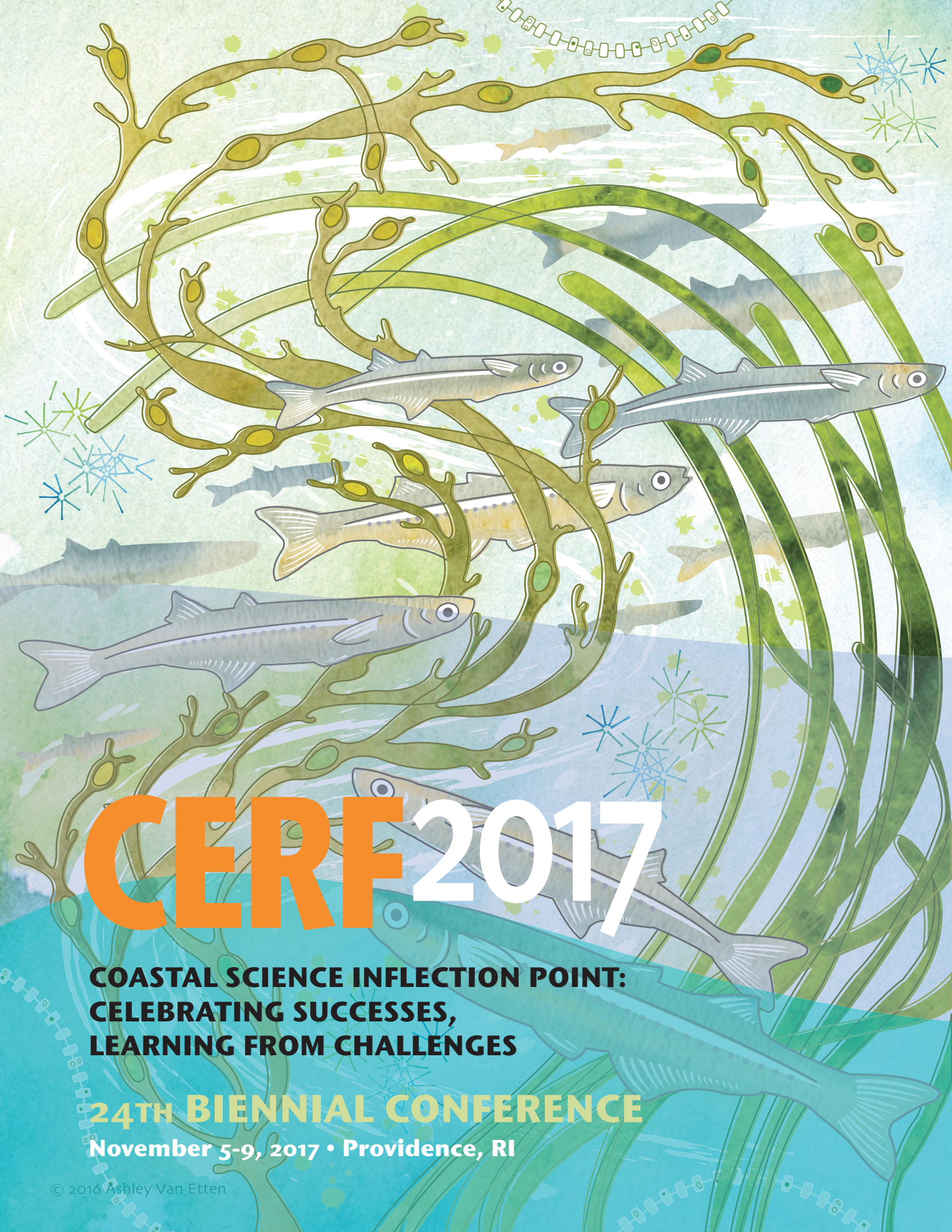

CERF2017

COASTAL SCIENCE INFLECTION POINT: CELEBRATING SUCCESSES, LEARNING FROM CHALLENGES

24th BIENNIAL CONFERENCE

November 5-9, 2017 • Providence, RI

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Access CERF 2017 abstracts and schedule on the go: www.erf.org/conference-app

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Network: CERF2017WiFi
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Welcome to Providence and CERF 2017

Welcome to CERF 2017, a gathering of professionals that celebrates our resolve as a science society to promote the understanding and wise stewardship of estuarine and coastal ecosystems worldwide! It is extremely timely that we have this opportunity here in Providence to engage with colleagues to discuss how CERF can address the challenges facing both the natural and social capital of coastal systems as they adapt to a changing environment. Hurricanes Harvey, Irma, and Maria, and other cyclonic activities in Pacific and Indian oceans, are very recent reminders that land-use decisions amplify climate change impacts in the coastal zone.

To help focus our discussions, the CERF Governing Board is very pleased to announce the release of our VISIONS IV strategic plan, designed to help CERF map our role as a science society to promote research, education, professional development, and science communication. I hope you will reach out to me and other Governing Board members, both newly elected and those completing recent terms, to discuss how the ambitious goals outlined in VISIONS IV can become a reality.

The conference organizers have done a tremendous job of focusing on our long-standing CERF tradition of a friendly and collegial conference environment, with activities designed to express our support of early career scientists. I hope you'll take the time to learn about the innovative discoveries of the nearly 600 students and early career scientists attending and presenting at CERF from all over the world. Encourage them to provide leadership as the future of CERF, as well as the future direction of coastal and estuarine science.

I want to thank the CERF Governing Board, and our Executive Director Susan Park, for promoting such a rewarding and productive two-year term of governance. It has been an extremely gratifying experience as President, and I have such an admiration and appreciation for all the volunteer effort it takes to build an accomplished science society. And I also want to thank the staff for their continued support of CERF operations. And finally, thanks again to all the volunteers for making CERF 2017 such a great program! Enjoy the conference, Providence, and step up to make a difference.

Robert Twilley, CERF President, 2015-2017

Welcome from the CERF Conference Committee

We are especially excited for CERF 2017! This year our conference is focused on celebrating successes and learning from challenges. In this year's program you'll find sessions that cover a breadth of the work we do, whether it's developing models on coastal acidification and hypoxia to better inform management, exploring the ecosystem benefits of aquaculture, learning lessons on coastal ecosystem resilience after Hurricane Sandy, or quantifying nutrient loading restoration impacts on urban coastal ecosystems – to name just a few – we hope there is something (or several things) for all of you.

The best word to describe this conference is 'bustling.' With twelve concurrent breakout sessions, the incorporation of Ignite-style talks into the program, two full poster sessions, and eight workshops, a lot of exciting research will be presented over the next few days. For the first time, we will be hosting a live joint session on harmful algal blooms with our colleagues in Cali, Colombia (check it out Tuesday). Plus, there are Monday and Wednesday's topical lunches, Tuesday's Inclusion Lunch, and the new CERF Ambassador Program. Between what are sure to be busy days and evening social events, which you won't want to miss (we hear that the CERF Tones, who will be playing at Club CERF, are exceptional this year), the challenge will be to pace yourself and make it to the Coastal Cabaret on Thursday evening. Of course, if you need a break from all these activities, take advantage of the morning meditations to re-center.

CERF 2017 would not be possible were it not for the efforts of our amazing team of volunteers. The Scientific Program Committee is composed of seven sub-committees and has been fearlessly led by Chair Jamie Vaudrey and Co-Chairs Jonathan Grabowski and Mike Piehler. The Attendee Experience Committee has eighteen sub-committees led by Co-Chairs Veronica Berounsky and Walter Berry. We are honored and thankful that such an incredibly accomplished group of scientists have been willing to dedicate a great deal of their precious and limited time to develop the CERF 2017 meeting content. It is because of the efforts of our volunteers and the CERF Headquarters Team, led by Conference Director Terry Onustack and Executive Director Susan Park, that we have such a full and exciting meeting planned.

When you see members of the CERF 2017 Committee, please join us in thanking them for their time and efforts. These volunteers have committed themselves to meeting planning, all the while juggling the often overwhelming commitments of academic and personal life. In the two years that we have been working on this meeting, our committee members have also been applying for research grants, for tenure, and for jobs. They have been adding to their families (at last count we have five CERF 2017 babies), conducting research, and submitting manuscripts. We have a renewed appreciation for those who have fulfilled these roles in the past and gratitude for those who are filling them at present.

Thanks so much and we hope that you enjoy the meeting.

Wally and Autumn, CERF 2017 Co-Chairs

CERF 2017 CONFERENCE COMMITTEES

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Autumn Oczkowski, *Environmental Protection Agency*

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Jamie Vaudrey, *University of Connecticut*

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Lisa Ayers Lawrence, *Virginia Institute of Marine Science*
Beth Darrow, *University of North Carolina Wilmington*

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Poster Session Leads
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Courtney Schmidt, *Narragansett Bay Estuary Program*

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Giancarlo Cicchetti, *Environmental Protection Agency*
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Cristina Bourassa, *University of New Hampshire*
Sabah Ul-Hasan, *University of California–Merced*

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Austin Humphries, *University of Rhode Island*
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Janet Nestlerode, *Environmental Protection Agency*

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Patricia Reilly, *The Reilly Group*
Nick Lowell, *Lowell Instruments, LLC*

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Jeff Clements, *University of New Brunswick*
Julian Damashek, *University of Georgia*
Mary Grace Lemon, *Louisiana State University*

Student Career Networking Dinner Leads
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Ashley Bulseco-McKim, *Northeastern University*
Geno Olmi, *NOAA*

Student Judging Leads
Amber Hardison, *University of Texas*
Jessie Jarvis, *University of North Carolina Wilmington*

Student Pub Night Leads
Joanna Carey, *Marine Biological Laboratory*
Rose Martin, *Environmental Protection Agency*

Student Travel Leads
Sam Lake, *Virginia Sea Grant*
Sara Blachman, *Virginia Marine Resources Commission*

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Judith Weis, *Rutgers University*

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Susan Park

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CAERS | Christine Whitcraft, *CSU Long Beach*
GERS | Anna Armitage, *Texas A&M University–Galveston Campus*
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PERS | Jude Apple, *Padilla Bay NERR*
SEERS | Erik Smith, *University of South Carolina*

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CAERS | Theresa Talley, *University of California–San Diego*
GERS | Anna Armitage, *Texas A&M University–Galveston Campus*
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CERF 2017 Conference Planning Committee | Wally Fulweiler and Autumn Oczkowski

CERF 2017 CONFERENCE SCHEDULE-AT-A-GLANCE

Pre-Conference | Sunday, November 5

		Location
Various times	**Field Trips**	**Various**
Various times	**Workshops**	**Meeting Rooms–Level 5**
7:30AM–6:00PM	**Registration Open**	**3rd Floor Concourse**
11:00AM–12:00PM	**Student Worker Orientation and Training**	**Room 557**
4:30–5:45PM	**CERF 2017 VIP Reception** (*By Invitation*)	**Rotunda–Level 5**
5:00–5:45PM	**First-time Attendee Orientation**	**Room 551 AB**
6:00–8:00PM	**Keynote Address & Scientific Awards**	**Ballroom A–Level 5**
8:00–10:00PM	**Silent Auction Open**	**Exhibition Hall BC**
8:00–10:00PM	**Presidents' Welcome Reception with Exhibitors**	**Exhibition Hall BC**

Day 1 | Monday, November 6

		Location
7:00–7:45AM	**Meditation**	**Omni-Blackstone**
7:00AM–7:00PM	**Registration Open**	**3rd Floor Concourse**
7:00–8:00AM	**Mentorship Program Breakfast** (*By invitation*)	**Omni-Narragansett AB**
8:00–9:30AM	**Early Morning Sessions (Session 1)**	**Meeting Rooms–Level 5**
9:30–10:00AM	**Break with Exhibitors**	**Exhibition Hall BC**
10:00–11:30AM	**Late Morning Sessions (Session 2)**	**Meeting Rooms–Level 5**
11:30AM–1:00PM	**Lunch Break**	**RICC/on your own**
	Topical Brown-bag Luncheon	**Exhibition Hall D**
	NEERS Affiliate Luncheon (*By RSVP*)	**Rotunda**
	PERS Affiliate Luncheon (*By RSVP*)	**Omni-Kent**
	Ocean Frontiers III Film Viewing (11:50AM)	**Ballroom B**
12:00–1:00PM	**CERF 2017 Special Town Hall Meeting on Hurricanes**	**Omni–Waterplace 1**
1:00–2:30PM	**Early Afternoon Sessions (Session 3)**	**Meeting Rooms–Level 5**
2:30–3:00PM	**Break with Exhibitors**	**Exhibition Hall BC**
3:00–4:30PM	**Plenary Session: Science and Decision Making to Improve Coastal Resilience**	**Ballroom A–Level 5**
4:30–7:00PM	**Poster Sessions/Happy Hour**	**Exhibition Hall BC**
7:00–9:00PM	**Student & Early Career Networking Dinner**	**Omni–Narragansett AB**
9:00PM–MIDNIGHT	**Student & Early Career Pub Night**	**Trinity Brewhouse–186 Fountain St.**

CERF 2017 CONFERENCE SCHEDULE-AT-A-GLANCE

Day 2 | Tuesday, November 7

		Location
7:00–7:45AM	Meditation	Omni-Blackstone
7:00–8:00AM	Past Presidents' Breakfast (*By Invitation*)	Omni-Waterplace 2-3
7:30AM–6:00PM	Registration Open	3rd Floor Concourse
8:00–9:30AM	Early Morning Sessions (Session 4)	Meeting Rooms–Level 5
9:30–10:00AM	Break with Exhibitors	Exhibition Hall BC
10:00–11:30AM	Late Morning Sessions (Session 5)	Meeting Rooms–Level 5
11:30AM–1:00PM	Lunch Break	RICC/on your own
12:00–12:30PM	YSI Presentation – New Instruments Streamline Monitoring	Rotunda
11:30AM–1:00PM	CERF Inclusion Luncheon (*Ticketed*)	Omni–Narragansett AB
1:00–2:30PM	Early Afternoon Sessions (Session 6)	Meeting Rooms – Level 5
2:30–3:00PM	Break with Exhibitors	Exhibition Hall BC
3:00–4:30PM	Plenary Session: Food Webs and Fisheries	Ballroom A–Level 5
4:30–5:30PM	CERF Annual Membership and Business Meeting	Ballroom A–Level 5
5:30–6:30PM	Affiliate Society Meetings (AERS, CAERS, GERS, SEERS)	see page 26
7:00–10:00PM	Club CERF Social Event/Open Mic Challenge (*Ticketed*)	Snookers Bar & Grill–53 Ashburton St.

Day 3 | Wednesday, November 8

		Location
7:00–7:45AM	Meditation	Omni-Blackstone
7:00–8:00AM	CESN Team Meeting/Breakfast (*By Invitation*)	Omni-Waterplace 2-3
7:30AM–6:00PM	Registration Open	3rd Floor Concourse
8:00–9:30AM	Early Morning Sessions (Session 7)	Meeting Rooms–Level 5
9:30–10:00AM	Break with Exhibitors	Exhibition Hall BC
10:00–11:30AM	Late Morning Sessions (Session 8)	Meeting Rooms–Level 5
11:30AM–1:00AM	Lunch Break	RICC/on your own
	Topical Brown-bag Luncheon	Exhibition Hall D
12:00–12:30PM	YSI Presentation – New Instruments Streamline Monitoring	Rotunda
11:30AM–1:00PM	Editorial Board Meeting/Lunch (*By Invitation*)	Omni-Waterplace 2-3
1:00–2:30PM	Early Afternoon Sessions (Session 9)	Meeting Rooms–Level 5
2:30–3:00PM	Break with Exhibitors	Exhibition Hall BC
3:00–4:30PM	Late Afternoon Sessions (Session 10)	Meeting Rooms–Level 5
4:30–7:00PM	Poster Sessions/Happy Hour	Exhibition Hall BC
5:00–7:00PM	Future Earth Coasts Town Hall	Rotunda
6:00PM	Close of Silent Auction	Exhibition Hall BC

CERF 2017 CONFERENCE SCHEDULE-AT-A-GLANCE

Day 4 | Thursday, November 9

		Location
7:00–7:45AM	**Meditation**	**Omni-Blackstone**
7:00–8:00AM	**CERF 2019 Committee Breakfast** (*By Invitation*)	**Omni-Waterplace 2-3**
7:30AM–5:00PM	**Registration Open**	**3rd Floor Concourse**
8:00–9:30AM	**Early Morning Sessions (Session 11)**	**Meeting Rooms–Level 5**
9:30–10:00AM	**Break**	**5th Floor Concourse**
10:00–11:30AM	**Late Morning Sessions (Session 12)**	**Meeting Rooms–Level 5**
11:30AM–1:00PM	**Lunch Break**	**RICC/on your own**
	ACCESS Affiliate Luncheon (*By RSVP*)	**Rotunda**
1:00–2:30PM	**Early Afternoon Sessions (Session 13)**	**Meeting Rooms–Level 5**
2:30–3:00PM	**Break**	**5th Floor Concourse**
3:00–4:30PM	**Late Afternoon Sessions (Session 14)**	**Meeting Rooms–Level 5**
4:30–5:30PM	**CERF 2017 Committee Reception** (*By Invitation*)	**Omni-Waterplace 1**
5:30–8:30PM	**Close Out Party and Student Awards Presentation**	**Ballroom ABC**
	Coastal Cabaret (immediately following the conclusion of the Awards presentation)	**Ballroom D**

CERF 2017 Workshops & Field Trips

WORKSHOPS

The Scientific Program Committee scheduled a series of pre-conference workshops on Sunday, November 5 covering a wide array of topics. Limited tickets for some of the workshops may still be available at the registration desk on Sunday morning.

- Building and Embracing CERF Diversity
- Business Basics for Scientists
- How Collaborative Learning Can be Used to Bridge Science, Management and Policy to Improve Outcomes
- Introduction to R for Analysis of Coastal and Estuarine Data
- Landing that Job!
- Mapping Estuarine/Near-Coastal SAV: Sharing Best Practices
- Navigating the Science-Policy Nexus
- Writing and Publishing a Scientific Paper

FIELD TRIPS

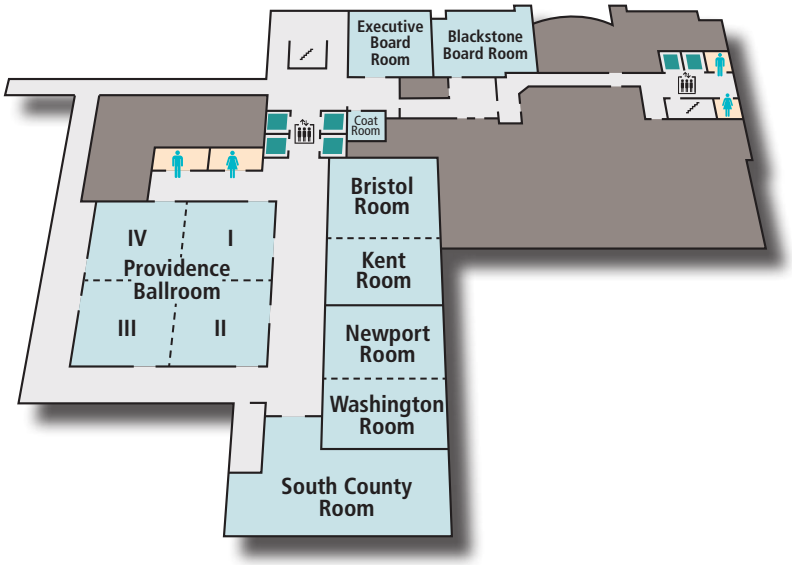
CERF is proud to sponsor a series of pre-conference field trips on Sunday, November 5 appealing to a wide variety of interests. Limited tickets for some of the excursions may still be available at the registration desk on Sunday morning.

- Aquaculture Farm Tour: From the Water to the Table
- Estuarine Research on Narragansett Bay
- Field's Point Wastewater Treatment Facility Tour
- Narrow River Ecology and Restoration Kayak Tour
- Rhode Island Marine Science Tour: Cutting Edge Oceanography Now and in the Past
- Metro Providence Brewery Tour

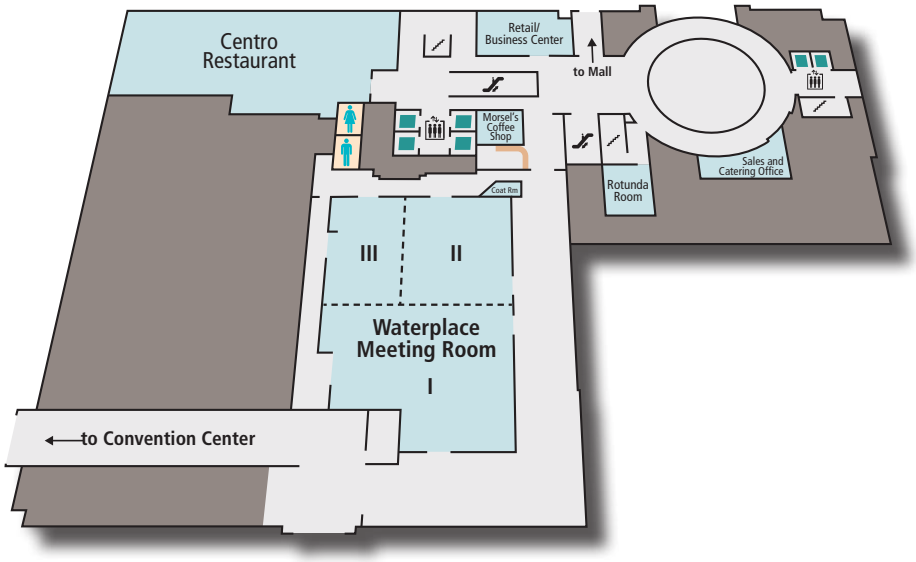
CERF 2017 VENUE MAPS

OMNI PROVIDENCE

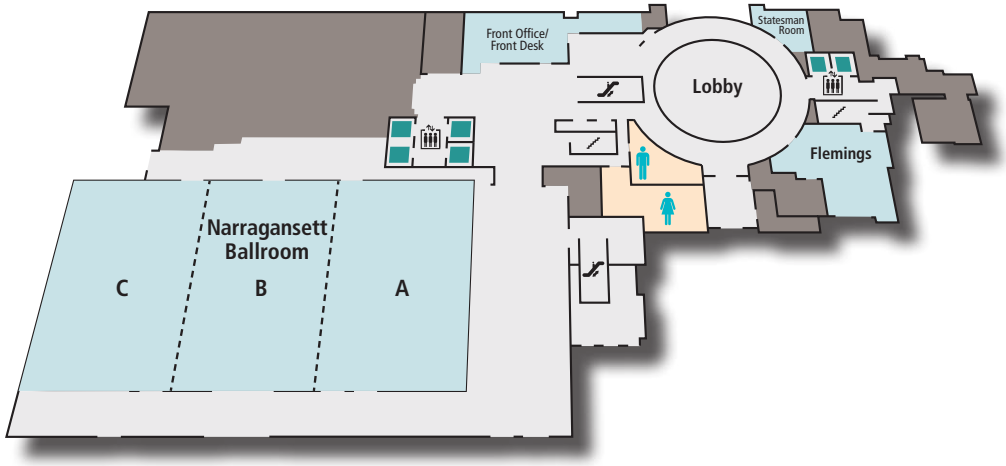
THIRD FLOOR



SECOND FLOOR



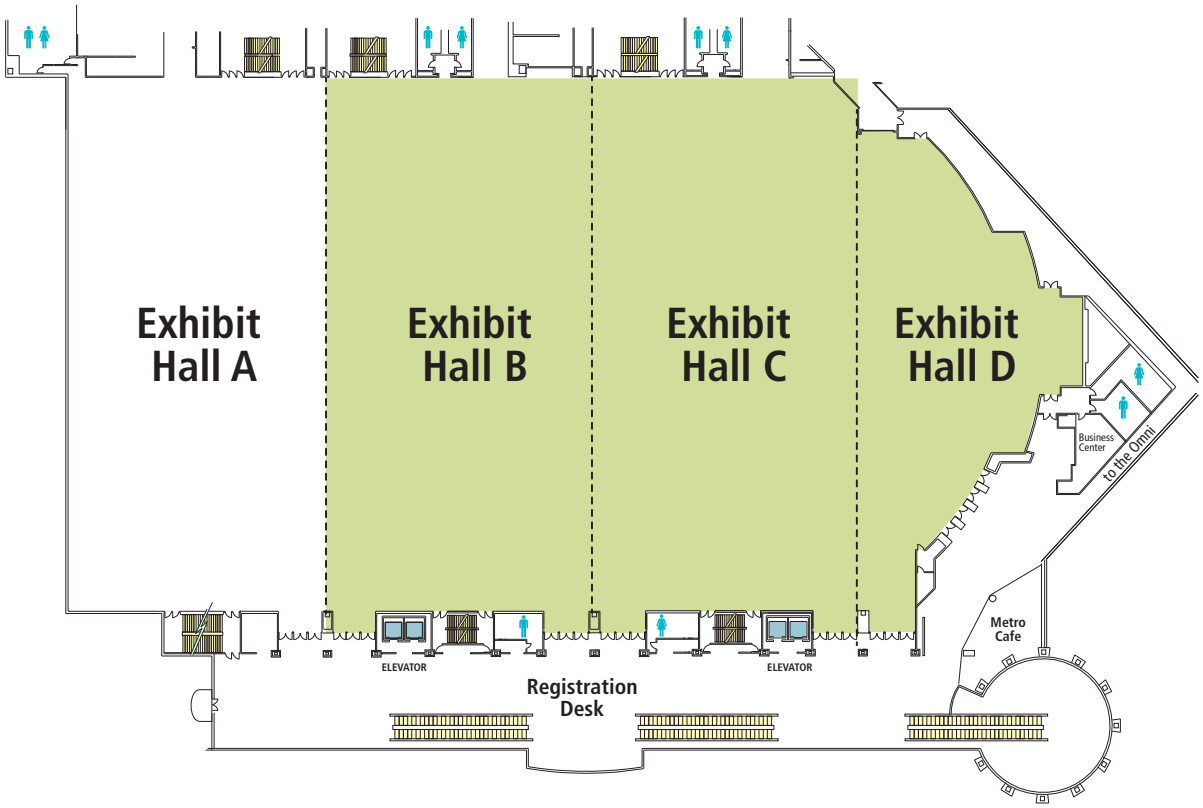
LOBBY



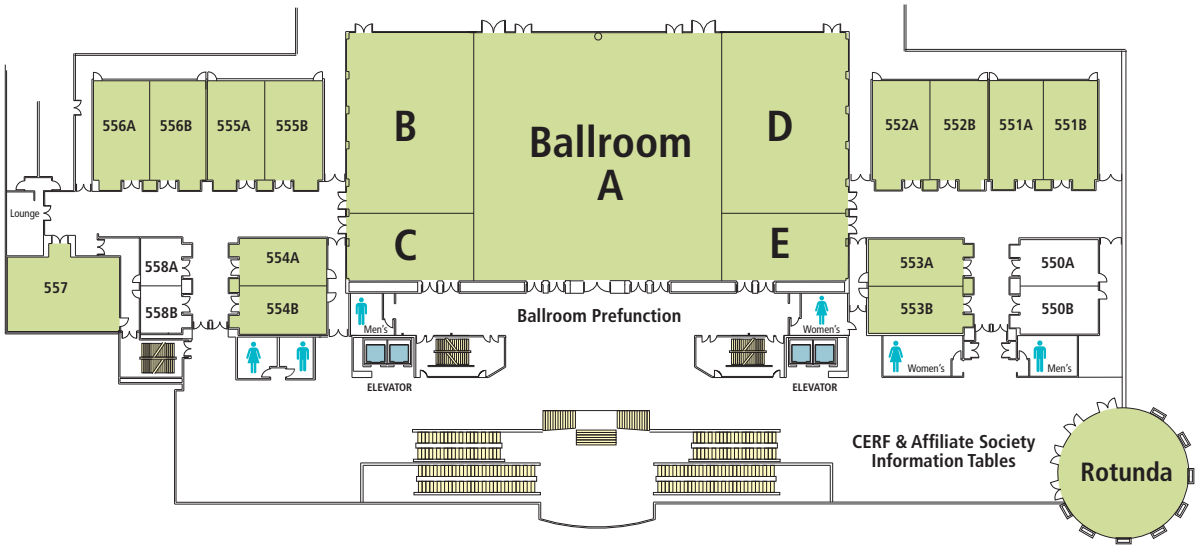
CERF 2017 VENUE MAPS *(continued)*

RHODE ISLAND CONVENTION CENTER

RICC LEVEL 3



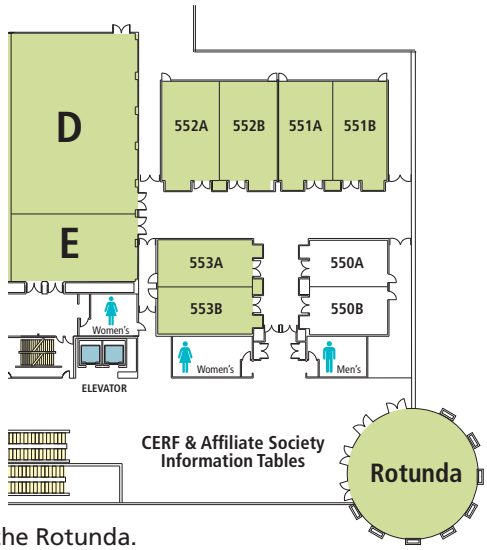
RICC LEVEL 5



EXHIBITORS & SPONSORS

CERF AFFILIATE SOCIETIES–LEVEL 5

AFFILIATE SOCIETIES	TABLE NUMBER
Atlantic Canada Coastal and Estuarine Science Society (ACCESS)	6
Atlantic Estuarine Research Society (AERS)	7
California Estuarine Research Society (CAERS)	5
Gulf Estuarine Research Society (GERS)	4
New England Estuarine Research Society (NEERS)	3
Pacific Estuarine Research Society (PERS)	2
Southeastern Estuarine Research Society (SEERS)	1



Affiliate Society tables will be located on 5th floor in the East Prefunction area, near the Rotunda.

MEET OUR SPONSORS & EXHIBITORS

SPONSORS & EXHIBITORS		BOOTH NUMBER
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C-2 Innovations, Inc	Career Booth–*Now Hiring!*	40
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CERF		48
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Consortium of Aquatic Science Societies (CASS)		34
Dalio Ocean Initiative / Alucia Productions		39
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Fuss & O'Neill, Inc.		41
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Louisiana State University (LSU)		47
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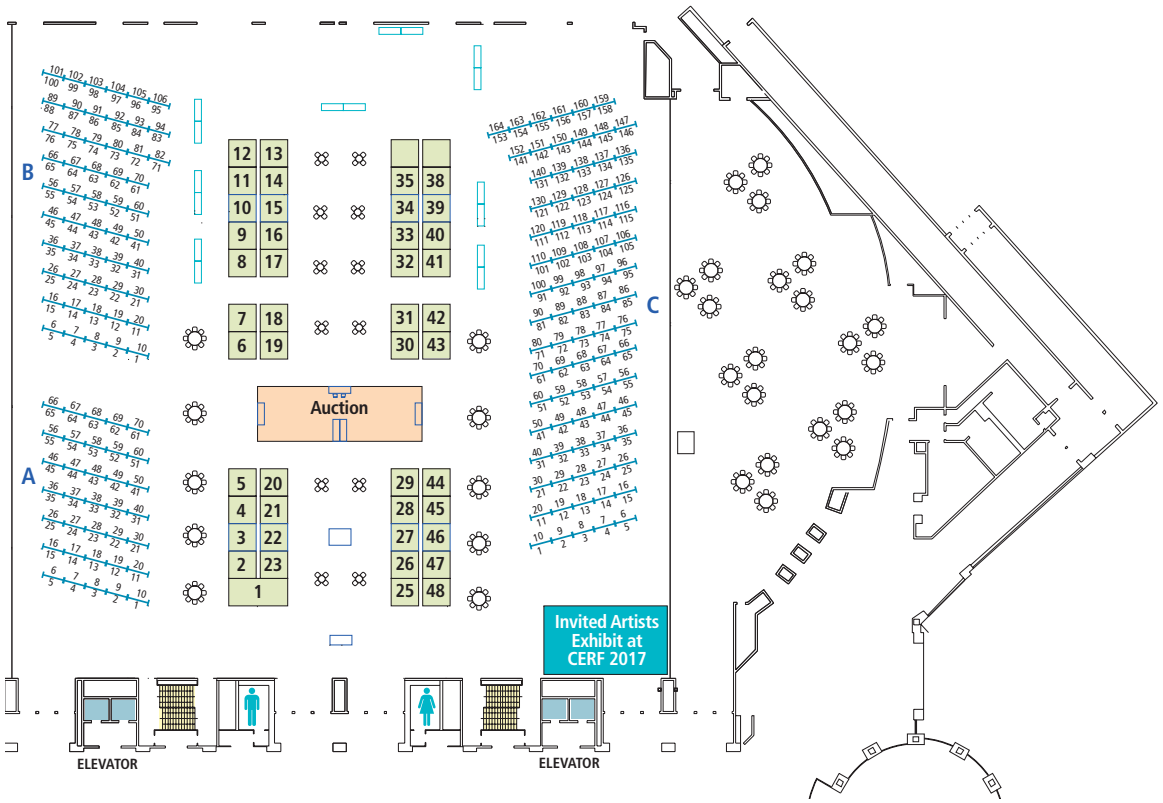
McLane Research Labs		33
NERACOOS		18
New England Interstate Water Pollution Control Commission	Career Booth–*Now Hiring!*	38
OGI Inc.		9

EXHIBITION HALL



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Rockland Scientific Inc.		3
School of Marine Sciences, Sun Yat-sen University, China		26
Scientists and Environmentalists for Population Stabilization		12
SpringerNature		10
The Data Detektiv		32
Turner Designs		4
UL Lafayette, Institute for Coastal and Water Research		44
Unisense A/S		5
University of Maryland Center for Environmental Science		46
University of Massachusetts Dartmouth School for Marine Science & Technology		45
University of Rhode Island Coastal Institute	Supporter Sponsor	28
USDA NRCS		31
Visit Mobile		35
Woods Hole Oceanographic Institution	Benefactor Sponsor	25
YSI, a Xylem Brand	Premier Sponsor	1

GENERAL INFORMATION

REGISTRATION

Conference check-in for pre-registered attendees and registration of on-site attendees will take place in the Exhibition Hall Foyer (3rd Level). The registration desk will be open during the following hours:

Sunday, 5 November ..... 7:30 AM – 6:00 PM
Monday, 6 November ..... 7:00 AM – 7:00 PM
Tuesday, 7 November ..... 7:30 AM – 6:00 PM
Wednesday, 8 November ..... 7:30 AM – 6:00 PM
Thursday, 9 November ..... 7:30 AM – 5:00 PM

SPEAKER PRESENTATION ROOM

All speakers who did not submit their presentations prior to the conference must visit the Speaker Presentation Room the day before their presentation to upload their slides. This allows the staff to upload all presentations onto the meeting room laptops and test the files prior to your session.

The Speaker Presentation Room will be located in Room 550 AB and will be open during the following hours for on-site submission, review and editing of PowerPoint presentations:

Sunday, 5 November ..... 12:00 – 5:00 PM
Monday, 6 November ..... 7:00 AM – 5:00 PM
Tuesday, 7 November ..... 7:00 AM – 5:00 PM
Wednesday, 8 November ..... 7:00 AM – 5:00 PM
Thursday, 9 November ..... 7:00 AM – 3:00 PM

WI-FI

Free WiFi is available to conference attendees in all convention center meeting rooms and the exhibit hall via the **CERF2017WiFi** network. The password is: **CERF2017**

CONFERENCE APP

Use CERF 2017's mobile web app to access the most up-to-date information about the conference. Abstracts for oral presentations and posters are available and you can create your own, personalized schedule. Just visit the website on your desktop, laptop or other mobile device.

www.erf.org/conference-app

Upon arrival at the mobile web app site, you will create a personal log-in and then will be on your way. Once in the app, you can search for abstracts by author name, day of presentation, or title. You will also find information about sponsors and exhibitors, conference events and the schedule.

CERF AMBASSADOR PROGRAM

The new CERF Ambassadors Program is designed to enhance and enrich the conference for all attendees by enlisting a group of selected CERF members at all career stages to chat informally, provide guidance, suggestions, and help increase engagement among attendees. The CERF Ambassador can assist by introducing you to other attendees, helping you prioritize your schedule, answering your question or finding information that will help you enjoy and get more from the conference. CERF Ambassadors will be wearing a distinctive Ambassador button. Whenever they are wearing their buttons, they welcome you to approach them and ask for advice or assistance. The Ambassador is willing to help or find others who can assist.

SELFIES: With the goal to increase engagement among members and conference attendees, we want to know that you're interacting with out Ambassadors. Please take a SELFIE and share your "CERF Ambassador moment" on social media using the hashtag **#CERFAmbassador**!

INVITED ARTIST EXHIBIT AT CERF 2017

Location: Exhibit Hall BC

With the 2017 conference in Providence, a location known for its arts community, we feel this is an ideal time to initiate a "conversation" among the coastal scientists and managers who attend the CERF conference and local artists, believing that each community enriches the way we see and interact with our planet. Thus, the goal of the Invited Artist Exhibit at CERF 2017 is to show works that capture ideas about coastal New England, or are inspired by artist roots in New England. The exhibited work will include photography, sculpture, printmaking, and textiles.

FAMILY FRIENDLINESS/MOTHERS' LOUNGE

CERF 2017 has taken aim to be the most family-friendly CERF conference yet.

Nursing mothers can visit the Mothers' Lounge, located in the West Wing of the 5th floor of the Rhode Island Convention Center, near Room 557. The room has special amenities and supplies to help make navigating the conference an easier experience (such as refrigeration to store pumped milk).

In addition, check out the "Work/Life Balance" informal discussion during Wednesday's Topical Brown-bag Luncheon, where you can have an opportunity to talk with your fellow parents about the unique challenges of raising a family while managing your career.

NURSE'S STATION

A nurse's station is located on Level 1 (ground floor) of the Rhode Island Convention Center in the West Lobby area. A nurse will be on duty during main conference hours throughout the event. Attendees needing minor medical advice or basic first aid can visit the nurse's station for assistance.

EMERGENCIES

In the case of an emergency, please dial 6023 on any RICC house phone (or dial 401-458-6023 from a cell phone) to contact the Security Command Center.

MORNING MEDITATION

Time: Monday – Thursday, 7:00–7:45 AM
Location: Omni Hotel – Blackstone Room

Would you like to start your day with a little mindful movement and meditation? Each morning before the conference begins we will meet to share some gentle yoga, breathing exercises, and silent meditation. The exercises are suitable for any fitness level and will be conducted seated or standing so no mats or props are necessary. We won't be working up a sweat so you can come in your conference clothes. Classes are offered free of charge and beginners are welcome. If you have questions, please contact Bryan Milstead at willbmisled@gmail.com.

SOCIAL MEDIA

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

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

@CERFScience on Twitter

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

#CERF2017 if you are planning to post about your general CERF 2017 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;

#CERF2017Live if you want to follow live tweets from the keynote address and plenary speaker presentations

CERF will also be hosting a CERF 2017 Selfie 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 9, 2017 to be eligible to win. Maximum 4 photo entries per person.

Did you know that we have our own CERF 2017 geofilter on Snapchat? Geofilters are overlays that capture where you are when you Snap! If you're in the convention center, you can find the CERF 2017 geofilter by swiping on a Snap preview screen. Keep snapping, CERFers! Thank you to Lauren Huey, the winner of our Snapchat Geofilter contest, for the design.

SOCIAL MEDIA POLICY

Please Read Before You Tweet (or Facebook, blog, Instagram, Pinterest, Google+, LinkedIn, etc.)

To balance the needs and expectations of conference presenters with the benefits of open sharing and discussion, we have prepared a best practice guideline for using social media during the conference.

- We encourage all conference attendees to openly discuss our conference on social media. You can live Tweet, post to Facebook, or even blog about the presentations. Please use the meeting hashtag #CERF[year] (e.g. #CERF2017) to increase engagement. We also encourage our attendees to follow and tag us on Twitter (@CERFScience) and Facebook (@CERF.Estuaries.Coasts), and to use these outlets to send us questions, ideas, or general thoughts—we'll follow you back!
- Photography, video, and audio recording of scientific content from oral and poster sessions, plenaries, and keynotes ***are not allowed*** unless you receive permission from the authors/presenters. Some authors/presenters wish to withhold audio/visual material from being recorded and/or posted on social media.
- We encourage the use of photos and video, but please restrict it to non-scientific content such as social events, in the Exhibit Hall, and in public spaces throughout the meeting.
- Please follow our overall meeting code of conduct and be considerate and respectful of all meeting attendees. *Online harassment, intimidation, or discrimination in any form will not be tolerated*.

RECORDING POLICY

No workshop, presentation, event, or exhibit at CERF 2017 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.

Photography, video and audio recording of scientific content from oral and poster sessions, plenaries, and keynotes **are not allowed** unless you receive permission from the authors/presenters. Some authors/presenters wish to withhold audio/visual material from being recorded and/or posted on social media.

PARKING

Attendees who wish to park at the Rhode Island Convention Center may park in the RICC Parking Garage. The daily event rate is $15 (enter after 7 am and exit by midnight) and the overnight rate is $20. Otherwise, hourly rates apply. These rates do not include in-and-out-privileges.

RESTAURANTS & CONCESSIONS

The CERF conference offers daily coffee and snack breaks, as well as appetizers and cash bars at evening receptions. There are several activities scheduled during lunch periods where attendees can bring take-out or "brown bag" options. The Rhode Island Convention Center offers on-site concessions for coffee, snacks and lunch at the Metro Café (3rd Level near the sky bridge to the Omni). In addition, local food trucks have been informed about the CERF conference and may be parked nearby. There are also many establishments in the nearby hotels and neighborhood including:

- Café Nordstrom (Providence Place Mall)
- Centro (Omni Hotel)
- Charley's Grilled Subs (Providence Place Mall)
- Dave & Busters (Providence Place Mall)
- Greenapple Mediterranean Grill (168 Atwells Avenue)
- Luxe Burger Bar (5 Memorial Blvd.)
- McCormick & Schmicks (Biltmore Hotel)
- Mokban Korean Bistro (217 Westminster St.)
- Murphy's Pub (100 Fountain St.)
- P.F. Changs (Providence Place Mall)
- Panera Bread (Providence Place Mall)
- Ruby Thai Kitchen (Providence Place Mall)
- Subway (2 Kennedy Plaza)
- Taco Bell (Providence Place Mall)
- The Vig Providence (Hilton Hotel)
- Union Station Brewery (36 Exchange Terrace)
- Uno Pizzeria & Grill (Providence Place Mall)
- Viva Mexico Cantina Grill (129 Washington St.)
- Wise Guys Deli (133 Atwells Avenue)

OVERVIEW OF OPENING SESSION | SUNDAY, NOVEMBER 5

WELCOME, INTRODUCTIONS & PRESIDENT'S ADDRESS
Robert R. Twilley, CERF President 2015-2017

CONFERENCE CHAIRS' ADDRESS
Wally Fulweiler, *Boston University*
Autumn Oczkowski, *Environmental Protection Agency*

CERF SCIENTIFIC AWARDS

Odum Award for Lifetime Achievement
Dr. James E. Cloern, *Physical Scientist*
USGS Menlo Park, CA

Cronin Award for Early Achievement
Dr. Damien Maher, *ARC DECRA Research Fellow, Senior Lecturer*
Southern Cross University, Australia

William A. Niering for Outstanding Educator
Dr. Drew Talley, *Associate Professor*
University of San Diego

Donald W. Pritchard Award–Physical Oceanography Paper

David K. Ralston, **Michael L. Brosnahan**, **Sophia E. Fox**, **Krista D. Lee**, and **Donald M. Anderson.**
Paper: "*Temperature and Residence Time Controls on an Estuarine Harmful Algal Bloom: Modeling Hydrodynamics and Alexandrium fundyense in Nauset Estuary.*"

Margaret A. Davidson Award for Stewardship
Dr. William Dennison, *Vice President for Science Application*
University of Maryland Center for Environmental Science

Coastal Stewardship Award for Stewardship (Organization)
Tampa Bay Nitrogen Management Consortium of Tampa Bay NEP – *Tampa Bay Estuary Program*

Distinguished Service Award
Dr. Veronica Berounsky, *Graduate School of Oceanography*
University of Rhode Island

2019 CONFERENCE ANNOUNCEMENT
Leila Hamdan, *University of Southern Mississippi*
David Yoskowitz, *Texas A&M University Corpus Christi*
Jerry Bousard, *Visit Mobile*

KEYNOTE ADDRESS
Dr. Nancy Knowlton, *Sant Chair in Marine Science, Smithsonian's National Museum of Natural History, Washington DC; Senior Scientist Emeritus, Smithsonian Tropical Research Institute, Panama*

CLOSING REMARKS
Hilary Neckles, *CERF President 2017-2019*
All attendees are invited to attend the Presidents' Welcome Reception from 8:00 PM–10:00 PM

KEYNOTE & AWARD WINNER PROFILES

ABOUT THE KEYNOTE SPEAKER

Dr. Nancy Knowlton
Dr. Nancy Knowlton is the author of National Geographic's best-selling Citizens of the Sea, was the founding director of the Center for Marine Biodiversity and Conservation at the Scripps Institution of Oceanography, and serves as the Editor-in-Chief of the Smithsonian's Ocean Portal website. Dr. Knowlton's research centers on the diversity and conservation of life in the ocean, and her studies have taken her across the tropics. Currently she uses state of the art molecular methods to find out what really lives in the sea, and previous work has ranged from systematics, symbioses and reproduction of corals to the formation of new species across the Isthmus of Panama. She contributes regularly to the global ocean conversation via @seacitizens and has worked to promote messages of conservation success via the #OceanOptimism initiative and the Earth Optimism Summit. She is a past member of the AAAS Board, is a winner of the Peter Benchley Prize and the Heinz Award, and was elected to the American Academy of Arts and Sciences and to the U.S. National Academy of Sciences in 2013.

ABOUT THE AWARD WINNERS

- **Odum Award for Lifetime Achievement**

Dr. James E. Cloern, *Physical Scientist, USGS Menlo Park, CA*

Dr. James E. Cloern is an exceptionally well-rounded scientist and is known for his "tenacious" stewardship of a long-term monitoring program in San Francisco Bay, a program he leveraged into groundbreaking research and synthesis with global datasets. Work such as his 2001 re-evaluation of coastal eutrophication, or his more recent 2012 synthesis examining phenology of phytoplankton biomass, have had tremendous impact on our understanding of coastal and estuarine dynamics. His intellectual creativity has benefited so many of us; examples abound in the letters supporting his nomination of ways that his ideas have "revolutionized our conceptual models," and many of us carry these ideas into our own research. The impact of his achievements on the direction and shape of estuarine and coastal ecosystem research has had an "unmistakable influence" that we feel is especially deserving of recognition with the Odum Award.

Dr. Cloern is also widely recognized for his service in terms of both application of his scientific findings and intellectual leadership, as with his editorial work with both Estuaries & Coasts and Limnology & Oceanography. Whether he is testifying to Congress on the importance of long-term monitoring, or authoring journal articles, Dr. Cloern brings his commitment and enjoyment of estuarine and coastal science forward with enthusiasm. We have all benefited from this work, through the increased impact factor of Estuaries & Coasts and broader support for the work we engage in the coastal realm.

In addition to Dr. Cloern's many conceptual and technical contributions, he has tirelessly served the CERF and broader academic community as a mentor of undergraduates, graduate students, and post-docs. He has consistently devoted his time and talent in overseeing and advising students and young researchers in his laboratory's monitoring, research, and outreach activities. His efforts are truly unique in this regard, because he is based in a government laboratory, where he is not expected to teach, supervise, and guide students as a committee member. Throughout his career, he has devoted a very significant amount of his time to partnering with academics in US and international institutions to foster and help guide students and post-docs, thereby strengthening CERF and other scientific associations (ASLO, AGU, SCOR, and IOC) missions of ensuring excellence in future generations of researchers and teachers in the aquatic sciences.

- **Cronin Award for Early Achievement**

Dr. Damien Maher, *ARC DECRA Research Fellow, Senior Lecturer Southern Cross University, Australia*

Dr. Damien Maher is a Research Fellow and Senior Lecturer at Southern Cross University in Lismore, Australia. He is a biogeochemist, whose passion for science and conducting interdisciplinary work is reflected in his superb publication record and enthusiastic support from students whom work with him.

Dr. Maher's research has predominantly focused on carbon cycling in the coastal zone with an emphasis on diffusive transport across the sediment water interface and the advective movement of carbon in porewater and groundwater. His extensive skills with carbon cycle research and cutting edge instrumentation, including the novel use of cavity ring down spectrometry to measure carbon dioxide and methane concentrations, has placed him at the forefront of this field. Consequently, Dr. Maher has an extensive network of collaborators, with his most recent work involving colleagues from the University of Hawaii and NASA to study carbon cycling in coastal wetlands.

Dr. Maher is a highly productive, creative, and energetic scientist whom is well regarded by his students, colleagues, and the carbon cycle community in Australia and elsewhere. He is generous and shares his best ideas with his students, encouraging and mentoring them to publish research. Several of his Honors students have first-authored papers in top scientific journals on hypotheses that were originally conceived by Damien. One student writes how Dr. Maher's "passion for the environmental sciences" and "his fervor for teaching and science was refreshing and motivating," compelled him as an undergraduate to continue his education and complete his Ph.D. under "Damo the Gun," as Dr. Maher is known to his peers and students.

Dr. Maher's work has profound societal effects and is a significant contribution to major public debates in Australia which resulted in a community engagement award. His collaborative research not only empowered regional communities to protect some of their vital water resources but his work has been featured on mainstream national media and labelled "highly significant" by the mainstream Australian media. His research accomplishments, passion for science, and ability to engage students and peers collaboratively from across disciplines in estuarine science, make him an ideal choice for the 2017 Cronin Award.

■ **William A. Niering for Outstanding Educator**
Dr. Drew Talley, *Associate Professor*
University of San Diego

Dr. Drew Talley is an Associate Professor in the Department of Environmental and Ocean Sciences at the University of San Diego (USD), where he has been on the faculty since 2008. Dr. Talley's nomination packet included letters from colleagues at USD, past students at the graduate, undergraduate, and high school levels, and colleagues at The Ocean Discovery Institute, a non-profit that provides STEM education for the most socio-economically disadvantaged youth in the San Diego area, where he serves as a Science Director. A theme that ran across all of these letters depicted a truly exceptional educator/mentor who has changed countless lives. While student populations in this socio-economic position traditionally hold a one in ten chance of graduating college, those associated with Dr. Talley boast an eight in ten chance for this metric, setting them up for long-term success in life. Additionally, seven of ten mentees have entered careers in STEM fields. At USD, Dr. Talley works with the national McNair Scholars program to guide under-represented undergraduate students to receive PhD degrees; he started and continues to run a chapter of SACNAS (Society for Advancing Chicanos/Hispanics and Native Americans in Science); he is on multiple Technical Advisory Boards for regional coastal restoration projects; he donates his time to be on two boards for the San Diego Natural History Museum; along with many additional efforts to improve both our coastal environment and the lives of young people. As best stated by one of Dr. Talley's students, "On behalf of the countless students that Dr. Talley has reached and empowered, I cannot think of a more commendable candidate for this award." The selection committee whole-heartedly agrees.

■ **Donald W. Pritchard Award – Physical Oceanography Paper**
David K. Ralston, **Michael L. Brosnahan**, **Sophia E. Fox**, **Krista D. Lee**, and **Donald M. Anderson**.
Paper: "*Temperature and Residence Time Controls on an Estuarine Harmful Algal Bloom: Modeling Hydrodynamics and Alexandrium fundyense in Nauset Estuary.*"

The paper "Temperature and Residence Time Controls on an Estuarine Harmful Algal Bloom: Modeling Hydrodynamics and Alexandrium fundyense in Nauset Estuary" by Ralston, D.K., M. L. Brosnahan, S.E. Fox, K.D. Lee, and D.M. Anderson represents a significant step forward in the understanding of linkages between hydrodynamics and ecological processes, specifically harmful algal blooms in an estuarine environment. The authors developed a highly resolved, three-dimensional hydrodynamic and biological model of Alexandrium fundyense to investigate the physical and biological controls on a recurrent harmful algal bloom. They quantified the dominant factors controlling the A. fundyense bloom, which included environmental conditions such as water temperature, hydrodynamic constraints including bathymetry and stratification, and biological behavior such as diel vertical migration. This study is notable for its robust treatment of both the hydrodynamic and biological processes in a numerical model, as well as the extensive use of observational data to both understand the processes and assess the model. The authors demonstrated a skillful application and clear presentation of numerical modeling to quantify previously under-constrained processes and advance our understanding of the connections between hydrodynamics, ecological processes, and environmental health.

■ **Margaret A. Davidson Award for Stewardship**
Dr. William Dennison, *Vice President for Science Application, University of Maryland Center for Environmental Science*

Dr. William Dennison is Vice President for Science Application and Professor at the University of Maryland's Center for Environmental Science. In his 33+ year career, he has led dozens of scientific and technical activities from the United States to Australia, from seagrass ecophysiology to science communication, and from elementary school students to graduate students and the public. His background is replete with work across disciplines and with multiple institutions. His ability to explain science to novices and experts, and to nurture talent along the way, is renowned. For those reasons and more, Bill was the unanimous selection of the review committee for this award.

Dr. Don Boesch, Dr. Dennison's supervisor at the University of Maryland, stated, "Bill Dennison has exhibited a deep commitment and extraordinary leadership in the application of science to policies and management concerning coastal and estuarine ecosystems. I think it is safe to say that few have had as much influence on effective management and no one has had a greater geographic scope of impact on coastal stewardship." Dr. Tim Carruthers, Director of Coastal Ecology at The Water Institute of the Gulf in Baton Rouge, Louisiana, wrote, "Bill is an inspirational leader, encouraging

researchers, managers, and community members by his complete conviction that improving the condition and management of our coastal and estuarine systems is essential and critically important." Tim Carruthers continues, "Being truly innovative requires pushing the boundaries of comfort and conservative or traditional approaches, this is essential for creating change and transferring science into effective management and policy…" As his nominator, Dr. Bob Orth concluded, "Bill is one of those very rare individuals who have this uncanny ability to convey important scientific principles in terms easily understood by resource managers, politicians, and NGO's. I can think of no one who is more deserving of the Margaret A. Davidson Award for Stewardship."

■ **Coastal Stewardship Award for Stewardship (Organization)**
Tampa Bay Nitrogen Management Consortium of Tampa Bay NEP – *Tampa Bay Estuary Program*

The Tampa Bay Nitrogen Management Consortium of the Tampa Bay Estuary Program (TBEP) demonstrated impressive achievements in all the key criteria considered important in the mission of CERF to promote the wise use of science and management toward the stewardship of estuaries and coasts around the world. The Nitrogen Management Consortium represents more than 55 public and private entities from throughout the Tampa Bay watershed committed to the goal of collaborating to maintain water quality adequate to continue the recovery of Tampa Bay's ecosystem. This partnership developed very specific goals and performance measures to monitor progress, demonstrating exemplary stewardship activities. The consortium started with a very modest effort in 1996, that over the last several decades, has constructed nearly 500 projects, and reduced nitrogen inputs on their way to surpassing their goal of restoring seagrass to 1950 levels. In 2016, the bay had 41,655 acres of seagrasses, a recovery of almost 16,000 acres since 1992, and more than 1200 acres above 1950s levels. During this period, the Tampa Bay metropolitan population grew by more than 1M, to a total of 3M in 2016. This nationally-recognized achievement would not have been possible without the collaborative efforts and strong public-private support from such a very diverse and distinguished group of stakeholders. As described by a county commissioner involved in the partnership, "…I have grown up on the bay and have watched the cycles of change and I know that TBEP has been a key part of its continued improvement. Hillsborough County is proud to have such an excellent program as TBEP contributing to the health and ongoing rehabilitation of the bay." And from a management consortium working on similar goals in another key estuary in the United States, the letter of support had this to say about the engagement process of the Nitrogen Management Consortium: "We watched and learned from their extraordinary efforts to reach out and directly engage all the source sectors, local governments, businesses, and advocacy groups, and make them part of the shared decision-making process. They effectively blurred the lines between public and private, turning us and them into we." Congratulations to all those involved in Tampa Bay Nitrogen Management Consortium as the inaugural awardees of the CERF Coastal Stewardship Award.

■ **Distinguished Service Award**
Dr. Veronica Berounsky, *Graduate School of Oceanography, University of Rhode Island*

Dr. Veronica Berounsky is a Senior Fellow in the Coastal Institute of the University of Rhode Island (URI); she has spent her career studying what goes on in the diverse ecosystems of the coastal zone including Narragansett Bay, Narrow (Pettaquamscutt) River Estuary, and New England coastal ponds. Dr. Berounsky distinguished service to CERF spans over three decades of critical roles within CERF and the New England Estuarine Research Society (NEERS), particularly within conference planning and governing board service. CERF 2017 represents the third time that Veronica has served in a leadership role in organizing a CERF biennial conference: she has served as co-chair of the Conference Committee for ERF 1997, Social Events chair for CERF 2007, and Attendee Experience Committee co-chair in CERF 2017. During her more than thirty years as a member of NEERS, she has co-hosted nine NEERS meetings spanning from 1981 to 2017. Within NEERS, Dr. Berounsky has been a steady leader, serving as President when she was still a graduate student at URI, thus representing the first student to officially serve on an ERF governing board as NEERS representative in 1991-1993. She has also served as Program Chair, Secretary/Treasurer, and Member-at-Large of NEERS, and served on the CERF Governing Board as Secretary in 1995–1997. Dr. Berounsky love and passion for CERF epitomizes her own commitment to research, education, and outreach on and about estuaries. She has translated that passion to distinguished service from her graduate student days in 1981 at the Graduate School of Oceanography under the mentoring of Dr. Scott Nixon, to this CERF Conference in 2017 in Providence, RI. Veronica is what CERF is all about.

PLENARY SESSIONS

SCIENCE AND DECISION MAKING TO IMPROVE COASTAL RESILIENCE

Date & Time: Monday, 6 November | 3:00–4:30 PM
Location: Ballroom A
Sponsor: Sea Grant Rhode Island

The economic, human, and environmental health and safety of our coastal landscapes and communities is threatened by natural and man-made disasters and persistent coastal change. Extreme events such as Hurricanes Katrina and Sandy have had extraordinary and sustained economic, environmental and social impacts. While these catastrophic events have focused attention on specific coastal settings, the coastal inundation and land loss hazards associated with changing sea levels are of increasing concern throughout the nation. As our population and infrastructure along the coast increases, and as sea-level and storm patterns change, we are at ever greater risk. From major urban centers such as Miami and San Francisco, to wild coastal landscapes, to remote island communities, the costs and consequences of changing coastal change hazards are becoming ever more apparent. In response to these threats, the scientific and management communities are focused on developing policy and practices to enhance coastal resilience. Research to improve understanding is intimately linked to decision-making to manage, and mitigate coastal landscape change and resource impacts that are required to protect lives, infrastructure, and livelihoods. Healthy, safe and sustainable coastal communities depend on the continued provision of the diverse benefits of healthy coastal ecosystems – including protection from coastal change hazards. This plenary session will provide an overview of coastal change hazards, projections of future sea-level change and flooding, and adaptation and mitigation efforts at federal, state and local levels.

PLENARY SPEAKERS:

Rob Thieler, *Center Director of the U.S. Geological Survey's Woods Hole Coastal and Marine Science Center*

Dr. Thieler received his B.A. in political science from Dickinson College, and his M.S. degree in environmental science and Ph.D. in geology from Duke University. Rob conducts marine geologic research on the geologic framework and evolution of the coastal zone. This includes understanding relationships between geology, sediment transport, climate and sea-level change, and coastal erosion. Rob has conducted assessments of sea-level rise vulnerability for the U.S. and locations worldwide. He served as a Lead Author of a U.S. Global Change Research Program report on potential impacts of sea-level rise, and works with many federal and state agencies to develop science and policy plans for addressing coastal change hazards. Rob also studies habitat use and availability for beach-nesting and migratory shorebirds. Rob developed the widely-used DSAS software package for measuring coastal erosion and accretion and has recently developed smartphone applications for coastal science.

Carling Hay, *Assistant Professor, Department of Earth & Environmental Sciences, Boston College*

Dr. Hay received her B.S. in physics from McGill University and her Ph.D. in physics from the University of Toronto. Throughout her graduate work, her research interests have varied from atmospheric physics to geophysics, with topics ranging from severe weather in the Arctic to 20th century sea-level change. Since earning her Ph.D., Dr. Hay's research has focused on using statistical techniques to better understand global mean sea level during current and past warm periods, and to develop the tools necessary to extract source information from historical sea-level records. The underlying motivation of her work is based on the belief that understanding how past sea level has changed in response to rising surface temperatures is a critical step in our ability to predict sea-level rise into the next century and beyond. Dr. Hay recently served as a member of the Boston Research Advisory Group, which was tasked with developing an updated climate census report for the city of Boston. As a member of the sea-level team, her role was to help understand the city's future risk to long-term sea-level rise.

Kate White, *Lead, US Army Corps of Engineers (USACE) Climate Preparedness and Resilience Community of Practice, Institute for Water Resources*

Dr. White holds a B.S. and M.S. degrees in Civil Engineering and a Ph.D. in Civil and Environmental Engineering, is a registered professional engineer, and has almost 30 years of experience in the USACE. Dr. White's work includes development of policy, technical guidance, methods, and tools to support climate preparedness and resilience, with an emphasis on water resources management issues involving extreme events and natural hazards. She received a 2013 GreenGov Presidential Award: Climate Champion for her role in the interagency team that developed the Sea Level Rise Tool for Sandy Recovery. She was selected as the USACE 2014 Elvin R. "Vald" Heiberg III "Engineer of the Year," and was a 2015 Top Ten Federal Engineer of the Year by the National Society of Professional Engineers.

FOOD WEBS AND FISHERIES

Date & Time: Tuesday, 7 November | 3:00–4:30 PM
Location: Ballroom A

Fisheries provide nutritional, recreational, economic, and cultural value. Food webs greatly influence fish population and community dynamics, and, in turn, the structure and productivity of the food webs are affected by the fish. Coastal and marine food webs are notoriously dynamic, and are influenced by many physical and ecological processes and anthropogenic factors. Our understanding of food web dynamics is evolving with regards to temporal and

spatial scales of ecological interactions and their variation, the role of behavior, and direct and indirect effects of broader scale drivers such as climate. And increasingly, we consider people as part of the food web in a two-way relationship rather than as an exogenous influence. Improving our understanding and ability to quantify food web dynamics has practical implications. Fisheries management is moving from a single-species focus to an ecosystem-based approach that emphasizes place-based examination of trade-offs. This requires viewing the fish population of interest within its food web and including the multiple roles played by people as members of the food web. This plenary session will provide an overview of marine ecosystems as coupled social-ecological systems, cultural recognitions of reciprocity, how considering people as part of the food web enriches food web analysis, and some recent advances in modeling tools that attempt to quantify fisheries dynamics within a food web context.

PLENARY SPEAKERS:

Kenny Rose, *Horn Point Laboratory, University of Maryland Center for Environmental Science*

Dr. Rose's research centers on using mathematical and computer simulation modeling to predict and better understand fish population and food web dynamics in estuaries, lakes, reservoirs, and oceans. Dr. Rose is presently the France-Merrick Professor in Sustained Ecosystem Restoration at Horn Point Laboratory. Prior to that, he was as a Professor in the Department of Oceanography and Coastal Sciences, and Associate Dean in the College of the Coast and Environment, at Louisiana State University. He started his career as a consultant in Washington, D.C. and then as a research staff member at Oak Ridge National Laboratory prior to going to Louisiana State University. Dr. Rose has published more than 175 papers on topics related to ecological and fisheries modeling and analysis, and has served on multiple editorial boards. He was recently awarded the Award of Excellence (for lifetime achievement) from the American Fisheries Society. He has been a member of multiple steering and advisory committees providing scientific guidance and oversight, including several National Academy of Sciences' committees, the US GLOBEC program, and the US Army Corps of Engineers. Dr. Rose has been involved with a wide range of fisheries management issues and contentious environmental issues that often involve fish; these highlight the sometimes tricky arena for scientists where science meets policy and decision-making. Much of his work is collaborative and he has published papers involving more than 400 different co-authors but has never collected any data himself. He received his B.S. degree in biology and mathematics from the University at Albany, and his graduate degrees in fisheries from the University of Washington.

Heather Leslie, *Director of the University of Maine Darling Marine Center and Libra Associate Professor of Marine Sciences*

An international leader in marine conservation science, Dr. Leslie conducts research on the ecology, policy, and management of coastal marine ecosystems. She studies the drivers of ecological and social processes in marine systems, and how to more effectively connect science to policy and management. Specific research areas include coastal marine ecology; human-environment linkages, particularly those related to coastal areas; and the design and evaluation of marine management strategies. Leslie's work has appeared in the Proceedings of the National Academy of Sciences, Ecology, Conservation Biology, and Frontiers in Ecology and the Environment. A member of the University of Maine faculty since August 2015, Heather Leslie received an A.B. in Biology from Harvard University, a Ph.D. in Zoology from Oregon State University, and conducted postdoctoral research at Princeton University. Before arriving at UMaine, she was on the faculty at Brown University, as the inaugural Peggy and Henry D. Sharpe Assistant Professor. She is a Leopold Leadership Fellow.

Eric Quaempts, *Director for the Confederated Tribes of the Umatilla Indian Reservation's, Department of Natural Resources*

Eric Quaempts implemented the First Foods management approach at the Confederated Tribes of the Umatilla Indian Reservation's Department of Natural Resources. Previously, Eric spent eight years as a Wildlife Biologist in the CTUIR DNR's Wildlife Program, and 8 years for the Umatilla National Forest, where his career development included inter-disciplinary rotations in forestry, wildlife, range, reforestation, fisheries, and fire management programs in the Walla Walla Ranger District. Eric's primary professional interest is in relating the culture of the CTUIR to the ecology of the Columbia Basin landscape, and in so doing promote understanding of the Tribe's culture, natural resource restoration goals and treaty rights. To facilitate this, Eric draws on his personal, community and cultural experiences, and professional background. Eric has presented the CTUIR's First Foods management approach in a variety of forums, including state and national American Fisheries Society annual meetings, Society for Ecological Restoration and Ecological Society of America meetings, Society for Applied Anthropology National Conference, the National Water Quality Conference, at the Universidad de Concepcion in Chile, and to aboriginal communities and land managers in Australia. Eric has served on the Oregon Watershed Enhancement Board since 2009 and currently serves as co-chair. In 2011, he was awarded the Billy Frank Jr. Natural Resource Protection Award by the Potlatch Fund, and in 2014 was nominated for the EcoTrust Indigenous Leadership Award by the CTUIR's Board-of-Trustees. Eric earned his Bachelor's of Science in Wildlife Science from Oregon State University, and also completed graduate-level course work at Colorado State University in fire and land management as part of his professional development at the US Forest Service. An enrolled member of the Yakama Indian Nation, Eric has spent most of his life living on the Umatilla Indian Reservation, and his professional career has been focused in working on the reservation and in the Ceded Lands of the CTUIR. Eric's personal interests include fly-fishing, photography, traveling, cooking, reading, and dining, fine or otherwise.

DAILY EVENTS

Sunday, 5 November

CERF 2017 VIP Reception (*By Invitation*)
Time: 4:30–5:45PM
Location: Rotunda
CERF will honor and thank its Sustaining Members and Angel supporters, along with 2017 conference keynote and plenary speakers. The Federation will also congratulate its scientific award winners.

Orientation for First-Time CERF Conference Attendees
Time: 5:00–5:45PM
Location: Room 551 AB
New to the CERF conference? From navigating to networking - this orientation will help you make the most of your first conference experience.

Opening Session: Keynote Address & Scientific Awards
Time: 6:00–8:00PM
Location: Ballroom A
Join Robert Twilley, CERF President 2015-2017, and Autumn Oczkowski and Wally Fulweiler, CERF 2017 Conference Co-Chairs, for the keynote address and presentation of the 2017 Distinguished Service Award and Scientific Awards.

In addition, learn about our 2019 conference location and theme, followed by our keynote address, "#OceanOptimism: Success Stories in Ocean Conservation," by Dr. Nancy Knowlton, Sant Chair in Marine Science, Smithsonian's National Museum of Natural History and Senior Scientist Emeritus, Smithsonian Tropical Research Institute.

Presidents' Welcome Reception with Exhibitors
Time: 8:00–10:00PM
Location: Exhibit Hall BC
On behalf of the Federation Presidents', we invite you to attend the Presidents' Reception to greet old friends and new and celebrate our 24th biennial conference. Plan to kick-off what promises to be the biggest and best CERF conference ever. Sponsored by Louisiana Sea Grant.

Sea Grant LOUISIANA

Monday, 6 November

Mentorship Program Breakfast (*By Invitation*)
Time: 7:00–8:00AM
Location: Omni–Narragansett AB
Participants in the CERF 2017 Meeting Mentoring Program are invited to connect with their mentor/mentee to kick-off the week.

NEERS Affiliate Society Luncheon (*By RSVP*)
Time: 11:30AM–1:00PM
Location: Rotunda
New England Estuarine Research Society members will meet to network and discuss coastal and estuarine efforts and society activities in the New England region.

PERS Affiliate Society Luncheon (*By RSVP*)
Time: 11:30AM–1:00PM
Location: Omni – Kent
Pacific Estuarine Research Society members will meet to network and discuss coastal and estuarine efforts and society activities in the North Pacific.

Topical Brown-Bag Luncheon
Time: 11:30AM–1:00PM
Location: Exhibit Hall D
Grab a lunch and join our volunteer table leaders as they lead informal discussions on various topics of interest to CERF attendees. This is a great opportunity to meet other coastal and estuarine scientists with similar interests! Monday's topics include:

- Nitrogen vs Phosphorus as Limiting Factors (James Ammeman)
- Art and Science (Linda Blum)
- Alternative Careers (Nicole Maher)
- Science and Policy (Judith Weis)

Ocean Frontiers III Film Viewing (*Brown-bag lunch*)
Time: 11:50AM–12:50PM
Location: Ballroom A

Ocean Frontiers III: Leaders in Ocean Stewardship & the New Blue Economy: Ocean use is growing rapidly, with massive new ships, soaring demand for offshore sand mining, and proposed wind energy development offshore. Our busy waters are also home to endangered whales and sea turtles, and support thriving fishing and recreation industries, so it's more important than ever that we plan ahead for responsible ocean growth. This hopeful film explores the challenges at the heart of ocean conservation and development, presenting solutions from a range of people who are leading the way to a healthy and sustainable ocean future. Please bring your own lunch.

CERF 2017 Special Town Hall Meeting
Weathering the Storm: research, recovery, and discovery following hurricanes and other disasters affecting natural and social communities
Time: 12:00–1:00PM
Location: Omni–Waterplace 1
2017 has been an active year for natural disasters, including several that have had severe impacts on coastal communities and ecosystems. Hurricanes Harvey, Irma, Jose, and Maria, as well as other cyclonic activities in Pacific and Indian oceans, have had a

heavy toll not only on human and ecological systems, but also on coastal and estuarine research programs that are based in areas devastated by these storms.

This special town hall session will bring together those impacted by the 2017 storms as well as those that weathered previous major storm events to discuss research, recovery and discovery concerning both natural and social systems affected by these cyclonic events, including how we may prepare for and respond to 2017 and future events. We will also discuss what we have learned from past events about rebuilding coastal programs and institutions after storm damage to be more resilient and responsive to future storms, particularly in the face of climate change and increasing development pressure in the coastal zone. We welcome conference participants to attend and discuss how CERF, as a science society, can provide support to the coastal and estuarine research communities affected by the 2017 hurricanes.

The Town Hall will feature speakers who live and work in areas affected by the 2017 storms, as well as those that have recovered from past devastating storms. There will be time for community discussion about how CERF, our members, and our attendees, might best support efforts to study the effects of and rebuild after the 2017 hurricane season. Please bring your brown-bag lunch and join the conversation.

Poster Sessions & Happy Hour with Exhibitors
Time: 4:30–7:00PM
Location: Exhibit Hall BC
Enjoy light snacks and a cash bar while viewing posters and speaking with presenters. See page 60 for a list of scheduled poster sessions and presenters for Monday evening.

Student + Early Career Networking Dinner
Time: 7:00–9:00PM
Location: Omni – Narragansett AB
Join us for this popular networking event. Rub elbows with faculty, professionals, post-docs, and other students while enjoying complimentary pizza and beverages! Get valuable information on various career options, including alternatives to academia, and make professional connections that may lead to job opportunities and future collaborations. 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.

Student + Early Career Pub Night
Time: 9:00PM–MIDNIGHT
Location: Trinity Brewhouse, 186 Fountain St.
Join fellow CERF students and early career professionals 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, no-host atmosphere. As always, this event is open and anyone is welcome to join!

Tuesday, 7 November

Past Presidents' Breakfast (*By Invitation*)
Time: 7:00–8:00AM
Location: Omni – Waterplace 2/3
CERF welcomes its past presidents to gather together to reminisce and share their insights with current Federation leadership.

CERF Inclusion Lunch (*Ticketed Event*)
Time: 12:00–1:30PM
Location: Omni – Narragansett AB
A limited number of tickets may still be available at registration. ▸ REGULAR: $40; STUDENT: $20
Generously sponsored by Woods Hole Oceanographic Institution, the CERF Inclusion Lunch is a venue for the CERF community to address challenges faced by underrepresented people in the sciences, provide an environment supportive of triumphs, and develop personal and professional networks.

2017 Theme–***Identifying Your Inner Mentor: Shattering Ceilings by Opening Doors***
Traditionally applied to women and underrepresented minorities, the term "glass ceiling" refers to the invisible obstacles limiting professional advancement. With the contributions of two specialized speakers and peer-to-peer examples, the CERF Inclusion Lunch is an opportunity to gain strategies for shattering these ceilings, encouraging all CERF scientists to support one another and work together in overcoming these barriers. As research shows, innovation and advancement are intrinsically connected to diversity. Working as a collective coastal and estuarine science cohort with the CERF Inclusion Lunch as a platform promotes our success.

Moderated by Catalina Martinez, NOAA Regional Program Manager and Certified Diversity Professional, the CERF Inclusion Lunch will host a presentation, a facilitated audience discussion, and productive small group expressions. Ample time for personal and professional networking will be available at the end of the formal program.

SPEAKERS:

Treda Smith Grayson
Environmental Protection Specialist on the Tribal Capacity Development Team in the American Indian Environmental Office, U.S. Environmental Protection Agency Headquarters

Employed by the U.S. Environmental Protection Agency Headquarters for 18 years, Treda's primary duty is to support tribes in developing environmental capacity through the administration of the Indian Environmental General Assistance (GAP). Treda formerly led the National Coastal Condition Assessment, a national coastal monitoring program, as well as provided technical support to develop and adopt biological, nutrient and aquatic life criteria for water quality standards development, in the Office of Water. Other assignments included providing monitoring and data analysis assistance in response to the 2010 Deepwater Horizon oil spill in the Gulf of Mexico, as well as the Fukushima Daiichi nuclear disaster in Japan. She is currently a Ph.D.

candidate in Environmental Science and Public Policy at George Mason University, researching the effects of multiple stressors on estuarine benthic communities. Treda has held several leadership positions in CERF including President, Treasurer, and Membership Chair for the Atlantic Estuarine Research Society (AERS).

Judith Swift
Director of the Coastal Institute, University of Rhode Island
Professor, Department of Communication Studies and Department of Theatre

As director of the CI, Judith blends traditional science communication strategies with innovative interdisciplinary approaches that engage the audience through right- and left-brain to create a more impactful message through sensory as well as analytical pathways. She is the regional director of the North Atlantic Coast Cooperative Ecosystem Studies Unit, a consortium of 26 universities/NGOs and 9 federal partners to address complex coastal ecosystem management. She has more than 25 years of experience on conflict resolution and has received training through the Lily Foundation and Harvard University. Judith also served as the vice provost for academic affairs at the University of Rhode Island and was URI Foundation Scholarly Excellence Award in 2002.

THANK YOU TO THE
Woods Hole Oceanographic INSTITUTION
FOR THEIR GENEROUS SUPPORT OF THE
CERF INCLUSION LUNCH

Sponsor Presentation
YSI–New Instruments Streamline Monitoring
Time: Tuesday & Wednesday, 12:00–12:30PM
Location: Rotunda
YSI continues to lead the industry with the most reliable and feature-rich instrumentation for water monitoring. In 2017 we welcomed two new additions to the sonde family: EXO3 and EXO2s. These are supported with our most versatile software ever, KorEXO v2, a new handheld, superior antifouling, and an exciting new wireless adapter called EXO GO. Learn how this platform can assure collection of the highest quality monitoring data from lakes, rivers, estuaries, and oceans. Join Zack Henderson, YSI Assistant Product Manager, for an overview the EXO platform and other solutions YSI can provide.

CERF Annual Membership and Business Meeting
Time: 4:30–5:30PM
Location: Ballroom A
CERF members are encouraged to attend the annual CERF Membership and Business Meeting, where CERF leaders will share details about the activities and programs of the Federation.

Affiliate Society Meetings
Time: 5:30–6:30PM
Connect with colleagues and learn more about coastal and estuarine activities in your area to one of the regional Affiliate Society Meetings. The following Affiliates will hold meetings on Tuesday evening as noted below:

- Atlantic Estuarine Research Society (AERS): Room 553 AB
- California Estuarine Research Society (CAERS): Room 554 AB
- Gulf Estuarine Research Society (GERS): Room 557
- Southeastern Estuarine Research Society (SEERS): Ballroom E

The New England Estuarine Research Society (NEERS), the Pacific Estuarine Research Society (PERS) and the Atlantic Canada Coastal and Estuarine Science Society (ACCESS) are holding luncheon events with their members as noted in this program.

Club CERF Social Event/Open Mic Challenge (*Ticketed Event*)
Time: 7:00–10:00PM
Cost: Regular $45 | Student $25
*Price includes round trip transportation, entertainment, food, one drink ticket, and free parking for local attendees

PURCHASE YOUR TICKET AT REGISTRATION!
Location: Snookers Bar & Grill, 53 Ashburton St.

CERF is taking over Snookers Bar and Grill on Tuesday night and transforming it to Club CERF, a lively venue where CERF delegates are in for a treat. Browse through the rooms of this nightclub to mingle with friends and colleagues and to meet new ones!

"Snooker" is a 19th-century cue sport that was popularized in India. In reverence to the game, Snookers sports 15 billiard tables where we may just organize a pool tournament or two. Not into pool? Well back by popular demand is the Providence-based CERF Tones – talented musicians, all with day jobs in science– who will play two sets starting at 8 pm. Want to share a little of your talent? Check out CERF's Open Mic Challenge, which will take stage between sets. A party spread of pizza, wings, spinach artichoke dip, cheese, crackers, crudité, a taco bar and desserts will satisfy your palate as you enjoy one complimentary glass of beer or wine. A cash bar remains open for the rest of the evening.

Meet up at Snookers, or catch one of the CERF shuttle buses that will run throughout the evening between the Convention Center and the nightclub.

Wednesday, 8 November

CESN Team Meeting/Breakfast (*By Invitation*)
Time: 7:00–8:00AM
Location: Omni–Waterplace 2/3

Topical Brown–Bag Luncheon
Time: 11:30AM–1:00PM
Location: Exhibit Hall D
Grab a lunch and join our volunteer table leaders as they lead informal discussions on various topics of interest to CERF attendees. This is a great opportunity to meet other coastal and estuarine scientists with similar interests! Wednesday's topics include:

- Dealing with Journalists (Sunshine Menezes)
- Work/Life Balance (Sara Grady)
- Social Media (Jeffrey Clements)
- Science and Policy (Judith Weis)

Estuaries & Coasts Editorial Board Lunch (*By Invitation*)
Time: 11:30AM–1:00PM | *Location*: Omni–Waterplace 2/3

Sponsor Presentation:
YSI–New Instruments Streamline Monitoring
Time: Tuesday & Wednesday, 12:00–12:30PM
Location: Rotunda

Poster Sessions & Happy Hour with Exhibitors
Time: 4:30–7:00PM
Location: Exhibit Hall BC
Enjoy light snacks and a cash bar while viewing posters and speaking with presenters. See page 66 for a list of scheduled poster sessions and presenters for Wednesday evening.

Future Earth Coasts Town Hall
Time: 5:00–7:00PM
Location: Rotunda
The Land-Ocean Interactions in the Coastal Zone (LOICZ) project developed tools to facilitate analysis of coastal data to develop coastal classifications and typology. LOICZ has now evolved into the Future Earth Coasts (FEC) project and the need to integrate data from different sources and disciplines to understand the interactions between natural and social systems at the World's coast remains an imperative. FEC has recently released a beta-test version of DISCO2, a web-based data analysis and visualization tool built on the R language that will allow users to upload data to a central site, execute data exploration and analysis tools, and execute a variety of visualizations, including histograms and scatter plots, and obtain summary statistics about their data. As the tool is built on the R language, adding new analysis techniques already written in R is possible and, once integrated into the system, can be executed by all users on their own data. During this Town Hall meeting, there will be a short introduction to the history and development of LOICZ typology approaches including the application of the LOICZ budget methodology in coastal management, followed by a demonstration of the software and discussion on how users want the tool developed. All CERF attendees are invited to participate in this dialogue.

Reunions
Various university groups will hold reunions on Wednesday evening as noted below. Check with your institution for details:

- Louisiana State University: Omni–Waterplace 1 (6:30–8:00PM)
- University of Maryland Center for Environmental Science (UMCES): Omni – Waterplace 2/3 (7:00–9:00PM)
- Graduate School of Oceanography–URI: Ballroom 5th floor Pre-function Area (7:00–9:00PM)
- Virginia Institute of Marine Sciences (VIMS): Omni– Fleming's Restaurant (7:00–8:30PM)

Horseshoe Crab Special Session Reception (*By Invitation*)
Time: 7:00–9:00PM
Location: Omni–Kent

Thursday, 9 November

CERF 2019 Committee Breakfast (*By Invitation*)
Time: 7:00–8:00AM
Location: Omni–Waterplace 2/3

ACCESS Affiliate Society Luncheon (*By RSVP*)
Time: 11:30AM–1:00PM
Location: Rotunda
Atlantic Canada Coastal and Estuarine Science Society members will meet to network and discuss coastal and estuarine efforts and society activities along the Atlantic Coast of Canada.

CERF 2017 Committee Reception (*By Invitation*)
Time: 4:30–5:30PM
Location: Omni–Waterplace 1

Close-Out Party & Student Awards Presentation
Time: 5:30–8:30PM
Location: Ballroom ABC
Volunteer judges will be evaluating student oral and poster presentations throughout the conference. At the Close-Out Party, the highest ranking students will receive recognition and a monetary reward for their exceptional work. Come support the students and celebrate another successful CERF conference. A special entertainment option will be available. Don't miss out!

Coastal Cabaret
Time: Immediately following the conclusion of the Awards presentation
Location: Ballroom D
It's a Shore Thing: A Coastal Cabaret is a compilation of original cabaret-style songs focused on environmental change in coastal zones. It was created and directed by Judith Swift, a URI Professor of Theatre and the Director of URI's Coastal Institute, and Charles Cofone, a professional sound and musical director, with the support of the URI Foundation. The cabaret has been performed at more than 40 national and regional conferences. Anyone who attended the Cabaret the last time CERF was in Providence can tell you that this will be one of the high points of the conference.

CERF2017 Silent Auction

Bidding Opens: Sunday, 5 November 8:00PM
Bidding Closes: Wednesday, 8 November 6:00PM
Payment Due By: Thursday, 9 November 1:00PM
Location: Exhibit Hall BC

OVERVIEW:

Bring your bids for the fantastic silent auction offerings! Participants will use bid sheets to attempt to win the auction item(s) that they desire. Don't forget to keep checking back, because you never know who may sneak in and try to outbid you. We will accept cash, check, or credit card donations as payment. Winners are responsible for the collection and transport of their item(s). Remember that every bid you make will increase the funds going to support CERF students.

HOW IT WORKS:

Bidding: Items available for the silent auction will have an associated bid sheet. On the bid sheet for the item, the bid increments will be specified, and there will be spaces for your bids. To bid, write your name, email or cell, and bid amount in the appropriate columns. Check back often to see if you've been outbid and raise the stakes. Once you bid on an item, you'll only need to add your name to subsequent bids as you compete to win the item. Remember–this is about philanthropy. Your generous contributions will do SO much for students!

AUCTION CLOSE OUT:

The last bids allowed will be at 6:00pm Wednesday, November 8, during the poster session and happy hour. The person who has bid the highest amount will be declared the winner of the item. Winning bidders will be listed on a board in the auction area and will be notified via email/text/phone provided on the bid sheet. Some items will be available for pick up and payment at the end of the poster session, and the remainder through the morning break and lunch on Thursday. Winners will have until the end of lunch at 1:00pm on Thursday, November 9 to pick up and pay for the item(s). If you've won, go to the registration desk to make your payment and pick up the bid sheet. Take the bid sheet to the auction area and pick up your item(s). Some items like gift cards and scientific equipment may be waiting for you at registration. Auction assistants will be available to help facilitate this process. If the winner fails to pick up their items before the deadline the item will be awarded to the next highest bidder.

CERF2017

Haiku Contest!

Back by popular demand!

To enter the contest, share your haiku on Facebook or Twitter using the hashtag #CERF2017Haiku. Post your entry before midnight on Wednesday, 8 November 2017. Prizes will be awarded to the 1st and 2nd place winners.

Learn more online at www.erf.org/cerf-2017-haiku-contest

CERF2017

Become a Member!

Continue to engage with and learn from the community of scientists and managers you meet this week.

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

ORAL SESSIONS Monday 6 November | Session 1 8:00 AM – 9:30 AM

	551 AB	552 AB	553 AB	554 AB	555	556
	Ecosystem services provided by shellfish resources Robert Jones, Suzanne Bricker and Julie Rose	**Assessing Green and Green-Gray Systems for Coastal Risk Reduction** Rick Luettich	**Coupled Models of Coastal Acidification and Hypoxia: Applications to Management** Martha Sutula, Faycal Kessouri and Elizabeth Turner	**Adaptive Management and Integration of Data and Modelling into Decision-Making** Soupy Dalyander, Michelle Meyers, Erika Lentz and Elise Irwin	**Evaluating the Resilience of Social-Ecological Systems Facing Water Quality Challenges** Marnita Chintala, Marisa Mazzotta, Kate Mulvaney and Nathaniel Merrill	**Mud, Macrofauna and Microbes: An ode to multiscalar benthic interactions** Leila Hamdan, Janet Nestlerode, Marisa Guarinello and Samuel Sturdivant
8:00 AM	Three ways of extrapolating oyster reef associated denitrification rates and nutrient fluxes. **Melanie Jackson**, Michael Owens, M. Lisa Kellogg and Jeffrey Cornwell	Natural Solutions for Resilient Maryland Communities. **Michelle Canick**, Ariana Sutton-Grier and Nicole Carlozo	A physical-biogeochemical model the California Current ecosystem. **James McWilliams** and Curtis Deutsch	Decision Analytic Structures to Support Opportunities for Systematic Application of Adaptive Restoration and Management. **Greg Steyer**, Michelle Meyers, Ann Hijuelos and Stephanie Romanach	A resilience framework for chronic exposures: water quality and ecosystem services in coastal social-ecological systems. **Nathaniel Merrill**, Kate Mulvaney, David Martin, Marnita Chintala, Walter Berry, Timothy Gleason, Steven Balogh and Austin Humphries	High spatial variability in biogeochemical rates and microbial communities across Louisiana salt marsh landscapes. **Brian Roberts**, Ariella Chelsky, Anne Bernhard and Anne Giblin
8:15 AM	Ecosystem services provided by tributary-scale oyster reef restoration in Chesapeake Bay. **M. Lisa Kellogg**, Jeffrey Cornwell, Michael Owens, Paige Ross, Ken Paynter, Mark Luckenbach, Jennifer Dreyer, Manisha Pant, Cate Turner, Alan Birch and Edward Smith	Using a social-ecological framework to investigate connections between shoreline hardening and perceptions of hurricane risk. **Carter Smith** and Charles Peterson	Role of submesoscale processes on the biogeochemistry of the California Current Ecosystem. **Daniele Bianchi**, James McWilliams, Faycal Kessouri, Curtis Deutsch, Lionel Renault, Hartmut Frenzel and Martha Sutula	Assessing natural and nature-based features at the coastal land margin with transdisciplinary research outcomes. **Scott Hagen**, Denise DeLorme, Matthew Bilskie, Renee Collini, Stephen Medeiros, James Morris and David Yoskowitz	Designing Solutions for Clean Water on Cape Cod. **Paul Niedzwiecki**, Kristy Senatori, Erin Perry, Patricia Daley, Heather McElroy, Thomas Cambareri and Scott Horsley	What can worms tell us about global change? **Manisha Pant** and David Johnson
8:30 AM	A High-Resolution Model of Particle Removal and Nutrient Dynamics on a Restored Oyster Reef. **Kevin Kahover**, Lora Harris, Jeremy Testa, Melinda Forsyth, Lawrence Sanford and Elizabeth North	Limitations of wave attenuation by simple living shorelines: Restoring multiple habitat types increases benefits. **Jennifer Mattei**, Christian Hauser, Jo-Marie Kasinak and LaTina Steele	Interactive effects of temperature and acidification on pteropods in the Southern California Current Ecosystem. **Nina Bednarsek**, Brendan Carter, Ryan McCabe, Richard Feely and Martha Sutula	Using multiple models to inform Pacific herring management: the Ocean Modeling Forum. **Tessa Francis** and Phillip Levin	Groundwater elevations, lake stages and relationships with sea level rise at Cape Cod National Seashore. **Stephen Smith** and Kelly Medeiros	Hypoxia at the sediment-water interface: drivers and implications. **Carmela Cuomo**, Robert Cerrato and Alexandria Rhoads
8:45 AM	Potential water quality benefits from investments in freshwater mussel beds in the tidal Delaware River. **Danielle Kreeger**, Kurt Cheng, Joshua Moody, Angela Padeletti, Roger Thomas and Spencer Roberts	Measuring Nature Based Solutions for Risk Reduction to Demonstrate Multiple Benefits for Fish and People. **Alison Bowden**, Tara Moberg and Steve Kirk	Habitat compression from hypoxia and acidification in the California Current System. **Curtis Deutsch**, James McWilliams, Evan Howard, Faycal Kessouri, Hartmut Frenzel, Daniele Bianchi and Martha Sutula	Assessing vulnerability of New England coastal habitats to climate change and implications for management. **Robin Weber**, James Rassman, Martin Smith and Rachel Stevens	Salt Marsh Restoration Through Living Shoreline. **David Grunden**	Primary production, nutrient fluxes and rates of succession in the Northeast Gulf of Mexico. **Kendra Brooks**, Florian Cesbron, William Patterson and Jane Caffrey
9:00 AM	Ribbed mussel restoration investments for water quality uplift along Delaware Estuary salt marshes. **Joshua Moody**, Danielle Kreeger, Kurt Cheng and Angela Padeletti	Salinity governs long-term sustainability of nature-based coastal defense using marshes. **Zhenchang Zhu**, Jim van Belzen, Johan van de Koppel and Tjeerd Bouma	Biogeochemical measurements characterizing the influence of anthropogenic nutrients in the Southern California Bight. **Karen McLaughlin**, Meredith Howard, Nikolay Nezlin and Martha Sutula	Building resilience: the need to address human dimensions of socio-ecological systems. **Kateryna Wowk** and David Yoskowitz	Living Shorelines in New England: Monitoring Marsh Stabilization, Restoration Benefits, and Nitrogen Removal. **Mary Schoell**, Anna Gerber-Williams, Suzanne Ayvazian, Marnita Chintala, David Grunden, Donald Cobb, Charles Strobel and Kenneth Rocha	Relationships between meiofauna and food source properties in soft-bottom coastal habitats. **Luuk van der Heijden**, Jadwiga Rzeznik-Orignac, Ragnhild Asmus, Martin Graeve, Nathalie Niquil, Quentin Bernier, Denis Fichet, Laureen Beaugeard, Martine Breret, Petra Kadel, Harald Asmus and Benoit Lebreton
9:15 AM	Shellfish Restoration in Buzzards Bay, MA. **Steve Kirk**	Beneficial reuse of dredge material to build a nearshore reef for shoreline protection. **Kathryn Ford**, Mark Rousseau, Jonathan Grabowski, Randall Hughes and Mark Patterson	Modeling the impact of anthropogenic emissions on the California Current Ecosystem. **Faycal Kessouri**, James McWilliams, Martha Sutula, Daniele Bianchi, Curtis Deutsch, Hartmut Frenzel, Lionel Renault, Karen McLaughlin, Simone Alin and Richard Feely	Should I use that model? Assessing the transferability of ecological models to new settings. **Theodore DeWitt**, Lauri Green, Jessica Moon, Melissa Errend and Randall Bruins	Identifying social factors that undermine support for nature-based coastal management. **Lauren Josephs**, Suzan Bellincampi, David Grunden and Austin Humphries	Ecosystem Services Provided by Benthic Habitats. **Paul Montagna** and David Yoskowitz

ORAL SESSIONS Monday 6 November | Session 1 8:00 AM – 9:30 AM

	557	Ballroom B	Ballroom C	Ballroom D	Ballroom E	Rotunda
	Impacts of Urbanization on Estuarine Ecosystems & Water Quality Lauren Freeman, Guangming Zheng and Steve Ackleson	**Coastal Carbon Cycling: Key Biogeochemical Processes and Broad-scale Impacts** Maria Herrmann, Michael Kemp and Raymond Najjar	**Inflection Point in Coastal Science: Research access for underrepresented students** Fredrika Moser, Carlos Olivo-Delgado, Lauri Green and Treda Grayson	**Sea level rise and transgression of coastal ecosystems** Matthew Kirwan and Keryn Gedan	**Data-Centric Strategies for Estuarine and Coastal Management** Anne Thessen and Benjamin Fertig	**Estuarine Restoration in the Northest US** Candace Oviatt
8:00 AM	Perspectives on water quality monitoring technologies: understanding factors that affect technology adoption in coastal management. **Nelle D'Aversa** and Tracey Dalton	Autonomous Mapping of Water Quality and Greenhouse Gas Flux in Salt Marsh Ecosystems. **David Nicholson**, Anna Michel, Scott Wankel and Rebecca Sugrue	Using Research Experiences for Undergraduates Programs to Increase Diversity in the Ocean Sciences. **Corey Garza**, Bridgette Clarkston and Megan Bassett	Model and field evidence for sea-level driven marsh expansion limited by anthropogenic barriers. **Matthew Kirwan**, Nathalie Schieder, David Walters, William Reay and Joel Carr	Machine learning for tight budgets in coastal management. **Anne Thessen**, Daniel Corkill and Joseph Gormley	Quantifying denitrification in Cape Cod freshwater pond sediments as a significant component of nitrogen attenuation. **Amber Unruh** and Brian Howes
8:15 AM	Impacts of Land-Use Change on Sedimentation in Tidal Creeks of North Carolina. **D. Reide Corbett**, J Walsh and Yifei Zhao	Gulf of Mexico Estuarine Blue Carbon Stock, Extent and Flux: Mangroves, Marshes, and Seagrasses. **Anitra Thorhaug**, Helen Poulos, Jorge Lopez-Portillo, Jordan Barr, Tim Ku, Maria Herrmann, Raymond Najjar and Graeme Berlyn	TBD	Sea-level rise and storm surge structures coastal forests into persistence and regeneration niches. **William Kearney** and Sergio Fagherazzi	Just how useful are national-scale surveys of coastal water quality?. **John Kiddon**, Linda Harwell, Betty Kreakie, Walt Nelson and Hugh Sullivan	To what extent is Narragansett Bay hypoxia responding to substantial management-imposed nutrient load reductions? **Heather Stoffel**, Daniel Codiga and Candace Oviatt
8:30 AM	Nexus between land use and water quality: when does population growth alter ecosystem health? **Antonietta Quigg**, Alicia Williams, Rachel Windham and Jamie Steichen	Alkalinity export from intertidal salt marshes: evaluating the contribution and composition of organic alkalinity. **Shuzhen Song** and Zhaohui Wang	Successful undergraduate mentoring of diverse students includes hands-on research and near-peer mentoring. **Rochelle Seitz** and Linda Schaffner	Tipping point in ecosystem state change of a salt marsh? **Robert Christian**, Linda Blum and Mark Brinson	Assessing the use of high frequency spatial water quality datasets to target future monitoring efforts. **David Parrish**, Betty Neikirk and Kenneth Moore	Restoring Boston Harbor's lost eelgrass meadows: A decade of eelgrass gains. **N. Tay Evans**, Jillian Carr, Alison Leschen, Katelyn Ostrikis and Kathryn Ford
8:45 AM	Establishing a Coastal Freshwater Inflow and Sediment Monitoring Network for Texas Bays and Estuaries. **Michael Lee**	Terrestrial DOM in a large tidal freshwater estuary. **Peter Raymond**, Jake Hosen and Matthew Shultz	Supporting Emerging Aquatic Scientists (SEAS) Your Tomorrow: Engaging U.S. Virgin Islanders in the Marine Sciences. **Kristin Wilson Grimes**, Marilyn Brandt, Carrie Jo Bucklin, Nastassia Jones and Monica Medina	Accelerating rates of forest retreat and marsh migration. **Nathalie Schieder** and Matthew Kirwan	Using National Coastal Assessment Data to Model Estuarine Water Quality at Large Spatial Scales. **Betty Kreakie**, John Kiddon and Bryan Milstead	Managed nitrogen reduction has reduced the winter-spring diatom bloom. **Candace Oviatt** and Heather Stoffel
9:00 AM	Comprehensive trends assessment of nitrogen sources and loads to estuaries of the coterminous United States. **Naomi Detenbeck**, Daniel Torre, Todd Plessel and Donna Schwede	Watershed-scale drivers of air-water CO2 exchanges in two lagoonal, North Carolina (USA) estuaries. **Bryce Van Dam** and Hans Paerl	A Partnership for Geoscience Education: Paddling Together in Shared Waters . **John Rybczyk**, Emma Norman, Brian Bingham, Marco Hatch, Melissa Peacock and David Wallin	Reconstructing historic marsh migration in Long Island Sound using foraminifera-based "migration wedges." **Shimon Anisfeld** and Andrew Kemp	Managing and reporting coastal data from nation-scale surveys. **Hugh Sullivan** and Alexandra Bijak	Long-term trend analysis of river high flow events to Narragansett Bay. **Dorothy Kellogg**
9:15 AM	Anthropogenic sources of organic nitrogen: An important driver of estuarine eutrophication and impairment. **Alexandria Hounshell**, Benjamin Peierls, Hans Paerl and Christopher Osburn	Inorganic carbon and oxygen dynamics in a marsh-dominated estuary. **Shiyu Wang**, Wei-Jun Cai, Daniela Di Iorio and Charles Hopkinson	Collaboration and Creativity: Increasing Underrepresented Student Participation in Marine Science Research. **Benjamin Cuker**, Fredrika Moser, Michael Allen and Jenna Clark	The ecotone plant communities of migrating marshes. **Keryn Gedan**	Hawaiian anchialine pools: finding windows to a mysterious underground realm. **Troy Sakihara** and Kimberly Peyton	Factors affecting recruitment and survival of intertidal eastern oysters, Crassostrea virginica, in a Massachusetts estuary. **Christopher Baillie** and Jonathan Grabowski

ORAL SESSIONS Monday 6 November | Session 2 10:00 AM – 11:30 AM

	551 AB	552 AB	553 AB	554 AB	555	556
	Ecosystem services provided by shellfish resources Robert Jones, Suzanne Bricker and Julie Rose	**Assessing Green and Green-Gray Systems for Coastal Risk Reduction** Rick Luettich	**Coupled Models of Coastal Acidification and Hypoxia: Applications to Management** Martha Sutula, Faycal Kessouri and Elizabeth Turner	**Adaptive Management and Integration of Data and Modelling into Decision-Making** Soupy Dalyander, Michelle Meyers, Erika Lentz and Elise Irwin	**Evaluating the Resilience of Social-Ecological Systems Facing Water Quality Challenges** Marnita Chintala, Marisa Mazzotta, Kate Mulvaney and Nathaniel Merrill	**Mud, Macrofauna and Microbes: An ode to multiscalar benthic interactions** Leila Hamdan, Janet Nestlerode, Marisa Guarinello and Samuel Sturdivant
10:00 AM	Aquaculture By Design: The Nature Conservancy's Strategic Vision for Restorative Aquaculture. **Robert Jones**	Wave attenuation through suspended highly flexible vegetation (kelp farm). **Long-Huan Zhu**, Kimberly Huguenard and David Fredriksson	Seasonal Forecasts of Ocean Acidification in Washington and Oregon Waters. **Samantha Siedlecki**, Simone Alin, Albert Hermann, Samantha Siedlecki, Richard Feely and Burke Hales	Applying Structured Decision Making to Optimize Salt Marsh Management on Northeastern US National Wildlife Refuges. **Hilary Neckles**, James Lyons, Susan Adamowicz, Toni Mikula, Glenn Guntenspergen, Gregory Shriver and Jessica Nagel	Evaluation of two stormwater raingardens on Cape Cod for removal of nitrogen and fecal coliform. **Abigail Archer**, Diane Murphy, Joshua Reitsma and Heidi Clark	The Scientist's verses: How shipwrecks influence benthic microbial biogeography. **Leila Hamdan**, Jennifer Salerno and Melanie Damour
10:15 AM	Sustainable oyster aquaculture, water quality improvement and nutrient trading in Maryland, Chesapeake Bay. **Matt Parker** and Suzanne Bricker	Assessing salt marsh stability for flood risk reduction: characterizing salt-marsh mudflat transitions. **Pim Willemsen**, Bas Borsje, Tjeerd Bouma, Daphne van der Wal and Suzanne Hulscher	Response of Salish Sea Circulation and Water Quality to Climate Change and Sea Level Rise. **Tarang Khangaonkar**, Karthik Balaguru, Wenwei Xu, Ben Cope and Jeffrey Arnold	Evaluating Costs and Benefits of Marsh-Management Strategies Given Uncertain SLR and Ecosystem Response. **Jonathan Clough**, Marco Propato and Amy Polaczyk	Barriers and Opportunities for the Use of Alternative Technologies to Reduce Nitrogen in Coastal Estuaries. **Kate Mulvaney**, Nathaniel Merrill, Sarina Lyon and Marisa Mazzotta	That's Disturbing: Impacts of human activity on intertidal microbial diversity. **Melissa Partyka**, Ronald Bond, Jennifer Chase and E. Atwill
10:30 AM	Hyperlocal ecosystem services: nutrient removal and increased water clarity provided by shellfish to a municipality. **Julie Rose**, Mark Dixon, John Bohorquez, Roger Bowgen, Suzanne Bricker, Gary Wikfors and Anthony Dvarskas	Experimental and Numerical Investigation of Wave Reduction by Floating Oyster Farms. **Zhilong Liu** and Kimberly Huguenard	Multi-decadal acidification enhanced by eutrophication in the northern Gulf of Mexico. **Hongjie Wang**, Xinping Hu and Nancy Rabalais	Operationalizing 2017 Louisiana Master Plan Sea Level Rise Scenarios into Project Feasibility and Design Guidelines. **James Pahl**	Quantifying the Recreational Value of an Estuary: A Transferable Method. **Sarina Lyon**, Nathaniel Merrill, Kate Mulvaney and Marisa Mazzotta	Characterizing the shallow subtidal benthic environment: It's not just mud anymore. **Mark Stolt**
10:45 AM	Assessing the effects of cultured bivalves on eelgrass productivity in temperate estuaries of Atlantic Canada. **Marc Ouellette**, Monique Niles, Thomas Guyondet, Tim Webster and Michael Coffin	Salt marshes for flood risk reduction: a probabilistic modeling approach. **Vincent Vuik** and Sebastiaan Jonkman	Evaluating confidence in the impact of regulatory nutrient reduction on Chesapeake Bay hypoxia. **Isaac (Ike) Irby** and Marjorie Friedrichs	Minimizing impacts of 21st century megatrends on marsh creation costs in the Mississippi delta. **Adrian Wiegman**, John Day, Christopher D'Elia, James Morris, Eric Roy, Jeffrey Rutherford and Robert Lane	Applicaton of a structured decision making process for nitrogen pollution management on Cape Cod. **David Martin**, Amy Piscopo, Marnita Chintala, Timothy Gleason and Walter Berry	Impacts of oyster aquaculture: one small step for soil, one giant leap for benthic infauna? **Chelsea Duball**, Lauren Salisbury, Jose Amador and Mark Stolt
11:00 AM	At what cost? Ecosystem services of shellfish cultivation in an estuarine reserve. **Elizabeth Darrow**, Troy Alphin, Susanne Brander, Brandon Puckett, Madison Lytle, Kelsey Billet and Martin Posey	Building vegetated foreshores in front of dikes: coping with uncertainties and implementation. **Bas Borsje**	Configuration and validation of a real-time hypoxia forecast system for the Chesapeake Bay. **Aaron Bever**, Marjorie Friedrichs, David Forrest, Raleigh Hood and Carl Friedrichs	Development of a Decadal-Scale Morphodynamic Model in Support of Barrier Island Restoration. **Soupy Dalyander**, Rangley Mickey, Joseph Long, David Thompson, Rob Jenkins, Davina Passeri and Nathaniel Plant	Resilience indicators support valuation of estuarine ecosystem restoration under climate change. **Lisa Wainger**, David Secor, Cassie Gurbisz, Michael Kemp, Patricia Glibert, Edward Houde, Jennifer Richkus and Mary Barber	Response to and recovery from the Deepwater Horizon incident: A worm's eye view. **Samuel Sturdivant**, Marisa Guarinello, Drew Carey and Joe Germano
11:15 AM	Nekton use of oyster related seascapes in two coastal ponds in Rhode Island. **Suzanne Ayvazian**, Sinead Grabbert, Anna Gerber-Williams, Donald Cobb and Charles Strobel	When living shoreline design manuals do not tell the whole story. **Lee Weishar**	Interactions of nutrient supply, oxygen depletion and pH depression in a mesotrophic embayment. **John Zeldis** and Kim Currie	Food web modeling in support of the 2017 Louisiana Coastal Master Plan. **Kristy Lewis**, Kim de Mutsert, Joe Buszowski, Jeroen Steenbeek and Scott Milroy	Triple-value simulation modeling cases tackle nutrient and watershed management from a social-ecological systems perspective. **Marilyn ten Brink**, Gary Foley, Andrea Bassi, Nadav Tanners, Walter Berry, Kristina Heinemann, Matthew Nicholson, Paul Niedzwiecki, Viccy Salazar, Maura Flight, Eric Ruder and Joseph Fiksel	Using sediment profile imagery to quantify water quality and benthic condition relationships in Pensacola Bay. **Janet Nestlerode**, James Hagy, Michael Murrell, Brandon Jarvis, Jessica Lisa and Bradley Blackwell

ORAL SESSIONS Monday 6 November | Session 2 10:00 AM – 11:30 AM

	557	Ballroom B	Ballroom C	Ballroom D	Ballroom E	Rotunda
	Impacts of Urbanization on Estuarine Ecosystems & Water Quality Lauren Freeman, Guangming Zheng and Steve Ackleson	**Coastal Carbon Cycling: Key Biogeochemical Processes and Broad-scale Impacts** Maria Herrmann, Michael Kemp and Raymond Najjar	**Inflection Point in Coastal Science: Research access for underrepresented students** Fredrika Moser, Carlos Olivo-Delgado, Lauri Green and Treda Grayson	**Sea level rise and transgression of coastal ecosystems** Matthew Kirwan and Keryn Gedan	**CMECS: A "Common Language" for Application to Coastal Habitat Mapping** Monique LaFrance Bartley, Mark Finkbeiner and John King	**Lessons learned in estuarine management and restoration** Brittany Blomberg, Jennifer Beseres Pollack and Kenneth Heck
10:00 AM	Urbanisation supplements ecosystem functioning in disturbed estuaries. **Brooke Frohloff**, Andrew Olds, Ben Gilby, Rod Connolly, Nicholas Yabsley, Paul Maxwell and Thomas Schlacher	Air-sea CO2 flux variability in the Chesapeake Bay. **Pierre St. Laurent**, Marjorie Friedrichs, Elizabeth Shadwick, Fei Da, Raymond Najjar and Hanqin Tian	Lessons learned from building, developing, and running a hybrid REU program in Puerto Rico. **James Pierson**, Lora Harris, Pedro Maldonado-Rivera, Ruby Montoya Ospina, Jeffrey Cornwell, Jenna Clark and Fredrika Moser	Large-scale surveys highlight the potential for ecological and social impediments to marsh migration. **Christopher Field**, Ashley Dayer and Chris Elphick	Using CMECS to inventory and assess some of the world's most remote estuaries. **Kimberly Peyton** and Troy Sakihara	Two decades of oyster restoration in New York City. What's next? **Michael McCann**, Peter Malinowski and Katie Mosher Smith
10:15 AM	Recurrent harmful algal blooms and the causative role of catchment agricultural practices. **Daniel Lemley** and Janine Adams	Variation in salt marsh CO2 fluxes across a latitudinal gradient along the US Atlantic coast. **Inke Forbrich**, Hafsah Nahrawi, Monique Leclerc, Jessica O'Connell, Deepak Mishra, Anne Giblin, Merryl Alber, Alma Vázquez-Lule, Rodrigo Vargas, Michelle Fogarty and James Edson	First year of following GEOPATHS in Puerto Rico - integrating research into the curriculum. **María Barberena-Arias**, Carlos Olivo-Delgado, Pedro Maldonado-Rivera, Lora Harris, James Pierson and Fredrika Moser	Establishment of Kosteletzkya pentacarpos in abandoned agricultural fields facilitate upland transition to salt marsh. **E. Victoria Long** and Linda Blum	Using CMECS to Meet Subtidal Goals in San Francisco Bay. **Mark Finkbeiner**	Optimization of a monitoring program to evaluate oyster restoration success. **H. Ward Slacum**, Danielle Zaveta, Emily French and Ken Paynter
10:30 AM	Combined effects of warming and pollutants on temperature-dependent sex determination, survival, and development across generations. **Bethany DeCourten** and Susanne Brander	Global controls of carbon storage in mangrove soils. **Andre Rovai**, Robert Twilley, Edward Castaneda-Moya, Pablo Riul, Miguel Cifuentes-Jara, Marilyn Manrow-Villalobos, Paulo Horta, Jose Simonassi, Alessandra Fonseca and Paulo Pagliosa	A summer Research Experience Program for freshmen and sophomores in Marine Science. **Paulinus Chigbu** and Margaret Sexton	The impact of persistent seagrass beds on long-term wetland shoreline erosion in a Mid-Atlantic estuary. **Kathryn Smith** and Nathaniel Plant	Ecological classification of a shallow, coastal environment using CMECS: Fire Island National Seashore, New York. **Monique LaFrance Bartley**, John King, Bryan Oakley and Mark Finkbeiner	Seagrass diversity improves seagrass transplant survival and expansion. **Susan Williams**, Rohani Ambo-Rappe, Christine Sur, Steven Limbong and Jessica Abbott
10:45 AM	Tracking wastewater influence on oysters (Crassostrea virginica) in a freshwater dominated urbanized estuary. **Haley Nicholson**, Ruth Carmichael, Kevin Calci and William Burkhardt III	Beyond blue carbon: broadening the context for carbon studies in seagrass ecosystems. **Robert Howarth**, Roxanne Marino and Melanie Hayn	Using socio-environmental synthesis case studies to engage students across disciplines. **Lindsey Williams**, Amanda Wenczel and Joana Tavares	Ghosts of Marco Island: Hydrological Isolation, blocked transgression, and mangrove mortality in Southwest Florida. **Ken Krauss**, Amanda Demopoulos, Nicole Cormier, Robin Lewis, Andrew From, Jennifer McClain-Counts, Rebecca Howard and Elitsa Peneva-Reed	Leveraging CMECS for assessment of hard bottom habitats at the Block Island Wind Farm. **Marisa Guarinello**, Drew Carey and Lorraine Read	The unanticipated impact of seagrass wrack on a tidal wetland restoration project in Atlantic Canada. **Tony Bowron**, Jennifer Graham, Danika van Proosdij and Bob Pett
11:00 AM	Where are the spat? Relating Severn River oyster reproduction to high-frequency water quality data. **Cecily Steppe**, Louise Wallendorf, Andrew Keppel, Luis Rodriguez and Grace Pruden	Effect of phosphorus availability and hurricane disturbance interactions on the elemental stoichiometry of mangrove litterfall. **Victor Rivera-Monroy**, Tess Danielson, Edward Castaneda-Moya, Megan Kelsall, Evelyn Gaiser, Rafael Travieso, Xiaochen Zhao and John Kominoski	The Natural Classroom: Increasing environmental stewardship and STEM learning through strategic partnerships. **Andrea Jerabek**, Melissa Baustian, Leland Moss, Tim Carruthers and Joshua Danzy	Sea level rise drives changes in carbon storage in coastal wetlands of the Florida Everglades. **Sean Charles**, John Kominoski, Shelby Servais, Michael Ross, Benjamin Wilson, Tiffany Troxler, David Rudnick, Fred Sklar and Stephen Davis	Submerged marine habitat mapping at Cape Cod National Seashore. A post-hurricane Sandy study. **Agnes Mittermayr**, Mark Borrelli, Emily Shumchenia and Sophia Fox	Restoring Bayside Beaches Adjacent to a Marina Bulkhead. **Karl Nordstrom** and Nancy Jackson
11:15 AM	Anthropo-proxy data in bivalves from middens to modern embayments and tropical to temperate systems. **Ruth Carmichael**, Elizabeth Darrow, Anika Knight, Carolyn Kovacs, Theresa Hattenrath, Jessica Kinsella and D. Joseph Dalrymple	Allometric scaling of estuarine ecosystem metabolism. **Nick Nidzieko**	Group Discussion – Research access for underrepresented students	Nature-based coastal defense enabling landward marsh expansion along strongly managed shorelines. **Stijn Temmerman**, Lotte Oosterlee, Tom Maris, Wouter Vandenbruwaene and Patrick Meire	Subtidal benthic habitat mapping with CMECS in mid-coast Maine. **Ivy Ozmon**, Kerby Dobbs, Claire Enterline, Stephen Dickson and Matthew Nixon	Implementing new shoreline rules: Geomorphic considerations for reducing unnecessary shoreline armor on Puget Sound. **Matthew Gerlach**, Hugh Shipman and Tim Gates

ORAL SESSIONS Monday 6 November | Session 3 1:00 PM – 2:30 PM

	551 AB	552 AB	553 AB	554 AB	555	556
	Ecosystem services provided by shellfish resources Robert Jones, Suzanne Bricker and Julie Rose	**From the ground up: stakeholder-driven processes for estuary management** Matthew Liebman and Courtney Schmidt	**Managing acidification in estuaries: What drives aragonite saturation state variability** Aaron Strong and Damian Brady	**Adaptive Management and Integration of Data and Modelling into Decision-Making** Soupy Dalyander, Michelle Meyers, Erika Lentz and Elise Irwin	**Lessons Learned from Modeling Louisiana's 2017 Coastal Master Plan** Mandy Green and Alaina Grace	**After Deepwater Horizon Spill: Hydrologic Restoration of Gulf Estuarine Habitats** Norman Johns
1:00 PM	Perception matters: The role of ecosystems services research to improve public support for marine aquaculture. **Kimberly Thompson** and Jerry Schubel	Stakeholding as matchmaking: the NEP at 30. **Margherita Pryo**r	Variability in carbonate chemistry and coastal acidification across a eutrophication gradient in Buzzards Bay, MA. **Jennie Rheuban**, Daniel McCorkle, Rachel Jakuba, Christopher Neill and Scott Doney	Herring River Estuary Restoration: Mitigating Uncertainty and Risk Through Model-Supported Design of Adaptive Infrastructure. **Nils Wiberg** and Kirk Bosma	Decision making for Louisiana's 2017 Coastal Master Plan. **Bren Haase** and Mandy Green	Bring the Freshwater - The Anahuac Wetlands Restoration Project, TX. **Norman Johns**, Kyle Garmany, George Guillen, Rusty Feagin, Eric White, Yushi Wang, Kristin Fritz-Grammond and Patrick Walther
1:15 PM	Quantifying Water Quality Benefits of Oyster Practices for Regulatory Use in Chesapeake Bay. **Julie Reichert-Nguyen**, Jeffrey Cornwell, Julie Rose, M. Lisa Kellogg, Mark Luckenbach, Suzanne Bricker, Ken Paynter, Chris Moore, Matt Parker, Lawrence Sanford, Bill Wolinski, Andrew Lacatell, Lynn Fegley, Karen Hudson, Emily French and Ward Slacum	Driving the Bus: Stake-holder Participation in Managing Estuarine Water Quality in Two Florida NEPs. **Anthony Janicki**, Holly Greening and Duane DeFreese	Characterizing coastal acidification and its drivers in Little Egg Harbor Bay, NJ. **Matthew Poach**, James Vasslides and Nicole Coffey	Restoring Herring River estuary: decision analysis to address multiple objectives while incorporating uncertainty and risk. **David Smith**, Mitch Eaton, Jill Gannon, Timothy Smith, Eric Derleth, Kirk Bosma and Elise Ludec	Informing the Selection of Environmental Scenarios. **Ehab Meselhe**, Eric White, Denise Reed and Mandy Green	Hydrological restoration of a large area of salt marshes from Magnolia Beach to Indianola, Texas. **Rusty Feagin** and Thomas Huff
1:30 PM	Integrating oyster ecosystem services in policy development: a stakeholder-centric modeling effort. **Rasika Gawde**, Raleigh Hood and Elizabeth North	Extreme Networking: How the Massachusetts Bays National Estuary Program Manages 1,100 Miles of Coast. **Carole McCauley**, Jo Ann Muramoto, Sara Grady, Barbara Warren, Peter Phippen, Pam DiBona, Prassede Vella, Steven Scyphers and Theresa Davenport	What influences pH in a Maine estuary and how could it impact shellfish aquaculture? **Kate Coupland** and Damian Brady	The Galveston Bay Report Card: A public-driven presentation of regional scientific. **Erin Kinney** and Lisa Gonzalez	Analysis of modeled landscape uncertainty: model performance versus unknown future environmental conditions. **Eric White**, Ehab Meselhe and Yushi Wang	Planning and design of measures to reduce saltwater intrusion through the Calcasieu River Ship Channel. **Austin Feldbaum**
1:45 PM	Failure of the classic model to explain spring and fall blooms: implications for oyster control. **Jeffrey Levinton** and Kamazima Lwiza	Communities and watersheds: Engaging communities in watershed protection in the Casco Bay, Maine region. **Curtis Bohlen** and Matthew Craig	Disseminating Ocean and Coastal Acidification Citizen Science Monitoring Guidelines and Resources. **Parker Gassett**, Esperanza Stancioff and Aaron Strong	Engaging Management to Help Steer Regional Coastal Research in a Mid-Atlantic Shorelines Project. **Elizabeth Turner** and Thomas Jordan	Understanding the potential long-term performance of coastal restoration projects. **Alaina Grace**, Eric White, Ehab Meselhe, Denise Reed, Mandy Green, Brady Couvillion and Jenneke Visser	Evaluating Effects of Hydrological Alteration for Marsh Protection: Sediment Dynamics in the Calcasieu Estuary, Louisiana. **Cyndhia Ramatchandirane**, Mead Allison, Ehab Meselhe, Austin Feldbaum, Diana Di Leonardo, Christopher Esposito, Collin Ortals and Dallon Weathers III
2:00 PM	Quantifying the ecosystem-level benefits and trade-offs associated with Eastern oyster restoration in contrasting sub-estuaries. **Mark Brush**	A bi-state and interdisciplinary approach to develop environmental quality indicators by means of partnerships. **Eivy Monroy**, Tom Borden and Courtney Schmidt	Seagrass communities increase short-term extremes and long-term offset of CO2 under future ocean acidification. **Stephen Pacella**, Cheryl Brown, George Waldbusser, Rochelle Labiosa and Burke Hales	Linking CA Coastal Communities to Coastal Storm and Sea Level Rise Modeling. **Juliette Finzi Hart**, Patrick Barnard, Maya Hayden and Nathan Wood	Impacts to storm surge and waves by restoration projects during the 2017 Coastal Master Plan. **Zachary Cobell** and Hugh Roberts	Louisiana long game: implementing ecosystem-level restoration under regulations designed to protect the degraded now. **Brian Lezina**
2:15 PM	Development of a transferable valuation tool for ecosystem services associated with freshwater inflow in Texas. **Lauren Hutchison** and David Yoskowitz	Caught in the middle with us: the New Hampshire/Maine "high stakes" transdisciplinary research case study. **Rachel Rouillard** and Kalle Matso	Warming and acidification-mediated resilience to bacterial infection determine European flat oyster larvae mortality. **Nuno Caiola**, Patricia Prado, Carles Alcaraz and Carles Ibanez	The New Zealand Estuary Trophic Index (ETI) Tools. **David Plew**, John Zeldis, Amy Whitehead, Richard Storey, Olivia Burge, Anna Madarasz-Smith, Megan Oliver, Leigh Stevens and Barry Robertson	Key insights and lessons learned from the 2017 Coastal Master Plan process. **Mandy Green**, Zachary Cobell, Kim de Mutsert, Scott Duke-Sylvester, Jordan Fischbach, Alex McCorquodale, Ehab Meselhe, Michael Poff, Denise Reed, Hugh Roberts, Jenneke Visser and Eric White	Discussion

ORAL SESSIONS Monday 6 November | Session 3 1:00PM – 2:30PM

	557	Ballroom B	Ballroom C	Ballroom D	Ballroom E	Rotunda
	Efficacies of Urban and Agricultural BMPs for Reducing Pollutant Loads Michael Williams, Ken Staver and Solange Filoso	**From objectives to actions: technical support for ecosystem management planning** Tessa Francis and Aimee Kinney	**Casting the Net Widely: Broader Impacts Practitioners Share Lessons Learned** Lisa Lawrence and Sarah Nuss	**Building tidal marshes in the Anthropocene: maximizing resilience** Lorie Staver and Court Stevenson	**Influence of the Conowingo Pond on Chesapeake Bay Water Quality+** James Fitzpatrick and Jeffrey Cornwell	**Lessons learned in estuarine management and restoration.** Brittany Blomberg, Jennifer Beseres Pollack and Kenneth Heck
1:00 PM	Winter cover crops as a firewall against climate change effects on agricultural nutrient loads. **Ken Staver**	Navigating a rabbit hole: developing a recovery strategy for Puget Sound. **Nick Georgiadis**	Preparing for and recovering from disaster, the Sea Grant way. **Maddie Kennedy**, Joshua Brown, David Hensen, Steve Sempier, Nancy Balcom and Christopher Winslow	Tidal marsh restoration in the mid-Atlantic: designing for resilience to accelerating sea-level rise. **Lorie Staver**, Court Stevenson, Philippe Hensel and Nick Nidzieko	Conowingo Reservoir: Changing conditions, revised modeling tools and challenging policy decisions for the Chesapeake Bay. **Lee Currey**, Gary Shenk and Lewis Linker	Sustainable pathways for restoration in the Anthropocene: coral reefs, food security, fish biodiversity in Indonesia. **Austin Humphries**, Amelia Moore, Susan Williams, Carlos Garcia-Quijano, Jessica Vandenberg, Pak Suparman Abdullah and Muhammad Kurnia
1:15 PM	Performance of Headwater Regenerative Stream and Stormwater Conveyance (RSC) Structures. **Michael Williams** and Solange Filoso Nutrient Dynamics in Streams Restored to Reduce Nitrogen and Sediment Export to the Chesapeake Bay. **Solange Filoso** and Michael Williams	Providing Resource Managers with Modeling Tools on Extreme Events of Climate Change. **Andrea Copping**, Zhaoqing Yang, Jude Apple and Ian Miller	Wetland monitoring, restoration planning, and living shoreline implementation coordinated by National Estuary Programs and partners. **Angela Padeletti**, Danielle Kreeger, Martha Maxwell-Doyle, Dave Bushek, Elizabeth Watson, Tracy Quirk, LeeAnn Haaf, Kirk Raper and Joshua Moody	Marsh inundation methodology and guidance for the design of marsh creation projects in coastal Louisiana. **Stuart Brown**	Seasonal- to decadal-scale sediment dynamics in Conowingo Pond. **Cindy Palinkas** and Emily Russ	Assessing the social impacts of a coral restoration project in the Spermonde Islands of Indonesia. **Jessica Vandenberg**, Amelia Moore, Carlos Garcia-Quijano, Austin Humphries and Pak Suparman Abdullah
1:30 PM	Stream restoration enhanced uptake of nitrogen, phosphorus, suspended solids, and dissolved oxygen. **Thomas Jordan**, Joshua Thompson, William Brogan III and Carey Pelc	The integration of scientific and technical information into ecosystem managemt. **C. Andrew James**, Aimee Kinney, Tessa Francis and Nick Georgiadis	Estuarine report cards as an outreach tool: broad net or strategy full of holes? **Jason Krumholz**, E. Caroline Donovan, Tracy Brown and Jamie Vaudrey	Marsh soil responses to tidal water nitrogen additions contribute to creek bank fracturing and slumping. **Cathleen Wigand**, Elizabeth Watson, Rose Martin, Earl Davey, Roxanne Johnson, Alana Hanson, David Johnson, R. Scott Warren and Linda Deegan	Sediment diagenesis and nutrient flux from Conowingo Reservoir. **Michael Owens** and Jeffrey Cornwell	Lessons learned from Alabama's living shorelines. **Brittany Blomberg**, Kenneth Heck, Judy Haner, Dorothy Byron, Steven Scyphers and Jonathan Grabowski Lessons on restoring eelgrass in San Francisco Bay. **Katharyn Boyer**, Jennifer Miller, Cassie Pinnell, Stephanie Kiriakopolos, Crystal Weaver, Laura Reynolds and Sandy Wyllie-Echeverria
1:45 PM	Detection of the effects of storm water best management practice, natural variability and power analysis. **Dong Liang**, Vyacheslav Lyubchich, Lora Harris and Jeremy Testa	Promise and pitfalls of interdisciplinary planning: lessons from Puget Sound shoreline armoring implementation strategy development. **Aimee Kinney**, Nick Georgiadis, Tessa Francis and Andy James	Efforts to Reduce Land-Based Sources of Marine Debris in the U.S. Virgin Islands. **Kristin Wilson Grimes**, Carrie Jo Bucklin, Sennai Habtes, Howard Forbes, Jr., Marcia Taylor and Caitlin Goodwin	The retention and germination mechanism of therophyte seeds under tides in a coastal salt marsh. **Dongdong Qiu**, Baoshan Cui and Jiaguo Yan	Long-term trends in deposition, resuspension and bioavailibility of nutrients from Conowingo Pond. **James Fitzpatrick**, Mark Velleux, James Hallden, Nataliya Kogan, Badri Yadav and Carmen Santos	Enhancing the performance of marine reserves in estuaries: just add water. **Ben Gilby**, Andrew Olds, Nicholas Yabsley, Rod Connolly, Paul Maxwell and Thomas Schlacher Building public engagement and illuminating ecosystem health in Rio despite weak governance and political instability. **David Nemazie**, Alexandra Fries, Robert Summers, Joao Coimbra and William Dennison
2:00 PM	Spatial and Temporal Patterns of Best Management Practice Implementation in the Chesapeake Bay Watershed. **Andrew Sekellick**, Olivia Devereux, Jeni Keisman, Jeff Sweeney and Joel Blomquist	Sustaining tidal marshes in the face of rising seas: case study of science-management knowledge sharing. **Peter Taylor**	Young Scientist Academy: Inspiring Young Scientists as Future Stewards of Climate Change and Ocean Health. **Robert Condon**	Modification of a San Francisco Bay salt marsh restoration site through planting of Spartina foliosa. **Margot Buchbinder** and Katharyn Boyer	Reservoir scour as a major source of bioavailable phosphorus to a coastal plain estuary? **Zoe Vulgaropulos**, Jeffrey Cornwell and Michael Owens	Managing ambiguity problems in stakeholder dialogue processes: a case of the Geum River Estuary, Korea. **Hosahng Rhew**, Changhee Lee and Young Ho Shin Linking science with management in support of habitat restoration. **Jennifer Pollack**, Brittany Blomberg, Terry Palmer and Benoit Lebreton
2:15 PM	Assessing the stormwater retention and water quality benefits of urban tree canopies. **Tuana Phillips**, Mitchell Pavao-Zuckerman, Neely Law, Nancy Sonti, Reid Christianson and Bryan Seipp	What's Working to Restore Puget Sound? Making Decisions Based on Outcomes. **Leska Fore** Community collaboration to develop locally-driven approaches to estuarine management. **Jenni Schmitt** and Jull Rolfe	Making science relevant: instituting proactive and transformational change through outreach and engagement. **Leanna Heffner**	40+ years of wetland restoration in San Francisco Bay: lessons learned and emerging trends. **Michelle Orr**, Steve Crooks, Ann Borgonovo and Mark Lindley	Modeling sediment-water fluxes in the Conowingo Pond and Chesapeake Bay: Implications for estuarine nutrient cycling. **Jeremy Testa**, Casey Hodgkins, Jeffrey Cornwell and Michael Kemp	Group Discussion – Lessons Learned

ORAL SESSIONS Tuesday 7 November | Session 4 8:00AM – 9:30AM

	551 AB	552 AB	553 AB	554 AB	555
	Natural and anthropogenic drivers of food web structure and productivity Ryan Woodland, Sharon Herzka and Joel Hoffman	**From marshes to management: feedbacks between restoration science and management** Jennifer Bowen, Jonathan Grabowski and Michael Piehler	**Marine Biodiversity Observation Networks: regional to global collaborative research** Maria Murray, Valerie Paul and Emmett Duffy	**Climate Change in the Chesapeake and Other Coastal Systems** Lewis Linker, Gopal Bhatt and Richard Batiuk	**Impact of extreme weather on estuaries: innovative methods and modeling** Chunyan Li, Ming Li, Arnoldo Valle-Levinson and Renhao Wu
8:00 AM	Anomalously high recruitment of Gulf Menhaden indicates indirect effects of DWH blowout in GoM. **Christine Voss**, Jeffrey Short, Harold Geiger, Christopher Haney, Maria Vozzo, Vincent Guillory and Charles Peterson	Simulating Ecological Responses to Large Scale Coastal Restoration on the Lower Mississippi River. **Melissa Baustian**, Hoonshin Jung, Kazi Sadid, Francesca Messina, Ehab Meselhe, Scott Duke-Sylvester, Jenneke Visser and Elizabeth Jarrell	The Marine Biodiversity Observation Network (MBON): A Partnership to Understand Life in the Sea. **Justin Saarinen**, Gabrielle Canonico Hyde, Frank Muller-Karger, Abigail Benson, Ward Appletans, Katrin Iken and Robert Miller	Downscaling climate projections for Chesapeake Bay hypoxia in the mid-21st century. **Wenfei Ni**, Ming Li, Andrew Ross and Raymond Najjar The effect of climate change to the Chesapeake Bay and its plume until year 2090. **Meng Xia**, Long Jiang and Xinyi Kang	Subtidal hydrodynamics in a tropical lagoon during the transition from dry to wet seasons. **Leonardo Tenorio-Fernandez**, Arnoldo Valle-Levinson and Jose Gomez-Valdes
8:15 AM	Are all nursery areas created equal? Determining how food web dynamics affect fish nursery habitat. **Deborah Lichti**, Jacques Rinchard and David Kimmel	Utilizing a Basin-wide Delft3D Model for Planning of Large-scale Restoration in Coastal Louisiana. **Elizabeth Jarrell**, Ehab Meselhe, Melissa Baustian, Jenneke Visser, Scott Duke-Sylvester, Kazi Sadid, Hoonshin Jung, Francesca Messina, Joseph LeBlanc and James Pahl	MarineGEO: A Smithsonian-led global network to understand change in coastal marine biodiversity and ecosystem function. **Maria Murray**, Ross Whippo and Emmett Duffy	Integrated change analysis for flow, nutrients, and sediment loads using Phase-6 Chesapeake Bay Watershed Model. **Gopal Bhatt**, Kyle Hinson, Peter Claggett, Matt Johnston, Andrew Sommerlot, Sucharith Ravi, Jesse Bash and Lewis Linker	Hydrodynamic and sediment transport modeling in Saco Bay, Maine. **Dong-Mei Xie**, Qing-Ping Zou and Jean MacRae
8:30 AM	Environmental factors that influence benthic prey resources for waterbirds in managed ponds. **Alison Flanagan**, Susan De La Cruz and Laurie Hall	Land Development and Erosion in Mississippi River Subdelta: An Analysis of a Coastal Restoration Strategy. **Alexander Kolker**, Reda Amer and Annelise Muscietta	A standardized experimental approach to compare components of resiliency in marine benthic communities. **Dean Janiak**, Christopher Freeman, Justin Campbell, Janina Seemann, Ross Whippo, Michael Goodison, Valerie Paul and Emmett Duffy	Spatial and Seasonal Variability of Flows And Loads under 2025 and 2050 Conditions. **Kyle Hinson**, Marjorie Friedrichs, Lewis Linker and Gopal Bhatt	A regional atmosphere-ocean modeling system for predicting and visualizing coastal inundation in a changing climate. **Ming Li**, Fan Zhang and Xiaohong Wang
8:45 AM	Quantifying the resource use niche over gradients of productivity using n-dimensional hypervolumes. **Justin Lesser**, Christopher Stallings and James Nelson	Using map-math to track sedimentation, vegetation establishment and marsh migration at a marsh intervention site. **Erin Reilly**, Amanda Moore and Lora Harris	Steps towards a marine biodiversity observation network in Mexico East-Coast. **Nuno Simoes**, Edlin Guerra and Maite Mascaro	Modeling climate, land use and emissions on atmospheric nitrogen deposition to the Chesapeake Bay watershed. **Jesse Bash**, Patrick Campbell, Chris Nolte, Tanya Spero, Ellen Cooter, Kyle Hinson and Lewis Linker	Salt Marsh Resiliency Shifts after the Deepwater Horizon oil Spill. **Giovanna McClenachan** and R Eugune Turner
9:00 AM	A stable isotope assessment of food webs on Mississippi's offshore artificial reefs. **Kevin Dillon**	Documenting Seagrass Recovery in Tampa Bay, Florida. **Edward Sherwood**, Holly Greening, J.O. Roger Johansson, Kristen Kaufman and Gary Raulerson	Integrative Observations and Assessments of Asian Marine Biodiversity by J-BON and related activities in Japan. **Masahiro Nakaoka**, Kenji Sudo, Takehisa Yamakita, Teruhisa Komatsu, Hiroya Yamano, Hiroya Sugisaki, Kazuaki Tadokoro, Katsunori Fujikura, Hiroyuki Yamamoto and Yoshihisa Shirayama	Applying nonlinear indices of climate variability and change to understand Chesapeake Bay climate impacts. **Victoria Coles**, Kari St. Laurent and Raleigh Hood	Turbulence-resolving Two-Phase Flow Simulations of Wave- and Alongshore Current Supported Turbidity Flows. **Celalettin Ozdemir** and Sahar Haddadian
9:15 AM	Stable isotopes to trace food web stressors: Is space the final frontier? **Joel Hoffman** Quantifying Trophic Interactions in Louisiana Salt Marshes Using Multiple Biomarkers. **Michael Polito**, Paola Lopez-Duarte, Jill Olin, Jessica Johnson, Kenneth Able, Charles Martin, F Fodrie, Linda Hooper-Bui, Brian Roberts and Olaf Jensen	Eelgrass (Zostera marina) recovery in Puget Sound, Washington, USA: restoration tools, successes and challenges. **Jeffrey Gaeckle**, John Vavrinec, Kate Buenau, Amy Borde, Lara Aston and Ronald Thom	Ecosystem health report cards can be used as tools for adaptive ecosystem based management. **Vanessa Vargas-Nguyen**, Rense Kelsey, Michelle Thieme, Jorge Escurra, Alexandra Fries and William Dennison	Impacts of climate change on Chesapeake Bay water quality improvements resulting from regulatory nutrient reductions. **Marjorie Friedrichs**, Isaac (Ike) Irby, Fei Da and Richard Tian	Integrated modeling analysis on the estuarine responses to extreme hydrological events. **Wenting Wu**, Zhaoqing Yang, Xuejun Zhang, Yunxuan Zhou, Bo Tian, Ying Huang and Qiuhong Tang

ORAL SESSIONS Tuesday 7 November | Session 4 8:00AM – 9:30AM

	556	557	Ballroom B	Ballroom C
	Coastal vegetated habitats as carbon sinks-sources in a changing world Amanda Spivak and Stacey Trevathan-Tackett	**Going over the edge? Climate-related thresholds in coastal systems** Elizabeth Turner, Debra Hernandez and Marie Bundy	**Successful incorporation of "citizen scientists" in estuarine and coastal studies** Michael Wetz, Jace Tunnell and Rae Mooney	**Hurricane Sandy: Restoration and Resiliency at Northeast National Wildlife Refuges** Susan Adamowicz
8:00 AM	An in situ ocean acidification experiment in shallow water seagrass sediments. **David Burdige**, Richard Zimmerman, Fred Dobbs, Chin-Chang Hung and Chuang-Yi Ho	The application of early warning signals to brackish marshes. **Merryl Alber**, Jessica O'Connell and Joan Sheldon	Key findings from a volunteer water quality monitoring program in Baffin Bay, Texas. **Michael Wetz**, Kenneth Hayes and Emily Cira	Northeast Regional Analysis of US Fish and Wildlife Service Salt Marsh Integrity Assessment Results. **Susan Adamowicz**, Toni Mikula and Janith Taylor
8:15 AM	Restoration and resilience of seagrass meadows affects long-term carbon sequestration. **Karen McGlathery**, Lillian Aoki, Matthew Oreska, Amelie Berger, Patricia Wiberg, Peter Berg and Lindsay Edwards	Do high water temperatures explain spatial and temporal variations of eelgrass in Virginia's coastal bays? **Patricia Wiberg**, Karen McGlathery, Matthew Oreska, Joel Carr, Robert Orth and Kenneth Moore	Assessing the priorities of citizen scientists and resource managers for environmental monitoring. **Suzanne Spitzer**, E. Caroline Donovan, William Dennison and Lea Rubin	Removing legacy effects of ditching while promoting resilience to climate change at Parker River NWR. **David Burdick**, Gregg Moore, Christopher Peter, Devin Batchelder, Geoff Wilson, Nancy Pau and Susan Adamowicz
8:30 AM	Seagrass resilience measured by eddy covariance. **Amelie Berger**, Peter Berg and Karen McGlathery	Assessing changes in seagrass species dominance after die-off events. **Erin Shields**, Kenneth Moore and David Parrish	A two-way street: building capacity of volunteer efforts to produce quality estuarine data. **Prassede Vella** and Pam DiBona	Salt marsh recovery after sediment enrichment and improved hydrology, NWR Rhode Island. **Jennifer White**, Nick Ernst and Benjamin Gaspa
8:45 AM	Carbon flux and vegetation responses to active warming in a coastal wetland. **Genevieve Noyce**, Patrick Megonigal, Roy Rich, Matthew Kirwan, Paul Dijkstra, Peter Thornton and Glenn Guntenspergen	Pinfish incursion: ecosystem consequences for mid-Atlantic seagrass meadows. **John Richardson**, Robert Orth and Jonathan Lefcheck	Results, successes, and lessons learned from citizen science monitoring in the GTM NERR. **Nikki Dix**, Shannon Rininger, Scott Eastman, Paige Priester, Janet Koehler, Mike Pogue and Lia Sansom	Vegetation Community Response to Large-Scale Tidal Marsh Restoration at Prime Hook National Wildlife Refuge. **Susan Guiteras**, Bartholomew Wilson, Liz Tymkiw, Greg Shriver, Alison Rogerson, Nathan Bush, Annabella Larsen and William McAvoy
9:00 AM	Multiple-stressor impacts on above- and belowground allocation in Spartina alterniflora and Distichlis spicata. **Troy Hill**, Autumn Oczkowski, Emily Santos, Nathalie Moore, Caroline Kanaskie, Rose Martin, Cathleen Wigand and Earl Davey	Historical and future hazards to marine life and their temporal evolution. **Camino de la Hoz**, Elvira Ramos, Araceli Puente Trueba, Adrian Acevedo, Jose Juanes and Inigo Losada	A newly digitized 45-year dataset of environmental and biological observations from Long Island Sound . **Jacob Snyder** and Hannes Baumann	Shoreline protection on Glenn Martin National Wildlife Refuge, a Chesapeake Bay marsh island. **Matt Whitbeck**
9:15 AM	Effects of Nutrient Enrichment on Mangrove Range Expansion in the Temperate-Tropical Ecotone. **Ilka Feller**, Emily Dangremond, Todd Osborne and Lorae Simpson	Jellyfish blooms in a warming ocean: Temperature-induced asexual reproduction in three scyphozoan jellyfish polyps. **Laura Treible** and Robert Condon	Citizen science and education in estuaries: 20 years of biodiversity monitoring in a Connecticut estuary. **David Hudson**, Nicole Rosenfeld, Bridget Cervero and Travis Mingo	Coastal Inundation Modeling at National Parks in the Northeast US. **Tayebeh Tajalli Bakhsh**, Nathan Vinhateiro, Lisa McStay, Brian McKenna and Michael Bradley

ORAL SESSIONS Tuesday 7 November | Session 4 8:00AM – 9:30AM

	Ballroom D	Ballroom E	Rotunda	Ballroom A
	Climate Change, Sea-level Rise and Watershed Management: Coastal Wetland Responses David Rudnick, Tiffany Troxler, Fred Sklar and Michael Osland	**Linking species and habitat conservation for global horseshoe crab populations** Ruth Carmichael, Mark Botton, S Cheung, Paul Shin and John Tanacredi	**The Opportunities and Challenges of Urban Coastal Sustainability** Shona Patterson and Martin Le Tessier	****Special Event – a live joint session with our colleagues in Cali, Colombia** Mechanisms of HAB formation in the freshwater to marine continuum: A global perspective** Hans Paerl, Enrique Peña Salamanca and Ernesto Mancera
8:00 AM	Sea-level rise, ecosystem restoration, and the Everglades' future: the importance of building coastal wetland resilience. **David Rudnick**, Jed Redwine, Robert Johnson, Fred Sklar and Tiffany Troxler	Gathering local knowledge to detect distribution and threats of Tachypleus tridentatus in Beibu Gulf, China. **Kit Yue Kwan**, Yongyan Liao, Hwey-Lian Hsieh, Shuqing Xu, Qiuping Zhong, Juan Lei, Mingzhong Liang, Huaiyi Fang, Lili Xu, Chang-Po Chen and S G Cheung	Integrating metrics to assess coastal ecosystem health in the Long Island Sound National Estuary Program. **Georgia Basso**, Jamie Vaudrey, Kevin O'Brien and Juliana Barrett	Mitigating global proliferation of freshwater-marine harmful cyanobacterial blooms in a human and climate-impacted world. **Hans Paerl**, Nathan Hall, Karen Rossignol, Hai Xu, Guangwei Zhu, Boqiang Qin, Mark McCarthy and J. Scott
8:15 AM	Coastal subsidence as a function of salinity intrusion and peat decomposition in a karst environment. **Fred Sklar**, Tiffany Troxler, Carlos Coronado-Molina, Stephen Kelly, Christopher Madden and David Rudnick	Habitat use of Chinese horseshoe crab, Tachypleus tridentatus under the influence of simulated oyster cultch. **S G Cheung**, H. K. Chan and Kit Yue Kwan	Legacy of Urban Fill Alters Current Urban Coastal Groundwater Si Concentrations. **Timothy Maguire** and Robinson Fulweiler	
8:30 AM	Saltwater intrusion coupled with drought accelerates carbon loss from a brackish wetland. **Benjamin Wilson** and Tiffany Troxler	Exploring health of horseshoe crab habitats using benthic foraminifera as proxy. **Punyasloke Bhadury** and Areen Sen	Connecting lessons learned from NY Harbors ecosystem health improvements to analogous urban coastal systems. **Dylan Taillie**, Judith O'Neil, Brianne Walsh, William Dennison, Elisa Bone, David Reid, Robert Newton, David Strayer, Kate Boicourt, Lauren Birney, Sam Janis, Peter Malinowski and Murray Fisher	Harmful algae blooms in Mexico: Causes and consequences. **Ernesto García-Mendoza**, Sonia Quijano-Scheggia, Aramis Olivos-Ortiz, Aramis and Erick Núñez-Vázquez
			A US EPA Typology for Multi-Scale Transdisciplinary Assessment in Green Infrastructure Decision-Making. **Julia Twichell**, Marilyn ten Brink, Ingrid Heilke and Ryan Furey	
8:45 AM	Water pattern responses to sea-level rise and restoration actions in the southeastern saline Everglades. **Jed Redwine** and Joseph Park	Effectiveness of beach restoration to improve horseshoe crab spawning habitat quality in the Delaware Bay. **Joseph Smith**, Alek Modjeski and Larry Niles	Ecologically informed designs for coastal infrastructure. **Ana Bugnot**, Mariana Mayer-Pinto, Nina Shaefer, Emma Johnston and Katherine Dafforn	
9:00 AM	Biphasic vegetation dynamics in the coastal Everglades. **Michael Ross**, Susana Stoffella, Rosario Vidales, Himadri Biswas, Keqi Zhang, John Meeder, Jed Redwine, Joseph Park and David Rudnick	Present and future distributions of suitable habitats for horseshoe crabs. **Stine Vestbo**, Matthias Obst, Francisco Quevedo, Itsara Intanai and Peter Funch	Strengthening resiliency in coastal watersheds: An ecosystem services and ecological integrity decision support system. **Anne Kuhn** and Jane Copeland	Imaging FlowCytobot provides novel insights on phytoplankton bloom dynamics. **Lisa Campbell**
9:15 AM	Changing nesting patterns of roseate spoonbills in Florida suggest a response to sea level rise. **Jerome Lorenz**, Peter Frezza, Michelle Robinson and Michael Kline	Defining Horseshoe Crab Habitat with Sparse Data. **Maurice Estes Jr.**, Ruth Carmichael and Xiongwen Chen	San Francisco Bay sustainable management strategies addressing sea level rise, eutrophication, and habitat restoration. **Michael Connor**	
			Our coasts are trashed, now what? Seeking lasting solutions to restore ecosystem services. **Theresa Talley** and Nina Venuti	

ORAL SESSIONS Tuesday 7 November | Session 5 10:00 AM – 11:30 AM

	551 AB	552 AB	553 AB	554 AB	555
	Natural and anthropogenic drivers of food web structure and productivity Ryan Woodland, Sharon Herzka and Joel Hoffman	**From marshes to management: feedbacks between restoration science and management** Jennifer Bowen, Jonathan Grabowski and Michael Piehler	**Science to protect our estuaries and coasts from nutrient pollution** Galen Kaufman, James Hagy and Jacques Oliver	**Climate Change in the Chesapeake and Other Coastal Systems** Lewis Linker, Gopal Bhatt and Richard Batiuk	**Impact of extreme weather on estuaries: innovative methods and modeling** Chunyan Li, Ming Li, Arnoldo Valle-Levinson and Renhao Wu
10:00 AM	Growth rates, mixotrophy, and grazing activity of tropical coastal lagoon plankton communities in Puerto Rico. **Juan Alvarez-Rosario**, James Pierson and Lora Harris	Three critical considerations for restoring oyster reefs as fish habitats. **Nicholas Ortodossi**, Ben Gilby, Andrew Olds, Charles Peterson, Christine Voss, Rod Connolly and Thomas Schlacher	Dissolved Oxygen Thresholds to Protect Designated Aquatic Life Uses in Estuaries. **James Hagy**	Sensitivity of Chesapeake Hypoxia to Tidal Wetland Loss Due to Sea Level Rise. **Carl Cerco**, Mark Noel and Lora Harris	Recurrent network model for forecasting weather effects on tidal currents in Sepetiba Bay (Brazil). **Priscila Lopes** and Marcos Gallo
10:15 AM	Spatiotemporal gradients of black sea bass diet and condition in the coastal Mid Atlantic Bight. **Ginni La Rosa** and Ryan Woodland	Invertebrate recovery is mediated by active restoration following eradication of an invasive plant ecosystem engineer. **Rachel Wigginton**, Whitney Thornton and Edwin Grosholz	Comparative analysis of nutrient export into Indian River Lagoon and San Francisco Bay. **Yongshan Wan** and Marcus Beck	Gravitational circulation response to future climate change in Chesapeake Bay. **Richard Tian**, Ping Wang, Lewis Linker, Gopal Bhatt, Kyle Hinson and Andrew Sommerlot	Impact of Tropical Strom Lee in Channels and Shelf: calibration of transport using unmanned boat. **Chunyan Li**, Wei Huang, Eddie Weeks and Yixin Luo
10:30 AM	Changes in feeding ecology of market squid across across the ENSO cycle. **Steven Litvin**, Aaron Carlisle, John Field, Elizabeth Graham, Emmanis Dorval and Bruce Finney	Active restoration of ecological drivers in a temperate estuary: trends in intertidal benthic communities. **Araceli Puente Trueba**, Cristina Galván and José Juanes	Nitrate removal from groundwater entering an estuary by a wood-chip permeable reactive barrier: long-term performance. **Kenneth Foreman**, Joseph Vallino, Allison Tucker, Collin Knauss and Richard McHorney	Influence of 2025 and 2050 climate change conditions on Chesapeake Bay water quality standards. **Lewis Linker**, Gopal Bhatt, Ping Wang, Carl Cerco, Richard Tian and Kyle Hinson	Hydrodynamic Responses of Lake Pontchartrain to Winter Cold Fronts. **Wei Huang** and Chunyan Li
10:45 AM	Size-dependent trophic cascade determines seagrass response to nutrient enrichment. **Jiaguo Yan**, Junhong Bai and Baoshan Cui	Small-scale oyster restoration in Barnegat Bay, NJ: oyster survival and habitat monitoring. **Christine Thompson**, Steven Evert and Alek Modjeski	Determining the fate of land-derived nitrogen in salt marshes using a 15N isotope tracer experiment. **Hillary Sullivan**, Anne Giblin and Linda Deegan	Using an individual based model to evaluate the effects of climate change on eelgrass. **Jessica Foley** and Lora Harris	The impact of two successive severe droughts on Microcystis blooms in San Francisco Estuary. **Peggy Lehman**, Tomo Kurobe, James Hollibaugh, Sarah Lesmeister and Swee Teh
11:00 AM	Effects of nutrient enrichment on a consumer's resource use and niche width in a saltmarsh. **David Behringer**, Linda Deegan and James Nelson	Oyster reef-associated macroinvertebrates are faced with hypoxia in Mississippi Sound. **Chet Rakocinski**, J. Read Hendon, Kathy VanderKooy, Jeremy Higgs, Scott McIntosh, Ginger Fleer and Daneen Menke	Reducing nutrient export through watershed-based stakeholder planning, using innovative technologies and developing nutrient reduction targets. **Sara Burns**	Phenology of Estuarine Response to Anthropogenic and Climate Drivers. **Nicole Basenback** and Jeremy Testa	Simulating Storm Surge in the Salish Sea. **Zhaoqing Yang**, Drew Mahedy, Taiping Wang, Ian Miller and Guillaume Mauger
11:15 AM	Sea otters may associate with greater eelgrass distribution, density and biomass in Southeast Alaska. **Wendel Raymond**, Ginny Eckert and Catherine Mattson	Restoring salt marsh ecosystem services: microbes and the nitrogen cycle. **Christopher Lynum**, Ashley Bulseco-McKim and Jennifer Bowen	Coupling between hydrological changes, nutrient dynamics and cyanobacterial blooms in deltaic Louisiana estuaries. **Sibel Bargu** and Dubravko Justic	Effects of sub-daily precipitation events on coastal hydrology. **Bhanu Paudel**, Naresh Neupane, Elizabeth Watson, Clyde Goulden, Lin Perez and David Velinsky	Assessing the water quality impacts from proposed tidal barriers in a tidal embayment. **Richard Isleib**, James Fitzpatrick, Nicholas Kim and Nataliya Kogan

ORAL SESSIONS Tuesday 7 November | Session 5 10:00 AM – 11:30 AM

	556	557	Ballroom B	Ballroom C
	Coastal vegetated habitats as carbon sinks-sources in a changing world Amanda Spivak and Stacey Trevathan-Tackett	**Final ecosystem goods and services (FEGS) for ecosystem management** Rich Fulford and Marc Russell	**Systemic approaches toward understanding estuarine and coastal resilience and sustainability** Tarsila Seara, Dawn Kotowicz and Richard Pollnac	**Enhancing Our Understanding of Coastal Ecosystem Resilience post Hurricane Sandy** Amanda Babson, Rick Bennett and Sara Stevens
10:00 AM	Chronic nutrient enrichment alters blue carbon pools and processes. **Thomas Mozdzer**, Emily Geoghegan, Joshua Caplan, Melissa McCormick, Don Barber, Caitlin Bauer, Paige Weber, Camila Silva and Francine Leech	Applying ecological function in environmental decision making. **Rich Fulford**, James Hagy and Marc Russell	Understanding socio-economic impacts of climate change on Puerto Rico coral reefs from the fishers' perspective. **Tarsila Seara**, Karin Jakubowski and Richard Pollnac	Geospatial application of the Marsh Equilibrium Model to assess saltmarsh resilience in the Northeast. **Katherine Renken** and James Morris
10:15 AM	Does the addition of nitrate stimulate decomposition of organic matter in salt marsh sediments? **Ashley Bulseco-McKim**, Anne Giblin, Jane Tucker, Jonathan Sanderman, Amanda Spivak, Kenly Hiller and Jennifer Bowen	SystemSketch: A Dynamic Visualization Tool to Help Navigate Decisions Integrating Human and Natural Systems. **Ryan Furey**, Ingrid Heilke, Marilyn ten Brink, Julia Twichell and Thomas Stockton	Climate change perceptions of fishers and other stakeholders within coastal communities in Puerto Rico. **Karin Jakubowski** and Tarsila Seara	Effects of Hurricane Sandy and subsequent restoration activities on saltmarsh vegetation and bird populations. **Chris Elphick**, Brittany Cline, Jonathan Cohen, Maureen Correll, Christopher Field, Thomas Hodgman, Brian Klingbeil, Adrienne Kovach, Zachary Ladin, Brian Olsen, Katharine Ruskin, Gregory Shriver, Elizabeth Tymkiw and Whitney Wiest
10:30 AM	Contribution of Aboveground Growth to Salt Marsh Soil Carbon in Highly Eutrophic Estuaries. **Gail Chmura**, Morgan Sadler and Shayne Levoy	Using benefit indicators to evaluate ecosystem services resulting from restoration. **Justin Bousquin**, Marisa Mazzotta, Walter Berry and Claudette Ojo	Coastal Forest Fisheries: Estuarine Forest Resources and Human Well-Being in Southern Puerto Rico. **Carlos Garcia-Quijano** and John Poggie	Health and resiliency of marshes in Jamaica Bay, New York: Geochemical and dynamical perspectives. **J. Kirk Cochran**, Qingzhi Zhu, Christina Heilbrun, Hang Yin, Joseph Tamborski and Huan Feng
10:45 AM	The effects of removing tidal restrictions on the biogeochemistry of salt marshes restored over 14y. **Kelsey Gosselin**, Amanda Spivak, Meagan Gonneea, Kevin Kroeger	Connecting Ecosystem Service Production to Users as a Measure of Realized Benefits in Coastal Communities. **Marc Russell**, Justin Bousquin, Rich Fulford and Susan Yee	Nonpoint source pollution control policy analysis: a case study in Jiulong River watershed, southeast China. **Changhua Weng**, Richard Burroughs and Luoping Zhang	Impact of Sea Level Rise on Groundwater Resources at Mid-Atlantic National Seashores. **Paul Misut**, Glen Carleton and Brandon Fleming
11:00 AM	Saltwater intrusion effects on tidal freshwater marsh net ecosystem production and soil carbon. **Scott Neubauer** and Dong Yoon Lee	Modeling of the nearshore marine ecosystem with the AQUATOX model. **Brenda Rashleigh**, Jonathan Clough, Eldon Blancher, II and Richard Park	Community resilience and well-being during recovery from the Indian Ocean Tsunami in Ranong, Thailand. **Dawn Kotowicz** and Richard Pollnac	Storm surge simulation of Maryland Coastal Bays: A case study of Hurricane Sandy. **Xinyi Kang** and Meng Xia
11:15 AM	Impact of tidal restoration on vertical accretion and carbon storage in salt marsh ecosystems. **Meagan Gonneea**, Kevin Kroeger, Amanda Spivak and Kelsey Gosselin	Marine science and management: reconciling marine environmental quality assessments and maritime spatial planning? **Michael Elliott**, Angel Borja, Suzanne Boyes, Roland Cormier and Victor de Jonge	Variation in subjective wellbeing and environmental concern in small-scale fishing communities of Rayong Province, Thailand. **Richard Pollnac** and Suvaluck Sathumanusphan	Evaluating Ecological and Community Resilience Benefits of the Department of Interior Hurricane Sandy Projects. **Susan Taylor**, Amanda Bassow and Candace Leong

ORAL SESSIONS Tuesday 7 November | Session 5 10:00 AM – 11:30 AM

	Ballroom D	Ballroom E	Rotunda	Ballroom A
	Climate Change, Sea-level Rise and Watershed Management: Coastal Wetland Responses David Rudnick, Tiffany Troxler, Fred Sklar and Michael Osland	**Linking species and habitat conservation for global horseshoe crab populations** Ruth Carmichael, Mark Botton, S Cheung, Paul Shin and John Tanacredi	**Hydrodynamics and Sediment Dynamics in Estuaries and Coastal Seas – Day 1** Carl Friedrichs, Henk Schuttelaars, Alejandro Souza and Arnoldo Valle-Levinson	****Special Event – a live joint session with our colleagues in Cali, Colombia** Mechanisms of HAB formation in the freshwater to marine continuum: A global perspective** Hans Paerl, Enrique Peña Salamanca and Ernesto Mancera
10:00 AM	Vulnerability of tidal marshes to sea-level rise across the US Pacific coast. **Kevin Buffington**, Karen Thorne, Glen MacDonald, Glenn Guntenspergen, Richard Ambrose, Bruce Dugger, Lauren Brown, Chris Janousek, Chase Freeman, Jordan Rosencranz, James Holmquist and John Takekawa	What makes a house a home? Assessment of juvenile horseshoe crab nursery habitat in Connecticut. **Jo-Marie Kasinak** and Jennifer Mattei	The importance of estuarine geometry on the morphology of intertidal flats. **Paul de Vet**, Bram Van Prooijen, Tom Ysebaert, Marco Schrijver and Zheng Bing Wang	Initiation of Cochlodinium polykrikoides blooms in the lower Chesapeake Bay: hot spots and hot times. **Margaret Mulholland**, Katherine Filippino, Michael Echevarria and Lynn Blumen
10:15 AM	Coastal wetland responses to climate change: the influence of temperature and rainfall. **Michael Osland**, Christopher Gabler, Richard Day, James Grace, Camille Stagg, Andrew From, Laura Feher, Nicholas Enwright, Stephen Hartley, Meagan McCoy and Jennie McLeod	Where Should We Spawn? Clues of temperature as an important cue. **Helen Cheng**, Vilma Vaattovaara, Meghan Owings, Meghan Connelly and Winsor Watson	Investigating sediment accumulation within an urban estuary over seasonal and decadal time-scales. **Joseph Carlin**, Dulce Cortez and Dane Van Orman	
10:30 AM	Restored coastal wetlands maintain ecosystem services in rising seas. **Just Cebrian**, Sara Martin, Julia Cherry, Eric Sparks and George Ramseur	The role of beach processes on exhumation and transport of horseshoe crab eggs. **Nancy Jackson** and Karl Nordstrom	Morphological evolution and sediment exchange in the San Francisco Estuary. **Bruce Jaffe**, Carlos Schettini, Amy Foxgrover and Theresa Fregoso	Ciguatera incidence in the Caribbean Islands. **Jose Ernesto Mancera**
10:45 AM	Salt marsh resilience to disturbance varies along a hydrologic gradient. **Scott Jones**, Camille Stagg and Mark Hester	Sediment texture affects the response of spawning horseshoe crabs to nourished estuarine beaches. **Mark Botton**, Christina Colon, John Rowden, Susan Elbin, Debra Kriensky, Kim McKown and Matthew Sclafani Contrasting survival and population exchange estimates of American horseshoe crabs (Limulus polyphemus) in New York. **Justin Bopp**, Matthew Sclafani, Kim McKown, David Smith, Rachel Sysak and Robert Cerrato	Linking sediment dynamics to habitat quality in tidal fresh water shallows. **Jessica Lacy** and Emily Carlson	
11:00 AM	Testing for local adaptation across short and tall growth forms of Spartina alterniflora. **Robyn Zerebecki**, Torrance Hanley, Erik Sotka and Randall Hughes	Recent advances in Atlantic horseshoe crab (Limulus polyphemus) studies in South Carolina, USA. **Michael Kendrick**, Peter Kingsley-Smith, Jeff Brunson, Kristin Linesch, Elizabeth Cushman and Tanya Darden Analysis of the northeast Florida genetic break in the American horseshoe crab (Limulus polyphemus). **Patrick Norby** and H Jane Brockmann	Near-bed cross-shore suspended sediment transport over a macro-tidal beach under varied wave conditions. **Wenhong Pang**, Zhijun Dai, Zhenpeng Ge, Shushi Li, Xuefei Mei, Jinghua Gu and Hu Huang	Discussion
11:15 AM	Interacting effects of genotype and environment on tall form Spartina alterniflora. **Caitlin Bauer**, Melissa McCormick, Linda Deegan, J Adam Langley and Thomas Mozdzer	Horseshoe Crabs in Taunton Bay, Maine: Results of a 10 year Tagging Study. **Susanne Schaller**	Influences of wind-induced waves on hydrodynamics and sediment resuspension in the turbidity maximum. **Jie Jiang**, Qing He, Jian Shen and Chao Guo	

ORAL SESSIONS Tuesday 7 November | Session 6 1:00PM – 2:30PM

	551 AB	552 AB	553 AB	554 AB	555	556
	Natural and anthropogenic drivers of food web structure and productivity Ryan Woodland, Sharon Herzka and Joel Hoffman	**From marshes to management: feedbacks between restoration science and management** Jennifer Bowen, Jonathan Grabowski and Michael Piehler	**Science to protect our estuaries and coasts from nutrient pollution** Galen Kaufman, James Hagy and Jacques Oliver	**Tidal restrictions' effects on passage and connectivity in developed environments** Megan Tyrrell, Doris Small, Padraic Smith and Theodore Castro-Santos	**Climate and Climate Change** R Eugune Turner and Kenneth Sebens	**Coastal vegetated habitats as carbon sinks-sources in a changing world** Amanda Spivak and Stacey Trevathan-Tackett
1:00 PM	Macroalgal (Ulva) bloom trophic transfer of PCBs in an urban estuary. **John Logan**, Donald Cheney, Elizabeth Sly, Kevin Gardner, Brian Wysor and Mark Altabet	Reviewing coastal habitat restoration efforts in the U.S. and the services they deliver. **Jonathan Grabowski**, Rachel Gittman, Katie Arkema, Rick Bennett, Jeff Benoit, Seth Blitch, Kelly Burks-Copes, Anthony Chatwin, Allison Colden, Alyssa Dausman, Bryan DeAngelis, Ron Howard, Randall Hughes, Steven Scyphers, Tisa Shostik and Ariana Sutton-Grier	Integrating Science And Monitoring Results Into The Chesapeake Restoration Effort. **Joel Blomquist**	Future Challenges in the North Sea Estuary Management in Germany. **Friederike Piechotta**	Shrinking fish and changing food webs with coastal warming. **R Eugune Turner**	Estuarine submerged aquatic vegetation (SAV) beds provide significant carbon storage in deltaic environments. **Eva Hillmann**, Victor Rivera-Monroy and Megan La Peyre
1:15 PM	Evaluating Effects of Extreme Salinity Change in a Benthic Predator. **Natasha Breaux**, Benoit Lebreton, Terry Palmer and Jennifer Pollack	Using citizen science and various restoration techniques to build living shorelines in an urban estuary. **Allison Fitzgerald** and Meredith Comi	Nutrient reductions promote Submersed Aquatic Vegetation: Thirty years of change in Chesapeake Bay. **Christopher Patrick**, Jonathan Lefcheck, Robert Orth, William Dennison, Cassie Gurbisz, Jeni Keisman, J. Brooke Landry, Kenneth Moore, Rebecca Murphy, Jeremy Testa, Donald Weller, David Wilcox and Richard Batiuk	Multiple impact pathways of reduced connectivity from tidegates upon fish communities in the Pacific Northwest. **Correigh Greene**, Jason Hall, Eric Beamer and Doris Small	Effects of climate change on winter flounder and its impacts on fisheries in Narragansett Bay. **Joseph Langan** and Jeremy Collie	From living seagrass to soil stocks: Dynamics of recalcitrant carbon in seagrass meadows. **Stacey Trevathan-Tackett**, Peter Macreadie, Jeff Baldock, Just Cebrian, Rod Connolly, Thomas Jeffries, Jonathan Sanderman, Justin Seymour, Alexandra Thomson, Caitlin Wessel and Peter Ralph
1:30 PM	Using hydrodynamic models to compare salinity variability encountered by benthos and plankton. **Wim Kimmerer**, Edward Gross and Michael MacWilliams	Urbanization and shoreline armoring erodes complexity in coastal social-ecological systems. **Steven Scyphers**, Steven Gray, Michael Beck, Matthias Ruth, Rachel Gittman, Kelsi Furman, Lauren Josephs and Jonathan Grabowski	Stakeholder-Driven Nutrient Modeling for the Chesapeake Bay. **Gary Shenk**, Lewis Linker, Gopal Bhatt and Andrew Sommerlot	Fish Passage at Intertidal Obstructions: Approaches in Washington State. **Correigh Greene**, Padraic Smith and Doris Small	Decadal Scale Research in Rocky Subtidal Habitats, Massachusetts Bay. **Kenneth Sebens** and Edward Maney	Productivity and carbon accumulation trends across hydrogeomorphic zones in a newly emergent coastal deltaic floodplain. **Annabeth McCall** and Robert Twilley
1:45 PM	Residence time of water in estuary alters resource use on multiple trophic levels. **W. Ryan James**, Linda Deegan, Robert Garritt and James Nelson	Stakeholder support for diversity-enhancing restoration practices has potential to benefit coastal ecosystem function. **Randall Hughes**, Jonathan Grabowski, Heather Leslie, Steven Scyphers and Susan Williams	Solute-Transport Methods to Estimate Time-Varying Nitrogen Loading Rates to the Peconic Estuary, New York. **Donald Walter**, Paul Misut and Christopher Schubert	Tidal Tributary restoration by modification of salinity control structures. **Scott Deitche**, Ed Sherwood, Nancy Norton and Lizanne Garcia	Modeling Phytoplankton Community Response to Climate Change and Nutrient Loading in a Shallow Temperate Estuary. **Sara Blachman** and Mark Brush	Shallow ponds and carbon biogeochemistry in salt marsh ecosystems. **Amanda Spivak**, Kelsey Gosselin, Meagan Gonneea and Sean Sylva
2:00 PM	How the distribution of nitrogen has changed in Narragansett Bay, RI after nutrient reductions. **Autumn Oczkowski**, Courtney Schmidt, Alana Hanson, Donald Cobb, Jason Krumholz and Rick McKinney	A socio-ecological approach for estuarine restorations in N Spain: the project LIFE-CONVIVE. **Jose Juanes**, Cristina Galvan, Paula Nunez, Maria Recio, Beatriz Echavarri, Mirian Jimenez, Andres Garcia, Barbara Ondiviela and Araceli Puente	Examining the Role of the Connecticut River Watershed in Nutrient Loading to Long Island Sound. **Rachel Lowenthal**, Peter Raymond, Lisa Weber, Bryan Yoon, Jake Hosen, Ethan Kyzivat, Jenn Fair, Serena Matt, Jonas Karosas, Jon Morrison and Jamie Shanley	Hooked on Healthy Estuaries: Fish Assemblage Diversity of the Satilla River Estuary. **Jennie Wiggins**, Bruce Saul and Jessica Reichmuth	Seagrass responses to environmental variables from Maryland to New Hampshire show impacts of ocean warming. **Holly Plaisted**, Erin Shields, Jillian Carr, N. Tay Evans, Sophia Fox, Stephen Heck, Robbie Hudson, Kenneth Moore, Hilary Neckles, Betty Neikirk, Alyssa Novak, David Parrish, Bradley Peterson, Amanda Tinoco and Frederick Short	Distribution, drivers, and disturbance of blue carbon stocks in southeast Australia. **Carolyn Ewers Lewis**, Paul Carnell, Jonathan Sanderman, Jeff Baldock, Stacey Trevathan-Tackett, Daniel Ierodiaconou, Mary Young, Kerrylee Rogers and Peter Macreadie
2:15 PM	Estuarine water quality and plankton community responses in the Pensacola Bay Estuary. **Michael Murrell**, Janet Nestlerode, James Hagy, Brandon Jarvis, Diane Yates and Jessica Aukamp	Essential considerations for marsh restoration success. **Taylor Sloey** and Mark Hester	Modeling nitrogen loads to address point and non-point source nutrient pollution. **Jamie Vaudrey**, Lorne Brousseau, Charles Yarish and Jang Kyun Kim	Sediment transport from a tidal inlet: results from laboratory experiments. **Matias Duran-Matute**, Ruud de Zwart and GertJan van Heijst	Characterizing the seasonal cycle of sea level in U.S. coastal regions. **John Brubaker**	Global mangrove forest soil carbon mapping at 30 m resolution. **Jonathan Sanderman**, Tomislav Hengl, Greg Fiske, Kylen Solvik and Emily Landis

ORAL SESSIONS Tuesday 7 November | Session 6 1:00PM – 2:30PM

	557	Ballroom B	Ballroom C	Ballroom D	Ballroom E	Rotunda
	Science by non-governmental organizations driving estuarine management, conservation and restoration Rachel Jakuba and Christopher Neill	**Coastal Carbon** Michelle Fogarty	**Enhancing Our Understanding of Coastal Ecosystem Resilience post Hurricane Sandy** Amanda Babson, Rick Bennett and Sara Stevens	**Climate Change, Sea-level Rise and Watershed Management: Coastal Wetland Responses** David Rudnick, Tiffany Troxler, Fred Sklar and Michael Osland	**Linking species and habitat conservation for global horseshoe crab populations** Ruth Carmichael, Mark Botton, S Cheung, Paul Shin and John Tanacredi	**Hydrodynamics and Sediment Dynamics in Estuaries and Coastal Seas – Day 1** Carl Friedrichs, Henk Schuttelaars, Alejandro Souza and Arnoldo Valle-Levinson
1:00 PM	Integrating volunteer monitoring data into the decision-making process of Chesapeake Bay management and restoration. **E. Caroline Donovan**, Alexandra Fries, Suzanne Spitzer, William Dennison and Rense Kelsey	Seagrass restoration results in a net greenhouse gas benefit. **Matthew Oreska**, Karen McGlathery, Lillian Aoki and Lindsay Edwards Assessing variability in carbon stocks and accumulation rates in Pacific NW eelgrass meadows. **Carolyn Prentice**, Margot Hessing-Lewis, Rhea Smith and Anne Salomon	A new perspective on coastal sediment availability: insights from post-Sandy Fire Island, NY. **Jennifer Miselis**, Stanley Locker, William Schwab, Wayne Baldwin III, Noreen Buster, Julie Bernier and Owen Brenner	Sediment management in deltas: innovative options to adapt to high-end scenarios of sea-level rise. **Carles Ibanez**, Carles Alcaraz, Nuno Caiola, Ana Genua-Olmedo, Albert Rovira and Maria José Polo	Assessment of Spawning Horseshoe Crabs in Mid-Atlantic (NY-NJ) National Parks (2011-2013). **Mary-Jane James** and Patricia Rafferty	Quantifying sediment source contributions to sediments deposited in the upper Chesapeake Bay. **Emily Russ** and Cindy Palinkas
1:15 PM	The story of the Waquoit BayWatchers: Using citizen science for water quality monitoring and management. **Jordan Mora** and Amy Costa	Hiding seagrass beds and its potential for blue carbon in the coast of Hainan Island. **Zhijian Jiang**, Songlin Liu, Jingping Zhang, Chunyu Zhao, Yunchao Wu, Shuo Yu, Xia Zhang, Chi Huang and Xiaoping Huang	Forecasting upper beach morphodynamics at Fire Island, New York. **Kathleen Wilson**, Owen Brenner, Erika Lentz, Jennifer Miselis and Ilgar Safak	Evidence of surface elevation gain related to shallow expansion from Louisiana's Coastwide Reference Monitoring System. **Leigh Sharp**, Camille Stagg and Don Schoolmaster Salt Marsh Surface Movement and Water Percolation Caused by Tidal Flooding and Draining. **Vitalii Sheremet** and Jordan Mora	Evaluating trends in Florida horseshoe crab abundance using occupancy modeling. **H Jane Brockmann**, Geraldine Klarenberg and Tiffany Black	Salt wedge dynamics lead to enhanced sediment trapping within side embayments in high-energy estuaries. **Brian Yellen**, Jonathan Woodruff, David Ralston, Daniel MacDonald and David Jones
1:30 PM	Use of volunteer-collected water quality data to motivate and track management in Buzzards Bay, Massachusetts. **Rachel Jakuba**, Tony Williams, Richard McHorney, Lindsay Scott, Christopher Neill, Joseph Costa and Mark Rasmussen	Carbon dioxide, heat, and momentum fluxes over an intertidal salt marsh in North Carolina. **Michelle Fogarty**, James Edson, Craig Tobias, Melanie Fewings and Kenneth Czapla	Restoration of Sediment Pathways and Morphological Recovery, Fort Tilden, Gateway National Recreation Area. **Norbert Psuty**, Katherine Ames and Andrea Habeck	Hydrologic controls on sediment retention in an emerging delta. **Molly Keogh**, Alexander Kolker, Gregg Snedden and Alisha Renfro	Using Citizen Science to Assess Temporal and Spatial Patterns in Horseshoe Crab Spawning in Florida. **Tiffany Black**, Savanna Barry and H Jane Brockmann	Residual flow as a driver of suspended-sediment flux in the Connecticut River estuary. **Kevin Simans**, Gail Kineke and Rockwell Geyer
1:45 PM	Integration of environmental monitoring data into management of Delaware's Inland Bays. **Marianne Walch** Parsing through drivers of marsh resiliency in an altered Pacific Northwest (USA) estuary. **Emily Howe** and Roger Fuller	Sediment and blue carbon dynamics in natural and restored marshes in a Puget Sound estuary. **Katrina Poppe**, John Rybczyk, Logan Parr and Analissa Merrill	The Evolution of the Breach in Fire Island Produced by Super Storm Sandy. **Charles Flagg**, Claudia Hinrichs, Robert Wilson and Roger Flood	Short-term sediment dynamics of urban estuaries under altered tidal conditions. **Kevin Dahms** and Gaboury Benoit	Applying community sanctuaries to conserve horseshoe crabs and their habitat in underserved regions. **Elizabeth Hieb**, Glenn Gauvry and Ruth Carmichael	Estuarine and sediment dynamics in an estuary of high fluvial discharge: Magdalena River (South America). **Juan Restrepo**, Kerstin Schrottke, Camille Traini, Alexander Bartholomae, Juan Ortíz, Luis Otero, Silvio Ortíz and Andres Orejarena
2:00 PM	Blue Carbon: New approaches to add value and increase investment for estuarine conservation and restoration. **Stefanie Simpson**	Seasonal variation of net ecosystem exchange in a scrub mangrove forest in southeastern Florida Everglades. **Edward Castaneda-Moya**, Jose Fuentes, Jesus Ruiz-Plancarte, Tiffany Troxler and Evelyn Gaiser	Community response to a storm-induced barrier breach within a temperate estuary: implications for ecosystem structure. **Jill Olin**, Janet Nye, Michael Frisk, Robert Cerrato, Matthew Sclafani, Charles Flagg and Skyler Sagarese	Modeling Water and Salt Budgets (2002-2016) in Mangrove Forests (Everglades, Florida) Impacted by Hydrological Restoration. **Xiaochen Zhao**, Victor Rivera-Monroy, Cheng-Feng Tsai, Robert Twilley, Clinton Willson, Zuo Xue, Edward Castaneda-Moya and Carlos Coronado-Molina	A win-win-win strategy for horseshoe crabs conservation by integrating wetland protection, restocking and education. **Hwey-Lian Hsieh**, Chang-Po Chen, Hangqing Fan, Yongyan Liao and Kit Yue Kwan	Impact of suspended sediment intrusion on the formation of Turbidity Maximum in the Yongjiang Estuary. **Zheng Wu**, Huayang Cai and Yang Xiao
2:15 PM	Nitrogen and Phosphorus Balances of Cranberry Bogs in Southeastern Massachusetts Coastal Watersheds. **Lindsay Scott**, Casey Kennedy, Rachel Jakuba, Carolyn DeMoranville and Christopher Neill	Carbon sequestration in an Eastern North Carolina pocosin under increased nutrient availability. **Sydni Law** and Enrique Reyes Soil carbon storage and potential sequestration in marsh habitats of the Mississippi River Deltaic Plain. **Leland Moss**, Melissa Baustian, Camille Stagg, Carey Perry, Tim Carruthers and Mead Allison	Effects of Hurricane Sandy on Great South Bay: Assessing water quality, seagrass and nekton communities. **Bradley Peterson**, Amanda Tinoco and Stephen Heck	Estuarine Salinity Model Implementation for Evaluation of the Ecosystem Response to Anticipated Climate Change Factors. **Frank Marshall**, Chris Kelble and Geoffrey Cook	The economics of a true Blue-Blood: Global conservation of Horseshoe Crabs and their habitat. **John Tanacredi** and Molloy College	A novel approach for understanding the morphological evolution based on observed water levels in estuaries. **Huayang Cai**, Zheng Wu, Qingshu Yang and Yang Xiao

ORAL SESSIONS Wednesday 8 November | Session 7 8:00 AM – 9:30 AM

	551 AB	552 AB	553 AB	554 AB	555	556
	Regional Monitoring and Assessment for Ecosystem Restoration and Management Richard Raynie, Angelina Freeman and Syed Khalil	**Acidification in the coastal environment: Drivers, co-stressors, and biological responses** Jason Grear, Cheryl Brown, Christopher Gobler, Matthew Liebman, Matt Long and Zhaohui Wang	**Response of Coastal Wetlands to Sea-Level Rise and Climate Change** Ryan Moyer, Simon Engelhart, Nicole Khan and Benjamin Horton	**Quantifying the exchange of carbon between coastal habitats** Ellen Herbert, Charles Hopkinson, Matthew Kirwan and Nathan McTigue	**Incorporating indigenous knowledge into the research, management and governance of estuarine and coastal resources** Jamie Vaudrey and Gary Williams	**Linking changing watershed characteristics to water quality trends** Rebecca Murphy and Jeni Keisman
8:00 AM	Integrating and implementing adaptive management and programmatic monitoring in Louisiana. **Richard Raynie**, Syed Khalil and Angelina Freeman	Quantifying the covariance of pH and oxygen conditions across the diversity of US nearshore habitats. **Hannes Baumann** and Erik Smith	Effects of the 2015-2016 El Nino in Southern California estuaries: implications for sea level rise. **Madeleine Harvey**, Sarah Giddings, Eric Stein, Richard Ambrose, Christine Whitcraft and Jeff Crooks	The shape we're in: Geomorphology and hydrodynamics influence rates of salt marsh carbon burial. **Carolyn Currin**, Iris Anderson, Kenneth Czapla, Jenny Davis, Scott Ensign, Ellen Herbert, Matthew Kirwan, Nathan McTigue and Craig Tobias	Welcome/Invocation. **Cassius Spears, Jr.**	Changing atmospheric nitrogen deposition in Europe and North America: consequences for estuarine nitrogen loads. **Javier Lloret**, Ivan Valiela, Elizabeth Elmstrom and Caroline Owens
8:15 AM	Geophysical strategies for implementation of adaptive management program for restoration of Mississippi River Delta Plain. **Syed Khalil**, Richard Raynie and Angelina Freeman	Effects of Acidification and Hypoxia on pH and Aragonite Saturation in the Coastal Waters. **Richard Feely**, Remy Okazaki, Wei-Jun Cai, Nina Bednarsek and Robert Byrne	Coastal wetland responses to sedimentation: A review of our understanding of the Sediment Subsidy Hypothesis. **Julia Cherry**, James Grace, Nigel Temple, William Vervaeke and Michael Osland	Application of spatially integrative metrics to quantify salt marsh trajectory and carbon fluxes. **Neil Ganju**, Zafer Defne, Matthew Kirwan, Sergio Fagherazzi, Andrea D'Alpaos and Luca Carniello	Introduction to the Session. **Charles Hudson**	Manure and Fertilizer Inputs to Land in the Chesapeake Bay Watershed, 1950-2012. **Jeni Keisman**, Olivia Devereux, Andrew LaMottte and Andrew Sekellick Estimating a 31 year annual history of agricultural soil phosphorus concentrations over the Chesapeake Bay. **Andrew Sommerlot**, Gary Shenk and Guido Yactayo
8:30 AM	Identification of Hardbottom and Potential Oyster Areas in Barataria Bay, Louisiana. **Angelina Freeman**, Meg O'Connor, Richard Raynie and Syed Khalil	Assessing Seasonal Drivers of Aragonite Saturation States in the Acidification Vulnerable Gulf of Maine. **Zhaohui Aleck Wang**, Gareth Lawson, Cynthia Pilskaln and Amy Maas	Decoupling of channel and marsh sediment availability: Implication for marsh response to sea level rise. **Daniel Coleman**, Neil Ganju, Glenn Guntenspergen and Matthew Kirwan Biomass ratio, nutrients, and salt marsh resiliency in the Barnegat Bay. **Jessie Buckner**, LeeAnn Haaf, Angela Padeletti, Danielle Kreeger and Martha Maxwell-Doyle	Survival of tidal marshes? A sediment mass balance approach that tells two stories. **Charles Hopkinson**, James Morris, Sergio Fagherazzi, Wil Wollheim and Peter Raymond	The Namaus (All Things Fish) Project: Community-engaged environmental health research in collaboration with the Narragansett Tribe in Charlestown, Rhode Island. **Marcella Remer Thompson**	Using SPARROW to Understand Nutrient Trends in Chesapeake Bay Tributaries, 1992-2012. **Scott Ator**, Ana-Maria Garcia, Gregory Schwarz, Joel Blomquist and Andrew Sekellick
8:45 AM	From projects to programs: adaptive management of Gulf restoration following the Deepwater Horizon oil spill. **Ann Hijuelos**, Melissa Carle, Michelle Meyers, Jamey Redding, Stephanie Romanach and Greg Steyer	Combined Effects of Warming and Acidification on Life-History Traits of the Calanoid Copepod Acartia tonsa. **James de Mayo**, Gihong Park, Lydia Norton, Wesley Huffman, Michael Finiguerra, Hannes Baumann and Hans Dam	Relative sea-level changes in Rhode Island (USA) during the last ~3.2 ka. **Byron Halavik** and Simon Engelhart	Will marsh migration lead to increased carbon sequestration? **Marcelo Ardon** and Gillian Gundersen	Promoting and restoring the concept of Netukulimk in the Bay of Fundy Watershed. **Angie Gillis**	Unraveling the drivers of orthophosphate trends in tributaries to the Chesapeake Bay. **Rosemary Fanelli**, Robert Hirsch and Joel Blomquist
9:00 AM	Identifying the relationships among forested and herbaceous floristic quality indices, and biomass in Louisiana swamps. **William Wood**	CO2 flux and long-term pCO2 trends of the estuaries of the Northwestern Gulf of Mexico. **Melissa McCutcheon** and Xinping Hu	A High-Resolution Reconstruction of Late-Holocene Relative Sea Level in Rhode Island, USA. **Simon Engelhart**, Rachel Stearns, Andrew Kemp, Niamh Cahill, Byron Halavik, D. Reide Corbett, Matthew Brain and Troy Hill	Modeling carbon exchanges between bay, marsh and upland systems under accelerated sea level. **Ellen Herbert**, David Walters, Lisamarie Windham-Myers and Matthew Kirwan	When Knowledge Systems Collide: Successes and challenges of Mi'kmaq Inclusion in Atlantic salmon governance in Nova Scotia, Canada. **Shelley Denny**	Quantification of Fine Sediment, Organic Carbon, and Chlorophyll-a Export from Major Tributaries to Chesapeake Bay. **Qian Zhang** and Joel Blomquist
9:15 AM	Developing a best practices model for ecosystem health report cards. **William Dennison**, Rense Kelsey, Simon Costanzo, E. Caroline Donovan and Alexandra Fries Evolving ecosystem health report cards to address issues of scale, acceptance, engagement, and behavior change. **Rense Kelsey**, Simon Costanzo, William Dennison, E. Caroline Donovan, Alexandra Fries, Harold Jordahl and Michelle Thieme	Hydrologic control on CO2 fluxes in subtropical estuaries. **Hongming Yao** and Xinping Hu	The challenging life of mangroves in the Mekong delta during sea level rise. **Sergio Fagherazzi**, Karin Bryan and William Nardin Organic Carbon Burial Response to Sea-Level Change in Coastal Wetlands of the Southwest Florida Peninsula. **Ryan Moyer**, Joseph Smoak, Simon Engelhart, Andrew Kemp, Joshua Breithaupt, Amanda Chappel, Nicole Khan, Matthew Gerlach, Megan Proctor and Benjamin Horton	Measuring marsh carbon sequestration across time and space: does it add up to climate mitigation? **Nathan McTigue**, Jenny Davis, Antonio Rodriguez and Carolyn Currin	Our Values in Place: Cultural values and vulnerabilities in the coastal zone. **Randy Angus**	Twenty-five years of monitoring water quality and managing anthropogenic inputs in the Pettaquamscutt Estuary (RI). **Veronica Berounsky**, Annette DeSilva, Eric Peterson, Rahat Sharif, Linda Green and Elizabeth Herron

ORAL SESSIONS Wednesday 8 November | Session 7 8:00AM – 9:30AM

	557	Ballroom B	Ballroom C	Ballroom D	Ballroom E	Rotunda
	Metrics that couple water quality management with coastal ecosystem health Soren Dahl	**At the intersection of ecology and management: Toward coastal resilience** Rose Martin and Cathleen Wigand	**Microbial Communities and Geochemical Processing in Redox Gradients** Sairah Malkin and Jeffrey Cornwell	**Function, impacts and future of stormwater management in coastal watersheds** Erik Smith and Daniel Hitchcock	**Tidal freshwater zones: Bridging riverine and coastal science** Amber Hardison, James McClelland, Ben Hodges and Kevan Moffett	**Hydrodynamics and Sediment Dynamics in Estuaries and Coastal Seas – Day 2** Carl Friedrichs, Henk Schuttelaars, Alejandro Souza and Arnoldo Valle-Levinson
8:00 AM	Ecological indicators for assessing seagrass ecosystem condition in the Gulf of Mexico. **Victoria Congdon** and Kenneth Dunton	Christmas Trees as Tools to Mitigate Coastal Erosion. **Christine Ramsay**, Sharmaine Gregor, Nicholas Kuehnle and Jessica O'Connor	Salt marshes in times of change: sub-millimeter variation in redox chemistry and salt marsh microbes. **Jennifer Bowen** and John Angell	A Stormwater Pond Inventory for the Coast of South Carolina. **Denise Sanger**, Erik Smith, Andrew Tweel and Erin Koch	Tidal freshwater zones: Hotspots for biogeochemical cycling in lower river reaches. **Amber Hardison**, James McClelland, Ben Hodges and Kevan Moffett	Fronts drive stratification exchange between segments of Newark Bay: a human-modified fjord-like sub-estuary. **W. Bryce Corlett** and Rockwell Geyer
8:15 AM	Isoscape and stoichioscape patterns in the dominant seagrasses in the Western Gulf of Mexico. **Meaghan Cuddy**, Victoria Congdon, Sara Wilson and Kenneth Dunton	Plant community succession: 15-years post-tidal restoration at Padanaram Marsh. **James Turek**, Maria Cogliando, Michael O'Reilly, Troy Hill, Cathleen Wigand and Earl Davey	The role of salt marsh plants in influencing the fate of nitrogen in sediments. **Anne Giblin**, Jane Tucker, Suaznne Thomas and Zoe Cardon	Long-term trends and environmental causes of fish kills in coastal stormwater ponds. **Dianne Greenfield**, Rebecca Mortensen and Cameron Doll	Quantifying turbulent mixing in an estuary using idealized direct numerical simulations. **Steven Kaptein**, Matias Duran-Matute, Federico Roman, Vincenzo Armenio and Herman Clercx	The life-cycle of estuarine salinity variance: straining, stratification and mixing. **Rockwell Geyer**, Xiangyu Li, John Warner and Jia-Lin Chen
8:30 AM	Evaluating seasonal community nutrient status with ecological stoichiometry in a salt marsh tidal creek. **Douglas Bell**, Susan Denham, Erik Smith and Claudia Benitez-Nelson	Assessment, monitoring and management of Rhode Island's coastal wetlands in the face of climate change. **Caitlin Chaffee** and Kenneth Raposa	Salt marsh rhizospheres - O2, pH and CO2 gradients in time and space. **Ketil Koop-Jakobsen** and Peter Mueller	Coastal stormwater pond nitrogen cycling affects downstream water quality. **Adam Gold**, Michael Piehler and Suzanne Thompson	Defining the spatio-temporal dynamics of riverine tidal freshwater zones in response to tide and precipitation. **Allan Jones**, James McClelland, Amber Hardison, Ben Hodges and Kevan Moffett	Observations of salinity and flow velocity structure in a narrow and curvy tidal river. **Wouter Kranenburg**, Rockwell Geyer and David Ralston
8:45 AM	Chesapeake Bay SAV water quality habitat requirements: How robust and useful have these metrics been? **Kenneth Moore**, Betty Neikirk, Erin Shields and David Parrish	Assessing tidal marsh resilience to sea-level rise at broad geographic scales with multi-metric indices. **Kenneth Raposa**, Kerstin Wasson, Scott Lerberg and Erik Smith	The seagrass rhizosphere: a mosaic of chemical microgradients. **Kasper Brodersen**, Daniel Nielsen, Peter Ralph, Ole Pedersen and Michael Kühl	Advances in Understanding Constructed Wetland and Detention Pond Functioning. **Michael Mallin** and Bongkeun Song	Spatial-temporal variations of water-column N in the tidal freshwater zones of two South Texas rivers. **Hengchen Wei**, Xin Xu, Amber Hardison, Kevan Moffett and James McClelland	The relative importance of wind straining and gravitational forcing in driving estuarine circulation. **Xaver Lange** and Hans Burchard
9:00 AM	Quantifying seagrass light requirements using an algorithm to spatially resolve depth of colonization. **Marcus Beck**, James Hagy and Chengfeng Le	Nutrient Enrichment Effects on Marsh Plant Productivity and Decomposition: Implications for Restoration Using Sediment Diversions. **Tracy Quirk**, Irving Mendelssohn, Sean Graham, Robert Twilley, James Pahl, Robert Lane and John Day	FISHing for cable bacteria in oxic-anoxic microsites of seagrass roots. **Belinda Martin**, Jeremy Bougoure, Timothy Colmer, William Bennett, Megan Ryan, Ylva Olsen and Gary Kendrick	Impacts of stormwater detention ponds on nutrient transport and transformations in coastal South Carolina. **Erik Smith**	Sediment nitrogen cycling and removal in tidal freshwater zones of two Texas rivers. **Xin Xu**, Hengchen Wei, Kevan Moffett, James McClelland and Amber Hardison	Thermal Estuaries: Can Temperature Differences Drive Important Exchange Flows in Low-Inflow Estuaries? **John Largier** and Kate Hewett
9:15 AM	Continuous water-quality monitoring in support of coastal ecosystem health in the Peconic Estuary, NY. **Tristen Tagliaferri**, Alison Branco and Christopher Schubert	Developing a causal assessment framework for stressor identification in estuaries and coastal embayments. **David Gillett** and Steven Bay	Worm tubes as conduits for the electrogenic microbial grid in marine sediments. **Robert Aller**, Josephine Aller, Qingzhi Zhu, Christina Heilbrun, Isaac Klingensmith and Aleya Kaushik	Evaluating Stormwater Ponds as a Best Management Practice in South Carolina through a Collaborative Process. **Bridget Cotti-Rausch** and Malcom DeVoe	The Influence of Freshwater Inflow on the Nekton Community of a Riverine Estuary. **George Guillen**, Jenny Oakley, Mandi Gordon and Cory Scanes	The effect of lateral circulation on estuarine circulation in the Changjiang estuary: a vorticity approach. **John Z. Shi**, Wei Li and Guo-Dong Hu

ORAL SESSIONS Wednesday 8 November | Session 8 10:00AM – 11:30AM

	551 AB	552 AB	553 AB	554 AB	555	556
	Regional Monitoring and Assessment for Ecosystem Restoration and Management Richard Raynie, Angelina Freeman and Syed Khalil	**Acidification in the coastal environment: Drivers, co-stressors, and biological responses** Jason Grear, Cheryl Brown, Christopher Gobler, Matthew Liebman, Matt Long and Zhaohui Wang	**Response of Coastal Wetlands to Sea-Level Rise and Climate Change** Ryan Moyer, Simon Engelhart, Nicole Khan and Benjamin Horton	**Quantifying the exchange of carbon between coastal habitats** Ellen Herbert, Charles Hopkinson, Matthew Kirwan and Nathan McTigue	**Incorporating indigenous knowledge into the research, management and governance of estuarine and coastal resources** Jamie Vaudrey and Gary Williams	**Linking changing watershed characteristics to water quality trends** Rebecca Murphy and Jeni Keisman
10:00 AM	Determination of regional barrier island restoration trajectories through the development of a standard monitoring protocol. **Taylor Sloey**, Mark Hester and Jonathan Willis	Benthic biogeochemical cycling mediates large diel changes in coastal pH and carbonate chemistry. **Matthew Long**, Richard Zimmerman, David Burdige and Daniel McCorkle	Impacts of Fucus and Bloom-forming Ulva on Salt Marsh Vegetation and Greenhouse Gases. **Danielle Perry**, Carol Thornber and Serena Moseman-Valtierra	Spatial patterns of net community production in response to fertilization in a polyhaline marsh. **Kenneth Czapla**, Iris Anderson, Jennifer Stanhope, Jenny Davis, Carolyn Currin and Michelle Fogarty	Resiliency, The Natural Way: Restoring Shinnecock's shoreline. **Shavonne Smith**	New Insights in Restoring the Chesapeake Bay: Science-Based Evidence for Water-Quality Improvements, Challenges, and Opportunities. **Scott Phillips**, William Dennison, Richard Batiuk and Christina Lyerly
10:15 AM	Are trends in salinity and flow changing the resilience of the Caloosahatchee Estuary? **Eric Milbrandt**, Mark Thompson, Alfonse Martignette, Micheael Sauer, Richard Bartleson and Jeff Siwicke	Seasonal hypoxia and high buffer capacity in a shallow subtropical estuary. **Cory Staryk**, Melissa McCutcheon and Xinping Hu	Past, present, and future carbon stocks in coastal wetlands of Tampa Bay, Florida. **Kara Radabaugh**, Ryan Moyer, Amanda Chappel, Christina Powell, Ioana Bociu and Barbara Clark	Biophysical controls on ecosystem-scale CO2 exchange in a brackish tidal marsh in Northern California. **Sara Knox**, Frank Anderson, Lisamarie Windham-Myers and Brian Bergamaschi	The state of fresh water and habitat in the Lower Fraser River, British Columbia, Canada. **Ernie Victor**	Five Decades of USGS Water Quality Research in San Francisco Bay: What Have We Learned? **Tara Schraga**, James Cloern, Erica Nejad and Charles Martin
10:30 AM	Regional patterns in seagrass distribution, and their implications for management in greater Puget Sound. **Bart Christiaen**, Lisa Ferrier, Jeff Gaeckle, Pete Dowty and Helen Berry	Unexpected Responses of autotrophs to nutrient loading: Influence of water residence time on eutrophication expression. **James Kaldy**, Cheryl Brown, Stephen Pacella, Christina Tenison and Sarah Stryffeler	The impact of root growth on changes in salt marsh surface elevation. **Linda Blum** and Earl Davey	Lateral export of carbon from salt marshes to adjacent aquatic systems. **Iris Anderson**, Carolyn Currin, Craig Tobias, Kenneth Czapla, Nathan McTigue and Scott Ensign	Factors influencing catch rates of traditional eel traps in the St. John River, New Brunswick, Canada. **Aruna Jayawardane**	Documenting impacts of climate, clams, and a changing watershed on the Potomac Estuary. **Lora Harris**, Rebecca Murphy, Ryan Woodland, Robert Sabo, Keith Eshleman, Henry Walker and Dong Liang
10:45 AM	Widespread seagrass decline in Bermuda not related to water quality degradation. **James Fourqurean**, Sarah Manuel, W. Judson Kenworthy and Kathryn Coates	The bloom forming macroalgae, Ulva rigida, outcompetes the seagrass, Zostera marina, under elevated CO2 conditions. **Craig Young**, Bradley Peterson and Christopher Gobler	Comparing vertical change measurements in mangrove soils using SETs, marker horizons, Pb-210 and accretion models. **Joshua Breithaupt**, Gordon Anderson, Kevin Whelan, Joseph Smoak, Laura Feher and Michael Osland Long term effects of saltwater on productivity of tide-influenced baldcypress forests in coastal Louisiana, USA. **Richard Day**, Andrew From, Ken Krauss and Nicole Cormier	Particulate Organic Carbon Composition at the Marsh-Estuary Interface. **Elizabeth Canuel**, Amanda Knobloch, William Reay and Maria Tzortziou	Restoring Oregon's native oyster (Ostrea lurida) through tribal and aquaculture partnerships. **Laura Brown** and Stan van de Wetering	Temporal and spatial water quality distribution in the Pamlico River (1990-2016): effects of mining effluents. **Enrique Reyes** and David Kimmel
11:00 AM	In-Situ Habitat Monitoring for Fisheries Management. **Emma Clarkson**	Expected limits on the ocean acidification buffering potential of a temperate seagrass meadow. **David Koweek**, Richard Zimmerman, Kate Hewett, Kerry Nickols, Jennifer Ruesink, John Stachowicz, Yui Takeshita, Sarah Giddings, Brian Gaylord and Ken Caldeira	Modeling long-term freshwater inflow needs of subtropical estuary to mange and maintain forested wetlands. **Melissa Baustian**, Andrea Jerabek, Eric White, Yushi Wang and Ryan Clark	Modeling of photochemical degradation and biogeochemical cycling in a wetland-estuary system. **J. Blake Clark**, Wen Long and Raleigh Hood	Summary	Spatial and temporal trends of Enterococcus in the U.S. Virgin Islands. **Sydney Nick** and Kristin Wilson Grimes Water quality trends in small tidal creeks interpreted in the context of larger adjoining systems. **Melinda Forsyth**, Lora Harris, Jeremy Testa, Casey Hodgkins, Walter Boynton and Rebecca Murphy
11:15 AM	Integrated ecological assessment of urban channel health at mesoscale prior to river restoration. **Yao Wang** and Onyx W. H. Wai	The role of carbonic anhydrase in regulating phytoplankton community structure in North Inlet, SC. **Eilea Knotts** and James Pinckney	Can a crab build a marsh? The role of ecology in salt marsh geomorphic processes. **Bethany Williams** and David Johnson	Quantifying dissolved organic carbon (DOC) exchanges between tidal wetland and shelf environments. **Christopher Osburn**, Ishan Joshi, Cindy Lebrasse, Diana Oviedo-Vargas, Thomas Bianchi, DelWayne Bohnenstiehl, Eurico D'Sa, Ruoying He, Dong Ko, Ana Arellano and Nicholas Ward	Open Discussion	Benthic community condition trends in the Chesapeake Bay – 30 years and what progress? **Daniel Dauer** and Roberto Llanso

ORAL SESSIONS Wednesday 8 November | Session 8 10:00AM – 11:30AM

	557	Ballroom B	Ballroom C	Ballroom D	Ballroom E	Rotunda
	Metrics that couple water quality management with coastal ecosystem health Soren Dahl	**At the intersection of ecology and management: Toward coastal resilience** Rose Martin and Cathleen Wigand	**Microbial Communities and Geochemical Processing in Redox Gradients** Sairah Malkin and Jeffrey Cornwell	**Function, impacts and future of stormwater management in coastal watersheds** Erik Smith and Daniel Hitchcock	**Tidal freshwater zones: Bridging riverine and coastal science** Amber Hardison, James McClelland, Ben Hodges and Kevan Moffett	**Hydrodynamics and Sediment Dynamics in Estuaries and Coastal Seas – Day 2** Carl Friedrichs, Henk Schuttelaars, Alejandro Souza and Arnoldo Valle-Levinson
10:00 AM	Surface water quality data for improved water management in south Florida: The Caloosahatchee River Estuary. **Christopher Buzzelli**, Cassondra Thomas, Amanda Kahn Dickens, Sarah Bornhoeft and Peter Doering	Mesopredator release and bistability in coastal ecosystems. **Johan Eklöf**, Britas Klemens Eriksson, Joakim Hansen, Göran Sundblad, Åsa Nilsson Austin, Serena Donadi and Ulf Bergström Resilience to shading influenced by differential allocation of biomass in Thalassia testudinum. **Savanna Barry**, Charles Jacoby and Thomas Frazer	Hyper-ammonium in Florida Bay: sources, cation exchange, and relationships to seagrass dieoffs and phytoplankton blooms. **Patricia Glibert**, Christopher Madden, Cynthia Heil and Yini Shangguan	Evaluating Ecohydrological Function and Watershed Characteristics to Support Green Infrastructure Decision-Making in Coastal South Carolina. **Daniel Hitchcock**, Anand Jayakaran, Dhanuska Wijesinghe and David White	The sediment shadow in tidal freshwater rivers: implications for estuaries. **Gregory Noe**, Scott Ensign, Cliff Hupp, Ken Krauss, Jaimie Gillespie and Norm Bourg	Observations of circulation induced by eddy viscosity-shear covariance in three estuaries. **Kimberly Huguenard** and Arnoldo Valle-Levinson
10:15 AM	Surface water quality data for improved water management in south Florida: The St. Lucie Estuary. **Cassondra Thomas**, Christopher Buzzelli, Amanda Kahn Dickens, Sarah Bornhoeft and Peter Doering CDOM as related to water management in the Northern Everglades Northern Estuaries, Florida. **Amanda Kahn Dickens**, Jeffrey Beal, Sarah Bornhoeft, Christopher Buzzelli and Cassondra Thomas	Microbial community structure and water quality function in coastal urban water bodies experiencing environmental stressors. **Ariane Peralta**, Eban Bean and Jacob Hochard	Effects of macroalgae on nitrogen cycling in vegetated sediments of St. Joseph Bay, FL. **Erica Strope**, Mark McCarthy and Troy Mutchler	The Washington Stormwater Center: Mission, challenges, and future directions. **Anand Jayakaran**, John Stark and Jenifer McIntyre	Ecohydrologic controls on groundwater salinity, carbon, nutrients, and disturbance recovery in a tidal freshwater wetland. **Peter Zamora**, Kevan Moffett, Marc Kramer and John Harrison	Temporal and seasonal variation in circulation of the Damariscotta river estuary. **Kristopher Bears** and Kimberly Huguenard
10:30 AM	Long-term spatiotemporal water quality in Galveston Bay, Texas: visualizing baseline ecosystem health for management. **Rachel Windham**, Jamie Steichen, Alicia Williams and Antonietta Quigg	Using Parasite Diversity in a Common Host Fish to Evaluate Anthropogenic Impact. **Christopher Moore** and April Blakeslee	Nitrogen Availability in Seagrass Beds Dominated by Thalassia testudinum and Halodule wrightii. **Rachel Capps** and Jane Caffrey	Maidford River Conservation Plan: Stormwater management and outreach recommendations to improve water quality. **William Guenther**, Dean Audet and Alex Chuman	Ecological succession and delta development: patterns in soil content along a coastal deltaic floodplain chronosequence. **Anika Aarons**, Robert Twilley and Azure Bevington	Adjustment Time and Sensitivity of Fjord Circulation. **Parker MacCready**
10:45 AM	Freshwater Inflow Bioindicators in a Subtropical Estuary: A Biological Community Approach. **Jamie Steichen**, Lisa Gonzalez and Antonietta Quigg Explaining the decline in Salish Sea salmon marine survival through ecosystem indicators. **Kathryn Sobocinski**, Neala Kendall and Correigh Greene	Septic systems in coastal RI: impacts of sea level rise and vegetation-based mitigation strategies. **Alissa Cox**, Alicia Boucher, Jonathan Ludovico, George Loomis and Jose Amador	Multi-talented microbes drive nutrient cycling in an intertidal coastal aquifer: a metagenomic study. **Erin Field**, Kara Hoppes, Kyra Kim, Holly Michael, Tom Hanson and Clara Chan	Maidford River Stormwater BMPS: Retrofitting Public Lands to Improve Water Quality. **Rachael Weiter**, Dean Audet, William Guenther and Kristine Baker	Interactive effects of nutrient regime and hydrology on tidal fresh marsh communities. **Meagan McCoy** and Mark Hester	Wind-driven flow in a coastal plain estuary. **Braulio Juarez** and Arnoldo Valle-Levinson
11:00 AM	Assessing Environmental Quality and Protecting Beneficial Uses in Sinclair and Dyes Inlets, Puget Sound, WA. **Robert Johnston**, Gunther Rosen, Marienne Colvin, Jill Brandenberger, Jonathan Strivens, Nicholas Schlafer, Michelle Aylward and Rory Lee	Assessing nitrogen inputs to the Charlestown coastal watershed from advanced onsite wastewater treatment systems. **Bianca Ross**, Alicia Boucher, Jonathan Ludovico, Kevin Hoyt, George Loomis and Jose Amador	Characterizing the Relationship Between Iron-Oxidizing Bacteria and Sulfate-Reducing Bacteria in Estuarine Environments. **Chequita Brooks** and Erin Field	Impacts of episodic storms on urban tidal freshwater processes. **Kirk Raper**, Elizabeth Watson, David Velinsky and Andrew Gray	Temporal Seed Bank Trends: Before and After Land Building by a Sediment Diversion. **Alex Ameen**, Alexander Kolker and Caz Taylor	Exchange processes at a multiple inlet estuary. **Arnoldo Valle-Levinson**, Sangdon So and Braulio Juarez
11:15 AM	Using water quality data loggers to manage native fish habitat. **Paul Gannett**	Assessing microbial communities of advanced soil treatment areas to reduce septic system nitrogen pollution. **Sara Wigginton**, Elizabeth Brannon, Alicia Boucher, Jonathan Ludovico, George Loomis, George Heufelder and Jose Amador	Effects of salinity and steel type on microbiologically influenced corrosion in North Carolina estuarine systems. **Cody Garrison** and Erin Field	Influences of street-side urban tree canopy on summer stormwater runoff's thermal load. **Kevan Moffett** and Lauren Burns	Nitrogen fluxes in newly formed and restored wetlands of coastal Louisiana. **Kiran Upreti**, Victor Rivera-Monroy, Kanchan Maiti and Anne Giblin	Assessing the impact of breaches and inlet management on water levels in back-barrier bays. **Alfredo Aretxabaleta**, John Warner and Neil Ganju

ORAL SESSIONS Wednesday 8 November | Session 9 1:00 PM – 2:30 PM

	551 AB	552 AB	553 AB	554 AB	555	556
	Ecological responses to climate induced mangrove expansion into salt marshes Melissa Baustian, Jennifer Doerr, Michael Polito and Jimmy Nelson	**Acidification in the coastal environment: Drivers, co-stressors, and biological responses** Jason Grear, Cheryl Brown, Christopher Gobler, Matthew Liebman, Matt Long and Zhaohui Wang	**Mapping Estuarine/Near-Coastal SAV: New Methods** David Wilcox, Kris Kaufman, Mark Finkbeiner and Robert Orth	**Quantifying the exchange of carbon between coastal habitats** Ellen Herbert, Charles Hopkinson, Matthew Kirwan and Nathan McTigue	**Diadromy across estuaries: research, management and citizen science** Pedro Morais, Karin Limburg, Benjamin Walther and Thomas Bigford	**Coastal Ecosystem Design: Integrating design thinking to envision future coasts** Robert Twilley and Traci Birch
1:00 PM	Hydroperiod and stoichiometry ratios control foliar decomposition rates in marsh-mangrove ecotones in coastal Louisiana. **Megan Kelsall**, Victor Rivera-Monroy and Xiaochen Zhao	Physiological responses of juveniles of the temperate coral, Oculina arbuscula, to increased pCO_2. **Brianne Varnerin** and Daniel Gleason	Aerial and satellite remote sensing reveals the spatial ecology of kelp forests and seagrass meadows. **Max Castorani**, Tom Bell, Kyle Cavanaugh, Daniel Reed, David Siegel, Rachel Simons, Peter Raimondi and Filipe Alberto	Dissolved Carbon Fluxes and Composition at the Marsh-Estuarine Interface: Seasonal and Tidal Patterns. **Amanda Knobloch**, Elizabeth Canuel, Mark Brush, William Reay, Maria Tzortziou and Patrick Neale	Reconstructing estuarine migration in Chinook salmon: the role of otolith barium in large river systems. **Jessica Miller**, Cheryl Morgan, Brian Beckman, Brian Burke, Don Van Doornik and Laurie Weitkamp	The Unbearable Non-sustainability of Coastal Systems in the Anthropocene. **John Day**
1:15 PM	Influence of black mangrove expansion on salt marsh food webs in coastal Louisiana. **Christina Powell**, Melissa Baustian and Michael Polito	Coastal acidification and hypoxia in temperate coastal habitats: dynamics and potential to affect marine mollusks. **Ryan Wallace** and Christopher Gobler	Comparing acoustic – and aerial imagery-based methods of eelgrass mapping at two New England sites. **Ashley Norton** and Semme Dijkstra	Characterizing, sourcing and evaluating detritus availability for bivalve aquaculture using stable isotopes and fatty acids. **Adrianus Both**, Carrie Byron, Damian Brady, Barry Costa-Pierce, Lawrence Mayer and Christopher Parrish	The estuarine transition zone as a dynamic habitat for anadromous fishes in the Penobscot Estuary. **Rachel Lasley-Rasher**, Justin Stevens, Karen Wilson and Damian Brady	Socio-ecological-technological system approaches for coastal urban resilience to extreme flooding. **Tiffany Troxler**, Timon McPhearson, Matthew Smith, Tischa Munoz-Erickson, Mattieu Feagan, Bernice Rosenzweig, Thomas Spiegelhalter, Claudio Salazar, Marilys Nepomechie, Evelyn Gaiser, John Kominoski, Rinku Roy Chowdhury and Kevin Grove
1:30 PM	The genetics of Avicennia germinans at the northern climate boundary in the Gulf of Mexico. **Catherine Vincent** and Manuel Lerdau	Diurnal hypoxia and acidification: Effects on the growth and survival of finfish and bivalves. **Christopher Gobler**, Andrew Griffith and Ryan Wallace	Comparison of two types of SONAR methods used during Surveys of Submerged Aquatic Vegetation. **Joseph Luczkovich** and Hilde Speight	Patterns in Dissolved Organic Carbon During Marsh Surface Tidal Flooding in a Brackish Marsh. **Andrew Pinsonneault**, Patrick Megonigal, Patrick Neale, Elizabeth Canuel and Maria Tzortziou	Diets, movement and growth rates of juvenile alewife in a north temperate estuary. **Karen Wilson**, Amy Webb, Gregory LaBonte, Rachel Lasley-Rasher and Karin Limburg	Assessing the Environmental Impacts of a Harbor-Wide Strategy for Preparing for Sea-Level Rise in Boston. **Robert Chen**, Mark Borrelli, Jarrett Byrnes, Lucy Lockwood and Paul Kirshen
1:45 PM	Examining Density and Distribution Patterns of Estuarine Nekton in a Changing Salt Marsh Landscape. **Jennifer Doerr**, Lawrence Rozas, Thomas Minello and James Nelson	Growth of juvenile hard clams in Narragansett Bay after laboratory exposure to low pH. **Jason Grear**, Adam Pimenta, Matthew Liebman, Harriet Booth and Doranne Borsay Horowitz	How do you map what you can't see? Submerged aquatic vegetation occurrence modeling in Louisiana. **Kristin DeMarco**, Brady Couvillion, Stuart Brown and Megan La Peyre	Microbial Functional Response to Drought in the Connecticut River. **Jacob Hosen**, Jenn Fair, Ethan Kyzivat, Serena Matt, Lisa Weber, Bryan Yoon and Peter Raymond	Determining the Provenance and Life Histories of Blueback Herring in the Mohawk River. **Cara Ewell Hodkin** and Karin Limburg	Adaptation Design to Sea Level Rise in Historic Communities in Norfolk, Virginia. **Mason Andrews** and Mujde Erten-Unal
2:00 PM	Seasonal nutrient allocation as black mangrove (Avicennia germinans) encroach into salt marsh (Spartina alterniflora). **Aaron Macy**, Just Cebrian, Michael Osland and Julia Cherry	Oysters on the edge: eastern oyster stress response to elevated CO2 and acute heat shock. **Jeff Clements**, Luc Comeau, Claire Carver, Elise Mayrand, Sebastien Plante and Andre Mallet	Genetic mosaicism and population connectivity of edge-of-range Halodule wrightii populations. **Gina Digiantonio**, Linda Blum and Karen McGlathery	Modeling Ecosystem Metabolism in Coastal Estuaries. **Annette Hynes**, Brian Hopkinson, Joan Sheldon, Joseph Vallino and Charles Hopkinson	Modeling Population Dynamics of River Herring in Potomac River Tributaries. **CJ Carroll Schlick** and Kim de Mutsert	Resilient settlement and productive aquatic Landscapes: framing medium term redevelopment strategies for Virginia's coastal communities. **Alex Wall**
2:15 PM	Mechanisms of mangrove expansion: dispersal, survival, and growth dynamics at the salt marsh-mangrove ecotone. **Erik Yando**, Michael Osland and Mark Hester	Trangenerational effects of acidification on North Atlantic bivalve shellfish. **Andrew Griffith** and Christopher Gobler	Discussion	Carbon exchanges between a shelf sea (North Sea) and its intertidal coastal region (Wadden Sea). **Yoana Voynova** and Wilhelm Petersen	Linking Diet, Habitat Use, and Prey Distribution to Identify Foraging Habitat for Juvenile Atlantic Sturgeon. **Justin Krebs**, Fred Jacobs, Patrick Kilduff, Amanda Higgs and John Ladd	Tidewater Virginia: Building a Hub of Resilience Design Innovation and Entrepreneurship. **Troy Hartley**, William "Skip" Stiles, Karen McGlathery, Paul Battaglia, Mark Luckenbach and Elizabeth Andrews

ORAL SESSIONS Wednesday 8 November | Session 9 1:00PM – 2:30PM

	557	Ballroom B	Ballroom C	Ballroom D	Ballroom E	Rotunda
	Detecting and Determining Effects of Emerging Contaminants in Urban Estuaries Juanita Urban-Rich and Helen Poynton	**At the intersection of ecology and management: Toward coastal resilience** Rose Martin and Cathleen Wigand	**Microbial communities and the dynamics and resilience of ecosystem function** Byron Crump, Pia Moisander, Jennifer Bowen and Julian Damashek	**Artistic Pathways to Scientific Understanding** Karen Haberman, Sarah Kolesar, Ayesha Gray, Lekelia Jenkins and Susan Adamowicz	**Arctic land-ocean connections - from inland to coastal waters** Joanna Carey, Linda Deegan, James McClelland and Kenneth Dunton	**Hydrodynamics and Sediment Dynamics in Estuaries and Coastal Seas – Day 2** Carl Friedrichs, Henk Schuttelaars, Alejandro Souza and Arnoldo Valle-Levinson
1:00 PM	The Interactive Effects of UV Radiation and TiO_2 Nanoparticles on the Calanoid Copepod, Acartia tonsa. **Vena Haynes** and J. Evan Ward	Great Pond, St. Croix, USVI: quantifying changes to a fish nursery habitat over 20 years. **Allie Durdall**, Sydney Nick, Richard Nemeth and Kristin Wilson Grimes	Biogeography of salt marsh ammonia oxidizers: Comparisons between Gulf of Mexico and New England marshes. **Anne Bernhard**, Anne Giblin and Brian Roberts	How Can We Use Artistic Expression to Inspire a Conservation Ethic? **George Ramseur** and Ayesha Gray	River Inputs to the Arctic Ocean: Knowns and Unknowns. **Robert Holmes**, James McClelland, Suzanne Tank, Rob Spencer and Alexander Shiklomanov	Simulation of a river plume modulated by a cross-flow using a sub-meter resolution nonhydrostatic model. **Fengyan Shi**, Tian-Jian Hsu, James Kirby and Rockwell Geyer
1:15 PM	Development of the Coastal Biosensor for Endocrine Disruption (C-BED) Assay Reveals Implications for Ecological Health. **Bonnie Blalock**, William Robinson, Keegan Krick and Helen Poynton	Preference for hardened shorelines outweighs environmental values and impedes conservation and restoration of coastal habitats. **Rachel Gittman**, F Fodrie, Jonathan Grabowski, Mariah Livernois, Abigail Poray, Steven Scyphers and Carter Smith	Relating ammonia oxidizer diversity to nitrification throughout the northern San Francisco Bay water column. **Julian Damashek**, Patrick Kearns, Jennifer Bowen, Karen Casciotti and Christopher Francis	Above and below the water: the changing scape from fresh to brackish waters. **Deborah Lichti** and Patricia Kalcheff	Fluvial dissolved organic matter and inorganic nitrogen concentrations across space and scale in the Arctic. **Craig Connolly**, James McClelland, Matthew Khosh, Greta Burkart, Suzanne Tank and Robert Holmes	Assessing the influence of surface gravity waves on small-scale buoyant coastal outflows. **Angelica Rodriguez**, Sarah Giddings and Nirnimesh Kumar
1:30 PM	Distribution, degradation, and algal physiological effects of the antidiabetic drug metformin in the Columbia River. **Brittany Cummings**, Joseph Needoba and Tawnya Peterson	Seagrass trends in Duxbury Bay and Salem Sound, Massachusetts. **Jillian Carr** and Kathryn Ford	Denitrification in copepod-associated bacteria under an oxygen gradient. **Ryan Nuttall**, Pia Moisander, Donald Canfield and Beate Kraft	Visualizing an emergent coastal deltaic floodplain chronosequence. **Anika Aarons**, Alexandra Christensen, Annabeth McCall and Kathleen Eubanks	Watershed Export and Estuarine Nitrogen Dynamics along the Alaskan Beaufort Sea Coast. **James McClelland**, Craig Connolly, Michael Rawlins and Kenneth Dunton	Blocking river plume propagation by estuarine circulation: A study of Housatonic River. **Yan Jia** and Michael Whitney
1:45 PM	Polystyrene microbeads as a vector for Gemfibrozil contamination in the bay scallop larvae (Argopecten irradians). **Charles Major** and Juanita Urban-Rich	Effects of Inundation on Wetland Soil Strength: Implications for Sediment Diversions in the Mississippi Delta. **John Nyman**, Charles Sasser, Robert Lane, James Pahl, Keuhi Xu and John Day	Effects of nitrogen on abundance, diversity, and activity of competing nitrate-reducing microbes in salt marshes. **Anna Murphy** and Jennifer Bowen	Friday night at the sea table. **Karen Haberman**	Do High Arctic coastal ecosystem food webs rely on a terrestrial carbon subsidy? **Kenneth Dunton**, Carolynn Harris, James McClelland, Nathan McTigue, Byron Crump and Tara Connelly	Fall Cooling and Mixing in Long Island Sound. **Amin Ilia**, Kay Howard-Strobel and James O'Donnell
2:00 PM	Plastic Microbead Contamination in New Haven and Mystic Harbors, Connecticut. **Vincent Breslin**, Cody Edson and Lela Jackson	Forecasting Vibrio parahaemolyticus in Long Island Sound oysters and management strategies for aquaculture. **Michael Whitney**, Kristin DeRosia-Banick and Steven Deignan-Schmidt	Impacts of poultry CAFOs on microbial denitrification in tidal creeks. **Miguel Semedo**, Stephanie Wilson and Bongkeun Song	Oyster storytelling yoga: A novel way to engage children to care about oysters and estuaries. **Linda Walters** and Violette Gibbs	Photochemical alteration of organic carbon draining permafrost soils shifts microbial metabolic pathways and stimulates respiration. **Collin Ward**, Sarah Nalven, Byron Crump, George Kling and Rose Cory	Storm Surges and Circulation in the New York/Raritan Bay System: Climatic and Synoptic Scale Perspectives. **Joseph Jurisa**, Stefan Talke and David Jay
2:15 PM	Are microplastics a risk to corals? **Juanita Urban-Rich**, Julia Wallace, Jessica Carilli and Randi Rotjan	Seasonal variation in apparent conductivity and soil salinity at two Narragansett Bay salt marshes. **Rick McKinney**, Alana Hanson, Roxanne Johnson and Michael Charpentier	Influence of nutrients on the benthic bloom-forming cyanobacterium Hydrocoleum sp. in the Nantucket Island. **Pia Moisander**, Meaghan Daley, Kelsey Garlick and Katyanne Shoemaker	Methods for creating a science dance and its impact on participants. **Lekelia Jenkins**	Gas tracers reveal changes in biological production in the coastal Beaufort Sea. **Rachel Stanley**, Zoe Sandwith, Brenda Ji and William Williams	Variability of upwelling and influence on chlorophyll pattern in an oligotrophic environment off south-western Australia. **Miaoju Chen**, Charitha Pattiaratchi, Anas Ghadouani and Christine Hanson

ORAL SESSIONS Wednesday 8 November | Session 10 3:00PM – 4:30PM

	551 AB	552 AB	553 AB	554 AB	555	556
	Ecological responses to climate induced mangrove expansion into salt marshes Melissa Baustian, Jennifer Doerr, Michael Polito and Jimmy Nelson	**Linking dissolved oxygen and nitrogen in urbanized estuaries** James O'Donnell, James Ammerman and Jamie Vaudrey	**Physical and Biogeochemical Interactions Affecting Nutrient Cycling** Ann Rea and Byron Toothman	**Estuarine Processes-Southern Hemisphere Perspectives** Bill Maher, Peter Scanes and Jamie Potts	**Diadromy across estuaries: research, management and citizen science** Pedro Morais, Karin Limburg, Benjamin Walther and Thomas Bigford	**Coastal Ecosystem Design: Integrating design thinking to envision future coasts** Robert Twilley and Traci Birch
3:00 PM	Does Avicennia germinans expansion alter salt marsh nitrogen removal capacity? **Corianne Tatariw**, Nikaela Flournoy, Suja Rajan, Alice Kleinhuizen, Patricia Sobecky and Behzad Mortazavi	Tracking estuarine nutrient, dissolved oxygen, and other tracer fluxes using the Total Exchange Flow method. **Sarah Giddings**, Parker MacCready, Barbara Hickey, Neil Banas, Kristen Davis and Samantha Siedlecki	The significance of vegetation type for nitrogen transformation, removal and retention in Louisiana salt marshes. **Ariella Chelsky**, Nicole Farley and Brian Roberts	Long-term phytoplankton variations in response to climate change in a pristine coast, northwest of Australia. **Zineng Yuan**, John Keesing, Meixun Zhao and Dongyan Liu	Using Life History Models to Understand the Evolution of Parasitic and Non-Parasitic Lampreys. **Thomas Evans**	Connectivity for coastal resilience: optimizing the design. **Rod Connolly**, Andrew Olds, Sarah Engelhard, Kristin Jinks, Christopher Brown and Thomas Schlacher
3:15 PM	Effects of Black Mangrove Avicennia germinans Expansion on Marsh Nekton Before and After a Flood. **Meredith Diskin** and Delbert Smee	Evidence of Improved Water Quality in Long Island Sound. **James O'Donnell**	Assessing the Role of Macroalgae on the Silicon Cycle in Two Temperate Estuaries. **Mollie Yacano**, Sarah Foster and Robinson Fulweiler	Seagrasses in the south-east Australian region – distribution, metabolism, and morphology in response environmental stressors. **Angus Ferguson**, Peter Scanes and Jaimie Potts	Identifying spawning ecotypes in Baltic Sea flounder using otolith microchemistry. **Melvin Samson**, Karin Limburg, Didzis Ustups, Ann-Britt Florin, Anders Nissling and Dace Zilniece	Ecosystem Designs for Coastal Deltaic Floodplains and Estuaries using Flood Pulses and Estuarine Recovery. **Robert Twilley**
3:30 PM	Role of Glycine Betaine in Salt and Cold Tolerance in Black Mangroves (Avicennia germinans). **Audrey Shor**, Matthew Hayes, Christopher Miller and Ilka Feller	Oxygen dynamics across scales in a nutrient-enriched, macrotidal estuary. **Lissa MacVean**, Rusty Holleman and David Senn	The sink and source role of the Curonian lagoon: a budgeting application. **Gianmarco Giordani**, Irma Lubiene, Mindaugas Zilius, Patras Zemlys and Marco Bartoli	Changing types of organic detritus influences nitrogen cycling rates in temperate estuary sediments. **Josie Crawshaw**, Teri O'Meara, Candida Savage and Marc Schallenberg	Life history plasticity of a diadromous fish across its distribution range. **Ester Dias**, Françoise Daverat, Jonathan Selleslagh, Catarina Malheiro, Carlos Antunes, Jonathan Wilson, Karin Limburg and Pedro Morais	Protocols for transdisciplinary engagement in the design of future coastal infrastructure. **Justine Holzman**, Rob Holmes, Brett Milligan and Brian Davis
3:45 PM	Saltmarsh to Mangroves: does organic matter source alter foodweb dynamics? **Todd Osborne**, Lorae Simpson, Paul Julian and Michael Shields	Nitrogen cycling in an enriched, urbanized estuary. **Rusty Holleman**, Emma Nuss, Zhenlin Zhang and David Senn	Electronics at the coast: Designing and testing an inexpensive GPS-tracking sonde using the teensy microcontroller. **Courtney Morrison**, Ashley Holmes, Joseph Hauger and Jessica Reichmuth	Pristine with that much ammonia? Decadal cycles in productivity and ecology of NSW intermittent lagoons. **Peter Scanes**, Jaimie Potts and Angus Ferguson	Weakfish Cynoscion regalis ecology in the non-native range: diet, trophic niche overlap, and habitat use. **Ines Cerveira**, Ester Dias, Alexandra Teodosio and Pedro Morais Environmental education as a framework to support diadromous fish conservation and research. **Pedro Morais**, Ester Dias, Francoise Daverat and Carlos Antunes	Horseshoe Crab (Limulus polyphemus) Movements in the Delaware Inland Bays: a 15-year Tagging Study. **Andrew McGowan**
4:00 PM	Avicennia germinans survival and growth varies among maternal cohorts but not with cohort diversity. **Donna Devlin**	Spatial Surveys of Summertime Hypoxia and Water Quality Improvements in Narragansett Bay, RI. **Warren Prell** and David Murray	Characterization of a porewater sampling device for in situ measurements in permeable marine sediments. **Emily Chua**, Andres Cardenas-Valencia, Timothy Short, William Savidge and Robinson Fulweiler The Interaction of Hydrodynamics and Harmful Algal Bloom in the Tidal James River, Virginia, USA. **Jian Shen**, Y. Wang and Mac Sisson	Intermittently Closed and Open Lakes and Lagoons (ICOLLs) are benthic metabolism hotspots in southern Australia. **Bill Maher**, Jamie Potts, Peter Scanes and Angus Ferguson	Stripers for the Future: An Angler-Based Research and Education Campaign. **John Tiedemann** and Andy Danylchuk	Remote sensing data to support assessment of risk associated with storm events. **Paul Hamilton**, Lauren Dunkin, Coraggio Maglio and Kelly Burks-Copes
4:15 PM	Aiding your replacement? Context-dependent effects of saltmarsh wrack on mangrove establishment. **Rachel Smith**, Julie Blaze, Todd Osborne and James Byers	Identification of organic matter sources contributing to hypoxia in two eutrophic South Texas estuaries. **Kenneth Hayes**, Michael Wetz, Hongjie Wang and Xinping Hu	Estuarine lagoon shoreline destabilization caused by the invasive macroalga Gracilaria vermiculophylla. **Byron Toothman**, Mellissa Dionesotes and Devon Eulie The tensile root strength of Spartina patens: Response to atrazine and nutrients. **Lauris Hollis** and R Turner	Can we enhance community metabolism and nutrient cycling in urbanised estuaries by eco-engineering coastal infrastructure? **Jaimie Potts**, Mariana Mayer-Pinto, Ana Bugnot, Shinjiro Ushiama, Elizabeth Strain, Tim Glasby, Peter Scanes, Laura Airoldi, Emma Johnston and Katherine Dafforn	"Un-dammit": Assessing Public Receptivity to Dam Removal in the Hudson River estuary. **Kayla Smith**, Andrea Feldpausch-Parker and Karin Limburg	Integrating birds, threats, and socio-economic factors to identify conservation priorities in the mid-Atlantic Coast, USA. **Bradley Pickens**, Walker Golder, Chad Wilsey, Sara Schweitzer and Felicia Sanders

ORAL SESSIONS Wednesday 8 November | Session 10 3:00 PM – 4:30 PM

	557	Ballroom B	Ballroom C	Ballroom D	Ballroom E	Rotunda
	Habitats and Their Inhabitants: marsh and seagrass Anthony Rietl, Brittany Schwartzkopf, Diana Chin, Ariella Chelsky and Janet Walker	**At the intersection of ecology and management: Toward coastal resilience** Rose Martin and Cathleen Wigand	**Microbial communities and the dynamics and resilience of ecosystem function** Byron Crump, Pia Moisander, Jennifer Bowen and Julian Damashek	**Inflection Point in Chesapeake Science: Retrospective Contributions, Prospective Opportunities** Donald Boesch, Sairah Malkin, Jeremy Testa and Ryan Woodland	**Arctic land-ocean connections - from inland to coastal waters** Joanna Carey, Linda Deegan, James McClelland and Kenneth Dunton	**Hydrodynamics and Sediment Dynamics in Estuaries and Coastal Seas – Day 2** Carl Friedrichs, Henk Schuttelaars, Alejandro Souza and Arnoldo Valle-Levinson
3:00 PM	Evidence that regional effects dominate eelgrass (Zostera marina) community structure in upwelling-influenced estuaries. **Jennifer Motley**, Sally Hacker and Fiona Tomas Nash Metrics of seagrass ecosystem status across human impact gradients in Atlantic Canada. **Grace Murphy**, Melisa Wong and Heike Lotze	Effects of urbanization, conservation and connectivity on iconic coastal fishes. **Andrew Olds**, Ben Gilby, Rod Connolly, Elena Vargas-Fonseca, Nicholas Ortodossi and Thomas Schlacher	Estuaries as bioreactors: transdisciplinary research on the Columbia River estuary. **Byron Crump**, Lindy Fine, Jesse Lopez, Lydie Herfort, Mariya Smith, Jérôme Payet, Holly Simon, Craig McNeil and Antonio Baptista	Inflection Point in Chesapeake Science: Contributions to Role of Benthic Systems. **Donald Boesch** and Bob Diaz	Skylights to the Ocean: The Biological/Biogeochemical Impacts of Light Transmittance Through Melt-Ponded First-Year Sea Ice. **Karen Frey**	Flow Dynamics, Wave Energy, and Sediment Transport in the Delaware Estuary. **Jia-Lin Chen**, David Ralston, Rockwell Geyer and Christopher Sommerfield
3:15 PM	Spatial and temporal variation in phenology in a Georgia salt marsh. **Jessica O'Connell**, Merryl Alber and Steven Pennings	Climate-induced regime shifts on microalgae: The case of Lake St Lucia, UNESCO World Heritage site. **Monique Nunes**, Janine Adams, Guy Bate and Tommy Bornman	Salt marsh microbial community change and trace greenhouse gas fluxes under precipitation intensification. **Hollie Emery**, John Angell, Akaash Tawade and Robinson Fulweiler	Prospective Opportunities: Benthic Microbes and the Long Road to Restoration. **Sairah Malkin** and Pinky Liau	Investigating relationships between phytoplankton, sea ice extent and other environmental variables in the Chukchi Sea. **Aimee Neeley**, Lora Harris and Karen Frey	Sediment transport time scales and trapping efficiency in a tidal river. **David Ralston** and Rockwell Geyer
3:30 PM	A multi-year record of plant biomass, allometry, and primary production in Louisiana salt marshes. **Anthony Rietl**, Troy Hill, Ariella Chelsky and Brian Roberts	Developing an adaptation blueprint for nature-based adaptation to sea level rise on the California coast. **Walter Heady**, Kelly Leo, Sarah Newkirk, Sam Veloz, Maya Hayden, Robert Battalio, Tiffany Cheng, Mary Small, Tara Ursell and Barry Nickel Integrating Sediment Transport Science into Coastal Management: Insights from the Northeast United States. **John Duff** and Victoria LaBate	Regional and micro-environmental patterns in the seagrass microbiome. **Valentina Hurtado McCormick**, Thomas Jeffries, Tim Kahlke, Peter Ralph and Justin Seymour	Integrating space, time and the environment: drivers of fish and invertebrate forage in Chesapeake Bay. **Ryan Woodland**, Carlos Lozano, Edward Houde, Robert Latour, Christopher Sweetman, Andre Buchheister, Mary Fabrizio and Troy Tuckey	Does declining sea ice boost kelp production? Four decades of evidence from the Beaufort Sea. **Christina Bonsell** and Kenneth Dunton	Dredging Influences on Stratification and Flushing Times in Norwalk River Hypoxic Areas. **Steven Deignan-Schmidt**, Michael Whitney and Yan Jia
3:45 PM	Twenty years of seagrass monitoring. What have we learned. **Dorothy Byron**, Kenneth Heck and Maddie Kennedy	Assessment of estuarine water quality condition: The intersection of science, management and citizen involvement. **Betty Neikirk**, David Parrish and Kenneth Moore	Genetic Investigations of a Ciliate Epibiont of Copepods in Chesapeake Bay. **Lucia S. L. Safi** and Ryan Carnegie	Inflection point in Chesapeake Bay submersed aquatic vegetation research: Recent progress and future potential. **Cassie Gurbisz**, Christopher Patrick, Jonathan Lefcheck and Michael Hannam	Zooplankton communities near the Alaskan Arctic Coast and their role in shaping fish dietary preferences. **Alexei Pinchuk**, Johanna Vollenweider and Leandra Sousa	Multi-inlet lagoon: Eulerian versus Stokes transport and dependence thereof on inlet characteristics. **Claudia Hinrichs**, Charles Flagg, Robert Wilson and Roger Flood
4:00 PM	Statistical Analysis of Sarasota Bay Seagrass Programs: Detecting and Quantifying Change. **Jay Leverone** and Mary Christman	Coastal resilience planning in New York: Identifying places where vulnerable communities and conservation priorities intersect. **Nicole Maher**, Marci Bortman and Stephen Lloyd	Microbial Flora Associated With Laboratory Breed Horseshoe Crabs. **Vishal Shah**, John Tanacredi and Viraj Joshi	Geomorphic and ecological factors and survival of tidal wetlands: The necessity of determining inflection points. **Court Stevenson**, Lorie Staver and Michael Kearney	Spatial patterns in crustose coralline algae and associated macroalgae in proximity to an Arctic river. **Arley Muth** and Kenneth Dunton	Morphologic change in a macro-tidal slough enhanced by wetland restoration. **Amy Foxgrover**, Theresa Fregoso and Bruce Jaffe
4:15 PM	Seagrass recovery time versus size of loss. **Robert Virnstein**	Making coastal resilience meaningful: collaborative solutions co-developed by Alaska's Tribes, locals, managers, and researchers. **Leanna Heffner**, Karen Pletnikoff, Aaron Poe, Karen Murphy, Amy Holman and Davin Holen	Improved methodology for semi-automated identification of both marine and freshwater plankton. **Harry Nelson** and Frances Buerkens	A tool for evaluating long-term water quality change in a complex estuarine system. **Rebecca Murphy**, Elgin Perry, Renee Karrh, Michael Lane, Monika Arora, Jon Harcum and Jeni Keisman	Patterns in macroinvertebrate assemblages reveal amazing resiliency of arctic estuarine ecosystems. **Kenneth Dunton**, Roy Churchwell, Susan Schonberg and James McClelland Permafrost thaw and land cover change may alter Si exports to Arctic coastal receiving waters. **Joanna Carey**, Jianwu Tang, Andrew Kurtz, Jonathan Gewirtzman and Rob Spencer	Thermal and Seomjin River Discharge Effect of Gwangyang Bay Circulation, KOREA. **Jongkyu Kim** and Chang-Keun Kang

ORAL SESSIONS Thursday 9 November | Session 11 8:00AM – 9:30AM

	551 AB	552 AB	553 AB	554 AB	555	556
	Working waterfronts and ecosystem services: Integrating aquaculture in coastal management Ashley Smyth, Austin Humphries, Annie Murphy and Tracey Dalton	**Ecological and Fisheries Impacts of Hypoxia on Coastal Ecosystems** Kim de Mutsert, Stephen Brandt, Michael Roman, Timothy Targett, Denise Breitburg and Kenneth Rose	**National Estuarine Research Reserves** Ayesha Gray, Mark Woodrey, Edward Buskey, Jace Tunnell, Christine Feurt, Kari St. Laurent and Jennifer Merrill	**Observational and modeling studies at the land-estuarine interface** Cecily Steppe, William Ball, Marjorie Friedrichs and Raleigh Hood	**Food Web Dynamics** James Nelson and David Johnson	**Coastal Systems in Transition to a New Geologic Epoch** Joseph Carlin, Timothy Dellapenna and Joshua Williams
8:00 AM	Does oyster-mediated sediment nutrient regeneration influence phytoplankton community structure? **Nicholas Ray** and Robinson Fulweiler	Addressing Hypoxia Management Needs through NOAA's Competitive Programs (NGOMEX, CHRP). **Alan Lewitus**	The Scientific Research And Education Network (SciREN): Connecting Local STEM Researchers And Educators. **Justin Ridge**, Heather Heenehan, Alyse Larkin, Avery Paxton and Ethan Theuerkauf	Assessing land-use and climate change impacts on watershed delivery to the New River Estuary, NC. **Shanna Williamson** and Mark Brush	Geomorphology modifies bottom-up control 1 on food webs. **James Nelson**, David Johnson, James Nelson, Amanda Spivak and Nathalie Moore	Seasonal Variability of 7Be in Suspended Sediments from the Copper River, Alaska. **Joshua Williams**, Steven Kuehl, Elisabeth Clyne and Timothy Dellapenna
8:15 AM	Estimating "Enhancement" Of Denitrification Via The Addition of Oysters: A Holistic View of The Problem. **Jeffrey Cornwell**, Michael Owens, Melanie Jackson and M. Lisa Kellogg	Simulating hypoxia and nutrient reduction effects on the Northern Gulf of Mexico fishery ecosystem. **Kim de Mutsert**, Stephen Brandt, Kristy Lewis, Arnaud Laurent, Jeroen Steenbeek and Joe Buszowski	Evaluating Tidal Wetland Restoration Performance Using National Estuarine Research Reserve System Reference Sites. **Scott Lerberg**, Kenneth Raposa, Craig Cornu, John Fear, Nina Garfield, Christopher Peter, Robin Weber, Gregg Moore, David Burdick and Michele Dionne	Latitudinal gradients in oceanic and watershed nitrogen sources to Pacific coast estuaries of North America. **Cheryl Brown**, James Kaldy, Daniel Wise, William Rugh, Kenneth Willard, Peggy Fong, T Chris Mochon Collura and Caitlin Fong	Vegetarian shrimp become carnivores when large fish leave town. **David Johnson**, John Fleeger, Kari Galvan, James Nelson and Linda Deegan	Land Area Change in Coastal Louisiana (1932 to 2015). **Brady Couvillion**, Holly Beck, Don Schoolmaster and Michelle Fischer
8:30 AM	Community effects on information flow in New England shellfish aquaculture. **Lindsey Williams**, Emily Whitmore and Tom Safford	Effects of Mississippi River Diversions on Nutrient Transport Pathways and Gulf of Mexico Hypoxia. **Dubravko Justic** and Lixia Wang	Assessing the economic impact of natural and nature based features on Apalachicola, FL communities. **David Yoskowitz**, Diana DelAngel, Scott Hagen and Matthew Bilskie	The Everglades-Florida Bay Watershed: Empirical Assessment and Modeling of a Seagrass Die-off Event. **Christopher Madden**, Theresa Strazisar, Tiffany Troxler, Yini Shangguan, Patricia Glibert, Marguerite Koch, Stephen Kelly, Joseph Stachelek, Margaret Hall, Amanda McDonald, Rene Price and Fred Sklar	Physical controls on spatiotemporal variability in phytoplankton abundance and productivity in a subtropical estuary. **David Fugate** and Megan Andresen Top-down and bottom-up effects of the jellyfish Chrysaora quinquecirrha on the Chesapeake Bay planktonic ecosystem. **Jacqueline Tay** and Raleigh Hood	A 1500 year sedimentary record of environmental change in the Eel River Estuary, CA. **Andrew Gray**, Gregory Pasternack, Elizabeth Watson, Miguel Goni and Jeff Hatten
8:45 AM	Integrating ecological processes into marine reserve design. **Christopher Henderson**	Modeling fish movement in 3-D. **Elizabeth LaBone**, Dubravko Justic, Kenneth Rose, Lixia Wang and Haosheng Huang	Buffer Options for the Great Bay Integrated Assessment Project. **Steve Miller**	Influence of freshwater induced habitat changes on the movement and trophic dynamics of Common Snook. **Rolando Santos**, Cody Eggenberger, Jennifer Rehage, Tom Frankovich and James Nelson	Synergistic effects of parental and embryonic exposure to predation risk impact offspring size at emergence. **Sarah Donelan** and Geoffrey Trussell	Sediment and Management Challenges of the Central Outer Banks Barrier Island System, North Carolina, USA. **J Walsh**, D. Reide Corbett, Ian Conery, C Cornette, Ryan Gibbons and Nick Kelly
9:00 AM	Oyster aquaculture modifies sediment microbial community structure and enhances ecosystem function. **Ashley Smyth**, Annie Murphy, Bongkeun Song and Iris Anderson	Getting used to holding your breath – managing to grow when oxygen is low. **Denise Breitburg**, Timothy Targett and Kenneth Rose	The Real Wealth Purchased in a Fish Dinner. **Daniel Campbell** and Cathleen Wigand	Water Residence Time Predicts Sources of Dissolved Organic Matter Export: Implications from Stable Isotopes. **Yishen Li**, Peter Raymond, James Saiers and Jacob Hosen	Comparing the Diet of an Important Wetland Resident in a Natural and Created Marsh. **Katie Robinson** and Drew Talley	Hydrodynamic and morphodynamic alterations in coastal lagoons due to marine aquaculture activity. **Fernando Roversi**, Barend van Maanen, Paulo Cesar Rosman, Claudio Neves and Ada Cristina Scudelari
9:15 AM	Evaluating ecological and economic potential of ocean foods using a food-web approach. **Carrie Byron**, Eric Chapman, Di Jin, Tracey Dalton and Adrianus Both	Climate, Temperature, and Hypoxia as Multifaceted Drivers of West Coast Ecosystems. **Cynthia Sellinger**, Stephen Brandt and Cassandra Glaspie	Ecosystem service values and tools: We're getting them, now what? **Jane Ballard**	Determination of monitoring locations in Geum River Estuary, Korea. **Jin Hwan Hwang** and Nam-Hoon Kim	Species identity controls consumer-mediated ecosystem function in a sandy beach ecosystem. **Kyle Emery**, Jenifer Dugan and Robert Miller	Habitat alterations and geomorphic response to estuarine dams and land reclamation on the Korean Peninsula. **Timothy Dellapenna**

ORAL SESSIONS Thursday 9 November | Session 11 8:00AM – 9:30AM

	557	Ballroom B	Ballroom C	Ballroom D	Ballroom E	Rotunda
	Coastal Blue Carbon: Current Science, Policy and Management Efforts Kristin Wilson Grimes, Steve Crooks, Stephen Emmett-Mattox, Jessica Foley, Meagan Gonneea, Janine Harris, Beverly Johnson, Stefanie Simpson and Ariana Sutton-Grier	**Coastal Mapping: Costly maps for cost-effective coastal and estuarine management** Mark Borrelli and Megan Tyrrell	**Factors affecting host-pathogen dynamics in foundation species across marine ecosystems** Torrance Hanley and Sarah Gignoux-Wolfsohn	**Humans and the Environment** Lekelia Jenkins and Paul Carvalho	**NOAA Habitat Focus Areas: Blueprint for Restoration and Management Success** Suzanne Skelley and Mark Monaco	**Hydrodynamics and Sediment Dynamics in Estuaries and Coastal Seas – Day 3** Carl Friedrichs, Henk Schuttelaars, Alejandro Souza and Arnoldo Valle-Levinson
8:00 AM	Status of Blue Carbon. Substantial Progress But Where Next? **Steve Crooks**	The Life Autonomous-Developments and Applications of Robotic Platforms for Mapping Coastal Ecosystems. **Arthur Trembanis**	The potential role of biotic stressors in a dwarf red mangrove (Rhizophora mangle) die-off. **Ryann Rossi**, Stephanie Archer and Craig A. Layman	Cultural continuity and resilient resources: Ecuador's co-management approach to mangrove conservation and restoration. **Christine Beitl** and Parinaz Rahimzadeh Key characteristics of successful fisher learning exchanges. **Lekelia Jenkins**	An Ecological Assessment to Support NOAA's Choptank Complex Habitat Focus Area. **Shawn McLaughlin**, Suzanne Bricker, Larry Claflin, Daniel Dorfman, John Jacobs, Andrew Leight, Mark Matsche, Gretchen Messick, David Moe Nelson, John Schalles, Jason Spires and Suzanne Skelley	Variation of Tidal and Subtidal Current and Water Level along a Macrotidal and Convergent Estuary. **Lauren Ross** and Aldo Sottolichio
8:15 AM	Advancing coastal blue carbon science and policy with NOAA partnerships, programs, and tools. **Emily Parker**, Janine Harris, Ariana Sutton-Grier, Nate Herold, Marie Bundy, Meredith Muth, Jessica Foley, Amanda McCarty and Kelly Samek	Quantifying vegetation cover and ecosystem services with hyperspatial UAS imagery in a coastal intermediate marsh. **Whitney Broussard III**, Jenneke Visser, Robert Brooks and Tom Cousté	Who do you think you are? Trematode identify and prevalence in native and non-native crabs. **Rebecca Barnard** and April Blakeslee	Traditional knowledge meets eelgrass science: analysis of threats to eelgrass in James Bay, Canada. **Frederick Short** and Dante Torio	An assessment of benthic condition in small tributaries of the Choptank Habitat Focus Area. **Andrew Leight**, Shawn McLaughlin, Jason Spires, Ed Wirth and Suzanne Skelley	Effects of Tidal Asymmetry on Shear Flow in a Converging Estuary. **Brandon Lieberthal**, Kimberly Huguenard, Kristopher Bears and Lauren Ross
8:30 AM	Variability in methane emissions from Typha latifolia and Typha angustifolia stands in Maine salt marshes. **Beverly Johnson**, Daniel Stames and Philip Dostie	Improving estimates of salt marsh carbon storage using fine-scale hyperspectral and LiDAR remote sensing. **Rehman Eon**, Sarah Goldsmith, Ryan Brett, Gregory Badura, Charles Bachmann, David Osgood and Christy Tyler	The effects of seagrass wasting disease on eelgrass morphology and growth. **Forest Schenck** and Randall Hughes	Assessing tidal creek sediment and benthic quality in relation to coastal development changes over time. **Catharine Parker**, Denise Sanger and Ed Wirth	A Baseline Assessment of the Choptank River: Digital Atlas, Web Mapping Portal, and Status Report. **David Moe Nelson**, Daniel Dorfman, Ken Buja, Ayman Mabrouk, Laurie Bauer and Larry Claflin	Providential tides: the double low water of Narragansett Bay explained. **John Brubaker** and David Bowers
8:45 AM	Exploring seagrass as a tool to mitigate ocean acidification and climate change in California. **Sara Briley** and Jennifer Phillips	Quantification of current Blue Carbon Burial in Seagrass Ecosystems. **Victoria Hill**, Richard Zimmerman, Russel Ives and Blake Schaeffer	Roles of host genotype and environmental stressors in the susceptibility of turtlegrass to wasting disease. **Paige Duffin** and Cliff Ross	An overview of siting, designing, and monitoring a new artificial reef in Nantucket Sound. **Mark Rousseau**	Application of chlorophyll a as an indicator to analyze the current status of Biscayne Bay. **Nicole Millette**, Chris Kelble, Anna Linhoss and Steve Ashby	Sediment dynamics of submarine tidal dunes in the St. Lawrence Estuary (Quebec, Canada). **Urs Neumeier** and Alexandra Rao
9:00 AM	South Florida Blue Carbon stocks: controlling factors and effects on pCO_2. **Jason Howard**, Christian Lopes and James Fourqurean	Three-Dimensional Assessment of Seaweed Habitats using Remote Sensing. **Jennifer Dijkstra**, Ashley Norton and Semme Dijkstra	Patterns of parasite species richness, prevalence, and intensity in Crassostrea virginica across environmental gradients. **Torrance Hanley** and David Kimbro	StormSmart Coasts: Guiding coastal homeowners to select better options for reducing erosion and storm damage. **Rebecca Haney**	Improving shellfish restoration and habitat assessment in coastal Alaska: Kachemak Bay Habitat Focus Area. **Kristine Holderied** and Erika Ammann	Multichannel Connection of Amazon and Para estuarine systems. **Laissa Baltazar**, Erika Nogueira, Marcos Gallo and Susana Vinzon
9:15 AM	Use-Inspired Estimation of Coastal Blue Carbon Stocks in the Casco Bay Region of Maine. **Ashley Sarra**, Emma Houston, Aaron Strong, Beverly Johnson, Nichole Price and Hilary Neckles	Going back to my roots: Mangrove dynamics in South Florida. **David Lagomasino**, Temilola Fatoyinbo, Bruce Cook, SeungKuk Lee and Emanuelle Feliciano	Does restoring oyster reefs restore oyster health? **Tal Ben-Horin**, Gorka Bidegain, Colleen Burge, Dave Bushek, Ryan Carnegie, Maya Groner, Eileen Hofmann, Daphne Munroe, Eric Powell, Dina Proestou and William Shroer	Discussion	Assessing changes in the spatial and temporal distribution of fish in the Penobscot River Estuary. **Justin Stevens**, Rory Saunders, J Michael Jech, Timothy Sheehan and Damian Brady	The sediment transport between Changjiang Estuary and Hangzhou Bay. **Dai Zhang**, Qing He, Jian Shen, Lei Zhu and Jianliang Lin

ORAL SESSIONS Thursday 9 November | Session 12 10:00AM – 11:30AM

	551 AB	552 AB	553 AB	554 AB
	Working waterfronts and ecosystem services: Integrating aquaculture in coastal management Ashley Smyth, Austin Humphries, Annie Murphy and Tracey Dalton	**Ecological and Fisheries Impacts of Hypoxia on Coastal Ecosystems** Kim de Mutsert, Stephen Brandt, Michael Roman, Timothy Targett, Denise Breitburg and Kenneth Rose	**National Estuarine Research Reserves** Ayesha Gray, Mark Woodrey, Edward Buskey, Jace Tunnell, Christine Feurt, Kari St. Laurent and Jennifer Merrill	**Observational and modeling studies at the land-estuarine interface** Cecily Steppe, William Ball, Marjorie Friedrichs and Raleigh Hood
10:00 AM	Exploring social implications of shellfish aquaculture in Rhode Island using a normative evaluation approach. **Tracey Dalton**, Di Jin and Robert Thompson	Sex-specific effects of deoxygenation and temperature on copepod vertical migration and distribution. **James Pierson**, Michael Roman, Wencheng Slater and David Elliott	Ebb and Flow: Monitoring marsh hydrology in space and time in a Delaware tributary. **Drexel Siok**, Kari St. Laurent and Bob Scarborough	Coupled Physical- Biogeochemical Model of the Dynamics of a Freshwater Estuary. **Qianqian Liu**, Eric Anderson, Bopaiah Biddanda, Anthony Weinke and Katie Knapp
10:15 AM	Social and Ecological Factors Influencing the Sustainability of Intertidal Clam Aquaculture. **Molly Miller** and Teresa Johnson Impacts of oyster structures (reefs and culture operations) on adjacent infaunal community assemblages. **Madison Lytle**, Martin Posey, Elizabeth Darrow, Susanne Brander and Troy Alphin	Impacts of Hypoxia in Warming Waters: Otoliths as Recorders of Environmental Stress and Physiological Effects. **Karin Limburg**	Contribution of phytoplankton to gross primary production dynamics in shallow areas of York River, VA. **Qubin Qin**, Jian Shen and Xun Cai	Validation, Verification, and Improvement of Model Predictions for Chemical Releases in the Tidal-Fresh Potomac River. **Joseph Smith**, Jenna Cragan, William Swick and Matthew Ward
10:30 AM	Marine Bivalve Aquaculture Services: A Quintet of Wins via a Municipal Rotational Strategy. **Ronald Zweig**, Ronald Smolowitz and Robert Rheault	Direct estimates of lifetime hypoxia exposure in fishes using redox-sensitive chemical markers in otoliths. **Benjamin Walther** and Matthew Altenritter	Solving the problem of assessing long-term trends in phytoplankton abundance in tidally varying environments. **James Pinckney** and Erik Smith Tuckerton Peninsula salt marsh system: emergent salt marsh plant community characterization. **Michael Kennish**, Marcia Meixler and Katherine Crowley	Nitrate removal in subtidal and intertidal freshwater marshes of an active coastal deltaic floodplain. **Alexandra Christensen** and Robert Twilley
10:45 AM	Fishing to farming: Shellfish and seaweed aquaculture as a diversification strategy for wild capture harvesters. **Caitlin Cleaver**, Teresa Johnson and Samuel Hanes Exploring Northeastern market opportunities for farmed kelp (sea vegetables). **Taylor Witkin**, Azure Cygler, Carole Engle, Dawn Kotowicz, Amelia Moore and Austin Humphries	A Framework for Development of Estuary Specific Dissolved Oxygen Criteria in Massachusetts. **Jennifer Flippin**, Robert Murphy, Ben Jessup, Kimberly Groff, Richard Carey, Rebecca Weidman and Jerry Diamond	Local-scale impact of coastal storms using established long-term monitoring networks. **Shannon Dunnigan**, Kimberly Cressman, Kari St. Laurent, Dwayne Porter and Marie Bundy	Resolving spatiotemporal characteristics of the seasonal hypoxia cycle in shallow estuarine environments. **Andrew Muller**
11:00 AM	Site selection matters: lessons learned from kelp-oyster cultivation systems in a Rhode Island salt pond. **Lindsay Green**, Cindy West, John West, Carol Thornber and Austin Humphries	Tropical dead zones and mass mortalities on coral reefs. **Andrew Altieri**, Seamus Harrison, Hannah Nelson, Janina Seemann, Rachel Collin, Robert Diaz, Maggie Johnson, Lucia Rodriguez and Nancy Knowlton	Using NERR data to foster student inquiry, advance data literacy, and promote climate science. **Jude Apple**, Catherine Halversen, Janice McDonnell, Kristen Hunter-Thomson, Emily Weiss and Sarah Pedemonte	Tidal Marsh Model: a cross-scale approach to assess marsh evolution. **Karinna Nunez**, Joseph Zhang, Julie Herman, Carl Hershner and William Reay
11:15 AM	Spatiotemporal impacts of net primary productivity from macroalgae aquaculture: implications for remediating coastal acidification. **Nichole Price**, Suzanne Arnold, Joseph Salisbury, Paul Dobbins, Brittney Honisch, Christopher Hunt, Shawn Shellito, Melissa Oyola and Evangeline Fachon	Coral reefs: extreme oxygen environments?. **Hannah Nelson** and Andrew Altieri	New collaborative model for communicating climate change: Chesapeake Bay example. **Dave Jasinski**, Paula Jasinski, Kari St. Laurent, Raleigh Hood and Victoria Coles	A simple, dynamic, hydrological model of a mesotidal salt marsh. **Darryl Marois**, Theodore DeWitt and Hilmar Stecher

ORAL SESSIONS Thursday 9 November | Session 12 10:00AM – 11:30AM

	555	556	557	Ballroom B
	Food Webs and Community Structure Matthew Kimball	**Mitigating sea level rise using novel adaptation strategies** Christine Whitcraft, Richard Ambrose, Karen Thorne and Evyan Borgnis	**Coastal Blue Carbon: Current Science, Policy and Management Efforts** Kristin Wilson Grimes, Steve Crooks, Stephen Emmett-Mattox, Jessica Foley, Meagan Gonneea, Janine Harris, Beverly Johnson, Stefanie Simpson and Ariana Sutton-Grier	**Coastal Mapping: Costly maps for cost-effective coastal and estuarine management** Mark Borrelli and Megan Tyrrell
10:00 AM	Halodule wrightii Epiphyte Microbiome in Response to Fertilization and/or Grazer Inhibition. **Kirk Cammarata**, Whitney Roberson, Colin Brislawn, Ernest Everett and Shawn Hare	Thin Layer Sediment Augmentation to Manage Sea Level Rise: Initial Sediment Monitoring Results from California. **Richard Ambrose**	Blue carbon in salt marshes: Will restoration compensate for habitat loss? **Anna Armitage**, Kathleen Bowers, Scott Hall and Jacob Sigren	Shallow Water Benthic Habitat Characterization: Getting Baseline Data and Mapping the White Space. **Mark Borrelli**, Emily Shumchenia, Bryan Oakley, Heath Love, Theresa Smith, Bryan Legare, Samantha McFarland and Sophia Fox
10:15 AM	Effects of isolation on ant assemblages depend on stratum in a floating marsh. **Xuan Chen**, Benjamin Adams, Michael Layne, Christopher Swarzenski and Linda Hooper-Bui	Evaluating the success of sediment augmentation using sediment flux measurements and Surface Elevation Tables. **Karen Thorne**, Chase Freeman, Jordan Rosencranz, Neil Ganju and Glenn Guntenspergen	Man-made blue carbon: carbon sequestration in the salt marshes of the European Wadden Sea. **Peter Mueller**, Nils Ladiges, Alexander Jack, Gerhard Schmiedl, Lars Kutzbach, Kai Jensen and Stefanie Nolte	Developing next-generation methods to assess critical coastal habitats in North Carolina. **Justin Ridge**, Alexander Seymour, Antonio Rodriguez and David Johnston
10:30 AM	Effects of habitat complexity and oyster density on survival and community structure in Chesapeake Bay. **Rochelle Seitz**, Kathleen Knick and Cynthia Harris	Impact of sediment augmentation on vegetation and invertebrate communities in a Southern California coastal wetland. **Kaelin McAtee** and Christine Whitcraft	Successes and challenges in US tidal wetland carbon accounting: NASA-USGS Blue Carbon Monitoring System results. **Lisamarie Windham-Myers**	Aerial Drones, Quadskis, and Autonomous Kayaks: the strengths and weaknesses of coastal mapping platforms. **Stephanie Dohner**, Arthur Trembanis and Stephanie Dohner
10:45 AM	How hot are beach-dune hotspots: a functional test with carrion and scavengers on ocean beaches. **Thomas Schlacher**, Charles Peterson, Ben Gilby, Andrew Olds, Christine Voss, Rod Connolly and Ellen Bingham	Recolonization of invertebrates in sediment augmentation sites in Southern California. **Christine Whitcraft**, Amanda Martinez and Kaelin McAtee	Spatial variability of coastal wetland carbon. **Christopher Owers**, Kerrylee Rogers, Debashish Mazumder and Colin Woodroffe Decadal changes in salt marsh production and carbon storage: testing the space-for-time substitution approach. **Sarah Goldsmith**, Ryan Brett, Charles Bachmann, David Osgood and Christy Tyler	Comparing topo-bathymetric surfaces and elevation transects along southern Rhode Island beaches. **Brian Caccioppoli**, John King, Monique LaFrance Bartley and Sierra Davis
11:00 AM	Dynamics of Fish Community Diversity within the Indian River Lagoon, Florida, USA. **Brittany Troast**, Richard Paperno and Geoffrey Cook	Thin Layer Sediment Application in a Low-Lying Spartina alternifora Marsh in North Carolina. **Jenny Davis**, Carolyn Currin and Everette Newton	Assessing blue carbon stock across wetland environmental gradients in Delaware. **Daniel Hribar**, Ariana Sutton-Grier and Kari St. Laurent	Geological characteristics of the Rhode Island Shoreface from a decade of mapping with side-scan sonar. **Bryan Oakley**, Robert Hollis and Cody Murphy
11:15 AM	Recruitment and habitat use of early life stage tarpon (Megalops atlanticus) in South Carolina estuaries. **Matthew Kimball** and Marvin Mace	A preliminary design for a large, intermittent river diversion into the Maurepas Swamp, Louisiana. **John Day**, Jeffrey Rutherford, Christopher D'Elia, Clinton Willson, Adrian Wiegman, Gary Shaffer and Robert Lane	Discussion	Shoreline Change Trends at Varying Timescales Along the Rhode Island south shore: Barriers vs. Headlands. **Robert Hollis** and Bryan Oakley

ORAL SESSIONS Thursday 9 November | Session 12 10:00AM – 11:30AM

	Ballroom C	Ballroom D	Ballroom E	Rotunda
	Factors affecting host-pathogen dynamics in foundation species across marine ecosystems Torrance Hanley and Sarah Gignoux-Wolfsohn	**Humans and the Environment** Lekelia Jenkins and Paul Carvalho	**NOAA Habitat Focus Areas: Blueprint for Restoration and Management Success** Suzanne Skelley and Mark Monaco	**Hydrodynamics and Sediment Dynamics in Estuaries and Coastal Seas – Day 3** Carl Friedrichs, Henk Schuttelaars, Alejandro Souza and Arnoldo Valle-Levinson
10:00 AM	Evolutionary Ecology of Oyster Disease in Chesapeake Bay. **Ryan Carnegie**, Lauren Huey, Rita Crockett and Susan Ford	Endangered Species Act Section 7 consultation required for dredging: SDI-5 inlet maintenance dredging permitting program. **Lawrence Malizzi** and Christopher Kriegner	Evaluating living shorelines to inform regulatory decision-making in South Carolina. **Sharleen Johnson**, Denise Sanger, Peter Kingsley-Smith, Blaik Keppler, Andrew Tweel, Michael Hodges, Nancy Hadley, Benjamin Stone, Gary Sundin, Erik Smith and Matt Slagel	Using Availability and Erosion Limited Sediment Conditions to Explain Sediment Import into Tidally Dominated Estuaries. **Ronald Brouwer**, George Schramkowski, Henk Schuttelaars and Yoeri Dijkstra
10:15 AM	Exploring the oyster response to dynamic parasite interactions in the Chesapeake Bay. **Lauren Huey** and Ryan Carnegie	Impacts of oil spill and clean-up on benthic community recovery: A mesocosm study. **Changkeun Lee**, Junsung Noh, Dongwoo Kim, Hosang Kim, Hanna Bae, Hana Ju, Taewoo Kim, Bong-Oh Kwon, Jongseong Ryu, Seongjin Hong, Un Hyuk Yim and Jong Seong Khim	Reversing Shoreline Armoring: Assessing Responses of Coastal Biota in the Puget Sound after Shoreline Restoration. **Timothy Lee** and Jason Toft	Three-dimensional sediment dynamics in tidally dominated estuaries: influence of time–dependent stratification. **Henk Schuttelaars** and Xiaoyan Wei
10:30 AM	Coral species diversity and disease dynamics. **Pradeep PIllai**, Tarik Gouhier and Steven Vollmer	Determination of food sources for marine invertebrates in Geum-river Estuary, Korea using stable isotope analysis. **Junsung Noh**, Hosang Kim, Seo Joon Yoon, Bong-Oh Kwon, Jongseong Ryu, Chang-Hee Lee and Jong Seong Khim	Western Lake Erie Restoration Assessment (WLERA): geodesign framework to measure potential restoration of coastal wetlands. **Justin Saarinen** and Kurt Kowalski	Essential physical processes for the transition of an estuary to a hyper-turbid state. **Yoeri Dijkstra**, Henk Schuttelaars, Ronald Brouwer and George Schramkowski
10:45 AM	Interactions between foreign and resident bacteria lead to disease signs in a reef-building coral. **Sarah Gignoux-Wolfsohn**	Scenario-based simulation of macroalgae (Porphyra sp.) growth in aquaculture facilities near Geum River Estuary, Korea. **Yong Hoon Kim**, Hae-Cheol Kim, Jae-Gab Cho, Jongseong Ryu, Seunghyun Son and Chang-Hee Lee Molecular investigation of heavy metal stress in the seagrass Zostera mulleri. **Nasim Shah Mohammadi**, Mathieu Pernice, Manoj Kumar, Unnikrishnan Kuzhiumparambil and Peter Ralph	Assessing Risk to Ecosystem Services Production across an Urbanization Gradient in Coastal South Florida. **Geoffrey Cook** and Chris Kelble	Cohesive sediment distribution in an idealized estuary, a numerical study. **Danielle Tarpley**, Courtney Harris, Carl Friedrichs and Roa Randall
11:00 AM	Ciguatoxin Detection and Model Predictions for Use in Fisheries Management in Puerto Rico. **Henry Raab**, Joseph Luczkovich and Wayne Litaker	Deforested mangroves affect the potential for carbon linkages between connected ecosystems. **Lucy Gwen Gillis**, FE Belshe and Gita Narayan Using UAV's for assessing impacts of climate change adaptation strategies on macro-tidal salt marshes.. **Graeme Matheson** and Danika van Proosdij	Oyster related nutrient ecosystem services in Choptank River Complex Habitat Focus Area. **Suzanne Bricker**, Maya Spaur, Shawn McLaughlin and Suzanne Skelley	Intertidal area disappears under sea-level rise: long-term morphodynamic modelling effort in San Pablo Bay, California. **Hesham Elmilady**, Mick van der Wegen, Dano Roelvink and Bruce Jaffe
11:15 AM	Using a particle tracking model for connectivity analysis of salmon farms in the Broughton Archipelago. **Danielle Burnett**, Erin Rees, Raphael Vanderstichel and Crawford Revie	The potential for gear-based solutions in coral reef fisheries conservation and management. **Paul Carvalho** and Austin Humphries Behavioral and Physiological Impact of Vessel Noise and Simulated Sonar on Commercially Viable Invertebrates. **Jason Krumholz**, David Hudson, Darby Pochtar George Dossot, Natasha Dickenson, Edward Baker, and Tara Moll	Quantifying ecological, social, economic impact a restored oyster reef can have on people and nature. **Bryan DeAngelis**, Mark Dumesnil, Bill Balboa, Stuart Carlton, Jennifer Pollack, Andrew Ropicki, Christine Shepard and R.J. David Wells	Hydrodynamics of a Tidally-Choked Marsh. **Mara Orescanin** and Robert Hamilton

ORAL SESSIONS Thursday 9 November | Session 13 1:00 PM – 2:30 PM

	551 AB	552 AB	553 AB	554 AB	555
	Stock assessment, monitoring, and management of wild shellfisheries Steven Rumrill and Laura Rogers-Bennett	**Habitats and Their Inhabitants: SAV** Anthony Rietl, Ariella Chelsky, Brittany Schwartzkopf, Diana Chin and Janet Walker	**Collaborating across geographic scales: integrating estuarine and coastal ocean information** Jude Apple, Ru Morrison, Chris Kinkade and Kenny Raposa	**Observational and modeling studies at the land-estuarine interface** Cecily Steppe, William Ball, Marjorie Friedrichs and Raleigh Hood	**Invasives** April Blakeslee
1:00 PM	OysterFutures: testing a collaborative process for developing oyster fishing regulations in Chesapeake Bay. **Elizabeth North**, Michael Wilberg, Jeffrey Cornwell, Jeff Blair, Matthew Damiano, Rasika Gawde, Taylor Goelz, Troy Hartley, Chris Hayes, Raleigh Hood, Melanie Jackson, Robert Jones, Jane Thomas and Lisa Wainger	Using microbial spatial and successional patterns to identify seagrass host specificity. **Rhea Sanders-Smith**, Laura Wegener Parfrey, Evan Morien, Mary O'Connor, Coreen Forbes and Margot Hessing-Lewis	Establishing an operational collaborative coastal observing network using real-time data: successes, challenges, and looking forward. **Marie Bundy**, Dwayne Porter, Jennifer Bosch, Chris Kinkade, Heather Kerkering and Gabrielle Canonico Hyde	Ecosystem Variability along the Estuarine Salinity Gradient: Examples from Long-term Study of San Francisco Bay. **James Cloern**	The limitation of spread of non-native marine invertebrates from artificial structures to natural habitats. **Whitney McClees** and Catherine de Rivera
1:15 PM	Water management, not overharvest, contributed to the 2012-2013 Apalachicola Bay oyster fishery collapse. **David Kimbro**, Wilson White and Christopher Stallings	Physiological responses of Halodule wrightii to pulsed salinity reductions in a controlled laboratory experiment. **Joseph Kowalski**, Kirk Cammarata, Hudson DeYoe and Paul Zimba	The Northeast Ocean Data Portal – A decision support tool for ocean planning. **Emily Shumchenia**, Nicholas Napoli, Kelly Knee and Peter Taylor	Impacts of direct atmospheric nitrogen deposition and coastal nitrogen fluxes on Chesapeake Bay hypoxia. **Fei Da**, Marjorie Friedrichs and Pierre St. Laurent	Reconstructing the Invasion History of the Asian shorecrab, Hemigrapsus sanguineus, in the Western Atlantic. **April Blakeslee**, Yumi Kamakura, Jaclyn Onufrey, Wataru Makino, Jotaro Urabe, Susan Park, Carolyn Keogh, Whitman Miller, Mark Minton, James Carlton and Osamu Miura
1:30 PM	Larval quahog dispersal in Narragansett Bay. **Scott Rutherford**, Dave Ullman, Conor McManus, Dale Leavitt and Chris Kincaid	Extreme weather events and the resilience of inshore seagrasses of the Great Barrier Reef. **Len McKenzie**, Catherine Collier, Lucas Langlois, Rudi Yoshida, Naomi Smith and Michelle Waycott	The Marine Weather Portal: Linking ocean observing programs with the marine community. **Jennifer Dorton**, Dwayne Porter and Charlton Galvarino	Effects of Particulate Resuspension on Oxygen and Nitrogen Dynamics in Chesapeake Bay: A Modeling Study. **Julia Moriarty**, Marjorie Friedrichs and Courtney Harris	Fouling community distribution and diversity within an active harbor: Implication for water quality management. **John Melien** and Carmela Cuomo
1:45 PM	Engaging Fishermen to Address Data Gaps and Evolve Management of the Quahog in Narragansett Bay. **Anna Malek Mercer**, Dale Leavitt, Conor McManus and Thomas Heimann	Quantification of carbon accumulation in eight New England seagrass meadows. **Marguerite Pelletier**, Phil Colarusso, Alyssa Novak, Juliet Simpson, Nicole Gutierrez, Ariane Arias Ortiz and Pere Masque	Working across reserves to develop automated reporting tools for the NERRS System Wide Monitoring Program. **Julie Padilla**, Dave Eslinger and Dwight Trueblood	Modeling Chlorophyll Variability and its Transport in Chesapeake Bay. **Hao Wang** and Raleigh Hood	The invasive tunicate, Styela clava, as an ecosystem engineer in Long Island Sound. **Kristen Wexler**, Carmela Cuomo, Alexandria Rhoads and Samantha Davidson
2:00 PM	Characterization of growth dynamics in Jonah crab, Cancer borealis, in Rhode Island. **Corinne Truesdale**, Conor McManus and Jeremy Collie	Factors affecting carbon storage capacity of eelgrass (Zostera marina L.) meadows in New England. **Alyssa Novak**, Marguerite Pelletier, Juliet Simpson, Phil Colarusso, Nicole Gutierrez, Prassede Vella, Pere Masque and Ariane Arias Ortiz Response of subtropical seagrasses to nutrient and organic carbon loading. **Jane Caffrey**, Rachel Capps, Barbara Albrecht, Paul Carlson Jr, Sheila Scolaro and Mike Poniatowski	Observing coastal storm signals by integrating geospatial monitoring systems along the Eastern United States. **Kari St. Laurent**, Kimberly Cressman, Shannon Dunnigan, Heather Kerkering, Jennifer Bosch, Dwayne Porter and Marie Bundy	Estuarine and coastal shelf transport processes with experimental and modeling comparisons on the Georgia coast. **Trevor Richards** and Daniela Di Iorio	Effects of introduced prey on the growth and reproduction of the blood star, Henricia sanguinolenta. **Kaitlin Van Volkom** and Larry Harris
2:15 PM	Carapace biogeochemistry reveals blue crab migratory connectivity from nursery to spawning habitats. **Matthew Ogburn**, Cynthia Gilmour, Eric Johnson and Anson Hines	A novel adaptation to facilitate seed settlement and establishment in a marine angiosperm. **Robert Orth**, Gary Kendrick, Marion Cambridge, Ryan Lowe, Lukasz Kotula, Leonardo Ruiz-Montoya and Jeremy Shaw Reproductive phenology and recruitment bottlenecks in populations of the seagrass Posidonia australis. **Gary Kendrick**, Marion Cambridge, Robert Orth, Andrea Zavala Perez and Andrew Johnson	Transferability of NERRS-IOOS data integration tools from East Coast to Gulf Coast applications. **Kimberly Cressman**, Kari St. Laurent, Shannon Dunnigan, Dwayne Porter and Marie Bundy	Improving the Representation of Estuarine Processes in Earth System Models. **Qiang Sun**, Michael Whitney, Frank Bryan and Yu-Heng Tseng	Is larval recruitment, or subsequent competition, the primary driver for introduced tunicate success? **Niels-Viggo Hobbs** and Brandon Fuller

ORAL SESSIONS Thursday 9 November | Session 13 1:00 PM – 2:30 PM

	556	557	Ballroom D	Ballroom E	Rotunda
	Integrating coastal elevation change from m² plots to regional scales Philippe Hensel	**Coastal Blue Carbon: Current Science, Policy and Management Efforts** Kristin Wilson Grimes, Steve Crooks, Stephen Emmett-Mattox, Jessica Foley, Meagan Gonneea, Janine Harris, Beverly Johnson, Stefanie Simpson and Ariana Sutton-Grier	**Habitats and Their Inhabitants: fish and invertebrates** Anthony Rietl, Ariella Chelsky, Brittany Schwartzkopf, Diana Chin and Janet Walker	**Nutrient input declines and the restoration of urban coastal systems** Courtney Schmidt, David Taylor, Daniel Codiga and James Ammerman	**Hydrodynamics and Sediment Dynamics in Estuaries and Coastal Seas – Day 3** Carl Friedrichs, Henk Schuttelaars, Alejandro Souza and Arnoldo Valle-Levinson
1:00 PM	Factors to consider when converting existing SET – MH stations into a strategic sampling network. **Donald Cahoon**, Jennifer Olker, Alice Yeates and Glenn Guntenspergen	Chronic eutrophication and tidal restriction alter coastal marsh gas fluxes. **Rose Martin**, Cathleen Wigand, Elizabeth Elmstrom and Ivan Valiela	The interactive effect of aquatic plants and filamentous drift algae on macorinvertebrate communities. **Charlotte Angove**, Åsa Nilsson Austin, Camilla Gustafsson and Johan Eklöf Positive and negative interactions between awning clams (Solemya velum) and eelgrass (Zostera marina). **Diana Chin** and Bradley Peterson	So the Tampa Bay seagrass goal was met: Now what? **Holly Greening**, Edward Sherwood, Anthony Janicki and Raymond Pribble	Variability of suspended particle characteristics in an energetic estuary: the role of time and discharge. **Katherine Lavallee**, Gail Kineke and Timothy Milligan
1:15 PM	Scaling up from the plot level in a living marsh system. **James Morris**, Katherine Renken and Scott Hagen	Drivers of methane emissions and soil accretion in Mediterranean wetlands and rice fields. **Maite Martinez-Eixarch**, Siobhan Fenessy, Carles Ibanez, Carles Alcaraz, Marc Vinas, Joan Noguerol, Xavier Aranda and Maria del Mar Catala	Linking spatial distributions of injury on seagrass blades to urchin grazing patterns. **Adrianna Parson**, Joseph Dirnberger and Brittany Pallaschke	Changes to the structure and metabolism of Boston Harbor during the reversal of its hyper-eutrophication. **David Taylor**, Candace Oviatt, Anne Giblin, Jane Tucker, Bob Diaz, James Blake, Nancy Maciolek and Ken Keay	Fractal floc properties in estuarine surface waters: insights from video settling, LISST, and pump sampling. **Carl Friedrichs**, Kelsey Fall, Grace Massey, David Bowers and Jarrell Smith
1:30 PM	Applying Coastal Marsh Resiliency Models at the Landscape-Scale Using Bias-Corrected Remotely-Sensed Elevation Data. **James Holmquist**, Patrick Megonigal, Donald Weller, Lisa Schile, Jefferson Riera, James Lynch, Lisamarie Windham-Myers, James Morris and Kristin Byrd	Understanding The Role of Seagrasses in Sequestering CO_2 in Coastal Habitats. **Richard Zimmerman**, Victoria Hill, David Burdige, Brian Collister and Matt Long	The effects of seagrass shoot density on growth and survivorship of Argopecten irradians. **Samantha Lynch**, Sean Towers, Michael Kennish and Richard Lathrop	Twenty-five years of monitoring Boston Harbor and Massachusetts Bay: trends in water quality and plankton. **Scott Libby**, Dave Borkman and Jeff Turner	Comparison of Remote Sensing Algorithms for Retrieval of Suspended Particulate Matter Concentration in Coastal Waters. **Lauren Freeman**, Steve Ackleson and W. Joseph Rhea
1:45 PM	Using species-specific data to improve landscape-scale predictions of marsh response to sea level rise. **Christine Hladik** and Ellen Herbert	Carbon blues, blue carbon stock and sequestration rates in central Salish Sea eelgrass meadow sediments. **Mira Lutz**, John Rybczyk, Katrina Poppe, Chelsea Johnson, Meriel Kaminsky and Mason Lanphear	Juvenile green sea turtle grazing and the tropicalization of the northern Gulf of Mexico. **Alex Rodriguez** and Kenneth Heck	Benthic community improvements in Boston Harbor associated with reduced organic loading due to infrastructure improvements. **Kenneth Keay**, Robert Diaz, James Blake, Ann Pembroke, Nancy Maciolek and Eric Nestler	Seasonal Variations in Sediment Characteristics in San Francisco Bay Shallows. **Rachel Allen**, Evan Variano, Mark Stacey and Jessica Lacy
2:00 PM	The Measurement and Monitoring of Vertical Land Motion in Coastal Environments using GNSS Technology. **Paul Denys**, Andrew Swales and Vernon Pickett	Variability in blue carbon storage in seagrass habitats of St. Thomas, U.S. Virgin Islands. **Amelie Jensen**, Kristin Wilson Grimes and Erik Smith	Phenological implications of rising water temperatures on Pseudopleuronectes americanus in a Connecticut embayment. **Nicole Cantatore** and Sarah Crosby	Have nitrogen reductions in Long Island Sound helped to restore this urban estuary? **James Ammerman**	Seasonal erodibility and bioturbation of cohesive sediments in the Caloosahatchee River estuary of southwestern Florida. **David Kluesner** and David Fugate
2:15 PM	Monitoring Wetland Elevation Capital and Deep Subsidence Using Real-Time GPS. **Laura Mitchell**, Philippe Hensel, Jim Lyons, Galen Scott and Matt Whitbeck	A protocol to map eelgrass extent for rapid blue carbon assessment. **Dante Torio**, Luba Reshitnyk, Taylor Denouden, Will McInnes, Margot Hessing-Lewis and Frederick Short	Sex-specific growth and mortality patterns in juvenile Atlantic silversides (Menidia menidia) from Connecticut waters. **Julie Pringle** and Hannes Baumann	Discussion	Biological-Physical Interactions In Fine Sediment Environments. **Lawrence Sanford**

ORAL SESSIONS Thursday 9 November | Session 14 3:00 PM – 4:30 PM

	551 AB	552 AB	553 AB	554 AB	555
	Relationships between commercially fished invertebrates and their habitats Kelly Darnell, Tim Carruthers and M. Zachary Darnell	**Habitats and Their Inhabitants: connectivity** Jamie Vaudrey	**Collaborating across geographic scales: integrating estuarine and coastal ocean information** Jude Apple, Ru Morrison, Chris Kinkade and Kenny Raposa	**Physiological ecology in the Anthropocene: linking the laboratory and field** Steven Litvin, Hannes Baumann and Jody Beers	**Disturbance** Margaret Hall
3:00 PM	Habitat-specific patterns of growth and mortality of juvenile blue crabs. **Lennah Shakeri**, Kelly Darnell, Tim Carruthers and M. Zachary Darnell	Juvenile rockfishes in estuaries, oh my! **Brittany Schwartzkopf** and Scott Heppell	Serious declines in Georgia salt marsh plant biomass are linked to climate variables. **John Schalles**, John O'Donnell and Christine Hladik	Resilience or persistence? The role of sexual reproduction in seagrass meadows at their thermal limits. **Jessie Jarvis**	Cast adrift: physiology of benthic Sargassum during adaptation to surface raft conditions. **Daniel van Hees** and Gary Kendrick
3:15 PM	Effects of marsh fragmentation on juvenile and adult blue crab abundance. **M. Zachary Darnell**, Lennah Shakeri, Kelly Darnell and Tim Carruthers	Defining Ecological Connectivity of Coastal Habitats Based on Reef Fish Distribution Patterns. **Mark Monaco**, Matt Kendall and John Christensen	Climate-related interannual variability revealed through continuous, high-frequency, automated observations in Florida's Indian River Lagoon system. **M Dennis Hanisak** and Kristen Davis	Temperature and salinity effects on Stuckenia pectinata traits and susceptibility to grazing. **Serina Sebilian** and Katharyn Boyer	Resilience of the Florida Bay Seagrass Community and Predictions for Recovery Following Renewed Turtlegrass Die-off. **Margaret Hall**, Bradley Furman, Michael Durako, Manuel Merello and Susan Bell
3:30 PM	Refining the blue crab habitat suitability index for fragmenting marshes in coastal Louisiana. **Tim Carruthers**, Kelly Darnell, Lennah Shakeri, M. Zachary Darnell and Andrea Jerabek	Mapping an ecosystem: Connectivity of fish and invertebrate communities and habitats in Pleasant Bay, Massachusetts. **Bryan Legare**, Owen Nichols, Agnes Mittermayr and Mark Borrelli	Seasonality, inter-annual variability, and long-term changes in water column ecology of the Massachusetts Bay system. **Daniel Codiga**, Kenneth Keay and David Taylor	Multiple stressors and exposure patterns impact the metabolic and ecological function of a key grazer. **Natalie Low** and Fiorenza Micheli	Changing predator-prey dynamics: effects of crown conch population increases on oyster persistence. **Harriet Booth**, Timothy Pusack and David Kimbro
3:45 PM	Variability in brown shrimp growth rates among marsh ponds: An exercise in model evaluation. **Jennifer Leo**, Thomas Minello and William Grant	Use of periotic bone chemistry to track manatee migrations in the northcentral Gulf of Mexico. **Kayla DaCosta** and Ruth Carmichael	Effects of pulsed freshwater inflows on ecosystem structure and function in the Mission-Aransas Estuary. **Edward Buskey**, Cammie Hyatt and Lindsay Scheef	Atmospheric rivers and the mass mortality of wild oysters: insight into an extreme future? **Brian Cheng**, Andrew Chang, Anna Deck and Matthew Ferner	Interdisciplinary evaluation of the status of large-bodied serranid populations off the southern Baja California peninsula. **Sharon Herzka**, Maite Erauskin Extramiana, Octavio Aburto, Gustavo Hinojosa Arando and Juan Cota Nieto
4:00 PM	Linking changing climate, estuarine habitat use, and declining catches of penaeid shrimps in South Carolina. **Dennis Allen** and Matthew Kimball	Drift macroalgae as alternative habitat for microinvertebrate and vertebrate communities in shallow coastal ecosystems. **Elizabeth Lacey**	Characterizing Climate and Human Influences on Coastal Carbon Processes Across the Land-Ocean Interface. **Steven Lohrenz**, Wei-Jun Cai, Hanqin Tian, Ruoying He, Zuo Xue and Katja Fennel	An integrative approach to studying behavior and physiology of blue rockfish in coastal kelp forests. **Jody Beers**, Steven Litvin, Michael Squibb and Jeremy Goldbogen	Modeling the effects of varying disturbance frequency and magnitude on population persistence in predator-prey systems. **Christian Commander** and Wilson White
4:15 PM	Examination of trophic relationships affecting oyster reef restoration success in the Mississippi Sound. **Virginia Fleer** and Chet Rakocinski Invasive Eurasian milfoil (Myriophyllum spicatum) in estuaries: consequences for coastal food webs and fisheries. **Charles Martin** and John Valentine	A model framework to determine production potential of fish derived from coastal habitats, **Melisa Wong** and Michael Dowd	Variability in water column respiration in PNW waters and implications for coastal and ocean acidification. **Jude Apple**, Natasha Christman, Claire Cook and Jan Newton	Three vignettes of physiological ecology: interdisciplinary tools for linking the laboratory and the field. **Emily Rivest**	Assessment of Ecological Value of Benthic Habitats. **Roberto Llanso**, Daniel Dauer, Rochelle Seitz and Michael Lane

ORAL SESSIONS Thursday 9 November | Session 14 3:00PM – 4:30PM

	556	557	Ballroom E	Rotunda
	Nature, CoSMoS, and local climate adaptation planning Monique Myers and Juliette Finzi Hart	**Coastal Ecosystem Goods and Services: Sustainability in a Changing Climate** Chanda Littles, Theodore DeWitt, Lauri Green and Darryl Marois	**Nutrient input declines and the restoration of urban coastal systems** Courtney Schmidt, David Taylor, Daniel Codiga and James Ammerman	**Hydrodynamics and Sediment Dynamics in Estuaries and Coastal Seas – Day 3** Carl Friedrichs, Henk Schuttelaars, Alejandro Souza and Arnoldo Valle-Levinson
3:00 PM	Conserving California's coastal habitats in the face of sea level rise. **Walter Heady**, Brian Cohen, Mary Gleason, Joshua Morris, Kirk Klausmeyer, Sarah Newkirk, Hilary Walecka and Mary Small	From ecological relevance of ecosystem services to their use in governance: Case study of mudflats. **Benoit Lebreton**, Audrey Rivaud, Laurent Picot, Laurent Barille, Thierry Sauzeau and Johann Lavaud	Exploring Ecosystem Response After Nitrogen Inputs Reduced by 50% to Narragansett Bay. **Courtney Schmidt**, Tom Borden and Eivy Monroy	Hydrodynamics and sediment transport in a rapidly eroding salt-marsh complex. **Daniel Nowacki**, Neil Ganju and Steven Suttles
3:15 PM	Using the USGS Coastal Storm Modeling System for Ecosystem-Focused Assessments. **Juliette Finzi Hart** and Patrick Barnard	Understanding the implications of a changing environment on harvested bivalve populations using habitat suitability models. **Nathaniel Lewis**, Theodore DeWitt and Eric Fox Understanding the Influences of Water Quality on the Value of Recreational Shellfishing in Buzzards Bay. **Sheron Luk**, Porter Hoagland, Jennie Rheuban, Scott Doney and Joseph Costa	Receiving waters monitoring following WWTF upgrades to reduce nitrogen loading. **Christine Comeau**	Wave Attenuation Across Marshes in San Francisco Bay. **Madeline Foster-Martinez**, Jessica Lacy, Matthew Ferner and Evan Variano
3:30 PM	Integrating natural with built resources in coastal vulnerability assessments: California tidal wetlands case study. **Maya Hayden**, Sam Veloz, Nadav Nur, Leo Salas, Nathan Elliott, Dennis Jongsomjit and Julian Wood	Seagrass restoration reinstates nitrogen retention ecosystem service. **Lillian Aoki** and Karen McGlathery	Changes to habitats over time in Narragansett Bay and setting management targets using BCG approaches. **Giancarlo Cicchetti**, Emily Shumchenia and Kevin Ruddock	Influence of Waves and Vegetation on Marsh Edge Accretion Dynamics in the Delaware Estuary. **Debebe Fanta** and Tracy Quirk
3:45 PM	Scenario planning: Using the tools in your toolbox to overcome uncertainty. **Danielle Boudreau**, Jeff Crooks, Julio Lorda and Kristen Goodrich	Phragmites: Ecosystem Services and Control. **Judith Weis** and Erik Kiviat	Upper Narragansett Bay phytoplankton community characterization post-wastewater treatment facility nitrogen load reductions. **Sarah Flickinger**	Wind waves drive multiple mechanisms of erosion of the marsh scarp in Barataria Bay, LA. **Kendall Valentine** and Giulio Mariotti
4:00 PM	Santa Barbara Area Coastal Ecosystem Vulnerability Assessment (SBA CEVA). **Monique Myers**, Patrick Barnard, Edward Beighley, Daniel Cayan, Jenifer Dugan, Sam Iacobellis, John Melack and Henry Page	Development of Final Ecosystem Goods and Services Indicators for Estuaries and Coasts. **Walter Berry**, James Latimer, John Kiddon and Paul Ringold Ecosystem services derived from coastal habitats: a weight of evidence meta-analysis. **Chanda Littles**, Chloe Jackson, Theodore DeWitt and Matthew Harwell	Changes in growth rates in Mercenaria mercenaria in Narragansett Bay following reductions in nitrogen loads. **Sandra Robinson** and Autumn Oczkowski	Sub-grid modeling of biogeomorphological processes on salt marsh platforms. **James Kirby**, Fengyan Shi, Mithun Deb and Guoxiang Wu
4:15 PM	Discussion	Evaluating Buyer Interest in a Voluntary Ecosystem Services Exchange. **Quinn McColly**, David Yoskowitz, Richard Mclaughlin, Jim Blackburn	Effect of point source reductions on the occurrence of algal blooms in the James Estuary. **Paul Bukaveckas**	Will a replacement of Spartina increase vulnerability of coastal lagoon salt marshes? **Barbara Proenca**, Aldo Sottolichio, Richard Michalet and Florian Ganthy

MONDAY POSTER SESSIONS

POPULATION ECOLOGY, COMMUNITY ECOLOGY, AND FUNCTIONAL DIVERSITY

Zimmermann, Danielle; Withers, Kim; Pollack, Jennifer. Effects of extreme freshwater events and Perkinsus marinus on stress response in Crassostrea virginica. (A006)

Roberts, Victoria. Status of Dermo disease (Perkinsus marinus) in Patuxent River oysters (Crassostrea virginica). (A007)

Caracappa, Joseph; Munroe, Daphne. Maternal effects on blue crab (Callinectes sapidus) larval morphology. (A008)

Mingledoplh, Keturah; White, Brittany; Mannix, Sierra; Coleman, Austin; Reichmuth, Jessica; Abdulovic-Cui, Amy. Investigating genetic diversity of Callinectes sapidus and Areanaeus cribrarius of the southeastern Atlantic coast. (A009)

Farleigh, Keaka; Ignoffo, Toni; Kimmerer, Wim. Variability in development rate within and between clutches from individual female copepods (Pseudodiaptomus forbesi). (A010)

Savoie, Allison; Wei, Hengchen; Newell, Silvia; McCarthy, Mark; McClelland, James. Phytoplankton Abundance, Size distribution, and Community Composition in the Aransas River Tidal Freshwater Zone. (A016)

Fisher, Kelsey; Wetz, Michael. Dust and soil enrichment effects on phytoplankton growth in Baffin Bay, TX. (A017)

Tominack, Sarah; Wetz, Michael. Spatial and temporal variability in Corpus Christi Bay water quality and relationship with Karenia brevis. (A018)

Cira, Emily; Wetz, Michael. Understanding drivers of spring phytoplankton dynamics in a eutrophying, subtropical estuary. (A019)

Mecalco, Angeles; Castillo, Manuel. Seasonal and diel zooplankton variability in an intermittent tropical estuary of Mexico. (A020)

Shoji, Jun. Effects of the Tsunami in 2011 on fish community in coastal waters of northern Japan. (A026)

Paperno, Richard; Markwith, Scott; McDevitt, Erin; Anderson, Eric; Whittington, James. Nekton response to habitat restoration: a case study from Lake Worth Lagoon, Florida. (A027)

Miller, Jeremy; Goldstein, Jason; Furbeck, Michelle. Observations of ichthyoplankton community structure, abundance, and diversity in a New England estuarine system. (A028)

Burns, Jillian; Grimaldo, Lenny; Kimmerer, Wim. Examining larval longfin smelt diets in shoals and tidal marshes of the San Francisco Estuary. (A029)

Munguia, Angie; Miller, Jessica; Weitkamp, Laurie; Van Doornik, Don. Potential indicators of habitat use: diet and stable isotope composition during juvenile salmonid emigration. (A030)

Hale, Stephen; Hughes, Melissa; Buffum, Henry. The Lives and Times of the Narragansett Bay Benthos: Biodiversity Trends over 161 Years. (A036)

Lockwood, Lucy; Byrnes, Jarrett. Assessing the impact of hard-substrate coastal protection structures on intertidal marine biodiversity. (A037)

Johnson, Shandon; Reichmuth, Jessica; Taylor Bennetts, Stacy. The case of towering Spartina: on-going assessment of salt marsh dynamics in an altered Estuary. (A038)

Mercer, Jennifer; Reichmuth, Jessica; Cannon, Jennifer. Signs of Endocrine Disruption: Morphometrics and EcR expression in fiddler crabs along the Georgia-Carolina coast. (A039)

WORKING WATERFRONTS AND ECOSYSTEM SERVICES: INTEGRATING AQUACULTURE IN COASTAL MANAGEMENT

Perry, Katie; Byron, Carrie. Ecological implications of commercial bivalve aquaculture on coastal food web dynamics. (A046)

Duball, Chelsea; Salisbury, Lauren; **Amador, Jose**; Stolt, Mark. Assessing impacts of oyster aquaculture on water quality and oyster biodeposition on the benthic environment. (A047)

Hollandbeck, Mary; St. Gelais, Adam; Grebe, Gretchen; Byron, Carrie; Burkholder, Kristen. Assessment of indicator bacteria on Sugar Kelp; Saccharina latissima, farmed in a nearshore coastal estuary. (A048)

Potti, Pooja. Relationship of Oyster Growth and Survival to Water Quality in Cape Cod Estuaries. (A049)

ECOSYSTEM SERVICES PROVIDED BY SHELLFISH RESOURCES

Westbrook, Phillip; Heffner, Leanna; **La Peyre, Megan**. Oyster-mediated nutrient bioassimilation, burial, and denitrification in Louisiana: effects of timing and location. (A056)

Munroe, Daphne; Goodwin, Jacob; Vasslides, James; Ganju, Neil; Defne, Zafer. Shellfish connectivity in Barnegat Bay: combining larval sampling, dispersal modeling and outreach to inform enhancement. (A057)

Volaric, Martin; Berg, Peter; Reidenbach, Matthew. Oxygen metabolism of intertidal oyster reefs measured by aquatic eddy covariance. (A058)

Porter, Elka; Franz, Heather; Lacouture, Richard. Impact of Crassostrea virginica biodeposit resuspension on water quality and ecosystem processes: A mesocosm experiment. (A059)

Marquez, Mario; Jagoe, Charles; Bricker, Suzanne; Colleen, Dwyer. Oyster (Crassostrea virginica) aquaculture as a method of nitrogen bio-extraction in Oyster Bay, Florida. (A060)

Carlton, Jessica; Darrow, Elizabeth; Alphin, Troy; Brander, Susanne; Puckett, Brandon; Posey, Martin. Effects of new oyster cultivation on sediment characteristics within Masonboro Island, NC. (A061)

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NATIONAL ESTUARINE RESEARCH RESERVES

Watts, Alison; Thomas, W; Yednock, Bree; Goldstein, Jason. New Technology for Old Problems – Developing DNA Methods to Monitor Species in Estuarine Systems. (A065)

Watson, Elizabeth; Rahman, Farzana; Woolfolk, Andrea; Maher, Nicole. High nutrient loads amplify carbon cycling across California and New York coastal wetlands. (A066)

SEA LEVEL RISE AND TRANSGRESSION OF COASTAL ECOSYSTEMS

Peterson, Nicole; Bledsoe, Brian. Modeling effects of anthropogenic barriers on salt marsh migration under sea-level rise in coastal Georgia. (B006)

Burns, Christine; Alber, Merryl; Alexander, Clark. Historical analysis of marsh extent at three LTER site along the US Atlantic coast. (B007)

Kottler, Emily; Gedan, Keryn. Movin' on up, with sea level rise: marsh seed dispersal into upland fields and forests. (B008)

MITIGATING SEA LEVEL RISE USING NOVEL ADAPTATION STRATEGIES

Rahman, M. Munsur; **Urmi, Mahmida**; Elahi, Wasif; Dustgir, M. Maruf; Haque, Anisul. Can floodplain sedimentation compensate Sea Level rise and Subsidence induced Deltaic Submergence? (B009)

COUPLED MODELS OF COASTAL ACIDIFICATION AND HYPOXIA: APPLICATIONS TO MANAGEMENT

Hu, Xinping; Wang, Hongjie; Wetz, Michael; Hayes, Kenneth. Modeling of Dissolved Oxygen and pH Dynamics in Baffin Bay. (B017)

McWilliams, James; Deutsch, Curtis; **Sutula, Martha**; Feely, Richard; Bianchi, Daniele; Kessouri, Faycal; Howard, Evan; Bednarsek, Nina; McLaughlin, Karen; Weisberg, Stephen; Ambrose, Richard; Alin, Simone. Integrated Model of Acidification & Hypoxia to Support Ecosystem Management in the CCS. (B018)

MANAGING ACIDIFICATION IN ESTUARIES: WHAT DRIVES ARAGONITE SATURATION STATE VARIABILITY

Jewett, Libby; Ombres, Erica; Dwight, Gledhill. NOAA's Ocean Acidification Program – Funding Studies of Species' Responses to Ocean Acidification Since 2012. (B019)

Degen, Tristan; Gassett, Parker; Strong, Aaron. Ocean and Coastal Acidification Management: Constraining Vulnerability to Acidification in Estuaries in Maine. (B020)

COASTAL CARBON CYCLING: KEY BIOGEOCHEMICAL PROCESSES AND BROAD-SCALE IMPACTS

Weston, Nathaniel; Zawatski, Mary; Jordan, Mikala; Donnelly, Brian; Sutter, Lori. Atmospheric and lateral exchange of carbon, nitrogen, and sediment in tidal marshes of contrasting elevation. (B031)

Herrmann, Maria; Najjar, Raymond; Goldberger, Sreece; Menendez, Alana. First System-Wide Estimates of Air-Water Exchange of Carbon Dioxide in the Chesapeake Bay. (B032)

Hodgkins, Casey; Testa, Jeremy. Spatial and temporal patterns in water column and sediment respiration in a coastal plain estuary. (B033)

Najjar, Raymond; Herrmann, Maria; Alexander, Richard; Burdige, David; Cai, Wei-Jun; Canuel, Elizabeth; Chen, Robert; Friedrichs, Marjorie; Feagin, Rusty; Holmquist, James; Hu, Xinping; Kemp, Michael; Kroeger, Kevin; Mulholland, Margaret; Pilskaln, Cynthia; Salisbury, Joseph; St. Laurent, Pierre; Tian, Hanqin; Tzortziou, Maria; Wang, Hongjie. Carbon budget of tidal wetlands, estuaries, and shelf waters of Eastern North America. (B034)

Lopes, Christian; Howard, Jason; Fourqurean, James. Trends in Inorganic Carbon Dynamics of Seagrass Thalassia testudinum. (B035)

COASTAL BLUE CARBON: CURRENT SCIENCE, POLICY AND MANAGEMENT EFFORTS

Cornu, Craig; Apple, Jude; Yednock, Bree; Kauffman, Boone; Janousek, Chris; Brophy, Laura; Borde, Amy; Diefenderfer, Heida; Thom, Ronald; Ewald, Michael; Angell, Cathy; Bragg, John; Crooks, Steve; Windham-Myers, Lisamarie; Penrith, Sean; Antonioli, David; Liu, Jenny; Gaeckle, Jeffrey; Sloane, Evyan; Moore, Amber; McMahon, Shawn. End User-Driven Quantification and Public Dissemination of Pacific Northwest Blue Carbon Information. (B042)

Powell, Elisabeth; Watson, Elizabeth; Martin, Rose; Krause, Johannes. The Effect of Open Marsh Water Management Practices on the Carbon Balance of Tidal Marshes. (B043)

Krause, Johannes; Watson, Elizabeth; Hinojosa Corona, Alejandro; Gray, Andrew; MacDonald, Julianna; Raper, Kirk. Assessment of blue carbon stocks and storage in seagrass meadows of Bahía San Quintín, México. (B044)

Sharma, Sahadev; Analuddin, Kangkuso; Rahim, Saban; Gibranmusa, Alfirman; MacKenzie, Richard; Sparks, Jed; Litton, Creighton. Soil greenhouse gas emissions from intact, deforested, and restored mangrove forests in Southeast Sulawesi, Indonesia. (B045)

MONDAY POSTER SESSIONS

PHYSIOLOGICAL ECOLOGY IN THE ANTHROPOCENE: LINKING THE LABORATORY AND FIELD

Zuelow, Angelina; Henkel, Sarah. Caloric density changes in the shrimp (Crangon alaskensis) associated with the North Pacific marine heatwave. (B052)

Ul-Hasan, Sabah; Malloy, Michael; Hofmeister, Jenny; Sistrom, Mark. Anthropogenic impacts on the morphology and ecology of venomous marine gastropod species Californiconus californicus. (B053)

Yeghissian, Talene; Glos, Haley; Cohen, Jonathan. Seasonal body-size variation of Delaware Bay copepods: effect of temperature and food on growth rates. (B054)

Heppell, Scott; **Jainarine, Naomi**. Assessing potential changes in reproductive success of female Sebastes melanops during changing climates in Oregon. (B055)

GOING OVER THE EDGE? CLIMATE-RELATED THRESHOLDS IN COASTAL SYSTEMS

Johnson, Adelaide; Noel, James; Kruger, Linda; Gregovich, David. Assessing Impacts of Submerging and Emerging Shorelines on Benthic Species. (B058)

Folger, Christina; Lee II, Henry; Graham, Rene; Reusser, Bob; Reusser, Deborah; Clinton, Patrick. Assessing Temperature Risk to Crab in the Northeast Pacific (Southern California to the Beaufort Sea). (B059)

CASTING THE NET WIDELY: BROADER IMPACTS PRACTITIONERS SHARE LESSONS LEARNED

Varadarajan, Ashwin; Kolonia, Emily; Condon, Ian; Varadarajan, Varun; Bostick, Cooper; Condon, Tristan; Flynt, Charlie; Condon, Robert. Effects of temperature on asexual budding and strobilation in Atlantic sea nettle jellyfish polyps. (B062)

Condon, Ian; Bostick, Cooper; Marsh, Julia; DenHartog, Anne-Claire; Darrow, Elizabeth; Condon, Robert. Potential connections between solar flares and jellyfish beaching events. (B063)

Varadarajan, Varun; Flynt, Charlie; Condon, Ian; Condon, Tristan; Varadarajan, Ashwin; Bostick, Cooper; Condon, Robert. Project deBort: Novel techniques for examining ocean-atmospheric interactions using stratospheric weather balloons. (B064)

IMPACTS OF URBANIZATION ON ESTUARINE ECOSYSTEMS & WATER QUALITY

Zheng, Guangming; DiGiacomo, Paul. Comparing water quality variability between two Chesapeake estuaries based on satellite observations. (B072)

Jackson, Lela; Grace, Sean; Breslin, Vincent. Mercury Sorption in Chondrus crispus (Stackhouse 1797) in Long Island Sound coastal harbors. (B073)

Sylvester, Zephyr; Peacock, Melissa; McKibben, Morgaine; Kudela, Raphael; Senn, David. Naturally-occurring mussels as algal toxin biomonitors in San Francisco Bay. (B074)

Talley, Drew; Clay, Amber; DeSantiago, Ric; Talley, Theresa. Foraging strategy may predict anthropogenic debris consumption in wetland fishes. (B075)

HUMANS AND THE ENVIRONMENT

Gervasi, Carissa; Rehage, Jennifer. Detecting and Countering Fisheries-Induced Evolution Using Marine Protected Areas. (B076)

Boyd, Anjali; McKean, Shelby; Mann, David; Stallings, Christopher; Gowans, Shannon; Simard, Peter. Soundscape analysis of Tampa Bay and the West Florida Shelf (Gulf of Mexico). (B077)

Porter, Read; Bowling, Terra; Jedziniak, Jamison. Preventing fishing gear loss from vessel interactions. (B078)

Parker, Ryan; Dorgan, Kelly; Ballentine, Will; Kiskaddon, Erin; Robertson, Allison; Berke, Sarah; Bell, Susan. Sublethal impacts of oil exposure on common bioturbating infauna of the northern Gulf of Mexico. (B079)

Tietz, Kasey; Crosby, Sarah; Cantatore, Nicole. Spatial distribution of E. coli in a waterway and implications for pollution source detection. (B080)

Walters, Linda; Donnelly, Melinda; Cook, Geoffrey; Chambers, Lisa; Kibler, Kelly; Rivera, Fernando; Timothy, Hawthorne. Restoration in Florida: interdisciplinary research to understand ecological function and sense of place. (B081)

Baechler, Britta. Providing a baseline of microplastic concentrations in Oregon's Pacific Oysters and Pacific Razor Clams. (B082)

COASTAL SYSTEMS IN TRANSITION TO A NEW GEOLOGIC EPOCH

Long, Joshua; Hanebuth, J.J. Till. Late Quaternary stratigraphic architecture of the Santee River Delta, South Carolina, U.S.A. (B096)

Reynolds, Laura; Simms, Alexander. Variability in sedimentation rates in southern Californian estuaries from the late Holocene through the Anthropocene. (B097)

Adler, Michaela; Carlin, Joseph; Leeper, Robert; Aranda, Angela; Avnaim-Katav, Simona; Kirby, Matthew; Rhodes, Brady. Utilizing Wetland Stratigraphy to Reconstruct the Paleoseismic History of the Newport- Inglewood Fault Zone. (B098)

Dickson, Sarah; Carlin, Joseph; Bonuso, Nicole. Southern California wetland evolution in the Holocene: understanding the shift from oysters to salt marsh. (B099)

HABITATS AND THEIR INHABITANTS: SAV

Klohmann, Corinne; Graham, Olivia; Harvell, Catherine. The influence of storage methods on wasting disease development in Zostera marina. (C036)

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HABITATS AND THEIR INHABITANTS: FISH AND INVERTEBRATES

Garvey, Caitlin; Dix, Nikki. Comparing the Influence of Crabs in Salt Marsh and Mangrove Habitats. (C038)

Blennau, Jade; Glazner, Rachael; Armitage, Anna. Black Mangroves Decrease Callinectes sapidus (blue crab) Predation Success. (C039)

RELATIONSHIPS BETWEEN COMMERCIALLY FISHED INVERTEBRATES AND THEIR HABITATS

Robertson, Matthew; Midway, Stephen. Hypothesized mangrove-fisheries relationships in coastal Tanzania. (C046)

Condon, Michele; Parker, Katherine; Byron, Carrie; St. Gelais, Adam. A histopathological health survey of farmed blue mussels (Mytilus edulis) in the Gulf of Maine. (C047)

MUD, MACROFAUNA AND MICROBES: AN ODE TO MULTISCALAR BENTHIC INTERACTIONS

Salisbury, Lauren; Duball, Chelsea; Amador, Jose; Stolt, Mark. Community structure and succesional patterns of benthic infauna of Rhode Island oyster farms. (C048)

Gore, Beija; Brooks, Kendra; Cesbron, Florian; Patterson, William; Caffrey, Jane. Evaluating primary productivity and respiration on artificial reefs using biofilm samplers. (C049)

FACTORS AFFECTING HOST-PATHOGEN DYNAMICS IN FOUNDATION SPECIES ACROSS MARINE ECOSYSTEMS

Shuey, Meli; Ellis, William. Isolation of phytopathogenic fungus gall disease found on Rhizophora mangle in Tampa Bay. (C050)

ECOLOGICAL AND FISHERIES IMPACTS OF HYPOXIA ON COASTAL ECOSYSTEMS

Jarrett, Robert; Lyubchich, Vyacheslav; Testa, Jeremy. Predicting anoxic volumes of Chesapeake Bay: utilizing bootstrapping to improve forecasts. (C061)

Gotthardt, Zachary; Harris, Lora; Testa, Jeremy. Quantifying the ecosystem metabolism of a tidal estuary as a consequence of aeration. (C063)

Ormerod, Kevin; Berounsky, Veronica; Robinson, Rebecca. Increasing understanding of an anoxic ecosystem: oxygen, temperature, salinity, chlorophyll and nutrient profiles by season. (C064)

COLLABORATING ACROSS GEOGRAPHIC SCALES: INTEGRATING ESTUARINE AND COASTAL OCEAN INFORMATION

Thurston, Heather; McDermott, Greg; Tenzar, Jessica; Kelsey, Lyndsay; Diaz, Robert. Long-Term Monitoring of a Habitat Enhancement Cap at the Marine Corps Base Quantico. (C065)

ADAPTIVE MANAGEMENT AND INTEGRATION OF DATA AND MODELLING INTO DECISION-MAKING

Ramseur, George. Interstate collaboration prioritizes function over politics for a major Gulf of Mexico estuary. (C072)

Hitt, Jessica; Johnson, Tera. Advancing Climate-Informed Coastal and Estuary Adaptation through the Climate Adaptation Knowledge Exchange (CAKE). (C073)

Meyers, Michelle; Godsey, Elizabeth; Dalyander, Soupy; Enwright, Nicholas; McDonald, Justin. Baseline Conditions Assessment for the Mississippi Coastal Improvements Program, Barrier Island Restoration in Mississippi, USA. (C075)

Bosma, Kirk; Smith, Timothy; Derleth, Eric. Restoring the Herring River Estuary: Hydrodynamic Modeling to support Engineering Design and Adaptive Management. (C081)

Fox, Sophia; Mittermayr, Agnes; Medeiros, Kelly; Smith, Timothy. Understanding the effects of tidal restriction in Herring River Estuary and application to restoration planning. (C082)

Ferguson, Amy; Wiberg, Patricia. Characterizing marsh vulnerability to erosion along the Virginia Eastern Shore. (C083)

Whitney, Payson; **Mahoney, Michael**; Sebasky, Kristen. Use of state of the art buoy technology to monitor water quality. (C084)

Buenau, Kate; Sather, Nichole; Borde, Amy; Johnson, Gary. Data Availability and Approach for Salmon Estuarine Habitat Index (SEHI) Modeling. (C085)

NUTRIENT INPUT DECLINES AND THE RESTORATION OF URBAN COASTAL SYSTEMS

Plummer, Patrick; Rychtanek, Allison; Tobias, Craig. Reduction of NO_2- to N_2O for Isotopic Determination. (C091)

Taplin, Bryan; Pruell, Richard; Miller, Kenneth. Changes in nitrogen isotope ratios in estuarine biota following nutrient reductions to Narragansett Bay. (C092)

Boothman, Warren; Coiro, Laura. Modern history of hypoxia in Narragansett Bay: the geochemical record. (C093)

Melrose, Donald; McManus, Michael; Krumholz, Jason. The influence of nutrients on summer phytoplankton community composition in Narragansett Bay. (C094)

Uva, Thomas; Motta, John; Kelly, James; Comeau, Christine; Moore, Eliza; Flickinger, Sarah; **Cortes, Karen**. Comprehensive environmental monitoring in a rapidly changing estuary. (C095)

ASSESSING GREEN AND GREEN-GRAY SYSTEMS FOR COASTAL RISK REDUCTION

Chambers, Randy; Bilkovic, Donna; Mitchell, Molly; Russell, Timothy. Accrual of Nutrients in Created Fringing Tidal Marshes. (C096)

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OBSERVATIONAL AND MODELING STUDIES AT THE LAND-ESTUARINE INTERFACE

Rosas, Richard; Testa, Jeremy. Quantifying Net Transport and Transformation of Carbon and Nutrients in the Delaware Bay estuary. (C097)

Lucas, Lisa; Kimmerer, Wim; Thompson, Janet; Achete, Fernanda; Martyr, Rosanne; van der Wegen, Mick; Knowles, Noah; Vroom, Julia; Troost, Tineke; Los, Hans; Fregoso, Theresa; Dinitz, Laura. 3D Phytoplankton Modeling in a Strongly Tidal, High-Nutrient, Low-Light, Clam-Rich System. (C098)

Turner, Jessica; Friedrichs, Carl; Friedrichs, Marjorie. Improving modeled light attenuation (KD) in a land-estuarine ocean biogeochemical model for Chesapeake Bay. (C099)

FROM OBJECTIVES TO ACTIONS: TECHNICAL SUPPORT FOR ECOSYSTEM MANAGEMENT PLANNING

Tian, Bo; Zhang, Ting. Priority management of migratory shorebirds habitat on dynamic delta estuary. (C111)

Roman, Charles; Becker, Austin; August, Peter; Neville, Amber; Rohr, Nicole; Sassi, Janice; Swift, Judith. Coastal climate response demonstration sites: a forum for evaluating adaptation strategies. (C112)

DATA-CENTRIC STRATEGIES FOR ESTUARINE AND COASTAL MANAGEMENT

DeWitt, Thomas; Rose, Kelly; Bishop, Michael; Martin, Shannon; Bauer, Jennifer; Smith, Cecilia. Data integration in the age of open-access. So now what? (C113)

Vella, Prassede; DiBona, Pam. Start making sense! Applying diverse data to track estuarine conditions and trends. (C114)

PHYSICAL AND BIOGEOCHEMICAL INTERACTIONS AFFECTING NUTRIENT CYCLING

Foster, Sarah; Fulweiler, Robinson. Impacts of low oxygen on sediment biogeochemical fluxes in a shallow, temperate estuary. (C115)

Shen, Yuan; **Zhang, Jingping**; Zhang, Xia; Liu, Songlin; Huang, Xiaoping. Form characteristics of phosphorus and its releasing potential in the sediments of Daya bay. (C121)

Walker, Lily; Wetz, Michael; Hayes, Kenneth. Timescales of Dissolved Oxygen Variability in a Semiarid South Texas Estuary (Baffin Bay). (C122)

Banta, Gary; Hansen, Kristian; Andersen, Mikkel; Giblin, Anne. Decomposition in Danish saltmarsh sediments investigated using a flow-through plug reactor. (C124)

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Lopez, Leysa; Staver, Lorie; Cornwell, Jeffrey. Nitrogen Fixation Assessment of the Restored Tidal Marshes at Poplar Island Using Acetylene Reduction Assay. (C125)

Li, Song; Twilley, Robert; Christensen, Alexandra. Nitrogen fluxes across hydrogeomorphic zones in coastal deltaic floodplain using flow-through technique. (C126)

Roose, Jordan; Cornwell, Jeffrey; Frana, Mark; Owens, Michael; Stribling, Judith. Comparing Denitrification Rates and Bacterial Community Structure in an Established and a Newly Constructed Wetland. (C127)

Courtney, Sophia; Watson, Elizabeth. Effects of poor water quality on arenchyma formation in Spartina patens. (C128)

FROM THE GROUND UP: STAKEHOLDER-DRIVEN PROCESSES FOR ESTUARY MANAGEMENT

Molino, Grace; Kennery, Melissa; Sutton-Grier, Ariana; Penn, Kim. Stakeholder-Defined Needs Analysis in Northeast U.S. Coastal Communities to Determine Research Gaps Informing Resilience Planning. (C129)

DeLorme, Denise; Stephens, Sonia; Collini, Renee; Hagen, Scott. Flooding Mitigation Options for Northern U.S. Gulf Coast Communities: Views from Stakeholder Focus Groups. (C130)

Detweiler, Derek; Pohlman, Kathryn. Stormwater management on a coastal university campus: assessing contaminant sources and promoting sustainable stewardship. (C136)

Hillyer, Gabrielle; Brady, Damian; McGreavy, Bridie; Beal, Brian; Garwood, Phillip. A Participatory Modeling Approach to Understanding the Transport of Pathogenic Bacteria on Maine Mudflats. (C137)

CMECS: A "COMMON LANGUAGE" FOR APPLICATION TO COASTAL HABITAT MAPPING

Moore, Eliza. Benthic video monitoring in Narragansett Bay – observations using the CMECS language. (C139)

COASTAL MAPPING: COSTLY MAPS FOR COST-EFFECTIVE COASTAL AND ESTUARINE MANAGEMENT

Payne, Maggie; Surabian, Debbie; **Turenne, Jim**. Coastal Zone Soil Survey. (C140)

van Proosdij, Danika; Graham, Jennifer; Matheson, Graeme; Bowron, Tony; Ross, Christopher; Bekkers, Kevin. Striking a Balance: Applying Ecomorphodynamic Principles to Enhance Resilience of Dykelands to Climate Change. (C149)

Smith, Theresa; Borrelli, Mark. Benthic mapping technologies: lessons learned using phase-measuring sidescan sonar to map shallow coastal embayments. (C150)

Venherm, Claudia; Alexander, Clark; Robinson, Michael. Benthic Habitat Mapping using different Tools and their Derivatives in Ossabaw Sound, GA. (C151)

Kalacska, Margaret; Chmura, Gail; Berube, Dominique; Lucanus, Oiver; Arroyo-Mora, J. Pablo. Structure from Motion will Revolutionize Analyses of Salt Marsh Landscapes. (C152)

Privott, Thomas; Stolt, Mark. Mapping the shallow subtidal coastal environment: An example from Niantic Bay, Connecticut. (C153)

INFLUENCE OF THE CONOWINGO POND ON CHESAPEAKE BAY WATER QUALITY+

Ball, William; Zhang, Qian. Net Deposition behind Conowingo Dam under Different Flow Conditions: Trends and Uncertainties. (C147)

Barletta, Stephanie; Sanford, Lawrence. Variability in particle sizes and settling speeds in the surface layer of upper Chesapeake Bay. (C148)

INFLECTION POINT IN COASTAL SCIENCE: RESEARCH ACCESS FOR UNDERREPRESENTED STUDENTS

Berounsky, Veronica; Heffner, Leanna; Oczkowski, Autumn; Fulweiler, Robinson; Schmidt, Courtney; Fields, Lindsey; Jessen, Brita; Windecker, Laura. From nitrogen to Tanqueray: a study of Nixonite production and biogeochemigraduate cycling. (C158)

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HYDRODYNAMICS AND SEDIMENT DYNAMICS IN ESTUARIES AND COASTAL SEAS

Bergondo, Deanna. Variations in Along Channel Stratification in the Thames River Estuary Connecticut from 2006-2016. (A001)

Orozco, Priscila; Miranda, Luiz; **Moller Jr., Osmar**. Patos Lagoon Estuarine Steady-state Circulation Using Analytical Models. (A002)

Guerra, Gisselle; Reyes-Merlo, Miguel; Diéz-Minguito, Manuel; Valle-Levinson, Arnoldo. Statistical assessment of saltwater intrusion in a subtropical estuary. (A003)

Salehi, Mehrdad. Thermal Dispersion in an Estuarine Environment under various Available Forcings. (A004)

Fitzpatrick, Catherine; Kolker, Alexander; Chu, Philip. MR plume variation in the GOM from data synthesis of model outputs and MODIS imagery. (A005)

Chen, Yu; He, Qing; Shen, Jian; Guo, Leicheng; Guo, Chao. Response of human driven on sediment transport in estuarine turbidity maximum. (A011)

Cao, Zhendong; Olabarrieta, Maitane. Relative contributions of subtidal flow and tidal distortion to net sediment transport in tide-dominated estuaries. (A012)

Styles, Richard; Smith, Jarrell; Bryant, Duncan; Gailani, Joe; Snedden, Gregg. Sediment Dynamics in a Vegetated Tidally Influenced Interdistributary Island. (A013)

Kalra, Tarandeep; Ganju, Neil; Aretxabaleta, Alfredo; Warner, John. Marsh Evolution Using A Coupled Wave-Flow-Sediment Model. (A014)

Wardwell, Nathan; **Zieserl, Michael**. Analysis of partial tide range datum uncertainty using an online tidal datum computation tool. (A021)

Luscher, Audra; Huang, Lijuan; Licate, Lou. Working with Water Level Data Using a New NOAA Tidal Datum Calculator Tool. (A022)

Du, Jiabi; Shen, Jian; Wang, Yaping; Yu, Xin. Overtides simulation in Bohai, Yellow and East China Seas and its implication on sediment transport. (A023)

Wolfinger, Dylan; Watson, Elizabeth; Gray, Andrew. Groundwater Hydrologic Exchange in Grid-Ditched Tidal Wetlands. (A024)

Whisner, Jennifer; Venn, Cynthia. Hydrologic restrictions limit resilience of salt marsh in Greenbackville, VA. (A025)

Huguet, Jean-Rémy; Brenon, Isabelle. Impact of pontoons on water circulation and turbulence in La Rochelle Harbor (France). (A031)

Lokesh, Lokesha; Sannasi Annamalaisamy, Sannsiraj; **Vallam, Sundar**. Hydrodynamic characteristics of multiple submerged reef breakwaters due to regular waves. (A032)

Sutherland, David; Conroy, Ted; Marin Jarrin, Maria; Ralston, David. Natural and human-induced interaction between two small, seasonal PNW estuaries. (A033)

Myers, Elise; Medina, Arianna; Juhl, Andrew; Levin, Simon; O'Mullan, Gregory. Modeling the fate of particle-associated fecal indicator bacteria and pathogens in the Hudson River Estuary. (A034)

Davis, Sierra; King, John; Grilli, Stephan. Utilizing Beach Profile Time-Series and Empirical Eigenfunctions to Assess Coastal Geomorphology in Southern Rhode Island. (A041)

Schambach, Lauren; Grilli, Annette; Hashemi, Reza; Grilli, Stephan; King, John. Assessing extreme storms impact on barrier beaches: Application to the southern Rhode Island coast. (A042)

Wei, Xiaoyan; Brown, Jennifer; Amoudry, Laurent. The impact of storm-tide interaction on coastal hydrodynamics: sensitivity to the storm propagation speed. (A043)

Hayward, Scott; **Hashemi, M Reza**; Grilli, Annette; Grilli, Stephan; King, John. Assessment of the response of beach to coastal storms: effect of offshore reefs and sandbanks. (A044)

Ralston, David; **Chant, Robert**; Ganju, Neil; Schubert, Christopher; Pianca, Cassia. A sediment Budget for Jamaica Bay. (A045)

EVALUATING THE RESILIENCE OF SOCIAL-ECOLOGICAL SYSTEMS FACING WATER QUALITY CHALLENGES

Mazzotta, Marisa; Mulvaney, Kate; Lyon, Sarina; Merrill, Nathaniel. Wading through perceptions: Understanding human perceptions of water quality in coastal waters. (A050)

THE OPPORTUNITIES AND CHALLENGES OF URBAN COASTAL SUSTAINABILITY

Furman, Kelsi; Scyphers, Steven. Integrating Ecological Variation and Environmental Justice for Coastal Planning in the Florida Keys. (A051)

O'Donnell, Kiera; Arkema, Katie; Beck, Michael; Gittman, Rachel; Grabowski, Jonathan; Ruth, Matthias; Scyphers, Steven. Does exposure to coastal hazards relate to societal concern? A study of northeast coastal residents. (A052)

FINAL ECOSYSTEM GOODS AND SERVICES (FEGS) FOR ECOSYSTEM MANAGEMENT

Skeehan, Emily; Yamakita, Takehisa; Matsuba, Misako. A systematic quantitative review of marine ecosystem services and Tokyo Bay case study. (A054)

Martin, Shannon; Kelble, Chris; Giordano, Steve. Applying the IEA process to Mississippi River sediment diversions: supporting management decision-making with objective science. (A055)

WEDNESDAY POSTER SESSIONS

INVASIVES

Remis, Ana; Cox, Daniel; Ceballos, Lina; Chang, Andrew. Salinity tolerance of the introduced Atlantic clam Gemma gemma from San Francisco Bay. (A067)

Drexler, Judith; Work, Paul; Schoellhamer, David; Lacy, Jessica; Downing-Kunz, Maureen; Khanna, Shruti. The impact of invasive aquatic vegetation on estuarine sediment dynamics and marsh formation processes. (A068)

Dionesotes, Mellissa; Eulie, Devon; Toothman, Byron. Examining invasive alga, Gracilaria vermiculophylla's effect on marsh erosion at the Zeke's Island Reserve, NC. (A069)

Arenas, Anita; Whitcraft, Christine; Porter, Kelly; Grewell, Brenda. Effects of Iris pseudacorus on Plant and Invertebrate Communities in a Southern California Estuary. (A070)

RESPONSE OF COASTAL WETLANDS TO SEA-LEVEL RISE AND CLIMATE CHANGE

Rodriguez, Elise; Weston, Nathaniel; Craft, Christopher; Solohin, Elena. Land Use Impacts on Mineral Sediment Delivery and Accretion Rates in Tidal Wetlands. (B001)

Lemein, Todd; Albert, Dennis; Cox, Dan. Spatial and Temporal Variations in Estuary Sediment Accretion in Tillamook Bay, OR. (B002)

Rybczyk, John; Poppe, Katrina. Elevation Change, Carbon Sequestration and Resiliency to Sea Level Rise in a Pacific Northwest Estuary. (B003)

Padgett, J.; Engelhart, Simon; Halavik, Byron; Stearns, Rachel; Janigian, G.; Russell, F. A sedimentary high-energy wave record from Narragansett Bay, Rhode Island. (B004)

Payne, Andrew. Sea level rise effects on plant growth and elevation dynamics in New Hampshire salt marshes. (B005)

Yuan, Lin; Li, Hui. Alternative Stable States of Coastal Wetland Ecosystem in Yangtze Estuary, China. (B011)

Kelsey, Samuel; Forbrich, Inke; Messerschmidt, Tyler; Giblin, Anne; Hopkinson, Charles. Calculating marsh porewater nutrient and DOC contributions to the surrounding estuary using water level loggers. (B012)

Lampasona, Diana. Creating Digital Elevation Models and Vegetation Classification Systems to Determine Marsh Response. (B013)

CLIMATE CHANGE, SEA-LEVEL RISE AND WATERSHED MANAGEMENT: COASTAL WETLAND RESPONSES

Woock, Celeste; Kulp, Mark; Kolker, Alexander; Khalil, Syed. Analysis of Subsidence Rates and Patterns along the Louisiana Coast: Barataria and Terrebonne Basins. (B010)

AT THE INTERSECTION OF ECOLOGY AND MANAGEMENT: TOWARD COASTAL RESILIENCE

Hardy, Amber; Stolt, Mark. Vegetative and edaphic responses of tidal marshes to deposition: Ameliorating effects of sea level rise. (B014)

Davey, Earl; Wigand, Cathleen; Martin, Rose; Hill, Troy; Turek, James; O'Reilly, Michael; Blum, Linda. Assessing saltmarsh recovery using computer-aided tomography technology (CTT). (B015)

Vlietstra, Lucy; Critser, Lindsey; Hosley, Cecelia. Kelp and coastal resilience in southeast Alaska: partnerships in marine conservation science and undergraduate education. (B016)

SYSTEMIC APPROACHES TOWARD UNDERSTANDING ESTUARINE AND COASTAL RESILIENCE AND SUSTAINABILITY

Balogh, Stephen; Wigand, Cathleen; Merrill, Nathaniel; Mulvaney, Kate. Incorporating a socio-ecological-technological perspective into the adaptive management framework. (B022)

Kim, Daehwan; Min, Dongki. Developing Sustainability Index of Geumgang Estuary, South Korea. (B023)

ACIDIFICATION IN THE COASTAL ENVIRONMENT: DRIVERS, CO-STRESSORS, AND BIOLOGICAL RESPONSES

Fontenot, Amanda; White, John; Poach, Matthew. Tidal Fluctuations of pH, DIC, and DOC in a Sandy Hook Bay Coastal Wetland. (B024)

Tokoro, Tatsuki; Nakaoka, Masahiro; Isaka, Yuichi; Ahn, Hyojin; Hori, Masakazu; Kuwae, Tomohiro. Development of Free-Ocean Real-Time Experimental System for an in-situ CO2 manipulative experiment in eelgrass beds. (B025)

Uetrecht, Madison; White, Meredith; Turner, Elizabeth; Mook, Bill. Oyster aquaculture in changing conditions: Influence of saturation state on juvenile calcification. (B026)

Longmire, Katherine; Glaspie, Cassandra; Seitz, Rochelle. The effects of ocean acidification on predator-prey interactions between Mya arenaria and Callinectes sapidus. (B028)

Cerny-Chipman, Elizabeth; Menge, Bruce. Ocean acidification weakens predation and increases handling times in a snail predator. (B029)

Kleinas, Nicole; Carroll, John. The effect of ocean acidification on sex-change cues in a protandrous gastropod. (B030)

WEDNESDAY POSTER SESSIONS

COASTAL VEGETATED HABITATS AS CARBON SINKS-SOURCES IN A CHANGING WORLD

Sacks, Joshua; Knobloch, Amanda; Canuel, Elizabeth. Sources and Composition of Organic Matter in Tidal Marsh Sediments of Chesapeake Bay. (B036)

Zawatski, Mary; Weston, Nathaniel. Carbon dynamics in the face of sea-level rise in salt marshes of Plum Island, MA. (B037)

Silva, Camila; Barber, Don; Aponte, Mercedes; Mozdzer, Thomas. Nutrient enrichment reduces blue carbon pools in a New England Salt Marsh. (B038)

Johnson, Beverly; **Kulesza, Ashley**; Dostie, Philip. A preliminary assessment of carbon stored in Maine salt marshes. (B039)

Zhang, Ting; Tian, Bo. Processed-based assessment of coastal wetlands condition with remote sensing and in-situ data. (B040)

Levoy, Shayne; Chmura, Gail. Impact of eutrophication on Spartina patens belowground biomass. (B047)

Sanford, Alison; Vulgaropulos, Zoe; Owens, Michael; Cornwell, Jeffrey. Remineralization of Eroded Tidal Wetland Sediments. (B048)

Hayn, Melanie; Marino, Roxanne; Howarth, Robert. Effects of eutrophication on seagrass habitat, biogeochemical cycling, and carbon storage in West Falmouth Harbor. (B049)

Schenck, Rowena; Gosselin, Kelsey; Yoo, Gyujong; Forbrich, Inke; Spivak, Amanda. Sediment respiration and sulfur cycling in salt marsh ponds. (B050)

QUANTIFYING THE EXCHANGE OF CARBON BETWEEN COASTAL HABITATS

Douglas, Sarah; Hardison, Amber. Lipids as particulate organic matter source biomarkers in the Mission-Aransas Estuary, Texas. (B051)

ECOLOGICAL RESPONSES TO CLIMATE INDUCED MANGROVE EXPANSION INTO SALT MARSHES

Walker, Julie; Angelini, Christine; Osborne, Todd. Effects of mangrove encroachment on fish habitat in Mangrove Saltmarsh transition zone. (B057)

Rasquinha, Dina; Mishra, Deepak. Mangrove forest dynamics of Bhittarkanika Conservation Area (BCA), India. (B065)

Sanchez, David; Mancera, Jose Ernesto; Bernal, Gladys. Erosion control and sediment dynamics in fringe mangroves from the Cispata Bay, Colombian Caribbean. (B066)

Ziegler, Mikaela; Weaver, Carolyn; Proffitt, C. Edward. A growing concern: black mangrove encroachment in south Texas. (B067)

Aslan, Herdem; Powell, Christina; Baustian, Melissa; Polito, Michael. Influence of mangrove expansion on salt marsh benthic infauna communities. (B068)

Howard, Rebecca; Allain, Larry; From, Andrew. Surface elevation dynamics in a marsh-to-mangrove transition zone: vulnerability to sea-level rise. (B069)

Glazner, Rachael; Armitage, Anna. Using an Unmanned Aerial Vehicle to Determine Relative Abundance of Wading Birds in Coastal Wetlands. (B070)

Weaver, Carolyn; Proffitt, C. Edward. Will mangrove expansion into salt marshes elicit changes in the detritivore community? (B071)

CLIMATE AND CLIMATE CHANGE

Sacatelli, Rachael; Lathrop, Richard; Fonseca, Dina; Kennish, Michael; Johnson, Brian; Auermuller, Lisa; Gannon, Kaitlin; Crans, Scott; Spahn, Andrea. Investigating the Interconnectedness of Climate Change and Nuisance Mosquito populations in Costal Sale Marsh Systems. (B060)

Swaney, Dennis; Howarth, Robert. Projected impacts of climatic change on seasonal variation of hydrology in the Hudson River. (B061)

IMPACT OF EXTREME WEATHER ON ESTUARIES: INNOVATIVE METHODS AND MODELING

Donnelly, Melinda; Shaffer, Michelle; Connor, Suzanne; Garvis, Stephanie; Kibler, Kelly; Walters, Linda. Extent of shoreline degradation in urbanized areas on the east coast of central Florida. (B083)

Deaton, Charles; Bost, Molly; Mahoney, Richard; Rodriguez, Antonio; McKee, Brent; Fodrie, Joel. Impacts of land-use change and sedimentation in coastal watersheds across an urban-rural gradient. (B084)

Montero, Angel; Reichert, Roman; O'Mullan, Gregory. Characterization of urban street runoff as a source of microbial fecal contaminants to coastal embayments. (B085)

Martin, Charles; Nejad, Erica; Schraga, Tara; Cloern, James. When it rained, it poured: water-quality and the end of the San Francisco Bay drought. (B086)

Pareja-Roman, Fernando. Tidal variability of the wave energy budget in Delaware Bay. (B087)

Howarth, Marina; Fuentes, Jose; Mejia, Alfonso; Garcia, Susana; Mahjabin, Tasnuva. Controls on evapotranspiration rates in a mangrove forest following hurricane Wilma in the Everglades, FL. (B088)

Turner, Evan; Crockett, Dale; Fernando, Nelun; Sansom, Taylor; Schoenbaechler, Caimee. Impacts of Hurricane Harvey Freshwater Inflows to Texas Bays and Estuaries. (B089)

Lemon, Mary Grace; Keim, Richard. Post-Katrina salt flushing from a forested ridge at Bayou Sauvage National Wildlife Refuge, Louisiana. (B090)

WEDNESDAY POSTER SESSIONS

ENHANCING OUR UNDERSTANDING OF COASTAL ECOSYSTEM RESILIENCE POST HURRICANE SANDY

DiTroia, Alycia; Woodruff, Jonathan; Venti, Nicholas; Mabee, Stephen; Beach, Douglas. Legacy sediment controls on grain size for paraglacial beaches. (B091)

Babson, Amanda. Communicating Hurricane Sandy science and connecting it to management lessons learned to support climate adaptation. (B092)

HURRICANE SANDY: RESTORATION AND RESILIENCY AT NORTHEAST NATIONAL WILDLIFE REFUGES

Zeigler, Sara; Gutierrez, Benjamin; Sturdivant, Emily; Catlin, Daniel; Fraser, James; Karpanty, Sarah; Plant, Nathaniel; Thieler, E. Robert. Influence of storms and human development on early successional coastal nesting habitat for piping plovers. (B093)

Szczepanski, Jack; Hanlon, Heidi; Tolan, Michael. Saltmarsh Resilience at Cape May & Supawna Meadows NWRs: Responding to Hurricane Sandy and Beyond. (B094)

DETECTING AND DETERMINING EFFECTS OF EMERGING CONTAMINANTS IN URBAN ESTUARIES

Setta, Samantha; Lin, Genmei; Archberger, Amanda; Doyle, Shawn; Finkel, Zoe; Irwin, Andrew; Sylvan, Jason; Quigg, Antonietta. The effects of exposure to oil and/or dispersants on the interaction between phytoplankton and bacteria. (B095)

You Mak, Kayley; Juhl, Andrew. Crude oil and the balance of autotrophy and heterotrophy in the Hudson River Estuary. (B100)

Hansen, Gunnar; Baumann, Zofia; Mason, Robert; Cerrato, Robert. Relating Growth Rate to the Methylmercury Concentration of Clams (Mercenaria mercenaria) from Connecticut Coastline Embayments. (B101)

Cantwell, Mark; Katz, David; Sullivan, Julia. Pharmaceuticals in the Hudson River Estuary, Sources, Behavior and Spatial Trends. (B102)

Katz, David; Kuhn, Anne; Sullivan, Julia; Cantwell, Mark. Optimization of Sampling Design to Determine the Spatial Distributions of Emerging Contaminants in Estuaries. (B103)

Robuck, Anna; Durant, Daisy; Lohmann, Rainer. Abundance and flux of halogenated natural products in Narragansett Bay. (B104)

Schlundt, Cathleen; Mark Welch, Jessica; Zettler, Erik; Amaral-Zettler, Linda. Bacterial communities on plastic marine debris: Advanced visualization techniques using laser scanning confocal microscopy. (B105)

Browne, James; Farmer, E. Christa; Peteet, Dorothy. Legacy Contaminants in Eroding Salt Marshes. (B106)

FROM MARSHES TO MANAGEMENT: FEEDBACKS BETWEEN RESTORATION SCIENCE AND MANAGEMENT

Tomasko, David; Erwin, Mark; de Golian, Peter; McAlpin, Gary; Westover, Kelly; Jones, Mike. Development of Freshwater Inflow Diversion Estimates for Hydrologic Restoration Projects in Southwest Florida. (C001)

Santos, Gwen; Boyer, Katharyn. No interactive effects between light and nutrients on San Francisco Bay eelgrass (Zostera marina) growth. (C002)

Lohr, Kathryn; Camp, Emma; Suggett, David; Kuzhiumparambil, Unnikrishnan; Patterson, Joshua. Metabolomics as a novel tool to inform coral restoration. (C003)

Steele, LaTina; Exile, Christelle; Kasinak, Jo-Marie; Mattei, Jennifer. Using predation rates to assess the function of restored Spartina alterniflora marshes. (C004)

Martinez, Meghan; Palmer, Terry; Pollack, Jennifer. Oyster reef restoration: effects on estuarine macrobenthos. (C005)

Lee, Benjamin; Emerson, Kevin; Eierman, Laura. The effects of modern restoration techniques on genetic variability in Crassostrea Virginica, The Eastern Oyster. (C006)

Fang, Iris; Walters, Linda; Chan, Titchenda; Mackie, Kevin; Kibler, Kelly. Left in their wake: Impacts of boating and bioeroders on oyster reef restoration. (C007)

ESTUARINE RESTORATION IN THE NORTHEAST US

Carroll, John; Peterson, Bradley; Tettelbach, Stephen. Using nontarget shellfish for ecosystem restoration. (C008)

REGIONAL MONITORING AND ASSESSMENT FOR ECOSYSTEM RESTORATION AND MANAGEMENT

Klarmann, Phyllis; Walters, Linda. Conceptualizing oyster reef (Crassostrea virginica) management, conservation, and restoration paradigms in a Florida estuary. (C009)

Davenport, Theresa; Hughes, Randall; Grabowski, Jonathan. Effects of restored oyster reef characteristics on reef-enhanced species. (C010)

Harris, Katherine; Stevens, Aiesha. Oyster reef restoration and living shoreline stabilization: impacts on infaunal communities in shallow-water estuaries. (C011)

MacDougal, Elizabeth; Cornett III, John; Fox, Sophia; Sheppard, Rachel; Mittermayr, Agnes; Medeiros, Kelly; Smith, Timothy. Clearing the Waters: Translating the Science Behind Estuarine Restoration. (C021)

Aiello, Erin; O'Leary, Jennifer; Walter, Ryan; Willits, Karissa; Doehring, Carolyn; Yost, Jenn. Evaluation of restoration potential in Morro Bay, California under different physical conditions. (C022)

WEDNESDAY POSTER SESSIONS

Duca, Chelsea; Lessmann, Jeannine; McDonald, Ashley. Growth and succession of mangroves across three created Florida wetlands of differing age. (C023)

Giitter, Margaret; **Green, Emma**; Lewis, Kristy. Implementing an Oyster Monitoring Program in the St. Mary's River Sanctuary, Maryland, USA. (C025)

Baez, Jessica; Thompson, Christine; Evert, Steven. Small-scale oyster restoration in Barnegat Bay, NJ: comparative seeding methods. (C026)

HABITATS AND THEIR INHABITANTS

Baptista, Vânia; Morais, Pedro; Leitão, Francisco; Wolanski, Eric; Castanho, Sara; Ribeiro, Laura; Pousão, Pedro; Teodosio, Alexandra. Habitat choice of temperate fish larvae: Is it a matter of personality? (C012)

Arb, Edward; Posey, Martin; Scharf, Fred; Alphin, Troy. Relative Utilization of Shallow Water Estuarine Habitats by Juvenile Finfish in the Cape Fear Estuary. (C013)

Myers, Olivia; Reyier, Eric; Ahr, Bonnie; Cook, Geoffrey. Quantifying Movement Patterns and Nursery Habitat Use of At Risk Hammerhead Sharks in Central Florida. (C014)

Reijers, Valerie; van den Akker, Marloes; Cruijsen, Peter; Lamers, Leon; van der Heide, Tjisse. Self-reinforcing feedbacks explain the invasion success of Phragmites australis in coastal wetlands. (C015)

Rahman, Md. Munsur; **Noor, Shanjida**; Sakib, Mohiuddin. Impact of anthropogenic interventions on water logging within South Western Region of Bangladesh. (C016)

Marx, Erin; Steele, LaTina. Distribution of epiphytic algae and meiofauna on Spartina alterniflora stems along the Connecticut coast. (C017)

Shribman, Zoë; Lessmann, Jeannine; Chittick, Andrew. Natural mangrove diversity and forest structure in Bali and North Sulawesi, in Indonesia. (C018)

Pilato, Christian; Walters, Linda; Kibler, Kelly. Hydrodynamic limitations and the effects of living shoreline restoration on mangrove recruitment along Florida coastlines. (C019)

Combs, Avonelle; Jarvis, Jessie. Quantifying impacts of seed quality on seagrass meadow resilience to disturbance. (C020)

Welsh, Christina; Pfeiffer-Herbert, Anna; Zimmermann, Elizabeth; Evert, Steven. Interannual variability and long-term trends in environmental conditions over oyster habitat in a Mid-Atlantic estuary. (C027)

D'Andrea, Anthony; Perotti, Elizabeth. Shellfish community patterns in the native and non-native seagrass habitats of Netarts Bay, Oregon, USA. (C028)

Potter, Ariel; Jarvis, Jessie; Alphin, Troy; Arb, Edward. Interactions between seagrass meadows and oyster aquaculture in North Carolina. (C029)

Johnson, Andrew; Statton, John; Orth, Robert; Kendrick, Gary. Sediment bioturbators as a bottleneck to seedling recruitment for the seagrass Posidonia australis. (C030)

HABITATS AND THEIR INHABITANTS: MARSH AND SEAGRASS

Daneshgar, Pedram; **Dudek, Jeffrey**. Impacts of Salt on Juvenile Trees of New Jersey Maritime Forests. (C031)

Staver, Warren; Owens, Michael; Cornwell, Jeffrey. Ammonium Mobility in Marshes Created From Fine-Grained Dredge Materials. (C032)

Himmelstein, Joshua; Durant Vinent, Orencio; Herbert, Ellen; Kirwan, Matthew. Marsh-pond growth driven by the merging of small ponds in Blackwater, Maryland. (C033)

Reiss, Kelly. Drivers of Estuarine Wetland Condition: Outlook from the National Wetland Condition Assessment 2011. (C034)

HABITATS AND THEIR INHABITANTS: CONNECTIVITY

Dugan, Jenifer; **Emery, Kyle**; Miller, Robert; Ohlmann, Carter; Hubbard, David; Koeper, Trenton; Madden, Jessica. Patterns and processes affecting transport, retention and fate of kelp subsidies to sandy beach ecosystems. (C035)

Hernandez, Mario; Midway, Stephen; Polito, Michael. Stable isotopes track the ontogenetic movement of a commercially important fish in coastal Tanzania. (C043)

DIADROMY ACROSS ESTUARIES: RESEARCH, MANAGEMENT AND CITIZEN SCIENCE

Sharma, Shailesh; Waldman, John; Afshari, Shahab; Fekete, Balazs. Fish, Dams and Hydropower: Developing Novel Ways to Increase River Connectivity. (C043)

DeTorre, Marissa; Dunton, Keith; Frisk, Michael; Cerrato, Robert. Selective Feeding Habits of Atlantic Sturgeon. (C044)

MICROBIAL COMMUNITIES AND THE DYNAMICS AND RESILIENCE OF ECOSYSTEM FUNCTION

McKenzie-Reynolds, Petrina; Chintapenta, Lathadevi; Ozbay, Gulnihal. Isolation and Identification of Lead and Cadmium Tolerant Bacteria from Blackbird Creek Marsh in Delaware. (C051)

Beltz, Jack; McMahon, Hayley; Torres Nunez, Isis; Platt, William; Bernhard, Anne. Impacts of drought conditions on ammonia oxidizing archaea and bacteria in a Connecticut salt marsh. (C052)

Stucy, Alexandra; McCoy, Michael; Peralta, Ariane. Salinization impacts on freshwater wetland microbial communities and greenhouse gas emissions. (C053)

WEDNESDAY POSTER SESSIONS

LINKING SPECIES AND HABITAT CONSERVATION FOR GLOBAL HORSESHOE CRAB POPULATIONS

Cooper, James. Limiting the Harm to Horseshoe Crabs in the Biomedical Industry. (C054)

Hoffgaard, Emil; Vestbo, Stine; Funch, Peter. The role of horseshoe crabs in coastal food webs. (C055)

Owings, Meghan; Watson, Winsor; Chabot, Chris. Effects of the biomedical bleeding process on the American horseshoe crab, Limulus polyphemus. (C056)

Sclafani, Matthew; Sukowski, Carolyn; Brousseau, Lorne; McKown, Kim; Sysak, Rachel; Smith, David. Migratory shorebird foraging on horseshoe crab eggs in a small coastal New York embayment. (C057)

Joshi, Viraj; Shah, Vishal; Tanacredi, John. Microbial Flora Associated With Laboratory Breed Horseshoe Crabs. (C058)

Thomas, Tyler; Watson, Winsor; Chabot, Chris. Effects of biomedical bleeding on the orientation of the American Horseshoe Crab. (C059)

Lee, Ga Wun; **Cheung, S G**; Kwan, Kit Yue. Saving Horseshoe Crabs through Community Engagement: Experience from Hong Kong. (C060)

NATURAL AND ANTHROPOGENIC DRIVERS OF FOOD WEB STRUCTURE AND PRODUCTIVITY

Goeke, Janelle; Armitage, Anna. Do more mangroves provide less food? Feeding preferences of Uca spp. in the marsh-mangrove ecotone. (C066)

Kelso, Makayla; Schwartzkopf, Brittany; Heppell, Scott. Identifying Prey Items in Pacific Staghorn Sculpin (Leptocottus armatus) Diets in Three Oregon Estuaries. (C067)

Coria, Cynthia; Whitcraft, Christine. Relationship of Food Source Availability at Huntington State Beach to the Sternula antillarum browni Diet. (C070)

Aguilar, Danielle; Lebreton, Benoit; Pollack, Jennifer; Palmer, Terry. A spatial comparison of oyster isotope compositions and food resources along the Gulf coast. (C076)

Fleming, Justin; Logan, John; Lamborg, Carl; Taylor, David; Carmichael, Ruth; Kinsella, Jessica. Mercury bioaccumulation in estuarine food webs with different nitrogen loads. (C077)

Pathare, Mrunmayee; Stauffer, Beth. Impact of microzooplankton grazing on phytoplankton growth and community structure in a subtropical estuary. (C078)

Davidsohn, Andrew; Byron, Carrie. Invasive predator effects on regularly cultured and harvested soft shell clams (Mya arenaria). (C079)

Owens, Stephanie; Ignoffo, Toni; Kimmerer, Wim. Investigating the impacts of freshwater flow pulses in a managed floodplain. (C080)

Babitch, Jaylyn; Stauffer, Beth; Nelson, James. Size-specific growth, nitrogen cycling, and food web roles of tidal marsh phytoplankton. (C088)

Maurin, Carissa; Byron, Carrie; Wilson, Karen; Moretti, Matthew. Coastal ecosystem food web structure at bivalve farm sites. (C090)

LINKING CHANGING WATERSHED CHARACTERISTICS TO WATER QUALITY TRENDS

DeYoe, Hudson; Pulich, Jr., Warren; Fernando, Nelun. Nutrient Loading Estimation in Two Subwatersheds of the Lower Laguna Madre, Texas. (C086)

Wilson, Sara; Fourqurean, James. How have seagrasses in the Florida Keys responded to implementation of a regional sewer system? (C087)

SCIENCE TO PROTECT OUR ESTUARIES AND COASTS FROM NUTRIENT POLLUTION

Dettmann, Edward; Charlestra, Lucner; Abdelrhman, Mohamed. Time-scale dependence of response of an estuarine water-quality model to nutrient loading. (C100)

Ge, Jianzhong; Torres, Ricardo; Chen, Changsheng; Bellerby, Richard. Impact of High-Turbidity Water's Seasonal and Decadal Variations on Nutrients Dynamics around The Changjiang Estuary. (C101)

WEDNESDAY POSTER SESSIONS

Myers, Justin; McCarthy, Mark; **Newell, Silvia**. Nitrogen loading impacts on denitrification and N_2O production in Old Woman Creek, a coastal wetland. (C102)

Gardner, Wayne; McCarthy, Mark; Lin, Xiao; Hou, Lijun; Carini, Stephen; Newell, Silvia. What happens to spring nitrate loads in the northern Gulf of Mexico water column? (C103)

Cook, Sandra; Holzman, Justine. Wet Land: Spatializing agroecological design and policy to reduce phosphorus run-off at the watershed scale. (C104)

Rao, Alexandra; Charnier, Jérémy; Couturier, Mathilde; Sirois, Maude; Mucci, Alfonso; Chaillou, Gwenaëlle. Nitrogen removal in the hypoxic Lower St. Lawrence Estuary. (C105)

Cornett III, John; MacDougal, Elizabeth; Fox, Sophia; Sheppard, Rachel; Mittermayr, Agnes; Medeiros, Kelly; Smith, Timothy. Understanding seasonal and inter-annual water quality trends within the tidally restricted Herring River Estuary. (C106)

Sanders, Aquanette; Fisher, Tom; Fox, Rebecca. Evaluating the Effectiveness of Drainage Control Structures in Agricultural Fields. (C107)

O'Mullan, Gregory; Montero, Angel. Dissolved oxygen dynamics in New York City's waterways: connections of combined sewer overflow and hypoxia. (C108)

Schumann, Sarah. An Estuary in Flux: Fishermen's Observations of Rapid Ecosystem Change in Narragansett Bay. (C109)

Huang, Xiaoping; Gan, Maolin; Zhang, Jingping; Jiang, Zhijian; Liu, Songlin; Wu, Yunchao. Characteristics of dissolved organic nitrogen in the surface sediment of Daya bay, South China. (C110)

Marino, Roxanne; Hayn, Melanie; Duskey, Elizabeth; Howarth, Robert. Patterns in monitoring data reflect biogeochemical controls on nitrogen trends in a shallow coastal bay. (C117)

SCIENCE BY NON-GOVERNMENTAL ORGANIZATIONS DRIVING ESTUARINE MANAGEMENT, CONSERVATION AND RESTORATION

Fear, John; Mosher, Katie; Lee, E-Ching; Costantini, Danielle. North Carolina Sea Grant: Linking university research to community action. (C118)

Eubanks, Kathleen. Use of Social Media Photos in Studying the Floods in Baton Rouge in August 2016. (C119)

Michel, Cathryn; Phillips, Miles. Studying Experiential Outdoor Recreation & Development of Guide Training Programs. (C120)

Ellis, William; Mackenzie, Jock; Napoletano, Sergio; Nobles, Gregory; Bly, Caitlin; Bly, Jenevieve; Jacus, Isabella; Simpson, Laurian; Soto-Alvarez, Paola. Evaluating the performance of georeferenced video as a citizen science tool for shoreline habitat monitoring. (C131)

French, Emily; Slacum, Ward. To Seed or not to Seed? Developing Criteria for Decision-Making in Oyster Restoration. (C132)

Miller, Corey. Managing Ecosystem Restoration and Flood Resilience while Balancing Stakeholder Interests in the Mississippi River Delta. (C133)

MAPPING ESTUARINE/NEAR-COASTAL SAV: NEW METHODS

Webster, Tim. Topo-bathymetric lidar for coastal research in Maritime Canada. (C134)

Lopez, Anthony; **Larkin, Patrick**. An assessment of clonal diversity at two different sampling scales for the seagrass Halodule Wrightii. (C135)

O'Donnell, Megan; Bencivenga, Tara; Suleski, Anthony; Balzano, Steven. Utilizing GIS to assess submerged aquatic vegetation habitat in the Barnegat Bay, New Jersey. (C141)

Voss, Steven; Ford, Kathryn; Costello, Charles. Seagrass mapping in Massachusetts. (C142)

INFLECTION POINT IN CHESAPEAKE SCIENCE: RETROSPECTIVE CONTRIBUTIONS, PROSPECTIVE OPPORTUNITIES

Yactayo, Guido; Busch, Greg. Temperature Modeling for TMDL Development and Implementation in Nontidal Cold Streams in Maryland. (C145)

CLIMATE CHANGE IN THE CHESAPEAKE AND OTHER COASTAL SYSTEMS

Orth, Robert; Dennison, William; Lefcheck, Jonathan; Gurbisz, Cassie; Hannam, Michael; Keisman, Jeni; Landry, J. Brooke; Moore, Kenneth; Murphy, Rebecca; Patrick, Christopher; Testa, Jeremy; Weller, Donald; **Wilcox, David**. Submersed aquatic vegetation in Chesapeake Bay: sentinel species in a changing world. (C146)

ARTISTIC PATHWAYS TO SCIENTIFIC UNDERSTANDING

Kolesar, Sarah; Haberman, Karen. Artistic pathways to scientific understanding: Collaborative mosaic II. (C159)

Basso, Georgia. Elements of estuaries: intermingling art & science. (C160)

Pfeiffer-Herbert, Anna; Smith, Mariana. Artistic experiments in estuary fluid flows. (C161)

St. Laurent, Kari. The Sound of the Trees: A photography novice's journey in nature. (C162)

****SPECIAL EVENT – a live joint session with our colleagues in Cali, Colombia****
Mechanisms of HAB formation in the freshwater to marine continuum: A global perspective

Greengrove, Cheryl; Masura, Julie; Moore, Stephanie. Alexandrium surface sediment cyst mapping in Puget Sound, WA following an unprecedented bloom. (C163)

VISIONS IV Strategic Plan for the Coastal and Estuarine Research Federation

ABOUT THE FEDERATION

The Coastal and Estuarine Research Federation (CERF) is a multidisciplinary organization of individuals who study, manage, and promote awareness of coastal and estuarine ecosystems, including the effects of human activities on these environments. Federation members are dedicated to advancing understanding and appreciation of the Earth's estuaries and coasts, to promoting the wise use and management of these systems, and to making the results of their research and management actions available to their colleagues and to the public. Members of the Federation are researchers, managers, educators, consultants, students, and others who are interested in estuaries, wetlands, and the coastal ocean.

CERF is a private, nonprofit organization. The Federation was created in 1971, when members of two regionally based estuarine research societies in the United States decided that an international organization was needed to address estuarine and coastal issues more broadly. The regionally based Affiliate Societies now number seven and encompass coastal regions along the United States, Canada, and Mexico; CERF's vision is to more directly serve regions beyond North America.

MISSION AND ACTIVITIES

The Federation advances understanding and stewardship of estuarine and coastal ecosystems worldwide. Its overall mission is to:

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

Membership in the Federation is open to all who support these goals. The Federation currently has approximately 1,400 members from more than 25 countries worldwide; Affiliate Societies have about 1,600 members (some with overlapping membership in CERF) who help to form the Federation.

The Federation addresses the purposes listed above through, but not limited to, the following activities:

- Convening international, biennial conferences
- Supporting frequent meetings of regional Affiliate Societies
- Publishing the scholarly journal Estuaries and Coasts, the quarterly Federation newsletter CERFs Up!, the management-focused electronic publication Coastal and Estuarine Science News (CESN), and the textbook Estuarine Ecology
- Maintaining a CERF website and social media platforms
- Offering training and professional development through webinars, in-person workshops, and similar resources
- Providing advice on estuarine and coastal management and policy issues.

PREVIOUS STRATEGIC PLANS OF THE FEDERATION

The Federation has developed three previous strategic plans. The first strategic plan covered the period 1993–2004, and the second spanned the period 2005–2011. Visions III, covering 2012–2016, was finalized under CERF President Susan Williams and implemented through the Governing Boards led by Walter Boynton (2011–2013), Ken Heck (2013–2015), and Robert Twilley (2015–2017). The goals of these three previous plans have largely been accomplished, although some are long term and ongoing.

At the beginning of Robert Twilley's administration, the Governing Board began strategic planning for Visions IV, to cover the period 2017–2022. The plan was developed by eight Governing Board committees: Affiliate Societies, Career Development and Education, Communications, Conference Strategy, International, Membership, Policy, and Publications. The Governing Board also sought extensive grassroots input from members and Affiliate Societies. The Visions IV strategic plan was ratified by the Governing Board in September 2017 and presented to the Federation at the 24th biennial conference in Providence, Rhode Island. It will guide the Federation's activities through the 50th anniversary celebration in 2021.

VISION FOR THE FUTURE OF THE FEDERATION

CERF is the leading scientific society promoting research, education, and management in coastal and estuarine systems worldwide. The society is the international voice of coastal and estuarine science, with a closely networked membership that is connected to a global community of scientists, managers, policy-makers, educators, and the public. Core to this vision is to promote and to increase support for disciplinary and multidisciplinary scientific research, and to integrate new scientific understanding that improves the management and stewardship of coastal and estuarine ecosystems. Contributing to the vision of CERF are the following elements:

- Recognized leadership in advancing coastal and estuarine research and in communicating its value to society
- A broad, diverse, and inclusive membership within and outside of North America
- Mutually beneficial relationships with regional Affiliate Societies that strengthen and enhance capabilities of both CERF and the Affiliates
- Strong partnerships with related scientific societies and organizations around the world
- Consistently excellent publications and conferences that are highly valued by CERF members and the broader scientific community
- Rich professional development opportunities for members at all career stages and across a range of career paths
- Members who are better able to communicate science and engage with managers and policy-makers to ensure their science is useful and used.

RESEARCH FOUNDATIONS

The Federation is founded on the value of scientific research to society, with a focus on improving the understanding of the structure and function of estuarine and coastal ecosystems. CERF supports and promotes scientific research that improves the fundamental understanding, and the management and stewardship, of coastal ecosystems. CERF serves this role by highlighting new discoveries in its journal, biennial conferences, and other publications and activities. CERF also promotes the communication of new discoveries and the synthesis of existing information to decision-makers and the public. This emphasis on high-quality research is a cross-cutting focus of the themes and objectives described in Visions IV. By promoting high-quality research at various scales, CERF helps to identify significant gaps in the technical knowledge and understanding of estuarine and coastal sciences and to articulate priority areas for new research. It also encourages academic institutions, government agencies, nongovernmental organizations, and other groups to contribute institutional, collaborative, and financial support to address the priority research issues identified by CERF.

THEME I: SUPPORT COASTAL AND ESTUARINE RESEARCH, COMMUNICATION, AND MANAGEMENT

CERF has many avenues for promoting and communicating coastal and estuarine science and management, both internally among members and externally to nonmember scientists, policy-makers, managers, and other audiences. CERF's core tools for supplying information are the biennial conference and CERF's primary publications: the scholarly journal Estuaries and Coasts, the newsletter CERFs Up!, the management-focused electronic publication CESN, and the textbook Estuarine Ecology. CERF's biennial conferences are also recognized as premier networking opportunities for the coastal and estuarine science, management, and education communities. CERF utilizes other communication methods to connect, educate, and engage members and other audiences, such as its website, webinars, social media, and supporting meetings of its regional Affiliate Societies. CERF is also active in education and outreach activities to various audiences including policy-makers, the coastal and estuarine science community, formal and informal educators, and the public through the development and implementation of diverse activities such as briefings, letters, and workshops.

GOAL I-A. IMPROVE THE FEDERATION'S ABILITY TO PROMOTE RESEARCH AND TO COMMUNICATE KEY FINDINGS TO THE SCIENCE AND MANAGEMENT COMMUNITIES

Objectives

1. Develop a communication strategy that specifies and targets key audiences and communication needs, and elucidates how CERF members can use communication tools to achieve the core objectives of the Visions IV strategic plan.
2. Develop or enhance communications tools to achieve communication strategy objectives and to promote key CERF activities.
3. Strengthen the quality of CERF publications, including ensuring publication of high-quality research, reviews, and syntheses, and promote CERF publications and activities worldwide.
4. Transform the CERF newsletter CERFs Up! into a magazine-style publication with expanded content.
5. Evaluate the scope, format, content, and policies of the CERF conference and recommend changes to the Conference Organizing Committee that will enhance collaboration with the Governing Board and its strategic vision for the Federation.
6. Identify and implement mechanisms for promoting interaction among scientists, managers, and students at the international level (i.e., that transcends the North American context).

GOAL I-B. ENHANCE MECHANISMS FOR UTILIZING SCIENTIFIC FINDINGS TO IMPROVE THE EFFECTIVENESS OF POLICY AND MANAGEMENT

Objectives

1. Promote and sponsor educational activities that increase the understanding of coastal and estuarine systems and that enhance the capacity of CERF members and others to engage in outreach and in translation of scientific findings into effective resource management and policy.
2. Enhance and expand the communication of policy-relevant science and applications of scientific findings to support the wise stewardship and management of coastal and estuarine resources.
3. Enhance the role of the Affiliates as catalysts for regional collaborations that facilitate research and information sharing, increase knowledge, and generate syntheses that lead to management actions.
4. Partner with sister societies to leverage strengths and resources toward shared policy outreach goals and objectives.

THEME II: CREATE A COMMUNITY THAT FOSTERS COLLABORATION AND ADVANCES THE EDUCATION OF CURRENT AND FUTURE FEDERATION SCIENTISTS

A fundamental aspect of the CERF mission is to advance the education of, and facilitate collaboration within, the coastal and estuarine community. CERF's value is in building a supportive network of individuals and teams dedicated to diverse aspects of coastal and estuarine science and management, and in providing resources to members to help them advance and succeed in their careers. Visions IV seeks to enhance the resources of the Federation and develop new benefits that help members develop their professional skills. In addition, Visions IV focuses on enhancing opportunities and outreach to key sectors, including the international community, underrepresented minorities, Affiliate Societies, and student and early-career professionals. By articulating and implementing its mission and values, CERF seeks to develop a broader, more diverse, and more inclusive society that will benefit all members.

GOAL II-A. ENHANCE THE MEMBER SERVICES OF THE FEDERATION

Objectives

1. Enhance the value of CERF membership for individuals across the spectrum of coastal and estuarine science careers and throughout the full continuum of career stages by providing educational and professional development resources.
2. Increase the recruitment and retention of student members and the transition of students to professional members by promoting activities that benefit student and early-career development.
3. Expand CERF membership through outreach efforts that articulate CERF's value and through promotion of member benefits to key audiences, including Estuaries and Coasts authors, lapsed members, and the international community beyond North America.

GOAL II-B. ENHANCE BENEFITS TO AFFILIATE SOCIETIES AND OTHER PARTNER ORGANIZATIONS

Objectives

1. Collaborate with Affiliate Societies to engage students, early-career scientists, and other potential members to expand opportunities for CERF and Affiliate members simultaneously.
2. Enhance communication and collaboration among Affiliate Societies and between the Affiliates and CERF.
3. Seek opportunities and establish protocols for formalizing new relationships with scientific societies and regional entities, particularly those outside North America, to promote estuarine and coastal science, management, and policy to a broader membership.

GOAL II-C. BUILD A MORE INCLUSIVE AND DIVERSE FEDERATION

Objectives

1. Broaden participation in CERF by promoting an inclusive culture and opportunities for underrepresented and underserved minorities in coastal and estuarine science at all career stages.
2. Enhance benefits for current and potential international members.

IMPLEMENTATION PLAN

The implementation of this strategic plan is described in the actions, timelines, and metrics listed in a separate Implementation Plan table. The intent of a separate Implementation Plan is to allow the Governing Board and its committees the opportunity to develop detailed actions that can be added to and adjusted as conditions change. The Implementation Plan will be a living document that will be updated at least once during each two-year Governing Board period.

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CERF2017 PASSPORT TO PRIZES

INSTRUCTIONS:

Visit each exhibit booth and ask them about their product/services.

Ask each exhibitor to initial or stamp their company name.

Name: _____

Once you've visited ***at least 20 booths***, fill in your name to the left and drop this page off at the registration desk to be entered to win a variety of prizes. Drawing will take place on Thursday during the Close Out Party & Student Awards Presentation from 5:30–8:30PM. You must be present to win!

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