CERF2019

25TH Biennial Conference

3-7 November 2019 • Mobile, AL

Responsive Relevant Ready

A ROBUST AND EXPANDING RESEARCH ENTERPRISE

The University of Southern Mississippi has been recognized alongside distinguished institutions like Harvard, MIT, Stanford, Johns Hopkins, and others, as one of the nation's leading research universities.

The Carnegie Classification of Institutions of Higher Education recognizes only 130 institutions in the nation as "R1: Doctoral Universities – Very high research activity."

As a leader in marine and coastal science research, USM researchers in our School of Ocean Science and Engineering are advancing the scientific understanding of the Gulf of Mexico.

And at the USM Marine Research Center at the Port of Gulfport, the University is proud to be cultivating one of the Gulf Coast region's largest economic drivers—the new maritime blue economy.

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

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Author/presenter index is available on the CERF 2019 Conference Mobile App – download instructions can be found on page 15

@CERFScience
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Access the CERF 2019 abstracts and schedule on the go: see page 15 for download instructions

Free Wireless Internet Access
Network: CERF2019WiFi
Password: CERF2019

Welcome to CERF 2019


Hilary Neckles

Welcome to the 25th Biennial Conference of the Coastal and Estuarine Research Federation! Our conference connects a global community dedicated to advancing understanding and wise stewardship of estuarine and coastal ecosystems. Above all, it is this community that makes CERF conferences unique. Throughout the week I hope you enjoy the immersion in science critical to coastal sustainability, the inspiration offered by the rich conference program, and the invigoration that arises from connecting to friends and colleagues.

Please join me in thanking the conference committee for developing an exceptional scientific program and many activities to enhance your conference experience. On behalf of the CERF family, I extend a special welcome to the more than 600 students and early-career professionals attending the conference and presenting their work. The organizers have embedded the conference with many opportunities to explore career paths, develop professional networks, and form lifelong, supportive friendships.

CERF's commitment to valuing individual identities and ensuring all people feel welcomed and respected permeates this conference. Plenary panels offering diverse perspectives, the Rising TIDES (Toward an Inclusive, Diverse, and Enriched Society) Conference Program, the Inclusion Luncheon, and scientific sessions steeped in cultural heritage and coastal humanities provide opportunities to embrace differences that will increase our capacity to address complex coastal challenges.

Over the past year the Governing Board enacted significant steps toward creating a CERF culture intolerant of sexual harassment. I invite you to review the Event Code of Conduct included in this program book. Placards are posted throughout the conference venues as reminders of expected behavior and to provide mechanisms for reporting unacceptable conduct.

It has been a great privilege to serve as CERF President over the past two years. The energy, passion, and commitment of the Governing Board, Executive Director Susan Park, headquarters staff, multitude of volunteers, and members toward our collective vision is truly outstanding: I thank you all. Enjoy your week of CERF connections in Mobile, this cultural and culinary hub of the Gulf coast that radiates history, heart, and soul – just like CERF.


Hilary Neckles

Welcome from the CERF Conference Committee Co-Chairs


Leila Hamdan


David Yoskowitz

The journey to CERF 2019 in Mobile, AL began in 2016 with the selection of the city by the Governing Board, but it really started in Spring 2014 when an ice storm trapped a microbial ecologist and economist in Mobile, creating time and space for us to discover all we didn't know about each other's disciplines, and all we could learn towards the benefit of coastal and estuarine ecosystems. The spark was set to create a time and space for others to engage across disciplines and put into motion the core idea for CERF 2019, connecting science and society to preserve coastal and estuarine habitats, resources, and heritage. With the support of CERF Headquarters, the CERF Governing Board, and the tireless work of 58 members of our conference team, we have developed a conference focused around the idea of **Responsive | Relevant | Ready**. A simple phrase invoked to create discussion about how research agendas form and are directed at finding and solving problems facing nature and society.

CERF's 25th biennial conference features two plenary sessions aimed at creating knowledge bridges between natural and social disciplines. We will explore the process involved in environmental decision making, with case studies in coastal resource management and climate impacts. We also examine the importance of citizen science to promote relevant and comprehensive understanding of science with the public. We look forward to lively plenary discussions that ignite conversations in every corner of the conference.

We listened to input from conference attendees in the past and limited concurrent sessions to ten, enabling all to see as much of the conference as possible. Our poster sessions will be filled with interdisciplinary science and late breaking results that emerged through summer 2019. Also woven throughout the conference are events and presentations highlighting Cultural Heritage & Coastal Humanities, allowing us to explore cultural values and stewardship roles of coastal communities.

Pulitzer Prize winning author Dr. Jack Davis will share a story about nature, society and science converging in the Gulf of Mexico during the opening keynote address. Another important event in the conference tapestry is a special presentation on the discovery of the Clotilda, a slave schooner with nationally significant cultural history, and regionally important natural history. Afternoons and evenings will be filled with additional engagement and learning opportunities with two town halls, the film festival, and the CERF Inclusion Lunch. While the theme of the conference strikes a serious tone, we value a core principal of CERF culture: take our science seriously, ourselves not so much. That principal will be on full display with the President's Welcome Reception on Sunday, November 3, which kicks off with a Second Line Procession, led by a local brass band and followed by all CERF attendees.

This conference is the result of the hard work and dedication of CERF volunteers, members and staff. We are grateful to Ruth Carmichael and Frank Hernandez for leading a creative and organized team on the Attendee Experience Committee. They have ensured that the conference will be welcoming, inclusive and engaging. We extend our sincere thanks to Jennifer Pollack, Jim Hagy and Sharon Herzka for leading the dedicated members of the Scientific Program Committee. They have crafted an innovative and ambitious program unlike any CERF before this one. We also thank CERF Executive Director Susan Park for guiding us on this journey.

We can't wait to share this conference and the great city of Mobile with everyone.

Leila and David

CERF 2019 CONFERENCE COMMITTEES

The CERF 2019 Conference wouldn't be possible without the help of the following committees. Thank you to all of those who have participated in planning our favorite event of 2019.

Conference Co-Chairs

Leila Hamdan, *University of Southern Mississippi*
David Yoskowitz, *Harte Research Institute, Texas A&M University, Corpus Christi*

Attendee Experience Committee

Co-Chairs
Ruth Carmichael, *Dauphin Island Sea Lab*
Frank Hernandez, *University of Southern Mississippi*

Family Friendliness
Dottie Byron, *Dauphin Island Sea Lab*

CERF Ambassador Program
Kristy Lewis, *University of Central Florida*
Christine Whitcraft, *California State University, Long Beach*

CERF Inclusion Luncheon
Treda Grayson, *Environmental Protection Agency*
Danielle Kreeger, *Partnership for the Delaware Estuary*
Tina Miller-Way, *Dauphin Island Sea Lab*

Social Event
Joy Bartholomew, *CERF Executive Director Emeritus*
Stephanie Smallegan, *University of South Alabama*
Rachel Mugge, *University of Southern Mississippi*

Conference Art
Janet Nestlerode, *Environmental Protection Agency*

Field Trip
Elizabeth Hieb, *Dauphin Island Sea Lab*
Kim Cressman, *Grand Bay National Estuarine Research Reserve*
Crystal Hightower, *Dauphin Island Sea Lab*
Sandra Huynh, *Grand Bay National Estuarine Research Reserve*
Jason Kudulis, *Mobile Bay National Estuary Program*

CERFers On The Run
Kayla DaCosta, *Dauphin Island Sea Lab*
Jim Hagy, *Environmental Protection Agency*
Haley Nicholson, *Dauphin Island Sea Lab*

Mentoring Program
Sibel Bargu Ates, *Louisiana State University*
Linda Blum, *University of Virginia*

Silent Auction
Beth Darrow, *University of North Carolina-Wilmington*
Pat Reilly, *The Reilly Group*

Social Media
Julian Damashek, *University of Georgia*

Student Career Networking Dinner
Geoff Cook, *University of Central Florida*
Geno Olmi, *National Oceanic and Atmospheric Administration*
Ashley Bulseco, *Northeastern University*

Student "On the Town" Night
Carla Culpepper, *University of Southern Mississippi*
Hank Hodde, *Smart Home America*

Student Travel
Ashley Bulseco, *Northeastern University*
Brian Donnelly, *Northeastern University*
Helen Cheng, *New York Sea Grant, Northeastern University*

Fisheries Town Hall Meeting
Just Cebrian, *Northern Gulf Institute and Mississippi State University*
LaDon Swann, *University of Southern Mississippi*

Scientific Program Committee

Co-Chairs
Jim Hagy, *Environmental Protection Agency*
Sharon Herzka, *Center for Scientific Research and Higher Education of Ensenada (CICESE)*
Jennifer Pollack, *Harte Research Institute, Texas A&M University, Corpus Christi*

Diversity in Science
Corey Garza, *California State University, Monterey Bay*
Treda Grayson, *Environmental Protection Agency*

Education
Linda Walters, *University of Central Florida*

Cultural Heritage/Coastal Humanities
Eric Sparks, *Mississippi State University*
Lee Yokel, *Dauphin Island Sea Lab*

CH/CH Support
Steve Sempier, *Mississippi Alabama Sea Grant Consortium*

Oral Sessions
Jane Caffrey, *University of West Florida*
Mike Wetz, *Texas A&M University, Corpus Christi*

Plenary Sessions
Bob Christian, *East Carolina University*
Megan La Peyre, *USGS, LSU AgCenter*
Paul Montagna, *Harte Research Institute, Texas A&M University, Corpus Christi*

Poster Sessions
Pedro Morais, *University of California, Berkeley*
John White, *Louisiana State University*

Workshops
Nancy Brown-Peterson, *University of Southern Mississippi*
Ben Walther, *Texas A&M University, Corpus Christi*

Film Festival
Cassie Gurbisz, *St. Mary's College of Maryland*
Jace Tunnell, *Mission-Aransas National Estuarine Research Reserve*

Student Judging
Kelly Darnell, *University of Southern Mississippi*
Zach Darnell, *University of Southern Mississippi*

Advisory Committee

Ayesha Gray, *Mississippi Department of Marine Resources*
Holly Greening, *Tampa Bay Estuary Program*
Jan Newton, *University of Washington*
Robert Twilley, *Louisiana State University*

CERF Conference Staff

Susan Park, *Executive Director*
Megan Miller, *Event Director*
Louise Miller, *Chief Operating Officer*
Tiffany Hanzo, *Event Project Manager*
Krystina Toscas, *Event Coordinator*
Ian Smithgall, *Marketing Coordinator*
Lucia Regan, *Exhibition/Sponsorship*
Todd Fake, *Abstract Database Manager*

CERF GOVERNING BOARD, PUBLICATIONS OFFICIALS AND STAFF

CERF Governing Board 2017-2019

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Ruth Carmichael, *Dauphin Island Sea Lab*

Member-at-Large 2017-2021
Christine Whitcraft, *California State University at Long Beach*

Student Member-at-Large 2017-2019
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Affiliate Society Representatives 2017–2019

ACCESS | Bruce Hatcher, *Bras d'Or Institute/Cape Breton University*
AERS | Joe Luczkovich, *East Carolina University*
CAERS | Theresa Talley, *University of California–San Diego*
GERS | Anna Armitage, *Texas A&M University–Galveston Campus*
NEERS | Susan Adamowitz, *US Fish & Wildlife Service*
PERS | Jason Stutes, *GeoEngineers, Inc.*
SEERS | Cassondra Thomas, *South Florida Water Management District*

CERF Governing Board 2019-2021

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President-Elect
Leila Hamdan, *University of Southern Mississippi*

Past President
Hilary Neckles, *U.S. Geological Survey*

Secretary
Jamie Vaudrey, *University of Connecticut*

Treasurer
Erik Smith, *University of South Carolina*

Member-at-Large 2017-2021
Christine Whitcraft, *California State University at Long Beach*

International Member-at-Large 2017-2021
J. Ernesto Mancera, *Universidad Nacional de Colombia*

Member-at-Large 2019-2023
Jennifer Beseres Pollack, *Texas A&M University-Corpus Christi*
Kristin Wilson Grimes, *University of the Virgin Islands*

Student Member-at-Large 2019-2021
Johnny Quispe, *Rutgers University*

Affiliate Society Representatives 2019-2021

ACCESS | Allen Beck, *Clean Foundation*
AERS | Ben Fertig, *Irvine Nature Center*
CAERS | Steven Litvin, *Monterey Bay Aquarium Research Institute*
GERS | Megan La Peyre, *School of Renewable Natural Resources, LSU Agricultural Center*
NEERS | Brett Branco, *Brooklyn College*
PERS | Liz Perotti, *Oregon Department of Fish & Wildlife*
SEERS | Enrique Reyes, *East Carolina University*

Executive Director | Susan Park, *Coastal and Estuarine Research Federation*

Chief Operating Officer | Louise Miller, *Coastal and Estuarine Research Federation*

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Co-Editors in Chief | Paul Montagna, *Harte Research Institute/ Texas A&M University-Corpus Christi*
Charles (Si) Simenstad, *University of Washington*

Reviews Editor | Ken Heck, *Dauphin Island Sea Lab, University of South Alabama*

Managing Editor | Taylor Bowen

CESN Managing Editor | Merryl Alber, *University of Georgia*

CESN Science Writer/Coordinating Editor | Claudia Geib

CERF's Up! Editor | Stephen Hale

CERF 2019 CONFERENCE SCHEDULE-AT-A-GLANCE

Mobile CC: Mobile Convention Center
RRH: Renaissance Riverview Hotel

02 November | Saturday

Conference Registration open 4:00PM–7:00PM | Concourse Level–Mobile CC

03 November | Sunday

TIME	EVENT	LOCATION
7:00AM–6:00PM	Conference Registration	Concourse Level–Mobile CC
Various	Field Trips	Offsite
Various	Workshops	Mtg Rooms, Concourse Level–Mobile CC
11:00AM–12:00PM	Student Worker Orientation and Training	Room 204A–Mobile CC
4:00PM–5:30PM	CERF 2019 VIP Reception (By Invitation)	VIP Lounge–Mobile CC
5:00PM–5:45PM	First Timer Orientation	Room 203A–Mobile CC
6:00PM–8:00PM	Keynote Address and Scientific Awards	East and West Ballroom–Mobile CC
8:00PM–10:00PM	Silent Auction Opens	South Hall–Mobile CC
8:00PM–10:00PM	President's Welcome Reception	South Hall–Mobile CC

04 November | Monday

TIME	EVENT	LOCATION
6:00AM–5:00PM	Conference Registration	Concourse Level–Mobile CC
6:15AM–7:15AM	CERFers on the Run	Offsite
6:30AM–8:00AM	Mentorship Program Breakfast (By Invitation)	Bon Secour Bay 1&2–RRH
8:00AM–9:30AM	Early Morning Sessions (Session 1)	Mtg Rooms, Concourse Level–Mobile CC
9:30AM–10:00AM	Break	South Hall–Mobile CC
10:00AM–11:30AM	Late Morning Sessions (Session 2)	Mtg Rooms, Concourse Level–Mobile CC
11:30AM–1:00PM	Lunch	Mobile CC
11:30AM–1:00PM	Coastal Fisheries Town Hall: Threats, Challenges and Solutions for Coastal Fisheries Sustainability in a Changing World	East and West Ballroom–Mobile CC
1:00PM–2:30PM	Early Afternoon Sessions (Sessions 3)	Mtg Rooms, Concourse Level–Mobile CC
2:30PM–3:00PM	Break	South Hall–Mobile CC
3:00PM–4:30PM	Plenary: Environmental Decision Making	East and West Ballroom–Mobile CC
4:30PM–7:00PM	Poster Sessions/Happy Hour	South Hall–Mobile CC
7:00PM–9:00PM	Student Career Networking Event	Bon Secour Bay 1&2–RRH
7:30PM–8:30PM	Special Presentation: The Slave Schooner Clotilda–Hidden But Not Forgotten	East and West Ballroom–Mobile CC
9:00PM–Midnight	Student "On the Town" Night	The Haberdasher

** Schedule is subject to change – current as of 19 October 2019*

CERF 2019 CONFERENCE SCHEDULE-AT-A-GLANCE

Mobile CC: Mobile Convention Center
RRH: Renaissance Riverview Hotel

05 November | Tuesday

TIME	EVENT	LOCATION
6:15AM–7:15AM	CERFers on the Run	Offsite
6:30AM–5:00PM	Conference Registration	Concourse Level–Mobile CC
7:00AM–8:00AM	Past CERF Presidents' Breakfast (By Invitation)	Room 107AB–Mobile CC
8:00AM–9:30AM	Early Morning Sessions (Session 4)	Mtg Rooms, Concourse Level–Mobile CC
8:00AM–4:30PM	Tours of R/V Point Sur	Offsite
9:30AM–10:00AM	Break	South Hall–Mobile CC
10:00AM–11:30AM	Late Morning Sessions (Session 5)	Mtg Rooms, Concourse Level–Mobile CC
11:30AM–1:00PM	Lunch	Mobile CC
11:30AM–1:00PM	CERF Inclusion Lunch (Ticketed Event)	Bon Secour Bay 1&2–RRH
1:00PM–2:30PM	Early Afternoon Sessions (Sessions 6)	Mtg Rooms, Concourse Level–Mobile CC
2:30PM–3:00PM	Break	South Hall–Mobile CC
3:00PM–4:30PM	Late Afternoon Sessions (Sessions 7)	Mtg Rooms, Concourse Level–Mobile CC
4:30PM–5:30PM	Annual CERF Business Meeting	East and West Ballroom–Mobile CC
5:30PM–6:30PM	Affiliate Society Meetings	Mobile CC ACCESS–Room 202 A Mobile CC AERS–Room 201 C Mobile CC CAERS–Room 201 D Mobile CC GERS–Room 203 A Mobile CC NEERS–Room 202 B Mobile CC PERS–Room 204 A Mobile CC SEERS–Room 204 B
7:00PM–10:00PM	Social Event	GulfQuest Maritime Museum

06 November | Wednesday

TIME	EVENT	LOCATION
6:15AM–7:15AM	CERFers on the Run	Offsite
6:30AM–7:00PM	Conference Registration	Concourse Level–Mobile CC
7:00AM–8:00AM	CESN Team Meeting/Breakfast (By Invitation)	Room 107AB–Mobile CC
8:00AM–9:30AM	Early Morning Sessions (Session 8)	Mtg Rooms, Concourse Level–Mobile CC
9:30AM–10:00AM	Break	South Hall–Mobile CC
10:00AM–11:30AM	Late Morning Sessions (Session 9)	Mtg Rooms, Concourse Level–Mobile CC
11:30AM–1:00PM	Lunch	Mobile CC

** Schedule is subject to change – current as of 19 October 2019*

CERF 2019 CONFERENCE SCHEDULE-AT-A-GLANCE

Mobile CC: Mobile Convention Center
RRH: Renaissance Riverview Hotel

06 November | Wednesday (*continued*)

TIME	EVENT	LOCATION
11:30AM–1:00PM	*Estuaries and Coasts* Board Mtg/Lunch (By Invitation)	Room 107AB–Mobile CC
1:00PM–2:30PM	Early Afternoon Sessions (Sessions 10)	Mtg Rooms, Concourse Level–Mobile CC
2:30PM–3:00PM	Break	South Hall–Mobile CC
3:00PM–4:30PM	Plenary: Coastal Science Outreach	East and West Ballroom–Mobile CC
4:30PM–7:00PM	Poster Sessions/Happy Hour	South Hall–Mobile CC
5:30PM–6:30PM	Close of Silent Auction	South Hall–Mobile CC
7:00PM–10:00PM	Film Festival	Bon Secour Bay 1&2–RRH

07 November | Thursday

TIME	EVENT	LOCATION
6:15AM–7:15AM	CERFers on the Run	Offsite
6:30AM–4:30PM	Conference Registration	Concourse Level–Mobile CC
7:00AM–8:00AM	CERF 2021 Committee Breakfast (By Invitation)	Room 107AB–Mobile CC
8:00AM–9:30AM	Early Morning Sessions (Session 11)	Mtg Rooms, Concourse Level–Mobile CC
9:30AM–10:00AM	Break	Concourse Level–Mobile CC
10:00AM–11:30AM	Late Morning Sessions (Session 12)	Mtg Rooms, Concourse Level–Mobile CC
11:30AM–1:00PM	Lunch	Mobile CC
11:30AM–1:00PM	*Estuaries and Coasts* Town Hall: Misuse of P-values and why *Estuaries and Coasts* discourages the phrase "statistically significant."	Room 107AB–Mobile CC
1:00PM–2:30PM	Early Afternoon Sessions (Sessions 13)	Mtg Rooms, Concourse Level–Mobile CC
2:30PM–3:00PM	Break	Concourse Level–Mobile CC
3:00PM–4:30PM	Late Afternoon Sessions (Sessions 14)	Mtg Rooms, Concourse Level–Mobile CC
4:30PM–5:30PM	CERF 2019 Committee Reception (*By Invitation*)	VIP Lounge–Mobile CC
5:30PM–8:30PM	Close-out Party and Student Awards Presentation	East and West Ballroom–Mobile CC

** Schedule is subject to change – current as of 19 October 2019*

The National Academies of SCIENCES ENGINEERING MEDICINE

GULF RESEARCH PROGRAM

Catalyzing advances in science, practice, and capacity to generate long-term benefits for the Gulf of Mexico region and the nation.

Healthy Ecosystems

Advance understanding of ecosystem processes and dynamics to facilitate sustainable use of natural resources.

Thriving Communities

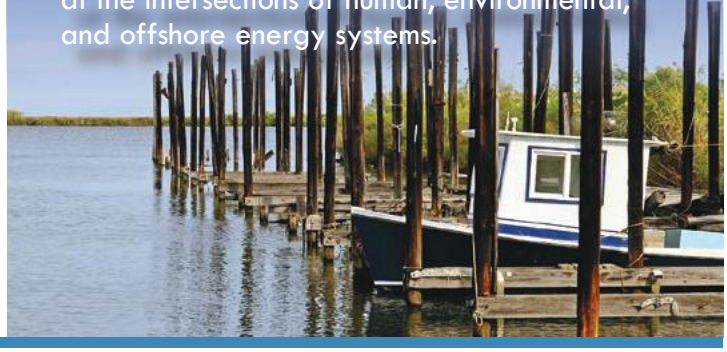
Enable people coastal communities to successfully prepare for, respond, and adapt to stressors and adverse events.

Safer Offshore Energy Systems

Foster minimization and management of risk to make offshore operations safer for both people and the environment.

Capacity Building

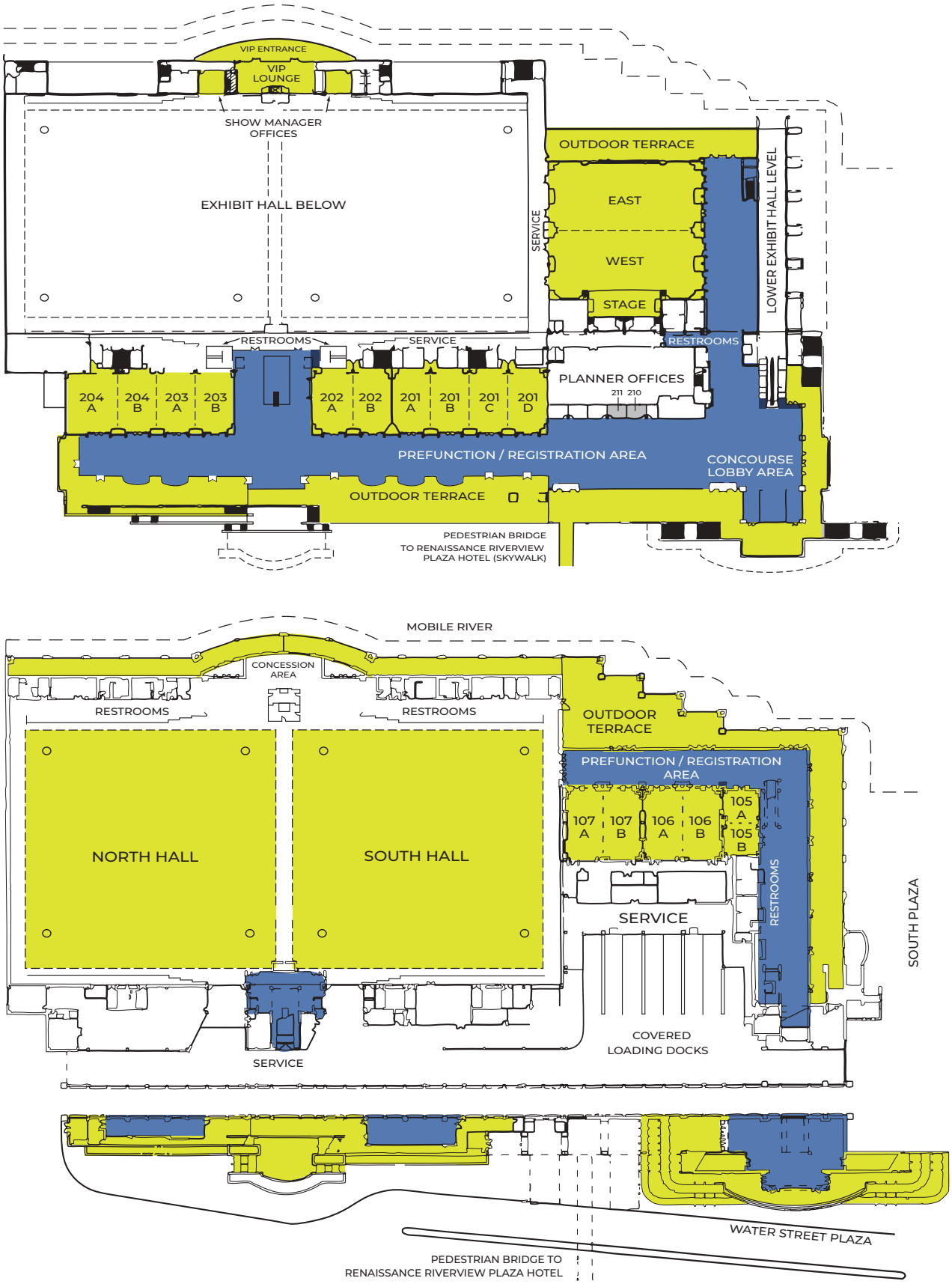
Enhance the ability of researchers, decision makers, and communities to solve challenges at the intersections of human, environmental, and offshore energy systems.



Independent, science-based program supporting studies, projects, and other activities to advance offshore energy safety, protect environmental health, and enhance community resilience.

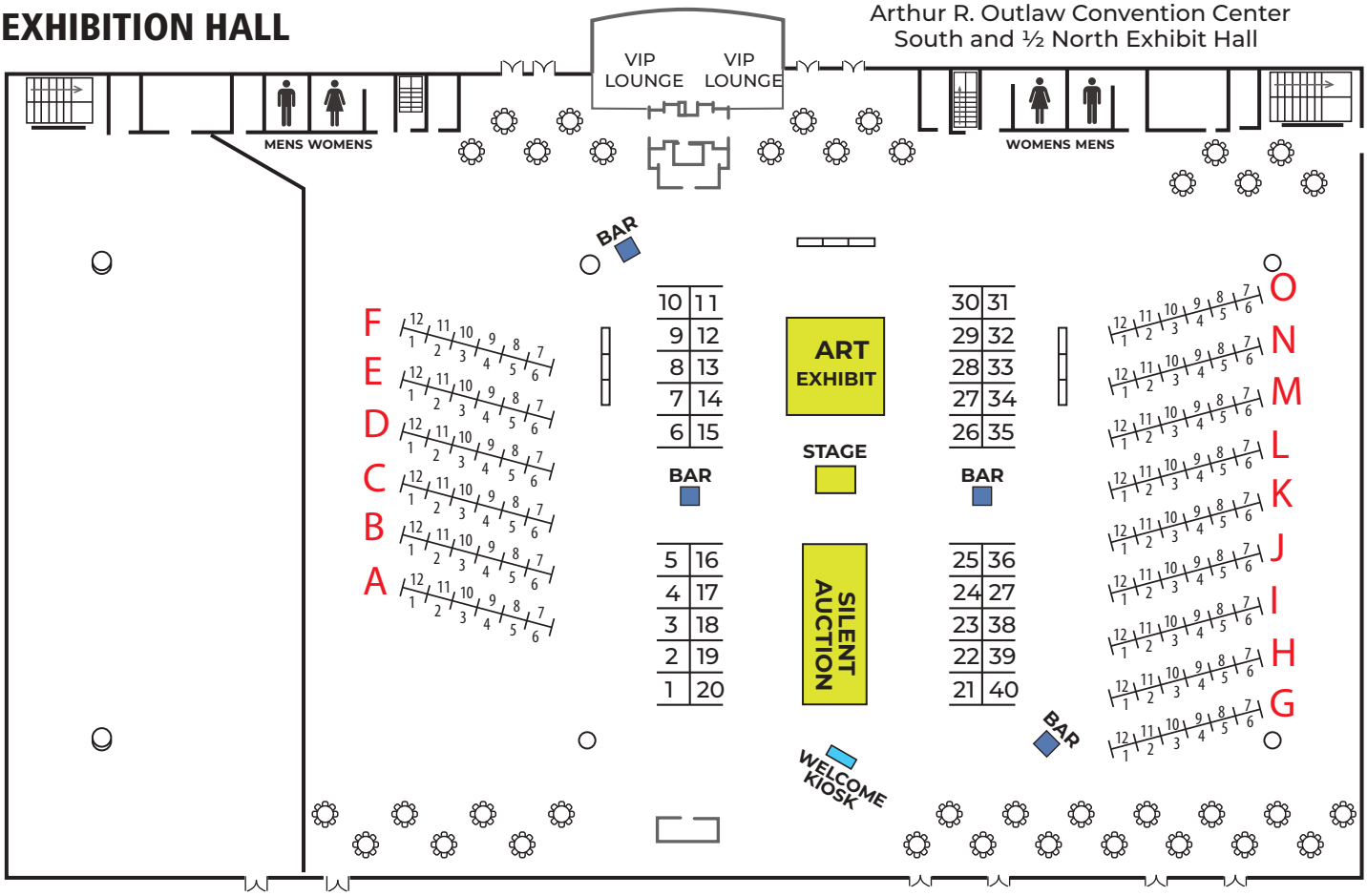
Learn more by visiting our booth in the exhibit hall or online at www.nationalacademies.org/gulf

CERF 2019 VENUE MAPS



EXHIBITION HALL

Arthur R. Outlaw Convention Center
South and ½ North Exhibit Hall



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University of South Alabama Marine Sciences	Bronze Sponsor	31
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Northern Gulf Institute	Bronze Sponsor	35
Gulf of Mexico Research Initiative	Silver Sponsor	36
Pew Charitable Trust	Bronze Sponsor	40

EXHIBITORS	BOOTH NUMBER
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Louisiana State University	7
Richmond Region Tourism	8
Aquatic Informatics Inc.	9
University of Maryland Center for Environmental Science (UMCES)	10
OTT Hydromet	11
East Carolina University	12
American Shore & Beach Preservation Association	13
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GENERAL INFORMATION

REGISTRATION

Conference check-in for pre-registered attendees and registration of on-site attendees will take place on the Concourse Level. The registration desk will be open during the following hours:

Saturday, 2 November	4:00 PM – 7:00 PM
Sunday, 3 November	7:00 AM – 6:00 PM
Monday, 4 November	6:00 AM – 5:00 PM
Tuesday, 5 November	6:30 AM – 5:00 PM
Wednesday, 7 November	6:30 AM – 7:00 PM
Thursday, 7 November	6:30 AM – 4:30 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 106 AB and will be open during the following hours for on-site submission, review and editing of PowerPoint presentations:

Sunday, 3 November	12:00 PM – 5:00 PM
Monday, 4 November	7:00 AM – 5:00 PM
Tuesday, 5 November	7:00 AM – 5:00 PM
Wednesday, 6 November	7:00 AM – 5:00 PM
Thursday, 7 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 **CERF2019WiFi** network. The password is: **CERF2019**

CONFERENCE APP

Use CERF 2019's mobile app to access the most up-to-date information about the conference. Abstracts for oral presentations, posters, and a full author/presenter index is available and you can even customize your own, personalized schedule.

How to download the mobile app:

1) Visit the Apple App Store or the Google Play Store on your mobile device and search for "CERF2019".
2) Click "Download the App."
3) Open the app and use the email you used to submit an abstract – or if you did not submit an abstract, use the email from your registration submission.
4) Start exploring! Don't forget to turn on notifications so you can stay up-to-date!
5) To access the app from your PC or tablet, please go to http://bit.ly/CERF2019-app

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.

ENVIRONMENTAL OFFSET

CERF aims to achieve a "green meeting" by minimizing negative impacts and maximizing positive impacts on the environment to the extent possible. At each Biennial Conference, we implement an environmental footprint offset donation to support a local environmental organization aligned with CERF's mission. For CERF 2019, we have selected the Alabama Coastal Foundation (ACF). Since 1993, ACF has worked to promote a culture where environmental decisions are based on an accurate understanding of the underlying science, the dissemination of factual information, and the engagement of government, industry and citizens to find solutions to Alabama's coastal environmental challenges. Thank you for your generous donations to ACF!

CONFERENCE ART EXHIBIT

CERF is pleased to feature the work of our conference artist, Inga Clough Falterman, in our Exhibit Hall. Falterman will have several works on display Sunday through Wednesday. Her conference art, "third coast, or gulf" will also be available at the silent auction.

FAMILY FRIENDLINESS/MOTHERS' LOUNGE

CERF 2019 has taken aim to be the most family-friendly CERF conference yet.

Nursing mothers and others can visit the Mothers' Lounge, located on the exhibit hall level of the Mobile Convention Center, in Room 105 B. The room has special amenities and supplies to help make navigating the conference an easier experience (such as refrigeration to store pumped milk).

The Family Friendliness Committee has identified a local facility–Sunshine Sue's Playgarden–that offers drop-in care. The facility is open Monday-Friday from 8:00 AM–3:00 PM, cost is $50/child and the facility is located 6 miles from the Convention Center. They accept children 8 months–6 years old. Please mention you are a member of CERF when making your reservation. We strongly suggest you contact them ahead of time to ensure there is space available. Advanced, pre-paid reservations are required.*

You can also check with your hotel concierge for other childcare suggestions.

We are working on discounts for some of Mobile's area attractions, suggestions of kid-friendly restaurants near the conference, and a map with nearby parks so you can get out and burn off that conference energy.

Please note: Children are welcome at conference sessions/workshops, in the exhibit hall, poster sessions, and receptions (Sunday through Thursday evenings) provided they are accompanied at all times by registered adult attendees. Please keep in mind

that alcohol will be served at evening events. Parents are asked to show consideration to the presenters and other attendees by being proactive to avoid disruptions of the scientific program.

CERF has undertaken reasonable efforts to provide references to an appropriate childcare resource; however, parents should conduct proper due diligence in choosing a service for their children. CERF is providing this reference without endorsement, representation or warranty of any kind. Parents shall assume all responsibility for their research and selection of childcare facilities for their children. In no event shall CERF, or its directors, officers, or employees, be held liable for any losses, injury, damages, or any other consequences resulting from, or arising in connection with the use of, or reliance on, these childcare resources.

EMERGENCIES

In the case of an emergency, please dial 911, or to reach the Mobile Convention Center Security 24 hours a day, dial (251) 208-2165. You can also find any Event Services Representative, Security Officer, or any other Convention Center Manager for assistance.

CERFERS ON THE RUN

Time: Monday–Thursday, 6:15–7:15 AM
Location: Courtyard of the Renaissance Mobile Riverview Plaza Hotel

CERFers On The Run is an informal running club that gets together to run and exercise throughout the cities that the CERF Biennial Conference visits. This year, the CERFers On The Run will be meeting from 6:15AM to 7:15AM before the oral sessions start, Monday through Thursday.

Each day, there will be two different group runs, consisting of a long (about 3 miles) and short (about 1 mile) run. We will meet in the courtyard of the Renaissance Mobile Riverview Plaza Hotel at 6:15 AM and do 10-15 minutes of stretching before starting the run. Everyone will receive a ticket for each day they participate to enter to win a running-inspired gift basket!

All of the runs include landmarks throughout Mobile, consisting of Mobile historical landmarks and sites. Other routes will include popular downtown locations to explore during conference downtime. For maps and other information, visit www.cerf.science/cerfers-on-the-run

R/V POINT SUR TOURS

Time: 5 November 2019, 8:00 AM – 4:30 PM
Location: Mobile Convention Center

The Research Vessel (R/V) Point Sur, owned by The University of Southern Mississippi, will be open to conference attendees and the public for tours from 8:00 am – 4:30 pm, Tuesday, 5 November, 2019 at the Mobile Convention Center. As a regional class vessel, R/V Point Sur is the primary platform for marine research in the northern Gulf of Mexico, and has supported academic and industry research, and the science missions of the NSF, U.S. Navy, Bureau of Ocean Energy Management, National Oceanic and Atmospheric Administration, and Gulf of Mexico Research Initiative. R/V Point Sur was purchased by USM in 2015 to meet the growing needs of oceanographic researchers in the Gulf of Mexico. All are invited to tour the 135' ship, meet the crew, and learn about its capabilities.

CERF MARDI GRAS PARADE

Time: 3 November 2019, 8:00 PM
Location: Mobile Convention Center

Did you know Mobile, Alabama is the birthplace of Mardi Gras in the US? As the original capital of French Louisiana, Mobile celebrated Mardi Gras 15 years before New Orleans was founded, and 300 years later, the celebration continues! So in honor of our conference city, we are bringing Mardi Gras to CERF! We'll kick off our opening social with a Second Line Procession, a traditional people's parade with a fascinating multicultural history. As tradition holds, our parade will be led by a local brass band, The Mobile Second Line Society, followed by our CERF attendees!

SOCIAL MEDIA

Regular updates and reminders about conference activities will be posted to the CERF **Facebook**, **Twitter** and **Instagram**. All of our social channels are now **@CERFScience**

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

#CERF2019 if you are planning to post about your general CERF 2019 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;

#CERF2019Live if you want to follow live tweets from the keynote address and plenary speaker presentations

SOCIAL MEDIA POLICY

Please Read Before You Tweet (or Facebook, blog, Instagram, Pinterest, 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 **#CERF2019** to increase engagement. We also encourage our attendees to follow and tag us on Twitter (**@CERFScience**), Instagram (**@CERFScience**), and Facebook (**@CERFScience**), 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, keynotes and Town Halls ***are not allowed*** unless you receive permission from the authors/presenters. Some authors/presenters wish to withhold audio/vi-

sual 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 2019 shall be photographed, videotaped, broadcast or recorded for personal or commercial use, sale or distribution of any kind without the express written consent of CERF headquarters.

PARKING
Attendees who wish to park at the Mobile Convention Center may park in the garage for $5 a day. The parking lot located to the South of the convention center is also available for hourly rates of $4 for 4 hours, $7 for 8 hours and $10 for 12 hours.

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 Mobile Convention Center offers on-site concessions for coffee, snacks and lunch.

There are also many establishments in the nearby hotels and neighborhood including:
- Serda's Coffee Company – 3 S Royal St.
- The Royal Scam – 72 S Royal St.
- Squid Ink: Eclectic Eats and Drink – 102 Dauphin St.
- Von's Bistro – 69 St Michael St.
- Dauphin's – 107 St Francis St. #3400 (34th Floor)
- Bob's Downtown Restaurant – 263 St Francis St.
- Mediterranean Sandwich Co. – 274 Dauphin St.
- The Blind Mule – 57 N Claiborne St.
- T.P. Crockmier's – 250 Dauphin St.
- Chuck's Fish – 551 Dauphin St.

COASTAL & ESTUARINE RESEARCH FEDERATION EVENT CODE OF CONDUCT

The Coastal & Estuarine Research Federation ("CERF") is committed to providing safe and welcoming environments for all who participate in CERF Events. CERF prohibits and will not tolerate any form of harassment, bullying, or discrimination. Together, we can ensure that CERF Events support free expression and exchange of scientific ideas in environments that are positive and productive for all.

PURPOSE
CERF has established this Event Code of Conduct (the "Code") to serve as a guideline for the professional conduct of anyone attending or participating in a CERF Event, as well as the consequences for unacceptable behavior. We expect you to follow this Code so that you and other participants can enjoy the Event responsibly and with respect for the rights of others. Failure to abide by this Code is subject to corrective action and sanctions, including refused admission, ejection, banishment, and other penalties consistent with this Code.

SCOPE AND APPLICABILITY
The Code applies to all attendees, media representatives, speakers, exhibitors, sponsors, staff, contractors, volunteers, organizers, and other guests (collectively referred to as "Participants") of official CERF programs, conferences, events, meetings, social gatherings, and other activities held, sponsored, or affiliated with CERF ("Events"). This Code is intended to supplement, but not replace, the CERF Code of Ethics that is applicable to all CERF members. By attending any CERF Event, you agree to abide by this Event Code of Conduct.

EXPECTED BEHAVIOR
The following behaviors are expected and requested of all Event Participants:

- Behaving in a courteous and professional manner;
- Treating all participants with respect, dignity, and consideration, in the spirit of valuing a diversity of views and opinions;
- Being considerate, respectful, and collaborative in your communication and actions;
- Discussing differences and critiquing ideas in a non-confrontational manner with due regard for the viewpoints of others;
- Refraining from demeaning, discriminatory, or harassing behavior and speech;
- Reporting suspected inappropriate behavior directed at yourself or others;
- Respecting the rules, policies, and property of CERF and its contracted Event facilities and vendors; and
- Complying with all applicable laws and regulations.

PROHIBITED BEHAVIOR
Violations of this Code include but are not limited to the following:

- Harassment, which is defined for purposes of this Code to include unwelcome or offensive verbal, visual, or physical

CERF EVENT CODE OF CONDUCT (*continued*)

contact directed at any Participant, including conduct, comments, or images that a person would reasonably find offensive, demeaning, or hostile;

- Sexual harassment, which is defined for purposes of this Code to include unwelcome, unsolicited, and unreciprocated sexual advances, requests for sexual favors, and other verbal or physical conduct or gesture of a sexual nature that has or that might reasonably be expected or be perceived to offend, humiliate, or intimidate another person;
- Exhibiting behavior that is unruly or disruptive, or that endangers the health or safety of yourself or others;
- Discriminatory conduct based on race, sex, sexual orientation, gender expression or identity, transgender status, age, national origin, disability, religion, marital status, veteran status, political affinity, or any other characteristic protected by law;
- Deliberate intimidation, threatening, stalking, or following;
- Sustained disruption of portions of the Event;
- Invasion of privacy;
- Actual or threatened pushing, shoving, or use of any physical force whatsoever against any person;
- Possession of a weapon, or use of any item in a way that may cause danger to others;
- Destruction, theft, dismantlement, defacement, abuse, or intentional misuse of CERF or CERF-contracted venues, property, equipment, signage, or supplies;
- Failure to comply with directions of CERF staff or venue personnel regarding Event operations or emergency response procedures;
- Retaliation against participants for reporting activity that he or she reasonably believed to be in violation of this Code;
- Knowingly and falsely reporting violations of this Code in bad faith; and
- Accessing restricted or ticketed areas without a proper ticket, pass and/or credential; misusing tickets, passes and/or credentials; presenting a false identification; or permitting another person to falsely present the Participant's identification as his or her own.

Moreover, this Code is not intended to be all inclusive, and it is likely there will be conduct issues that it does not specifically address. In that event, as in all others, Participants are expected to follow the direction of CERF Event staff who will take appropriate action to ensure the safety, security and well-being of Participants.

REPORTING UNACCEPTABLE BEHAVIOR

If you believe you are being subjected to inappropriate conduct, believe someone else is being subjected to inappropriate conduct, or have any other concerns, please do not hesitate to contact CERF Event staff who can work with CERF leadership to resolve the situation. CERF Event staff will be happy to assist those experiencing inappropriate conduct to enable them to feel safe for the duration of the Event. If you or someone else is in immediate danger, or if you see something suspicious or would like to report a security issue or emergency, please contact venue security or local law enforcement.

Violations of this Code are taken seriously and should be promptly reported to any CERF Event staff present. Share as much information as you can to help us make a thorough investigation of the onsite incident. CERF will investigate all incidents reported at an Event with discretion. Participants are required to maintain the confidentiality of materials submitted to or received by CERF under this Code. CERF shall make reasonable efforts to maintain the confidentiality of relevant materials but may disclose case-related materials or information in response to legal process, when already publicly known, or when CERF leadership otherwise determines disclosure is in the best interests of CERF.

CONSEQUENCES OF PARTICIPANT ENGAGEMENT IN PROHIBITED CONDUCT

Event Participants asked to stop engaging in prohibited conduct are expected to comply immediately.

CERF, in its sole discretion, will determine the nature of the Participant conduct that warrants corrective action as well as the corrective action to be taken. Corrective action may take any of the following forms: verbal warning; expulsion from the Event; expulsion from the Event with no refund of conference fees; bar from future CERF Events; and/or notifying appropriate authorities. To protect all parties involved, CERF will generally not make any detailed public statements about Code incidents. The decision(s) of CERF are final. CERF may establish more detailed procedural guidelines for resolving conduct matters that are consistent with the provisions of these bylaws.

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For questions regarding the Event Code of Conduct, please contact CERF's Executive Director. This Code is subject to change and may be revised without further notice.

Approved by the Governing Board on October 19, 2018

The LSU Coastal Sustainability Studio

Tackling Real-World Water Challenges through Multidisciplinary Research and Design

The LSU Coastal Sustainability Studio leads multidisciplinary research and community outreach to expand the horizon of what is possible for people living and working at the interface of the environment, settlement, infrastructure, and the economy. Our studio is the perfect place to bring together disciplines that typically work independently—scientists, engineers, designers, and planners—to collaboratively address critical issues of coastal and deltaic settlement, restoration flood protection, and socio-economic sustainability. Although we typically focus on the Mississippi River Delta and Gulf Coast region our work is easily translatable to other dynamic environments heavily influenced by water.

What we do:

- Lead multidisciplinary research in support of real-world problem-solving
- Strengthen community resiliency
- Improve communications through visualization
- Stimulate "big idea" thinking

Be sure to visit the CERF exhibition hall to see design competition submissions. Stop by Booth #6 to meet with LSU Coastal Sustainability Studio representatives or visit us at www.css.lsu.edu

The LSU Coastal Sustainability Studio and Louisiana Sea Grant are pleased to sponsor the coastal design competition at CERF2019.

LSU Coastal Sustainability Studio

Sea Grant Louisiana

CERF 2019 OPENING CEREMONY: KEYNOTE ADDRESS AND SCIENTIFIC AWARDS

6:00 PM – 8:00 PM | East and West Ballroom | Mobile Convention Center

CERF 2019 KEYNOTE PRESENTATION

Presented by Dr. Jack Davis

The Gulf: History, Wisdom, and Hope

Sponsor: The National Academies of SCIENCES ENGINEERING MEDICINE — GULF RESEARCH PROGRAM

Join Jack E. Davis for his lively long historical view of the Gulf of Mexico, drawn from his Pulitzer Prize-winning book *The Gulf: The Making of an American Sea*. Significant beyond tragic oil spills and hurricanes, the Gulf has historically been one of the world's most bounteous marine environments, supporting human life for millennia. Davis starts from the premise that nature lies at the center of human existence, and takes his audience on a compelling journey from the Florida Keys to the Texas Rio Grande, along marshy shorelines and majestic estuarine bays, profoundly beautiful and life-giving. At the center of his talk is the way people, from pre-Spanish natives to present-day coastal residents, have organized their societies and individual lives around nature, and how Gulf nature has been a positive force in human events.

About Dr. Davis:

Jack E. Davis is a professor of history specializing in environmental history and sustainability studies and the Pulitzer Prize-winning author of *The Gulf: The Making of an American Sea*. Before joining the faculty at the University of Florida in 2003, he taught at the University of Alabama at Birmingham and Eckerd College, and in 2002 was a Fulbright scholar at the University of Jordan in Amman. Upon joining the faculty at the University of Florida, he founded the department's student journal, *Alpata: A Journal of History*. His *Race Against Time: Culture and Separation in Natchez Since 1930* won the Charles S. Sydnor Prize for the best book in southern history published in 2001. His next book, *An Everglades Providence: Marjory Stoneman Douglas and the American Environmental Century* (2009), received a gold medal from the Florida Book Awards. In 2014, he was a fellow at the MacDowell Colony, where he worked on his latest book, *The Gulf: The Making of an American Sea*.

The New York Times Book Review called his book a "beautiful homage to a neglected sea." *The Gulf* was a *New York Times* Notable Book for 2017 and made several other "best of" lists for the year, including those of the *Washington Post*, NPR, *Forbes*, and the *Tampa Bay Times*. *The Gulf* was a finalist for the National Book Critics Circle Award for nonfiction and winner of the Kirkus Prize for nonfiction. With his former student Leslie Poole (UF PhD 2012), he is currently editing a new edition of *Wild Heart of Florida*, a collection of personal essays and poems about natural Florida. In January 2018, he signed a contract with the publisher of *The Gulf*, Liveright/W.W. Norton, to write a new book, employing the working title "Bird of Paradox: How the Bald Eagle Saved the Soul of America."

Jack is now writing a book on the cultural and natural history of the bald eagle. He divides the seasons between two "villes": Gainesville, Florida, and Harrisville, New Hampshire.

CERF 2019 SCIENTIFIC AWARD RECIPIENTS

Join us in celebrating the 2019 CERF Scientific Award Recipients! The recipients of these awards embody the mission of CERF to advance understanding and wise stewardship of estuarine and coastal ecosystems worldwide by promoting research; supporting the education of scientists, decision-makers, and the public; and facilitating communication among these groups.The Federation thanks our Scientific Awards Committee chair, Linda Schaffner, as well as all of the subcommittee chairs and committee members, for their tireless efforts to recruit and select the outstanding recipients of this year's awards. CERF also thanks the many nominators and letter writers that supported the exceptional nominations received this year.

Odum Award for Lifetime Achievement

The Odum Award is named for the three outstanding ecological scientists in the Odum family: Dr. Howard T. Odum; Dr. Eugene P. Odum; and Dr. William E. Odum, III. It honors an individual whose record of sustained accomplishments has made important contributions to our understanding of estuaries and coastal ecosystems.

Iris Anderson

Professor, Virginia Institute of Marine Science and College of William & Mary

Dr. Iris Anderson stands out as a trailblazer and leader in the fields of shallow-water estuarine and coastal ecosystem biogeochemistry and ecology, outstanding mentor and role model, very appropriately filling the mold of the Odum family legacy. In addition to her numerous accomplishments in these research, teaching, and outreach areas, the impacts of Iris' work are all the more significant given her non-traditional path. She navigated a PhD program as the only woman in her class, paused her education to raise a family, and found a passageway back to gaining her doctorate and an outstanding record of professional achievements, having most recently served as Dean of Graduate studies at the Virginia Institute of Marine Science (College of William & Mary). Iris' career serves as a strong reminder to the CERF community that scientific excellence can be enhanced and informed by non-linear trajectories.

CERF 2019 SCIENTIFIC AWARD RECIPIENTS *(continued)*

In addition, Iris has been inspirational for many young scientists. She frequently engages students in detailed conversations about their research and freely offers both advice and encouragement. Her research has evolved over time to keep pace with cutting-edge techniques and topics of broad interest to estuarine ecologists. She has a long history of working with a diverse cadre of scientists and students on a broad range of both scientific and applied topics that have clarified our understanding of complex biogeochemical processes in freshwater and marine habitats. This is reflected in her excellent first author high-impact publications and syntheses, and also in the many groundbreaking, highly cited, interdisciplinary publications that she has shared as co-author with a long and impressive list of students, technicians, and colleagues.

Iris has been a tireless contributor to the broader field of estuarine and coastal science and CERF in particular as a co-Editor of Estuaries and Coasts, and she continues to serve a very active, broad-based role in the review and editorial process.

Lastly, despite her long and rewarding career path, we note that Iris is far from "being done" as a solid contributor and pacesetter in estuarine and coastal science. She continues to be a tireless, creative, interactive, giving, and distinguished researcher, teacher, and role model, worthy of this year's Odum Award.

Cronin Award for Early Achievement

This award recognizes the significant accomplishments of an estuarine scientist who is in the early stages of their career development. The recipient will have shown great promise with work carried out during the first six years past the PhD.

Christine Angelini
Assistant Professor, University of Florida
Dr. Christine Angelini is an Assistant Professor at the University of Florida Gainesville in Environmental Engineering Sciences. An NSF CAREER awardee, Christine performs expansive and innovative studies at the intersection of experimental ecology and ecosystem engineering while engaging and mentoring young scientists in simultaneous efforts to address conservation and management issues.

Christine has uniquely applied her deep ecological knowledge to questions of connectivity across the broad estuarine landscapes, from subtidal zones to terrestrial watersheds, with work in salt marshes, mangroves, sand dunes, oyster reefs, seagrass beds, and live oak savannahs. Her focus on resilience and the critical role that foundation species play in estuarine systems have produced an amazing suite of publications that contributed significantly to our mechanistic understanding of natural systems. Christine has translated this knowledge into restoration initiatives, including collaborative efforts with the public, natural resource managers, and coastal engineers to re-design living shorelines and rebuild coastal wetlands and dunes.

There is little doubt that Christine's leadership, creativity, and passion for science and conservation has motivated and broadened public awareness about the importance of estuaries and their fragility. Her students and colleagues alike write that she is an extremely gifted teacher, communicator, and an amazing female academic role model. One needs only need to glance at her CV to note her collaborative nature. Her scholarship, leadership, dedication to mentorship and education make her an ideal choice for the 2019 Cronin Award.

Margaret A. Davidson Award for Stewardship

This award was established to honor Margaret A. Davidson's distinguished career in coastal resource management and her support of the application of science to the wise stewardship of estuaries and coasts. The Davidson award recognizes an individual that demonstrates extraordinary leadership, service, innovation, and commitment to the management of estuarine and coastal systems. Other CERF awards focus on research and education excellence; this award will recognize those who have worked in the estuarine and coastal arena and excelled in management and policy.

photo credit: Peter Frey

Merryl Alber
Professor, University of Georgia and Director, University of Georgia Marine Institute
Dr. Merryl Alber has demonstrated extraordinary leadership, service, innovation, and commitment to the management of estuarine systems. She formed the Georgia Coastal Research Council, which has fostered productive working relationships between over 150 researchers and resource managers for 17 years. Merryl has taught coastal policy courses to graduate students for 20 years and inspired many students to careers in management and policy. She has also served as a scientific leader, as Director of the University of Georgia Marine Institute as well as Principal Investigator of the Georgia Coastal Long Term Ecological Research program. Dr. Alber has served as the Managing Editor of Coastal and Estuarine Science News, which translates key scientific papers for resource managers and policy makers, since 2005, and she has served on numerous workgroups and committees dedicated to activities devoted to environmental stewardship. She has also written a children's book about the salt marsh. Throughout her distinguished career, Merryl Alber has embodied the passion and commitment to management that Margaret Davidson pioneered.

Donald W. Pritchard Award – Physical Oceanography Paper

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

Authors: **Robert J. Chant**, *Rutgers University;* **Christopher K. Sommerfield**, *University of Delaware; and* **Stefan A. Talke**, *Portland State University*

continued on next page

CERF 2019 SCIENTIFIC AWARD RECIPIENTS (*continued*)

Paper: "*Impact of channel deepening on tidal and gravitational circulation in a highly engineered estuarine basin*"

Chant et al. assessed the influence of channel deepening on the estuarine exchange flow, stratification, and tidal amplitude. Estuaries worldwide have been deepened for navigation, with limited understanding of effects on water quality. Channel depth affects both barotropic and baroclinic dynamics, and ultimately water quality. They show how the estuarine response to channel deepening may not always be intuitive, and how analytical scaling and observational data can be used to test hypotheses in real systems.

The scaling of Hansen and Rattray (1965) indicates that estuarine circulation should increase with the depth cubed. However, Chant et al. note that increasing depth also increases salinity intrusion length, thereby decreasing the along-estuary salinity gradient. In the scaling proposed by Chant et al., the decrease in salinity gradient offsets the depth increase, suggesting instead that estuarine circulation is independent of depth. Similarly, they show that the change in salinity intrusion predicts that stratification should decrease with depth rather than increasing. Using observational data, Chant et al. further show that estuary geometry can prevent landward salinity intrusion and thereby contradict their revised scaling. Their scaling offers a template to evaluate physical changes in other estuaries where the salinity gradient is less constrained by estuary geometry.

William A. Niering for Outstanding Educator

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

Susan Bell

Professor, University of South Florida

Dr. Susan Bell is a deserving recipient of the 2019 Niering Outstanding Educator Award based on the depth and breadth of her contributions to teaching and mentoring. The CERF Governing Board states that "the Award is for an individual who has played a particularly important role in education at any level—from primary school to the graduate level, inside or out of the classroom, or in the education of the general public through outreach activities." Over the 39 years of her academic career, Susan has played all these roles and has been acknowledged for them by her nominator and in the letters from her former students.

While her deepest contribution is toward her graduate students, she is also an excellent teacher and research mentor for undergraduates. She contributes to society through her applied work and training of applied scientists who now serve at every level, both in resource management as well as academia. She has also been active in K-12 education, and has been a strong role model as a female in science. Two quotes from her letters were particularly compelling: "She has a unique ability to provide support while constantly challenging students" and "She is not afraid to take on new challenges when advising untraditional students." For these reasons, we award Susan Bell the Niering Award at CERF 2019.

Distinguished Service Award

The Distinguished Service Award recipient is selected by the CERF President for their exceptional volunteer service to the Federation.

photo credit: Matthew Coughlin

Ruth Carmichael

Senior Marine Scientist, Dauphin Island Sea Lab and Professor, University of South Alabama

Dr. Ruth Carmichael has served CERF in numerous ways over the past decades that have been key to the growth and impact of the Federation. Through sustained leadership and steadfast commitment to CERF's vision, Ruth's volunteer service has strengthened CERF's capacity to promote research, stewardship, and education in coastal and estuarine systems. Ruth began volunteering for CERF in 2001 as a student attending her first CERF conference: she actively sought opportunities to help, ended up stuffing swag bags, and had so much fun that she went on to serve many subsequent conferences in roles of ever-increasing responsibility. She has assisted with workshop development; served as Workshops Chair for multiple conferences; and is currently serving as the Attendee Experience Committee co-chair for the 2019 Biennial CERF Conference, ensuring that CERF 2019 will be a fun, welcoming, and inclusive experience for all.

Ruth first served on the CERF Governing Board in 2011 as President of the Gulf Estuarine Research Society (GERS). She was instrumental in expanding the composition, scope, and activities of the GERS Governing Board, and consequently the reach of CERF science throughout the Gulf coast. She was later elected to the CERF Governing Board as a Member-at-Large where she led development of strategies to enhance the quality of CERF publications. As chair of the CERF Publications Committee, Ruth has been a continuous champion for Estuaries and Coasts, CERF's Up!, Coastal and Estuarine Science News, and the textbook Estuarine Ecology, navigating needs, inspiring innovations, and coordinating calendars among a multitude of editors, publishers, and volunteers with skillful aplomb. For her long-term, exceptional volunteer service to the Federation, CERF awards Ruth the Distinguished Service Award.

CERF 2019 PLENARY SESSIONS

Location: East and West Ballroom | Mobile Convention Center

Overall theme of plenaries: Applying our science most effectively requires that we understand the societal context of both our work and our interactions with non-scientists.

Environmental Decision Making: How Can Natural and Social Scientists Contribute, and What Can They Expect?

Monday, 4 November | 3:00 – 4:30 PM

Coastal landscapes provide significant natural and social resources within some of the most densely populated regions. These landscapes are also vulnerable to extreme climate events and face significant challenges from anthropogenic activities, including alteration of river inflows, eutrophication, development and climate change. Both natural and social scientists seek to better understand, conserve, and manage these coastal and estuarine landscapes. Often scientists think that if they simply present their information to the public or policy makers, the decisions or responses will reflect the scientific conclusion. However, decisions by policy-makers do not always conform to the information provided by scientists. How are scientific data and knowledge perceived and how do they fit within the policy-making process? Understanding the role of science in the decision-making process should help scientists (1) best provide relevant and timely data to inform policies, and (2) recognize why decisions may not follow recommendations based only on science. This plenary will explore the decision making process, and discuss applications directed to climate change and coastal resource management, providing insight into how natural and social scientists may contribute to current and future issues, ensuring that the CERF community is *Responsive, Ready, and Relevant*!

About the Presenters

Jason Shogren, PhD, is Stroock Chair of Natural Resource Conservation and Management and Department Chair in Economics at the University of Wyoming, his alma mater. He studies the behavioral underpinnings of economic and environmental policy. Jason is a foreign member of the Royal Swedish Academy of Sciences, and served as professor to King Carl XVI Gustaf of Sweden. He worked with the Intergovernmental Panel on Climate Change and for the Council of Economic Advisers in the White House. In 2007, he was one of 2,000 scientists and researchers on the Intergovernmental Panel on Climate Change, which was awarded a Nobel Peace Prize for its research establishing a connection between human activity and global warming. He is a Fellow of the Association of Environmental & Resource Economists, the Agricultural & Applied Economics Association, and the Beijer Institute of Ecological Economics.

Elizabeth A. Albright, PhD, an Assistant Professor of the Practice at Duke University's Nicholas School of the Environment, engages in research focused on local-level resilience and community learning in response to extreme climatic events. Elizabeth is currently working on projects studying hurricane disasters in the Carolinas, floods in Colorado and access to water infrastructure in Alabama. Of particular interest to Elizabeth is the intersection of extreme events, climate change adaptation, and environmental justice. Funded by the National Science Foundation, her work in Colorado has been awarded the Paul A. Sabatier Award for Best Paper in Environmental Politics at the American Political Science Association annual meeting. She has published on response to extreme climatic events, the advocacy coalition framework, and stakeholder participation in state-level regulatory processes.

Osvel Hinojosa-Huerta, PhD, is the Director of the Coastal Solutions Fellowship Program at the Cornell Lab of Ornithology. Osvel received his doctorate in Wildlife and Fisheries Science from the University of Arizona. Since 1997, he has been working in conservation and research projects in northwestern Mexico, in particular in wetland areas of the Sonoran Desert. Osvel's recent activities include the evaluation and recovery of protected birds, the implementation of community-based restoration projects, and the creation of partnerships with governments and stakeholders for the conservation of nature. He has been leading the efforts to restore the Colorado River delta during the past 20 years, including the restoration of river flows and the facilitation of binational negotiations between Mexico and the U.S. for the Colorado River. In his current position, Osvel is working to develop capacity and cross-collaborative projects to protect threatened coastal habitats for communities and shorebirds along the Pacific Flyway from Mexico to Chile. Osvel has co-authored 32 research articles and book chapters. In 2009 he received the National Award for the Conservation of Wetlands in Mexico, in 2012 he received the Emerging Explorer Award from the National Geographic Society, and in 2014 he received the Sonoran Desert Conservation Award.

Coastal Science Outreach: Citizen Science and Communication

Wednesday, 6 November | 3:00 – 4:30 PM

Approximately 40% of the global population lives in coastal areas, which also supports critical economic industries, and resources such as food, recreation and transportation. Ensuring the health and resilience of these coastal areas requires engaging the general population to improve scientific literacy and understanding of these systems. Both citizen science projects and effective science communication provide approaches that encourage scientific literacy, engage the next generation of scientists, and increase data collection possibilities. Increased citizen engagement, and involvement with practicing natural and social scientists help promote the use of up-to-date and relevant scientific understanding at local, state and national levels. This plenary will explore several citizen science projects, and discuss effective science communication strategies as examples of coastal science outreach, ensuring that the CERF community is *Responsive, Relevant, and Ready*!

CERF 2019 PLENARY SESSIONS (*continued*)

Location: East and West Ballroom | Mobile Convention Center

About the Presenters

Lauren Alexander Augustine, PhD, is the Executive Director for the Gulf Research Program. She is responsible for overseeing all aspects of management and use of the criminal settlement funds from the Deepwater Horizon disaster that were entrusted with the National Academies by the federal government. This includes fulfilling the vision, defining the strategic direction, and leading the development and implementation of this multi-dimensional, science-based program. Since her tenure at the National Academies began in 2002, Lauren has gained experience working in a variety of roles on a broad range of topics pertaining to water, natural disasters, and resilience. Prior to joining the Gulf Research Program in 2018, she served as Director of the Resilient America Program, which supports communities' efforts to build resilience to extreme events using science and diverse stakeholder engagement. In addition, she has formerly served as Country Director for the African Science Academy Development Initiative (ASADI), a decadal program that built scientific capacity in national academies across Africa; as Director of the Disasters Roundtable; and as a study director for the Water Science and Technology Board.

Outside of her work at the National Academies, Lauren has served on the World Economic Forum's Global Agenda Council on Risk and Resilience; was a member of the Advisory Board for the American Geophysical Union's Thriving Earth Exchange program; and was a juror for two resilience competitions, Rebuild by Design for recovery after Hurricane Sandy and Resilience by Design in San Francisco. She is also a NATO Expert for the Civil Protection Group. Lauren earned her BS in applied mathematics and systems engineering and her M.S. in environmental planning and policy from the University of Virginia, and her PhD in an interdisciplinary program that combined physical hydrology, geomorphology, and ecology from Harvard University.

Emily Maung-Douglass, PhD, is an Oil Spill Science Extension Specialist, Louisiana Sea Grant College Program, Louisiana State University. Emily received a doctorate in Marine Biosciences from the University of Delaware and holds degrees from Old Dominion University and University of Connecticut. Trained as a marine ecologist, she studied big picture questions using techniques from chemistry and ecotoxicology. During her schooling, she volunteered doing science outreach whenever possible and collected data for part of her dissertation through a citizen science project by partnering with the Delaware Center for the Inland Bays. After post-doctoral work as a visiting science fellow at Xiamen University in China, she put her skills and experiences to use for Louisiana Sea Grant at LSU where she is an Oil Spill Extension & Outreach Specialist. Originally from Cleveland, OH, Emily grew up in coastal Virginia where her fascination with the ocean and environment blossomed. She and her husband Keith now enjoy exploring Louisiana with their dogs, cat, and two-year-old son Luca.

Michael S. Wetz, PhD, is the Harte Research Institute Chair for Coastal Ecosystem Processes, Texas A&M University at Corpus Christi. Mike is a broadly trained marine scientist, with expertise in phytoplankton ecology and water quality studies. He strives to provide a sound scientific basis for stakeholder-led coastal restoration/management efforts. In recognition of these efforts, Mike has received several awards from local conservation entities, including CCA's "Conservationist of the Year" and the Coastal Bend Bays Foundation's "Higher Education Award." Mike led a volunteer water quality sampling program in Baffin Bay for 4 years. Results from that study are now guiding watershed restoration and protection efforts that are being coordinated by the Baffin Bay Stakeholder group, which he co-chairs. He is a member of the Nueces Estuary Advisory Council, a stakeholder group that is tasked with assessing the effectiveness of the water management strategies in the Nueces River Basin. Finally, Mike is a member of the Gulf of Mexico Alliance Water Resources team, which focuses on understanding and reducing water quality problems in the Gulf of Mexico region. He received a doctorate and masters in Oceanography from Oregon State University, and a BS from Coastal Carolina University.

CERF 2019 WORKSHOPS

Beginner GIS for Ecologists

Sunday, 3 November | 8:00 AM – 4:00 PM
Room 201A | Mobile Convention Center

This seven-hour workshop will provide an overview of beginning GIS skills for biologists using ArcGIS, including use of existing data, creating your own data, and review of fundamental concepts for GIS. Participants will learn basic concepts of landscape ecology and implement applications of GIS through hands-on, self-guided exercises. Participants will be responsible for bringing their own laptop and will receive instructions for downloading software prior to the conference.

About the Presenter:

Kayla Key brings more than eight years of GIS experience ranging from terrestrial to aquatic environments. She is currently finishing her PhD at Tennessee Tech University in the Cooperative Fishery Research Unit. Kayla is excited to share the capabilities of ArcGIS with other scientists to help them better answer important questions.

Best Practices in Science Communication

Sunday, 3 November | 8:00 AM - 10:00 AM
Room 202A Mobile Convention Center

The goals of this two-hour workshop are to improve participants' science communication capabilities and help participants translate their science to reach broader communities. This cross-cutting workshop touches on a variety of conference priorities. Science communication is not only important for promoting diversity and inclusion in science, but also to maintaining relationships and partnerships by communicating data in an understandable, engaging way. Communicating science effectively helps solve environmental problems by promoting the preservation of coastal and estuarine habitats, elucidating ecosystem services and resources those habitats provide, and supporting cultural heritage through transdisciplinary science and inclusive stakeholder approaches.

Analyzing, Synthesizing and Communicating Your Data

Sunday, 3 November | 10:00 AM – 12:00 PM
Room 202A | Mobile Convention Center

Coastal and estuarine research encompasses monitoring data collected for a myriad of purposes. Whether it is for determining changes in water quality, evaluating climate change effects, protecting human health, establishing baseline conditions, measuring results of restoration activities, or modeling future conditions, synthesizing and communicating results is an essential part of using the data. Too often, monitoring datasets are not used to their full potential for managing, restoring, and protecting coastal and estuarine resources. This cross-cutting two-hour workshop touches on a variety of conference priorities, such as statistics and data processing, science communication and education/outreach, and diversity and inclusion.

About the Presenters (8:00 AM and 10:00 AM Workshops)**:**

Dr. Bill Dennison is a Professor of Marine Science and Vice President for Science Applications at the University of Maryland Center for Environmental Science (UMCES). Dr. Dennison's primary mission within UMCES is to coordinate the Integration and Application Network.

Heath Kelsey is Director of the Integration and Application Network at the University of Maryland Center for Environmental Science. Dr. Kelsey has developed more than 20 ecosystem health report cards for coastal and riverine ecosystems worldwide. Dr. Kelsey has expertise in meaningful stakeholder engagement for ecosystem research, restoration, and planning to help communities identify a shared vision for their ecosystem. His specialties include science communication, environmental and public health assessment, ecosystem health indicators, and stakeholder engagement. Dr. Kelsey received his MSPH and PhD from The University of South Carolina Arnold School of Public Health in 2000 and 2006. Dr. Kelsey was a Peace Corps Volunteer in Papua New Guinea from 1995-1998.

Building and Sustaining Effective Community-Researcher Partnerships

Sponsored By: Sea Grant

Sunday, 3 November | 1:00 – 4:00 PM
Room 202A | Mobile Convention Center

This three-hour workshop focuses on best practices for engaging in equitable and mutually beneficial relationships with community partners and will feature a combination of case study presentations, small group discussions, and interactive scenario-based activities. The ultimate aim of the workshop is to provide a space for coastal professionals and researchers from diverse disciplines to share their expertise and experience around community-research partnerships and learn from each other.

About the Presenters:

Katy Hintzen is an Extension Agent with the University of Hawai'i Sea Grant College Program specializing in coastal resilience. As part of this role, she works to foster collaborative and equitable partnerships between coastal communities, resource stewards, and researchers across the Hawaiian Islands. Prior to her position with Hawai'i Sea Grant, Hintzen served as an Extension Agent with Michigan Sea Grant where she provided leadership for education and outreach programming related to community resilience, watershed health, and ecosystem conservation. She has also worked with NOAA developing strategic plans for research, restoration, and public engagement in the Great Lakes and served as a Peace Corps Volunteer in Ecuador.

Brenda Asuncion was raised in Waipi'o ('Ewa, O'ahu) and her foundational experience with loko i'a (traditional Hawaiian fishponds) comes from volunteering and working at He'eia fishpond with the non-profit organization Paepae o He'eia. She worked as a policy specialist with the Hawaiian

CERF 2019 WORKSHOPS (*continued*)

Islands Humpback Whale National Marine Sanctuary where she assisted with management plan development and community-based projects, prior to joining the Hawai'i-based non-profit Kua"ina Ulu 'Auamo (KUA) in 2013. Her primary responsibility is to facilitate opportunities for loko i'a practitioners to collaborate and amplify their collective efforts through a statewide network of over 40 loko i'a called Hui M'lama Loko I'a.

Dr. Darren T. Lerner serves as the Director of the University of Hawai'i Sea Grant College Program, the University Director of the Pacific Islands Climate Adaptation Science Center and the interim Director for the University of Hawai'i Water Resources Research Center. In these positions, Lerner interacts with the public at large in communicating the value of the scientific enterprise to the sustainable and regenerative use of coastal and marine resources including water resource sustainability and climate adaptation. Lerner has oversight of many K-12, undergraduate and graduate education and public policy activities conducted throughout the State of Hawai'i and the Pacific region. Under his administration, these programs are involved in a wide range of public outreach, education and training programs.

Concepts and Controversies in Tidal Marsh Ecology Revisited

Sponsored By: Sea Grant Georgia

Saturday, 2 November – Sunday, 3 November
Location Offsite: Dauphin Island Sea Lab

This inter-generational meeting of tidal marsh ecologists will bring together ecologists from retired leaders to new grad students, to identify and discuss the key challenges facing these ecosystems into the 21st century. A combination of presentations, panel Q&A, and group discussions will facilitate the sharing of insights, knowledge, and advice from the old guard to the new. We will explore the central theme of marsh support of fisheries by discussing topics including habitat-fishery linkages, connectivity, seascapes, economic and social valuation, restoration, and climate change. Registration fee for this two-day, off-site workshop includes lodging and meals.

About the Presenters:

Ron Baker is an Assistant Professor in Marine Sciences with the University of South Alabama, based at the Dauphin Island Sea Lab. His research examines the role of coastal systems in supporting fisheries, particularly their role as nurseries. His research has spanned coastal and estuarine systems of Australia, Papua New Guinea, Belize, as well as the Atlantic and Gulf Coasts of the US during time with NOAA Fisheries and the Smithsonian.

Professor Matt Taylor is a Principal Research Scientist with the New South Wales Department of Primary Industries – Fisheries (DPI-Fisheries) and a Conjoint Professor with University of Newcastle, Australia. His research is focused on the scientific development and subsequent application of innovative approaches to improve both

fisheries productivity and sustainability, and he has authored 110 peer-reviewed contributions to international journals. His research vision is realized through several internationally significant, collaborative research programs, most notably in the study of fish habitat, recruitment and population processes, and with a focus on exploited crustaceans. Through his role with DPI-Fisheries, he applies this research in the development and implementation of approaches that address recruitment and habitat bottlenecks.

Democratizing Access to Ocean Technology

Sunday, 3 November | 8:00 AM – 12:00 PM
Room 201A | Mobile Convention Center

This four-hour workshop provides an opportunity to lower the technological barrier to entry for building custom sensors and working with telemetered data. Opportunities for participants to exchange lessons learned and emerging challenges from their home watersheds, as well as specific training for low-cost, high-resolution water level and temperature sensors will be provided. We will pre-package, distribute, and demonstrate DIY sensor kits to monitor and quantify in near-real-time coastal tides, inundation, and beach run-up risks.

Presenter: Brian Glazer

Engaging in Coastal Science After Retirement: Brainstorming Options and Opportunities

Sunday, 3 November | 1:00 – 3:00 PM
Room 201D | Mobile Convention Center

Are you retired or thinking about retirement, but aren't ready to completely hang up your coastal and estuarine science hat? Is your agency/company/university/NGO looking for ways to tap in to recently retired coastal scientists, watershed managers and other experienced CERF members? Come join this interactive three-hour workshop to hear from CERF members who have made the retirement transition into a "second life;" learn about opportunities after retirement from agencies, universities, NGOs and private companies eager to tap into expertise from retiring CERF members; and share ideas about how CERF can encourage linking retiring scientists and entities wishing to engage them.

About the Presenters

Holly Greening recently retired from the Tampa Bay Estuary Program, where she served as Senior Scientist (1991–2007) and Executive Director (2008–2018). A member of CERF since 1978, she has authored more than 25 peer-reviewed publications with a focus on estuarine ecology and collaborative watershed management and is the recipient of regional and national awards for coastal stewardship.

Rich Batiuk was the Associate Director for Science, Analysis, and Implementation at the United States Environmental Protection Agency's Chesapeake Bay Program Office located in Annapolis, Maryland. In his 33 years with EPA and the Chesapeake Bay Program

CERF 2019 WORKSHOPS (*continued*)

partnership, he led the integration of science into multi-partner policy-making and collaborative decision-making.

Out in the Open: Identifying, Understanding, and Addressing Implicit Bias

Sunday, 3 November | 1:00 – 4:00 PM
Room 201A | Mobile Convention Center

CERF is committed to promoting a diverse and inclusive culture at all levels of the Federation. This three-hour workshop is aimed at increasing the capacity of diverse individuals to interact and to realize the benefits of diversity. Participants will explore some underlying reasons for the lack of diversity, and learn tools to identify, address, and overcome social stereotypes that form outside of our own conscious awareness, known as implicit bias. Expert speakers will lead a series of discussions and exercises that will result in better awareness of and actions to promote diversity, equity and inclusion in personal and professional settings.

About the Presenters

Treda Grayson is the Natural Resource Damage Assessment (NRDA) Program Manager at the U.S. Environmental Protection Agency Office of Water, where she supports and carries out EPA's Trustee responsibilities for ecosystem restoration in the Gulf of Mexico following the 2010 Deepwater Horizon Oil Spill. She also chairs the CERF Broadening Participation Council, which guides the development and implementation of diversity, equity and inclusion activities and initiatives for the society.

Franklin Trimm, MD is Associate Dean for Diversity and Inclusion and Professor of Pediatrics at the University of South Alabama College of Medicine. Franklin has 30 years experience working with diverse communities as a Developmental-Behavioral Pediatrician and has held several national leadership positions in medical education organizations in which he has been able to promote equity, diversity and inclusion. Training leadership and staff about unconscious bias is a key component of Franklin's current work within the College of Medicine and the Mobile and medical education communities.

Putting Science "In the Room:" Science Communication to Support Decision-Making

Sunday, 3 November | 1:00 – 4:00 PM
Room 202B | Mobile Convention Center

CERF scientists produce extensive research that is intended to inform environmental decision making. Communicating science effectively to decision-makers usually requires specific skills often not included in graduate science training. Participants in this four-hour workshop will interact with environmental decision-makers in state and federal government by making a presentation and receiving feedback, thereby gaining experience translating their science through a decision scenario. Participants can expect to improve their understanding of common pitfalls and strategies to overcome them, and to hear from decision-makers about how they receive and apply scientific information. Participants can expect subject matter feedback on the presentations they make.

About the Presenter

Jacques ("Jack") Oliver is a senior regulatory scientist with the U.S. Environmental Protection Agency, Office of Water, in Washington, D.C. His work focuses on implementing the Clean Water Act, specifically water quality standards development and regulatory oversight. Jack administers a national nutrient pollution control program that provides technical and regulatory support to state and tribal surface water agencies. He also collaborates with state, tribal, and federal programs working to reduce nutrient pollution discharges.

Sharing and Applying Best Practices for Mapping/Monitoring Coastal SAV

Sunday, 3 November | 8:00 AM – 4:00 PM
Room 201D | Mobile Convention Center

This four-hour workshop will build on earlier CERF SAV workshops to advance the awareness and application of best practices related to SAV mapping and monitoring. Information will be presented on mapping and monitoring methods, the indicators that can be measured at various scales or tiers, and the technologies useful at each tier. The results of a case study mapping/monitoring project will be presented and how the SAV Community of Practice contributed to that effort. Finally, participants will also learn how to join and engage with the CERF SAV Community of Practice.

About the Presenter

Mark Finkbeiner is a senior project leader with NOAA's Office for Coastal Management where he manages the Ocean Data and Tools effort. His primary focus areas at NOAA are in benthic habitat mapping, supporting implementation of the Coastal and Marine Ecological Classification Standard, the Marine Cadastre, and developing the SAV Community of Practice. His background is in remote sensing and GIS.

The Next Step with R: Data Management, Graphics, and Functions

Sunday, 3 November | 8:00 AM – 4:00 PM
Room 201B | Mobile Convention Center

The goal of this full-day workshop is to guide learners who are already using R to be able to automate daily tasks, manage their data in a reproducible framework (using tidyverse R packages dplyr and tidyr), make publication ready graphs (using R package ggplot2), and write their own functions. Anyone with questions about what exactly the workshop will cover or if they have the appropriate skillset can contact Kimberly Cressman or Shannon Dunnigan . Materials from a similar workshop offered at the 2018 American Ornithological Society meeting can be found here. Participants should bring their laptops with R installed on it.

About the Presenters

Kim Cressman is the System-Wide Monitoring Program Coordinator at Grand Bay National Estuarine Research Reserve (NERR). She has been using R on monitoring data for over five years, and has been active in incorporating R into NERR system-wide efforts, such as developing tools to work with surface elevation table data; advising the development of Status Report templates for monitoring data; contributing to NERR-data-related R packages; posting educational "Plot of the Month" posts on SWMPrats.net; and leading R workshops for NERR staff and collaborators.

Shannon Dunnigan is the System-Wide Monitoring Program (SWMP) Manager at the Guana Tolomato Matanzas National Estuarine Research Reserve and has been an instructor at the University of North Florida for over five years. She has a love for large data sets and has been using R on monitoring data for the last 3 years; primarily for data wrangling, export, and the creation of data visualizations.

SPECIAL MEETINGS & EVENTS

Monday, 4 November

Mentorship Program Breakfast (*By Invitation*)
Time: 6:30–8:00AM
Location: Bon Secour Bay 1&2 | Renaissance Riverview Hotel
Participants in the CERF 2019 Meeting Mentoring Program are invited to connect with their mentor/mentee to kick-off the week.

Sponsored By: RESTORE AMERICA'S ESTUARIES

CERF 2019 Coastal Fisheries Town Hall
Threats, challenges and solutions for coastal fisheries sustainability in a changing world
Time: 11:30AM–1:00PM
Location: East and West Ballroom | Mobile Convention Center
Many coastal fisheries around the world are in crisis. Overfishing, pollution, climate change and habitat destruction are decimating many coastal fisheries that large human populations rely on. Therefore, concerted and effective action is needed to manage coastal fisheries effectively and ensure their sustainability in a changing world. Such actions call for cross-disciplinary, integrated collaborations including academics, regulators, officers, fishermen and the general public.

Towards that end, this Town Hall will 1) summarize the most important common threats/challenges; 2) identify possible solutions (management actions); 3) and articulate how we can work together to accomplish those solutions. The Town Hall will kick off with a discussion led by a 4-person panel representing the research, fishing, outreach/extension, and regulatory/management communities. A facilitated discussion with attendees will ensue. The facilitator will engage all participants to ensure an inclusive discussion. The overarching goal of the Town Hall is to understand the prioritized needs in coastal fisheries and how we can collectively address those needs. Notes will be taken to aid in producing a well-balanced summary document including lessons learned and suggestions to move forward. The summary document will be shared with the Coastal and Estuarine Research Federation (CERF) membership and other stakeholders. The Town Hall and summary will be outputs in line with the CERF mission and of value to the Federation and other agencies with a stake on coastal fisheries sustainability.

Please join us and bring your own lunch.

Poster Sessions & Happy Hour with Exhibitors
Time: 4:30–7:00PM
Location: Mobile Convention Center Exhibition Hall
Enjoy light snacks and a cash bar while viewing posters and speaking with presenters. See page 65 for a list of scheduled poster sessions and presenters for Monday evening.

Special Presentation: *The Slave Schooner Clotilda: Hidden but Not Forgotten*
Presenter: Dr. James Delgado
Time: 7:30– 8:30PM
Location: East and West Ballroom | Mobile Convention Center
Join us for the story of the June 2019 announcement of the discovery and identification of the wreck of the *Clotilda* off Mobile's Twelvemile Island. The discovery has again focused attention not only on the story of the schooner, but also on the people brought to Alabama on *Clotilda*, and of Africatown, now part of Mobile, home to descendants of some of the schooner's unwilling captives who when freedom came, established the community in the aftermath of the Civil War.

The wreck lies in a graveyard of ships that were purposely scuttled or abandoned in a backwater of the Mobile River. This is the story of the research, science and forensic archaeology used to identify the wreck of *Clotilda*, a nationally-significant archaeological site now protected by the Alabama Historical Commission for the people of Alabama.

Student + Early Career Networking Dinner
Time: 7:00–9:00PM
Location: Bon Secour Bay 1&2 | Renaissance Riverview Hotel
Join us for this popular networking event! Converse with faculty, professionals, post-docs, and other students while enjoying complimentary pizza and beverages! Gather valuable information on various career options and make professional connections that may lead to job opportunities and future collaborations.

Participants will have the opportunity to chat with panelists from various coastal and estuarine science and management positions. Each career panelist will be stationed at a table, where students and recent graduates will join them for a set amount of time to talk and ask questions. Then, after a set amount of time, students and early career individuals will switch tables to interact with a new career panelist. This will allow for conversations with several people from varied career paths, as well as interactions with your fellow peers!

Student "On The Town" Night
Start Time: 9:00PM
Location: The Haberdasher
After the Career Network Dinner, please join us on the town at the Haberdasher and let the networking continue! The Haberdasher is downtown Mobile's premier craft-cocktail bar, only a few short blocks away from the Mobile Convention Center. Known for their classic and unique cocktails, the Haberdasher also has a rotating list of craft beers and a delicious menu of fresh, handmade snacks.

Please note this is a free event and attendees are responsible for their own food and drink expense. The Haberdasher is a 21+ venue.

Tuesday, 5 November

Past Presidents' Breakfast (*By Invitation*)
Time: 7:00–8:00AM
Location: Room 107AB | Mobile Convention Center
CERF welcomes its past presidents to gather together to reminisce and share their insights with current Federation leadership.

CERF Inclusion Lunch (This is a *Ticketed Event*)
Time: 11:30–1:00PM
Location: Bon Secour Bay 1&2 | Renaissance Riverview Hotel
A limited number of tickets may still be available at registration.

Generously sponsored by the Gulf Sea Grant Programs, 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.

This year, the CERF Inclusion Lunch presents an opportunity for conference attendees to broaden participation even further as a part of the CERF initiative Rising TIDES, Toward an Inclusive, Diverse, and Enriched Society.

The work and achievements of women over the years have laid the critical groundwork for Rising TIDES. The CERF Inclusion Lunch will celebrate the work of women pioneers in CERF to demonstrate the significance of a progressively diverse science community.

2019 Theme: What's In Your Gumbo? Ingredients for Putting Diversity, Equity and Inclusion into Practice

Gumbo, a stew originated in Louisiana, is especially popular in the Gulf Coast region. This flavorful dish is full of various combinations of meat, seafood, vegetables and spices that are brought together by three key ingredients characteristic of gumbo: a flavored stock, a thickener and the Holy Trinity (a.k.a. bell peppers, celery, and onions). It is the different types of ingredients that meld together and make the gumbo so delicious, much like it is the ingredients of diverse people, perspectives and experiences that enhance and enrich the CERF and coastal and marine science gumbos. During the CERF Inclusion Lunch, attendees learn strategies and gain tools to promote and instill the key ingredients of diversity, equity, and inclusion at both individual, organizational and institutional levels.

The keynote speakers Dr. Tuba Ozkan-Haller and Dr. Kristy Lewis will lead the audience through presentations, exercises and facilitated discussion to help identify meaningful ways in which to engage in

DEI along multiple dimensions. There will also be time for personal and professional networking at the conclusion of the formal program.

SPEAKERS:

Dr. Tuba Özkan-Haller
Professor, College of Earth, Ocean, and Atmosphere Sciences; Professor, School of Civil and Construction Engineering; Associate Vice President for Research Administration and Development, Oregon State University

Dr. Ozkan-Haller is well known in the field of coastal engineering with expertise in nearshore waves and water motion and has served on the Ocean Studies Board of the National Academies of Science, Engineering and Medicine. Dr. Tuba Ozkan-Haller is passionate about communicating science to the public and has appeared in numerous documentaries produced by the History Channel, the National Geographic Channel, and Oregon Public Broadcasting.

Kristy Lewis Ph.D.
Kristy's research investigates ecosystem-level variability in marine communities and the impact these changes have on human stakeholders using statistical and ecological modeling strategies. Her focus on integrating science with societal needs includes participation of under-represented groups to find robust solutions to the world's most challenging coastal issues. For example, in a recently funded grant, she and an interdisciplinary research team will develop a web application giving coastal residents, including those in our most marginalized communities, the ability to assess their vulnerability to future environmental hazards and make informed housing decisions to reduce risk and increase resilience in fiscally responsible ways.

Annual CERF Business Meeting
Time: 4:30–5:30PM
Location: East and West Ballroom | Mobile Convention Center
CERF members are encouraged to attend the annual CERF Membership and Business meeting, where CERF Executive Director Susan Park 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 at 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 201C
- California Estuarine Research Society (CAERS): Room 201D
- Atlantic Canada Coastal and Estuarine Science Society (ACCESS): Room 202A
- New England Estuarine Research Society (NEERS): Room 202B
- Gulf Estuarine Research Society (GERS): Room 203A
- Pacific Estuarine Research Society (PERS): Room 204A
- Southeastern Estuarine Research Society (SEERS): 204B

25th CERF Biennial Conference Social Event (*Ticketed Event*)
Time: 7:00–10:00PM
Location: GulfQuest Maritime Museum

Sponsored By:
Visit Richmond VA.com

Each ticket purchase includes delicious southern-style heavy hors d'oeuvres (vegan and vegetarian options provided), access to all museum exhibits, and a drink ticket. The event will feature a large dance floor and local band. Additional drink purchases can be made at one of several cash bars. The museum contains over 90 interactive exhibits, simulators, displays, and theaters (www.gulfquest.org).

Outdoor rooftop access overlooks the Mobile River and provides an excellent location to unwind after a long conference day. Biodegradable products will ensure an environmentally conscience great time!

Join your friends and fellow CERFers for a fun-filled night at one of Mobile's most impressive museums.

Wednesday, 6 November

CESN Team Meeting/Breakfast (*By Invitation*)
Time: 7:00–8:00AM
Location: Mobile Convention Center Rooms 107AB

Estuaries & Coasts Editorial Board Lunch (*By Invitation*)
Time: 11:30AM–1:00PM
Location: Mobile Convention Center Rooms 107AB

Poster Sessions & Happy Hour with Exhibitors
Time: 4:30–7:00PM
Location: Mobile Convention Center Exhibition Hall
Enjoy light snacks and a cash bar while viewing posters and speaking with presenters. See page 72 for a list of scheduled poster sessions and presenters for Wednesday evening.

CERF Film Festival
Time: 7:00–10:00PM
Location: Renaissance Riverview Hotel, Bon Secour Bay 1 & 2
CERF is pleased to announce that this year's meeting includes a film festival. Members have submitted short videos that align with one of four categories: Research, Places, People, and Coastal Connections. One filmmaker from each category will win the prestigious CERF Film Festival Best in Category Award! We encourage everyone to come to the film festival screening event!

Thursday, 7 November

CERF 2021 Committee Breakfast (*By Invitation*)
Time: 7:00–8:00AM
Location: Mobile Convention Center Rooms 107AB

Estuaries and Coasts Town Hall
Misuse of P-values and why *Estuaries and Coasts* discourages the phrase *statistically significant*
Time: 11:30AM–1:00PM
Location: Room 107AB | Mobile Convention Center
For two decades, there has been a debate among statisticians about the misuse and misinterpretation of P-values. There is now a consensus among statisticians that it is wrong to use the binary choice of "statistically significant" or "non-significant" based on arbitrary assumptions about fixed alpha values e.g., 0.05 (Wasserstein et al. 2019), and some are recommending that editors ban the use of these terms from their journals (Hurlbert et al. 2019). The *Estuaries and Coasts* editors are considering this, but before taking such a drastic action, we want to explain to the CERF community what we are considering and why. This would both inform the CERF community that publishes in *Estuaries and Coasts*, provide advice on presenting results of statistical analyses, and allow the editors to receive feedback on how to move forward. Please join us and bring your own lunch.

CERF 2019 Committee Reception (*By Invitation*)
Time: 4:30–5:30PM
Location: Mobile Convention Center Room 107AB

Close Out Party & Student Awards Presentation
Time: 5:30–8:30PM
Location: East and West Ballroom | Mobile Convention Center
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.

CERF 2019 Silent Auction

RESPONSIVE RELEVANT READY

Bidding Opens: Sunday, 3 November 8:00PM
Bidding Closes: Wednesday, 6 November 6:00PM
Payment Due By: Thursday, 7 November 1:00PM
Location: Mobile Convention Center

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 6:00 PM Wednesday, 6 November, 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, 7 November 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.

ORAL SESSIONS Monday 04 November | Early Morning 8:00 AM – 9:30 AM

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	201 A	201 C	202 A	202 B	203 B
	Fish and fisheries: linking science, management, and society Pedro Morais and Ester Dias	**Impacts of multiple disturbances on coastal ecosystem structure and function** Corianne Tatariw and Anna Braswell	**Biogeochemical cycling and transport across the land–ocean aquatic continuum** Raymond Najjar, Marjorie Friedrichs, Pierre St. Laurent and Susan Pan	**Innovative approaches for estuarine/watershed data analysis, mining, and visualization** Qian Zhang, Rebecca Murphy, Marcus Beck and Jeni Keisman	**Ecological processes, structures and functions in tidal urban ecosystems** Ryan Woodland, Lora Harris and Eric Schott
8:00 AM	A global review of tested and reported sound production in fishes **Audrey Looby**, Kieran Cox, Rodney Rountree, Francis Juanes, Charles Martin, Laura Reynolds	A 35 year spatial-temporal analysis of serious Spartina alterniflora biomass declines in coastl Georgia **John Schalles**, Christine Hladik, John O'Donnell, Nicholas Nealy	Long-term dynamic global river nitrogen loads to the coastal ocean **Minjin Lee**, Elena Shevliakova, Charles Stock, Sergey Malyshev, PCD Milly	Machine learning to improve decision making for water management strategies, land use planning and policy **Tricia Kyzar**, James Colee	Linking land use to physical changes in Charleston's estuaries and tidal creeks **Breanne Hanson**, Andrew Tweel, Norm Shea, Denise Sanger
8:15 AM	Using hotspot analyses to identify long-term spatial patterns in common estuarine sportfish **Janelle Johnson**, H. Nathan Miller, Dave Blewett, Courtney Saari	Buying time: elevation capital extends life of marshes in the sediment-deficient Plum Island Estuary, MA **Amy Langston**, Ellen Herbert, Orencio Durant Vinent, Matthew Kirwan	Changes in Nitrogen loading from the Chesapeake Bay watershed since 1900: magnitude and attribution **Susan Pan**, Zihao Bian, Yuanzhi Yao, Hanqin Tian, Marjorie Friedrichs, Raymond Najjar, Eileen Hofmann	Machine-learning classifiers applied to sediment identification for coastal restoration near Ship Shoal in Louisiana **Haoran Liu**, Kehui Xu, Bin Li, Ya Han, Guandong Li	Biogeochemical data from a tropical urban estuary implicate unexpected nitrogen sources **Autumn Oczkowski**, Emily Santos, Rose Martin, Evelyn Huertas, Alana Hanson, Elizabeth Watson, Cathleen Wigand
8:30 AM	Using acoustic telemetry and stable isotope analysis to understand juvenile red drum foraging and movement **David Behringer**, James Nelson	Habitat decoupling via altered saltmarsh creek geomorphology decreases mummichog terrestrial subsidy to aquatic food webs **Justin Lesser**, Cameron Bechtold, Linda Deegan, James Nelson	Biogeochemical gradients in a subterranean estuary providing DIN to the York River estuary **Stephanie Wilson**, Iris Anderson, Craig Tobias, Bongkeun Song	Creating a long-term climatologically based forecast for hypoxia in the Chesapeake Bay **Andrew Muller**, Diana Muller	Establishing a water quality baseline in the impounded Guana River estuary **Nicole Dix**, Shannon Dunnigan, James Tomazinis, Jessica Lee
8:45 AM	Identifying indicators of protandric hermaphroditism on otoliths of common snook (Centropomus undecimalis) **Brent McKenna**, Joy Young, John Baldwin	Decadal response of natural and stabilized fringing saltmarshes to SLR, hurricanes, and drought **Carolyn Currin**, Jenny Davis, Anna Hilting, Michael Greene, Quentin Walker	Is eutrophication inevitable? In-situ incubations identify threshold responses to nutrification in oligotrophic New Zealand estuaries. **Amanda Vieillard**, Simon Thrush	Data-driven monitoring and modeling for predicting marsh edge erosion Navid Jafari, Jim Chen, Ling Zhu, **Brian Harris**	Critical coastal habitat assessment: understanding climate change impacts in Tampa Bay, Florida **Gary Raulerson**, Lindsay Cross, Pam Latham, David Loy, Ryan Moyer, Renee Price, Kara Radabaugh, Thomas Ries, Doug Robison, Edward Sherwood
9:00 AM	Determining changes in fish community structure along salinity gradients in a reflooded, hypersaline estuary **Catherine Eckert**, David Hicks	Prescribed fire drives decomposition dynamics along a coastal elevation gradient **Julia Cherry**, Lorae Simpson, Mollie Nugent, Loretta Battaglia	Tidal freshwater zones as hotspots for nitrogen retention and removal in two Texas rivers **Xin Xu**, Hengchen Wei, Kevan Moffett, James McClelland, Amber Hardison	Improving estimates of coastal marsh plant biomass while minimizing costs of data collection **Megan Vahsen**, James Holmquist, Patrick Megonigal, Jason McLachlan	Snapshots of lateral gradients along St. Lucie Estuary, Florida, before and after Hurricane Irma **Amanda Kahn**, Sarah Bornhoeft, Cassondra Armstrong, Zhiqiang Chen
9:15 AM	Hawaiian estuaries are highly invaded by non-native fishes and other mobile species **Kimberly Peyton**, Troy Sakihara	Changes in benthic community composition and ecological function along an estuarine urban pollution gradient **Gary Banta**, Judi Hewitt, Simon Thrush	Influence of nutrient concentrations and forms on phytoplankton communities in tidal freshwater zones of rivers **Hengchen Wei**, Xin Xu, Amber Hardison, Kevan Moffett, Deana Erdner, James McClelland	Inferring estuarine wetland loss for the western United States from a tidal inundation model **Laura Brophy**, Correigh Greene, Van Hare, Brett Holycross, Andy Lanier, Hiroo Imaki, Tanya Haddad, Randy Dana, Walter Heady, Kevin O'Connor	Successes and challenges in improving water quality in the Narragansett Bay watershed **Courtney Schmidt**, Mike Gerel, Julia Bancroft, Eivy Monroy
9:23 AM				Snappin' to the Beat: How Passive Acoustic Monitoring Can Yield Valuable Information in Estuarine Habitats **Richard Lyon**, DelWayne Bohnenstiehl, David Eggleston, Shannon Ricci	
	9:30 AM BREAK				

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ORAL SESSIONS Monday 04 November | Early Morning 8:00AM – 9:30AM

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	201B	201 D	203 A	204 A	204 B
	Advances in understanding sea level rise and coastal landscape change Keryn Gedan and Matthew Kirwan	**Searching for solutions: the future of deltas and estuaries worldwide** John Day	**Short-term and long-term variability in coastal and estuarine microbial communities** Byron Crump, Jennifer Bowen and Pia Moisander	**Advanced remote-sensing methods for water quality monitoring and forecasting** Aimee Neeley and Guangming Zheng	**Ecosystems, human well-being and resilience: characterizing socio-ecological systems** Lisa Smith and Linda Harwell
8:00 AM	Dynamics and spread of invasive Phragmites during upland conversion to tidal marsh **Keryn Gedan**, Justus Jobe, Man Qi, Phoebe Shaw	Wetland soil strength with emphasis on the impact of nutrients and sediments **Navid Jafari**, Brian Harris, Jack Cadigan, John Day, Charles Sasser, Cathleen Wigand, Angelina Freeman, James Pahl, Robert Lane, Leigh Anne Sharp, Gary Shaffer, Guerry Holm	Source tracking microbial communities and metagenomes in the Columbia River estuarine turbidity maxima **Byron Crump**, Mariya Smith, Lydie Herfort, Holly Simon	Above the mud: a collaborative effort using unmanned aircraft systems (UAS) for natural resource management **Elizabeth Perotti**, Anthony D'Andrea	Built environment vulnerability: How does coastal development affect response and resilience to coastal hazards? **Anna Braswell**, Stefan Leyk
8:08 AM					Using multiple methods to examine aspects of socio-ecological benefits from restoration projects **Justin Bousquin**, Richard Fulford, Marc Russell
8:15 AM	Advances in understanding sea level rise and coastal landscape change **Nicholas Enwright**, Michael Osland, Sinéad Borchert, Kereen Griffith	Decadal-scale coastal sea-level variability in the northern Gulf of Mexico: implications for coastal wetland sustainability **Gregg Snedden**, Robert Rohli	The genomic capabilities of microbial communities track seasonal variation in Arctic lagoons **Kristina Baker**, Colleen Kellogg, James McClelland, Ken Dunton, Byron Crump	A multi-sensor approach for monitoring cyanobacterial harmful algal blooms in a large subtropical lake **Abhishek Kumar**, Deepak Mishra	What's a "restored" Chesapeake Bay? Towards an integrated assessment of Chesapeake Bay and its watershed **Vanessa Vargas-Nguyen**, Michael Paolisso, William Dennison
8:30 AM	Drivers of upslope marsh migration: disturbance triggers and human assistance **Loretta Battaglia**	Climate Change at the Coastal Margins: Effects of Glacier Loss on Estuary Ecosystems of Alaska **Anne Beaudreau**, Brenda Konar, Allison Bidlack, Lee Ann Munk, Pips Veazey	Spatiotemporal variation of benthic microbial communities and nitrogen cycling processes in the York River Estuary **Samantha Fortin**, Bongkeun Song, Iris Anderson	Influence of river input on the carbonate chemistry of northern Gulf of Mexico **Padmanava Dash**, Madhur Devkota, M. S. Sankar, Wondimagegn Beshah, Andrew Mercer, Shrinidhi Ambinakudige	Sustainability in Chesapeake Bay shorescapes: climate change, management decisions, and ecological functions **Donna Marie Bilkovic**, Molly Mitchell, Amanda Guthrie, Robert Isdell, Karinna Nunez, Sarah Stafford, Randy Chambers, Adrianna Gorsky, Matthias Leu, Robert Galvin, Shana Jones, Michelle Covi
8:45 AM	Carbon stocks and accumulation rates across migrating marsh-forest boundaries **Alexander Smith**, Matthew Kirwan	And now for some good news; resilience and restoration potential in Pacific Northwest estuaries **John Rybczyk**, Katrina Poppe	A Temporal Study of the Marine Microbial Ecology in the Coastal Waters of Pensacola Beach **Arianna Simmering**, Lisa Nigro, Erika Neat-Headrick, Melissa Ederington-Hagy, Wade Jeffrey	Evaluating suspended particulate and heavy metal fluxes in the Mobile River Basin and Mobile Bay **Jackson Stewart**, Natasha Dimova	Regional Resilience: Building adaptive capacity and community wellbeing across Louisiana's dynamic coastal-inland continuum **Traci Birch**
9:00 AM	Implications of geomorphic type on salt marsh response to sea-level rise **Jessica Flester**, Linda Blum	Basin-scale land use impacts on world deltas: human vs natural forcings **Carles Ibanez**, Carles Alcaraz, Nuno Caiola, Patricia Prado, Rosa Trobajo, Xavier Benito, John Day, Enrique Reyes, James (Jai) Syvitski	Extreme wet and dry years and the resilience of Microcystis blooms in San Francisco Estuary **Peggy Lehman**, Tomofumi Kurobe, Swee Teh	Modeling the Light Field of the Chukchi Sea: An Optical Closure Experiment **Aimee Neeley**, Lora Harris	Resilience to natural hazards: Comparison of states and coastal counties bordering the Gulf of Mexico **James Summers**, Linda Harwell, Lisa Smith, Kyle Buck
9:15 AM	Forest Rootzone Collapse Causes Elevation Loss to Facilitate Marsh Migration in a Landscape-scale Transgression Experiment **David Walters**, Joel Carr, Alyssa Hockaday, Glenn Guntenspergen	Mississippi delta restoration in a time of accelerating global change **John Day**	Temporal shifts in coastal marine biofilm communities in response to UV-C irradiation **Abhishek Naik**, Mark Smithers, Pia Moisander	Remote Sensing in the Chesapeake Bay: A Focus on Harmful Algal Blooms **Natasha De La Cruz**, Greg Silsbe, Anna Windle	Decision Integration for Strong Communities: A Community-Driven Software Application Solution **Linda Harwell**, Allen Brookes, Seth Jenkins, Connor Thorson, Kurt Wolfe, Rajbir Parmar, Deron Smith, Paul Dunken, James Summers, David Olszyk, Viccy Salazar, Kristi Swisher
9:23 AM	Patterns of salt marsh change in NJ: the influence of tidal range and human impacts **Joseph Smith**, Michael Pellew				
	9:30 AM BREAK				

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ORAL SESSIONS Monday 04 November | Mid Morning 10:00 AM – 11:23 AM

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	201 A	201 C	202 A	202 B	203 B
	Fish and fisheries: linking science, management, and society Pedro Morais and Ester Dias	**Impacts of multiple disturbances on coastal ecosystem structure and function** Corianne Tatariw and Anna Braswell	**Biogeochemical cycling and transport across the land–ocean aquatic continuum** Raymond Najjar, Marjorie Friedrichs, Pierre St. Laurent and Susan Pan	**Innovative approaches for estuarine/watershed data analysis, mining, and visualization** Qian Zhang, Rebecca Murphy, Marcus Beck and Jeni Keisman	**Ecological processes, structures and functions in tidal urban ecosystems** Ryan Woodland, Lora Harris and Eric Schott
10:00 AM	Comparative growth of hatchery and wild Pacific salmon during out-migration **Raien Emery**, Joseph Smith	Patterns and drivers of salinity over multiple time scales in the Albemarle Pamlico estuarine system **Matthew Stillwagon**, Marcelo Ardon	Bioavailability of dissolved organic nitrogen in the Caloosahatchee River and Estuary **Cassondra Armstrong**, Stacey Ollis	Recent trends in nitrogen sources and estimated loads to estuaries of the conterminous United States **Naomi Detenbeck**, Mingde You, Daniel Torre	Characterizing salt marsh microbial communities along an urbanization gradient **Annie Murphy**, Ashley Bulseco-McKim, Christian Alsterberg, Ross Ackerman, Jarrett Byrnes, Jennifer Bowen
10:15 AM	Identifying nursery origin of a euryhaline predator: Evaluating the utility of natural tags **Thomas TinHan**, Shannon O'Leary, Jay Rooker, David Portnoy, Carey Gelpi, R.J. David Wells	Hurricane, hypoxia, and oil spill effects on ammonium cycling in the northern Gulf of Mexico **Silvia Newell**, Stephen Carini, Mark McCarthy, Xiao Lin, Lijun Hou, Justyna Hampel, Wayne Gardner	Applying the isotope pairing technique to measure nitrogen dynamics in a coastal Louisiana deltaic floodplain **Song LI**, Robert Twilley	Quantifying the Drivers of Historical Eutrophication across the South Atlantic and the Gulf Coasts **Lise Montefiore**, Natalie Nelson	Colonization of pier piles by sessile marine invertebrates in the Hudson River **Allison Fitzgerald**, Carrie Roble
10:30 AM	Determining River Herring eDNA shedding and decay rates to develop a methodology for quantification **Seth Gibbons**, Sara Roozbehi, Austin Eberwein, Michael Brewer, Roger Rulifson, Erin Field	Seasonal Variability in Basal Food Web of Dredge Pits on the Louisiana Continental Shelf **Monique Boudreaux**, Sibel Bargu, John White, Kanchan Maiti, Laura Thompson	Impacts of invasive Phragmites australis and extreme weather events on nitrogen processing in coastal marshes **Mollie Yacano**, Suzanne Thompson, Michael Piehler	Linking landcover, climate, and coastal ecosystems: a watershed perspective for a changing South Carolina coast **Lloyd Hill**, Andrew Tweel, Sharleen Johnson, Denise Sanger	Human modifications to estuaries modify the diet, morphology, and functional niches of coastal fish species **Felicity Hardcastle**, Andrew Olds, Christopher Henderson, Thomas Schlacher, Tyson Martin, Paul Maxwell, Rod Connolly, Ben Gilby
10:45 AM	Larval supply of eastern oyster (Crassostrea virginica) to restored and historic oyster reefs in Mississippi **Leah Morgan**, Chet Rakocinski	Benthic community resiliency in a southeastern river-dominated estuary **Alexis Marti**, Martin Posey, Troy Alphin	Nutrient loading impacts nitrogen removal and carbon dynamics in a Juncus and Spartina dominated saltmarsh **Taylor Ledford**, Corianne Tatariw, Julia Cherry, Olivia Mason, Behzad Mortazavi	CRMS Calcasieu/Sabine Basin analysis – Flood stress and land loss on Louisiana's Chenier Plain **Leigh Anne Sharp**, Tommy McGinnis, William Wood	Structural and functional patterns of demersal fish assemblages in an urbanized coastal landscape **Ryan Woodland**, Lora Harris, Eric Schott, Alexandra Fireman, Erin Reilly
11:00 AM	Time and temperature effects on histamine and histamine-producing bacteria (HPB) in decomposing fish **Ashley Frith**, Kristín Björnsdóttir-Butler, Ruth Carmichael	Disturbance structures the dynamics, synchrony, and biodiversity of giant kelp forests **Max Castorani**, Tom Bell, Robert Miller, Daniel Reed, Daniel Reuman, Lawrence Sheppard, Jonathan Walter	Building ecosystem function: Do constructed salt marshes remove nitrogen as well as their natural counterparts? **Corianne Tatariw**, Taylor Ledford, Sommer Starr, Lorae Simpson, Erin Smyth, Abigail Griffin Wood, Julia Cherry, Behzad Mortazavi	What is upstream for my water samples? The need of Directional Water Quality Data **Henry Briceno**, Reinaldo Garcia, Michael Absten, Sandro Stumpf, Chuanmin HU, David English, Raymond Najjar, Maria Herrmann	Landscape transformation alters functional diversity in coastal seascapes **Christopher Henderson**, Ben Gilby, Thomas Schlacher, Rod Connolly, Marcus Sheaves, Paul MAxwell, Nicole Flint, Andrew Olds
11:15 AM	Variability in the trophic ecology of Sargassum-associated juvenile fishes **Courtney Stachowiak**, Olivia Lestrade, Kevin Dillon, Frank Hernandez	Linking Watershed pollution to stony coral condition **William Fisher**, Leah Oliver		Developing ecological targets for watershed restoration **Lisa Vandiver**	Urbanisation and conservation shape ecosystem functioning across disturbed seascapes **Andrew Olds**, Ben Gilby, Christopher Henderson, Thomas Schlacher, Rod Connolly, Paul Maxwell, Marcus Sheaves, Hayden Borland, Nicholas Ortodossi
	11:30 AM LUNCH				

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ORAL SESSIONS Monday 04 November | Mid Morning 10:00AM – 11:30AM

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	201 B	201 D	204 A	204 B	203 A
	Advances in understanding sea level rise and coastal landscape change Keryn Gedan and Matthew Kirwan	**Supporting management of coastal ecosystems through integrated ecosystem assessments** Chris Harvey, Chris Kelble, Mark Monaco and Geoffrey Cook	**Shallow water mapping in coastal environments: research, methods and management** Mark Borrelli and Monique LaFrance Bartley	**Social and natural sciences: When the stars align…or don't** David Yoskowitz, Lauren Hutchison, Paul Hindsley, and Rex Caffey	**Microbes to maps: data-model integration for coastal wetland blue carbon** James Holmquist, Camille Stagg, Brandon Boyd, Melissa Baustian, Tiong Aw, Courtney Creamer, James Morris, and Amanda Spivak
10:00 AM	Advances in sea-level driven land conversion in the Chesapeake and beyond **Matthew Kirwan**, Mark Schuerch, Keryn Gedan, Nathalie Schieder	Session Introduction: Supporting management of coastal and marine ecosystems through integrated ecosystem assessments **Mark Monaco**, Rebecca Shuford, Chris Harvey, Chris Kelble, Spooner Ellen	Use of acoustical methods for ecosystem monitoring in a seagrass meadow **Megan Ballard**, Kevin Lee, Jason Sagers, Gabriel Venegas, Andrew McNeese, Abdullah Rahman, Preston Wilson	Enhancing Cross Disciplinary Research to Application through Boundary Organizations **Stephen Sempier**, D. Swann	Physical constraints on the stabilization of coastal soil carbon **Lisamarie Windham-Myers**, Patrick Megonigal
10:15 AM	Different marshes, different trajectories: long term change in vegetated marsh extent at three LTER sites **Merryl Alber**, Christine Burns, Clark Alexander	A Global Perspective on Ecosystem-based Management and Integrated Ecosystem Assessments **Jason Link**, Mark Dickey-Collas, Erik Olsen, Alida Bundy, Elizabeth Fulton	Vessel-Based, Shallow Water Mapping with A Phase-Measuring Sidescan Sonar: Lessons Learned from the Field **Mark Borrelli**, Theresa Smith	Natural experiments, coral reef management, and integrating socio-ecological data **Kelly Dunning**	WARMER-2: Refining a marsh elevation and carbon model to incorporate vegetation succession and parameter uncertainty **Kevin Buffington**, Chris Janousek, Bruce Dugger, Karen Thorne
10:30 AM	Effects of Hurricane Matthew's storm surge pulse disturbance on the forest-marsh ecotone in South Carolina **Thomas O'Halloran**, Thomas Williams, Stefanie Whitmire, Bo Song, William Conner, Skip Van Bloem	Using the Climate Change Web Portal for integrated ecosystem assessment and coastal applications **Michael Alexander**, James Scott, Gaelle Hervieux	Monitoring *Nipponaclerda biwakoensis* infestation of Phragmites australis using NDVI and remotely sensed land cover classifications **Aimee Beaudette**, Brady Couvillion	A consistent approach for ecosystem services projects to ensure useful results for coastal management **Peter Wiley**, Rebecca Love, Jennifer Zhuang, Kate Quigley	Ecosystem level carbon stocks and sequestration rates across coastal morphology explain mangrove blue carbon mitigation **Robert Twilley**, Andre Rovai, Edward Castañeda-Moya, Paulo Pagliosa, Alessandra Fonseca, Pablo Riul
10:45 AM	The effects of storm surge on pitch pine growth in a rapidly transgressing coastal forest **LeeAnn Haaf**, Pedram Daneshgar, Elizabeth Watson, Salli Dymond	An open-science approach to ecosystem reporting for IEA in the Northeast US **Sean Hardison**, Sarah Gaichas, Sean Lucey, Scott Large	Quantifying and mapping intertidal oyster reefs using LiDAR-based remote sensing **Sara Hogan**, Matthew Reidenbach	Integrating People and Ecosystems to Enhance Coastal Resiliency through Living Shorelines **Amanda Guthrie**, Donna Marie Bilkovic, Carl Hershner, Sarah Stafford	Assessing the role of organic matter reactivity in limiting salt marsh pond deepening **Sheron Luk**, Kelsey Gosselin, Ann McNichol, Jonathan Sanderman, Amanda Spivak
11:00 AM	Change is happening: a look at sea-level rise driven upland tidal salt marsh edge migration **Rachael Sacatelli**, LeeAnn Haaf, Richard Lathrop	There is no I in EAFM: adapting Integrated Ecosystem Assessment for Mid-Atlantic Fisheries Management Sarah Gaichas, Geret DePiper, Richard Seagraves, Brandon Muffley, **Sean Lucey**	Hyperspectral imagery from unmanned aerial systems for mapping and monitoring tidal wetland restoration **Amy Borde**, Andre Coleman, Curtis Roegner, Robert Erdt	**Panel Discussion**	Responses of marsh ecosystems to coastal change in the Southeastern Florida Everglades **Tiffany Troxler**, Benjamin Wilson, Fred Sklar, Sean Charles, John Kominoski, Evelyn Gaiser, Carlos Coronado-Molina, Stephen Kelly, Stephen Davis, Khandker Ishtiaq, Jennifer RIchards, Daniel Gann
11:15 AM	Connection between vertical and lateral metrics: implications for landward transgression of salt marshes **Neil Ganju**, Zafer Defne	Applying an IEA for fishing communities affected by red tide on Florida's West Coast **Chris Kelble**, Mandy Karnauskas, Matthew McPherson, John Walter			Influences on photosynthetic efficiency of Spartina alterniflora photosystem II as estimated via PAM fluorometry **Lishen Mao**, Deepak Mishra, Jessica O'Connell, David Cotten, Peter Hawman, Caroline Narron
11:23 AM	Temperature thresholds for mangrove freeze damage, mortality, and recovery: refining tipping points for tropicalization **Michael Osland**, Richard Day, Courtney Hall, Laura Feher, Anna Armitage, Just Cebrian, Randall Hughes, David Kaplan, Amy Langston, Aaron Macy, Carolyn Weaver, Ilka Feller				
	11:30 AM LUNCH				

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ORAL SESSIONS Monday 04 November | Early Afternoon 1:00PM – 2:30PM

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	201B	201 D	202 A	204 A	204 B
	Advances in understanding sea level rise and coastal landscape change Keryn Gedan and Matthew Kirwan	**Supporting management of coastal ecosystems through integrated ecosystem assessments** Chris Harvey, Chris Kelble, Mark Monaco and Geoffrey Cook	**Biogeochemical cycling and transport across the land–ocean aquatic continuum** Raymond Najjar, Marjorie Friedrichs, Pierre St. Laurent and Susan Pan	**Foundation species conservation: bridging the basic and applied research divide** Rachel Smith, R. Daniel Harris	**CERF 2019 Coastal Design Competition: Mobile Bay** Robert Twilley, Tiffany Troxler, Karen McGlathery, Traci Birch and Jeff Carney
1:00 PM	Biodeposition by ribbed mussels drives vertical marsh accretion in southeast US salt marshes **Sinead Crotty**, Christine Angelini	Quantifying and Comparing Risk to Ecosystem Services Production Across Coastal South Florida **Geoffrey Cook**, Chris Kelbl	Decadal changes of soil physiochemical properties in a freshwater wetland after Mississippi River reconnection Alina Spera, **John White**, Ron Corstanje	Roadmap for restoration: using ecological data to inform resource management and restoration practice **Jennifer Beseres Pollack**, Terry Palmer, Jonathan Grabowski, Kevin De Santiago, Danielle Marshall, Abby Williams	Design and planning for long-term living shoreline sustainability and resilience **Meg Goecker**, Kevin Hanegan, Nick Cox, Chris Williams, Mary Kate Brown
1:15 PM	How will sea level rise-driven shifts in wetland vegetation alter ecosystem services? **Beth Lawrence**, Aidan Barry, Sean Khan Ooi, Chris Elphick, Ashley Helton	An Ecosystem Status Report to support management decisions in Barataria Basin, Louisiana **Shannon Martin**, Suzana Blake, Amy Freitag, Daniel Dorfman, Seann Regan, Michael Jepson	Considering coasts: Adapting terrestrial models to characterize coastal habitats **Teri O'Meara**, Daniel Ricciuto, Genevieve Noyce, Benjamin Sulman, Fengming Yuan, Roy Rich, Peter Thornton, Patrick Megonigal	Understanding foundation species through research and restoration – a tale of two biogenic habitats **Megan La Peyre**	Multidisciplinary Assessment of Urban Design through a Resiliency Framework: Miami Beach Case Study Aurora Alcaide-Ortiz, Ron Haripra-shad, Timothy Kirby, **Jazmin Locke**, Helen Roldan, Roberto Rivera, Tiffany Troxler
1:30 PM	Saltmarsh regression and transgression with varying upland slopes and allogenic sediment supply **Carson Miller**, Antonio Rodriguez	Applying Science-based Indicator Portfolios to National Marine Sanctuaries **Gregory Williams**, Jennifer Brown, Chris Harvey, Andrew DeVogelaere, Chris Caldow	A comprehensive estuarine organic carbon budget and the importance of tidal marshes in estuarine biogeochemistry **J. Blake Clark**, Wen Long, Raleigh Hood	From 0-to-60; Challenges of training GulfCorps members in field monitoring. **Jeff DeQuattro**	Inland from the Coast: Engaging stakeholders to design resilient communities in the face of uncertainty **Rachelle Trahan**, Alexandre Cowles, Kathleen Eubanks, Yuta Masakane, Tanvi Shah
1:45 PM	Incorporating marsh migration into traditional river and wetland restoration efforts **Caitlin Alcott**, Nick Nelson, Mike Burke	Applying results of the Northeast Integrated Ecosystem Assessment to the Stellwagen Bank National Marine Sanctuary **David Moe Nelson**, Mark Monaco, Sean Lucey, Benjamin Haskell	Fate of eroding soil organic matter in coastal wetlands: A biogeochemical and acid hydrolysis approach **Yadav Sapkota**, John White	Effects of climate change on plants and invertebrates in a restored southern California salt marsh **Christine Whitcraft**, Anastasia Shippey	**Panel Discussion**
2:00 PM	The role of hurricanes, climate and sea level in shaping the south Florida coastline **G. Lynn Wingard**, Miriam Jones, Sarah Bergstresser, Bethany Stackhouse, Kristen Hoefke, Marci Marot, Andre Daniels	Indicator selection to support EBM: the Florida Keys National Marine Sanctuary Integrated Ecosystem Assessment **Kelly Montenero**, Chris Kelble	Particulate organic nitrogen transport and fate in Chesapeake Bay: A numerical study **Hao Wang**, Raleigh Hood, Wen Long	**Panel Discussion**	
2:15 PM	Increasing tidal inundation and the biophysical structure of a saltmarsh over the past decade **Erik Smith**, Tracy Buck	Forks in the road toward successful integrated ecosystem assessment and ecosystem-based management support **Chris Harvey**	Impact of Sediment Resuspension on Nearbed DIC and Acidification in the Northern Gulf of Mexico **Linlin Cui**, Courtney Harris, Kanchan Maiti, Wei-Jun Cai		
	2:30 PM BREAK				

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	202 B	203 A	203 B
	Innovative approaches for estuarine/watershed data analysis, mining, and visualization Qian Zhang, Rebecca Murphy, Marcus Beck and Jeni Keisman	**Microbes to maps: data-model integration for coastal wetland blue carbon** James Holmquist, Camille Stagg, Brandon Boyd, Melissa Baustian, Tiong Aw, Courtney Creamer, James Morris, and Amanda Spivak	**Ecological processes, structures and functions in tidal urban ecosystems** Ryan Woodland, Lora Harris and Eric Schott
1:00 PM	Tracking San Francisco Bay water quality using generalized additive models in an R Shiny framework **Marcus Beck**, Ian Wren, Rebecca Murphy, Perry de Valpine, David Senn	Blue Carbon: A tool to help finance the protection and restoration of coastal Louisiana **Leland Moss**, Tim Carruthers, Erin Swails, Scott Settelmyer, Melissa Baustian, Stefanie Simpson	Juvenile blue crab utilization of low salinity marsh within the Cape Fear River **Edward Arb**, Martin Posey, Dave Meyer, Troy Alphin
1:15 PM	Evaluating water quality response trajectories in Chesapeake Bay using statistical models **Rebecca Murphy**, Jennifer Keisman	Microbial community composition and carbon dynamics under new salinity regimes: an intact core study **Sarah Harttung**, Lisa Chambers	Chronic inputs from human development impact the health of oysters (Crassostrea virginica) among tidal creeks? **Troy Alphin**, Anne Markwith, Martin Posey
1:30 PM	Web-based 4-Dimensional Visualization of Water Quality and Habitat Status and Change in Chesapeake Bay **Zhaoying Wei**, John Wolf, Emily Trentacoste, Qian Zhang, Richard Tian, Peter Tango	Mangrove Productivity and Carbon Storage is controlled by Hurricanes, Geomorphology, and Hydrology along Mexico's coastline **Victor Rivera-Monroy**, María Rodríguez-Zúñiga, Luis Farfán, Samuel Velázquez-Salazar, Berenice Vázquez-Balderas, Edgar Villeda-Chávez, Carlos Troche-Souza, María Cruz-López, Xiaochen Zhao, Robert Rohli	Assessment of stormwater pollution within a coastal urban canal basin **Abraham DaSilvio**, Hyun Jung Cho
1:45 PM	Assessing the cumulative effects of restoration activities on improving water quality in Tampa Bay, Florida **Edward Sherwood**, Marcus Beck, Jessica Henkel, Kirsten Dorans, Kathryn Ireland, Patricia Varela	Improving blue carbon estimates: best practices for quantifying uncertainty in loss-on-ignition **Lauren Brown**, Samantha Chapman, Brandon Boyd, Chris Janousek, Jonathan Sanderman, Gregory Noe, Amanda Spivak, Elizabeth Fard, James Morris, James Holmquist, Patrick Megonigal, Glen MacDonald	Navigation Channel Induced Erosion of an Estuarine Cultural Site **Mariko Polk**, Kelsey Potlock, Devon Eulie, Jim McKee
2:00 PM	Visualizing urban stormwater contamination through design thinking, pollution loading, and social equity metrics **Emily Howe**, Christian Nilsen, Jamie Robertson	How sensitive are soil elevation and carbon to root turnover in mangrove and marsh ecosystems? **Samantha Chapman**, Emily Geoghegan, Claire Fell, James Holmquist, Matthew Hayes, Ilka Feller, James Morris, J Adam Langley	Application of novel wave attenuation devices to save riparian resources **Sarah Benson**, Kayla McNeilly, Mariko Polk, Devon Eulie
2:08 PM	The Application of Estuary Data Mapper (EDM) Spatial Framework for Estuaries Characterization **Xiao Shen**, Naomi Detenbeck, Mingde You	Tidal freshwater wetlands adapt to multiple platform elevations in response to coastal dynamics **Andre Rovai**, Robert Twilley, Alexandra Christensen	
2:15 PM	Accelerating Headwater Land Protection in the Mobile Bay Watershed **Kari Servold**, Meg Goecker, Eldon Blancher, II, Roberta Swann, Dan Dumont	Elevation drives gradients in surface soil temperature within salt marshes **Jessica O'Connell**, Merryl Alber	Long-term water management for waterfowl in brackish marsh induces vegetation state change to saline marsh **Scott Jones**, Karen Thorne
2:23 PM	Reproducible workflows for understanding and illustrating Surface Elevation Table data **Kimberly Cressman**, Suzanne Shull, Kristin Evans, Jonathan Pitchford, Margo Posten, Brook Russell, Jenni Schmitt, Kari St.Laurent, Megan Tyrrell	Data-Model Integration for Forecasting Carbon Sequestration in Coastal Wetland Soils **James Holmquist**	The microbial resistome of tidal creek sediments impacted by poultry industry wastewater **Bongkeun Song**
	2:30 PM BREAK		

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ORAL SESSIONS Monday 04 November | Early Afternoon 1:00 PM – 2:30 PM

= Lightning Presentations CH = Cultural Heritage/Coastal Humanities | All Presentations are Traditional Oral unless otherwise noted.

	201 A	201 C
	Fish and fisheries: linking science, management, and society Pedro Morais and Ester Dias	**Impacts of multiple disturbances on coastal ecosystem structure and function** Corianne Tatariw and Anna Braswell
1:00 PM	Fish assemblage response to intermittent flood gate openings in an urban estuarine waterbody. **Martin O'Connell**, Ann Uzee-O'Connell	Patterns and drivers of benthic community structure and succession in an estuarine Arctic kelp bed **Christina Bonsell**, Arley Muth, Ken Dunton
1:08 PM	Flatfish matter, too: How obsolete navigational cuts can affect local assemblage patterns **Jessica Reichmuth**, A. Loren Mathews, Bruce Saul	Unexpected climate driven ecosystem shifts: Are oyster reefs being replaced by mangrove islands? **Giovanna McClenachan**, Joshua Breithaupt, Linda Walters, Megan Witt
1:15 PM	Hot water and hungry fish: threats to juvenile lobsters in the Narragansett Bay **Kristin Huizenga**, Candace Oviatt	The Influence of Structure on Ecosystem Processes among Seagrass Meadows **Theresa Gruninger**, Laura Reynolds, Savanna Barry
1:30 PM	Connecting marine governance with ecological outcomes in small-scale fisheries. **Sara Marriott**, Kim de Mutsert	Seagrass ecosystems and environmental change: effects of temperature, phosphorus addition, and tropicalization on plant-herbivore interactions **Jamila Roth**, Laura Reynolds
1:45 PM	Quantifying habitat of fishes in Chesapeake Bay **Adena Schonfeld**, James Gartland, Robert Latour	Coastal tree rings show evidence of hurricanes, sea-level rise, and ecosystem stress **Clay Tucker**
2:00 PM	Fish community response to restoration of essential fish habitat **Brittany Troast**, Linda Walters, Geoffrey Cook	Hurricanes and herbivory in maritime live oak forests **Hannah Morris**, Elizabeth King
2:15 PM	Optimising conservation outcomes for mangrove forests **Lucy Goodridge Gaines**, Andrew Olds, Rod Connolly, Christopher Henderson, Thomas Schlacher, Ben Gilby	Deer do not affect short-term vegetation recovery rates in Fire Island's overwashes after Hurricane Sandy **Chellby Kilheffer**, Brian Underwood, Jordan Raphael, Lindsay Ries, Shannon Farrell, Donald Leopold
	2:30 PM BREAK	

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ORAL SESSIONS Tuesday 05 November | Early Morning 8:00AM – 9:30AM

⚡ = Lightning Presentations CH = Cultural Heritage/Coastal Humanities | All Presentations are Traditional Oral unless otherwise noted.

	201 C	201 B	203 A	201 D	204 B
	Impact of weather and extreme events: observations, analysis, and modeling Chunyan Li, Arnoldo Valle-Levinson, Ming Li	**Exploring interdisciplinary and collaborative sea-level rise research for coastal adaptation** David Kidwell, Renee Collini and Matthew Bilskie	**Mud, macrofauna and microbes: An ode to benthos III** Leila Hamdan, Janet Nestlerode, Kelly Dorgan and Elizabeth Hinchey	**Carbon fluxes in coastal systems** Robert Chen, Iris Anderson, Damien Maher, David Ho and Ken Krauss	**Living shorelines and marsh nature-based infrastructure: lessons learned** Cindy Palinkas, Brandon Boyd, Savanna Barry, Sara Martin and Eric Sparks
8:00 AM	Adjustment of wind-driven motion and storm surge in a semi-enclosed bay **Chunyan Li,** Wei Huang, Jie Wang, Changsheng Chen, Huichan Lin	Spending more to delay wetland benefits: incorrectly accounting for sea-level rise when designing restoration projects **John Nyman**	Assessing spatial and temporal variation of bioturbation in coastal wetlands of Moreton Bay, Queensland, Australia **Zoë Shribman**, Keila Stark, Vicki Bennion, Catherine Lovelock	Factors influencing carbon stocks and accumulation rates in New England eelgrass meadows **Alyssa Novak**, Marguerite Pelletier, Phil Colarusso, Juliet Simpson, Nicole Gutierrez, Ariane Arias Ortiz, Michael Charpentier, Pere Masqué, Prassede Vella	Assessing the Efficacy of Marsh Terracing for Coastal Wetland Restoration in Louisiana **Joseph French**, Adam Skarke, Raul Osorio Morillo, Anna Linhoss, Michael Brasher
8:15 AM	An investigation of an historic low salinity event in the York River estuary, Chesapeake Bay **David Parrish**, Carl Friedrichs, William Reay, Erin Shields	Inlet channel, water level and salinity responses to sea level rise in intermittently closing estuaries **John Largier**, Dane Behrens, Sam Winter, Michael Koohafkan, Karen Thorne, Kevin Buffington	Comparison of ecosystem responses to long-term climate variability among three estuaries **Patricia Cockett**, Paul Montagna	Assessing tidal wetland above- and belowground net primary production using field and in situ measurements **Caroline Narron**, Deepak Mishra, Jessica O'Connell, David Cotten, Peter Hawman, Lishen Mao	Lessons learned from living shoreline implementation and planning in Florida's central Gulf coast **Savanna Barry**, Mark Clark
8:30 AM	South Alabama Mesonet observations during Tropical Storm Gordon (2018) **Sytske Kimball**	Impacts of incident wave and vegetation properties on wave attenuation by salt marshes **Jana Haddad**, Johanna Rosman, Rick Luettich, Christine Voss	Salinity alters the effects of host community diversity on oyster microbial communities **Sarah Gignoux-Wolfsohn**, Gregory Ruiz, Denise Breitburg, Katrina Pagenkopp Lohan	Salt marsh light use efficiency and gross primary production in response to environmental conditions **Peter Hawman**, Deepak Mishra, David Cotten, Jessica O'Connell, Lishen Mao, Caroline Narron	Long-term monitoring of a living shoreline project in Hancock County, Mississippi **Sarah Ballard**, Karin Olsen
8:45 AM	Analysis of a sub-tropical cyclone over Florida in the present and projected future climates **John Lanicci**, Thomas Allison, Henry Fuelberg	Role of Vegetation in Reducing Coastal Flooding Vulnerability due to Sea Level Rise and Storms **Peter Sheng**, Vladimir Paramygin, Christine Angelini, Justin Davis, Karen Thorne, Kevin Buffington, Mike Savarese, David Kidwell, Kun Yang	Adaptation of multivariate AMBI (M-AMBI) for use in US coastal waters **Marguerite Pelletier**, David Gillett, Anna Hamilton, Treda Grayson, Virginia Hansen, Erik Leppo, Stephen Weisberg, Angel Borja ⚡	Carbon and nitrogen sequestration: identifying drivers and monetizing sequestration **Sandra Demberger**, Nathaniel Weston, Christopher Craft, Elise Rodriguez, Kristen Jezycki	Evaluating the impacts of large-scale breakwaters on fringing marshes in high wave energy environments **Sara Martin**, Nigel Temple, Gillian Palino, Just Cebrian, Eric Sparks
8:53 AM			Sediment monitoring after a mechanical failure of a wastewater treatment plant – what we learned **Wendy Eash-Loucks**, Jeff Stern, Jeff Lafer ⚡		
9:00 AM	Numerical Experiments on Storm Surge and Circulation in Wax Lake Delta **Wei Huang**, Chunyan Li, Matthew Hiatt	Synthesizing NERR sentinel site data to improve coastal wetland management across New England David Burdick, **Christopher Peter**, Briana Fischella, Kenneth Raposa, Megan Tyrrell, Jenny Allen, Jordan Mora, Jason Goldstein, Christine Feurt	Refining benthic condition assessment tools by incorporating taxa-specific stressor response information **Treda Grayson**, Kim de Mutsert	The response of net ecosystem carbon balance to fertilization in a North Carolina salt marsh **Kenneth Czapla**, Iris Anderson, Carolyn Currin	Comparing abilities of alternative substrates to halt salt marsh erosion and support oyster reef development **Emory Wellman**, Brandon Puckett, Rachel Gittman
9:15 AM	The impact of diurnal winds on exchange through barrier island passes into the Mississippi Sound **Michael Dinniman**, Courtney Bouchard, Mustafa Cambazoglu, Jerry Wiggert	A Gamified Approach to Engaging Residents in the Science of Adaptation and Building Coastal Resilience **Wie Yusuf**, Michelle Covi	Colonization dynamics in experimentally disturbed areas of mudflat in the upper Bay of Fundy, Canada **Greg Norris**, Myriam Barbeau, Diana Hamilton	Recovery of carbon cycle processes after the cessation of chronic nutrient enrichment **Thomas Mozdzer**, Sophie Drew, Paige Weber, Bridget Reed, Joshua Caplan, Linda Deegan	Getting muddy: oyster reef living shoreline sediments six years and two hurricanes later **Jessica Veenstra**, Melissa Southwell
	9:30 AM BREAK				

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ORAL SESSIONS Tuesday 05 November | Early Morning 8:00AM – 9:30AM

⚡ = Lightning Presentations CH = Cultural Heritage/Coastal Humanities | All Presentations are Traditional Oral unless otherwise noted.

	204 A	202 B	203 B	202 A	201 A
	Setting ecologically relevant targets for management of marine plant habitats Rob Coles, Michael Rasheed and Catherine Collier	**Ocean and coastal acidification: rationales and insights from place-based collaboration** Holly Galavotti, Amanda Santoni, Libby Jewett, Kim Yates, Jason Grear, and Eva DiDonato	**Marine plastic pollution from nano- to macro-scale: fate, effects, solutions** Simon Geist, Kristin Wilson Grimes, Caitlin Wessel and Howard Forbes, Jr.	**Biogeochemical cycling and transport across the land–ocean aquatic continuum** Raymond Najjar, Marjorie Friedrichs, Pierre St. Laurent and Susan Pan	**Fish and fisheries: linking science, management, and society** Pedro Morais and Ester Dias
8:00 AM	Spatial data as a benchmark for managing coastal seagrasses in Queensland, Australia Alex Carter, **Robert Coles**, Alana Grech, Mike Rasheed, Skye McKenna, Len McKenzie, Norm Duke	Tampa Bay Coastal Acidification Monitoring to Determine Restoration Benefits **Kimberly Yates**, Christopher Moore, Mitchell Lemon	Microplastic abundance and distribution along the continental shelf in the northern Gulf of Mexico **Caitlin Wessel**, Andrew Lucore, Gillian Palino	Contribution of submerged cave chemosynthesis to river and estuary carbon fluxes **Robert Scharping**, James Garey	The state of commercial fishing and opportunities for collaboration **Ryan Bradley** CH
8:15 AM	Defining seagrass desired state for evaluating environmental management outcomes in the Great Barrier Reef **Catherine Collier**, Alex Carter, Michael Rasheed, Len McKenzie, Robert Coles, James Udy, Michelle Waycott, Kate O'Brien, Megan Saunders, Katherine Martin, Carol Honchin, Emma Lawrence ⚡	Temporal variability and driving factors of the carbonate system in an estuary with long-term acidification **Melissa McCutcheon**, Hongming Yao, Cory Staryk, Xinping Hu	Trends in US Virgin Islands marine debris from a historical, citizen science-collected, territorial dataset (1988-2016) **Zola Roper**, Kristin Wilson Grimes, Kara Lavender Law, Sennai Habtes	Urbanization changes the composition, quality, and timing of exported carbon from blackwater streams **Adam Gold**, Suzanne Thompson, Caitlin Magel, Michael Piehler	Implications of nonconsumptive indirect effects of black sea bass on bivalve survival **Stephen Heck**, Bradley Peterson
8:23 AM	Sediment enhancement and hydrological restoration impacts on salt marsh vegetation and soil within New England **Danielle Perry**, Carol Thornber ⚡				
8:30 AM	Dugongs and green sea turtles increase seagrass germination through ingestion and excretion **Samantha Tol**, Jessie Jarvis, Paul York, Brad Congdon, Robert Coles	Integrating coastal acidification data across eight National Estuary Programs (NEPs) **Nicholas Rosenau**, Holly Galavotti	Evaluating organic contaminants associated with nurdles along beaches of south Texas **Xiangtao Jiang**, Kaijun Lu, Jace Tunnell, Jeremy Conkle, Zhanfei Liu	Impacts of Freshwater Discharge Patterns on the Carbon Cycle in Microtidal Estuaries **Iris Anderson**, Mark Brush	An analysis of dredge efficiency for ocean quahog and surfclam commercial dredges **Leanne Poussard**, Eric Powell, Daniel Hennen
8:45 AM	The consequences of burrowing crabs for plant community composition and restoration **Janet Walker**, Edwin Grosholz, Jeremy Long	Short-term forecasts of acidification metrics in the Chesapeake Bay **Marjorie Friedrichs**, Aaron Bever, Fei Da, Pierre St. Laurent, Karen Hudson	Accumulation and distribution of marine debris on barrier islands across the northern Gulf of Mexico **Katie Swanson**, Caitlin Wessel, Tracy Weatherall, Just Cebrian	Ecosystem metabolism and carbon balance in Chesapeake Bay: A 30-year modeling study **Jeremy Testa**, Chunqi Shen, Wenfei Ni, Wei-Jun Cai, Ming Li, Michael Kemp	Using simulation testing to guide risk-based management of Atlantic Surfclam (Spisula solidissima) **Laura Solinger**, Eric Powell, Daniel Hennen, Steven Cadrin
9:00 AM	Beyond static ecological thresholds: Incorporating habitat stress responses in Environmental Management and Monitoring Plans (EMMP) **Siti Maryam Yaakub**, Cheng Ann Tan ⚡	Ameliorating ocean acidification: A model relating pCO_2, irradiance, and leaf area index of Zostera marina **Tyler Tran**, Sylvia Yang, Brooke Love, Cinde Donoghue	Galveston Bay Watershed Trash Action Plan: A regional partnership plan addressing litter and marine debris **Erin Kinney**, Stephanie Glenn	Alkalinity in Chesapeake Bay tributaries **Raymond Najjar**, Maria Herrmann, Sebastian Cintron-Del Valle, Jaclyn Friedman, Marjorie Friedrichs, Sreece Goldberger, Lora Harris, Elizabeth Shadwick, Edward Stets, Ryan Woodland	Historical analysis of Dungeness crab abundance and the contribution of estuarine habitats to fisheries harvest **Theodore DeWitt**, Nathaniel Lewis ⚡
9:08 AM	Spatio-temporal patterns in eelgrass (Zostera marina) biomass in sub-arctic Alaska **Courtney Amundson**, David Ward ⚡				Does antrhopogenic noise influence habitat quality for fish associated with oyster aquaculture and natural environments? **Barbara Bevacqua**, Renee Mercaldo-Allen, Julie Rose, Jason Krumholz, Gillian Phillips, Paul Clark ⚡
9:15 AM	Habitat-specific changes in nitrogen cycling in a Gulf of Mexico estuary **Richard Fulford**, Katelyn Houghton, Joseph James, Marc Russell	**Discussion**	Hurdles with Nurdles: A Gulf-wide Citizen Science Project **Jace Tunnell**	Sensitivity of projected Chesapeake Bay hypoxia to climate model, downscaling method, and watershed model **Kyle Hinson**, Marjorie Friedrichs, Gopal Bhatt, Raymond Najjar, Maria Herrmann, Hanqin Tian, Yuanzhi Yao	Disclosing new evidence of marine fauna tropicalization with the help of citizen science **João Encarnação**, Pedro Morais, Vânia Baptista, Joana Cruz, Alexandra Teodósio
	9:30 AM BREAK				

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ORAL SESSIONS Tuesday 05 November | Mid Morning 10:00AM – 11:30AM

= Lightning Presentations CH = Cultural Heritage/Coastal Humanities | All Presentations are Traditional Oral unless otherwise noted.

	201 C	201 B	203 A	201 D	204 B	203 B
	Impact of weather and extreme events: observations, analysis, and modeling Chunyan Li, Arnoldo Valle-Levinson, Ming Li	**Exploring interdisciplinary and collaborative sea-level rise research for coastal adaptation** David Kidwell, Renee Collini and Matthew Bilskie	**Mud, macrofauna and microbes: An ode to benthos III** Leila Hamdan, Janet Nestlerode, Kelly Dorgan and Elizabeth Hinchey	**Carbon fluxes in coastal systems** Robert Chen, Iris Anderson, Damien Maher, David Ho and Ken Krauss	**Living shorelines and marsh nature-based infrastructure: lessons learned** Cindy Palinkas, Brandon Boyd, Savanna Barry, Sara Martin and Eric Sparks	**Marine plastic pollution from nano- to macro-scale: fate, effects, solutions** Simon Geist, Kristin Wilson Grimes, Caitlin Wessel and Howard Forbes, Jr.
10:00 AM	20 Years of Mississippi River Plume Variability in the Gulf of Mexico from Big Data **Catherine Fitzpatrick**, Alexander Kolker, Philip Chu	Prioritizing nature and nature-based features that increase the resilience of coastal communities to flooding **Jessica Hendricks,** Julie Herman, Pamela Mason	Effects of diel oxygen cycling on infaunal behavior and sediment oxygen demand **Kara Gadeken**, Kelly Dorgan	Dissolved Carbon Dynamics in Marshes with Contrasting Salinity within Barataria Basin, Louisiana **Songjie He**, Kanchan Maiti, Tracy Quirk, Christopher Swarzenski, Gina Groseclose, Dubravko Justic, Giulio Mariotti	Should we just bag it? An alternative strategy to oyster bags in living shorelines projects. **Kelly Smith**, Pamela Marcum, Scott Eastman	Effects of different microplastics on sediment microbial communities and nitrogen cycling processes Meredith Seeley, Robert Hale, **Bongkeun Song**
10:15 AM	Mangrove freeze damage and recovery along a latitudinal gradient within the Texas marsh-mangrove ecotone **Carolyn Weaver**, C. Edward Proffitt	A Living Laboratory for Coastal Resilience on the Boston Harbor Islands **Robert Chen**, Kirk Bosma, Paul Kirshen, Mark Borrelli, Lucy Lockwood	The fate of biogenic carbonate in bioturbated sediment: Insights from a long-term lugworm exclusion experiment **Nils Volkenborn**, Ian Dwyer	Comparative metabolism of two wetland-dominated estuaries **Charles Hopkinson**, Nathaniel Weston, Inke Forbrich	Oysters and mangroves: case studies of living shorelines from the United States and Australia **Rebecca Morris**, Elisabeth Strain, Benedikt Fest, Stephen Swearer	Spatial-temporal occurrence of microplastics in Sebastes melanops off the coast of Oregon **Katherine Lasdin**, Jordan Laundry, Anika Agrawal, Susanne Brander
10:30 AM	Variability in the fundamental and realized niches of mangroves in North America **Rémi Bardou**, John Parker, Kyle Cavanaugh, Ilka Feller	Past, present, and future nuisance flooding on the Charleston Peninsula **James Morris**, Katherine Renken	Effect of environmental history on physiology and stress responses of the Eastern oyster (Crassostrea virginica) **Jill Ashey**, Emily Rivest	Contribution of eelgrass community metabolism to the carbon flux of San Diego Bay **Abigail Ryder**, Matthew Edwards, Melissa Ward, Walt Oechel	Cutting edge and promoting hedge: marsh facilitation of mangrove seedlings along an eroding shoreline **Aaron Macy**, Julia Cherry, Michael Osland, Just Cebrian	Microplastics in Mississippi River Fishes **Ahmed Gad**, Kerrin Toner, Mark Benfield, Stephen Midway
10:45 AM	Biscayne Bay Hydrodynamic, Sediment Transport, and Water Quality Model **Reinaldo Garcia**, Henry Briceno, Piero Gardinali	A process model for the co-production of climate knowledge in the Tampa Bay estuary **Maya Burke**, Libby Carnahan, Kelli Hammer-Levy, Gary Mitchum	Predicting benthic macroalgal abundance in shallow coastal bays from hydrodynamics and geomorphology **Alice Besterman**, Michael Pace	The seagrass sediment carbon pump and its impact on carbon dynamics in coastal environments **David Burdige**, Richard Zimmerman, Matthew Long	Site-specific plant considerations for increasing the success of living shorelines and ecological restoration projects **Randy Mandel**, Jessica Foley, Sara Copp Franz	Occurrence of microplastics in the diet of juvenile fish in five Texas Coastal Bend bays **M. Gray Ryan**, Simon Geist
11:00 AM	Compounding atmospheric events impacting shelf heat content: Implications for Hurricane Michael **Brian Dzwonkowski**, Jeff Coogan, Grant Lockridge, Kyeong Park	**Panel Discussion**	An ode to phylogenetics in disturbance ecology **Erin Kiskaddon**, Kelly Dorgan, Sarah Berke	Effectiveness and viability of an assimilation wetland in southern Louisiana **Skyler Flaska**, James Nelson, Taylor Sloey	Engineering tidal creeks through biomimicry **Kevin Hanegan**, Meg Goecker, Nick Cox, Chris Williams, Mary Kate Brown	Potential impacts of microplastic ingestion on the gut microbiomes of Sargassum-associated juvenile fishes **Olivia Lestrade**, Valeria Nunez, Robert Griffitt, Frank Hernandez
11:15 AM	Simulating compound flooding during a hurricane using a creek-to-ocean baroclinic model **Fei Ye**, Joseph Zhang, Saeed Moghimi, Zizang Yang, Edward Myers		Impacts of infauna on geoacoustic properties of marine sediments **Kevin Lee**, Megan Ballard, Andrew McNeese, Kelly Dorgan, Gabriel Venegas, Preston Wilson	The carbon balance in a restored marsh at Poplar Island, MD in upper Chesapeake Bay **Lorie Staver**, Court Stevenson, Jeffrey Cornwell, Nick Nidzieko, Michael Owens		Multiple negative impacts of polyethylene terephthalate plastic (PET) exposure on juvenile eastern oysters (Crassostrea virginica) **Laura Eierman**
	11:30 AM LUNCH					

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ORAL SESSIONS Tuesday 05 November | Mid Morning 10:00AM – 11:30AM

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	202 A	202 B	204 A	201 A
	Biogeochemical cycling and transport across the land–ocean aquatic continuum Raymond Najjar, Marjorie Friedrichs, Pierre St. Laurent and Susan Pan	**Impacts of coastal hypoxia on fishes, food webs and ecosystems.** Kim de Mutsert and Stephen Brandt	**Mapping SAV and coastal habitats: drones and other recent technologies** Max Castorani, David Wilcox, Tom Bell and Kristen Kaufman	**Non-indigenous and invasive species in estuaries and coasts** Pedro Morais
10:00 AM	Spatial and temporal variability of stable isotopes in flora and fauna of Barnegat Bay, NJ **Michelle Gannon**, Elizabeth Watson, Autumn Oczkowski, Kirk Raper, David Velinsky	Predicting the effects of reduced nutrients and hypoxia on fishes in the Gulf of Mexico **Stephen Brandt**, Arnaud Laurent, Cynthia Sellinger, Cassandra Glaspie, Kim de Mutsert	Developing a Vegetation Index to map large-scale seagrass change using LandSat Imagery **Jonathan Rodemann**, Rolando Santos, Jennifer Rehage, Daniel Gann, Zachary Fratto, David Lagomasino, Margaret Hall, Bradley Furman	Contrasting seed germination of Spartina alterniflora along latitude in the native and introduced ranges **Wenwen Liu**, Yihui Zhang
10:15 AM	Long-term water quality monitoring of the Pamlico River: Temporal and Spatial Patterns **Enrique Reyes**	Using coupled ecosystem modeling to evaluate nutrient and hypoxia reductions on living marine resources. **Kim de Mutsert**, Stephen Brandt, Kristy Lewis, Arnaud Laurent, Jeroen Steenbeek, Joe Buszowski	Deep learning for coastal ecosystem mapping **Justin Ridge**, Patrick Gray, Anna Windle, David Johnston	Susceptibility of submerged plant communities to invasive Eurasian watermilfoil **LaTina Steele**, Rachel DeMarzo, Jenna Larson
10:30 AM	Influence of Tidal Inlet Exchange on the Marine Ecosystem and Biogeochemistry of the Mississippi Bight **Jerry Wiggert**, Courtney Bouchard, Mike Dinniman, Mustafa Cambazoglu, Stephan O'Brien, Pat Fitzpatrick, Scott Milroy, Eileen Hofmann	Impact of hypoxia on the pelagic food web of the northern Gulf of Mexico **Cassandra Glaspie**, Melissa Clouse, Klaus Huebert, Stuart Ludsin, Doran Mason, James Pierson, Michael Roman, Stephen Brandt	From seagrass to salt marsh: benefits and challenges of monitoring coastal habitats with drones **Brendan Brown**, Drew Reicks, Howard Young, Andrew Ryan	Environmental influence on competitive interactions between a native and invasive SAV species **Ashley McDonald**, Charles Martin, Laura Reynolds, Carrie Adams
10:45 AM	Biogeochemical cycling in the Pensacola Bay, Florida: contrasts from three urban bayous Grace Sommerville, **Jane Caffrey**	Getting to the bottom of coastal food webs: hypoxia impacts to benthos **Melissa Baustian**, Nancy Rabalais	Using Object-Based Classification and Machine Learning to Automate the Chesapeake Bay Annual SAV Aerial Survey **David Wilcox**, Lien Pham, Robert Orth	The recent spread of the non-indigenous species, Hermundura americana (Polychaete:Pilargidae) throughout the Chesapeake Bay, USA **Daniel Dauer**, Anthony Rodi, Roberto Llanso
11:00 AM	Variation in dissolved organic matter, trace metals, and acidification parameters in the western Mississippi Sound **M. S. Sankar**, Padmanava Dash, Yuehan Lu, Andrew Mercer, Zikri Arslan, Scott Sanders, Sudeera Wickramarathna, Rusch Ragland, Shuo Chen, Robert Moorhead	Effects of hypoxia on spatial dynamics of penaeid shrimp in the northern Gulf of Mexico **Dongwha Sohn**, Kevin Craig, Daniel Obenour, Venkata Rohith Reddy Matli	Quantitative remote sensing of seagrass distribution and density using high spatial resolution multispectral imagery **Victoria Hill**, Richard Zimmerman, Blake Schaeffer, Megan Coffer, Jiang Li, Kazi Islam, Daniel Perez	Managing the invasive capacity of Baccharis halimifolia in estuarine areas of the European Natura2000 network **Jose Juanes**, Maria Recio, Beatriz Echavarri, Felipe Calleja, Cristina Galvan, Barbara Ondiviela, Araceli Puente
11:15 AM	A diel study of fluorescent DOM in Florida Bay seagrasses overlaying carbonate sediments **Mary Zeller**, Bryce Van Dam, Christian Lopes, John Kominoski	Interactions between hypoxia and the northern Gulf of Mexico shrimp fishery **Kevin Craig**, Dongwha Sohn, Rick Hart, Daniel Obenour, Venkata Rohith Reddy Matli, Kenneth Rose	Semi-Automated Mapping of Seagrass Distribution of Tampa Bay **Aaron Brown**, Nathaniel Morton, James McDermott, Andrew Brenner, Bryan Deslauriers	The butterfly effect: ecological impacts of a non-indigenous invasion John Riggins, **Adam Chupp**, John Formby, Natalie Dearing, Hannah Bares, Richard Brown, Kelly Oten
	11:30 AM LUNCH			

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ORAL SESSIONS Tuesday 05 November | Early Afternoon 1:00PM – 4:30PM

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	203 A	201 D
	Mud, macrofauna and microbes: An ode to benthos III Leila Hamdan, Janet Nestlerode, Kelly Dorgan and Elizabeth Hinchey	**Carbon fluxes in coastal systems** Robert Chen, Iris Anderson, Damien Maher, David Ho and Ken Krauss
1:00 PM	Linking infauna to sediment oxygen demand **Kelly Dorgan**, Sarah Berke, Erin Kiskaddon, Kara Gadeken, Susan Bell	Using hydrological-biogeochemical linkages to elucidate coastal wetland carbon dynamics today and tomorrow **Julia Guimond**, Xuan Yu, Xiaolong Geng, Holly Michael
1:15 PM	Distribution of terrestrial organic material in nearshore marine ecosystems due to debris flow emergency response **Heili Lowman**, John Melack, Matthieu Moingt, Andrew Zimmerman	Mapping tidal wetland CO_2 surface-atmosphere exchange with environmental response functions **Inke Forbrich**, Ke Xu, Stefan Metzger
1:30 PM	Determining the fate of anthropogenic nitrogen in saltmarshes using a large-scale 15N isotope tracer experiment **Hillary Sullivan**, Linda Deegan, Anne Giblin, Jennifer Bowen	Air-water CO_2 exchange over a subtropical seagrass meadow **Bryce Van Dam**, Christian Lopes, James Fourqurean
1:45 PM	Invertebrate-bacteria associations as hotspots for benthic nitrogen cycling in estuarine muddy habitats **Mindaugas Zilius**, Stefano Bonaglia, Ulisse Cardini, Aurelija Samuiloviene, Anastasija Zaiko, Jolita Petkuviene, Irma Vybernaite-Lubiene, Ugo Marzocchi, Marco Bartoli, Tobia Politi	How much of the seagrass wrack contributes to global greenhouse gas emissions **Songlin Liu**, Stacey Trevathan-Tackett, Carolyn Ewers Lewis, Zhijian Jiang, Xiaoping Huang, Peter Macreadie
2:00 PM	Oiling impacts on salt marsh nitrogen cycling rates: insights from a large-scale marsh mesocosm experiment **Brian Roberts**, Chalres Schutte, Ryann Rossi, Anne Bernhard, Anne Giblin	Drivers of air-sea flux in a karst subtropical seagrass ecosystem. **Christian Lopes**, Bryce Van Dam, James Fourqurean
2:15 PM	Factors controlling nitrogen removal and retention in marine sediments **Rachel Presley**, Anne Giblin, Christopher Algar, Sean O'Neill, Jeremy Rich	Vertical and lateral exchange of carbon, nitrogen, and sediment in tidal marshes of contrasting elevation **Nathaniel Weston**, Inke Forbrich, Mary Zawatski, Lori Sutter, Brian Donnelly, Mikala Jordan
	2:30 PM BREAK	
3:00 PM	The Twelvemile Island Shipwreck Graveyard **James Delgado**, Stacye Hathorn CH	Fluxes of dissolved organic carbon (DOC) in coastal systems during precipitation events **Shannon Davis**, Robert Chen
3:15 PM	Microbial biofilm recruitment near built structures on the seafloor in the Gulf of Mexico **Rachel Mugge**, Rachel Pugh, Anirban Ray, Leila Hamdan	Accounting for Carbon Fluxes Caused by Pulsing Disturbances in Mangrove Wetlands Carbon Budgets (Everglades, USA) **Xiaochen Zhao**, Victor Rivera-Monroy, Edward Castañeda-Moya, Rafael Travieso, Evelyn Gaiser, Luis Farfán
3:30 PM	Exploring the Environmental Role of Microbial Life "On Board" Pappy's Lane Shipwreck **Erin Field**, Kyra Price, Cody Garrison, Nathan Richards	Salt Marsh Net Ecosystem Carbon Balance: Comprehensive Measurements of the Lateral Flux **Kevin Kroeger**, Meagan Gonneea, Zhaohui Aleck Wang, Neil Ganju, John Pohlman, Omar Abdul Aziz, Jianwu Tang, Amanda Spivak, Serena Moseman-Valtierra
3:45 PM	Assessment of Recovery Of Mangrove Habitats Using Multiple Tracers: Stable Isotopes And Benthic Community Analysis **Amanda Demopoulos**, Jill Bourque, Nicole Cormier, Jennifer McClain-Counts, Ken Krauss	Lateral alkalinity and carbon export from mangroves in the Everglades National Park, Florida **Gloria Reithmaier**, Scott Jonston, David Ho, Damien Maher
4:00 PM	Effects of removed carbonic anhydrase activity on biomass and production of estuarine benthic microalgal communities **Eilea Knotts**, James Pinckney	Coastal primary productivity: Apportioning benthic, water column, and atmosphere exchange importance with in-situ fluxes **Matthew Long**, David Burdige, Daniel McCorkle, Jennie Rheuban, Richard Zimmerman
4:15 PM	Importance of microphytobenthos-meiofauna pathway in intertidal habitats highlighted by trophic markers and food web modeling | Luuk van der Heijden, Ragnhild Asmus, Martin Graeve, Jadwiga Rzeznik-Orignac, Nathalie Niquil, Matilda Haraldsson, Blanche Saint-Béat, Stephen Pacella, Denis Fichet, Gaël Guillou, Harald Asmus, **Benoit Lebreton**	Interannual and seasonal variations in terrestrial carbon export from North American land to oceans: 1980-2015 **Hanqin Tian**, Bowen Zhang, Susan Pan, Rongting Xu, Steven Lohrenz, Raymond Najjar, Marjorie Friedrichs, Wei-Jun Cai, Ruoying He, Eileen Hofmann, Charles Hopkinson, Chaoqun Lu
4:23 PM	How to outrun your parasites, the LP **David Johnson**, Jeff Shields, Richard Heard	

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ORAL SESSIONS Tuesday 05 November | Early Afternoon 1:00PM – 4:30PM

⚡ = Lightning Presentations CH = Cultural Heritage/Coastal Humanities | All Presentations are Traditional Oral unless otherwise noted.

	204 B	202 B	204 A
	Living shorelines and marsh nature-based infrastructure: lessons learned Cindy Palinkas, Brandon Boyd, Savanna Barry, Sara Martin and Eric Sparks	**Impacts of coastal hypoxia on fishes, food webs and ecosystems.** Kim de Mutsert and Stephen Brandt	**Seagrasses: sentinel species in a changing world** Robert Orth and Kenneth Heck
1:00 PM	Next Generation Coastal Sturctures: Ecology, Economics and Aesthetics **Kathleen Sealey**	Hypoxic volume in the northern Gulf of Mexico is ecologically more relevant than hypoxic area **Dubravko Justic**, Donald Scavia, Daniel Obenour, Kevin Craig, Lixia Wang	My four decade friendship with Susan Williams: I heard it through the grapevine **William Dennison**
1:15 PM	Nontraditional shoreline protection demonstrations along a central coast of Louisiana bay **Thomas McGinnis**, Margaret Luent	Predicting fish population responses to hypoxia using 3-D coupled biophysical models **Kenneth Rose**, Dubravko Justic, Haosheng Huang, Kevin Craig, Klaus Huebert, Elizabeth LaBone, Ehab Meselhe, Jia Yang, Hoonshin Jung, Z. George Xue, Hanqin Tian	Hidden biodiversity: Genetic variation in eelgrass and its community consequences from local to global scales. **John Stachowicz**, J. Emmett Duffy, Zostera Experimental Network
1:30 PM	Designing shellfish-based living shorelines for water quality enhancement **Sarah Bouboulis**, Joshua Moody, Irina Beal, Matthew Gentry, Danielle Kreeger	Effects of tides on hypoxia and fish avoidance movement in the Gulf of Mexico **Elizabeth LaBone**, Dubravko Justic, Kenneth Rose, Lixia Wang, Haosheng Huang	Environmental rather than host plant differences drive local scale variation in the eelgrass microbiome **Melissa Kardish**, John Stachowicz
1:45 PM	Maximizing living shoreline designs for runoff pollution filtration: lessons learned from multi-year projects **Just Cebrian**, Nigel Temple, Julia Cherry, Daniel Firth, Andrew Lucore, Sara Martin, George Ramseur, Eric Sparks	Through the Heads of Fishes: Consequences of Baltic Sea Hypoxia Exposure Revealed by Otolith Chemistry **Karin Limburg**, Melvin Samson, Michele Casini	The effect of warming on wasting disease intensity depends on seagrass genotypic identity and diversity **Forest Schenck**, Katherine DuBois, Melissa Kardish, John Stachowicz, Randall Hughes
2:00 PM	Effects of oyster reef design on sediment and hydrodynamic characteristics on a landward mudflat **Frank Marshall**, Lynn Leonard, Sam Bradtke, Eman Ghoneim	Mixed effects of sublethal hypoxia exposure on fish growth and food web displacement **Benjamin Walther**, Matthew Altenritter, Tyler Steube	Linking adult and seed diversity across the depth gradient in the seagrass Zostera marina **Cynthia Hays**, Torrance Hanley, Forest Schenck, Randall Hughes
2:15 PM	Design and Construction of the Little Beaver Island Shoreline and Coastal Wetland Habitat Improvement Project **Ryan Davis**, Mark Bogdan	Spatial behaviors of migratory fish in response to seasonal hypoxia as revealed by acoustic telemetry **Richard Kraus**, Mark Rowe, Matt Faust, Christopher Vandergoot	Local adaptation of eelgrass linked to temperature and shading stress within a northern California estuary **Katherine DuBois**, Susan Williams, Kenzie Pollard, Nicole Kollars, John Stachowicz
	2:30 PM BREAK		
3:00 PM	Evaluating living shorelines to inform regulatory decision-making in South Carolina, USA. **Andrew Tweel**, Peter Kingsley-Smith, Denise Sanger, Sharleen Johnson, Blaik Keppler, Michael Hodges, Nancy Hadley, Benjamin Stone, Gary Sundin, Erik Smith	Can we compare hypoxia impacts on coastal zooplankton across ecosystems and species? **Michael Roman**, James Pierson	Changing the tide toward rebuilding seagrass habitats **Carlos M. Duarte**
3:15 PM	Transforming bulkheads and eroding sedimentary shorelines into healthy living shorelines **Jamie Amato**, Just Cebrian, Eric Sparks, Joshua Goff	Vertical migrations of fish larvae and mesozooplankton in relation to hypoxia in the Mississippi Bight **Adam Greer**, Valerie Cruz, Luciano Chiaverano, Mustafa Cambazoglu, Kelia Axler, Christian Briseño-Avena, Robert Cowen, Frank Hernandez	Unprecedented long-term restoration of seagrass habitat has led to rapid recovery of multiple ecosystem services **Robert Orth**, Jonathan Lefcheck, Karen McGlathery, Lillian Aoki, Mark Luckenbach, Bo Lusk, Kenneth Moore, Matthew Oreska, Richard Snyder, David Wilcox
3:30 PM	Resilience in action: Connecting engineers, nature, and communities Danielle Boudreau, Brian Leslie, **Michael Barnett**	Transgenerational and carryover effects of hypoxia and warming on eastern oyster performance **Sarah Donelan**, Denise Breitburg, Matthew Ogburn	Performance of seagrass restoration: new information revealed from projects missing from the primary literature **Susan Bell**, Ryan Rezek, Margaret Hall, Bradley Furman, Robin Jung
3:45 PM	Connecting living shorelines and nature-based infrastructure with the National Flood Insurance Program's Community Rating System **Niki Pace**, Christine Shepard	Quantifying the relationship among dissolved oxygen, algal blooms, and fish kills in coastal Florida **Dakota Lewis**, Geoffrey Cook	Seagrass restoration potential through development of a bio-optical model **Kaitlyn O'Toole**, Bradley Peterson
4:00 PM	Shorelines Protection Decisions: Factors Influencing the Future of Virginia's Tidal Wetlands **Michelle Covi**, Wie Yusuf ⚡	Improved assessment of Chesapeake Bay dissolved oxygen criteria violations using a benthic community health index **Jennifer Keisman**, Richard Tian, Elgin Perry, Gary Shenk, Richard Batiuk	Subsequent shift in seagrass species composition through seagrass recovery in the northern European Wadden Sea **Tobias Dolch**, Christian Buschbaum, Karsten Reise
4:08 PM	USACE framework for planning natural infrastructure: San Francisco Bay and Barnegat Bay-Little Egg Harbor estuaries **Brandon Boyd**, Candice Piercy, Matthew Bates, Mary Bryant, Monica Chasten, James Morris ⚡		
4:15 PM	Florida's living shorelines training course for marine contractors **Fara Ilami**, Jessy Wayles	Deoxygenation over coral reefs triggers coral bleaching and microbial community shift **Andrew Altieri**, Maggie Johnson, Matthieu Leray, Noelle Lucey, Lucia Rodriguez, Jarrod Scott, William Wied	Resilience of seagrass beds after the catastrophic tsunami varies among sites and component species **Masahiro Nakaoka**, Hitoshi Tamaki, Daisuke Muraoka, Daisuke Shimizu, Norio Tanaka

ORAL SESSIONS Tuesday 05 November | Early Afternoon 1:00PM – 4:30PM

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	203 B	202 A	201 B
	Incorporating molecular ecology tools into coastal and estuarine monitoring programs David Gillett, Alison Watts, Angel Borja and Eric Stein	**Advancing environmental flows assessment for estuaries** Eleanor Gee and Eric Stein	**Plant-soil interactions across coastal ecosystems in a global change era** Torrance Hanley and Randall Hughes
1:00 PM	Applying eDNA Methods for Assessment and Management of Estuarine Systems in the NERRS **Alison Watts**, Bree Yednock, Jason Goldstein, Christopher Peter, W. Thomas	Developing a framework for assessing environmental flows in estuaries **Eric Stein**, Eleanor Gee	Multi-optode imaging supports potential biogeochemically mediated mutualism between a temperate seagrass and a chemosymbiotic bivalve **Diana Chin**, Qingzhi Zhu, Nils Volkenborn, Molly Graffam, Robert Aller, Bradley Peterson
1:15 PM	Applying DNA Metabarcoding to Periphyton Biomonitoring: Lessons Learned from Mesocosm, Watershed, and National Scale Research **Erik Pilgrim**, Nate Smucker, Chris Nietch, Brent Johnson, John Darling	Key principles for determining environmental flow requirements in closed estuaries **Janine Adams**, Lara Van Niekerk	Assessing nitrogen transfer in a south Texas black mangrove (Avicennia germinans) forest **Ashley Murphy**, Carlos Cintra-Buenrostro, Alejandro Fierro-Cabo
1:30 PM	Investigation of intertidal metazoan biodiversity within previously oiled sheared and intact coastal margins **Patrick Rayle**	Focused flows to protect natural nurseries **Paul Montagna**, Hannah Ehrmann, Elaine Kurr	Soil nutrients modify mangrove architecture and shifts, driven by global change, from saltmarsh to mangrove. **Donna Devlin**, C. Edward Proffitt, Ilka Feller
1:45 PM	Choose your weapon: comparing the identification of benthic infauna via eDNA, single-specimen barcodes, and morphology **David Gillett**, Stephen Weisberg, Michael O'Mahoney, Christopher Meyer	Predictable to flashy: compounding impacts of discharge conveyance in a deltaic-estuarine environment, Mobile Bay, Alabama **Steven Dykstra**, Brian Dzwonkowski	Nutrient and Sediment Enrichment Effect on Nutrient Cycling and Plant Species Composition in Coastal Marshes Tracy Quirk, **Donnie Day**
2:00 PM	Sulfate reducer communities in assessing Chenier Plain salt-marsh health: subsiding versus dredge material elevated sites. **Emily Smith**, Matthew Hoch	Are small volumes of freshwater inflow sufficient to effect water and sediment quality in estuaries? **Hannah Ehrmann**, Cheyanne Olson, Paul Montagna, Terry Palmer, Evan Turner	Belowground productivity responses to nutrient-enrichment and sediment deposition: predicting effects of mississippi river sediment diversions **Gina Groseclose**, Tracy Quirk
2:15 PM	Environmental DNA reveals 2000-year history of coastal plant communities in a temperate wetland **Nicole Foster**, Bronwyn Gillanders, Alice Jones, Jennifer Young, Kor-jent Van Dijk, Edward Biffin, Paul Lavery, Oscar Serrano Gras, Anna Lafratta, Michelle Waycott	How important are freshwater flows to the ecology of estuaries in New Zealand? **Eleanor Gee**	Higher root biomass under elevated CO_2 increases aerobic microbial processes in a coastal wetland **Genevieve Noyce**, Patrick Megonigal
	2:30 PM BREAK		
3:00 PM	Developing eDNA tools to map and monitor shifts in salt marsh mosquito populations **Richard Lathrop**, Dina Fonseca, Ashley Goncalves, Rachael Sacatelli	An adaptive management process to determine the freshwater inflow requirements of the Mission-Aransas Estuary **Edward Buskey**, Lindsay Scheef	Soil microbe-mediated interactions between native and invasive macrophytes **Paul Gribben**, Fabio Bulleri, Torsten Thomas, Ezequiel Marzinelli
3:15 PM	Incorporating eDNA data into monitoring, assessment, and management of anadromous river herring **Matthew Ogburn**, Louis Plough, Charles Bangley	Salinity and inflow targets in the St. Lucie and Caloosahatchee estuaries to support Everglades restoration **Gretchen Ehlinger**, Phyllis Klarmann, Patricia Gorman	Effects of soil microbial amendments on Gulf Coast dune restorations **Kerri Crawford**, Michelle Busch, Hannah Locke, Noah Luecke
3:30 PM	Detecting diadromous fish with eDNA: A comparison between ddPCR and metabarcoding **Jessica Haskins**, Devin Thomas, W Thomas, Alison Watts, Bree Yednock	Complex public policies and estuarine through-flow: the case of the San Francisco Bay-Delta **John Callaway**, Michael Chotkowski, James Cloern	Carbon and plant-soil interactions across the coastal seascape **Erik Yando**, Jahson Alemu, Natasha Bhatia, Dan Friess
3:45 PM	Augmenting Biological Monitoring with eDNA Metabarcoding Methods **Devin Thomas**, Alison Watts, W Thomas, Christopher Peter, Jason Goldstein, Yoshimi Rii, Shon Schooler, Jason Garwood, Sarah Fernald	Validating and refining freshwater inflow standards for Texas estuaries through adaptive management **Caimee Schoenbaechler**, Evan Turner	Plant communities exert important control over microbial communities and their ecosystem function in salt marshes **Jennifer Bowen**, Ashley Bulseco, John Angell
4:00 PM	Setting reference conditions for M-gAMBI calculation, a benthic DNA-based index **Angel Borja**, Anders Lanzén, Naiara Rodriguez-Ezpeleta, Iñigo Muxika	Developing methods for testing the effects of altered freshwater inflow on Crassostrea virginica (Eastern Oyster) **Evan Turner**, Norman Johns, Paul Montagna, Caimee Schoenbaechler, Joe Trungale	Salt marsh response to sea-level rise: Plant-microbial relationships, plant genotypic variation, and microbial community structure **Gregory Zogg**, Steven Travis
4:15 PM	The impact of bioinformatic pipeline on algal bioassessment results **Susanna Theroux**, Joshua Steele, John Griffith, Eric Stein	Temporal variability in phytoplankton community composition in three Texas estuaries with different freshwater inflow regimes **Tiffany Chin**, Michael Wetz	Plant-soil interactions in salt marshes: Effects of fungal presence/identity on Spartina production and physiology **Torrance Hanley**, Catherine Gehring, Christina Richards, Randall Hughes

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ORAL SESSIONS Tuesday 05 November | Early Afternoon 1:00PM – 4:30PM

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	201 A	201 C
	Advances in coastal harmful algal bloom science Michael Wetz	**New insights in the Gulf of Mexico nine years after the *Deepwater Horizon* oil spill** Kelly Darnell, Emily Maung-Douglass, Elizabeth Fetherston-Resch, Melissa Baustian, Katya Wowk
1:00 PM	Fishers' perceptions of ciguatoxic fish poisoning and modelling bioaccumulation of ciguatoxin in Puerto Rico reefs. **Henry Raab**, Joseph Luczkovich, Cindy Grace-McCaskey, Miguel Del Pozo, David Griffith	Nine years after *Deepwater Horizon*, what have we learned about nearshore fishes? **Charles Martin**, Kenneth Able, Robert Christian, Joel Fodrie, Olaf Jensen, Kristy Lewis, Paola Lopez-Duarte, Ashley McDonald, Kiva Oken, Jill Olin, Brian Roberts, John Valentine
1:15 PM	Contrasting nutrient management implications from statistical and process-based estuary phytoplankton models **Alexey Katin**, Daniel Obenour, Dario Del Giudice	Resilience or vulnerability of Gulf fisheries economies following Deepwater Horizon? **Savannah Swinea**, Joel Fodrie
1:30 PM	A potential reservoir for the brown tide organism, Aureoumbra lagunensis, in a South Texas estuary. **Kenneth Hayes**, Michael Wetz, Emily Cira, Hongjie Wang	Salt marsh primary production and greenhouse gas fluxes along an experimental oil-exposure gradient **Charles Schutte**, Ryann Rossi, Scott Jones, Brian Roberts
1:45 PM	Understanding environmental controls on Margalefidinium polykrikoides blooms in the lower Chesapeake Bay **Linnea Davis**, Eileen Hofmann, John Klinck, Margaret Mulholland, Eduardo Perez Vega, Michael Echevarria, Katherine Filippino	Bacterial Responses to Different Crude Oils Under Varying Solar Exposure **Erika Neat-Headrick**, Lisa Nigro, Melissa Ederington-Hagy, Arianna Simmering, Wade Jeffrey
2:00 PM	Climate -induced interannual variability and long-term change in several common HABs of Chesapeake Bay **Patricia Glibert**, Ming Li, Fan Zhang, Wenfei Ni, Chih-Hsien Lin	**Panel Discussion:** M. Baustian (*LACOE*), K. Darnell (*MBRACE*), J. Henkel (*RESTORE Council*), J. Lartigue (*Science Program*), C. Wilson (*GoMRI*), K. Wowk (*TXOneGulf*)
2:15 PM	Mixotrophic Response of Prymnesium parvum to N and P-Limitation **Aaron Cristan**, Sean O'mara, I-Shuo Huang, Paul Zimba	
	2:30 PM BREAK	**Traditional and Emerging Contaminants in the Coastal Zone**
3:00 PM	Roles of mixotrophy and physical processes in Cochlodinium polykrikoides bloom initiation in the Lafayette River **Qubin Qin**, Jian Shen	PFASs in estuaries: The influence of biology and ecology on contaminant bioaccumulation in estuarine species **Matthew Taylor**, Sandra Nilsson, Jennifer Bräunig, Karl Bowles, Jochen Mueller
3:15 PM	Phytoplankton responses to adaptive management interventions in a eutrophic urban estuary **Daniel Lemley**, Janine Adams, Gavin Rishworth, Candice Bouland	Localized Anthropogenic Effects on the Marine Environment at Palmer Station, Antarctica **Terry Palmer**, Steve Sweet, Andrew Klein, Larry Hyde, Paul Montagna, Jose Sericano, Terry Wade
3:30 PM	1 HAB, 3 Estuaries: Insights from long-term fisheries-independent monitoring along Florida's Gulf coast **Meagan Schrandt**, Ryan Jones, Eric Weather, Janelle Johnson, Timothy MacDonald	Detecting oil exposure using trace metal signatures in Eastern Oyster (Crassostrea virginica) shells **Kimberly Peter**, Ruth Carmichael
3:45 PM	Are human-managed freshwater discharges fueling Florida's red tides? **Natalie Nelson**, Edward Phlips, Eric Milbrandt	Emerging contaminants in our coastal waters: a national Mussel Watch assessment **Dennis Apeti**, Mary Rider
4:00 PM	Building consensus on Florida's harmful algal blooms **Lisa Krimsky**, Betty Staugler	Combining trace elements and stable isotopes to detect human wastewater **Anika Knight**, Jessica Kinsella, Ruth Carmichael
4:15 PM	Changes in phytoplankton biomass and composition in coastal Maryland due to eutrophication and temperature increase **Olivia Saliger**, Judith O'Neil, Morgan Ross	

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ORAL SESSIONS Wednesday 06 November | Early Morning 8:00AM – 9:30AM

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	201 A	202 B	203 A	203 B
	Quantification and valuation of ecosystem services associated with shellfish Julie Rose, Suzanne Bricker, William Walton	**Isotopes, lipids, and DNA: Trophic biomarkers in coastal ecosystem ecology** Michael Polito, James Nelson, Amanda Spivak and Sabrina Taylor	**Responsive, relevant, ready: new directions in coastal science and modeling** Linker Lewis, Gopal Bhatt, Carl Cerco and Gary Shenk	**Mixing and transport in estuaries and coastal waters** Meng Xia, Yongsheng Wu, and Zhankun Wang
8:00 AM	Quantification and valuation of subwatershed scale nitrogen removal by commercial shellfish in Greenwich Bay, CT Anthony Dvarskas, **Suzanne Bricker**, Gary Wikfors, John Bohorquez, Mark Dixon, Julie Rose	Detecting surf zone fish diversity using environmental DNA and other non-destructive methods **Nicholas Schooler**, Zack Gold, Jenifer Dugan, Robert Miller, Henry Page, Donna Schroeder, Kyle Emery, Jessica Madden	Multi-model assessment of climate and emission projections on atmospheric nitrogen loading to the Chesapeake Bay Chris Nolte, Patrick Campbell, **Jesse Bash**, Tanya Spero	Pathway of the suspended sediment from the Mackenzie River to the Mackenzie Shelf **Yongsheng Wu**
8:08 AM			Drivers of spatial and temporal variability in nitrogen speciation in the Chesapeake Bay watershed **Isabella Bertani**, Gopal Bhatt, Gary Shenk, Lewis Linker, Daniel Kaufman, Richard Tian, Cuiyin Wu	Novel determinations of three zones in the two contrasting river estuarine systems using DIN-Salinity gradient **Jongsun Kim**
8:15 AM	Oyster Denitrification as a Best Management Practice for Nitrogen Removal **Jeffrey Cornwell**, Michael Owens, Melanie Jackson, Julie Reichert-Nguyen, M. Lisa Kellogg	Inferring Seaside Sparrow (Ammospiza maritima) dietary response to large-scale disturbances through metabarcoding **Allison Snider**, Andrea Bonisoli Alquati, Stefan Woltmann, Philip Stouffer, Sabrina Taylor	Water quality impacts of land use and climate change in Chesapeake Bay TMDL Mid-Point Assessment **Gopal Bhatt**, Lewis Linker, Jessica Rigelman, Daniel Kaufman, Isabella Bertani, Peter Claggett, Gary Shenk, Kyle Hinson	Historical changes to freshwater transport pathways along the Oregon/Washington coast **Joseph Jurisa**, Aqeel Al-Bahadily, Stefan Talke, David Jay
8:23 AM			Assessment of Chesapeake Bay water quality under future climate conditions **Richard Tian**, Lewis Linker, Gary Shenk, Gopal Bhatt, Daniel Kaufman, Isabella Bertani, Cuiyin Wu	
8:30 AM	Comparison of nutrient content between diploid and triploid Crassostrea virginica from two farm sites. **Matthew Poach**, Julie Reichert-Nguyen, Julie Rose, M. Lisa Kellogg, Mark Luckenbach, Shannon Meseck	Exploring microbial food web connectivity using thermodynamics, stable isotope probing, and genomics **Ashley Bulseco**, Julie Huber, Joseph Vallino	Assessing future climate risk to Chesapeake Bay water quality standards **Lewis Linker**, Gopal Bhatt, Richard Tian, Carl Cerco, Gary Shenk	Are the shallow lagoon systems well mixed? **Xinyi Kang**, Meng Xia
8:38 AM			Multi-models to study alternate stable states in Florida Bay: a synthesis of models **Christopher Madden**, Amanda McDonald, Theresa Strazisar, Yini Shangguan, Rene Price, Marguerite Koch	
8:45 AM	Minimal effects of oyster aquaculture on local water quality: examples from southern Chesapeake Bay **Jessica Turner**, M. Lisa Kellogg, Grace Massey, Carl Friedrichs	A new niche for isotope ecology: Combining MixSIAR and hypervolume metrics to understand resource use **James Nelson**, Justin Lesser, W. Ryan James	Impacts of Sea Level Rise on Water Quality in Chesapeake Bay: Model Validation and Assessment **Xun Cai**, Jian Shen, Joseph Zhang	Lateral Mixing Induced by Filaments and Eddies on a Mid-Latitude Shelf Subject to Buoyancy Loss **Steven Morey**
9:00 AM	Oyster aquaculture as a method of nitrogen bio-extraction in the Florida Panhandle **Mario Marquez**, Charles Jagoe, Suzanne Bricker	Habitat use and connectivity of native and nonnative gobies in a fragmented California wetland **Chloe Van Grootheest**, Christine Whitcraft	Identifying cost-effective water quality management strategies in the Chesapeake Bay watershed **Daniel Kaufman**, Gopal Bhatt, Olivia Devereux, Jessica Rigelman, J. Hugh Ellis, Benjamin Hobbs, Kevin Asplen, William Ball, Lewis Linker	Effects of local and remote wind on residence time and its relationship with estuarine-shelf exchange **Jilian Xiong**, Jian Shen, Jiabi Du, Yu Chen
9:08 AM			Propagating model uncertainty through linked models **James Fitzpatrick**, Dominic DiToro	
9:15 AM	Importance of Oyster Reef Design and Setting in Restoration Success in Mobile Bay **Merritt McCall**, Sean Powers	Tracking foraging behavior using consumer-specific energetic landscapes **W. Ryan James**, Brock Geary, Jennifer Doerr, Jordan Karubian, Paul Leberg, James Nelson	Increasing the Value of Mechanistic Watershed Models Through Emulation and Machine Learning **Christopher Duffy**	Maureparticle revisited – a simple particle tracking model for coastal and estuarine mixing **Nathan Dill**
9:23 AM				Impacts of local and remote wind forcing on surge level in a small lagoon system **Meng Xia**, Xinyi Kang
	9:30 AM BREAK			

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ORAL SESSIONS Wednesday 06 November | Early Morning 8:00 AM – 9:30 AM

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	201 B	201 C	201 D	202 A	204 A	204 B
	Estuarine and coastal plankton communities: sentinels of evolving ecosystems Pedro Morais	**Wind energy: effects on ecological function** Roberto Llanso, Angel Borja and Daniel Dauer	**Population/community ecology** Sharon Herzka and Joel Fodrie	**Ocean acidification in a multiple-climate-change-stressors context: science-based tools for management** Faycal Kessouri, Daniele Bianchi, Richard Feely, Elizabeth Turner, Nina Bednarsek, Martha Sutula	**Seagrasses: sentinel species in a changing world** Robert Orth and Kenneth Heck	**Interdisciplinary science and engineering for understanding disasters along coastlines** Steven Scyphers, Rachel Gittman, Tori Tomiczek and Devon Eulie
8:00 AM	Bacterioplankton, phytoplankton, and microphytobenthose community dynamics in a shallow well-mixed estuary experiencing hydrologic modifications **Matthew Hoch**	Ecosystem framework applied to site characterizations at offshore wind farms **Marisa Guarinello**, Drew Carey	Regional genetic diversity in Spartina and Juncus with implications for future salt marsh restoration **Patrick Biber**, Brian Baldwin, Mark Welch	Interannual variability of the Chesapeake Bay carbonate system **Fei Da**, Marjorie Friedrichs, Pierre St. Laurent, Elizabeth Shadwick, Raymond Najjar	Multiple stressors from extreme events drive ecosystem-wide loss of resilience in an iconic seagrass community **Gary Kendrick**, Robert Nowicki, Simone Strydom, Matthew Fraser, Elizabeth Sinclair, John Statton, Jordan Thomson, Kathryn McMahon, Kieryn Kilminster, James Fourqurean, Michael Heithaus, Robert Orth	Impacts of hurricane events on form and function of a Connecticut salt marsh **Katherine Castagno**, Jeffrey Donnelly, Kelly McKeon
8:15 AM	Phytoplankton Dynamics in Central Puget Sound: A Close Look at Inter-annual Variation Using FlowCAM Imaging. **Gabriela Hannach**, Lyndsey Swanson	Examining potential impacts of America's first offshore wind farm on fish and invertebrates **Dara Wilber**, Drew Carey, Matthew Griffin, Andy Lipsky	The effects of black mangrove fertilization and role of nutrients in propagule establishment and survival **Sophia Hoffman**, Donna Devlin, C. Edward Proffitt	Regionally dependent acidification in a large eutrophic estuary: insights from a 30-year modelling study **Chunqi Shen**, Jeremy Testa	Seagrass resilience to a marine heatwave **Karen McGlathery**, Lillian Aoki, Matthew Oreska, Amelie Berger, Peter Berg, Patricia Wiberg, Max Castorani	Evaluation of the Resilience of Shoreline Protection Methods to Hurricane Florence **Devon Eulie**, Rachel Gittman, Huili Hao, Mariko Polk, Steven Scyphers, Carter Smith, Emory Wellman
8:30 AM	Phytoplankton community dynamics in an urbanized South Texas Estuary (Corpus Christi Bay) **Sarah Tominack**, Kenneth Hayes, Michael Wetz	Assessment of ecological value of benthic habitats in offshore wind energy areas **Roberto Llanso**, Daniel Dauer, Rochelle Seitz, Michael Lane	Predicting plant succession in coastal tidal marshes **Madeline Gill**	Modelling carapace dissolution and growth under present-day low pH gradients in larval Dungeness crab **Nina Bednarsek**, Richard Feely, Simone Alin, Samantha Siedlecki, Marcus Beck, Piero Calosi, Greg Pelletier, Casey Saenger, John Spicer	Tropicalization of mid-western Atlantic coastal bays by pinfish: a combined ecological and oceanographic perspective **Jonathan Lefcheck**, F Fodrie, Donglai Gong, Marta Faulkner, Robert Orth	Mental models for assessing social-ecological systems following disasters Kelsi Furman, Steven Gray, **Steven Scyphers**
8:45 AM	Model Simulated Phytoplankton Dynamics in the Changjiang Estuary: Interannual Variability under Shifting River Impact **Jianzhong Ge**, Richard Bellerby, Ricardo Torres, Pingxing Ding	Before After Gradient Designs to evaluate coastal wind farm impacts to migratory and sedentary fishes **David Secor**, Ella Rothermel, Michael O'Brien, Caroline Wiernicki	What doesn't kill you makes you more susceptible to herbivory **Serina Wittyngham**, David Johnson	Assessing the life stage specific vulnerability of the Dungeness crab to climate change stressors **Halle Berger**, Samantha Siedlecki, Catherine Matassa, Simone Alin, Isaac Kaplan, Emma Hodgson, Darren Pilcher, Jan Newton	Collapsing benthic ecosystems in Southwest Florida **James Douglass**	Parcel-Scale Effects of Mangroves on Wave Transformation and Force Reduction in the Built Environment **Tori Tomiczek**, Anna Wargula, Marie Jendrysik, Kiera O'Donnell, Kelsi Furman, Steven Scyphers
9:00 AM	Investigating phytoplankton community trends off Cape Canaveral, FL– Different Diatoms for a Different Season **Ben Stelling**, Edward Phlips, Susan Badylak, Leslie Landauer, Debra Murie, Macy Tate, Anne West-Valle, Mami Hamazaki	Seasonal incidence of Atlantic Sturgeon and Striped Bass in the Maryland Wind Energy Area **Ella Rothermel**, Michael O'Brien, Dewayne Fox, Ben Gahagan, Ian Park, Matthew Balazik, David Secor	Coastal squeeze on oysters: shifting estuarine salinity, water quality, and reef communities **Joel Fodrie**, Maxwell Tice-Lewis, Stacy Zhang, Gray Redding, Quentin Walker, Antonio Rodriguez, Niels Lindquist	Monitoring Climate and Condition of Naturalized Pacific Oysters in a US West Coast Estuary **Brett Dumbauld**, Jennifer Ruesink, Zachary Forster, Natsuki Hasegawa, Alan Trimble	Widespread recovery of seagrass meadows in Southwest Florida: The influence of management actions and climate **David Tomasko**, Mark Alderson, Jennifer Hecker, Nicole Adevaia, Jay Leverone, Gary Raulerson, Edward Sherwood	Impacts of Hurricane Irma on people and the built environment in the Florida Keys: **Kiera O'Donnell**, Steven Scyphers, Victoria Tomiczek, Sharon Harlon
9:15 AM	Have anthropogenic factors hastened diatom nutrient starvation in the Mississippi River Plume? **Jeffrey Krause**	Regional research priorities for offshore wind in Massachusetts **Kathryn Ford**, Catherine O'Keefe	Response of native flora and fauna in coastal wetlands to Mississippi River diversions **Akintoye Ruth**, Linda Hooper-Bui, Charles Martin	Modeling the effects of multiple climate change stressors on winter flounder population dynamics **Klaus Huebert**, Kenneth Rose, R Christopher Chambers	Status of Florida Bay seagrass communities following the recurrence of turtlegrass die-off **Margaret Hall**, Bradley Furman, Michael Durako	Coastal Resilience: Science, planning, and interagency collaboration **Deborah Scerno**, Pamela Castens, Jacqueline Keiser
	9:30 AM BREAK					

ORAL SESSIONS Wednesday 06 November | Mid Morning 10:00 AM – 11:30 AM

= Lightning Presentations CH = Cultural Heritage/Coastal Humanities | All Presentations are Traditional Oral unless otherwise noted.

	201 A	201 B	201 C
	Quantification and valuation of ecosystem services associated with shellfish Julie Rose, Suzanne Bricker, William Walton	**Estuarine and coastal plankton communities: sentinels of evolving ecosystems** Pedro Morais	**Impacts of hurricanes on coastal physical, ecological, and biogeochemical processes** Ian Zink, John Lehrter, Amber Hardison, Anna Armitage, Joan Browder, Wei-Jun Cai, Kanchan Maiti, Brian Roberts, Zhanfei Liu and Christopher Patrick
10:00 AM	Integrating and applying three-dimensional models to simulate oyster ecosystem services **Rasika Gawde**, Elizabeth North, Raleigh Hood, Michael Wilberg, Wen Long, Hao Wang	Why large cells dominate estuarine phytoplankton **Erica Nejad**, Tara Schraga, James Cloern	Synthesizing and Understanding Ecosystem Responses to Tropical Cyclones **Christopher Patrick**, John Kominoski, William McDowell
10:15 AM	Use of point-of-view video cameras to assess fish interactions with oyster aquaculture bottom cages **Julie Rose**, Peter Auster, Paul Clark, Erick Estela, Yuan Liu, Lisa Milke, Gillian Phillips, Dylan Redman	Microplankton trophic dynamics in the northern Gulf of Mexico (nGOM) **Adam Boyette**, Jeffrey Krause, Sydney Acton, Donald Redalje, William "Monty" Graham	Hurricane driven sediment deposition and remobilization in the northern Gulf of Mexico **Wokil Bam**, Kanchan Maiti, Samuel Bentley, John Lehrter
10:30 AM	Characterizing the habitat function of bivalve aquaculture using underwater video **Bridget Ferriss**, Molly Bogeberg, Letitia (Tish) Conway-Cranos, Laura Hoberecht, Peter Kiffney, Kate Litle, Jodie Toft, Karl Veggerby, Beth Sanderson	What influences Puget Sound zooplankton dynamics — phytoplankton, physical factors, or something else? **Kimberle Stark**, Gabriela Hannach, Julie Keister, Stephanie Jaeger	Hurricane driven sediment deposition and remobilization in the northern Gulf of Mexico **Francisco Vilella**
10:45 AM	Impacts of oyster culture on the habitat function of seagrass beds **James Morley**, Joel Fodrie, Christopher Taylor, Abigail Poray	Appendicularian organism and house abundances in relation to coastal ocean fronts and phytoplankton production gradients **Alexis Hagemeyer**, John Lehrter, Bradley Penta, Adam Greer	Timescales of water quality change in 3 Texas estuaries induced by passage of Hurricane Harvey **Lily Walker**, Michael Wetz, Paul Montagna, Xinping Hu, Kenneth Hayes
11:00 AM	Mind the gap: a multi-regional understanding of the cultural ecosystem services provided by shellfish. **Adriane Michaelis**, William Walton, Don Webster, L. Jen Shaffer	The distribution, abundance and trophic ecology of Neomysis americana in Chesapeake Bay **Danielle Quill**, Ryan Woodland	Impact of Hurricanes Florence and Michael on microbial communities and its implications for atmospheric CO_2 **Cody Garrison**, Sara Roozbehi, D. Reide Corbett, Siddhartha Mitra, Erin Field
11:15 AM	Assessing the costs and benefits of different culture methods on an Alabama commercial oyster farm **Sarah Hensey**, Julian Stewart, Russell Grice, William Walton	Implications from distribution patterns of dead copepods corresponding to the *Deepwater Horizon* oil spill **Jessica Tolan**	Oxygen intrusion into hypoxic benthos from Hurricane Harvey and the effect on the carbonate system **K. Michael Scaboo**, Wei-Jun Cai, Baoshan Chen, Li Qian, Nancy Rabalais
	11:30 AM LUNCH		

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ORAL SESSIONS Wednesday 06 November | Mid Morning 10:00 AM – 11:30 AM

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	201 D	202 A	203 A
	Population/community ecology Sharon Herzka and Joel Fodrie	**Ocean acidification in a multiple-climate-change-stressors context: science-based tools for management** Faycal Kessouri, Daniele Bianchi, Richard Feely, Elizabeth Turner, Nina Bednarsek, Martha Sutula	**Collaborative modeling for responsive, relevant, and timely coastal management** Mark Brush, Elizabeth North, Lora Harris, Samuel Lake
10:00 AM	Does nekton enhancement vary consistently across microhabitats on restored oyster reefs? **Theresa Davenport**, Jonathan Grabowski, Randall Hughes	Concentrations of anthropogenic carbon along the west coast of North America **Richard Feely**, Brendan Carter, Nina Bednarsek, Wei-Jun Cai, Simone Alin, Dana Greeley	OysterFutures: testing a collaborative modeling process for fisheries management **Elizabeth North**, Michael Wilberg, Jeff Blair, Jeffrey Cornwell, Matthew Damiano, Rasika Gawde, Taylor Goelz, Troy Hartley, Chris Hayes, Raleigh Hood, Melanie Jackson, Lisa Wainger
10:15 AM	Fair-weather friends: a tale of how oyster and cordgrass symbiosis drives edge distribution **R Daniel Harris**, James Byers	Validation of a High-Resolution Physical-Biogeochemical Model for Pollution Impact Assessments in the Southern California Bight **Karen McLaughlin**, Faycal Kessouri, Martha Sutula, Minna Ho, James McWilliams, Curtis Deutsch, Daniele Bianchi, Nina Bednarsek, Lionel Renault, Richard Feely, Richard Ambrose, Stephen Weisberg	Collaborative modeling using online, reduced complexity models as decision-support tools **Mark Brush**
10:30 AM	Factors Influencing Estuarine Fish Communities in Espiritu Santo Bay, Texas **Mallika Beach-Mehrotra**, Jeffrey Wozniak, Philip Matich	Impacts of submesoscale ocean dynamics on the biogeochemistry and ecosystem of the California Current **Daniele Bianchi**, Faycal Kessouri, James McWilliams, Lionel Renault, Curtis Deutsch, Hartmut Frenzel, Pierre Damien	Modeling a catastrophic flooding event to improve water quality and environmental health in Southern Louisiana **Lucas Goodman**, Robert Miller
10:45 AM	Habitat associations and spatiotemporal overlap patterns of an assemblage of estuarine predators and prey **Mariah Livernois**, R.J. David Wells, Mark Fisher, Masami Fujiwara, Jay Rooker	Submesoscale Simulations to Support Management Conversations on the Impact of Local Pollution in Southern California **Faycal Kessouri**, Martha Sutula, Daniele Bianchi, James McWilliams, Curtis Deutsch, Karen McLaughlin, Minna Ho, Nina Bednarsek, Evan Howard, Lionel Renault, Simon Yang, Stephen Weisberg	An integrated modeling approach for characterizing oyster larvae movement, mortality, and spatial distribution **Tyler Keys**, Corey Trahan, Candice Piercy, Todd Swannack
11:00 AM	Increased preference of habitat heterogeneity and structural complexity with predatory threat in seagrass fish species **Nikki Bramwell**, Edward Hammill, David Booth	Nutrient Pollution Effects on Acidification and Hypoxia in Southern California Bight: Biological -vs-Water Quality Impacts **Martha Sutula**, Faycal Kessouri, James McWilliams, Curtis Deutsch, Daniele Bianchi, Nina Bednarsek, Evan Howard, Lionel Renault, Karen McLaughlin, Richard Feely, Simone Alin, Richard Ambrose	Multiple ecosystem model integration for use in an environmental impact study **Kristy Lewis**, Cameron Ainsworth, Damian Brady, Kim de Mutsert, Kenneth Rose, Shaye Sable
11:15 AM	Influence of marsh island size on nekton communities: intermediate optima rather than SLOSS? **Shelby Ziegler**, Lauren Clance, Andrew McMains, Marianna Miller, Joel Fodrie	High resolution numerical ocean outfall plume modeling in the Southern California Bight **Minna Ho**, Faycal Kessouri, Martha Sutula, James McWilliams, Daniele Bianchi, Timu Gallien, George Robertson, Jeroen Molemaker	Spectral wave modeling in a shallow estuary of the Northern Gulf of Mexico **Azadeh Razavi Arab**, Haosheng Huang
	11:30 AM LUNCH		

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ORAL SESSIONS Wednesday 06 November | Mid Morning 10:00AM – 11:30AM

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	202 B	203 B	204 A	204 B
	Isotopes, lipids, and DNA: Trophic biomarkers in coastal ecosystem ecology Michael Polito, James Nelson, Amanda Spivak and Sabrina Taylor	**Outreach and engagement of our estuaries, coasts, and oceans** Linda Walters	**Seagrasses: sentinel species in a changing world** Robert Orth and Kenneth Heck	**Ecosystem-based management: Challenges and opportunities for regional implementation** Michael Roman, Felix Martinez and Amie West
10:00 AM	Trophic structure and mercury biomagnification in a coastal Tanzanian seagrass fish community **Mario Hernandez**, Rebecka Brasso, Stephen Midway, Michael Polito	Telling the local stories: integrating data to inform local management in the Chesapeake Bay watershed **Emily Trentacoste**, John Wolf	Seagrass gap dynamics for the Lower Laguna Madre, Texas **Hudson DeYoe**, Warren Pulich, Jr., Nicole Laas, John Garcia	Emerging research needs for regional ecosystem-based management: Tales from the field **Amie West**, Michael Roman, Felix Martinez, William Dennison, Thomas Miller, Fredrika Moser, Kenneth Rose, Lisa Wainger
10:08 AM			Genetic diversity of Halodule wrightii is resistant to large scale dieback **Laura Reynolds**, Kathryn Tiling, Gina Digiantonio, Vincent Encomio, Lori Morris	
10:15 AM	A multi-stable isotope approach to determine mercury sources in migratory and resident coastal fishes Sarah Janssen, **Joel Hoffman**, Ryan Lepak, Monson Bruce, Greg Peterson, Cotter Anne, David Krabbenhoft	Assessing virtual reality technology as an environmental education teaching tool for use in classrooms **Gabriela Canas**, Kaitlyn Campbell, Josephine Spearman	The hidden promiscuity of Halodule wrightii: observations of sexual reproduction throughout Florida, USA. **Bradley Furman**, Mike Wheeler, Bianca Broselli, Laura Reynolds, Kelly Darnell, Margaret Hall	Ecosystem-based management (EBM) in the North Atlantic - concepts check, mandates check, tools check, implementation..? Mark Dickey-Collas, **Jason Link**, M. Robin Anderson, Anna Rindorf, Paul Snelgrove, Margaret (Peg) Brady, Ellen Johannesen, Ellen Kenchington, Howard Townsend, Alida Bundy, David Johnson
10:23 AM	If we are what we eat, then sea lamprey ammocoetes are made of riparian vegetation **Ester Dias**, Maria Miranda, Ronaldo Sousa, Carlos Antunes	Recommendations for the integration of outreach with research: The Gulf of Mexico Research Initiative experience **Tina Miller-Way**, Sara Beresford, Katie Fillingham	Seagrass contribution to productivity and community biogeochemistry in Reunion Island (West Indian ocean) **Irene Olivé**, Emilio García-Robledo, João Silva, Rui Santos, Nick Kamenos, Pascale Cuet, Patrick Frouin	
10:30 AM	Disentangling the importance of autochthony along a salinity gradient of a salt marsh food web **Sydney Moyo**, Hayat Bennadji, Jessica Johnson, Paola Lopez-Duarte, Jill Olin, Charles Martin, Linda Hooper-Bui, Brian Roberts, Michael Polito	Our Wastewater Footprint: Enhancing water quality through scientific communication and public outreach **Toni Thomason**, Elizabeth Hieb, Ruth Carmichael	The consequences of simulated grazing disturbance on the genetic diversity of eelgrass **Nicole Kollars**, John Stachowicz	Characterizing and Comparing U.S. Marine Fisheries Ecosystems: Successful Factors in Moving Toward Ecosystem-Based Fisheries Management **Tony Marshak**, Jason Link
10:38 AM	Trophic niche and life history of Hardhead Catfish in the northern Gulf of Mexico **Lucas Pensinger**, Stephen Midway, Michael Polito, Shane Flinn, Andrew Ostrowski			
10:45 AM	Seasonal dietary shifts of Red Snapper (Lutjanus campechanus) in Mississippi state waters **Caitlin Slife**, Kevin Dillon	Citizens, Oysters and Changing the Culture through POP (Project Oyster Pensacola) Jane Caffrey, **Barbara Albrecht**	Eelgrass Genetic Diversity Influences Resilience to Stresses Associated with Eutrophication **Holly Plaisted**, Alyssa Novak, Sarah Weigel, Anita Klein, Frederick Short	Connective Capacity and Ecosystem-Based Management in Gulf Coast Fisheries **Anthony Lima**, Dongkyu Kim, Andrew Song, Gordon Hickey, Owen Temby
11:00 AM	Spatial, temporal, and individual-level variation in northern Gulf of Mexico common bottlenose dolphin diet **Carl Cloyed**, Brian Balmer, Mandy Tumlin, Eric Zolman, Aaron Barleycorn, Teri Rowles, Lori Schwacke, Ruth Carmichael	From graduate to elementary school: Engaging young students can be easy! **Sarah Ramsden**, Mary Curran	Ex-seeding expectations: quantifying Z. marina seed quality over time **Avonelle Combs**, Jessie Jarvis, W. Judson Kenworthy	Integrating Local Data to Inform Region-Level Management in the National Park Service **Katie May Laumann**, William Dennison, Vanessa Vargas-Nguyen, Emily Nastase
11:08 AM				Effect of multiple pressures on early marine survival of juvenile salmon in Puget Sound **Hem Nalini Morzaria-Luna**, Isaac Kaplan, Raphael Girardin, Chris Harvey, Michael Schmidt, Elizabeth Fulton, Parker MacCready
11:15 AM	Determining interspecific interactions between ctenophores and fishes in Maryland Coastal Bays using stable isotope analysis **Sarah Cvach**, Steve Doctor, Christina Bradley	Building bridges over troubled waters: Citizen engagement to support shellfish aquaculture **Allison Colden**	Seagrasses under pressure from intensive seaweed farming in Rote Island, Indonesia **Mirta Teichberg**, Hugo Duarte Moreno, Mónica Mariño, Alfred Kase, Annette Breckwoldt, Hauke Reuter	Challenges and novel approaches to habitat restoration on historically human-occupied land **Andrew Heaton**, Karen Clark, Robert Gruba, Jay McIlwain, Jonathan Pitchford
	11:30 AM LUNCH			

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ORAL SESSIONS Wednesday 06 November | Early Afternoon 1:00PM – 2:30PM

= Lightning Presentations CH = Cultural Heritage/Coastal Humanities | All Presentations are Traditional Oral unless otherwise noted.

	201 A	201 C	201 D	203 A	203 B
	Microbial source tracking in wet weather Kenneth Schiff, Joshua Steele and John Griffith	**Impacts of hurricanes on coastal physical, ecological, and biogeochemical processes** Ian Zink, John Lehrter, Amber Hardison, Anna Armitage, Joan Browder, Wei-Jun Cai, Kanchan Maiti, Brian Roberts, Zhanfei Liu and Christopher Patrick	**Population/community ecology** Sharon Herzka and Joel Fodrie	**Identifying restoration priorities and evaluating socio-ecological benefits at multiple scales** Lisa Chambers, Rachel Gittman, Ann Hijuelos, Katie Arkema, Bryan DeAngelis, Melinda Donnelly, Jonathan Grabowski, Kelly Kibler and Bethany Kraft	**Education: creative teaching to improve success for marine-focused undergraduate students** Linda Walters and Timothy Dellapenna
1:00 PM	Tracking human fecal sources in an urban, coastal watershed during wet weather **Joshua Steele**, Darcy McCarger, Amy Zimmer-Faust, John Griffith, Rachel Noble, Kenneth Schiff	Influence of drought, periodic storm events, and Hurricane Harvey on estuarine particulate organic matter **Sarah Douglas**, Jianhong Xue, Zhanfei Liu, Amber Hardison	Influence of predation and environmental conditions on juvenile bull shark densities in two Texas estuaries **Amanda Lofthus**, Jeffrey Wozniak, Philip Matich	Preserving cultural heritage in a changing landscape: Oysters and the Pointe-au-Chien Indian Tribe **Deborah Abibou**, Christa Russell CH	Service-Learning, Intensive Research, and Peer Coaches in Undergraduate Marine Biology Courses **Linda Walters**, Kimberly Schneider, Mary Tripp
1:15 PM	Microbial Source Tracking for Monitoring the Impact of Short-Term Tidal Variability in Marine Beaches **Asheley Chapman**, Kendall Anderson, Asli Aslan	In the wake of a hurricane: differential effects on early versus late successional seagrass species **Victoria Congdon**, Christina Bonsell, Meaghan Cuddy, Kenneth Dunton	Sea otter disturbance reduces eelgrass extent of intertidal beds in southeast Alaska **Tiffany Stephens**, Maggie Shields, Wendel Raymond, Lia Domke, Melanie Borup, Ginny Eckert	A framework for using trophic structure to evaluate ecosystem services of estuarine habitat restoration **Melinda Donnelly**, Suzanne Connor, Jessica Copertino, Giovanna McClenachan, Michelle Shaffer	Chemical ecology made easy: Teaching students about the link between toxin chemistry and HABs **Mary Curran**, Allison Robertson, Mindy Richlen
1:30 PM	Sources of Enterococci to a Coastal Beach Experiencing Elevated Background Levels **Afeefa Abdool-Ghany**, Peter Sahwell, Maribeth Gidley, Christopher Sinigalliano, James Klaus, Helena Solo-Gabriele	Hurricanes temporarily disrupt interaction between salt marsh wrack and range-expanding mangrove propagules **Rachel Smith**, Julie Blaze, James Byers	Four decades of stranding response: Hotspots and shifting baselines in northern Gulf of Mexico **Mackenzie Russell**, Noel Wingers, Courtney Nelson Seely, Ruth Carmichael	Overcoming the odds: restoration of a Crassostrea virginica oyster reef in St. Charles Bay, TX **Meghan Martinez**, Natasha Breaux, Terry Palmer, Jennifer Beseres Pollack	The Saco Estuary, a living laboratory for interdisciplinary experiencial education **Christine Feurt**
1:38 PM			Sediment transport downstream: Noyes Cut alters salt marsh community dynamics in the Satilla River Estuary **Stacy Taylor Bennetts**, Shandon Johnson, A. Loren Mathews, Jessica Reichmuth		
1:45 PM	Quantification of fecal sources to coastal waters at the Southwest US Border **Amy Zimmer-Faust**, Joshua Steele, John Griffith	The influence of summer storms on black sea bass movement ecology in the Mid-Atlantic Bight **Caroline Wiernicki**, Michael O'Brien, David Secor	Perinate bottlenose dolphin mortality following the Northern Gulf of Mexico Unusual Mortality Event **Alissa Deming**, Ruth Carmichael	Relating the scale and structure of oyster reefs to diversity, ecosystem processes and functions **Ana Bugnot**, Rick Leong, Will Figueira, Ana Vila-Concejo, Katherine Dafforn, Ross Coleman, Ezequiel Marzinelli, Paul Gribben	Effects of exam frequency on students' grades and self-efficacy in an environmental sciences course **Linda Hooper-Bui**, Grace Cagle
2:00 PM	What can dogs do? Canine detection of human sewage in the Pettaquamscutt Estuary, RI. **Veronica Berounsky**, Heidi Travers, Karen Reynolds	Ecological responses to Hurricane Florence in Masonboro Sound, North Carolina **Aaron Ramus**, Lawrence Cahoon	Use of manatee ear bone chemistry to track migrations in the northcentral Gulf of Mexico **Kayla DaCosta**, Ruth Carmichael	Scaling our Restoration Thinking for the Challenges of the Future **Denise Reed**	Forces in an estuary: Tides, freshwater, and friction **David Fugate**, Felix Jose
2:15 PM		Larval distributions of key fish families off Galveston post Hurricane Harvey compared to historic data Shannan McAskill, **Simon Geist**, Glenn Zapfe	Linking use of ship channels by West Indian manatees to seasonal migration and habitat use **Elizabeth Hieb**, Carl Cloyed, Merri Collins, Kayla DaCosta, Ruth Carmichael	Assessing the response of Mangrove Snapper (Lutjanus griseus) trophic dynamics to oyster reef restoration **Jennifer Loch**, Geoffrey Cook	Incorporating project-based field research into a marine science curriculum at a small coastal campus: TAMUG **Timothy Dellapenna**, Ayal Anis, Karl Kaiser
2:23 PM		Microbiomes of cultured oysters in the northern Gulf of Mexico respond to environmental stresses **Charles Jagoe**, Mario Marquez, Ashvini Chauhan, Ashish Pathak			

ORAL SESSIONS Wednesday 06 November | Early Afternoon 1:00PM – 2:30PM

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	201 B	202 A	202 B	204 A	204 B
	Estuarine and coastal plankton communities: sentinels of evolving ecosystems Pedro Morais	**Ocean acidification in a multiple-climate-change-stressors context: science-based tools for management** Faycal Kessouri, Daniele Bianchi, Richard Feely, Elizabeth Turner, Nina Bednarsek, Martha Sutula	**Isotopes, lipids, and DNA: Trophic biomarkers in coastal ecosystem ecology** Michael Polito, James Nelson, Amanda Spivak and Sabrina Taylor	**Seagrasses: sentinel species in a changing world** Robert Orth and Kenneth Heck	**Advancing Gulf of Mexico resilience through integrative, cross-disciplinary science** Lauren Showalter, William "Monty" Graham and Jerry Melillo
1:00 PM	Seasonal differences in mesozooplankton communities in a shallow, wind-driven estuary in southern Louisiana **Christin Selle**, Beth Stauffer, Kelly Robinson	The interactive effects of ocean acidification and warming on the estuarine mud crab Dyspanopeus sayi. **Leah Reidenbach**, Dylan Cottrell, Rebecca Kulp, David Hudson, Bradley Peterson	Assessing the role of saltmarsh production in subsidizing adjacent seagrass food webs **Jeffrey Plumlee**, Lauren Yeager, Joel Fodrie	Seagrass (Zostera marina) in a eutrophic estuary as affected by sediment conditions **Katherine Haviland**, Robert Warren Howarth, Roxanne Marino, Melanie Hayn	Place-based pathways to community resilience: Traditional and indigenous knowledge **Debra Butler**
1:15 PM	Potential links between jellyfish blooms and environmental variability in the northern Gulf of Mexico **Chengxue Li**, Hui Liu	CO_2 and temperature effects on the early life-stages Atlantic silverside (Menidia menidia) **Grace O'Malley**, R Christopher Chambers	Evaluating the trophic structure and carbon dynamics of created coastal marsh ecosystems with stable isotopes **Katelyn Lamb**, Paola Lopez-Duarte, Jill Olin, Charles Martin, Brian Roberts, Erick Swenson, Michael Polito	An investigation into how Z. marina modulates carbonate chemistry in the context of coastal acidification **Alyson Lowell**, Bradley Peterson	Florida Panhandle National Heritage Area: a community-based approach for coastal resources management Sorna Khakzad, **Kelly Dunn**, Deneale Miller, Morgan Dudley
1:30 PM	Differential effects of UV radiation on two early life stages of the scyphozoan Aurelia aurita **Laura Treible**	Ocean acidification promote invasions of the invasive red macroalga, Dasysiphonia japonica **Craig Young**, Christopher Gobler	Resource partitioning among sympatric saltmarsh fishes in coastal Louisiana **Jill Olin**, Paola Lopez-Duarte, Olaf Jensen, Michael Polito, Charles Martin	Building an anthropogenic isoscape: Thalassia testudinum in Ambergris Caye Lagoon, BZ **Theresa Murphy**, Ryan Woodland, Danielle Quill, Paul Billeter, Kenneth Mattes	Data fusion; combining biophysical and economic data to model water prices **Quinn McColly**
1:45 PM	Impact of Oyster Biodeposit Resuspension on Phytoplankton Community Structure in Estuarine Systems **Sarah Davis**, Elka Porter, Eric Robins, Richard Lacouture, Regina Minniss	Enhancing sustainability of hatchery production: effects of water manipulations and associated multi-stressors on larval physiology **Emily Rivest**, Standish Allen, Olivia De Meo, Eric Guevelou, Sarah Pease, Annie Schatz, Jessica Moss Small, Juliette Smith, Richard Snyder, Ryan Carnegie	Trophic mysteries of the shallows: Unraveling eelgrass ecosystems in Southeast Alaska **Wendel Raymond**, Julie Schram, Aaron Galloway, Ginny Eckert	Seagrass epiphyte microbiome responses to pulsed and long-term nutrient exposures **Kirk Cammarata**, Colin Brislawn, Whitney Roberson, Carissa Pinon, Chi Huang, Ernest Everett, Shawn Hare	Building authentic community-government alliances through Indigenous Stewardship Methods to advance Louisiana's Coastal Master Plan **Kellyn LaCour-Conant**, Krista Jankowski, Allyse Ferrara
2:00 PM	Spatiotemporal distribution and environmental drivers of zooplankton communities within the Columbia River Estuary **Kristin Connelly**, Gretchen Rollwagen-Bollens, Stephen Bollens, Julie Zimmerman, Tamara Holmlund	Of crabs and clams: OA and salinity effects on marine invertebrate growth and armor **Katherine Longmire**, Rochelle Seitz, Romuald Lipcius	Benthic microalgae help retain detrital marsh grass carbon and nitrogen in estuarine sediments **Amanda Spivak**, Samuel McNichol, Scott Wankel, Robinson Fulweiler, Jennifer Karolewski	Quantifying factors influencing interannual variability of eelgrass (Zostera marina) using a 30-year dataset **Jamie Vaudrey**, Jason Krumholz, Christopher Calabretta	Spatial-Temporal Models of Multi-Species Interactions to Study Impacts of Catastrophic Events Alexey Sadovski, **Zachary Chairez**, Baohua Chen, Devanayagam Palaniappan
2:15 PM	Biophysical processes leading to the ingress of temperate fish larvae into estuarine nursery areas **Pedro Morais**, Claire Paris, Eric Wolanski, Maria Alexandra Teodósio	Larval experience of multi-stressors might carry over to affect performance of juvenile Crassostrea virginica **Annie Schatz**, Jan McDowell, Emily Rivest	Impacts of altered hydrology on organic carbon sources to oyster diet: a lipid biomarker approach **Derek Detweiler**, Ludovic Hermabessiere, Patricia Goodman, Aswani Volety, Philippe Soudant, Ai Ning Loh	Long-term trends in eelgrass abundance in the central basin of Puget Sound, WA (USA). **Bart Christiaen**, Lisa Ferrier, Jeffrey Gaeckle, Pete Dowty, Helen Berry	Categorization of Nearshore Sampling Data by Integrating Oil Slick Trajectory Predictions used during Response Operations **Larissa Montas**, Alesia Ferguson, Kristina Mena, Helena Solo-Gabriele
	2:30 PM BREAK				

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ORAL SESSIONS Thursday 07 November | Early Morning 8:00AM – 9:30AM

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	201 A	201 C	201 D	204 A	204 B
	Marshes to Mangroves: the support of fisheries by estuarine wetlands Ronald Baker, Matthew Kimball, Jennifer Doerr and Philine zu Ermgassen	**Impacts of hurricanes on coastal physical, ecological, and biogeochemical processes** Ian Zink, John Lehrter, Amber Hardison, Anna Armitage, Joan Browder, Wei-Jun Cai, Kanchan Maiti, Brian Roberts, Zhanfei Liu and Christopher Patrick	**Population/community ecology** Sharon Herzka and Joel Fodrie	**Seagrasses: sentinel species in a changing world** Robert Orth and Kenneth Heck	**Solutions-based science to support coastal environmental management: approaches and challenges** Marnita Chintala, Beth Darrow, William Dennison, Dwight Trueblood and Timothy Gleason
8:00 AM	Mapping salt marsh of global delta using time series Landsat and Sentinel-1 imagery **Xinyi Zhao**, Bo Tian, Ying Niu, Chunpeng Chen, Ya Peng, Wenting Wu, Yuekai Hu	Nutrient and trophic impacts of 20+ years of tropical cyclones on North Carolina's estuarine ecosystems **Hans Paerl**, Nathan Hall, Alexandria Hounshell, Karen Rossignol, Christopher Osburn	Evaluating the carbonate production and allometry of Crassostrea virginica in the Mississippi Sound **Sara Pace**, Eric Powell, Kelsey Kuykendall, Jeremy Timbs	Herbivory in seagrass meadows: a continually changing paradigm **John Valentine**, Kenneth Heck	Large-scale environmental monitoring, modeling, and adaptive decision-making in coastal Louisiana **Stuart Brown**, Elizabeth Jarrell, Mandy Green, Leigh Anne Sharp, Syed Khalil, Richard Raynie, Ed Haywood
8:15 AM	Understanding landscape level impacts of increased temperature – mangrove encroachment influence on seagrass meadows **Cayla Sullivan**, Laura Reynolds, Ashley Smyth	Extreme events in North Carolina: Lingering effects on coastal carbon cycling in a stormier world **Christopher Osburn**, Jacob Rudolph, Alexandria Hounshell, Bryce Van Dam, Nathan Hall, Michael Montgomery, Hans Paerl	Is groundwater a potential driver of oyster populations within Georgia Creeks? **John Carroll**, Jacque Kelly, Jessica Watts, Katherine Curran	Greener pastures: Green turtle grazing regulates productivity of a Caribbean seagrass ecosystem **Alexandra Gulick**, Robert Johnson, Clayton Pollock, Zandy Hillis-Starr, Alan Bolten, Karen Bjorndal	Reflections from eight years of collaborative science in coastal Alabama **Eric Sparks**, Just Cebrian, Michael Shelton, Eric Brunden, Scott Phipps, Julia Cherry
8:30 AM	Encroachment of Avicennia germinans into salt marsh habitat may increase nutrient input through decomposition **Lorae Simpson**, Julia Cherry, Ilka Feller	Hurricane effects on coral reef sediment off Guánica, PR, from runoff signatures in sediment traps **Renee Takesue**, Olivia Cheriton, Clark Sherman, Natalia Ramírez Irizarry, Aaron Reyes, Curt Storlazzi	Muddy waters' got the blues: a community response to an ecosystem-level manipulation **Dylan Cottrell**, Diana Chin, Kaitlyn O'Toole, Michael Doall, Christopher Gobler, Bradley Peterson	Green turtle densities and carrying capacities in a newly-colonized Florida bay **Alex Rodriguez**, Kenneth Heck	Management challenges and restoration successes through two decades of public-private partnership on Edgartown Great Pond **Emily Reddington**, Mary Carman, Kristin Gribble
8:45 AM	Nitrogen Enrichment Enhances Freeze Tolerance of Avicennia germinans **Ilka Feller**, Emily Dangremond, Lorae Simpson, Catherine Lovelock	Hurricane Harvey changed sediment geochemistry of Mission Aransas Estuary of south Texas through strong resuspension **Zhanfei Liu**, Xianbiao Lin, Zucheng Wang, Jianhong Xue, Kaijun Lu, Sarah Douglas, Amber Hardison	The role of geographical connectivity on recovery rates of macrofaunal metacommunities **Marco Brustolin**, Judi Hewitt, Simon Thrush	Exclusion studies reveal the interactions between herbivores in structuring tropical seagrass meadows **Abigail Scott**, Paul York, Michael Rasheed	An interdisciplinary approach to wet prairie restoration in the Florida panhandle **Ashlynn Smith**, Emily Coffey, Matthew Deitch, John McKenzie, Deborah Miller, Jessica Stephens, Jeff Talbert, Mack Thetford, Laurie Blackmore
9:00 AM	Quantifying the effect of changing vegetation on ecosystem functions and habitat structure at salt-marsh-mangrove ecotone **Julie Walker**, Christine Angelini, Julie Walker, Todd Osborne	Impact of Hurricane Harvey on sediment nitrogen cycling in the Mission Aransas Estuary, Texas **Amber Hardison**, Xianbiao Lin, Xin Xu, Kaijun Lu, Sarah Douglas, Jianhong Xue, Zhanfei Liu	Bypassing pre-and post-settlement bottlenecks of foundation species across estuarine environmental gradients via mobile substrates **Christopher Baillie**, Rachel Gittman, Joel Fodrie, Niels Lindquist, Gray Redding, David Cessna, Adam Tyler	Invasion of the reef urchins: Impact of Echinometra on seagrass beds in Bocas del Toro **Abigail Cannon**, Cynthia Peña, Eric Brown, Aaron O'Dea, Andrew Altieri, Jennifer Smith	Building an oyster filtration model from the ground up **Jessica Kinsella**, Elizabeth Darrow, Aswani Volety, Suzanne Bricker, Martin Posey, Troy Alphin, João Ferreira, Alhambra Cubillo, Susanne Brander, Brandon Puckett
9:15 AM	From fiddlers to fisheries: bottom-up effects of the shifting salt marsh-mangrove ecotone **Janelle Goeke**, Anna Armitage	Effects of Hurricane Irma on nitrification and ammonia oxidizer community in St. Lucie Estuary (Florida) **Justyna Hampel**, Mark McCarthy, Megan Reed, Silvia Newell	Potential effects of chemical cues emitted by Crepidula fornicata on foraging by chemosensory predators **Tracey Vlasak**, Stephen Tettelbach, Bradley Peterson, Rebecca Kulp	Predation and herbivory across spatial and temporal scales: a fishy tale **Olivia Rhoades**, William Wied, Andrew Altieri, Savanna Barry, Scott Jones, Charles Martin, Owen O'Shea, Christopher Patrick, Valerie Paul, Laura Reynolds, Brigitta van Tussenbroek, Justin Campbell	Restoration-induced changes to phytoplankton communities: do cyanobacteria affect oyster feeding and selectivity? **Andrea Jaegge**, Sandra Casas, Jerome La Peyre, Megan La Peyre, Beth Stauffer
	9:30 AM BREAK				

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ORAL SESSIONS Thursday 07 November | Early Morning 8:00AM – 9:30AM

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	203 A	202 A	201 B
	Identifying restoration priorities and evaluating socio-ecological benefits at multiple scales Lisa Chambers, Rachel Gittman, Ann Hijuelos, Katie Arkema, Bryan DeAngelis, Melinda Donnelly, Jonathan Grabowski, Kelly Kibler and Bethany Kraft	**Increasing coastal and estuarine hypoxia: causes, responses, and remedies** James Ammerman and James O'Donnell	**Tidal freshwater wetlands: transitional ecosystems under climate change** Judith Drexler, Gregory Noe and Kai Jensen
8:00 AM	Stakeholders rate Living Seawalls benefits as almost double the risks **Kate Dodds**, Maria Vozzo, Katherine Dafforn, Mariana Mayer-Pinto, Melanie Bishop	Post-construction monitoring of nitrogen reductions in an urban tidal embayment **Richard Isleib**, Beau Ranheim, Keith Mahoney, Nicholas Cholewka, Dorothy Chao, David Yozzo, Katherine Drury	Biota-mediated carbon cycling in tidal freshwater wetlands: from rhizopsheres to consumer control **Kai Jensen**, Peter Mueller, Stefanie Nolte
8:15 AM	Integrating local priorities into restoration using sketch mapping and GIS Hannah Torres, **Timothy Hawthorne**, Fernando Rivera	Disentangling Trends and Variability in Nitrate and Oxygen in Long Island Sound **James O'Donnell**	Variation in soil microplastics between habitats in a tidal freshwater wetland **Andy Baldwin**, Ryan Helcoski, Lance Yonkos
8:23 AM			Impacts of flooding and nutrient loading on a freshwater forested wetland **Taylor Sloey**, James Nelson, Joselyn Rodriguez, Skyler Flaska
8:30 AM	Linking science, ecosystem services, and economic valuation to prioritize and communicate mangrove restoration goals **Brita Jessen**, Sara Mason, Lydia Olander, Jeffrey Carter, Jessica McIntosh, Laura Flynn, Stefanie Simpson, Scott Settelmyer, Ken Krauss, Nicole Cormier, Kathy Worley, Keith Laakkonen	Drivers and predictability of subseasonal variations of dissolved oxygen in Chesapeake Bay **Andrew Ross**, Charles Stock, Keith Dixon, Marjorie Friedrichs, Raleigh Hood, Ming Li, Kathleen Pegion, Gabriel Vecchi, Vincent Saba	Egeria densa: an ecosystem engineer and carbon sink in the Sacramento-San Joaquin Delta of California **Judith Drexler**, Shruti Khanna, Jessica Lacy
8:45 AM	Integrating sense of place into ecosystem restoration: a novel approach to achieve synergistic social-ecological impact **Kelly Kibler**, Geoffrey Cook, Lisa Chambers, Melinda Donnelly, Timothy Hawthorne, Fernando Rivera, Linda Walters	Impacts of sea level rise on Chesapeake Bay and its seasonal hypoxia **Pierre St. Laurent**, Marjorie Friedrichs, Ming Li, Wenfei Ni	Hydrology of coastal freshwater forested wetlands of Louisiana: the role of tides **Richard Day**, Andrew From, Ken Krauss
8:53 AM			Growth response of freshwater forested wetland tree species to increasing sea level and saltwater intrusion William Conner, **Jamie Duberstein**
9:00 AM	Regional Approach to Development of New Restoration Projects for Louisiana's Coastal Master Plan **Elizabeth Jarrell**, Stuart Brown, Mandy Green, Eric White, Krista Jankowski, Catherine Fitzpatrick, Ashley Cobb, Denise Reed, Yushi Wang	Annual, Seasonal Patterns of Stratification and Hypoxia in Chandeleur and Breton Sounds in Southeast Louisiana **John Lopez**, Tasia Denapolis, Kristen Butcher	Tidal extension: will sea-level rise change ecosystem functions of tidal freshwater wetlands on the whole? Alicia Korol, **Gregory Noe**, Scott Ensign
9:15 AM	A hierarchical approach to valuing land conservation to support Gulf of Mexico estuarine biotic health **Andrew Shamaskin**, Kristine Evans, Garrett Street, Sandra Correa, Anna Linhoss, Sathishkumar Samiappan, Jennifer Roberts, Jiangdong Liu	Physical Drivers of Dissolved Oxygen Variability in a Shallow Highly Stratified Estuary **Jeff Coogan**, Brian Dzwonkowski, John Lehrter, Kyeong Park, Renee Collini, Alexis Hagemeyer	Ecology and long-term sustainability of tidal freshwater marshes of the Mississippi River Delta Plain, Louisiana **Christopher Swarzenski**, Thomas Doyle
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	203 B	202 B
	Education partnerships in coastal and marine science Mikell Smith and Richard Mclaughlin	**Putting ecogeomorphology into practice: predicting and managing flow–sediment–biota interactions** Christopher Esposito, Heidi Nepf and Theryn Henkel
8:00 AM	**Panel Discussion**: Jacqueline Rousseau (NOAA Educational Partnership Program), Larry Robinson (NOAA CCME), David Yoskowitz (NOAA CCME)	Assessing sediment management strategies that support nature conservation in a highly anthropogenic delta region **Sebastiaan Mestdagh**, Sofie De Swerdt, Annelies Boerema, Patrick Meire, Frederik Roose, Marcel Taal, Katrien Van der Biest, Gijsbert Van Holland, Eric Van Zanten, Dirk Vrebos, Tom Ysebaert
8:15 AM		Environmental Factors Controlling Nitrate Removal Potential in Deltaic Floodplain Wetlands **Alexandra Christensen**, Robert Twilley
8:30 AM		Comparing two dissimilar Atchafalaya River Delta sediment diversion strategies over an eighteen year period **Glen Curole**
8:38 AM		Wave attenuation across a salt marsh in Newbury, MA **Madeline Foster-Martinez**, Ioannis Georgiou, Zoe Hughes, Duncan FitzGerald
8:45 AM	Facilitating the Development of Partnership-Relevant Competencies through a Center-Wide Course **Owen Temby**, David Hicks, Katia Sanchez	Coastal foredune stabilizing plants as ecosystem engineers shaping foredune genesis **Bianca Charbonneau**
8:53 AM	Training post-secondary students to integrate social sciences at the NOAA Cooperative Science Centers **Phyllis Gray-Ray**, Mikell Smith, Richard Mclaughlin, Hyun Jung Cho, Sharmini Pitter, Bernadette Kelley, Michael Abazinge	
9:00 AM	Team Science Approach for Coastal and Marine Resilience **Diana Del Angel**, Stephen Fiore, Troy Hartley, Benjamin Bowes, Stephanie Dohner, Deborah Kim, Sara Marriott, Jingwei Song, Jonathan Goodall, Linda Schaffner	The geomorphic impact of mangroves on inland salt marsh **Daniel Coleman**, Kerrylee Rogers, D. Reide Corbett, Matthew Kirwan
9:15 AM	Conservation and social science: rebuilding resilient habitat and community engagement **Meghan Martinez**, Natasha Breaux, Terry Palmer, Jennifer Beseres Pollack	Comparing ecosystem services provided by submersed aquatic vegetation (SAV) beds and restored tidal marshes **Cindy Palinkas**, Lorie Staver, Cassie Gurbisz, Miles Bolton
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	201 A	201 C	201 D	204 A	204 B
	Marshes to Mangroves: the support of fisheries by estuarine wetlands Ronald Baker, Matthew Kimball, Jennifer Doerr and Philine zu Ermgassen	**Impacts of hurricanes on coastal physical, ecological, and biogeochemical processes** Ian Zink, John Lehrter, Amber Hardison, Anna Armitage, Joan Browder, Wei-Jun Cai, Kanchan Maiti, Brian Roberts, Zhanfei Liu and Christopher Patrick	**Population/community ecology** Sharon Herzka and Joel Fodrie	**Seagrasses: sentinel species in a changing world** Robert Orth and Kenneth Heck	**Solutions-based science to support coastal environmental management: approaches and challenges** Marnita Chintala, Beth Darrow, William Dennison, Dwight Trueblood and Timothy Gleason
10:00 AM	Settlement processes shape fauna community redistribution in response to patchy mangrove expansion **Cora Johnston**, Daniel Gruner	N-cycling in coastal sediments in the aftermath of Hurricane Michael **Troy Mutchler**, Justin Myers, Daniel Hoffman, Silvia Newell, Mark McCarthy	Kelp subsidies drive community structure and ecosystem function on sandy beaches **Kyle Emery**, Jenifer Dugan, Robert Miller, David Hubbard, Carter Ohlmann	Imported kelp subsidizes secondary production in seagrass meadows **Glenn Hyndes**, Audrey Cartraud, Caitlin Rae, Paul Lavery	Our Coastal Futures: A transdisciplinary approach to creating sustainable coasts **Rense Kelsey**, Valerie Cummins, Bruce Glavovic, Aaron Akers, Tu Chen, Donald Forbes, Chen Jing, Jongming Luo, Andrew Rose, Anja Scheffers, Robert Weiss, Li XiuZhen
10:15 AM	Shifts in estuarine wetland community structure and production with expansion of black mangroves (Avicennia germinans) **Whitney Scheffel**, Kenneth Heck	Hurricane Impacts on Indian River Lagoon water quality revealed through continuous, high-frequency, automated observations **M Dennis Hanisak**, Kristen Davis	Quantifying ecological responses to trophic connectivity between kelp forests and sandy beaches **Jenifer Dugan**, David Hubbard, Kyle Emery, Robert Miller, Carter Ohlmann, Jessica Madden	Evaluating how foundation species diversity affects the community composition of seagrass meadows **Stacy Trackenberg**, Christopher Baillie, Joel Fodrie, Rachel Gittman	A roadmap for solutions-based nutrient management research: Collaborating with stakeholders through design, implementation, and translation Julia Twichell, **Kate Mulvaney**, Timothy Gleason, Wayne Munns, Marnita Chintala, Ann Rea, Bryan Hubbell, Laura Erban, Zenas Crocker, Scott Horsley, Sofia Soto Reyes, Stacie Nicole Smith
10:30 AM	Estuarine nekton assemblages along a marsh-mangrove ecotone **Matthew Kimball**, Wendy Eash-Loucks	Impacts of Hurricanes Irma and Maria on mangrove and lagoon sediment contamination, U.S. Virgin Islands P. Owen Clower, **Kristin Wilson Grimes**, Ian Hartwell, Marilyn Brandt, Sydney Nick	Determining the role of Red Snapper (Lutjanus campechanus) in coastal Mississippi waters using SIA **Branden Kohler**, Jim Franks, Dyan Gibson, Laura Stewart, Kevin Dillon	Landscape-scale fragmentation impacts on faunal communities are not well explained by patch-scale edge effects **Amy Yarnall**, Joel Fodrie, Lauren Yeager, James Byers	Developing a decision-support tool for management alternatives to restore and conserve maritime live oak forests **Dessa Dunn**, Clinton Moore, Elizabeth King, Nathan Nibbelink, Hannah Morris
10:45 AM	Growth of penaeid shrimp in salt marsh and black mangrove habitats **Jennifer Doerr**, Jennifer Leo, James Nelson	Hurricanes fertilize coastal wetlands in the Gulf of Mexico: The case of Florida Everglades mangroves **Edward Castañeda-Moya**, Victor Rivera-Monroy, Randy Chambers, Xiaochen Zhao, Lukas Lamb-Wotton, Adrianna Gorsky, Evelyn Gaiser, Tiffany Troxler, John Kominoski, Matthew Hiatt	Restoring Virginia's oyster reefs: environmental controls on oyster recruitment, growth, and survival across spatial scales **Kinsey Tedford**, Max Castorani	Evaluating the ability of bivalve facilitation to enhance seagrass bed resilience to disturbance **Sarah Donaher**, Christopher Baillie, Rachel Gittman	Challenges and Opportunities for Sustaining Southeastern US Coastal Wetlands and Oyster Reefs **Christine Angelini**, Just Cebrian, Mark Clark, Nicole Dix, Kaitlyn Dietz, Rachel Gittman, Ray Grizzle, John Jaeger, Kara Radabaugh, Carter Smith, Eric Sparks, Benjamin Stone
11:00 AM	Using otolith microchemistry to trace survivorship of juvenile common snook: mangroves vs. salt marshes **Janet Ley**, Holly Rolls	Changes in recalcitrance and isomeric composition of dissolve organic matter from Texas rivers after hurricane **Kaijun Lu**, Zhanfei Liu	Gulf ribbed mussels increase saltmarsh cordgrass growth and primary production by increasing N availability **Ryann Rossi**, Caleb Bourgeois, Jordan Logarbo, Chalres Schutte, Brian Roberts	Fish functional groups vary in their nutrient provisioning in a tropical seagrass bed **William Wied**, Andrew Altieri, Justin Campbell, Olivia Rhoades	Bringing Wetlands to Market: Lessons learned from nine years of collaborative research in coastal wetlands **Meagan Gonneea**, Tonna-Marie Surgeon-Rogers, Kevin Kroeger, Jianwu Tang, Omar Abdul Aziz, Stefanie Simpson, Timothy Smith
11:15 AM	Assessing fish use of hardened, natural, and nature-based estuarine shorelines using acoustic imagery **Carter Smith**, Christopher Taylor, Avery Paxton, Sarah Donaher, Rebecca Van Hoeck, Charles Peterson	Hurricane Harvey and Nate impacts on coastal carbon and oxygen cycling **John Lehrter**, Wei-Jun Cai, Kanchan Maiti, Brian Roberts, Najid Hussain, Baoshan Chen, Li Qian, Mai Fung, Ariella Chelsky, Wokil Bam	Drought and turbidity influence trophic cascades through sensory driven mesopredator release **Joseph Reustle**, Delbert Smee	Deconstructing environmental drivers of seagrass community composition and fish abundances across the Gulf of Mexico **Benjamin Belgrad**, Delbert Smee, Kelly Correia, Kelly Darnell, M. Zachary Darnell, Christian Hayes, Margaret Hall, Bradley Furman, Charles Martin	The implementation of Aquifer Storage and Recovery in south Louisiana through public outreach and education **Meredith Guidry**, John Oliver, Olivia LaHaye
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	Identifying restoration priorities and evaluating socio-ecological benefits at multiple scales Lisa Chambers, Rachel Gittman, Ann Hijuelos, Katie Arkema, Bryan DeAngelis, Melinda Donnelly, Jonathan Grabowski, Kelly Kibler and Bethany Kraft	**Coastal sediment transport processes** Kehui Xu,Courtney Harris, Michael Miner, and Davin Wallace	**Gulf of Mexico oxygen deficiency: when, where, what to do?** Nancy Rabalais, Steve DiMarco, Stephan Howden and Porfirio Álvarez	**Ecosystem assessments for coastal wetlands** Michael Sievers, Viv Tulloch, Anusha Rajkaran and Rod Connolly	**Education partnerships in coastal and marine science** Mikell Smith and Richard Mclaughlin
10:00 AM	The role of oyster reef restoration in coastal sediment biogeochemical cycling **Lisa Chambers**, Nia Hurst, Bryan Locher	Impact of seasonal variations in flocculation on large-scale sediment transport patterns in a tide-dominated estuary **Dante Horemans**, Yoeri Dijkstra, Henk Schuttelaars, Patrick Meire, Tom Cox	Why there is no progress in abating Gulf hypoxia and scientists must effectively resolve controversies **Donald Boesch**	Meeting the challenges of Red List Ecosystem assessments of coastal environments **Michael Sievers**, Christopher Brown, Ryan Pearson, Viv Tulloch, Mischa Turschwell, Jodie Haig, Rod Connolly	National Water Center Internship Experience: Low flow reservoir release predictions for the National Water Model **Elizabeth Del Rosario**, Trey Flowers
10:15 AM	Everglades restoration reassessed: addressing coastal wetland vulnerabilities to sea-level rise **David Rudnick**, Jed Redwine, Leonard Pearlstine, Troy Hill, Tiffany Troxler, John Kominoski, Jennifer RIchards, Benjamin Wilson, Sean Charles, Fred Sklar, Carlos Coronado-Molina, Stephen Davis	Processes impacting floc size over a tidal cycle in an idealized estuary model **Danielle Tarpley**, Courtney Harris, Carl Friedrichs, Christopher Sherwood	Fusion-based hypoxia estimates: linking geostatistical and mechanistic models of dissolved oxygen variability **Venkata Rohith Reddy Matli**, Arnaud Laurent, Dongwha Sohn, Kevin Craig, Katja Fennel, Daniel Obenour	Assessing the ecosystem status of estuaries in a data poor environment **Lara Van Niekerk**, Janine Adams, Stephen Lamberth, Kerry Sink, Andrew Skowno	How NOAA Fellows Are Driving the Future of Coastal Management **Melissa Ladd**, Margaret Allen, Dwight Trueblood
10:30 AM	A Cumulative-effects Paradigm for Large-Scale Coastal Ecosystem Restoration **Heida Diefenderfer**, Kate Buenau, David Burdick, John Callaway, Neil Ganju, Matthew Harwell, Gary Johnson, Andrew LoSchiavo, Hilary Neckles, Gregory Steyer, Elene Trujillo	Sediment transport processes in Barataria Bay of Louisiana and its implication to sediment diversion **Guandong Li**, Kehui Xu, Samuel Bentley, Yanxia Ma, Z. George Xue, Robert Bales	Observations of seafloor hypoxia in the western Mississippi Bight **Stephan Howden**, Kjell Gundersen, Kevin Dillon	Assessment of Petenes resilience to sea level rise due to climate change in Mexico **Mariana Hernandez-Montilla**, Miguel Martinez, Gregorio Posadas, Bernardus de Jong	A Pathway and Partnership Program to Engage U.S. Virgin Islanders in the Marine Sciences **Kristin Wilson Grimes**, Marilyn Brandt, Monica Medina, Carrie Jo Bucklin, Nastassia Jones, Howard Forbes, Jr., Michele Guannel
10:45 AM	Quantifying habitat restoration in the coastal U.S. **Jonathan Grabowski**	Modeling marsh edge retreat accounting for waves, water level, salinity, and ponding **Kendall Valentine**, Giulio Mariotti	Meeting Goals and Tracking Quantified Progress: An Update from the Hypoxia Task Force **Katie Flahive**, Yishen Li, Megan Wiitala	Salt Marsh Integrity Assessments: Baseline Results from 15 Northeast National Wildlife Refuges **Susan Adamowicz**, Sarah Dodgin, Rachel Stearns	EnvironMentors: Fostering an interest in STEM through coastal and marine science education **Brian Matherne**, Linda Hooper-Bui, Christopher D'Elia
11:00 AM	Voluntary restoration: mitigation's partner in the quest to outpace coastal wetland loss in the USA **Rachel Gittman**	Effects of human alteration of sediment supply on tidal wetland vulnerability to sea level rise **Elena Solohin**, Christopher Craft	Modeling spatiotemporal patterns of organic carbon dynamics affecting hypoxia on the Louisiana Continental Shelf. **Brandon Jarvis**, John Lehrter, Lisa Lowe, James Hagy, Yongshan Wan, Dong Ko, Bradley Penta, Richard Gould	Development of a bioassessment protocol for tidal stream systems in the upper Texas coast **Abraham Margo**, Terry Palmer, Jennifer Beseres Pollack	Bridging Undergrad Research in Education to 7-12 Watershed Science: SMART Ala Wai **Sarah Hamid**, Brian Glazer, Cory Yap, Rosie Alegado, Pauline Chinn, Craig Nelson, Brianna Ornelas, Solomon Chen, Shaun Wriston, Justin Higa, Peyton Young, Yvonne Chan
11:15 AM	A New Approach to Habitat Master Planning **Doug Robison**, Jennifer Hecker, Edward Sherwood	Correlations between coastal dune elevations and wave runup in New England **Scott Hayward**, Nathan Dill	Karenia brevis bloom induced dead zone in the Southeast Gulf of Mexico. **Alfonse Martignette**, Mark Thompson, Eric Milbrandt, Richard Bartleson	Development of a physically based, geospatially complete wetland vulnerability index **Zafer Defne**, Alfredo Aretxabaleta, Neil Ganju, Tarandeep Kalra	Youth Ocean Explorers: A pathway to diversifying the field of marine science **Howard Forbes, Jr.**, Jarvon Stout, Kristin Wilson Grimes, Marilyn Brandt, Nastassia Jones, Carrie Jo Bucklin, Monica Medina
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	Marshes to Mangroves: the support of fisheries by estuarine wetlands Ronald Baker, Matthew Kimball, Jennifer Doerr and Philine zu Ermgassen	**Impacts of hurricanes on coastal physical, ecological, and biogeochemical processes** Ian Zink, John Lehrter, Amber Hardison, Anna Armitage, Joan Browder, Wei-Jun Cai, Kanchan Maiti, Brian Roberts, Zhanfei Liu and Christopher Patrick	**Population/community ecology** Sharon Herzka and Joel Fodrie	**Seagrasses: sentinel species in a changing world** Robert Orth and Kenneth Heck	**Solutions-based science to support coastal environmental management: approaches and challenges** Marnita Chintala, Beth Darrow, William Dennison, Dwight Trueblood and Timothy Gleason
1:00 PM	Stable isotopes suggest limited role of wetland production supporting aquatic food webs across mangrove-marsh ecotone **Ronald Baker**, Ilka Feller	Hurricane Impacts on Reef Restoration: The Good, the Bad, and the Ugly **Jane Carrick**, Caitlin Lustic, Diego Lirman, Stephanie Schopmeyer, Erich Bartels, Daniel Burdeno, Craig Dahlgren, Victor Galvan, David Gilliam, Elizabeth Goergen, Shannon Gore, Sean Griffin	Variability in environmental tolerances of Mercenaria mercenaria across the east coast of the United States **Anthony Himes**, Emily Rivest, Jan McDowell, Kimberly Reece, Richard Snyder	Scaling -up: predicting the impacts of climate change on seagrass ecosystems **Richard Zimmerman**	A systems analysis approach for managing the marine ecosystem: accommodating natural and human features **Michael Elliott**, Angel Borja, Roland Cormier
1:15 PM	Estimating fish production from seagrass, saltmarsh and oyster reef in the Gulf of Mexico **Philine zu Ermgassen**, Bryan DeAngelis, Jonathan Gair, Sophus zu Ermgassen, Ronald Baker, Andre Daniels, Megan La Peyre, Timothy MacDonald, Sean Powers, Lawrence Rozas, Jonathan Grabowski	Impacts and recovery on coral reefs following Hurricanes Irma and Maria in St. Thomas, USVI **Deborah Gochfeld**, Marilyn Brandt, Andia Chaves Fonnegra, Tyler Smith, Rosmin Ennis, Julie Olson	Environmental and biological factors impact cardiac activity of northern bay scallops across multiple temporal scales **Stephen Tomasetti**, Christopher Gobler, Stephen Tettelbach, Nils Volkenborn	Metabolomics reveal biochemical pathways responsible for eelgrass response to climate change **Carmen Zayas**, Richard Zimmerman, Albert Rivas-Ubach, Nicholas Ward, Li-Jung Kuo	Modeling tools for extreme events of climate change to provide resources for managers **Mikaela Freeman**, Andrea Copping, Zhaoqing Yang, Guillaume Mauger, Jude Apple, Ian Miller, Aimee Fullerton, Nathalie Voisin, Jonathan Whiting, Ning Sun
1:30 PM	Collective adjustments of shoaling nekton in intertidal salt marsh pools support their refuge function **Guillaume Rieucau**, Kevin Boswell, Dennis Allen, Matthew Kimball	Does plant diversity modulate the effect of hurricanes on seagrass meadow resilience via seedbank retention? **Jessie Jarvis**, W. Judson Kenworthy, Joel Fodrie, Lauren Yeager	Effects of freshwater inflow on blue crab Callinectes sapidus populations in Louisiana. **Caleb Taylor**, John Nyman, Megan La Peyre	From traits to plasticity: How will seagrass look in a changing world? **Agustín Moreira Saporiti**, E. Fay Belshe, Inés Gonzalez Viana, Mirta Teichberg	High stakes: Decision support for oyster mariculture within an estuarine reserve **Elizabeth Darrow**, Troy Alphin, Martin Posey, Susanne Brander, Brandon Puckett, Suzanne Bricker, João Ferreira, Jessica Kinsella, Madison Lytle, Kelsey Billet, Alhambra Cubillo
1:45 PM	How has the juvenile fish community in mangroves changed in a quarter of a century? Matt Kendall, **Bethany Williams**, Arliss Winship, Ashley Ruffo, Aaron Adams	Acute and persistent storm impacts influence post-hurricane recovery trajectories in a salt marsh-mangrove ecotone **Anna Armitage**, Carolyn Weaver, John Kominoski, Steven Pennings	Warming of the Northwest Atlantic as recorded by ocean quahogs and Atlantic surfclams **Eric Powell**, Roger Mann, Sara M. Pace	Seagrass OASiS: Ocean Acidification Sanctuaries and Subsidies **Bradley Peterson**, Alyson Lowell, Amber Stubler, Ryan Wallace, Michael Doall, Christopher Gobler	Using Sentinel Site Cooperatives to facilitate scientist-stakeholder engagement: Examples from the Chesapeake Bay **Taryn Sudol**
2:00 PM	Seasonal and interannual variability in flatfish assemblages in a southeastern USA estuary **Mary Curran**, Dara Wilber	Mangrove damage, mortality, and recovery following Hurricane Irma at two landfall sites in southwest Florida Kara Radabaugh, **Ryan Moyer**, Amanda Chappel, Emma Dontis, Christine Russo, Kristen Joyse, Melissa Bownik, Audrey Goeckner, Nicole Khan	First data-rich age-frequency distributions for the ocean quahog and optimized sample-size selection using age-frequency simulator **Kathleen Hemeon**, Eric Powell, Roger Mann, Theresa Redmond, Sara M. Pace	Investigation of structure and persistence of temperate and tropical seagrasses located at a transition zone **Amy Bartenfelder**, Jessie Jarvis, W. Judson Kenworthy, Brandon Puckett	Long-term and spatially-distributed water quality data drive environmental management actions in Buzzards Bay, Massachusetts **Christopher Neill**, Rachel Jakuba
2:15 PM	Understanding the potential for estuarine habitat types to predict juvenile Dungeness crab densities **Nathaniel Lewis**, Theodore DeWitt	Hurricane effects on mangroves: Destruction reproduction, recruitment, growth, and succession **C. Edward Proffitt**, Donna Devlin, Glenn Coldren, Carolyn Weaver, Kathryn Tiling, Ilka Feller, Steven Travis	Use of geochemical tagging to test Eastern oyster (Crassostrea virginica) population connectivity **Haley Gancel**, Ruth Carmichael	The tropicalization of Western Atlantic seagrass beds: Brief insights from a large-scale coordinated network **Justin Campbell**, Olivia Rhoades, Andrew Altieri, James Douglass, Valerie Paul, Kenneth Heck	Trapped in Plato's Cave: benthic indices and the illusion of objectivity **Samuel Sturdivant**, Joe Germano
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	Identifying restoration priorities and evaluating socio-ecological benefits at multiple scales Lisa Chambers, Rachel Gittman, Ann Hijuelos, Katie Arkema, Bryan DeAngelis, Melinda Donnelly, Jonathan Grabowski, Kelly Kibler and Bethany Kraft	**Coastal sediment transport processes** Kehui Xu,Courtney Harris, Michael Miner, and Davin Wallace	**New challenges in estuarine and coastal water quality monitoring** Jane Caffrey	**Using citizen science to address complex environmental problems** Suzanne Spitzer	**Coastal environments as geologic archives for assessing environmental change** Clark Alexander, John Jaeger and D. Reide Corbett
1:00 PM	Evaluating cumulative effects to effectively plan and assess regional restoration efforts in Louisiana, USA **Gregory Steyer**, Robert Twilley, Heida Diefenderfer	Suspended sediment transport by a tidal dipolar vortex **Matias Duran-Matute**, Samuel González-Vera, Elvira Koolen, GertJan van Heijst	Factors controlling water-quality in the Mississippi Sound, 2014-2017 **Scott Mize**, Christopher Swarzenski	Designing a citizen science program for monitoring Chesapeake Bay grasses **Suzanne Spitzer**, J. Brooke Landry, William Dennison, Katie May Laumann, Sky Swanson	Reconstructing environmental changes from the sedimentary records of tidal creeks and adjacent saltmarshes **Molly Bost**, Antonio Rodriguez, Joel Fodrie, Brent McKee, Charles Deaton
1:15 PM	Regional-scale management of Louisiana's barrier islands **Jonathan Bridgeman**, Justin Merrifield, Joseph LeBlanc, Syed Khalil	Using Coupled Modeling Suites to Understand Sediment Dynamics in the Land Ocean Interaction Zone **Z. George Xue**, Zhengchen Zang, Dongxiao Yin, Kehui Xu, Jim Chen, Samuel Bentley, David Gochis	Implementing Agency-Coordinated Water Quality Monitoring in Louisiana: Challenges and Lessons Learned **Angelina Freeman**, Richard Raynie, Elizabeth Robinson	How to work together: The Chesapeake Monitoring Cooperative's story **E. Caroline Donovan**, Alexandra Fries, Liz Chudoba, Peter Tango, Suzanne Spitzer	Late Pleistocene - Holocene evolution of coupled cape-barrier island sequence, Indian River Lagoon, Florida **John Jaeger**, Kevin Hartl
1:30 PM	Systematic landscape restoration: planning for more effective and efficient restoration **Ben Gilby**, Andrew Olds, Rod Connolly, Christopher Brown, Paul Maxwell, Christopher Henderson, Nicholas Ortodossi, Cassandra Duncan, Thomas Schlacher	Seasonal sediment transport in estuarine waters of Mississippi Sound and shelf waters of Mississippi Bight **Mustafa Cambazoglu**, Stephan O'Brien, Jerry Wiggert, Michael Dinniman, Travis Miles	Applying innovative techniques to monitor, analyze, and forecast water quality changes along Florida's Springs Coast **Chris Anastasiou**, Robin Speidel, Mike Wessel	Lessons learned in the development of a multi-organizational citizen's monitoring database **Dave Jasinski**, David Parrish, Liz Chudoba	Stirring things up: estuarine sediment dynamics during non-equilibrium conditions **Emily Elliott**, Antonio Rodriguez, Brent McKee
1:45 PM	Evaluating the social, economic, and ecological benefits of land conservation in the Gulf of Mexico Jennifer Roberts, Kristine Evans, **Anna Linhoss**, Jiangdong Liu, Sathishkumar Samiappan, Matthew Heinemann, Andrew Shamaskin, John Tirpak, Benjamin Wilson, Matthew Snider, Steve Ashby	Cyclone driven sediment flux within an urbanized estuary: impact of Hurricane Harvey on Galveston Bay **Timothy Dellapenna**, Victoria Bartlett, Mohammad Almukaimi	Trends in nutrients and geogenic solutes in a canal-dominated landscape **Troy Hill**, Joseph Park, Donatto Surratt	Citizen science "King tide" flood reporting in Miami **Matthew Goshgarian**, Tiffany Troxler, Susan Jacobson, Eric Bason	Coastal sedimentation across the Anthropocene: Feast or famine? **Antonio Rodriguez**, Brent McKee, Carson Miller, Molly Bost, Anna Atencio
2:00 PM	How much environmental benefit can $1 billion in new infrastructure deliver to the Everglades watershed? **Jed Redwine**, Agnes McLean, David Rudnick, Troy Hill	Estuaries as sedimentary archives of sea level and climate change: Weeks and Mobile bays, AL **Rebecca Minzoni**, Davin Wallace, Lauren Parker, Asmara Lehrmann, Emily Elliott	Seasonal and spatial variations in phytoplankton resource limitation have changed over time in Chesapeake Bay **Emily Trentacoste**, Qian Zhang, Claire Buchanan, Cuiyin Wu, Tom Fisher, Anne Gustafson	Integrating fishermen into science: maximizing data collection on red drum reproduction during a red tide **Sarah Walters Burnsed,** Susan Lowerre-Barbieri, Joel Bickford, Hayden Menendez	Historical human-driven changes in saltmarshes C sequestration and sediment accretion in an Atlantic estuary **Inés Mazarrasa**, Araceli Puente, María Recio, Cristina Galvan, Pere Masqué, Oscar Serrano Gras, Jose Juanes
2:15 PM	Limited diffusion of scientific advances may impede restoration of coastal habitats **Randall Hughes**, Peter Edwards, Jonathan Grabowski, Steven Scyphers, Susan Williams	Marsh-edge erosion and estuarine transport affect sediment availability in back-barrier marshes: Barnegat Bay, New Jersey **Julia Moriarty**, Neil Ganju, Tarandeep Kalra, Zafer Defne	Empirical models for estuarine phytoplankton-nutrient responses and community composition **James Pinckney**, Erik Smith, Krystyn Kibler	Community-Based Data Generation to Assess Shoreline Change and Background Oiling **Diane Maygarden**, Mark Kulp, Carrie Miller, Ed Owens	Can mangrove wetlands keep up with sea level rise? **Randy Chambers**, Adrianna Gorsky
2:23 PM					Using stratigraphic records from two coastal wetlands to underscore regional-scale coastal restoration initiatives. **Christopher Smith**, Christian Haller
	2:30 PM BREAK				

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ORAL SESSIONS Thursday 07 November | Afternoon 3:00PM – 4:30PM

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	201 C	201 D	204 A	204 B	203 A
	Impacts of hurricanes on coastal physical, ecological, and biogeochemical processes Ian Zink, John Lehrter, Amber Hardison, Anna Armitage, Joan Browder, Wei-Jun Cai, Kanchan Maiti, Brian Roberts, Zhanfei Liu and Christopher Patrick	**Population/community ecology** Sharon Herzka and Joel Fodrie	**Seagrasses: sentinel species in a changing world** Robert Orth and Kenneth Heck	**Solutions-based science to support coastal environmental management: approaches and challenges** Marnita Chintala, Beth Darrow, William Dennison, Dwight Trueblood and Timothy Gleason	**Identifying restoration priorities and evaluating socio-ecological benefits at multiple scales** Lisa Chambers, Rachel Gittman, Ann Hijuelos, Katie Arkema, Bryan DeAngelis, Melinda Donnelly, Jonathan Grabowski, Kelly Kibler and Bethany Kraft
3:00 PM	Historical marsh loss contribution to hurricane surge and wave hazards in Texas **Michelle Hummel**	Insect and spider diversity in restored and natural saltwater marshes **Linda Hooper-Bui**, Rachel Strecker, Catherine Smith, Hannah Gordon, Michael Polito, Charles Martin, Annette Engel, Erick Swenson, Paola Lopez-Duarte, Olaf Jensen, Nancy Rabalais, Brian Roberts	Seasonal response and recovery of eelgrass (Zostera marina) to short-term reductions in light availability **Melisa Wong**, Gwendolyn Griffiths, Benedikte Vercaemer	Interdisciplinary lessons from a decade of solutions-based science in the NERRS **Christine Feurt**	Strengthening seagrass research in Costa Rica, Central America **Jimena Samper-Villarreal**, Jorge Cortés
3:15 PM	Hurricanes interrupt human-driven trophic cascades and may facilitate oyster reef recovery **Delbert Smee**, Evan Pettis, Benjamin Belgrad, Joseph Reustle	Implications of land cover change due to sea level rise for native bee communities Jessie Thuma, T'ai Roulston, **Linda Blum**	Remote estimation of the seagrass light environment for improved coastal management **Ryan Pearson**, Christopher Brown, Catherine Collier, Michael Rasheed, Rod Connolly	Applying Living Shoreline Approaches to Increase Resilience and Reduce Risk in New England **Alison Bowden**, Tom Ballestero, Curtis Bohlen, David Burdick, Janet Freedman, Kirsten Howard, Julia Knisel, Jennifer Mattei, James O'Donnell, Eric Roberts, Pete Slovinsky	Global trends in mangrove loss **Mischa Turschwell**, Rod Connolly, Viv Tulloch, Dale Bryan-Brown, Sebastian Lopez-Marcano, Gabby Ahmadia, Dominic Andradi-Brown, Michael Sievers, Ryan Pearson, Christopher Brown
3:30 PM	Effects of a tropical cyclone on marsh insect communities and post-cyclone reassembly processes **Xuan Chen**, Benjamin Adams, William Platt, Linda Hooper-Bui	Altered Maturity Schedules of River Herring Returning to Chesapeake Bay River to Spawn **Cj Carroll Schlick**, Matthew Ogburn, Keira Heggie, Kim de Mutsert	Response of the seagrass Halodule wrightii to light limitation is genotype-specific **Kathryn Tiling**, C. Edward Proffitt	Identifying Areas to Address Multiple Chesapeake Restoration and Conservation Goals **Scott Phillips**, John Wolf, Renee Thompson, Kristin Saunders	A Planning Approach for Water Quality and Restoration Projects in Delaware's Inland Bays **Marianne Walch**
3:45 PM	Relevance of seagrass faunal community response to Hurricane Irma relative to Everglades restoration **Ian Zink**, Joan Browder, Chris Kelble, Erik Stabenau, Christopher Kavanagh, Zachary Fratto	The Marsh Periwinkle (Littoraria irrorata) as an Indicator of Deepwater Horizon Oil Spill Effects **Donald Deis**, Scott Zengel, John Fleeger, David Johnson, Irving Mendelssohn, Sean Graham, Qianxin Lin, Aixin Hou	A quantitative assessment reveals that diatoms dominate benthic primary production in a mixed seagrass bed **T. Erin Cox**, Just Cebrian, Marnie Tabor, Laura West, Jeffrey Krause	Preparing for and recovering from disaster, the Sea Grant way **Maddie Kennedy**, Christopher Winslow, Nancy Balcom, Stephen Sempier, David Hensen, Joshua Brown	Restoring natural values back to Great Barrier Reef seascape: converting cane land back to wetlands **Nathan Waltham**, Christina Buelow
4:00 PM	Response of a subtropical seagrass-associated nearshore epifauna community to disturbance **Joan Browder**, Ian Zink	Persistence and spatial ecology of Gopherus polyphemus throughout federally protected and unprotected lands in Alabama **Robin Lloyd**, Adam Chupp	Data synthesis for environmental management: A case study of Chesapeake Bay **J. Brooke Landry**, William Dennison, Robert Orth, David Wilcox, Jonathan Lefcheck, Cassie Gurbisz, Jennifer Keisman, Kenneth Moore, Rebecca Murphy, Christopher Patrick, Donald Weller, Jeremy Testa	Science co-production in the Gulf of Mexico: Funding a two-way network **Caitlin Young**, Becky Allee, Kathleen Ernst, Julien Lartigue, Frank Parker	The decline and potential for restoration of oysters in coastal Alabama **Sean Powers**
4:15 PM	Hurricanes Irma and Maria impact a mangrove fish nursery habitat in St. Croix, USVI. **Allie Durdall**, Sydney Nick, Caroline Pott, Richard Nemeth, Kristin Wilson Grimes		Evaluation of eelgrass (Zostera marina) restoration methods to improve recovery in Puget Sound, WA (USA) **Jeffrey Gaeckle**, Bart Christiaen, Lisa Ferrier, Pete Dowty, Helen Berry	Using satellites and supercomputers to assess wetland degradation and address coastal management needs **Matthew McCarthy**, Brita Jessen, Tylar Murray, Jill Schmid, Jessica McIntosh, Frank Muller-Karger	Modeling Oyster Restoration Suitability in Texas Estuaries: a Machine Learning and Big Data Approach **Anthony Reisinger**, Jennifer Beseres Pollack, James Gibeaut

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ORAL SESSIONS Thursday 07 November | Afternoon 3:00PM – 4:30PM

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	203 B	202 A	201 B
	Using citizen science to address complex environmental problems Suzanne Spitzer	**CMECS: A "Common Language" for coastal habitat mapping** Kate Rose, Mark Finkbeiner and Monique LaFrance Bartley	**Artistic pathways to scientific understanding** Ayesha Gray, Sarah Kolesar and Karen Haberman
3:00 PM	Online restoration project development toolkit. **Elsa Carlisle Schwartz**, Lori Clark, Dawn Spilsbury Pucci	Benthic video monitoring in Narragansett Bay: applying CMECS to evaluate site suitability for habitat restoration **Heather Kinney**, William Helt, Kevin Ruddock, Patrick Barrett, Eric Schneider	Booking it on the boardwalk: Custom storybook walks at Grand Bay National Estuarine Research Reserve **Sandra Huynh**
3:15 PM	Engaging citizen scientists to assess large-scale microplastic distributions **Amanda Sartain**, Caitlin Wessel, Eric Sparks	Video and still cameras for assessment of biological condition using CMECS **Giancarlo Cicchetti**, Eliza Moore	Art-sci collaboration: using shared observation and new perspectives to catalyze coastal change conversations **Cora Johnston**
3:30 PM	The power of citizen science: 20-years of horseshoe crab community research merging conservation with education. **Jennifer Mattei**, Jo-Marie Kasinak, Ismael Youssef, Samah Senbel	Connecting resources to needs: Introducing the Natural Infrastructure Opportunity Tool **Safra Altman**, Rose Dopsovic	See, know, do: art and environmental engagement for a new century **Julian Rankin**
3:45 PM	Lessons learned – Exploring the use of citizen science in the Chesapeake Bay Parasite Project **Alison Cawood**	Regional-scale benthic habitat mapping of coastal marine environments using CMECS **Monique LaFrance Bartley**, John King, Bryan Oakley, Mark Finkbeiner	Immersing the Arts: Marine-themed Art Makes Waves **Syma Ebbin**, Kristian Brevik
4:00 PM	**Panel Discussion**	Updating CMECS: The Dynamic Standard Process **Kate Rose**	Using Art to Grab Attention, Evoke Emotion and Inspire Action **Nancy Pau**
4:15 PM		**Panel Discussion**	Who's coming home? The story of juvenile Chinook salmon migratory phenotypes in California's Central Valley **Ayesha Gray**

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ORAL SESSIONS Thursday 07 November | Afternoon 3:00PM – 4:30PM

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	201 A	202 B
	Getting science "In the Room" to impact environmental decision-making Jacques Oliver and James Hagy	**Coastal sediment transport processes** Kehui Xu,Courtney Harris, Michael Miner, and Davin Wallace
3:00 PM	Coastal and Estuarine-related Legislation in the First Session of the 116th Congress: Year in Review **Eva Lipiec**	Impacts of dam removals on sediment supply, transport, and deposition in the Hudson River estuary **David Ralston**, Brian Yellen, Jonathan Woodruff
3:08 PM	Role of science in nonregulatory Estuary Program development and implementation **Matthew Deitch**, Savannah Cain	
3:15 PM	The US coastal research program: addressing research challenges through federal, stakeholder, and academic partnerships. **Derek Brockbank**, Nicole Elko, Julie Rosati, Hilary Stockdon, Bret Webb	An examination of vessel wake and ship usage in Charleston Harbor, South Carolina **Richard Styles**, Michael Hartman, Brandan Scully, Jarrell Smith
3:23 PM	Texas coast report card: an integrative interdisciplinary approach to assessing and communicating coastal ecosystem health James Currie, **Rense Kelsey**	
3:30 PM	Effectively communicating science to environmental managers **Scott Martindale**	Morphology And Mineralization Potential of Sediment Organic Nitrogen in Daya Bay, South China Sea **Yunchao Wu**, Maolin Gan, Zhijian Jiang, Songlin Liu, Xiaoping Huang
3:38 PM	Effect of pH on School Prawn (Metapenaeus macleayi) and implications of catchment-derived stressors for fisheries Matthew Taylor, **Catherine McLuckie**, Natalie Moltschaniwskyj, Troy Gaston, Hugh Dunstan, Marcus Cromption	
3:45 PM	Mississippi River diversions: engine of land gain or land loss accelerant? **R Eugene Turner**, Giovanna McClenachan, Michael Layne, Yu Mo, Erick Swenson	Effect of tidal resuspension with oyster biodeposits on the nutrient and oxygen dynamics **Elka Porter**, Sara Blickenstaff, Jeffrey Cornwell, Melanie Jackson
3:53 PM		A Review of Sediment Diversion in the Mississippi River Deltaic Plain **Kehui Xu**, Samuel Bentley, John Day, Angelina Freeman
4:00 PM	Integration of multiple indicators to establish minimum freshwater inflow rates to a managed sub-tropical estuary **Christopher Buzzelli**, Peter Doering	Evaluating wave thrust on salt marshes along US east coast estuaries **Alfredo Aretxabaleta**, Brian Blanton, Neil Ganju, Tarandeep Kalra, Julia Moriarty, Zafer Defne
4:08 PM		How does sediment trapping by invasive submerged aquatic plants vary with hydrodynamic conditions? **Jessica Lacy**, Judith Drexler, Rachel Allen, Madeline Foster-Martinez, Shruti Khanna, Maureen Downing-Kunz, Paul Work
4:15 PM	Lessons we've learned since Amelia Island: Working together to make science-based policy **James Hagy**, Jacques Oliver	Lateral marsh shoreline erosion and sediment deposition: A sediment budget approach **Kathryn Smith**, Joseph Terrano
4:23 PM		Bed erodibility variation in sediment transport modeling of estuarine shallows **Rachel Allen**, Jessica Lacy, Andrew Stevens, Rusty Holleman, David Senn, Mark Stacey

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MONDAY POSTER SESSIONS 4:30 PM–7:00 PM

SEARCHING FOR SOLUTIONS: THE FUTURE OF DELTAS AND ESTUARIES WORLDWIDE

John Day

Global estuarine morphological evolution in response to human activities
Chunpeng Chen, Bo Tian, Yunxuan Zhou, Xinyi Zhao, Wenting Wu, Ying Niu, Ya Peng [A1]

Sea-level rise thresholds for stability of saltmarshes in a riverine versus a marine dominated estuary
Wei Wu, Patrick Biber, Deepak Mishra, Shuvankar Ghosh [A2]

Automated analysis of geomorphological changes in South Korea's estuaries using remotely sensed surface water data
Nicholas Wellbrock, Timothy Dellapenna, David Retchless [A3]

NEW INSIGHTS IN THE GULF OF MEXICO NINE YEARS AFTER THE DEEPWATER HORIZON OIL SPILL

Kelly Darnell, Emily Maung-Douglass, Elizabeth Fetherston-Resch, Melissa Baustian, Katya Wowk

Visual quantification of oil and gas bubbles from MC20
Carrie O'Reilly, Camilo Roa, Ian MacDonald [A10]

Assessing chronic oil discharge: revising the risk profile for offshore oil production
Ian MacDonald, Carrie O'Reilly, Mauricio Silva, Camilo Roa [A11]

North Breton Island: A Deepwater Horizon NRD Early Restoration
Lawrence Malizzi [A12]

SOCIAL AND NATURAL SCIENCES: WHEN THE STARS ALIGN…OR DON'T

David Yoskowitz, Lauren Hutchison, Paul Hindsley, and Rex Caffey

Sense of place and water quality in coastal recreation areas
Kate Mulvaney, Nathaniel Merrill, Julia Twichell, Marisa Mazzotta [A4]

Community knowledge and perceptions of the presence of Vibrio vulfinicus in a subtropical coastal estuary
Niyiah Roney, Jani Ngalame, Lisa Waidner, Kwame Owusu-Daaku [A5]

How'd you get that number? Practical program tools to characterize economic benefits and impacts
Alison Krepp, Susan Holmes, **Kelly Samek** [A6]

SETTING ECOLOGICALLY RELEVANT TARGETS FOR MANAGEMENT OF MARINE PLANT HABITATS

Rob Coles, Michael Rasheed and Catherine Collier

Calibrating a bio-optical model for submerged aquatic vegetation habitat suitability in coastal Alabama
Dorothy Byron, Kenneth Heck [A9]

INNOVATIVE APPROACHES FOR ESTUARINE/WATERSHED DATA ANALYSIS, MINING, AND VISUALIZATION

Qian Zhang, Rebecca Murphy, Marcus Beck and Jeni Keisman

Analysis of Maurepas Swamp Hydrology Data to Inform Management of a Mississippi River Reintroduction
James Pahl, Honora Buras, Brad Miller, A. Parsons Richards, Danielle Richardi, William Wood [A7]

The Battle against Biofouling
Curtis Butler [A8]

Building an Integrated Dataset of Zooplankton Monitoring in the San Francisco Estuary
Karen Kayfetz, Dylan Chapple, **Madison Thomas**, Rosemary Hartman, April Hennessy, Christina Burdi, Nick Rasmussen, Larry Brown, Louise Conrad [B1]

Monitoring inventory and needs assessment for the Delaware Estuary
Emily Baumbach, Angela Padeletti, Danielle Kreeger, Sari Rothrock, James Eisenhardt, Robb Wright, Simeon Hahn [B2]

Integrating monitoring and modeling data to better inform management decisions
Cuiyin Wu, Breck Sullivan, Emily Trentacoste [B3]

Quantifying Recreational Uses and Users of Estuarine Habitats in Tampa Bay and Tillamook Bay
Matthew Harwell, Chanda Littles, Nathaniel Lewis, **Theodore DeWitt** [B4]

Continuous monitoring time series data indicate changes in estuarine ecosystem trophic status and nutrient flows
Cassie Gurbisz, Jeremy Testa, Lora Harris [B5]

SHALLOW WATER MAPPING IN COASTAL ENVIRONMENTS: RESEARCH, METHODS AND MANAGEMENT

Mark Borrelli and Monique LaFrance Bartley

Estuarine mapping projects in coastal Georgia
Michael Robinson, Clark Alexander, Claudia Venherm, Chester Jackson, Colby Peffer [B11]

Comprehensive eelgrass map for Massachusetts
Kathryn Ford, Jillian Carr, **Steven Voss** [B12}

Using passive and active acoustics to assess oyster reef restoration success
Olivia Caretti, David Eggleston, DelWayne Bohnenstiehl [B6]

MICROBES TO MAPS: DATA-MODEL INTEGRATION FOR COASTAL WETLAND BLUE CARBON

James Holmquist, Camille Stagg, Brandon Boyd, Melissa Baustian, Tiong Aw, Courtney Creamer, James Morris, and Amanda Spivak

Assessment of salt marsh biophysical properties using high resolution hyperspectral imaging
Christy Tyler, Sarah Goldsmith, Rehman Eon, Ryan Brett, Charles Bachmann, David Osgood [B10]

Promoting coastal carbon data archival and sharing through an accessible interface, the Coastal Carbon Atlas
Michael Lonneman, James Holmquist, David Klinges, Patrick Megonigal [B7]

Marsh restoration enhances carbon sequestration and resilience to sea-level rise in the Stillaguamish estuary, Washington
Katrina Poppe, John Rybczyk [B8]

Comparison of Gulf of Mexico with Southeast Asian Blue carbon stock: mangroves and seagrasses
Anitra Thorhaug, John Gallagher, Wawan Kiswara, Anchana

MONDAY POSTER SESSIONS 4:30 PM–7:00 PM

Prathep, Xiaoping Huang, Tzuen-Kiat Yap, Jorge Lopez-Portillo, Jennifer Verduin, Jordan Barr, Helen Poulos, Tim Ku, Graeme Berlyn [B9]

SHORT-TERM AND LONG-TERM VARIABILITY IN COASTAL AND ESTUARINE MICROBIAL COMMUNITIES

Byron Crump, Jennifer Bowen and Pia Moisander

Redefining karst windows through the microbial ecology of three coastal sinkholes
Madison Davis, James Garey [C1]

Predicting Microbial Community Structures from the Nutrient Profiles of Three Blue Holes
Josie Knieriemen, **Meghan Gordon**, Robert Scharping, Madison Davis, Chelsea Dinon, James Garey [C2]

The Regulation of Bacterial Activity and Abundance by Environmental Parameters within a Subtropical Coastal Estuary
Mark Prousalis, Matthew Schwartz, Arianna Simmering, Erika Neat-Headrick, Kelsey Hope, Leila Harris, Beija Gore, Barbara Albrecht, Jane Caffrey, Wade Jeffrey, Lisa Waidner [C3]

MUD, MACROFAUNA AND MICROBES: AN ODE TO BENTHOS III

Leila Hamdan, Janet Nestlerode, Kelly Dorgan and Elizabeth Hinchey

Abundance of Littorina irrorata and Tritia obsoleta at a "Gray" and "Green" Living Shoreline
Kelsey Beachman, Devon Eulie, Mariko Polk [C10]

Predation Effects on Mid-marsh Ribbed Mussel Mortality, Cluster Size, and Facilitation of Sporobolus Growth
Colten Winter, Keith Walters [C11]

Effects of longline oyster aquaculture on benthic invertebrate communities in Humboldt Bay, CA
Hannah Coe, Mark Henderson [C12]

The influence of deep-sea shipwreck proximity on microbiome composition and species richness
Rachel Moseley, Rachel Mugge, Anirban Ray, Melanie Damour, Leila Hamdan [C4]

Clear as mud: Evaluating soft-bottom habitats in the Great LakesUsing sediment profile imaging (SPI)
Janet Nestlerode, Elizabeth Hinchey [C5]

Benthic emergence contributions to the ocean's biological carbon pump
Keith Walters [C6]

Is N-fixation in anoxic sediments tied to respiratory metabolism rather than need for fixed N?
Robert Warren Howarth [C7]

What factors affect the distribution of ribbed mussels (Geukensia demissa) in the Georgia Salt Marshes?
William Annis, John Carroll [C8]

Meiofaunal behavioral observations and a new approach to their study
Will Ballentine, Kelly Dorgan [C9]

Recovery of benthic macroinvertebrates after the Deepwater Horizon oil spill
Manisha Pant, David Johnson [D1]

BIOGEOCHEMICAL CYCLING AND TRANSPORT ACROSS THE LAND–OCEAN AQUATIC CONTINUUM

Raymond Najjar, Marjorie Friedrichs, Pierre St. Laurent, Susan Pan

Sediment organic matter lability along an estuarine habitat gradient from coastal marsh to subtidal bay
Mai Fung, W. Cyrus Clemo, John Lehrter, Behzad Mortazavi [D10]

Physical properties and phosphorus cycling in wetland soil and estuarine sediments: implications for coastal restoration
Peter Mates, John White, Sibel Bargu [D11]

Evaluating the Long-term Effect of Small Dams on Regional Hydrological Response to Climate Change
Yuanzhi Yao, Hanqin Tian, Susan Pan, Rongting Xu, Zihao Bian [D12]

Effects of shoreline erosion on Chesapeake Bay water clarity
Carl Friedrichs, Jessica Turner, Pierre St. Laurent, Marjorie Friedrichs [D2]

Labile and recalcitrant sediment organic carbon pools in the Pearl River Estuary, southern China
Zhonglian Lian, **Zhijian Jiang**, Xiaoping Huang, Songlin Liu, Jingping Zhang, Yunchao Wu [D3]

Using high-frequency sensor networks to quantify terrestrial nitrogen sources to a coastal estuary
Erin Seybold, Anna Braswell, Andria Greene, Emilio Grande, Margaret Zimmer [D4]

Response of Microbial Processes Following Deployment of Artificial Reefs in the Northeast Gulf of Mexico
Katherina Smyth, Juliana Giraldo, Beija Gore, Florian Cesbron, Wade Jeffrey, Melissa Ederington-Hagy, William Patterson, Lisa Waidner, Jane Caffrey [D5]

Nitrogen loading to the Gulf of Mexico from Mississippi/Atchafalaya River Basin: A process-based modeling assessment
Rongting Xu, Hanqin Tian, Susan Pan, Yuanzhi Yao, Wei-Jun Cai, Charles Hopkinson, Dubravko Justic, Steven Lohrenz, Chaoqun Lu, Wei Ren, Jia Yang [D6]

Coastal eutrophication wetlands nitrogen purification potential limited by nitrite reduction processes
Xiaoping Huang, Chunyu Zhao, Songlin Liu, Zhijian Jiang, Yunchao Wu [D7]

Carbon fluxes across terrestrial and aquatic systems: A process-based modeling study in Mobile River Basin
Zihao Bian, Susan Pan, Yuanzhi Yao, Hanqin Tian [D8]

Spatio-temporal changes in dissolved organic matter composition and biodegradation throughout the GCE-LTER domain
Maria Letourneau, Sylvia Schaefer, Patricia Medeiros [D9]

Regional variation of Net Anthropogenic Nutrient Inputs in relation to nutrient loading
Dennis Swaney, Robert Howarth [E1]

Temporal observation of land-ocean coupling using multi-platform data
Suhyun Kim, SoonMo An [E10]

MONDAY POSTER SESSIONS 4:30 PM–7:00 PM

Seasonal Variability of the CO_2 System Throughout the Chesapeake Bay Mainstem
Jaclyn Friedman, Elizabeth Shadwick, Marjorie Friedrichs, Raymond Najjar, Olivia De Meo, Fei Da, Juliette Smith [E11]

The Ocean's Alkalinity: Connecting geological and metabolic processes
Bryce Van Dam, Helmuth Thomas [E12]

Linkages between biogeochemical processes, external inputs, nutrient limitation, and eutrophication in a shallow coastal lagoon
Roxanne Marino, Melanie Hayn, Robert Howarth [E2]

Identifying the complex pathways of nitrate transport and removal in an agriculturally dominated estuary
Andria Greene, Margaret Zimmer, Anna Braswell, Erin Seybold [E3]

Carbon quality: effects on nitrogen removal and fungal succession in a constructed salt marsh
Sommer Starr, Erin Smyth, Abigail Griffin Wood, Corianne Tatariw, Julia Cherry, Behzad Mortazavi, Taylor Ledford, Lorae Simpson [E4]

Evaluating Dissimilatory Nitrate Reduction to Ammonia in Emerging and Eroding Wetlands of Louisiana Delta Plain
Kiran Upreti, Kanchan Maiti, Victor Rivera-Monroy, Anne Giblin, Edward Castañeda-Moya [E5]

Global-scale increasing trends in coastal eutrophication and primary productivity driven by anthroprogenic river nitrogen inputs
Xiao Liu, Charles Stock, John Dunne, Minjin Lee, Elena Shevliakova, Sergey Malyshev [E6]

CARBON FLUXES IN COASTAL SYSTEMS

Robert Chen, Iris Anderson, Damien Maher, David Ho and Ken Krauss

Impacts of extreme freshwater discharge on net ecosystem metabolism in the York River Estuary, VA
Michelle Woods, Iris Anderson, Mark Brush [E7]

CO_2 flux kinetics in a shallow, windy, subtropical estuary
Corrie Clark, Wade McGillis, **Xinping Hu** [E8]

Carbonate system dynamics in Galveston Bay
Larissa Dias, Xinping Hu, Hui Liu [E9]

Low carbon storage efficiency in coastal wetlands driven by hydrologic export
Lisamarie Windham-Myers, Matthew Bogard, Brian Bergamaschi, Sara Knox, David Butman [F1]

Spatial and Tidal Variability Influence on the Ecosystem-Scale Methane Fluxes in a Tidal Salt Marsh
Alma Vázquez-Lule, Margaret Capooci, Jocelyn Wardrup, Rodrigo Vargas [F2]

Effects of increased nutrient deposition on a temperate ombrotrophic peat bog
Sydni Law, Enrique Reyes [F3]

Carbon sequestration by mangrove systems in the urban San Juan Bay Estuary, Puerto Rico
Cathleen Wigand, Rose Martin, Meagan Gonneea, Autumn Oczkowski, Alana Hanson, Stephen Balogh, Benjamin Branoff, Emily Santos, Evelyn Huertas [F4]

Evaluating soil and ecosystem respiration in a salt marsh in South Carolina
Michelle Furbeck, Thomas O'Halloran, Erik Smith [F5]

Can you dig it? Increased carbon stocks in eelgrass beds associated with sea otter presence
Maggie Shields, Tiffany Stephens, Wendel Raymond, Lia Domke, Melanie Borup, Ginny Eckert [F6]

Quantifying cross-shelf transport of carbon across the Louisiana shelf using radium isotopes.
Michelle Anderson, Kanchan Maiti, Z. George Xue [F7]

Carbon and nutrient concentrations spatiotemporal assessment in prograding and degraded deltas in coastal Louisiana
Ivan Vargas-Lopez, Victor Rivera-Monroy, Kanchan Maiti, Z. George Xue, Eurico D'Sa, Christopher Madden [F8]

FISH AND FISHERIES: LINKING SCIENCE, MANAGEMENT, AND SOCIETY

Pedro Morais and Ester Dias

Association behavior between round scad and sand tiger sharks on SharkCam may be mutually beneficial
Nicholas Coleman, Erin Burge [G12]

Does landscape-scale restoration of hundredfold, 0.5-m^3 oyster patch reefs enhance estuarine fish communities
Owen Mulvey-McFerron, Jonathan Lucas, Pat Donovan-Brandenburg, Joel Fodrie [G2]

Environmental Drivers of Southern Flounder Juvenile Recruitment in Alabama Coastal Waters
Meghan Angelina, Matthew Catalano, Troy Farmer [G3]

Habitat-specific recruitment of southern flounder to Alabama's fisheries
Jared Chrisp, Matthew Catalano, Troy Farmer [G4]

Fish assemblage and abundance differences between the St. Catherines Island and Satilla River estuaries
Abigail Bickle, Kathleen Coleman, Dharma Thiruvaiyaru, Sankar Sethuraman, Jessica Reichmuth, Bruce Saul [G5]

Patterns of habitat use by Florida Largemouth Bass in upper Shark River, Everglades National Park
Natasha Viadero, Rolando Santos, Jennifer Rehage [G6]

Evaluating spatial-temporal trends of Indian River Lagoon essential fish habitat, forage fish and their predators
Michelle Shaffer, Kristy Lewis, Timothy MacDonald, Kevin Thompson [G1]

NON-INDIGENOUS AND INVASIVE SPECIES IN ESTUARIES AND COASTS

Pedro Morais

Blue invaders: evidence for a northern range expansion of Callinectes sapidus
Blair Morrison, Jason Goldstein [G10]

Energy Density and Foraging Values of Invasive Lionfish in a Coupled Foraging-Bioenergetic Model
Hanna Bauer, Cassandra Glaspie [G11]

MONDAY POSTER SESSIONS 4:30 PM–7:00 PM

Simple biochemistry can inform us about ecological interactions: thermal advantage of an invasive plant species
Molly Miller, James Mahan, Timothy Sherman [G7]

Clinging Jellyfish: An Emerging Threat to Human Health in New England Estuaries
Kristin Kelly, Reuben Macfarlan [G8]

The Asian shore crab, Hemigrapsus sanguineus, invasion may be facilitated by high pesticide tolerance
Aaren Freeman, Himlir Louima, Alexandra Henaghan, Vanesa Martinez, Erin Taub, ReginaLena McManus [G9]

Tracking mosquito ditching restoration success in Mosquito Lagoon using GIS
Jessica Phagan [H4]

Deer browsing, native vegetation, and camphor tree invasion on a Georgia barrier island
Dessa Dunn, **Elizabeth King** [H5]

FOUNDATION SPECIES CONSERVATION: BRIDGING THE BASIC AND APPLIED RESEARCH DIVIDE

Rachel Smith, R. Daniel Harris

Dendrochronology of Rhizophora mangle from a subtropical estuary
William Ellis, Christopher Miller [I1]

Importance of genetic variation within a foundation plant, Spartina alterniflora, for salt marsh resiliency
Robyn Zerebecki, Randall Hughes [I2]

X Marks the spot: Suspected broadhead arrow injuries in bottlenose dolphins (Tursiops truncatus) in Alabama
Merri Collins, Alissa Deming, David Rotstein, Jason Byrd, Ruth Carmichael [I3]

Investigation of potential etiological agents and biological controls of a coral disease outbreak in Florida
Valerie Paul, Greta Aeby, Blake Ushijima, Julie Meyer, Sharon Thompson, Lawrence Houk, Jennifer Sneed, M Jones, Claudia Häse [I4]

Early recruitment of the eastern oyster (Crassostrea virginica) in Mississippi Sound.
Chet Rakocinski, Leah Morgan [I5]

Smithsonian's MarineGEO: A global network documenting change in coastal marine ecosystems
Maria Murray, **Jonathan Lefcheck**, Jacob Metzger, J. Emmett Duffy [I6]

ADVANCES IN COASTAL HARMFUL ALGAL BLOOM SCIENCE

Michael Wetz

Effects of brown tide on recruitment and adult survival of the eastern oyster: field results
Linda Walters, Edward Phlips, Susan Badylak, Giovanna McClenachan, Paul Sacks, Melinda Donnelly [H1]

Can bivalves aid in Pyrodinium bahamense bloom mitigation?
Sara Garcia, Cary Lopez, Sugandha Shankar, Kevin Vasquez-Cruz, Stephen Geiger, Katherine Hubbard, Leanne Flewelling [H2]

Impact of Harmful Algal Blooms on Dissolved Organic Carbon in the Lower York River Estuary
Joshua Sacks, Mark Brush, Iris Anderson [H3]

ADVANCED REMOTE-SENSING METHODS FOR WATER QUALITY MONITORING AND FORECASTING

Aimee Neeley and Guangming Zheng

Monitoring cyanobacterial blooms using high-spatial resolution satellite imagery
Megan Coffer, Blake Schaeffer, Wilson Salls, Richard Zimmerman, Victoria Hill [H10]

Gulf of Maine ecosystem change from satellite-derived biogeographic regions
Luke Frankel, Collin Roesler [H11]

Spectral analysis through LANDSAT images for monitoring the chlorophyll-a in a Andean lake in Chile
Lien Rodriguez, Iongel Duran, Rodrigo Abarca, Rolando Cardenas, Oscar Parra, Lisdelys Gonzalez, Rebeca Martinez, Roberto Urrutia [H12]

Integrating acoustic and optical remote sensing allows for SAV mapping in a turbid estuary
Johannes Krause, Alejandro Hinojosa Corona, Elizabeth Watson [H7]

Linkages between phytoplankton and oxygen in the Chesapeake Bay: Implications for mapping bottom oxygen demand
Paul DiGiacomo, **Guangming Zheng** [H8]

Effects of coastal acidification on the largest oyster reef in the western Mississippi Sound
Ankita Katkar, Padmanava Dash, M. S. Sankar, Andrew Mercer, Robert Moorhead [H9]

ECOLOGICAL PROCESSES, STRUCTURES AND FUNCTIONS IN TIDAL URBAN ECOSYSTEMS

Ryan Woodland, Lora Harris and Eric Schott

Wetland restoration management actions: Effects on sediment and mercury flux in an estuarine tidal slough
Maureen Downing-Kunz, Mark Marvin-DiPasquale [I10]

Determining coastal urbanization impacts on tidal creeks and salt marshes along the Gulf of Mexico
Samuel Bickley [I11]

Automated detection of human footprints in coastal zone using Sentinel-1 and Sentinel-2 images
Ya Peng, Bo Tian, Chunpeng Chen, Xinyi Zhao, Ying Niu [I11]

Controls on nitrous oxide distribution and air-water flux in estuarine waters
Edward Hobbs, Jeremy Testa, Laura Lapham, Lora Harris [I7]

Differences in carbon storage between a constructed and natural brackish marsh
Erin Smyth, Julia Cherry, Abigail Griffin Wood, Taylor Ledford, Behzad Mortazavi, Lorae Simpson, Corianne Tatariw, Sommer Starr [I8]

The Effect of Human Alteration and Restoration in Tidal Systems
Courtney Hammond, Christina Bradley [I9]

MONDAY POSTER SESSIONS 4:30 PM–7:00 PM

ADVANCES IN UNDERSTANDING SEA LEVEL RISE AND COASTAL LANDSCAPE CHANGE

Keryn Gedan and Matthew Kirwan

Tidal Marsh Production under Shaded Conditions: Does Forest Canopy Closure Mediate Rates of Transgression?
Irina Beal, LeeAnn Haaf [J10]

Recovery of a tidal freshwater marsh after four years of continuous seawater additions, Georgia, USA.
Courtney Mobilian, Dontrece Smith, Sarah Widney, Evan Monnett, Joseph Shubauer-Berigan, Christopher Craft [J11]

Tidal elevations of UK saltmarshes: implications for the impacts of rising sea level
Gallab Alotaibi, Alastair Grant [J12]

Assessment of marsh vulnerability to sea level change within the Chesapeake Bay Sentinel Site Cooperative
Erin Reilly, William Reay, Scott Lerberg [J9]

IMPACTS OF COASTAL HYPOXIA ON FISHES, FOOD WEBS AND ECOSYSTEMS

Kim de Mutsert and Stephen Brandt

The independent and interactive effects of TBT and hypoxia on the oyster Crassostrea virginica
Ann Barnett, James Gledhill, Deborah Gochfeld, Robert Griffitt, Kristine Willett, Jarett Bell, Greg Easson, Stephanie Showalter-Otts, Marc Slattery [J1]

Gene expression analysis in the Eastern oyster (Crassostrea virginica) exposed to hypoxic conditions
Ann Barnett, **James Gledhill**, Deborah Gochfeld, Kristine Willett, Marc Slattery, Greg Easson, Jarett Bell, Stephanie Showalter-Otts [J2]

Fine-scale distribution of gelatinous zooplankton in stratified waters of the northern Gulf of Mexico shelf
Luciano Chiaverano, Adam Greer, Valerie Cruz, Christian Briseño-Avena, Frank Hernandez, Robert Cowen, William "Monty" Graham [J3]

Seasonal dynamic of microbial communities responding to hypoxia events in Jinhae Bay, South Korea
Eunhye Jo, Yunjung Park, **Bongkeun Song**, SoonMo An, Jaeho Cha [J4]

Blending indigenous knowledge with emerging sensor technologies to alleviate hypoxia in traditional coastal Hawaiian fishponds
Kirstin Thompson, Brian Glazer, Stanley Lio, Keli'i Kotubetey [J5]

IMPACTS OF MULTIPLE DISTURBANCES ON COASTAL ECOSYSTEM STRUCTURE AND FUNCTION

Corianne Tatariw and Anna Braswell

Asymmetric Root Distributions in Coastal Forests Retreating With Sea Level Rise
Tyler Messerschmidt, Matthew Kirwan [J6]

Ship wakes in Tampa Bay estimated from AIS ship tracking data
Steven Meyers, **Mark Luther**, Gary Raulerson, Katie Conrad, Gianfranco Basili [J7]

Ship Wakes in Tampa Bay: A Potential Public-Private Partnership to Address Shoreline Erosion
Katie Conrad, Mark Luther, Steven Meyers, Gary Raulerson, Gianfranco Basili [J8]

EXPLORING INTERDISCIPLINARY AND COLLABORATIVE SEA-LEVEL RISE RESEARCH FOR COASTAL ADAPTATION

David Kidwell, Renee Collini and Matthew Bilskie

Impacts of Submerging and Emerging Shorelines on Various Biota and Indigenous Alaskan Harvesting Patterns
Adelaide Johnson, James Noel, David Gregovich, Linda Kruger [K1]

Carbon and nitrogen content of soils and plants in agricultural fields and mallow-planted buffers.
E. Victoria Long, Linda Blum [K2]

Determining Suitability of Sediments for Rebuilding Drowned Coastal Wetlands
Kirk Raper, Brittany Wilburn, Camila Ibarra, Andrew Gray, Kenneth Raposa, Elizabeth Watson [K3]

Assessing beneficial use of dredge material to protect historic sites in coastal Georgia.
Claudia Venherm, Colby Peffer, Clark Alexander [K4]

Assessing the state of climate adaptation in the marine and coastal United States
Rachel Gregg, **Kathryn Braddock** [K5]

Understanding the increased cost of storm surge flooding under sea level rise
Diana Del Angel, David Yoskowitz, Matthew Bilskie, Scott Hagen, Katya Wowk [K6]

IMPACT OF WEATHER AND EXTREME EVENTS: OBSERVATIONS, ANALYSIS, AND MODELING

Chunyan Li, Arnoldo Valle-Levinson, Ming Li

High salinity events in a riverine estuary: when and why do they happen?
Joan Sheldon, Merryl Alber [K10]

Mapping the migration pattern of the Hurricane Harvey Flood Deposit on the Brazos Subaqueous Delta
Christena Hoelscher, Timothy Dellapenna, James Churchill, Zhaohui Aleck Wang, Eyal Wurgaft [K11]

Ground-truthing coastal dune features automatically delineated from airborne lidar
Eve Eisemann, Bill Funderburk, Lauren Dunkin, Michael Hartman, Jennifer Wozencraft, Davin Wallace [K12]

Rising water temperatures in Florida Keys National Marine Sanctuary threaten coral reefs
Sara Wilson, James Fourqurean [K7]

Trends and extremes in summer water temperature in Virginia's coastal bays
Patricia Wiberg [K8]

The effects of weather events on coastal aquifer recharge and submarine groundwater discharge
Mary Brandon Scott, D. Alex Beebe, Bret Webb [K9]

MONDAY POSTER SESSIONS 4:30 PM–7:00 PM

Black mangrove (Avicennia germinans) recovery trajectory following a severe freeze event in Galveston, Texas
Jamie Thompson, Anna Armitage [L1]

Tidal marsh response to sediment deposition from seasonal storms
Andrea Stumpf, Nathaniel Weston, Lori Sutter [L2]

MARINE PLASTIC POLLUTION FROM NANO- TO MACRO-SCALE: FATE, EFFECTS, SOLUTIONS

Simon Geist, Kristin Wilson Grimes, Caitlin Wessel and Howard Forbes, Jr.

Cloudy with a chance of microplastics: Contamination in the Indian River Lagoon associated with stormwater
Jacklyn Condon, Casey Craig, Linda Walters [L10]

Quantifying microplastic pollution in a Florida estuary
Casey Craig, Linda Walters, Jessy Wayles, Emily Dark, Kirk Fusco, Vincent Encomio, Glenn Coldren, David Fox Jr, Lei Zhai [L11]

Can polarized light be applied to illuminate microplastic pollution?
Christine Knauss, Jacob Goodwin, Sairah Malkin, Christine Thompson, Elizabeth North [L12]

Our coasts are trashed, now what? Seeking effective trash solutions from urban creek monitoring data
Theresa Talley, Nina Venuti [L9]

Microplastics in the Mississippi River Basin
Kerrin Toner, Mark Benfield, Ahmed Gad, Stephen Midway [M1]

Utilizing potato chip waste for intertidal oyster reef restoration
William Giles, Linda Walters, Paul Sacks [M2]

Engaging the Fishing Community to Remove Marine Debris and Quantify Impacts
Alyssa Rodolfich, Sarah Cunningham, Ben Posadas, Caitlin Wessel, Thao Vu, Ryan Bradley, Eric Sparks [M3]

TRADITIONAL AND EMERGING CONTAMINANTS IN THE COASTAL ZONE

John White

Lethal and sub-lethal effects of imidacloprid to School Prawn, Metapenaeus macleayi, and implications for fisheries
Catherine McLuckie, Natalie Moltschaniwskyj, Troy Gaston, Hugh Dunstan, Marcus Cromption, Matthew Taylor [L3]

Vitellogenin (VtG) expression in the blue crab, Callinectes sapidus: An indication of intersex?
Shannon Gregory, Jessica Reichmuth, Jennifer Cannon [L4]

Contaminants disrupt aquatic trophic interactions via decreased predator efficiency
Lauren Clance, Shelby Ziegler, Joel Fodrie [L5]

Assessment of oil spill effects and restoration methods for smooth cordgrass in salt marsh mesocosms
Peter Key, Paul Pennington, Katy Chung, Marie DeLorenzo [L6]

Determining the photochemical fate of organic UV filters commonly found in sunscreen
Jessalyn Davis, Michael Gonsior, Leanne Powers [L7]

Are contaminants playing a role in South Florida bonefish decline?
Nicholas Castillo, Jennifer Rehage, Tomas Brodin, Jerker Fick, Rolando Santos, Aaron Adams, Ross Boucek, Mike Larkin [L8]

LIVING SHORELINES AND MARSH NATURE-BASED INFRASTRUCTURE: LESSONS LEARNED

Cindy Palinkas, Brandon Boyd, Savanna Barry, Sara Martin and Eric Sparks

To wake, or not to wake?
Payton Billingsley, Gillian Palino, Nigel Temple, Matthew Virden, Anna Linhoss, Eric Sparks [M10]

Living Shoreline at Naval Weapons Station Earle, Raritan Bay, NJ
Meredith Comi, Allison Fitzgerald [M11]

Innovative restoration techniques for the next generation of living shorelines projects at Bayou LaBatre, Alabama
Kate Haynes, Meg Goecker, Kevin Hanegan, Nick Cox, Chris Williams, Mary Kate Brown [M12]

Assessing the Resiliency of Connecticut Salt Marshes under Increasing Nitrogen Loading
Sarah Crosby, Devan Shulby [M4]

Effect of salt marsh plant species diversity on community resilience to topical sediment addition
Laura Hollander, Katharyn Boyer, Matthew Ferner [M5]

Nitrogen Removal Potential of Floating Wetlands; Preliminary Results from a Mesocosm Study
Isabel Sanchez-Viruet, Lora Harris, Allan Straughan, Jeremy Testa [M6]

The sedimentary effectiveness of marsh terracing as a restoration technique in coastal marshes in Louisiana
Marie Mathews, Mead Allison [M7]

Optimizing Marsh Terrace Design for Wetland Restoration and Avian Habitat Associations
Adam Skarke, Michael Brasher, Brian Davis, Anna Linhoss, Robert Moorhead, Mark Woodrey, Mehdi Armandei, Joseph French, Madelyn McFarland, Raul Osorio Morillo, Fernando Vizcarra [M8]

Effect of R. mangle developmental stage and shell bag presence on living shoreline restoration success
Rebecca Fillyaw, Melinda Donnelly, Giovanna McClenachan, Linda Walters [M9]

MAPPING SAV AND COASTAL HABITATS: DRONES AND OTHER RECENT TECHNOLOGIES

Max Castorani, David Wilcox, Tom Bell and Kristen Kaufman

Recruitment and survival of black mangrove (Avicennia germinans) seedlings in Corpus Christi Bay, Tx
Madelyn Harvey, C. Edward Proffitt, Donna Devlin [N1]

Imaging Spectroscopy and Radar Data Integration for Assessing Vegetation Species Assemblage and Biomass
Daniel Jensen, Kyle Cavanaugh, Marc Simard, Robert Twilley [N10]

Toward the in situ ultrasonic sensing of blue carbon
Gabriel Venegas, Megan Ballard, Kevin Lee, Preston Wilson, Abdullah Rahman [N11]

MONDAY POSTER SESSIONS 4:30 PM–7:00 PM

Effects of Invasive Marsh Grass and Wave Energy on Shoreline Change and Essential Fish Habitat
Erin Voigt, David Eggleston [N2]

Spatial variability of submerged aquatic vegetation in the Delaware Estuary
Roger Thomas, Kelly Somers, Kristin Regan, Michael Mansolino, Steve Donohue, Scott Haag, Michael Campagna, Christopher Vito [N3]

Electronics overboard: using an inexpensive Arduino-based GPS-tracking sonde to measure flow in the Satilla River
Courtney Morrison, Michael Laird, **Joseph Hauger**, Jessica Reichmuth [N4]

Geospatial patterns of marsh dieback development and recovery using aerial photography, DGPS, and climatic conditions
Christine Hladik, Jacque Kelly [N5]

A comparison of seagrass mapping techniques: traditional vs. emerging autonomous mapping at Cat Island, MS
Clint Edrington, Just Cebrian [N6]

Using SONAR methods to document changes in low-salinity submerged aquatic vegetation
Joseph Luczkovich, Noah Gwynn, Jon Sherman, Hilde Speight, W. Judson Kenworthy [N7]

Evaluating coastal restoration using drones
J. Mason Harris, James Nelson, Glenn Suir [N8]

Using drones to determine seasonal variation in the area of seagrass meadows
Emili Garretson, Kenji Sugimoto, Jessie Jarvis, W. Judson Kenworthy, Brandon Puckett [N9]

PLANT-SOIL INTERACTIONS ACROSS COASTAL ECOSYSTEMS IN A GLOBAL CHANGE ERA

Torrance Hanley and Randall Hughes

Belowground traits of coastal dune species may impact rates of erosion
Shannon Walker, Julie Zinnert, Fernando Tenjo [O1]

Understanding below-ground feedbacks on seagrass seed-based restoration outcomes
E. Fay Belshe, Falodun Bunmi, Achim Meyer, Mirta Teichberg [O2]

Use of computed tomography to investigate the influence of elevation on marsh belowground biomass
Gwen Miller, James Morris [O3]

Effects of hydroperiod on the decomposition of belowground biomass in Wax Lake Delta, coastal Louisiana
Denise Poveda, Andre Rovai, Alexandra Christensen, Robert Twilley [O4]

Germination response to salinity of three Florida panhandle coastal dune plants
Gabriel Campbell-Martinez, Mack Thetford, Deborah Miller [O5]

WEDNESDAY POSTER SESSIONS 4:30 PM–7:00 PM

OUTREACH AND ENGAGEMENT OF OUR ESTUARIES, COASTS, AND OCEANS
Linda Walters

Using interactive activities focused on seagrass ecosystems to teach children marine conservation and trophic ecology
Jamila Roth, Laura Reynolds [A10]

Bald Head Island Conservancy: 30 years of barrier island conservation, preservation, and education
Elizabeth Darrow, Marissa Blackburn [A11]

Conceptualizing human alteration and natural growth in estuaries and savannas (CHΔNGES): Year 1
Sandra Huynh, Dennis McGrury [A12]

Seagrass Monitoring in Pensacola Bay: A Partnership between Citizens and students
Michael Swords, Victoria Henry, Barbara Albrecht, Rick O'Conner, Christina Verlinde, Jane Caffrey [A9]

EDUCATION PARTNERSHIPS IN COASTAL AND MARINE SCIENCE
Mikell Smith and Richard Mclaughlin

Providing fellowship opportunities through partnership, a Sea Grant model
Maddie Kennedy, Nikola Garber, Jonathan Lilley [A1]

A Louisiana Graduate Education Partnership: The Coastal Science Assistantship Program (CSAP)
Summer Langlois [A2]

Moving the Needle: Influencing STEM Identity and Desire among URM students in the USVI
Jarvon Stout, Lawanda Cummings, Resa Berkley [A3]

Restructuring an Undergraduate Marine Science Major to Incorporate Geospatial Intelligence
Deanna Bergondo, Lucy Vlietstra, Karina Mrakovcich, Victoria Futch [A4]

Tapping in to K-12 students to gather tree-ring data
Clay Tucker, Jill Trepanier, Pamela Blanchard, James Jordan, John Nyman, Mark Schafer [A5]

Coastal Solutions Fellows Program: Building Resiliency Along the Pacific Flyway
Osvel Hinojosa-Huerta, Viviana Ruiz-Gutierrez [A6]

USING CITIZEN SCIENCE TO ADDRESS COMPLEX ENVIRONMENTAL PROBLEMS
Suzanne Spitzer

Using Hospitalized Children as Citizen-Scientists to Collect Data on Wading Bird Diversity and Abundance
Jacob Hromyak, Linda Walters, Megan Nickels, Paul Sacks, Jessica Copertino [A7]

Students help document mangrove disease and insect communities throughout the Caribbean
Ryann Rossi, Craig A. Layman, Caren Cooper, Jean Ristaino, Amy Heemsoth, Olivia Patterson Maura [A8]

EDUCATION: CREATIVE TEACHING TO IMPROVE SUCCESS FOR MARINE-FOCUSED UNDERGRADUATE STUDENTS
Linda Walters and Timothy Dellapenna

Supporting Emerging Aquatic Scientists (SEAS) Your Tomorrow: Bridge to Ph.D. Program and Marine Science Opportunities
Kaliegh Schlender, Kristin Wilson Grimes, Marilyn Brandt, Monica Medina, Carrie Jo Bucklin, Nastassia Jones [B1]

Why are Red Beards So Clean? Collaborative Teaching and Research Investigations into Biofouling
Reuben Macfarlan, Michael Persun [B2]

ISOTOPES, LIPIDS, AND DNA: TROPHIC BIOMARKERS IN COASTAL ECOSYSTEM ECOLOGY
Michael Polito, James Nelson, Amanda Spivak and Sabrina Taylor

Controlled diet mixtures of macroalgae influence the fatty acid composition of juvenile and adult isopods
Julie Schram, Sami Taipale, Aaron Galloway [B10]

Dead or Alive: Elemental Analysis of Stranded Bottlenose Dolphins (Tursiops truncatus)
Ryanne Murray, Ruth Carmichael, Merri Collins, Mackenzie Russell, Alissa Deming [B3]

Ontogenetic changes in trace element ratios track lifetime freshwater exposure in bottlenose dolphins (Tursiops truncatus)
Matthew Hodanbosi, Kayla DaCosta, Alissa Deming, Ruth Carmichael [B4]

Comparison of left and right ear bone chemistry in West Indian manatees
Andrea Mason, Kayla DaCosta, Ruth Carmichael [B5]

Variability in microphytobenthos biomass and isotopic values in northern Gulf of Mexico salt marsh systems
Sharil Deleon, Jeffrey Krause, Ronald Baker [B6]

Trophic niche between male and female California spiny lobsters (Panulirus interruptus) in MPA vs. Non-MPA
Riley Young, Corey Garza, Taylor Eddy, Steven Litvin [B7]

Seafood forensics: Identifying the geographical origin of crawfish using stable isotope analysis
Katerine Kjos, Evelyn Gutierrez Watts, Michael Polito [B8]

Scale microchemistry as a non-lethal alternative for tracking individually variable migration patterns in mobile fish
Ethan Taulbee, Benjamin Walther [B9]

POPULATION/COMMUNITY ECOLOGY
Sharon Herzka and Joel Fodrie

Untangling northern Gulf of Mexico Sargassum food webs with bulk and compound specific stable isotopes
Kevin Dillon, Frank Hernandez [B11]

Pollinator Corridor Design for Native Invertebrates in Southern California
Bailey Young, Bethany Hadley, Torrey Hosey, Christina Simokat [B12]

Effects of Sea Star Wasting Disease on Mussel Recruitment
Emily Chui, Fiorenza Micheli, Alison Haupt [C1]

WEDNESDAY POSTER SESSIONS 4:30 PM–7:00 PM

Estimating ecotypic variation in the foundational plant species, Schoenoplectus americanus, for coastal management
Haley Kodak, Jason McLachlan [C10]

Evaluating the effects of sporophyte parent origin on gametophyte characteristics of Alaria marginata
Muriel Dittrich, Annie Raymond, Michael Stekoll [C11]

Influences on the timing of fertility to an intertidal kelp, Alaria marginata
Austin Alderfer, Michael Stekoll, Annie Raymond [C12]

Predator presence does not impact ribbed mussel filtration or biodeposition
Jennifer Zhu, J. Stephen Gosnell [C2]

Intertidal distribution of boring sponges and their effects on oysters in Georgia creeks.
Johanna Dieudonne, John Carroll [C3]

Recruitment and post-settlement mortality of Mya arenaria
Shantelle Richards, Rochelle Seitz [C4]

Understanding the ecology of Atlantic Rangia: Toward better management of freshwater inflows
George Guillen, Jenny Oakley, **Mahmoud Omar** [C5]

Changes in Littoraria irrorata feeding preferences in response to mangrove encroachment
Emelie Foster, Janelle Goeke, Anna Armitage [C6]

Secondary Production of Intertidal Consumers on Sandy Beaches
Michael Cornish, Kyle Emery, Jenifer Dugan, Robert Miller, David Hubbard [C7]

Impact of Mississippi River diversions on marsh community structure
Rachel Snider, Linda Hooper-Bui, Rachel Strecker [C8]

The impacts of marsh raft deposition on high marsh species communities
Kayla Martinez-Soto, Serina Wittyngham, David Johnson [C9]

Evaluation of the Daily Release of Perkinsus marinus in the Water Column
Matilda Newcomb, Katrina Pagenkopp Lohan, Denise Breitburg, Sarah Gignoux-Wolfsohn [D1]

Impact of thermal-hydric stress on mating behavior and opportunities of fiddler crabs
Talene Yeghissian, M. Zachary Darnell [D2]

A Florida-wide experiment of salt marsh and mangrove interactions under multiple stressors
Glenn Coldren, C. Edward Proffitt [D3]

Increased grazing on smooth cordgrass, Spartina alterniflora, in the presence of black mangroves, Avicennia germinans
Emily Jones, Robyn Zerebecki [D4]

The relationship between freshwater discharge and fish communities in a Gulf of Mexico estuary
Dylan Sinnickson, David Chagaris, Micheal Allen [D5]

Seagrass landscape relative to fish assemblages in an extensive meadow, southern Gulf of Mexico
Alfonsina Romo-Curiel [D6]

ESTUARINE AND COASTAL PLANKTON COMMUNITIES: SENTINELS OF EVOLVING ECOSYSTEMS

Pedro Morais

Exploring Copepod Feeding Ecology in San Francisco Estuary Using qPCR
Cheryl Patel, Michelle Jungbluth, Toni Ignoffo, Anne Slaughter, Wim Kimmerer [D10]

Occurrence and relevance of sub-pycnocline chlorophyll maxima on the Louisiana continental shelf
John Lehrter, **Michael Murrell** [D11]

Spatial variability of benthic microalgae in the South Atlantic Bight
Sarah Zaunbrecher, James Pinckney, Susan Lang [D12]

Fecundity and genetic differences of Neomysis americana in two tributaries of Chesapeake Bay
Oliver Autrey, Ryan Woodland, Louis Plough [D7]

Trophic niche overlap between Chaetognaths and larval Atlantic Croaker in the northern Gulf of Mexico
Jana Herrmann, Frank Hernandez [D8]

Are microzooplankton an intermediate trophic link between cyanobacteria and copepods in the San Francisco Estuary?
Allison Adams [D9]

Comparison of the responses of estuarine pelagic communities after catastrophic hurricanes
Hui Liu [E5]

Effect of Eastern oyster, Crassostrea virginica, biodeposit resuspension on zooplankton abundance
Habibah Oladosu, Elka Porter [E6]

NEW CHALLENGES IN ESTUARINE AND COASTAL WATER QUALITY MONITORING

Jane Caffrey

Spatiotemporal assessment of water chemistry in Northwest Florida coastal dune lakes
Dana Stephens, Alexander Hyman [E1]

Strategic monitoring and resilience training in the Ala Wai watershed: seasonal and episodic variability
Solomon Chen, Jessica Bullington, Stanley Lio, Brian Glazer [E10]

How much do watershed changes shift beach water quality results in the U.S. Virgin Islands?
Sydney Nick, Kristin Wilson Grimes [E11]

Nitrogen in the Chesapeake Bay Watershed: A Century of Change, 1950 – 2050
John Clune, Paul Capel, Matthew Miller, Douglas Burns, Richard Smith, Peter Claggett, Jeff Raffensperger, Joel Blomquist, Rosemary Fanelli, Ana-Maria Garcia, Gary Shenk, Lewis Linker [E12]

Long-term Water Quality Monitoring within a System of Tidal Creeks in New Hanover County, NC
Brad Rosov [E2]

A data-driven approach to simulate temporal-spatial variations of Chlorophyll-a in the Chesapeake Bay
Xin Yu, Jian Shen, Jiabi Du [E3]

WEDNESDAY POSTER SESSIONS 4:30 PM–7:00 PM

Using high frequency observations to characterize spatial variability in phytoplankton production in San Francisco Bay
Ariella Chelsky, Taylor Winchell, Elizabeth Stumpner, David Senn [E4]

Influence of Bonnet Carré Spillway discharge on Mississippi Sound as revealed by stable isotopes
Alan Shiller, Melissa Gilbert, Amy Moody, Peng Ho, Laura Whitmore, Virginie Sanial [E8]

Quantifying discharge of nutrient-containing groundwater into Moro Cojo Slough
Jacqueline Chisholm, Kimberly Null, Ross Clark, Thomas Connolly [E9]

OCEAN ACIDIFICATION IN A MULTIPLE-CLIMATE-CHANGE-STRESSORS CONTEXT: SCIENCE-BASED TOOLS FOR MANAGEMENT

Faycal Kessouri, Daniele Bianchi, Richard Feely, Elizabeth Turner, Nina Bednarsek, Martha Sutula

Does a Reduced pH Affect Juvenile Dungeness Crab Behavior?
Hannah Hayes, **Steven Manos**, Julie Schram, Aaron Galloway [E7]

IMPACTS OF HURRICANES ON COASTAL PHYSICAL, ECOLOGICAL, AND BIOGEOCHEMICAL PROCESSES

Ian Zink, John Lehrter, Amber Hardison, Anna Armitage, Joan Browder, Wei-Jun Cai, Kanchan Maiti, Brian Roberts, Zhanfei Liu and Christopher Patrick

Investigating the effect of Hurricane Harvey on mesozooplankton communities over time
Zachary Topor, Simon Geist, Kelly Robinson [F1]

"Coping" with Hurricanes
John Nelson, **LaRoy Brandt**, Stan Kunigelis [F10]

Impacts of Hurricane Michael on Seagrass and Water Quality in the Florida Panhandle
Michael Poniatowski, Paul Carlson Jr, Laura Yarbro, Elizabeth Johnsey [F2]

Indicators of coastal eutrophication in Charlotte Harbor, FL in the wake of Hurricane Irma
Eric Milbrandt, Alfonse Martignette, David Blewett, Mark Thompson, Micheael Sauer, Melynda Brown [F3]

Effect of hurricane Irma on the coastal and estuarine systems of Everglades National Park
Christopher Kavanagh, Zachary Fratto [F7]

Impacts of hurricanes on forest carbon loss in the coastal US between 2000 and 2018
Chengcheng Gang, Hanqin Tian, Susan Pan, Yuanzhi Yao, Zihao Bian, Rongting Xu [F8]

Flooding caused by hurricane associated extreme rainfall in the Pee Dee Basin, SC
Thomas Williams, Daniel Hitchcock, Thomas O'Halloran, Bo Song [F9]

INCREASING COASTAL AND ESTUARINE HYPOXIA: CAUSES, RESPONSES, AND REMEDIES

James Ammerman and James O'Donnell

Sources and seasonal dynamics of nitrogen within the Tillamook Estuary, OR and its tributaries
Elizabeth Rutila, Cheryl Brown, James Kaldy, Stephen Pacella, T Chris Mochon Collura, William Rugh [F4]

Seasonal dynamic of methane fluxes associated with hypoxia in Jinhae Bay, Korea
Seoyoung Kim, SoonMo An [F5]

Seasonal variability of sediment oxygen consumption in a recently excavated dredge pit in coastal Louisiana
Laura Thompson, Kanchan Maiti, John White, Chris DuFore [F6]

IDENTIFYING RESTORATION PRIORITIES AND EVALUATING SOCIO-ECOLOGICAL BENEFITS AT MULTIPLE SCALES

Lisa Chambers, Rachel Gittman, Ann Hijuelos, Katie Arkema, Bryan DeAngelis, Melinda Donnelly, Jonathan Grabowski, Kelly Kibler and Bethany Kraft

Using oyster fecundity and reproductive capacity to assess individual and metapopulation sustainability and restoration success
Danielle Marshall, Samuel Moore, Alexandra Perez, Malinda Sutor, Jerome La Peyre, Megan La Peyre [G1]

A tool for optimizing salt marsh management decisions at northeastern US National Wildlife Refuges
Hilary Neckles, James Lyons, Jessica Nagel, Susan Adamowicz, Toni Mikula [G10]

"Save Our Indian River Lagoon" living shoreline monitoring for Brevard County, Florida
Suzanne Connor, Michelle Shaffer, Rebecca Fillyaw, Melinda Donnelly, Linda Walters [G11]

Inadvertent Benefits of the World's Largest Wetland Monitoring System-Louisiana's Coastwide Reference Monitoring System
Sarai Piazza, Leigh Sharp, William Boshart [G12]

Southwestern Biscayne Bay shoreline relic oyster assemblage identification, abundance, and hydrological feature and substrate associations
Haley Capone, Ian Zink, Joan Browder [G2]

Impact of oyster reef restoration on threatened and endangered bird populations in Mosquito Lagoon
Jessica Copertino, Linda Walters, Melinda Donnelly, Michelle Shaffer, Katherine Harris [G3]

Ecosystem service logic models and metrics: linking Gulf oyster restoration outcomes to socio-economic benefits
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Quantifying the effects of habitat restoration on fish communities in a dynamic coastal estuary
Richard Mahoney, Jeffrey Beal, Dakota Lewis, Geoffrey Cook [G5]

Using oral histories to improve coastal restoration
Paul Sacks, Melinda Donnelly, Linda Walters [G6]

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Beach mice use of restored dunes: build it and they will come
Margo Stoddard, **Deborah Miller**, Mack Thetford, Lyn Branch [G8]

How do fragmented habitats differ in their foundation species demography and their associated biodiversity?
Rick Leong, Ana Bugnot, Ezequiel Marzinelli, Will Figueira, Alistair Poore, Paul Gribben [G9]

QUANTIFICATION AND VALUATION OF ECOSYSTEM SERVICES ASSOCIATED WITH SHELLFISH
Julie Rose, Suzanne Bricker, William Walton

Linking water quality, oyster restoration and citizen science in the Pensacola Bay watershed
Emily Hotinger, Jane Caffrey, Wilfredo Quiles, Barbara Albrecht [H1]

Salinity effects on oyster reef population demography in inlet and swash tidal creek systems
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Enhancing living shoreline restoration practices using native ecosystem engineers: Geukensia granosissima and Spartina alterniflora
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RESPONSIVE, RELEVANT, READY: NEW DIRECTIONS IN COASTAL SCIENCE AND MODELING
Linker Lewis, Gopal Bhatt, Carl Cerco and Gary Shenk

Managing for climate change in the Chesapeake Bay watershed
Laurel Abowd [G7]

smartcoastlines.org: Adapting open-source electronics and software to enable affordable strategic monitoring and resilience training
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Performance of Low-cost Wave Gauges Compared to Commercial Gauges
Nigel Temple, **Matthew Virden**, Bret Webb, Anna Linhoss, Eric Sparks [H5]

Long-term monitoring data and science-based assessment approaches combined to reveal water-quality changes in Chesapeake Bay
Qian Zhang, Peter Tango, Rebecca Murphy, Melinda Forsyth, Richard Tian, Jennifer Keisman, Emily Trentacoste [H6]

SOLUTIONS-BASED SCIENCE TO SUPPORT COASTAL ENVIRONMENTAL MANAGEMENT: APPROACHES AND CHALLENGES
Marnita Chintala, Beth Darrow, William Dennison, Dwight Trueblood and Timothy Gleason

Developing management-informing monitoring tools for a Mississippi Delta freshwater wetland landscape
Julie Whitbeck [H10]

Efficacy of utilizing shell plantings to mitigate ocean acidification impacts on oyster (Crassostrea gigas) health
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Spatial variation in oyster population sustainability within a Florida estuary: implications for management and restoration
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An assessment of microplastic presence and knowledge in the Pensacola metropolitan area
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ADVANCING GULF OF MEXICO RESILIENCE THROUGH INTEGRATIVE, CROSS-DISCIPLINARY SCIENCE
Lauren Showalter, William "Monty" Graham and Jerry Melillo

Data Synthesis to characterize stressors and effects of restoration and protection projects: Terrebonne Basin, Louisiana
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A bibliometric analysis of scientific collaboration in the Gulf of Mexico
Juliet Vallejo, Andrew Song, Dongkyu Kim, Owen Temby [I2]

Spring-Neap tidal variability of the vertical structure of the tidal ellipses in a highly-stratified estuary
Rosario Sanay-González, Héctor Perales-Valdivia, Mark Marin-Hernández, Arnoldo Valle-Levinson [I3]

PUTTING ECOGEOMORPHOLOGY INTO PRACTICE: PREDICTING AND MANAGING FLOW–SEDIMENT–BIOTA INTERACTIONS
Christopher Esposito, Heidi Nepf and Theryn Henkel

Initial effects of nutrient and sediment enrichment on porewater and biomass in brackish marsh mesocosms
Alex Ameen, Sean Graham [I10]

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Christopher Esposito, Maricel Beltrán-Burgos, Heidi Nepf, Melissa Baustian [I11]

Geomorphological Changes to Intertidal Marshes in 25 Different Microenvironments in South Carolina
William Doar, III, Katherine Luciano, Brooke Czwartacki, Tanner Arrington [I12]

Comparison of nekton community stability with changes in salinity across the Suwanee Sound, Florida
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Long-term vertical accretion, mineral accumulation, and land loss patterns in Barataria Basin, Louisiana
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Effects of vegetation on sediment dynamics
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MIXING AND TRANSPORT IN ESTUARIES AND COASTAL WATERS

Meng Xia, Yongsheng Wu, and Zhankun Wang

The modulation of near-inertial waves by mesoscale processes on the Mississippi Shelf
Jordan Earls, Maarten Buijsman, Davin Wallace [I4]

Improvement of eddy detection algorithm based on vector geometry and its application
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Water quality modeling for Maryland's Coastal Bays
Haoran Liu, Meng Xia [I6]

COASTAL SEDIMENT TRANSPORT PROCESSES

Kehui Xu,Courtney Harris, Michael Miner, and Davin Wallace

Marsh channel morphological response to sea level rise and sediment supply
Giulio Mariotti [J1]

Morphological change and sediment transport in a dredge pit on the Louisiana shelf
Kelli Moran, Kehui Xu, haoran liu, Carol Wilson, Matthew Barley [J10]

An assessment of sediment transport and water quality between contrasting dredge pits of Louisiana shelf
Robert Bales, Kehui Xu, Guandong Li, Sibel Bargu, Samuel Bentley, Kanchan Maiti, John White, Carol Wilson, Z. George Xue [J11]

Development of an oil particle aggregation model for the Gulf of Mexico continental shelf
Linlin Cui, **Courtney Harris**, Danielle Tarpley [J12]

Temporal and spatial variability in tidal marsh sedimentation and surface elevation change, Mid-Atlantic USA
Laura Reynolds, Lisa Auermuller, Joseph Grzyb, LeeAnn Haaf, Robert Kopp, Richard Lathrop, Julie Lockwood, Martha Maxwell-Doyle, Drexel Siok, Kari St. Laurent [J2]

Relating soil and vegetation characteristics to shear strength and edge erodibility in Louisiana marshes
Grayton Bruno, Kendall Valentine, Tracy Quirk, Giulio Mariotti [J3]

Intertidal Creeks and Overmarsh Circulation for a Small Salt Marsh Basin
Jessica Sullivan, Raymond Torres, Alfred Garrett [J4]

Development of vertical marsh growth dynamics in a 3-D Coupled Wave-Flow-Sediment Transport Model (COAWST)
Tarandeep Kalra, Alfredo Aretxabaleta, Neil Ganju, Joel Carr, John Warner [J5]

Modelling seasonal impacts of seagrass on coupled marsh-tidal flat sediment dynamics
Qingguang Zhu, Patricia Wiberg [J6]

Planform stability of Copacabana beach, Rio de Janeiro, Brazil
Marcia Costa, Josefa Guerra [J7]

The Baker Bay Enigma: Keeping up with a Dynamic Estuary
Jarod Norton, Rod Moritz, Austin Hudson, Terrance Geroux, James McMillan [J8]

Impacts of organic-rich near surface stratigraphy on subsidence in Mississippi deltaic wetlands
Autumn Murray, Mead Allison [J9]

Characterization of Sedimentology and Infill Rates for Borrow Areas in Coastal Louisiana
Matthew Barley, Carol Wilson, Kehui Xu, haoran liu, Samuel Bentley [K1]

The evolution of St. Louis Bay, Mississippi since the MIS 2 Lowstand
Clayton Dike, Davin Wallace, Nina Gal, Robert Hollis, John Anderson, Rebecca Minzoni [K2]

Paleovalleys: A Treasure Trove of Information About Past Coastal System Response
Erin Miller, Davin Wallace [K3]

ECOSYSTEM ASSESSMENTS FOR COASTAL WETLANDS

Michael Sievers, Viv Tulloch, Anusha Rajkaran and Rod Connolly

Evaluating Functional Equivalence of Restored Marshes on Deer Island, MS
Emelia Marshall, Patrick Biber, M. Zachary Darnell [K10]

Carbon and nutrient storage by coastal wetland habitats — towards the quantification of ecosystem services.
Jessica Els, Janine Adams, Lucienne Human [K11]

Advancing a nitrogen management strategy for southwest Florida tidal creeks through additional water quality indicators
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Evaluation of ecosystem services in newly restored and well-established salt marshes in Connecticut.
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COASTAL ENVIRONMENTS AS GEOLOGIC ARCHIVES FOR ASSESSING ENVIRONMENTAL CHANGE

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Time-varying drivers of tidal wetland sediment accumulation over the last century measured using biogeochemical proxies
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Changing baselines of heavy metal distributions in three marshes from the San Francisco Bay
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Managing coastal marsh impoundments for vertical accretion in the face of sea level rise
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MARSHES TO MANGROVES: THE SUPPORT OF FISHERIES BY ESTUARINE WETLANDS

Ronald Baker, Matthew Kimball, Jennifer Doerr and Philine zu Ermgassen

Salt marsh restoration in a mega-tidal and ice-influenced environment (Atlantic Canada)
Myriam Barbeau, Spencer Virgin, Allen Beck, Gregory Norris, Laura Boone, Jeff Ollerhead, Nic McLellan [L10]

Effect of Belowground Warming on Spartina alternifora and Avicennia germinans species interactions and growth responses
Harris Stevens, Mark Hester [L11]

Assessing the air and soil warming potential of passive warming chambers using HOBO data loggers
Gabriela Canas, Nicole Dix, Samantha Chapman [L12]

Assessment of marsh-dependent nekton in restored salt marshes
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The energy storage of nekton species across a continuum of coastal Louisiana habitats
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Do marsh and mangrove vegetation provide different refuge values for a vertically migrating species?
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Periphyton Communities in The Atchafalaya Floodplain
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The influence of vegetation type on benthic microalgae within a Florida salt marsh-mangrove ecotone
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Exogenous application of glycine betaine increases tolerance to abiotic stress in Avicennia germinans
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Survival and growth of baldcypress under abiotic stressors from climate change and restoration practices
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Temporal trend in water salinity of the Florida coast and the effects sea level rise
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Understanding mechanisms for coastal marsh sustainability in the face of sea level rise
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Modeling carbon storage and fluxes in tidal freshwater forested wetlands in response to saltwater intrusion
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Effects of simulated seawater intrusion on soil biomarkers distribution in a tidal freshwater marsh wetland
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Integrating estuarine hydrodynamics with remotely sensed data to assess marsh migration patterns
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Influence of salinity and vegetation on tidal marsh soil shear strength
Megan Gillen, Tyler Messerschmidt, Matthew Kirwan [M6]

SEAGRASSES: SENTINEL SPECIES IN A CHANGING WORLD

Robert Orth and Kenneth Heck

Nutrient and sediment retention in submersed aquatic vegetation (SAV) in the upper Chesapeake Bay
Miles Bolton, Cindy Palinkas, Cassie Gurbisz [M10]

Observations of the tidal influence on porewater nutrients in a submarine groundwater discharge zone
Nathaniel Winn, Haley McQueen, Matthew Schwartz [M11]

Seagrass Impacts on Porewater Biogeochemistry: A Comparison of 3 Species
Mackenzie Rothfus, Olivia Sanders, Katherina Smyth, Florian Cesbron, Jane Caffrey [M12]

Measuring Stable Isotopes to Trace Groundwater Transport of Dissolved Nitrogen in Seagrass Beds
Haley McQueen, Matthew Schwartz [M7]

Evaluating temporal seagrass conditions and water quality trends at Fire Island National Seashore
Brittney Scannell, Stephen Heck, Bradley Peterson [M8]

Spatial Patterns in Porewater Nutrients in Halodule wrightii Seagrass Beds
Olivia Sanders, Michael Swords, Sean Gordon, Mackenzie Rothfus, Jane Caffrey [M9]

Spatial patterns of fishes and invertebrates across a restored seagrass landscape
Elizabeth Daly, Kinsey Tedford, Selina Cheng, Michael Cornish, Max Castorani [N1]

Components of a standardized eelgrass assessment framework: Defining relationships between structure, environment and function
Kenneth McCune, Christine Whitcraft [N10]

Investigating Northern Biscayne Bay's declining seagrass beds and water quality
Claire Burgett, Laura Eldredge, Sarah Gumbleton [N11]

Abrupt and extensive seagrass loss in the Indian River Lagoon: indication of a regime shift?
Lori Morris, **Robert Virnstein**, Charles Jacoby, Lauren Hall, Robert Chamberlain [N12]

Drivers of regional-scale patterns of seagrass epifaunal invertebrates in the Chesapeake Bay, USA
Claire Murphy, Jonathan Lefcheck, Robert Orth [N2]

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Impact of two seagrass species on macroinvertebrate community composition within an urbanized Southern California lagoon
Nicholas DaSilva, Christine Whitcraft [N3]

Image analysis as a tool to explore seagrass-epiphyte relationships
Chi Huang, Carissa Pinon, Mehrube Mehrubeoglu, Kirk Cammarata [N4]

Changes in epiphyte accumulation and community composition for Thalassia testudinum exposed to wastewater effluent
Carissa Pinon, John Garcia, Hudson DeYoe, Chi Huang, Kirk Cammarata [N5]

The role of hypersalinity and overlying water pO_2 on internal seagrass O_2 and H_2S dynamicss
Christopher Johnson, Marguerite Koch, Ole Pedersen, Christopher Madden [N6]

Temporal patterns in turtlegrass habitat use by larval and juvenile nekton at Chandeleur Islands, Louisiana
Smith Samantha, Christian Hayes, M. Zachary Darnell, Kelly Darnell [N8]

What can stable isotopes tell us about eelgrass habitat health in a eutrophic estuary?
Melanie Hayn, Roxanne Marino, Katherine Haviland, Robert Howarth, Karen McGlathery [N9]

Mechanisms of tropicalization: how enhanced grazing and abiotic interactions affect turtlegrass
Samantha Linhardt, Alex Rodriguez, Kenneth Heck [O1]

Regional variation in turtlegrass complexity drives changes in community structure across Northern Gulf of Mexico
Christian Hayes, M. Zachary Darnell, Delbert Smee, Charles Martin, Margaret Hall, Bradley Furman, Smith Samantha, Benjamin Belgrad, Kelly Darnell [O2]

How 'clone' can you go? Genotypic diversity and clonal architecture in the seagrass Halodule wrightii
Patrick Larkin, Ashley Hamilton, Anthony Lopez, Sebastian Rubiano-Rincon [O3]

The population genetic structure of Zostera marina along a temperature gradient in Tomales Bay, CA
Kenzie Pollard, Katherine DuBois, Nicole Kollars, John Stachowicz [O4]

Utilizing an in situ flume to quantify the limit of Zostera marina pCO_2 foliar uptake
Flynn DeLany, Alyson Lowell, Amber Stubler, Bradley Peterson [O5]

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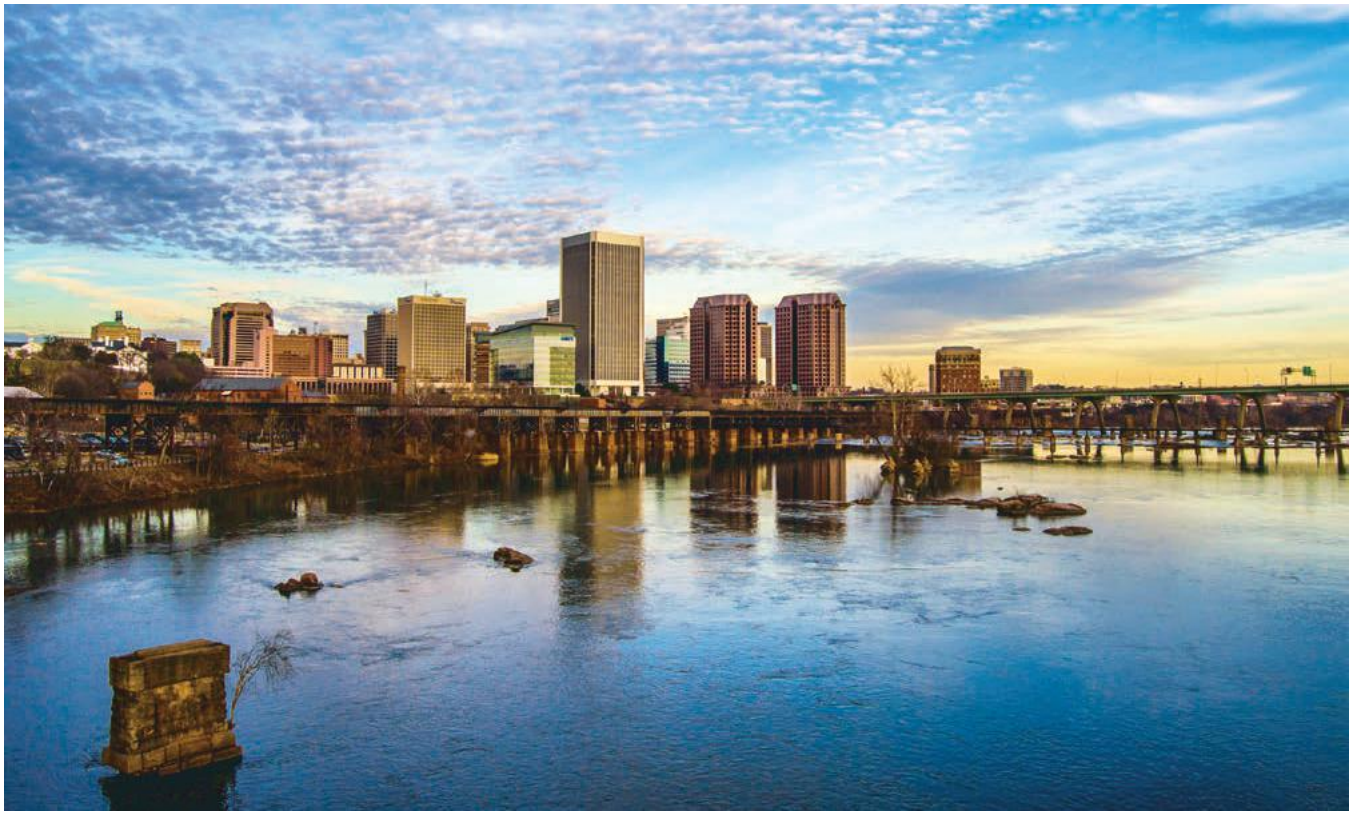

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