

# CERF's Up!

Volume 50 • Number 1 • March 2024

Co-Editor Introductions

From the Skies to the Seas, Fulcrums to Flora

Reflections on CERF 2023



A new wave of information from the Coastal and Estuarine Research Federation



# CERF's Up!

Volume 50 • Number 1 • March 2024

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**Front Cover:** Lee College (Baytown, Texas, USA) Environmental Science student Jose Najera explains his research on living shorelines at Baronridge Park on Armand Bayou, Seabrook, Texas, USA, to attendees of the Restore America's Estuaries Living Shorelines Tech Transfer Workshop on 24 October 2023. Najera is a sophomore and is getting ready to transfer to the University of Houston-Clear Lake in education.

Photo: Susan Park

**Back Cover:** A living shoreline built in Baronridge Park on Armand Bayou, Seabrook, Texas, USA.

Photo: Susan Park

### Call for Cover Photos for CERF's Up!

Would you like to see your favorite estuary displayed on the cover of *CERF's Up!*? If so, send high-resolution shots showing the place's natural beauty, along with a short caption and photo credit, to [bulletin@cerf.science](mailto:bulletin@cerf.science).

## President's Message

# Reflecting on 2023 and planning for 2024



Linda Blum  
*CERF President*

Starting my term as CERF president, I find myself first looking back on the significant achievements of CERF in the year 2023. In November, we returned to an in-person biennial conference after a successful virtual conference in 2021. John Rybczyk, John Calloway, Martha Sutula, and their CERF 2023 conference team wowed us with a meeting true to their theme of “Resilience and Recovery:” resilience and recovery of coastal ecosystems and the people who study, manage, and live in them. The conference team achieved their goal of celebrating our work and providing a welcoming space to learn from one another to grow the knowledge base of our field and apply that knowledge to preserve coastal and estuarine habitats, resources, and heritage. CERF 2023 delivered on all counts. Sincere thanks to all the volunteers and staff for their dedication, imagination, and creativity that made the conference an overwhelming success.

A hallmark of CERF 2023 was the number of student attendees—over 600 of the 1,377 registrants were students. CERF’s Rising TIDES 2023 cohort of 28 student scholars were joined by 25 student scholars from the Supporting Emerging Aquatic Scientists (SEAS) Islands Alliance and the Chesapeake Student Recruitment, Early Advisement, and Mentoring (C-StREAM) programs. All three of these programs focus on mentoring students from backgrounds that are underrepresented in coastal and estuarine disciplines. The student posters and oral presentations were outstanding. I particularly enjoyed discussions

with the students about their work during the poster sessions. The students’ enthusiasm and optimism for all things coastal and estuarine is delightful. I can’t remember a time when I enjoyed a poster session as much as CERF 2023. I came away from the conference reassured that the future of coastal and estuarine sciences is in capable hands. The diverse professional interests and backgrounds of these student scholars brought an amazing vibrancy to the conference that we have not experienced before. Many thanks to all the students who attended CERF 2023. I hope to see you in Richmond, Virginia, in 2025 for the next biennial conference if not before at an Affiliate Society meeting.

While having a successful biennial conference is a huge accomplishment, it is not the only accomplishment of note. Leila Hamdan (President 2021–2023) and the outgoing Governing Board put together a new strategic plan, Visions V, an action plan to implement the strategic plan, and revised our statements of mission (to be voted on by the membership in the near future), vision, and values. Visions V is the culmination of months of work gathering input from CERF leaders, members, and the coastal and estuarine research and management community at large. Your input was invaluable in helping the Federation hone in on three key goals for the next four years: advocate for estuaries and coasts, enhance member value, and promote and support equity and justice. I am excited to work with this Governing Board and CERF volunteers to put Visions V ideas into action over the coming two years.

One of the challenges the incoming Governing Board faces as they implement the action plan is finances. To allow the CERF budget to be balanced, any new initiatives

that require financial resources must be paired either with similar cuts in current initiatives or with new funds to be raised. Additionally, the costs associated with CERF operations, particularly our biennial conference, have risen sharply. To this end, the Governing Board is finding ways to lower costs. It has eliminated Executive Committee travel to attend Affiliate Society meetings (though the Executive Committee will continue to attend on personal funds to the extent possible) and to convert one in-person Governing Board meeting to several, shorter, virtual meetings. Further, the Governing Board has approved an increase in membership dues by \$5 to \$40 per year, depending on the membership category. It has been 16 years since the last increase in dues and during this time costs have skyrocketed. We have tried to keep the increase low for our student and early career members and have reduced the rates for our members from emerging and developing countries. These new dues will take effect for those who join or whose renewal period begins after 1 April. Taking these steps will help to ensure the Federation’s future and allow the Federation to continue to provide membership benefits such as our webinar series, Inclusive Leadership Program, *CERF’s Up!* Bulletin, *Coastal and Estuarine Science News* (CESN), digital subscription to *Estuaries and Coasts*, and reduced conference registration among the many other less tangible benefits of being a CERF member. It will also allow us to implement new initiatives that you have requested and have been included in Visions V, such as enhancing our efforts in translating science for policy- and management-directed action; supporting technological solutions to allow year-round knowledge sharing, mentoring, collaboration, and networking; and supporting inclusive practices at the biennial conference.

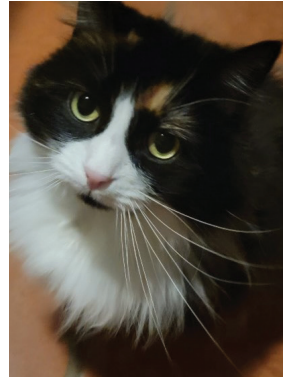
# Co-Editor Introductions

Kyle Capistrant-Fossa

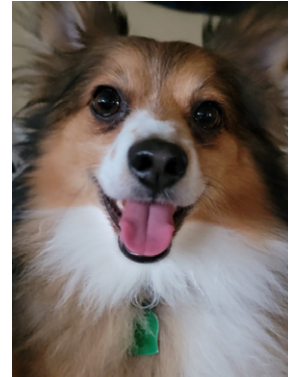
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I received my BS and MS degrees from the University of Maine before moving to Port Aransas, Texas, where I am currently a PhD candidate at The University of Texas at Austin's Marine Science Institute. I study the ecology, physiology, and productivity of Texas' vibrant seagrass meadows across a variety of projects spanning the coast. As an incoming *CERF's Up!* co-editor, I'm looking forward to contributing to the broader CERF community and amplifying the voices of others. I'm particularly passionate about advancing diversity, equity, and inclusivity in higher education as well as promoting mental wellbeing in academia, so feel free to reach out if you'd like to contribute to *CERF's Up!* (or on any other topic)! Outside of work I enjoy snorkeling, reading, cooking, and spending time with my pets Potato and Becky. I look forward to working with Julie and the entire CERF staff on *CERF's Up!* for the next few years!



Becky



Potato

Julie Walker

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I grew up in southern Maryland where I also attended St. Mary's College of Maryland for my bachelor's degree in biology. From there I worked as a staffer at the Chesapeake Bay Program before attending the University of Florida for my doctoral studies on the ecology of the mangrove marsh ecotone. In my current position as an ORISE Postdoctoral Scholar, cosponsored by the University of Massachusetts Amherst and US Geological Survey Woods Hole, my research is focused on examining human influences on salt marshes in the Northeast to inform science-based management practices. In my spare time, I enjoy getting out on the water, traveling, and hanging out with family and friends. As a co-editor of *CERF's Up!* I am excited to use the bulletin to increase the accessibility of coastal science and the federation. Along with fellow co-editor Kyle, I look forward to highlighting the great work and diversity of our organization.



Julie Walker

## Upcoming Events

### New England Estuarine Research Society (NEERS) Spring 2024 Meeting

18–20 April 2024

Freeport, Maine, USA

<https://newenglandestuarinere-searchsociety.wildapricot.org/>

### 2024 Pacific Estuarine Research Society (PERS) Annual Meeting

18–20 April 2024

Nanaimo, British Columbia, Canada

<https://www.pers-erf.org/2024-pers-annual-meeting/>

### California Estuarine Research Society (2024) Meeting

3–4 May 2024

Moss Landing, California, USA

<https://caers.wildapricot.org/>

### 2024 Atlantic Canada Coastal and Estuarine Science Society (ACCESS) Meeting

4–7 June 2024

St. Andrews, New Brunswick, Canada

<https://access.wildapricot.org/Upcoming-Meetings/Conferences-a-venir>

### 2024 Restore America's Estuaries Coastal & Estuarine Summit

6–10 October 2024

Arlington, Virginia, USA

<https://estuaries.org/2024-rae-summit/>

### 28th Biennial CERF Conference

9–13 November 2025

Richmond, Virginia, USA

<https://bit.ly/CERF2025>

# From the Skies to the Seas, Fulcrums to Flora

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As a kid, I was always looking up. The stars, the planets, and outer space all fascinated me to the point that I thought I was destined to become an astronaut or astronomer. Turns out being afraid of heights wasn't a desirable trait for those looking to go to the moon. Learning that it's pretty challenging to adequately view the night sky without a significant time and cash investment was also a hindrance for a busy amateur-star-gazing middle schooler. This never stopped me from watching almost every Perseid meteor shower with my mom in the early hours of peak nights in our rural town. I sometimes reminisce about these times as I am scrubbing seemingly never-ending layers of barnacles off sensors and experimental equipment used to study seagrass.

My path to the water was a winding one and at no point did I suspect I'd be slamming a PVC pipe into the bottom of a Texas Gulf Coast estuary to collect a sediment core. With eyes toward the sky, but feet firmly planted on the ground, I studied aerospace engineering at Penn State. Oddly enough I landed a job designing nuclear powered submarines which is where my interest in acoustics and the ocean began. Eventually I went to graduate school at the University of Texas (UT) with my dissertation focused on characterizing advanced underwater acoustic materials with specifically engineered microstructure. So naturally, I stayed in Texas for a post-doc studying the

acoustics of seagrass at the Applied Research Labs (ARL) at UT Austin.

The question remains though, why study seagrass? Our research group has studied the acoustic properties of seagrass for quite a few years, so I was already familiar with the work being done. Seagrasses contain an acoustically relevant cellular microstructure and my experience with material science and characterizing substructures led me to believe I could study a living, breathing, underwater "material" in a controlled laboratory setting. I also wanted to study the acoustic and structural effects on a single leaf when an individual bubble is released during photosynthesis. As it turns out, it was incredibly difficult for me, with little to no background in biology, to successfully cultivate an aquarium of underwater plants for a long-term study. *Thalassia testudinum* samples taken directly from the Gulf and planted in my carefully constructed tank suffered a myriad of problems from algae blooms to fungi takeovers, sediment composition issues, and some simply unexplained deaths. It got to the point where I decided to pursue 3D printing seagrass leaves at scale (with moderate success!) in parallel because of how challenging and frustrating this has been. Yet, here I am, still studying seagrass.

Conveniently enough, estuaries along the Texas Gulf Coast have numerous seagrass meadows and our group has been actively observing these

ecosystems in situ. Bubbles produced during photosynthesis and introduced into the water drastically affect sound propagation in the form of attenuation and scattering, and change with environmental factors and over multiple time scales. A two-year study began within the first few months into my post-doc and I got my first experience on a field test. Our team took a small boat to retrieve our equipment for refurb and data download. Clear skies, salty air on my face, being chased by dolphins and watching pelicans scoop up their breakfast...was this work? I was hooked. Although after working in gulf water, the smell from the water and organic matter was something to behold. That coupled with scrubbing barnacles and two months' worth of biofouling (my poor hands) from our equipment provided a perfect reality check on the trip. However, I was undeterred, and went on almost all subsequent field tests for the next two years.

Studying estuaries was never in my long-term vision for my career but I'm happy to have stumbled upon it, especially because I get the chance to work with the incredible team at ARL and the UT Marine Science Institute. Seagrass meadows are an important part of the local environment and using my skills to help understand the home of so many unique flora and fauna has been incredibly rewarding (even with the smell). Per aspera ad astra? Not quite. Per aspera ad maria.



# First-Time CERF Attendees

Kyle A Capistrant-Fossa<sup>1</sup> and Julie Walker<sup>2</sup>

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Like many of you, we recently attended the 2023 Biennial CERF Conference in Portland, Oregon, with 1,375 other participants. This year's conference attracted 682 first-time attendees, the largest percentage at an in-person CERF conference to date! This year's conference implemented numerous initiatives including CERF and Affiliate Society travel grants, the new the Rising TIDES Program and Inclusive Leadership Training, aimed at increasing accessibility not only to the field of coastal and estuarine science and the CERF conference. To gauge how well CERF is doing at welcoming new attendees, particularly early career scientists, we interviewed students from various stages on their conference experiences.



**Herbert Leavitt** is a PhD student at the University of Georgia researching mangrove encroachment using stable isotopes to determine how trophic dynamics may shift in Louisiana estuaries.

**Kyle:** Welcome! Why don't you tell us your experience at the conference so far?

**Herbert:** This is my first time at CERF,

the Pacific Northwest, and at any conference focused on ecology. So my first impression of CERF was that it was really nice to be surrounded by people that were actually interested in the same branch of science that I was interested in. It immediately felt super welcoming, I was excited to talk to people about things I like to talk about, and I think this was the first time that this felt like very much like a possibility at a conference like I went to.

**Kyle:** What was your most memorable experience at the conference so far?

**Herbert:** It was amazing to actually be able to go up to folks that I've read about. I started my degree during COVID, so it's been three years since I've been able to go to a conference. So being able to go to their talks and ask them questions was exciting and memorable and fun.

**Kyle:** What have you learned? Is there anything you learned you wish you knew before you came?

**Herbert:** I think especially for new students there is a lot of pressure to network and talk to people ... If you can, alleviate that pressure, if you can, decompress and be at your best for when it counts and not overextend yourself at every moment of the conference.

**Julie:** Is there anything that CERF can do better to be more welcoming for first-time attendees?

**Herbert:** I really liked that they had a first-time attendees' orientation, but it would help if they had more mental

health resources. I have seen with a couple other early career folks that I'm with at this conference that it can be kind of hard on the mental health. It's been a long week, you're kind of going all out, all week. I do think that talking about [mental health], prioritizing it, and encouraging people to prioritize it could be nice. I think it could be nice to give people that "out," let them know it's ok.

**Julie:** Maybe some more unstructured time?

**Herbert:** Yeah, maybe some more unstructured time or just letting them know it's ok to not make every talk or just take a break if you need it.



**Bethany Pertain** recently is a recent MS graduate from the University of Southern Mississippi who researched the biological assemblages of a deep-water coral reef using AUV and backscatter imagery. Bethany now works with NOAA in its biogeography branch working on the marine resources inventory of the Gulf of Mexico.

**Kyle:** So what have you thought of the conference so far?

**Bethany:** It's been good. It's my first in-person, big conference. I've only been the virtual ones. This is my first

time up in the Pacific Northwest. I've enjoyed it. It's a little bit different than where some of my interests lie. So there's been some things not really up my alley, but it's definitely been interesting to see what people are doing, essentially different methodologies I've never heard of or seen. There was a really cool talk today about the "artistic pathways of science" that involved music. I like art so it was cool to see how creative artists can be communicating science.

**Kyle: What's been your most memorable experience here so far?**

*Bethany:* Having to dance at 8:00 in the morning during the artist session of one of the last talks ... Everyone stands up and I'm like, do I have to dance early in the morning? Everyone was just really into it. But no, I'd say the connections I've made. I think it's really cool when you have that common connection of science. You are going to meet all these people; I think that's always really fruitful. It's fun to meet new people. Oh, and the Sunday I got to do one of the hike field trips and that was awesome.

**Kyle: Would you have done anything different as a first-time attendee?**

*Bethany:* I think I would have looked at the sessions a little ahead of time to kind of get a better sense. I feel like it can be hard to look at the app last minute and it is a little overwhelming in that sense. I would have better planned what sessions I wanted to go to. Maybe I missed something that I might have been more interested in in a different session.

**Julie: Anything that we haven't touched on that you'd like to share about your experience? Would you come back?**

*Bethany:* I think I'll come back. I thought it was also really interesting to hear the ... plenary speaker acknowledge [traditional knowledge] and then also try to bring a very diverse group of people into science because that's really important to get different perspectives. So I thought that was really cool that the conference did that.



**Lynna Benhamou** is an undergraduate student at The University of Texas at Austin studying the productivity of *Spartina alterniflora* growing amongst dead mangroves versus in a healthy meadow.

**Julie: How are you liking your first CERF?**

*Lynna:* I've enjoyed it. It's really great. There's so much to do and so much to learn. So I think that's been really nice. I feel like there's a good diversity of types of events being offered.

**Kyle: What have been some of your favorite events and activities you've done at CERF?**

*Lynna:* I really enjoyed the first keynote address. I thought that was really cool. It was ... a great way to set the tone of the conference and [learn] different things ... like traditional ecological knowledge; I didn't know that that was ... a thing that people do or ... implemented to their research.

**Julie: I see you were a volunteer, how was that?**

*Lynna:* So I mainly was a room monitor for different sessions. ... It was really interesting.

**Julie: What would you suggest for other undergrads who are thinking about attending CERF? Anything that you've learned from this conference? In your next conference, your next CERF?**

*Lynna:* Yeah. I mean, I'd say if there are opportunities to volunteer or get involved with the conference, definitely take them because I think that's just an easy way to put yourself in front of other people that you don't know. You go talk to random people, just go up to them. Be like, "hey, what's up?" You know, I feel like people are very receptive to that. So, yeah, just putting yourself out there is my biggest tip.

**Kyle: What was your most memorable experience from CERF? Good, bad, ugly?**

*Lynna:* I think probably the most memorable thing was like at the social event. We walk in this museum, right? And then you hear rave music and then like a fully lit dance floor with people dancing. I don't know if it was just like the dichotomy.... I love that we can mix having some fun in.

**Kyle: Is there anything you would have changed about the conference?**

*Lynna:* I mean, overall I think it was really great. It's really nice that everything is all in one area. One thing is the app. If you know how to use tech, I feel like the app isn't that hard to use. To be honest, I've heard lots of complaints, but I feel like it's been pretty great. I've enjoyed it a lot. Maybe the only thing that I would change is to include lunch. Free food is great!

## Fostering Inclusive Fieldwork Experiences Workshop

Erin Peck<sup>1</sup>, Serina Wittingham<sup>2</sup>, and Michelle Woods<sup>3</sup>

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The views expressed in this article are those of the author(s) and do not necessarily represent the views or the policies of the US Environmental Protection Agency.

The 26th Biennial CERF Conference in Portland, Oregon, kicked off with locally famous doughnuts (if you know, you know ... just kidding, we don't gate-keep: Voodoo Doughnut), including vegan and gluten-free options, and a workshop discussing inclusive fieldwork experiences. Fifteen conference attendees joined the CERF 2023 Education Subcommittee (Dr. Serina Wittingham, Michelle Woods, and Dr. Erin Peck) and two invited experts (Anjali D. Boyd and Dr. Trevyn Toone) to share experiences, questions, and strategies for creating research environments that are safe, accessible, and equitable.

For those of us who conduct and rely on field research to address pressing scientific and societal needs in the coastal and estuarine sciences, we know entering these environments comes with risks. Fieldwork is often remote, in settings that are physically challenging to access and traverse. When combined with barriers to social safety (e.g., racism, homophobia, ableism, sexual harassment, particularly in rural settings) and accessibility (e.g., caregiving responsibilities, field gear that doesn't fit or is prohibitively expensive, mental health challenges), fieldwork situations are downright dangerous and may foster feelings of exclusion. On the flipside,

positive field experiences increase participants' confidence and foster a strong sense of scientific identity<sup>1</sup>. There is growing awareness around inequities and biases in field settings, and a call for the normalization and even requirement of field safety plans. To address these needs, the CERF 2023 Education Subcommittee invited two leading experts, who are paving the way for more equitable and accessible fieldwork experiences, to lead a hands-on discussion with CERF attendees.



Anjali D. Boyd

Anjali D. Boyd (she/her, [anjali-boyd.com](http://anjali-boyd.com)) is a marine ecologist, educator, entrepreneur, and elected official. As a field ecologist, she has developed a suite of best practices to create a more inclusive space for herself and her field crew. As an educator, Anjali serves on the board of directors for the non-profit organization Black Women in Ecology, Evolution, and Marine Science (BWEEMS, [bweems.org](http://bweems.org)). Two of her golden rules for field work are to never do it alone and to always bring a satellite GPS/phone in case of emergencies.

Dr. Trevyn Toone (he/they, [trevyn-toone.com](http://trevyn-toone.com)) is a marine scientist and restoration ecologist who has worked in a variety of coastal ecosystems including seagrass beds, salt marshes, and shellfish reefs.



Dr. Trevyn Toone

When it comes to fieldwork inclusivity, his biggest recommendation is to act proactively rather than reactively by talking through potential risks and safety measures with your team before they are needed. You can learn more about their recommendations for increasing inclusivity in fieldwork in their recent publication in *Restoration Ecology*.<sup>2</sup>

The goals of the workshop were threefold: (1) create a space in which we could learn from one another how to create more accessible and inclusive field campaigns; (2) generate a living "best practices" document on accessible and inclusive field strategies to share with individual networks and the wider CERF community (linked at the bottom), and (3) make friends and new connections.

Primed with thoughtful discussion prompts and an enthusiasm to learn, participants asked questions of each other and the speakers, shared their own experiences, and brainstormed ways to enhance field safety and inclusivity at their home institutions. Participants recorded their ideas and takeaways and identified additional groups working to create more inclusive field experiences. Combined, these recommendations formed the foundation of our "best practices"

*continued on page 7*



## Student Presentation Award Recipients

Congratulations to our CERF 2023 student presentation award recipients! The top three students in each category were recognized for their outstanding work (listed in alphabetical order). Thank you to the more than 150 volunteer judges that reviewed presentations.

### Undergraduate Student Poster Presentation

Mayerli De Jesus Vega, Universidad Interamericana de Puerto Rico

Nicole Jerrell, University of Central Florida

Meghan Stevens, St. Mary's College of Maryland

### Undergraduate Student Lightning Presentation

Luke Bagdonas, Northeastern University

Leslie Palmer, Flagler College

Morgan Sharbaugh, The University of Alabama

### Undergraduate Student Traditional Oral Presentation

Miranda Goad, University of the Virgin Islands

Haley McCartney, Eckerd College

Diandre' Richie, University of North Carolina Wilmington

### Graduate Student Poster Presentation

Samantha Hormiga, Florida International University

Elisabeth Powell, University of Maryland

Chris Shipway, Clemson University

### Graduate Student Lightning Presentation

Anjali Boyd, Duke University

Tina Geller, University of Colorado Boulder

Jill Tupitza, Louisiana State University



*An array of sea stars, sea urchins, and mussel shells in the rocky intertidal zone of Kachemak Bay National Estuarine Research Reserve, Homer, Alaska, USA* Photo: NOAA Photo Library

### Graduate Student Traditional Oral Presentation

John Kristoffer Andres, University of Central Florida

Hannah Henry, Auburn University

Laura Manuel, Tulane University

### Coastal Design Competition Award Recipients

Congratulations to the students from Florida International University (FIU) and Victoria University of Wellington (VUW), New Zealand, on their awards for the 2023 CERF Coastal Design Competition! Student teams from each university developed designs to address resilience challenges facing the town of Tillamook, Oregon, including recurring flooding with associated property damage and business continuity interruptions due to loss of wetlands and protective natural systems, as well as loss of fishing economy due to contaminated waterways and habitat migration. The FIU team received the award for best written report, while the VUW team received the award for best presentation. The designs will be shared with Tillamook as part of the state's efforts to develop resilience plans for coastal Oregon. The VUW team members consisted of students Luke Gray, Zoe Mason, Lauren Kendon, Hannah Merrett-Kaufman, and Tyler Florance and faculty advisor Victoria Chanse, and the FIU team members were students Sofia Hernandez, Anne Coke, Raquel Rosati, and faculty advisor Ebru Ozer.

### Fostering Inclusive Fieldwork *continued*

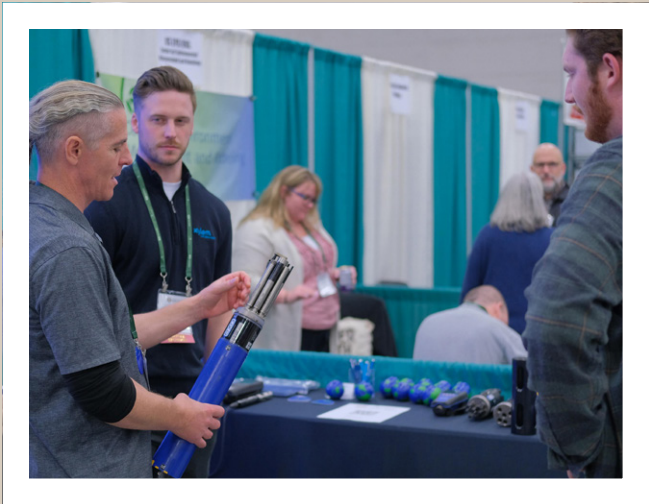
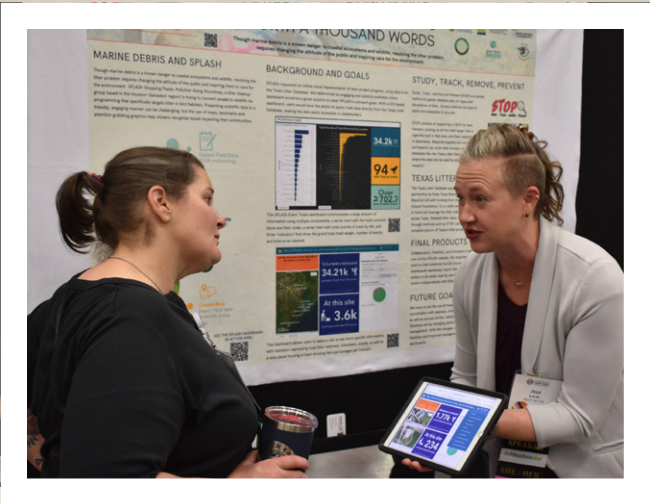
document. We hope this session will happen again at future CERF conferences!

The "best practices" resource document can be found at <https://bit.ly/InclusiveFieldwork> and additional suggestions can be shared through the following survey document: <https://forms.gle/hFzGVC5RLKvXJGqK7>. If you would like to join the CERF Education Subcommittee in planning for the 2025 CERF 28th Biennial Conference, contact Dr. Susan Park ([spark@cerf.science](mailto:spark@cerf.science)).

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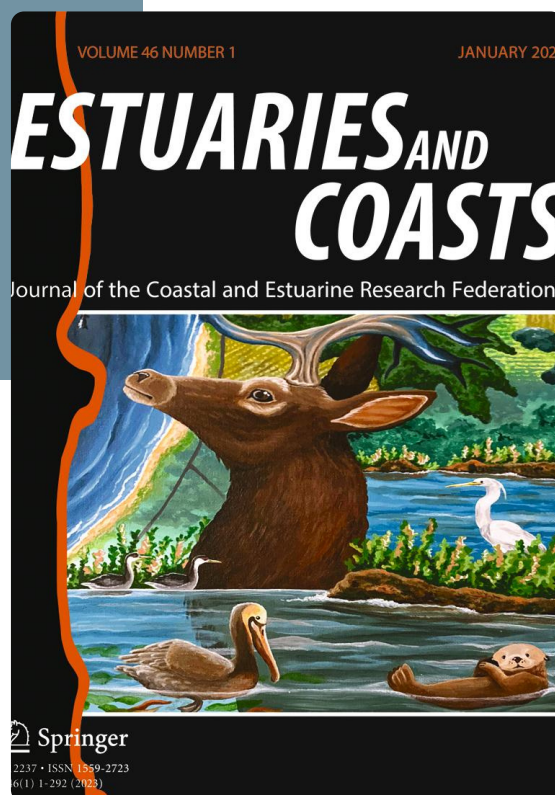
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# ESTUARIES AND COASTS

## Submit your CERF 2023 paper



### WHY CHOOSE US?

-  2022 Impact Factor: 2.7
-  Time to first decision: 47 days
-  Broad readership: SpringerLink has over 50 million users at more than 15,000 institutions worldwide
-  Open access option through Springer Open Choice
-  Freely share your work via "SharedIt"

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- Ken Heck - [kheck@disl.org](mailto:kheck@disl.org)

## Conveners: Consider a special issue

 [www.springer.com/journal/12237](http://www.springer.com/journal/12237)

# CERF 2023 Code of Conduct and Ombuds Transparency Report

CERF has made it a priority to have the Biennial CERF Conference, and all CERF events, be safe and welcoming for all participants. Since CERF 2019, CERF has implemented and enforced an Event Code of Conduct at its biennial conference, and we continue to revise and improve the code and its implementation. New in 2023, CERF provided a conference ombuds to serve as a neutral, independent, off-the-record resource available on-site to hear concerns confidentially. The ombuds was available to assist with identifying options and resources to address conflicts or issues such as harassment, microaggressions, discrimination, or any violation of CERF’s Event Code of Conduct.

As part of our efforts to make CERF conferences safe and welcome, CERF is committed to releasing a transparency report summarizing incidents and consequences after each conference. The Code of Conduct has a strong emphasis on confidentiality; this report has been written in such a way to avoid linking reporters with specific incidents. The goal of this transparency report is to provide the community with a sense of how the Code of Conduct functions so they can build trust in the process and recommend improvements.

At CERF 2023, we did not receive any complaints of violations of the code of conduct through our formal reporting mechanisms. As part of the post-conference survey, CERF asked if participants were aware of the Event Code of Conduct,

and whether they witnessed or were subject to violations of the Code. Of 191 respondents, 69% said they were aware of the code of conduct to a moderate or large extent, 48% said they were aware of ways to report code of conduct violations to a moderate or large extent; and 44% said they were aware of the ombuds to a moderate or large extent. This indicates a need to find ways to better inform attendees of these important safety measures. Of 190 respondents, two said that they had witnessed or were subject to a violation: one related to age discrimination on one to violations of the social media policy. This information helps CERF to better understand the extent of violations, as well as how we may better implement the Code.

Ombuds Nnena Odim is a mediator, ombuds, attorney, trainer, and consultant. At CERF 2023, she provided a safe and confidential space for conference participants to share their thoughts and give feedback about the conference; by her visibility and presence, she provided the opportunity for people to reconsider their conduct and behavior; she gave participants the opportunity

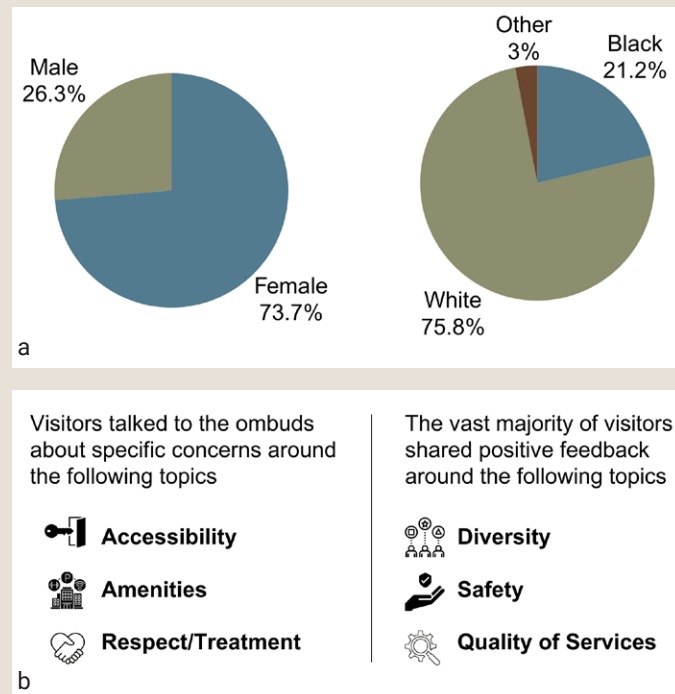


Fig. 1. (a) demographics of people who visited the CERF 2023 conference ombuds and (b) a summary of the ombud's discussions.

to express and process their concerns so that they could continue to participate in the conference from a better place and to bring their best selves to the rest of the conference; and she provided referrals and conference resources to visitors seeking conference-related assistance. Thirty people talked to Nnena during the conference. Figure 1 summarizes the demographics of visitors and the information learned. You can see a full CERF 2023 conference ombuds report at <https://conference.cerf.science/2023-ombuds-report>.

If you have suggestions for how we can make the next meeting more welcoming and supportive, contact Susan Park at [spark@cerf.science](mailto:spark@cerf.science).

## New CERF Mission, Vision, and Values Statements

The Governing Board is excited to announce an update to the CERF mission, vision, and values statements. While the new mission will need to be approved by a vote the members, the vision and values statements have been revised and approved by the Board based on the extensive community input that led to our new strategic plan and to better reflect the current culture and direction of the Federation. We hope you'll provide your feedback and vote to approve the new mission; members will receive a ballot soon!

**Mission** (for approval): To foster a diverse and inclusive community of coastal and estuarine science and

management professionals, thereby improving our ability to advance scientific knowledge and stewardship.

**Vision:** CERF envisions a future where solutions to global challenges facing coastal and estuarine systems are grounded by innovative, inclusive, and collaborative scientific research.

### Values

- *Collaboration:* We recognize that our work is innovative and impactful when we convene and collaborate with a diverse group of individuals and listen to, respect, and synthesize different points of view and ways of knowing.

- *Ethics:* We adhere to the highest ethical standards as they are fundamental to scientific integrity, professionalism, and trust in the Federation.
- *Impact:* We promote research and management that is relevant and responsive to the needs of communities reliant on coastal and estuarine systems.
- *Equity and Inclusion:* We actively leverage our field's global diversity to create and maintain inclusive and equitable working and learning environments and to recognize and incorporate social and environmental justice issues in our work.

## Membership Fees Increase

The Governing Board has made the decision to increase most member dues to allow us to maintain the benefits our members expect from CERF as well as provide new benefits (see President's Letter for more details). This is the first time that dues have been increased since 2007. The new rates take effect for those who join after 1 April or whose renewal is due after 30 May. The 10% discount for two-year renewals will still be available.

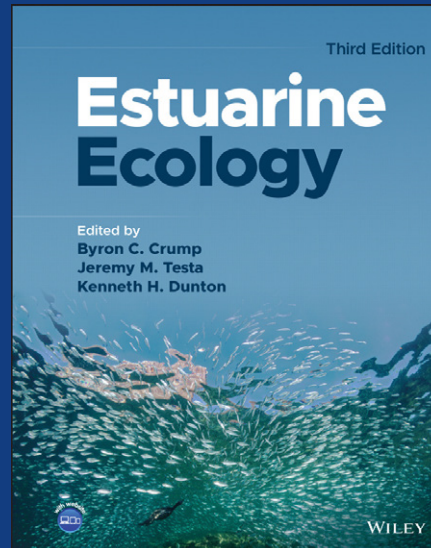
| Membership Category           | Current 1-Year membership Fee | New 1-Year membership Fee |
|-------------------------------|-------------------------------|---------------------------|
| Sustaining                    | \$200                         | \$240                     |
| Full                          | \$120                         | \$140                     |
| Mid-Career Professional       | \$90                          | \$100                     |
| Emerging & Developing Country | \$60                          | \$40                      |
| Early Professional            | \$60                          | \$65                      |
| Emeritus                      | \$35                          | \$40                      |
| Student                       | \$30                          | \$35                      |

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# *Estuarine Ecology,* 3rd Edition

Edited by Byron C. Crump, Jeremy M. Testa,  
and Kenneth H. Dunton

ISBN 978-1-119-86699-2 | Hardcover  
November 2022 | 480 pages



**A detailed and accessible exploration of the fundamentals and the latest advances in estuarine ecology.**

In the newly revised third edition of *Estuarine Ecology*, a team of distinguished ecologists presents the current knowledge in estuarine ecology with particular emphasis on recent trends and advances. The book is accessible to undergraduate students while also providing a welcome summary of up-to-date content for a more advanced readership.

This latest edition is optimized for classroom use, with a more intuitive mode of presentation that takes into account feedback from the previous edition's readers. Review questions and exercises have been added to assist in the learning and retention of complex concepts.

*Estuarine Ecology* remains the gold standard for the discipline by taking stock of the manifold scientific breakthroughs made in the field since the last edition was written. It also offers:

- Thorough introductions to estuarine geomorphology, circulation, and chemistry
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Perfect for students of estuarine ecology, environmental science, fisheries science, oceanography, and natural resource management, *Estuarine Ecology* will also earn a place in the libraries of professionals, government employees, and consultants working on estuary and wetlands management and conservation.

## ABOUT THE EDITORS

**Byron C. Crump**, PhD, Oregon State University, USA

**Jeremy M. Testa**, PhD, University of Maryland Center for Environmental Science, USA

**Kenneth H. Dunton**, University of Texas at Austin, USA

*Changing the Culture of our Occupations to Achieve Systemic Transformation (C-COAST) is a National Science Foundation-funded program led by CERF in partnership with California State University Long Beach, University of Central Florida, University of Rhode Island, University of Southern Mississippi, and University of the Virgin Islands. This four-year, US\$2M grant supports an expanded Rising TIDES program and the new CERF Inclusive Leadership Program. C-COAST is supported by NSF Award Nos 233699, 2233700, 2233701, 2233702, 2233703 and NOAA NOS Award No NA23NOS4790256*

## 2023–2024 CERF Rising TIDES Program

Rising TIDES (Toward an Inclusive, Diverse, and Enriched Society) supports students from backgrounds underrepresented in coastal and estuarine disciplines with the goal of inspiring and motivating them to pursue careers in coastal and estuarine science and management. The 2023–2024 program provides funding for scholars and near-peer mentors to attend CERF 2023, a regional CERF Affiliate Society meeting, and the 2024 Restore America's Estuaries Summit, while also providing mentorship, networking, and professional development. We are thrilled that through funding from NSF and NOAA, we are able to support 28 scholars, seven near-peer mentors, and seven professional mentors. Participants were placed in mentoring pods of three to four scholars, one near-peer mentor (a Rising TIDES alum), and one professional mentor. Through joint support of students, near-peer mentors, and professional mentors, this program aims to enhance career development of minoritized and marginalized students in the coastal and estuarine sciences, provide leadership opportunities for near-peer mentors, ensure that students participating in the program will have sustained mentorship following the conference, help develop a community of practice for CERF members who are engaged in building diversity and inclusion within their own organizations and across institutions, and involve those who are already mentors in helping to transform CERF into a broadly inclusive society. Participants were provided with training, networking opportunities, and many presented their research – and received presentation awards.

In addition to the CERF participants, we were able to include students from two additional NSF-funded programs, the SEAS Islands Alliance (<https://www.seasislandsalliance.org/>) and C-StREAM (<https://chesapeake.org/c-stream/>), to participate in Rising TIDES programming at CERF 2023, for a total of 83 Rising TIDES participants at CERF 2023 in Portland!

Rising TIDES is being led by co-Principal Investigators Susan Park, CERF Executive Director; Kristin Wilson Grimes, University of the Virgin Islands; and Christine Whitcraft, California State University Long Beach. In addition, a large team of CERF staff and volunteers are working together to plan and implement Rising TIDES programming: Amara Foster, CERF C-COAST Program Coordinator; Anita Arenas, California State University Long Beach; Anjali Boyd, Duke University; Brandon Quintana,

California State University Fullerton; Savannah Swinea, Northeastern University; Hilary Neckles, US Geological Survey (retired); Treda Grayson, US Environmental Protection Agency; Allison Fitzgerald, New Jersey City University; and Drew Talley, University of San Diego.

### CERF Scholars

- Docia Agyapong, University of Cape Coast
- Luciana Banquero, University of Central Florida
- Alyah Bennett, University of North Florida
- Alexandra Cormak, University of the Virgin Islands
- Khari Crommarty, Old Dominion University
- Sage Enright, Western Washington University
- Mia Francis, University of New Brunswick, Saint John
- Anahy Garza, California State University, Los Angeles
- Yasmine Gatt, National University of Singapore
- Vincent Hart Jr., Southeastern Louisiana University
- Hannah Henry, Auburn University
- Valeria Hernandez Talavera, University of Massachusetts, Boston
- Hiu Ting (Tiffany) Ko, Sonoma State University
- Makadunyiswe (Maka) Ngulube, Saint Mary's University
- Merry Ann Ocampo, University of Guam
- Christian Pryor, Texas A&M University, Galveston
- Jennifer Raabe, University of Louisiana, Lafayette
- Zlatka Rebolledo Sanchez, Old Dominion University
- Diandre' Richie, University of North Carolina, Wilmington
- Natalia Schoenberg, Virginia Institute of Marine Science, College of William & Mary
- Stephanie Tsui, Northeastern University
- McKenna Varela, Western Washington University
- Ruth Wright, The University of North Carolina, Charlotte
- Siyah Yongue, Louisiana State University
- Grace Young, California State University, Fullerton
- Scott Lee Young, University of Florida
- Mengyang Zhou, University of Connecticut
- Alex Zinck, The Evergreen State College

### C-StREAM and SEAS Scholars

- Shamoy Bideau, University of the Virgin Islands
- Amanda Boissiere, University of the Virgin Islands
- Zach Briggs, University of the Virgin Islands
- Chloe Camacho, University of the Virgin Islands
- Nathalia Lugo Ciriaco, Universidad Interamericana de Puerto Rico
- Emma Chuang, Oregon State University
- Geovany Borrero Colon, Universidad Interamericana de Puerto Rico





Rising TIDES participants at CERF 2023

Photo: Ashley Goetz, Maryland Sea Grant

- Lyn Galang, University of Guam
- Miranda Goad, University of the Virgin Islands
- Denny Gonzalez, University of the Virgin Islands
- Kayla Halliday, University of the Virgin Islands
- Sarai Hutchison, University of the Virgin Islands
- Adnerys Lianis Burgos Lopez, Universidad Interamericana de Puerto Rico
- Kahissa Paola Manzano Martir, Universidad Interamericana de Puerto Rico
- Sierrah Mueller, University of the Virgin Islands
- Criselys Perez Nevarez, Universidad Interamericana de Puerto Rico
- Laura Palomino Bloem, University of the Virgin Islands
- Adriana Cruz Olmo, Universidad Interamericana de Puerto Rico
- Julia Plotkin, University of the Virgin Islands
- Anthony Ritter, University of Guam
- Naomi Santiago Santiago, Universidad Interamericana de Puerto Rico
- Nathalie Torres Serrano, Universidad Interamericana de Puerto Rico
- Jordan Silva, University of the Virgin Islands
- Ella Troutman, University of the Virgin Islands
- Mayerli De Jesus Vega, Universidad Interamericana de Puerto Rico

#### **CERF Near-peer Mentors**

- Kailani Acosta, Columbia University
- Jade Blennau, Peconic Estuaries Program
- Archi Howlader, US Geological Survey
- Gabriela (Bella) Reyes, University of Florida
- Alfonso Macias Tapia, NOAA Office of Education
- Briana Yancy, NOAA Knauss Fellow
- Jenn Zhu, Billion Oyster Project

#### **SEAS Near-peer Mentors**

- Anna Aguirre, University of Guam
- Anela Duenas, University of Guam
- Allison Holevoet, University of the Virgin Islands
- Arianah Montijo, Universidad Interamericana de Puerto Rico
- Stephanie Lopez Rivera, Universidad Interamericana de Puerto Rico
- Edier Roman, Universidad Interamericana de Puerto Rico
- Lila Uzzell, University of the Virgin Islands
- Mirim Villafane Vincente, Universidad Interamericana de Puerto Rico
- Isabel Sanchez Viruet, Puerto Rico

#### **CERF Professional Mentors**

- Neil Ganju, US Geological Survey
- Leanna Heffner, Alaska Conservation Foundation
- Brittany King, NOAA
- Chanda Littles, US Army Corps of Engineers
- Johnny Quispe, The Nature Conservancy
- Lori Sutter, University of North Carolina, Wilmington
- Drew Talley, University of San Diego

#### **SEAS Professional Mentors**

- Maria Barberena-Arias, Universidad Interamericana de Puerto Rico
- Allie Durdall, University of the Virgin Islands
- Delsa Gonzalez, University of the Virgin Islands
- Lora Harris, University of Maryland Center for Environmental Science
- Fredika Moser, Maryland Sea Grant
- Jamie Pierson, University of Maryland Center for Environmental Science
- Kaleigh Schlender, University of the Virgin Islands
- Sarai Vega, University of Guam

## 2023–2024 CERF Inclusive Leadership Program



*Inclusive Leadership Program participants and leadership team at the in-person kick-off retreat, September 2023, at Western Washington University's Shannon Point Marine Center, Anacortes, Washington, USA. From left to right: Shani Dellimore Barrax, Treda Grayson, Pedro Morais, Anna Pfeiffer-Herbert, Zola Roper, Alfonsina Romo-Curiel, Cecily Steppe, Krista Kamer, Malachy McCaffrey, Danielle Perry, Amara Foster, Christopher Katalinas, Rae Quadara, Jennifer Sandoval, and Kristy Lewis*

Photo: Melanie Martin, Western Washington University

CERF is excited to announce the inaugural cohort of the Inclusive Leadership Program (ILP), which supports coastal and estuarine scientists and managers from all career stages with the goal of creating and sustaining a more equitable and inclusive field. This 18-month program engages current and future leaders to be culture change agents through personal and professional development activities. ILP participants receive expert-led training in three key knowledge areas: diversity, equity, inclusion, and belonging foundations; leadership skills; and capacity to drive change. Participants learn through group training and discussion, self-reflection activities, leadership projects, and one-on-one coaching at three in-person events and regular virtual meetings. We are excited that through funding from the National Science Foundation (NSF), we are able to support 10 leaders in the first cohort of this program, which kicked off with a retreat in September 2023 at the Western Washington University Shannon Point Marine Center in Anacortes, Washington.

### Meet the Leaders!

- Krista Kamer, Director, California State University Council on Ocean Affairs, Science & Technology (CSU COAST)
- Christopher Katalinas, Learning Coordinator for NOAA's Margaret A. Davidson Graduate Fellowship, Lynker at the NOAA Office for Coastal Management
- Malachy McCaffrey, Research Technician, Florida Atlantic University Harbor Branch Oceanographic Institute
- Pedro Morais, Training Coordinator, Sustainable and

- Smart Aquaculture Collaborative Laboratory
- Danielle Perry, Marine Habitat Resource Specialist, NOAA Fisheries
- Anna Pfeiffer-Herbert, Associate Professor of Marine Science, School of Natural Sciences & Mathematics, Stockton University
- Rae Quadara, Marine Education Project Manager, The University of Southern Mississippi's Marine Education Center
- Alfonsina Romo-Curiel, Project Manager, Centro de Investigación Científica y de Educación Superior de Ensenada (CICESE)
- Zola Roper, Marine Debris Coordinator, U.S. Virgin Islands Department of Planning and Natural Resources
- Cecily Steppe, Professor and past chair, Department of Ocean and Atmospheric Sciences, United States Naval Academy

### Meet the Facilitators!

Shani Dellimore Barrax is a diversity, equity, and inclusion (DEI) strategist with more than 25 years of practical experience in DEI training and development; change leadership, management and agency; data-informed strategy and action planning, and capacity-building programming. At her core, Shani is a change agent grounded in cultural humility, striving to replicate change agency for those committed to creating and sustaining spaces that are humane - where everyone can thrive, engage, and develop with psychological safety. Shani has led and liaised with cross-functional teams across sectors including education, nonprofit and nongovernmental organizations, associations, corporate, and the arts to increase individual and organizational capacities through change agency facilitation.

Dr. Jennifer Sandoval is an Associate Professor of Communication at the University of Central Florida and a campus leader for equity and inclusion initiatives. She has a Master's in Dispute Resolution from Pepperdine University School of Law and a Ph.D. in Culture and Communication from the University of New Mexico. As an expert in communicating effectively across difference and difficulty she has worked with many leaders and organizations to implement evidence based and promising practices that enhance work cultures and climates. Her research focuses on how identity shows up in complex spaces like healthcare, education, and environmental work.

The ILP is being led by a team of CERF staff and volunteers: Leila Hamdan, University of Southern Mississippi; Treda Grayson, US Environmental Protection Agency; Kristy Lewis, University of Rhode Island; Amara Foster, CERF C-COAST Program Coordinator; and Susan Park, CERF Executive Director.

## ANGELS & SUSTAINERS 2023

### Angels

From 1 January to 31 December 2023, the following Federation members donated to the William E. Odum Fund, Donald W. Pritchard Fund, CERF Enhancement Fund, Scott W. Nixon Fund, and/or the Legacy Fund.

|                     |                       |
|---------------------|-----------------------|
| Robert Aller        | John Largier          |
| Mary Barber         | James Latimer         |
| Veronica Berounsky  | Lisa Lucas            |
| Elizabeth Blair     | Mira Lutz             |
| Amy Borde           | Maurice Lynch         |
| Mark Botton         | Roxanne Marino        |
| Walter Boynton      | Stephen Monismith     |
| David Buzan         | Paul Montagna         |
| Robert Christian    | Kenneth Moore         |
| Daniel Conley       | Dr. Raymond Morgan II |
| Jeffrey Cornwell    | Hilary Neckles        |
| Gregory Cutter      | Walt Nelson           |
| Daniel Dauer        | Nicholas Nidzieko     |
| Theresa Davenport   | Daniel Obenour        |
| Robert Diaz         | Eugene Olmi           |
| Frances Quay Dortch | Candace Oviatt        |
| Sarah Durand        | Hans Paerl            |
| Kenneth Foreman     | Susan Park            |
| Mariana Framinan    | Charles Roman         |
| Anne Giblin         | Lawrence Rozas        |
| Holly Greening      | Paul Sacks            |
| Margaret Hall       | Lawrence Sanford      |
| Leila Hamdan        | Frederick Short       |
| Lora Harris         | Stacy Smith           |
| Leanna Heffner      | Cecily Steppe         |
| Douglas Hersh       | Andrew Stoddard       |
| Eileen Hofmann      | Peter Straub          |
| Michael Horn        | Camm Swift            |
| Alex Horner-Devine  | Robert Twilley        |
| Norman Johns        | Cynthia Venn          |
| James Kaldy         | Robert Virnstein      |
| David Karlen        | R. Scott Warren       |
| Ronald Kaufmann     | Emma Wear             |
| Carolyn Keefe       | Judith Weis           |
| Michael Kennish     | Nathaniel Weston      |
| Ana Lara-Dominguez  | Andrew Wozniak        |

### Sustainers

Many thanks to the members who joined or renewed at the Sustaining Member level. Your extra efforts on behalf of CERF will ensure the future of the Federation.\*

|                    |                    |
|--------------------|--------------------|
| Mark Adams         | Hiu Ting Ko        |
| Merryl Alber       | Sarah Kolesar      |
| Dennis Allen       | John Largier       |
| Mary Barber        | Karin Limburg      |
| Joy Bartholomew    | Maurice Lynch      |
| Linda Blum         | Parker MacCready   |
| Donald Boesch      | James McClelland   |
| Brett Branco       | Ole Mikkelsen      |
| Deborah Bronk      | Paul Montagna      |
| Kate Buenau        | Michael Murrell    |
| David Buzan        | Hilary Neckles     |
| Joanna Carey       | Christopher Neill  |
| Ruth Carmichael    | Karina Nielsen     |
| Just Cebrian       | Christopher Osburn |
| Gail Chmura        | Susan Park         |
| Daniel Conley      | Peter Raymond      |
| Anthony D'Andrea   | Francis Reilly     |
| Daniel Dauer       | Brian Roberts      |
| Linda Deegan       | Kenneth Rose       |
| Robert Diaz        | John Rybczyk       |
| Kenneth Foreman    | Anne Shaffer       |
| Jim Fourqurean     | Erik Smith         |
| Anne Giblin        | Cecily Steppe      |
| Patricia Glibert   | Camm Swift         |
| Holly Greening     | Robert Twilley     |
| Leila Hamdan       | Cynthia Venn       |
| Lora Harris        | William Vervaeke   |
| Kenneth Heck       | Dara Wilber        |
| Robert Howarth     | Richard Zimmerman  |
| R. Christian Jones |                    |

\*Members listed were active as of 4 January 2024.

## The Latest Coastal & Estuarine Science News (CESN)

Merryl Alber, CESN Editor, University of Georgia

Janet Fang, CESN Science Writer/Managing Editor

CESN is an electronic newsletter that is put out on a bimonthly basis (six issues per year) and serves as a companion to the journal *Estuaries and Coasts*. Each issue of CESN provides a summary of four articles from the journal, written for an audience of coastal managers and other interested stakeholders and emphasizing the management applications of scientific findings. Issues are posted online and emailed to subscribers. Go to the CESN website at [www.cerf.science/cesn](http://www.cerf.science/cesn) to read the full summaries and sign up to have future issues delivered to your email inbox.

### 2023 CESN Issue 6

#### A Novel Tool for Science-Based Coastal Management Using geospatial data to guide marsh restoration across a broad estuarine landscape

Source: Ganju, N.K. et al. 2023. Using Geospatial Analysis to Guide Marsh Restoration in Chesapeake Bay and Beyond. *Estuaries and Coasts*. DOI: 10.1007/s12237-023-01275-x

<https://rdcu.be/dnirw>

<https://cerf.memberclicks.net/cesn-2023-issue-6#Article1>

#### What if the River Doesn't Meet the Sea? Recognizing low-inflow estuaries

Source: Largier, J.L. 2023. Recognizing Low-Inflow Estuaries as a Common Estuary Paradigm. *Estuaries and Coasts*. DOI: 10.1007/s12237-023-01271-1

<https://rdcu.be/do6KU>

<https://cerf.memberclicks.net/cesn-2023-issue-6#Article2>

#### Tidal Flooding When the Skies Are Blue Nutrient loads can spike after just one flood tide

Source: Macías-Tapia, A. et al. 2023. Five Years Measuring the Muck: Evaluating Interannual Variability of Nutrient Loads from Tidal Flooding. *Estuaries and Coasts*. DOI: 10.1007/s12237-023-01245-3

<https://rdcu.be/dninM>

<https://cerf.memberclicks.net/cesn-2023-issue-6#Article3>

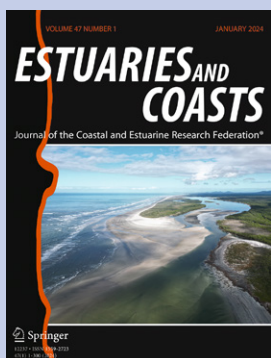
#### Assessing Shoreline Changes Using Satellite Imagery How does it compare with aerial photography of the Chesapeake Bay?

Source: Nezlin, N.P. et al. 2023. Assessment of Changes of Complex Shoreline from Medium-Resolution Satellite Imagery. *Estuaries and Coasts*. DOI: 10.1007/s12237-023-01259-x

<https://rdcu.be/dnior>

<https://cerf.memberclicks.net/cesn-2023-issue-6#Article4>

### Estuaries and Coasts Editors' Choice Papers



#### November 2023 – The H.T. Odum Synthesis Essay

Orth, R.J. and K.L. Heck Jr. 2023. The Dynamics of Seagrass Ecosystems: History, Past Accomplishments, and Future Prospects. *Estuaries and Coasts* 46(7): 1653–1676. <https://rdcu.be/dyoUP>

#### December 2023 – Special Issue: Ecology, Stressors, and Management of Low Inflow Estuaries

Largier, J.L. 2023. Recognizing Low-Inflow Estuaries as a Common Estuary Paradigm. *Estuaries and Coasts* 46(8): 1949–1970. <https://rdcu.be/dyoU5>

#### January 2024

Ganju, N.K. et al. 2024. Using Geospatial Analysis to Guide Marsh Restoration in Chesapeake Bay and Beyond. *Estuaries and Coasts* 47(1): 1–17. <https://rdcu.be/dyoVo>

#### March 2024

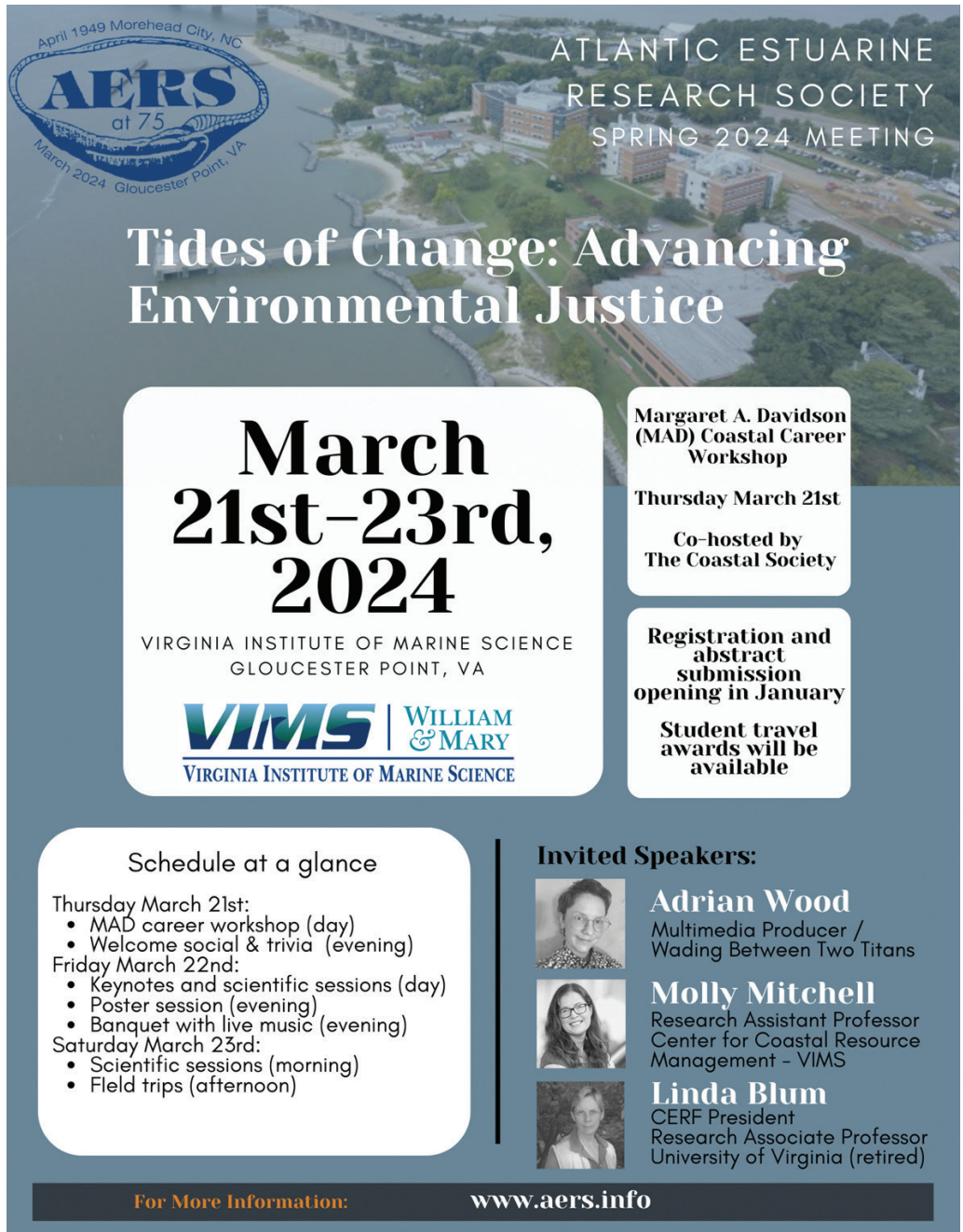
Andrisoa, A. et al. 2024. Tracing Groundwater Sources in Coastal Food Webs: Nitrogen and Carbon Isotope Values in Mussels in a Mediterranean Lagoon. *Estuaries and Coasts* 47(2): 301–314. <https://rdcu.be/dzbV2>



# Affiliate News: AERS 75th Anniversary

The Atlantic Estuarine Research Society (AERS) is getting ready to celebrate our 75th anniversary! OK, technically we have been celebrating for a year already, as AERS was formed in 1948, but the first meeting wasn't held until 1949, and if you know AERSians, we'll take any excuse for a party! The first meeting was held in Morehead City, North Carolina, in 1949 and consisted of only 22 scientists in attendance. Can we add a zero to that for our next meeting? Maybe if you attend! Join us 21-23 March 2024 at the Virginia Institute of Marine Science for our 75th anniversary meeting. Registration is open on the AERS website, [www.AERS.info](http://www.AERS.info). You won't want to miss this one as we have an exciting panel of speakers focusing on the theme of environmental justice, plus CERF President Linda Blum will be joining us to give a retrospective of AERS. There are a few other special events in the works including a Margaret A. Davidson (MAD) coastal career workshop in partnership with The Coastal Society (TCS), and a lunchtime training about ways to make a more welcoming, inclusive environment for transgender and nonbinary individuals.

In other news, AERS is in the final stages of developing a student research grant. The intent of the Student Small Research Grant Award is to encourage and reward students by defraying the costs of pursuing their stated goals. Eligible research will be relevant to the overall mission



The poster features an aerial view of the Virginia Institute of Marine Science campus. At the top left is the AERS at 75 logo. The main title reads 'ATLANTIC ESTUARINE RESEARCH SOCIETY SPRING 2024 MEETING' and 'Tides of Change: Advancing Environmental Justice'. The dates 'March 21st-23rd, 2024' are prominently displayed. Below the dates is the VIMS logo and the text 'VIRGINIA INSTITUTE OF MARINE SCIENCE GLOUCESTER POINT, VA'. To the right, a box lists 'Margaret A. Davidson (MAD) Coastal Career Workshop' on Thursday, March 21st, co-hosted by The Coastal Society. Another box states 'Registration and abstract submission opening in January' and 'Student travel awards will be available'. A 'Schedule at a glance' box lists events for Thursday, Friday, and Saturday. An 'Invited Speakers' section includes photos and names of Adrian Wood, Molly Mitchell, and Linda Blum. At the bottom, it says 'For More Information: www.aers.info'.

of AERS and reflect excellence in academic rigor and student potential. Further, this award will add value to students beyond meetings, encourage and reward excellence in student research scholarship, and strengthen the scientifically rigorous reputation of AERS. Lastly, the award

will provide a mechanism of positive feedback for students developing professional careers in estuarine science. Please stay tuned to our website for further information once the application process and selection criteria are finalized.

## Alexander Agassiz: An Early Estuarine and Coastal Scientist

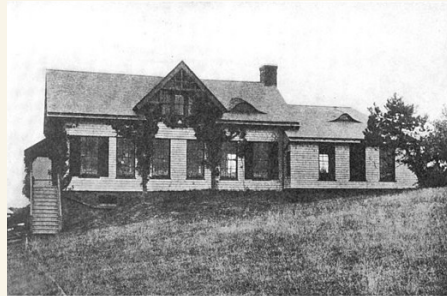
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Alexander Agassiz (1835–1910) built and ran one of the first marine field stations in the US. In the 1800s, much of the marine science being done was carried out in estuaries and on coasts. Alexander's father, Lous Agassiz, had established in 1873 the Anderson School of Natural History on Penikese Island in Buzzards Bay, Massachusetts. When Louis died at the end of that year, Alexander took over. But the expense of running a school and lab on the island led the trustees to petition John Anderson—the wealthy merchant who had offered the island and funded the first year—to move the facility to Woods Hole. Anderson declined.

Hence, in 1877, Alexander designed and built at his own expense a marine laboratory on the grounds of his Gilded Age summer home at Castle Hill in Newport, Rhode Island, on Narragansett Bay. He had earned his substantial wealth from developing and managing the Calumet and Hecla copper mine in Michigan, at the time the largest in the world.

Agassiz described the Newport lab in a report he sent to *Nature* in 1879. The lab had workbenches for sorting, dissection, microscopic work, and illustration. An innovative Agassiz design was placing the microscope tables on top of brick piers and arches independent of the main building so that people walking over the wooden floors did not disturb those looking through microscopes. Researchers collected specimens by hand-collecting along the shore and from a steam launch with pelagic nets and bottom dredges.

Agassiz worked on taxonomy,



*Alexander Agassiz's Newport Marine Zoological Laboratory*

Photo: Annual Report of the Curator of the Museum of Comparative Zoology at Harvard for 1891-92

embryology, and early development of jellyfish, sea urchins, starfish, polychaetes, and fishes. He invited graduate students and instructors from Harvard to study at the lab. One student, W.E. Castle, in an 1893 article in *Science*, wrote that the summer activities at the lab provided “a very paradise for the marine zoologist.”

Agassiz in 1892 proposed that Harvard expand the Newport facility with a second laboratory building, a dormitory, a large seagoing launch, an aquarium, and a 200-foot research steamer. He promised to leave the lab to Harvard in his will. Harvard did not accept the offer.

With the publication of his *Revision of the Echini* (sea urchins), Agassiz became the leading world authority on that group and he wrote the volume on Echinoidea for the British Challenger expedition, 1872–1876. He published 145 papers on marine zoology, succeeded his father as Director of the Harvard Museum of Comparative Zoology, 1874–1910, was President of the US National Academy of Sciences, 1901–1907, and became one of the most prominent marine scientists of his day.



*Alexander Agassiz and students sampling Narragansett Bay for zoological specimens*

Photo: Frank Leslie's Illustrated Newspaper

Universities, learned societies, and countries around the world bestowed upon Agassiz their highest scientific honors.

The influence of the father and son Agassiz on marine biology is indicated by over 130 marine species with the root “Agassiz” in the scientific name. Agassiz influence is also reflected in the number of former students and assistants who went on to found other marine labs, including Alpheus Hyatt and Charles Whitman at the Marine Biological Laboratory and Henry Bigelow at the Woods Hole Oceanographic Institution. The first research ship launched by the precursor of the Scripps Institution of Oceanography in 1907 was named the “Alexander Agassiz.”

Curious CERFers can see the former lab on the grounds of what is now the Castle Hill Inn in Newport.



*An Early CERFer*

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