 39
Krauss, K. 35, 43, 46
Kreamer, G. 39
Kreamer, K. 58
Krebs, J. 49
Kreeger, D. 26, 37, 39
Kreeger, D.A. 55, 60
Krembs, C. 32
Kremer, J.N. 49
Kress, E. 53, 60
Krimsky, L. 54
Kristensen, E. 26, 33, 35
Kroeger, K. 26, 48, 59
Kroeker, K.J. 38
Kroencke, I. 34
Kroetz, A.M. 37
Kromkamp, J.C. 40
Krumholz, J. 36, 44
Krupnick, A. 40
Kudela, R. 32, 36, 47
Kuletz, I. 41
Kumari, R. 30
Kumar, M. 33, 36
Kum, B.C. 57
Kunza, L. 28
Kunza, L.A. 61
Kunz, D. 60
Kuschner, M.A. 54
Kuska, G. 38
Kwak, J. 31
Kwan, B. 41
Kwan, G.T. 32

L

Laas, K. 43
Labiiosa, B. 43
LaBone, E. 58
Lacewell, R. 44
Lacey, E.A. 26, 46

Lacy, J.R. 31, 47
 Ladah, L. 47
 Lafite, R. 43
 Lafrancois, B. 39
 Lagomasino, D. 54
 Lake, S.J. 38, 46
 Lampert, A. 48
 Landau, B.J. 41
 Landing, W. 37
 Landry, J.B. 52
 Landry, M.R. 27
 Land, S. 56
 Lane, H.A. 52
 Lane, M.F. 41
 Lane, R.R. 41
 Langdon, C.J. 38
 Langley, A. 26, 41, 59
 Lanier, A. 43
 Lan, Z. 35
 Lanzoni, S. 41
 Lao, W. 27
 La Peyre, J.F. 45
 La Peyre, M. 37
 Lapointe, B. 60
 Largier, J. 29, 32, 36, 38, 44, 46, 48, 49, 60, 62
 Larriviere, J.C. 61
 Larsen, A. 47
 Larsen, B. 49
 Larsen, K. 58
 Larsen, M.M. 27
 Larson, M. 38
 Lartigue, J. 37
 Laska, M.S. 27
 Lathlean, J. 45
 Lathrop, R.G. 42
 Latker, A. 27
 Latour, R.J. 43
 Latta, M. 34, 37, 60, 62
 Lattin, G. 55
 Laughlin, K. 38
 Lauren, Y.A. 34
 Laurie, K. 39
 Laursen, K. 44
 Laverty, P. 39
 Lavery, P. 37, 48
 Law, B.A. 43
 Law, N. 43
 Layman, C.A. 34, 39
 Leahy, J. 35
 Leason, D. 35, 56
 Le, C. 60
 Ledder, T. 46
 Leduc, D. 33
 Lee, D. 31
 Lee, E.M. 37
 Lee, G. 39, 41
 Lee, J. 60
 Lee, J.A. 39, 61
 Lee, J.H. 53, 55
 Lee, K. 39, 56, 62
 Lee, M.T. 36
 Lee, S. 55
 Lee, S.C. 37
 Lee, Y.J. 31
 Lehmann, Z. 27, 57
 Lehman, P. 41
 Lehman, P.W. 49
 Lehtinen, S. 27, 29
 Leisnham, P. 33, 35
 Leliaert, F. 42
 Lemieux, B. 35, 39, 43, 62
 Lemon, M.G.T. 57
 Lempert, R.J. 39
 Lemson, K. 49
 Leonard, G.H. 28
 Leonardi, N. 41
 Leonard, L. 36
 Leonard, L.A. 53
 Leopargas, V.E. 45
 Leorri, E. 36, 44
 Leppo, E. 41
 Lerberg, S. 46
 Lerczak, J. 45
 Leschine, T. 35
 Leslie, H.M. 51
 Letter, J.V. 41, 47
 Leuchanka, N. 35, 56
 Le Vay, L. 62
 Leverone, J. 40
 Levi, L. 42
 Levin, J. 46
 Levin, L. 26, 32, 38
 Levin, L.A. 53
 Levin, P. 36, 43
 Levinton, J. 42
 Lewandowski, M. 52
 Lewis, J. 41
 Leynaert, A. 28
 Liao, S. 39
 Libes, S.M. 49
 Li, C. 29
 Lichti, D.A. 52
 Liefer, J.D. 38
 Li, H. 52, 55
 Lilley, R.J. 42
 Lillis, A. 26
 Li, M. 48
 Lima, T. 26
 Limburg, K.E. 58
 Lindau, C.W. 38
 Lindberg, J. 49
 Lindquist, D. 62
 Lindquist, N. 26, 46
 Lin, H. 46
 Lin, J. 29
 Linker, L. 34, 39, 60
 Lins, S.R. 38
 Lippiatt, S. 28, 30
 Lipshultz, Z. 54
 Li, Q. 53
 Lirman, D. 34, 42
 Lisa, J. 61
 Lisa, J.A. 33
 Lisboa, P.V. 59
 Litton, G.M. 55
 Litvin, S. 26, 32, 34, 37
 Litvin, S.Y. 58
 Liu, K. 54
 Liu, M. 45
 Liu, P. 46
 Liu, W. 41
 Liu, X. 55
 Liu, Z. 43, 45, 48, 61
 Livingston, R.J. 45
 Li, X. 55
 Li, Y. 36
 Li, Z. 41
 Llanso, R.J. 41
 LoBue, C. 47
 Lohrer, A.M. 33, 35
 Lohrer, D. 27, 34
 Loiselle, S. 33
 Lokman, K. 33
 Longcore, T. 29, 46
 Long, E.R.
 Long, W. 32, 39
 López-Aguilar, K. 53
 López Angarita, J. 54
 López-Vivas, J.M. 61
 Lorda, J. 44
 Lord, J. 55
 Lorenzi, A. 60
 Los Huertos, M. 30
 Lott, C.A. 33
 Louchouart, P. 43
 Louda, J. 29
 Loveland, R.E. 39
 Lovell, K. 42
 Lovell, L.L. 41
 Lovelock, C.E. 44, 45, 46, 48
 Love, S. 42
 Lowe, C.G. 43
 Lowe, J. 37, 38, 60
 Lowe, M.R. 49
 Lowe, R. 29
 Lubcke, T. 46
 Lucas, L. 40, 45
 Lucchese, A.E. 26
 Luce, S. 29
 Luckenbach, M.W. 27, 29
 Ludsin, S. 55
 Luettich, R.A. 47
 Lukman, M. 47
 Lundberg, D. 35
 Lunde, R. 44
 Lundholm, J. 35, 39, 43, 62
 Lundstrom, A.P. 60
 Lunstrum, A. 46
 Lu, S. 43
 Luthy, S.A. 37
 Lutterschmidt, W. 61
 Lyerly, C.M. 34
M
 Mabardy, R. 35, 38
 MacCready, P. 29, 32, 33
 MacDonald, G. 51
 Macdonald, G.V. 33
 MacDonald, I. 33
 Mace, M.M. 30
 MacFarlane, R.
 Machain Castillo, M.
 MacIntyre, H.L. 38
 Mack, E. 28
 MacMahon, J. 26
 Mac Nally, R. 46
 MacQuarrie, K.T. 36
 Macreadie, P.I. 46
 MacVean, L. 31
 Macy, A. 43
 Madden, C.J. 42, 54
 Madden, K. 34
 Madigan, D. 34
 Madrid, E.N. 42
 Madsen, S. 43
 Magley, W. 40
 Magnien, R. 28
 Maher, D. 59
 Maher, W. 61
 Mahon, H.C. 60
 Mallin, M.A. 26, 54, 57
 Mallinson, D. 44
 Mallonee, M.E. 34
 Mallos, N.J. 28
 Malone, D.P. 47
 Maloy, C. 32
 Malpica-Cruz, L. 34
 Malvezzi, A. 32
 Manca, M.
 Mangaluz, K. 26
 Mangaluz, S. 26
 Manning, D. 44
 Manning, J. 48
 Mannix, S. 55
 Manuel, S.A. 39
 Manzello, D.P. 32
 Mao, M. 58
 Maranda, L. 26
 Marani, M. 42, 45, 47
 Marbà, N. 39, 48
 Marcovich, D.T. 59
 Margida, M. 42
 Margiotta, F. 27
 Marina, T.I. 59
 Marino, R. 46, 49
 Mariño-Tapia, I. 53
 Marion, J. 37
 Marion, S.R. 36
 Markager, S. 29
 Markham, E. 46, 61
 Marmolejo Rodríguez, A.J. 26
 Marques, A. 30
 Marques, W. 36
 Marr, C.D. 43
 Marshall, F. 27, 29
 Marshall, T. 53
 Martens, K.D. 58
 Martin, C. 53
 Martinelli, L.A. 38
 Martinetto, P. 36
 Martínez-Crego, B. 32
 Martinez, D. 58
 Martinez Jimenez, M. 44
 Martin, G. 52

Martini-Lamb, J. 44
 Martin, J. 32
 Martin, L. 47
 Martin, R.M. 61
 Martone, R.G. 26
 Marton, J. 26, 29, 33, 45
 Martyr, R. 45
 Martz, T. 26, 32
 Marvan, F.G. 59
 Marvin Di-Pasquale, M. 45
 Mascena, C. 41
 Mason, D.M. 55
 Massei, N. 43
 Mateo, M.A. 48
 Mathews, L. 31
 Mathis, J. 26
 Matich, P. 39
 Mat Isa, F.M. 33
 Mattei, J. 27, 41, 44
 Mattila, J. 27
 Mattison, L. 43
 Maxon, C. 45
 Maxwell-Doyle, M. 39, 60
 Maxwell, P. 28, 32
 Mayer, L.M. 45
 Mayer, P.M. 51
 Mayo, C. 45
 Mayorga, E. 57
 Mayr, S. 49
 Mazarrasa, I. 48
 Mazzi, E.A. 38
 Mazzuca, S. 32
 McAdory, R. 41, 43, 47, 49
 McAfee, S. 35, 45, 47, 49
 McAlpin, T.O. 41, 43, 47, 49
 McCardell, G. 31
 McCarthy, E. 43
 McCarthy, M.J. 29, 61
 McClelland, J.W. 48
 McClenachan, G. 40
 McCloskey, T.A. 54
 McConville, S. 38
 McCormack, C. 30
 McCormick, M. 42, 48, 58
 McCorquodale, J.A. 41
 McCoy, J. 33
 McDermott, K. 36
 McDonald, A. 32
 McDonald, A.A. 42
 McElroy, A.E. 26
 McElroy, T. 56
 McEwen, T.J. 55
 McFarland, L. 48
 McGann, M.
 McGinnis, S. 31
 McGinnis, T. 57, 60
 McGlathery, K.J. 32, 48, 54
 McGlaughon, B.D. 52
 McGregor, A. 31, 32
 McHan, C. 40
 McInnes, A. 26, 36, 47
 McIver, M.R. 26, 54
 McKane, R.B. 51
 McKee, B.A. 45
 McKee, K.L. 49
 McKenna, S. 28
 McKenzie, L. 28, 30, 32
 McKeon, M. 35
 McLain, N.K. 26
 McLaughlin, K. 28, 32
 McLaughlin, R. 41
 McLenaghan, N. 51
 McLenaghan, N.A. 49
 McLeod, G.M. 38
 McLeod, K. 37
 McMahan, K. 49
 McManus, C. 36
 McPhee-Shaw, E. 32
 McQuatters-Gollop, A. 29
 McSweeney, J. 35
 McTigue, N.D. 48
 Medeiros, K. 46
 Medel, I. 29
 Medialdea, M. 62
 Medina-Gómez, I. 59
 Megonigal, P. 26, 42, 44, 46
 Meirelles, S. 35
 Mejia, F. 60
 Mejia-Trejo, A. 49
 Melrose, C. 36
 Mémary, L. 28
 Mendes, M. 48
 Mendoza, G. 26, 53
 Menge, B. 38
 Menning, D. 48
 Mensinger, M. 47
 Mercadier, G. 44
 Merino, F. 55
 Merino-Ibarra, M. 51
 Meschter, J.E. 26
 Meseck, S.L. 36
 Meselhe, E.A. 41, 49
 Mesick, C. 32
 Metheny, J.D. 26
 Methratta, L. 54
 Meyer, R. 35, 37
 Meyers, M.B. 29
 Meysman, F.J. 40
 Michael, B.D. 48
 Michaud, E. 28
 Micheli, F. 26, 32, 37, 53
 Michot, T.C. 54
 Migliori, M. 45, 62
 Mikel, T.K. 41
 Mikula, T. 39
 Millat, G. 26
 Miller, C. 38
 Miller-Corbett, C. 53
 Miller, I.M. 39
 Miller, J. 36, 37, 62
 Miller, N.A. 38
 Miller, R.L. 42, 59
 Miller, S.H. 34, 38
 Miller, T. 31, 35, 49
 Miller, T.J. 52
 Miller, W. 31, 46, 58
 Miller-Way, T. 26
 Millette, N.C. 47
 Milligan, T. 37
 Milligan, T.G. 43
 Mills, H.J. 48
 Mills, M. 37, 55
 Minchinton, T. 45
 Miner, M.D. 45
 Minnehan, J. 44
 Minton, M. 58
 Mioni, C. 47
 Miranda, N. 44, 45
 Mirlean, N. 28
 Mitchell, I. 31, 36
 Mith-kong, S. 27
 Mitra, S. 40, 44
 Mizell, K.
 Mochoncollura, T. 57
 Mochon Collura, T. 28
 Moeseneder, C. 44
 Moffett, C. 43
 Mohamad, F. 39
 Mohamedali, T. 32, 39
 Mohan, J.A. 32
 Moksnes, P. 31, 39
 Moksnes, P.O. 62
 Moller, O.O. 36
 Möller, O.O. 36, 54
 Monahan, W. 39
 Monismith, S. 26, 29, 32, 37
 Monismith, S.G. 57
 Montagna, P. 28, 32, 33, 44, 49
 Montagna, P.A. 55
 Montas, H. 33
 Montgomery, J.R. 55
 Moody, J. 26
 Moon, C.R. 55
 Mooney, D.D. 59
 Mooney, R. 32, 34, 38
 Moon, J.B. 37
 Moore, K. 32, 33, 48, 49
 Moore, K.A. 59
 Moore-Maley, B. 42
 Moore, N. 44
 Moore, R.B. 39
 Moore, S. 28, 30
 Morais, P. 32, 42
 Morales, S.M. 54
 Moreno, I. 55
 Morgan, S.G. 26, 34, 37
 Moriarty, J.M. 39
 Morkeski, K. 26
 Morris, J. 28, 40, 42, 47
 Morris, M.M. 49
 Morrison, R. 38
 Morrison, S. 27
 Mortazavi, B. 38, 48
 Moseman-Valtierra, S. 26
 Moskal, S. 45
 Moturi, W.N. 61
 Mouton, J. 42
 Mo, Y. 47
 Moyle, P. 55, 62
 Moyle, P.B. 55, 62
 Mozdzer, T.J. 26, 42, 44, 46, 48
 Mozzachiodi, R. 58
 Mudd, S.M. 44
 Mueller, P. 26
 Mulder, L.L. 40
 Mulligan, R.P. 51
 Munday, E. 49
 Muñoz-Salazar, R. 61
 Munns, W.R. 47
 Munoz, G. 33, 57
 Munroe, D. 46, 48
 Munsch, S.H. 33
 Mu, R. 35
 Murasko, S. 49
 Murphy, A.E. 27
 Murphy, B. 45
 Murphy, D. 29
 Murphy, E. 41
 Murray, C. 32, 44
 Murray, K. 42
 Murray, L. 38, 40
 Murrell, M.C. 42, 59
 Mustamäki, N. 27
 Mutchler, T. 56, 61
 Mwangi, S.N. 61
 Myers, D. 46
 Myers, J. 38
 Myers, J.A. 61
 Myers, M. 40

N

Nagappa, R. 27
 Najjar, R. 39
 Nakamura, A. 61
 Nakaoka, M. 28, 45, 53
 Naldi, M. 27
 Naman, S. 37
 Nam, S. 26, 53
 Napelenok, S.L. 34
 Nardin, W. 42
 Nascimento, L.S. 55
 Nash, J. 61
 Nasir, A. 47
 Nathan, M. 61
 Natin, P. 26
 Nauw, J.J. 35
 Navarro, M. 53
 Navarro, M.O. 26, 32
 Navarro-Olache, L.F. 59
 Neatt, N. 35, 39, 43, 62
 Neckles, H.A. 39
 Nedelcheva, R. 58
 Needham, B. 35, 46, 56
 Needham, D.M. 48
 Needoba, J.A. 36, 45
 Neikirk, B.B. 49
 Neira, C. 53
 Neish, B. 49
 Nelson, H. 36
 Nelson, J. 31, 37, 39
 Nelson, K. 43
 Nelson, W. 39
 Nelson, W.G. 40
 Nestlerode, J. 26, 44
 Nestlerode, J.A. 62

Neubauer, S.C. 26, 61
 Nevins, H.M. 30
 Nevins, J. 29
 Newcomer, T.A. 51
 Newell, C. 29
 Newell, R. 29
 Newell, S. 29
 Newkirk, S. 32, 38
 Newton, A. 40
 Newton, F. 45
 Newton, J. 40, 42, 43, 57
 Nezlin, N. 28, 32
 Nickols, K. 34, 37, 45, 47
 Nidziko, N. 29, 47
 Nielsen, K.J. 37
 Nielsen, P. 27
 Niemand, C. 34
 Niemi, E. 38
 Ni, X. 32
 Nixon, M.E. 39
 Nixon, S.W. 26, 44, 47, 48
 Nizzoli, D. 27
 Noel, M.R. 34, 60
 Norkko, A. 28, 34
 Norkko, J. 28, 34
 North, E. 31, 36, 43
 North, E.W. 58
 Norwood, M.J. 43
 Norzagaray López, O. 57
 Noto, A.E. 59
 Novick, E. 30, 51
 Novoa, S. 52
 Nurminen, L. 27
 Nur, N. 45
 Nuttle, W. 33
 Nysten, D. 60
 Nyman, J.A. 47
 Nyman, R. 33, 57

O

Obaza, A. 57
 Obernolte, R. 37
 O'Brien, K.R. 32
 O'Brien, T. 29, 31
 O'Connell, J. 28
 O'Connell, K. 44
 O'Connor, K. 46, 48
 Oczkowski, A. 46, 48, 61
 Odebrecht, C. 31, 36, 54
 Odom Green, O. 59
 O'Donnell, J. 31
 O'Donnell, M.J. 38
 Ogendi, G.M. 61
 Ogston, A.S. 37
 Oh, S. 37
 Okolodkov, Y. 55
 Olabarrieta, M. 33, 41
 O'Laughlin, C. 37
 Olds, A. 28, 39
 O'Leary, D. 58
 Olivé, I. 32, 48
 Oliver, J. 26, 30, 44, 51
 Oliver, L.M. 47

Olli, K. 27
 Olofsson, M. 62
 Olvera-Prado, E. 33
 O'Neil, J.M. 33, 48
 O'Neill, A. 32
 Opishinski, T.B. 46
 O'Reilly, W. 32
 Ortell, N. 29
 Orth, R.J. 36
 Ortiz, C. 51
 Ortmann, A. 61
 Ortmann, A.C. 29, 48
 Orton, P. 38
 Orzetti, L. 34
 Osborn, M. 33
 O'Shea, B. 27
 Osland, M. 35, 43
 Osland, M.J. 61, 62
 Osorio-Tai, M. 33
 Osti, D. 31
 Ott, J. 40
 Outerbridge, M.E. 39
 Oviatt, C. 44, 47, 52, 57
 Owens, M. 27, 29, 35, 46, 49
 Ozbay, G. 62

P

Paalme, T. 34
 Pace, L. 42
 Pace, M.L. 54
 Padeletti, A. 26, 37, 39, 60
 Paerl, H. 27, 29, 31, 46, 52
 Pagach, J. 44
 Page, H.M. 31, 41, 46, 62
 Page, H.N. 51
 Page, M. 53
 Pahl, J.W. 32, 59, 62
 Paiva, B.P. 29
 Palinkas, C. 33, 48
 Palmer, T. 44
 Pant, H.J. 43
 Paolisso, M. 35, 56
 Papendick, H. 47
 Pardini, E.A. 62
 Parker, A. 26, 28, 38, 47, 49
 Parker, A.E. 52, 60
 Parker, J. 35, 41, 43
 Parker, M. 44
 Parker, N. 36
 Parker, P. 41
 Parkes, S. 27, 33, 35
 Park, H. 31
 Park, J.S. 52
 Park, J.W. 55
 Park, S.R. 56
 Parnell, E. 26, 27, 32
 Pärnoja, M. 57
 Parra, S. M. 29
 Parrish, D.B. 49
 Parrish, J.K. 28
 Parsons, J. 59
 Parsons, L. 43
 Parsons, M. 47
 Parsons Richards, C. 53, 59, 62
 Partridge, V.A.
 Pasari, J. 46
 Pasko, S. 58
 Patel, N. 44
 Pather, S. 46
 Patonai, K. 41, 53, 62
 Patrick, C.J. 36
 Patten, M.V. 62
 Patterson, H. 52
 Patterson, H.K. 48
 Patterson, M. 58
 Pattiaratchi, C. 29, 31, 33, 39
 Paudel, B. 28
 Paul, E.L. 31
 Paul, R.W. 37
 Paynter, K.T. 52
 Peacock, M. 47
 Pearl, H. 31
 Peart, S.M. 59
 Pécheyran, C. 32
 Pedersen, M.F. 38
 Pederson, J. 46, 58
 Peene, S. 43
 Peer, N. 45
 Peierls, B.L. 31
 Pelc, C.E. 38, 60
 Pelletier, M. 41
 Pelletier, M.C. 55
 Pena, C. 35
 Pennings, S. 28, 35, 41, 43
 Perales, K.M. 55
 Perales-Valdivia, H. 27, 54
 Peras, R.J. 42
 Pereira, J.F. 41
 Pere, M. 48
 Pérez-Bernal, L.H. 26
 Perez de Leon, A.
 Pérez-Tribouillier, H.U. 61
 Perissinotto, R. 44, 45
 Perry, J.E. 30
 Personius, C.L. 51
 Petersen, J.K. 27
 Peterson, B. 47
 Peterson, B.J. 26
 Peterson, C. 33, 39, 46
 Peterson, J. 42
 Peterson, M.S. 49, 55
 Peterson, S.N. 43, 44
 Peterson, T.D. 34, 36
 Peterson, W. 42
 Peters, S. 27
 Pett, R. 62
 Petus, C. 28
 Peyronnin, N. 53, 59
 Peyronnin, N.S. 33, 49
 Pfister, C.A. 46
 Pham, L.T. 36
 Phelps, J. 62
 Philippart, C. 26, 29, 40
 Philippart, K. 31
 Phillips, J.C. 57
 Phillips, S.W. 34

Phillips, T. 57
 Phipps, S.W. 38
 Philips, E. 31
 Piazza, B. 37
 Piazza, S. 39
 Pickerell, C. 39
 Pickett, V. 45, 47
 Piechotta, F. 35
 Piechowski, C. 29
 Pieck, T. 45
 Piehler, M. 29, 46
 Piehler, M.F. 54, 59, 61
 Pierce, S. 31
 Pierson, J. 55
 Pierson, J.J. 47
 Pietrzak, J. 35
 Pilditch, C. 27, 33, 34, 35
 Pilditch, C.A. 54
 Pimenta, A. 49
 Pimenta, A.R. 60
 Pinkerton, C. 47
 Pinnell, C. 37, 62
 Pitkin, M. 38
 Pitt, K. 28, 38, 39
 Pitts, P. 27, 29
 Plessel, T. 34
 Pohlman, J. 59
 Poirier, E. 37, 39
 Poirrier, M. 57
 Pollack, J. 29, 41
 Pondell, C.R. 38
 Pooler, P.S. 39
 Poormahdi, S. 26
 Popowich, A.M. 33
 Poppe, K. 44, 51
 Popper, A. 49
 Port, A. 54
 Pérez-Bernal, L.H. 26
 Porter, C. 39
 Porter, D. 57
 Portilla, S.E. 26, 30, 40, 43, 60
 Posey, M.H. 45, 51, 57
 Post, D.M. 46
 Potter, E.E. 55
 Potts, J. 61
 Poulakis, G.R. 31
 Powell, E. 46, 48
 Powers, J. 44
 Powers, S. 35, 37
 Prado, P. 32
 Prahler, E.E. 43
 Prahler, F.G. 38, 45
 Pratalongo, P. 36
 Premo, K.M. 49
 Pribble, R. 26, 43
 Price, L. 59
 Price, N. 32
 Price, R. 54
 Pride, C. 26
 Pride, L.D. 40
 Prieto, A. 62
 Probert, K. 33
 Procaccini, G. 32
 Proffitt, C. 34, 41
 Pruett, C. 59

Pruzinsky, A. 34
Puckett, B. 45
Pulhin, J.M. 42
Pulich, W.M. 52
Purohit, J. 31
Pyke, C.R. 39

Q

Qian, L. 53
Quarles, R. 47
Queralt, I. 26
Quigg, A. 26, 36, 42, 47
Quinn, J. 27
Quinn, T. 43
Quintana, C.O. 26, 35
Quintrell, J. 38
Quirk, T. 41
Quiroga, P. 60

R

Rabalais, N.N. 40, 59
Rabouille, C. 28
Racelis, A. 44
Radl, M. 26
Ragan, N. 28
Ragueneau, O. 28
Raimonet, M. 28
Rains, S. 31
Rakocinski, C.F. 29
Rale, M.J. 46
Ralph, D. 48
Ralph, P. 30, 46
Ramage, D. 57
Ramaiah, N.N. 31
Ramatchandirane, C. 45
Ramesh, R. 34
Ramírez, J. 54
Ramirez, M. 62
Ramirez-Mendoza, R. 35
Ramos, G. 58
Ranasinghe, A. 41
Rao, Y. 55
Raposa, K. 30, 46
Raposa, K.B. 55
Rasheed, M. 28, 30
Rasmussen, E.K. 33, 47
Rassman, J. 46
Rathburn, C.K. 34
Ratmaya, W. 27
Raubenheimer, B. 33
Rauschert, E.S. 45
Ravagnani, E.C. 38
Raw, J. 44
Ray, D. 31
Raymond, P.A. 59
Ray, N. 54
Raynie, R. 53
Raynie, R.C. 42, 52, 59, 62
Rea, A.W. 47
Read, L. 45
Reay, W. 44, 46

Rechimuth, J. 58
Reding, M. 28
Redman, S. 43
Reed, B. 40
Reed, D. 53
Reed, D.J. 32
Reed, M. 40
Reed, P.C. 54
Reese, B.K. 48
Rehage, J. 31, 39
Reichmuth, J.M. 51, 55, 59
Reichmuth, M. 43
Reidenbach, M. 31, 45, 47
Reilly, F.J. 44
Reisalu, G. 57
Reisinger, A.S. 39
Reitsma, J. 29
Remington, T. 54
Reneirs, A. 26
Renick, V.C. 27
Requintina, E. 52, 57
Reulet, C. 42
Reum, J. 42
Revell, D. 32, 38
Revilla, M. 40
Reyes, E. 30, 57, 59
Reynolds-Fleming, J.V. 47
Reynolds, J.D. 37
Reynolds, L. 32, 48
Reynolds, P.L. 37, 38, 42
Reyns, N. 44, 57, 58
Rheault, R. B. 42
Rheuban, J. 48
Rheuban, J.E. 54
Rhodes, A.C. 33
Rhodes, L. 37
Ribas-Ribas, M. 34
Ricci, P. 35
Rice, C. 37, 51
Rice, K.C. 59
Richardson, C.J. 61
Richardson, J. 29
Richardson, N.A. 59
Rich, J. 48
Richmond, S. 32
Ries, T. 43, 55
Riley, M.E. 35
Rinaldo, A. 47
Rinchar, J. 52
Rindge, H. 31
Riosmena-Rodríguez, R. 61
Risien, C. 57
Riter, A. 26
Rivas, D.A. 58
Rivera-Monroy, V. 38, 42, 54
Rizwi, F. 37
Robart, M. 46
Roberts, B. 26, 29, 33, 45
Roberts, C. 54
Roberts, M. 32, 39
Robertson, G. 32
Robinson, R.S. 48
Robson, B. 37

Robuck, A.R. 54
Rockler, A. 33
Rodriguez, A. 46
Rodriguez, D. 42
Rodríguez-Ezpeleta, N. 49, 58
Rodríguez-Figueroa, G.M. 61
Rodriguez, P. 46
Rodriquez, A.B.
Roegner, C. 36
Roelvink, D. 39
Roeske, K. 62
Rogers, C.S. 59
Rogers, J.E. 37
Rogers, K. 35, 36
Rohwer, F. 32, 61
Rolph, T. 46
Roman, C.T. 47
Roman, M. 55
Roos, P.C. 33
Roseen, R. 37
Rose, J. 42, 44
Rose, K. 58
Rosenbauer, R.J.
Rosenblatt, A. 39
Rosencranz, J.A. 37
Rosenheim, B.E. 45
Rosenzweig, I. 60
Rosevelt, C. 30
Rosman, J. 60
Rosman, J.H. 31
Rossete, A.M. 38
Rossignol, K.L. 31
Ross, J.L. 29
Ross, M.J. 29
Rostin, L. 52
Rothenberger, M.B. 55
Roth, W.B. 49
Rounds, L. 44
Rousseau, M. 28
Rovira, A. 35
Roy, E.D. 34
Rozas, L. 27, 29, 30
Rubin, C. 42
Rubin, L.J. 34, 48
Rubin, S.P. 39
Rubio, J.C. 58
Rüdiger, C. 46
Rudman, A. 27, 41, 44
Ruiz de Alegria, A.A. 59
Ruiz de Alegria-Arzaburu, A. 49
Ruiz-Fernández, A. 26, 36
Ruiz-Fernández, A. C. 26
Ruiz, G. 46, 58
Rulifson, R.A. 32
Runcie, J. 48
Russell, A. 32, 38
Russell, M. 35, 37, 52, 53
Rutkowski, M. 34
Ryan, A. 43, 56
Ryan, D. 34
Ryan, S. 46, 48
Rybczyk, J. 44
Rybczyk, J.M. 51, 62

S

Sabins, D. 42
Sabo, A. 33
Sabu, E. 27
Sackmann, B. 32, 39
Sacks, P. 51
Sadid, K. 41
Saenz Arroyo, A. 26
Sáenz-Arroyo, A. 32
Saiful Bahri, M. 39
Saintilan, N. 35, 36
Salas, A.K. 27
Salas, L. 45
Salim, S. 39
Salisbury, J. 57
Salo, T. 38
Salvador, B. 55
Samper-Villarreal, J.
Sanay, R. 27, 54
Sanborn, S.C. 41
Sanchez, A. 51
Sanchez-Cabeza, J. 26, 36
Sandin, S. 32
Sandoval-Castro, E. 61
Sanford, E. 38
Sanford, L. 29, 33, 47, 48
Sanger, D. 33
SanRomán, D.M. 60
Santavy, D. 47
Santell, S. 28, 30, 40, 51
Santos, I. 59
Santos, R. 32, 34, 38, 48
Sarno, D. 27
Sasser, C.E. 45
Sasser, M. 46
Sasson, D.A. 41
Sathe, S. 49
Sato, K. 26, 53
Saucier, M. 33
Saumweber, W. 46
Savage, C. 33
Savant, G. 41, 43, 47, 49
Savant, S. 27
Savolainen, M.A. 40
Sayez, J. 49
Sayigh, L.S. 38
Scanes, P. 32, 61
Scarborough, B. 62
Scarborough, R. 42, 47
Scerno, D. 49
Schaeffer, B.A. 60
Schaffner, L.C. 26
Schalles, J.F. 41, 60
Scharfe, M. 27
Scheda, S. 43
Scheef, L.P. 43
Scheffel, W. 41, 43
Scheinberg, L.A. 42
Scherer, C. 47
Schettini, C.A. 29, 36, 53, 54
Schiff, K. 26, 37, 41
Schile, L.M. 44

Schlafmann, D. 54
Schlenger, A.J. 43, 58
Schlenk, D. 27
Schmidt, C.E. 48
Schneider, R. 42
Schoellhamer, D. 47
Schoenbaechler, C.A. 55
Schoen, J. 49, 53
Schoen, P. 47
Schooler, N. 54
Schooler, N.K. 35
Schott, E. 33
Schrader, P. 38
Schrage, T. 36, 45, 47, 53, 60
Schramkowski, G. 29
Schroeter, S.C. 41, 53, 62
Schuetter, J.M. 59
Schultz, C. 46
Schunck, M. 38
Schupp, C. 45
Schuttelaars, H. 29, 31, 33, 35
Schwarzschild, A.C. 32
Scianni, C. 58
Scicluna, T.R. 28
Scott, G. 46
Scotti, A. 31
Sealey, K.S. 30
Searcy, S. 54, 57
Sears, W. 54
Seaton, C. 57
Sebastiano, D. 42
Sebilian, S.S. 34
Secor, D.H. 35
Seghesio, E. 44
Seibert, M. 34
Seino, S. 39
Seitz, R.D. 26, 29, 41
Sellner, K. 33, 35, 39
Send, U. 26
Sengupta, A. 28
Senn, D. 26, 30, 51
Serafy, J. 51
Serrano, O. 48
Serrato de la Peña, J. 26
Serrato de La Peña, J.L.
Serrato, J.L. 26
Service, M. 47
Servold, K. 33
Sevadjan, J. 32
Sevastik, A. 27
Severino-Murolas, M. 27
Shafer, D. 32
Shanks, A. 26
Sharif, R. 26
Sharma, S. 33, 35, 43
Sharma, V.K. 43
Sharpe, P.J. 35
Sharp, L.A. 42, 57, 60
Shchekinova, E. 27
Sheaves, M. 28, 30
Sheehan, L. 29
Sheldon, J.E. 39
Shellenbarger, G. 45, 47
Sheng, M. 37
Shenk, G. 34, 39
Sheremet, V. 48
Sherman, K. 56
Sherwood, E. 26, 40, 43
Sherwood, G.D.
Shields, E. 32, 33
Shi, J.Z. 33
Shiller, A.M. 28
Shimabukuro, H. 53
Shin, D. 31
Shin, D.H. 57
Shin, P. 39, 41, 60
Shippey, A.C. 33
Shirmohammadi, A. 33
Short, F. 52
Short, F.T. 36
Shukla, P. 57
Shull, S. 57
Shultz, A. 38
Shuman, C.R. 48
Shumilin, E. 28
Shurin, J.B. 59
Shuster, W. 59
Siedlecki, S. 32, 33, 42
Siegel, D.A. 47
Siegel, E. 30
Siegle, E. 36
Sieracki, C.K. 36
Sih, A. 55
Siikamäki, J. 40
Silberstein, M. 43
Silva, J. 32, 38, 48
Silvestri, S. 47
Simenstad, C. 27, 33, 37, 42,
44, 46, 48, 49, 62
Simley, J. 53
Simone, A.R. 34
Simons, R.D. 47
Simpson, C. 45
Simpson, L.T. 43, 48
Singh, G. 43
Siok, D. 47
Siqueiros Valencia, A. 57
Skerratt, J. 37
Skidds, D. 39
Skilbeck, C.G. 46
Skinner, C. 62
Slacum, H.W. 54
Sleavin, W. 28
Sleight, V.A. 54
Sloey, T. 39
Small, M. 29
Smith, A. 52
Smith, D. 39
Smith, E. 33, 40, 46, 47
Smitheram, B. 49
Smith, J. 32, 46
Smith, J.L. 36
Smith, K. 47
Smith, L. 45
Smith, M. 52
Smith, M.D. 41
Smith, N. 28
Smith, P. 31
Smith, R. 26
Smith, S.N. 31
Smith, T. 40, 46, 54, 56
Smolders, A.J. 45
Smyth, A.R. 29
Smyth, R.A. 44
Snedden, G. 57
Snedden, G.A. 39
Snow, G.G. 44
Sobocinski, K.L. 43
Sobota, D.J. 34
Soetaert, K. 28, 40
Solana, E. 58
Solari, L.C. 44
Solomon, J. 51
Somero, G.N. 32
Sommerfield, C. 44
Sommer, T. 60
Song, B. 33, 38, 61
Song, J.I. 52, 53, 58
Sonksen, A. 30
Sorensen, K. 57
Sotka, E. 42
Souchu, P. 27
Soukahn, B.W. 55
Soulén, H.L. 49
Souza, A. 61
Souza, A.J. 33, 35, 37, 53
Spackeen, J.L. 38
Sparks, E. 31, 43
Specht, D.T. 57
Speyrer, N. 53
Spinette, R. 33
Spivak, A.C. 26
Sponaugle, S. 32
Spotila, J.R. 29
Spragens, K. 26
Sproles, A. 27
Squibb, M. 29
Stacey, M.T. 46
Stachelek, J. 42, 54
Stachowicz, J. 62
Stachowicz, J.J. 32
Stack, B. 43
Stagg, C.L. 35, 57, 61
Stallings, C. 37
Standora, E.A. 29
Stanford, A.M. 34
Stanhope, J.W. 61
Stark, K. 53
Staver, L.W. 35, 46
Stebbins, T. 27
Stecher, H.A. 37, 51
Steele, A. 53
Steichen, J. 26, 47
Stein, E. 29, 41, 46
Stein, J. 35
Stephenson, K. 29
Steppe, C. 34
Sternberg, L. 43
Steven, A. 30, 36, 37, 40, 44, 48
Stevens, A.W. 36
Stevenson, C. 33, 35, 46
Stevens, P.W. 31
Stevens, T. 45
Steyer, G.D. 29
Stillman, J.H. 38
Stive, M. 35
Stockman, K. 62
Stoecker, D.K. 47
Stoffel, H. 52, 57
Stolzenbach, K.L. 27
Stoner-Duncan, S. 48
Stoner, E.W. 34
Stover, K.K. 34
Stow, C.A. 55
Stowe, J. 58
St. Peter, C. 48
Strangman, W.K. 26
Stratton, L. 28
Straub, P. 28
Straughan, D. 35
Strecker, R. 48
Stretch, D.D. 49
Stringfellow, W.T. 55
Strong, S.E. 52
Stunz, G. 29
Sturdivant, K. 45
Sturtevant, A.M. 32
Sturtevant, L. 54
Suarez, B. 43
Subramanian, V. 57
Suchanek, T. 62
Suedel, B. 33
Sullivan, H. 39, 41
Sullivan, L. 44
Sullivan, M. 28
Sun, D. 27
Sundareshwar, P.V. 28, 61
Sundback, K. 45
Sundberg, K. 47
Suter, G.W. 47
Sutherland, K.R. 53
Sutter, L.A. 30
Sutton, H. 58
Sutula, M. 26, 28, 30, 32, 38,
40, 53
Suykerbuyk, W. 45
Swaffield, T. 55
Swales, A. 45
Swaney, D.P. 32, 34, 36, 38
Swanson, C. 49
Swanson, J.D. 55
Swarzenski, C. 46
Swarzenski, P.W.
Sweatman, J. 34
Sweatman, J.L. 52
Sweeney, P. 42
Swift, C.C. 46
Swim, E. 61
Swithenbank, A. 34
Swope, B. 57

T
Tabatabai, A. 48, 62
Tagliaferri, T. 40
Taiapa, C. 27

- Takahashi, M. 28
 Takekawa, J. 26, 45, 51, 62
 Takeshita, Y. 32, 53
 Takesue, R.K. 36
 Takeuchi, M. 61
 Talavera, A.L. 51
 Taljaard, S. 48
 Talke, S.A. 38
 Talley, D. 44
 Tamburri, M. 38
 Tamminen, T. 27
 Tanacredi, J. 39, 40, 43
 Tanacredi, J.T. 60
 Tanaka, N. 28
 Tang, J. 26
 Tango, P. 48
 Tanis, M. 46
 Tanner, C. 38
 Tanner, C.E. 59, 62
 Tanner, T. 57
 Tapia, M.A. 42
 Tate, J. 41, 49
 Taylor, C. 45
 Taylor, J. 39
 Taylor, R.H. 45
 Teague, A. 52
 Teague, R. 54
 Tedesco, M. 42, 44
 Teel, D. 27
 Temmerman, S. 30
 Tenorio-Fernández, L. 53
 Terlizzi, D. 54
 Testa, J.M. 29, 40, 42
 Tett, P. 49
 Thessen, A. 31
 Thomas, E.L. 31
 Thomas, H. 42
 Thomas, J.E. 27
 Thomas, R. 30
 Thomas, R.L. 37, 55
 Thompson, C.M. 36, 58
 Thompson, J. 27, 40, 58
 Thompson, P. 31, 37
 Thompson, R.C. 54
 Thompson, S. 29
 Thompson, S.P. 59
 Thom, R. 36, 39
 Thomson, D. 29
 Thomson, J. 43
 Thomson, J.R. 46
 Thorhaug, A. 39
 Thornber, C.S. 55
 Thorne, K. 26, 51
 Thorne, P.D. 37
 Thorne, S. 33
 Thornton, W. 45, 58
 Thorsen, S.W. 27
 Thrush, S. 27, 28, 33, 35
 Tian, R. 34
 Tibbetts, I. 38, 45
 Tiedemann, J. 38, 48, 49
 Tilley, A. 54
 Timmermann, K. 27, 47
 Tinker, A. 47
 Tirok, K. 49
 Tjaden, R. 35, 56
 Tobias, C. 61
 Tobias, C.R. 31, 33
 Toft, J. 33, 37, 42, 44
 Tolar, B.B. 29
 Tomasko, D. 30
 Toms, C. 32, 38
 Toothman, B.R. 58
 Torres, M. 51
 Tørring, D. 27
 Tortora, C. 27
 Toscano, M.A. 46
 Tovilla-Hernández, C. 61
 Townsend, M. 33
 Tracy, B. 44, 58
 Trapp, J. 49
 Trask, P. 62
 Travis, N.M. 52
 Treier, R. 34
 Tremont, R.M. 55
 Treviño, C. 53
 Trimble, J. 42
 Trombley, J. 35
 Troost, K. 26
 Trowbridge, P. 42
 Truccolo, E.C. 53, 54
 Tsao, D. 26
 Tucker, J. 33
 Turner, E. 52
 Turner, E.L. 32
 Turner, R. 26, 40, 43, 46, 48
 Turner, R.E. 53
 Turrens, J. 52
 Tuwo, A. 47
 Tweel, A. 46
 Twilley, R.R. 38, 42, 45
 Tyler, A.C. 33, 49
 Tyrell, A.S. 53
- U**
 Udy, J. 32
 Uhrenholdt, T. 47
 Ullman, D.S. 49
 Ullman, W.J. 36, 38
 Underwood, S.G. 29
 Underwood, W.V. 46
 Unger, V. 44
 Unsworth, R. 28, 42
 Ursula, S.M. 49
 Usman, H. 47
 Uyeda, K. 44
 Uy, W.H. 45
 Uzeta, O. 58
- V**
 Valdemarsen, T. 26, 33, 35
 Valdespino-Castillo, P.M. 51
 Valencia, V. 40
 Valencik, K. 42
 Valiela, I. 47
 Valle-Levinson, A. 29, 31, 33, 35, 37, 39, 41, 43, 53, 54
 Valoppi, L. 45
 Valtierra, S. 59
 Vanaverbeke, J. 29, 36
 van Belzen, J. 30, 42
 Van Cleve, F. 35
 Van Colen, C. 27, 35, 36
 van Dalen, J. 30
 van Dam, A. 45
 Vandebroek, E. 32, 60
 van de Koppel, J. 42
 Vandemark, D. 57
 van der Wegen, M. 39, 45
 Vander Woude, A.J. 55
 Van Diggelen, A.D. 55
 van Dijk, K. 49
 Vanek, J. 30
 Vanek, J.P. 51
 VanGraafeiland, K. 38
 van Katwijk, M.M. 39, 45
 Van Niekerk, L. 48
 Vann, T. 35
 van Proosdij, D. 35, 37, 39, 43, 62
 van Stralen, M. 26
 Vaquer, A. 27
 Vasey, M. 44
 Vassilides, J.M. 37
 Vaudrey, J.M. 49
 Vaughan, K. 46
 Vavrinec, J. 39
 Vazquez, L. 26, 32
 Velarde, R. 27, 41
 Velinsky, D. 44
 Veloz, S. 45
 Verdone, L. 32, 38
 Verduin, J.J. 39
 Verges, P.C. 33
 Verspecht, F. 39
 Viaroli, P. 27
 Vickery, S. 47
 Vidal-Dorsch, D. 27
 Vidal-Juarez, T. 49
 Vidrine, K. 42
 Vieira, J.P. 54
 Vilas, C. 62
 Villanueva-Cubero, L. 61
 Vincent, A. 42
 Vincent, R. 58
 Vincx, M. 29, 35, 36
 Viola, S. 54
 Viola, S.M. 35
 Virnstein, R. 33, 56
 Visser, J.M. 55
 Vizzini, S. 32
 Vlaar, T. 54
 Voigt, E. 52
 Voisin, N. 35
 Von Bitner, T. 30
 Vosburg, B. 62
 Vosburg, B.M. 41
- Voss, J.D. 27
 Voynova, Y.G. 38
 Vozzo, M.L. 45
 Vroom, P. 27
 Vu, H.D. 28
- W**
 Wachnicka, A. 45
 Wainger, L. 34, 35, 56
 Wakelin, S.L. 42
 Waldbusser, G. 32, 35, 38
 Walker, J.E. 59
 Walker, J.P. 46
 Walker, S.E. 37
 Wallace, N. 28
 Wallace, R. 34, 36, 40
 Wall, C. 59
 Wall, C.C. 40
 Wallen, C. 41, 43
 Walsh, J.P. 51
 Walter, R. 29
 Walters, L. 40, 46, 51
 Walther, B. 32, 34
 Walton, M.E. 62
 Walton, W. 27
 Walz, P. 57
 Wands, J. 42
 Wang, B. 52, 55
 Wang, K. 32, 52, 55
 Wang, L. 43, 55, 58
 Wang, P. 34, 39
 Wang, Z. 41, 61
 Wan Nawang, W. 39
 Wan, Y. 27
 Warren, S. 47
 Warrick, J.A. 33, 39
 Wasson, K. 34, 43
 Waters, M. 29
 Watson, E. 46, 61
 Watson, M. 54
 Watson, W.H. 39, 60
 Watts, A. 37
 Waycott, M. 26, 28, 32, 49
 Weakland, S.
 Weathers, H. D. 45
 Weaver, C. 35, 41, 62
 Webb, B.M. 33, 43
 Weber, P.K. 32
 Weber, R. 30, 46
 Webster, T.L. 36
 Weeks, M.V. 29
 Weidman, C. 48
 Weifenbach, D. 39, 42, 59, 60
 Weisberg, S. 41
 Weisberg, S.B. 53
 Weishampel, J.F. 51
 Weishar, L. 33
 Weitzman, J. 60
 Weitzman, J.S. 47
 Wejrowski, M. 59
 Welch, K.I.
 Weller, D.E. 36, 38

- Wellman, K.F. 42, 43
Wells, B.K. 32
Wells, C.J. 54
Welsh, D.T. 27
Wenczel, A.A. 35
Wenner, A.M. 35
Wernand, M. 52
Wessel, M. 40, 43
West, A.O. 42
Weston, N. 39, 45
Wethey, D.S. 27, 35
Wetzel, L.A. 58
Wetz, M. 27, 52, 59
Wheeler, S.G. 32
Whigham, D. 48
Whitcraft, C. 26, 33, 43, 44, 54, 59
White, C.L. 37, 59
White, D.A. 53
White, J. 29, 34, 45, 47
White, J.R. 34
Whiteman, E. 45
White, N. 43
Whiting, A. 62
Whiting, J. 35
Whitlatch, R. 55
Whitlock, S. 28, 30, 40, 51
Whitman, G. 32
Whitt, A. 35
Whitworth, C. 39
Wiberg, P.L. 32, 43
Wicks, C. 27, 33
Wiegner, T. 48
Wigand, C. 46, 47, 61
Wigginton, R. 44
Wightman, J.L. 59
Wikert, J.D. 32
Wikfors, G. 34, 36, 42
Wilberg, M. 31, 35, 45
Wilcox, D.J. 36
Wilkerson, F. 47, 49
Wilkerson, F.P. 52, 60
Wilking, L.E. 33
Wilkin, J. 46, 48, 62
Willems, A. 29
Williams, E. 61
Williams, G. 48
Williams, J. 57
Williams, J.R. 41
Williams, M. 27, 31
Williams, M.E. 46
Williams, M.R. 39
Williamson, B.O. 55
Williams, S. 46
Willis, J. 39, 43
Willis, J.M. 54
Willis, Z. 40
Willson, C.S. 52
Wilson, B. 47
Wilson, K. 40
Wilson, P.S. 27
Wilson, S. 28
Wiltshire, K. 27
Winder, M. 29
Windham-Myers, L. 60
Windham, R. 26, 42, 47
Wingard, G. 27, 45
Winn, N. 46
Winters, J.M. 29
Wishnek, B. 54
Witkowski, A. 45
Wollheim, W. 47
Wong, F.L.
Wong, M.C. 57
Woodcock, S. 34
Woodin, S. 27
Woodin, S.A. 35
Wood, J. 38, 45, 49
Woodland, R.J. 46
Woodrey, M. 44
Woodring, D. 31
Woodroffe, C.W. 36
Woodrow, D.L.
Woodruff, D. 39
Woodson, C.B. 26, 29, 32, 37, 53, 57
Woodson, L.E. 32
Woo, H. 53
Woolfolk, A. 43
Woo, S. 52, 53, 58
Working Group, H. 44
Wozniak, J. 61
Wozniak, J.R. 28, 40
Wrathall, C. 62
Wright, C. 36
Wright, J.L. 26
Wu, C. 55
Wuenschel, M.J. 58
Wu, K. 35
Yuan, W. 46
Yu, M. 61
Yun, S. 31
Yu, W. 35
Yu, X. 36, 55
Yu, Z. 35
Z
Zabin, C. 34, 37, 46
Zarama, F. 60
Zarama, F.J. 47
Zarnoch, C.B. 41
Zavala-Hidalgo, J. 33
Zaveta, D.R. 49
Zeldis, J. 32
Zeller, R. 60
Zeller, R.B. 47
Zellers, A. 55
Zeng, D. 32
Zenha, J.H. 62
Zhai, W. 38
Zhang, B. 41
Zhang, F. 29
Zhang, H. 55
Zhang, L. 35, 41
Zhang, R. 35
Zhang, X. 55
Zhang, Y. 35, 41
Zhao, Y. 59
Zheng, F. 27
Zheng, M. 53
Zhong, C. 55
Zhou, F. 32
Zhou, Z. 41
Zhuang, Y. 55
Zhu, C. 42
Zhuo, Y. 55
Ziegler, A. 45
Zimba, P. 59
Zimba, P.V. 26
Zimmerman, A. 44
Zimmerman, R.C. 52
Zimmerman, S.A. 36
Zingone, A. 27, 29, 31
Zinke, L. 48
Zions, V. 43



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