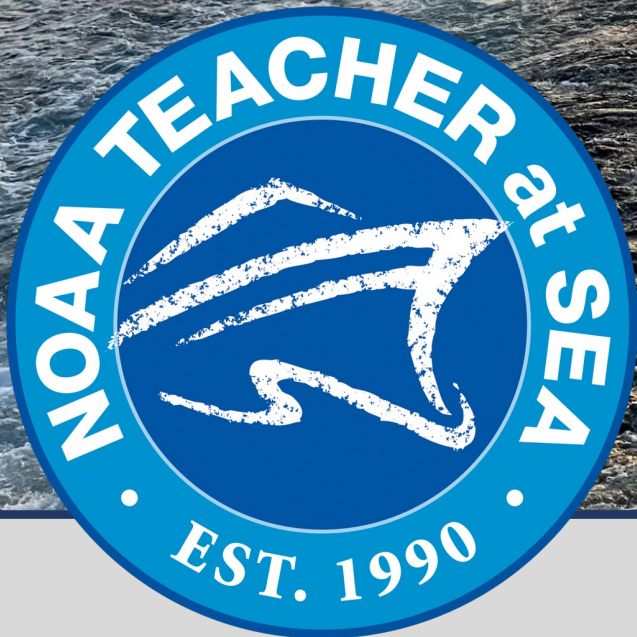
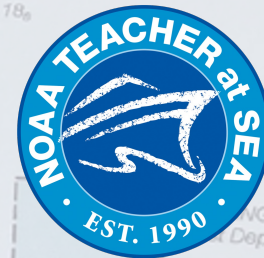
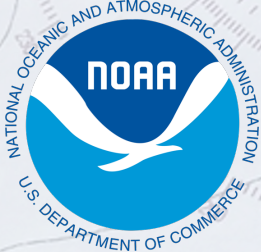


NOAA's Teacher at Sea Program



2022 YEAR IN REVIEW

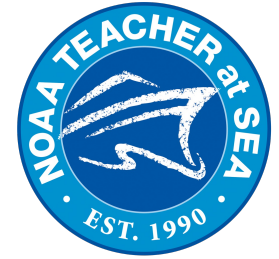


Meet the 2022 Teachers at Sea!





TAS '22 Jordan Findley



Hometown: Tierra Verde, Florida
Position: Informal educator at Tampa Bay Watch
Ship: NOAA Ship *Pisces*
Survey: SEAMAP Reef Fish Survey
Ports: Galveston, TX to Pascagoula, MS

"I can't express enough how grateful I am to have been selected for the NOAA Teacher at Sea Program and be a part of its mission. **The experience was so much more than I could have even imagined.**

Participating in the research was so rewarding, and offered valuable insight into fisheries research and scientific operations... **Continuous learning is what enhances our understanding of the world around us, in so many ways, and why I love what I do."**

– TAS '22 Jordan Findley



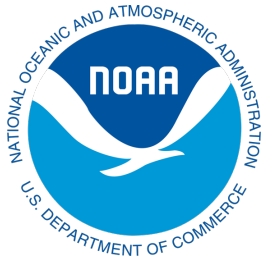
TAS '22 Oktay Ince



Hometown: Beavercreek, OH
Position: Assistant Principal of Academics at Horizon Science Academy
Ship: NOAA Ship *Thomas Jefferson*
Survey: Hydrographic survey of Lake Erie
Ports: Cleveland, OH

"I loved every bit of my time while at sea. The ship crew was awesome and welcomed me as part of their team. They taught me many things in my short time and I started to do many tasks on my own. **I can't wait to share all the things I learned with my students and colleagues.**"

– TAS '22 Oktay Ince



TAS '22 Laura Grimm



Hometown: Dalton, OH
Position: K-8th STEAM teacher at Dalton Local Schools
Ship: NOAA Ship *Thomas Jefferson*
Survey: Hydrographic survey of Lake Erie
Ports: Cleveland, OH

"My landlocked world has been cracked open.

I now have knowledge of so many more resources, data and careers. I want to share them with my students and with the community. I am excited to develop new lessons and to incorporate that which I have learned in to lessons already established."

– TAS '22 **Laura Grimm**

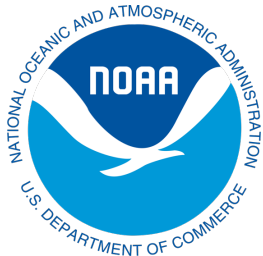


TAS '22 George Hademenos



Hometown: Richardson, TX
Position: Physics teacher at Richardson High School
Ship: R/V *Tommy Munro*
Survey: SEAMAP Summer Groundfish Survey
Ports: Biloxi, MS

"As an educator interested in any and all things science, **I would always look forward to the end of the sampling process and the emptying of the nets to survey our catch** – a grab bag of a variety of different types of marine life and species. I had seen images of several types of marine life contained within the nets and recognized even fewer numbers by their name, but again this was an opportunity to learn and every sampling increased my library of marine science knowledge."
– TAS '22 **George Hademenos**



TAS '22

Michael Gutiérrez Santiago



Hometown: Isabela, Puerto Rico
Position: Environmental science teacher at Abelardo Martinez Otero High School
Ship: NOAA Ship *Bell M. Shimada*
Survey: Hake Survey
Ports: Seattle, WA to Newport, OR

"**The crew has been excellent**, all with a kind and respectful treatment towards me... In just a few days of meeting them, they have taught me a lot. **They have all been patient and have explained and answered questions regarding the work they do on the high seas.** Their knowledge and experiences have led me to create great admiration for them."

– TAS '22 **Michael Gutiérrez Santiago**



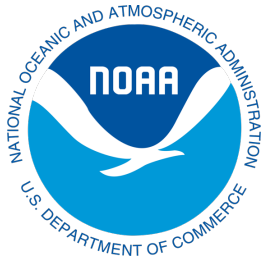
TAS '22 Maronda Hastie



Hometown: Stone Mountain, GA
Position: Math teacher at
Dr. Ronald E. McNair High School
Ship: NOAA Ship *Oregon II*
Survey: Shark/Snapper Longline Survey
Ports: Port Canaveral, FL, to Pascagoula, MS

“I loved learning the process of catching the different types of fish and all the research that happens. **The atmosphere was welcoming and fun while I learned and felt safe.** The experience was amazing, and I love answering questions about my pictures and videos. This program is highly motivating and I want to expose my students to similar opportunities.”

– TAS '22 **Maronda Hastie**



A New Frontier for NOAA's Teachers at Sea



Re-charted waters: NOAA ship to use sonar to map the bottom of Lake Erie

It's the first trip to the Great Lakes since 1990



Photo by: News 5

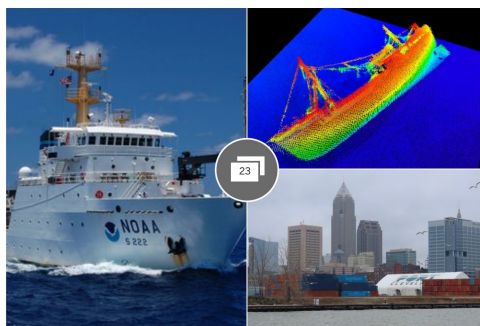


By: Jordan Vandenberg

Posted at 2:10 PM, Jun 10, 2022 and last updated 6:55 PM, Jun 10, 2022

On first mission to Great Lakes, NOAA ship will sonar map Lake Erie

Updated: Feb. 24, 2022, 12:03 p.m. | Published: Feb. 24, 2022, 11:56 a.m.



NOAA to map Great Lakes bottom in 2022

11,411 shares

By Garret Ellison | gellison@mlive.com



In 2022, Teacher at Sea Program had the **historic opportunity to sail teachers on a Great Lake**. NOAA Ship *Thomas Jefferson* traversed the St. Lawrence Seaway to survey the bed of Lake Erie, marking the first visit of a large NOAA survey vessel to a Great Lake since NOAA Ship *Whiting* surveyed Lake Huron in 1990.



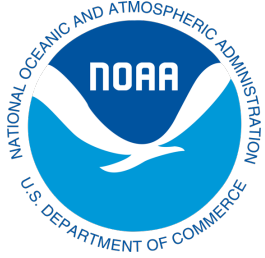
Field Trip to a NOAA Ship: TAS Laura Grimm's Students



September 10, 2022



In early September, TAS '22 **Laura Grimm** brought 23 students from Dalton Local Schools, in **Dalton, Ohio**, to visit NOAA Ship *Thomas Jefferson* at the Port of Cleveland. Ensign Forrest Foxen hosted the tour as Officer on Duty.



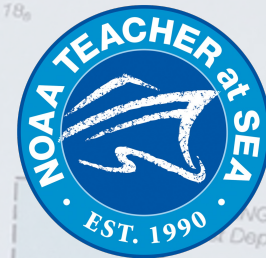
Field Trip to a NOAA Ship: TAS Oktay Ince's Students



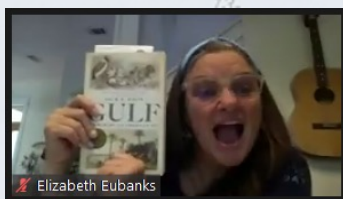
September 11, 2022



The next day, TAS '22 **Oktay Ince** brought 23 students from Horizon Science Academy Columbus High School, in **Columbus, Ohio**, to visit NOAA Ship *Thomas Jefferson*. Ensign John Brostowski hosted the tour as Officer on Duty.



Teacher at Sea Alumni Association



2022 Highlights



Teacher at Sea Alumni Association

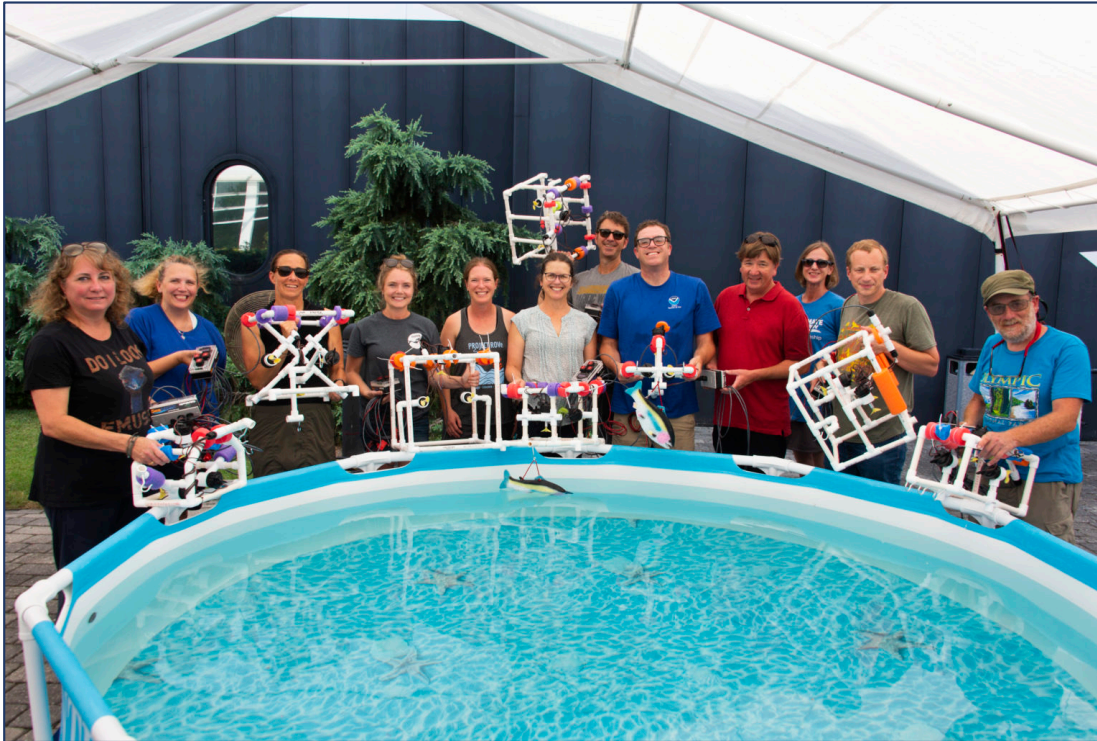


Photo by Ryan Hawk

The Teacher at Sea Alumni Association (TASAA) provides **valuable networking opportunities and high-quality professional development experiences** for alumni of NOAA's Teacher at Sea Program. TASAA extends the benefits of program participation throughout teachers' careers, and in doing so, offers them the opportunity to become dedicated **ambassadors for NOAA's work and mission.**



**National
Marine Sanctuary
Foundation**

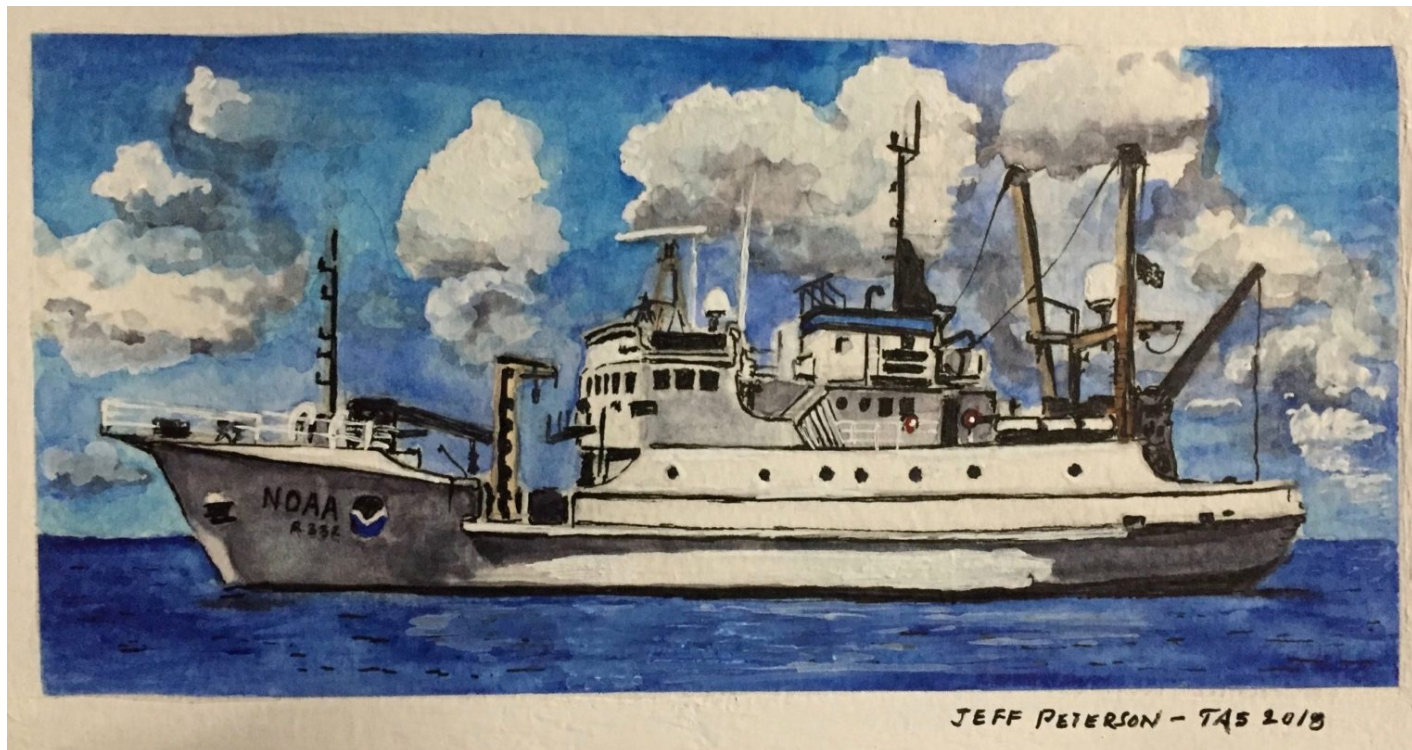
The Teacher at Sea Alumni Association is supported through a partnership with the National Marine Sanctuary Foundation.



TASAA 2022: Navigating Science with Art



In 2022, TASAA took on the theme of **art and science integration** to celebrate the ways that our educators use the arts to engage their students and communities in the content and concepts that are important to a science literate society.



The theme included a series of guest blog posts by written TAS alumni. Read intro here: <https://teacheratseaalumni.org/blog/navigating-science-with-art/>



Navigating Science with Art: April: TAS Laura Guertin



TAS '14 **Laura Guertin**:
Sharing Stories of the
Louisiana Coast through Quilts

Read Laura's blog post here:

<https://teacheratseaalumni.org/blog/sharing-stories-of-the-louisiana-coast-through-quilts/>



“Quilting has become a passion and **tool that I use for science communication and education.** The quilts have been a success with scientists and non-scientists alike. I have found that people enjoy coming up and looking at a quilt, because everyone has their own quilt story!”





Navigating Science with Art: May: TAS Cristina Veresan



TAS '15 Cristina Veresan: Sci-Art Lesson Share: Illustrated Graphs



“I highly recommend this **climate data art project** for upper elementary and secondary students... One of the central aims of my science curriculum is to empower students as science communicators; I want them to share accurate scientific information in creative ways.”

Read Cristina's blog post here:
<https://teacheratseaalumni.org/blog/sci-art-lesson-share-illustrated-graphs/>

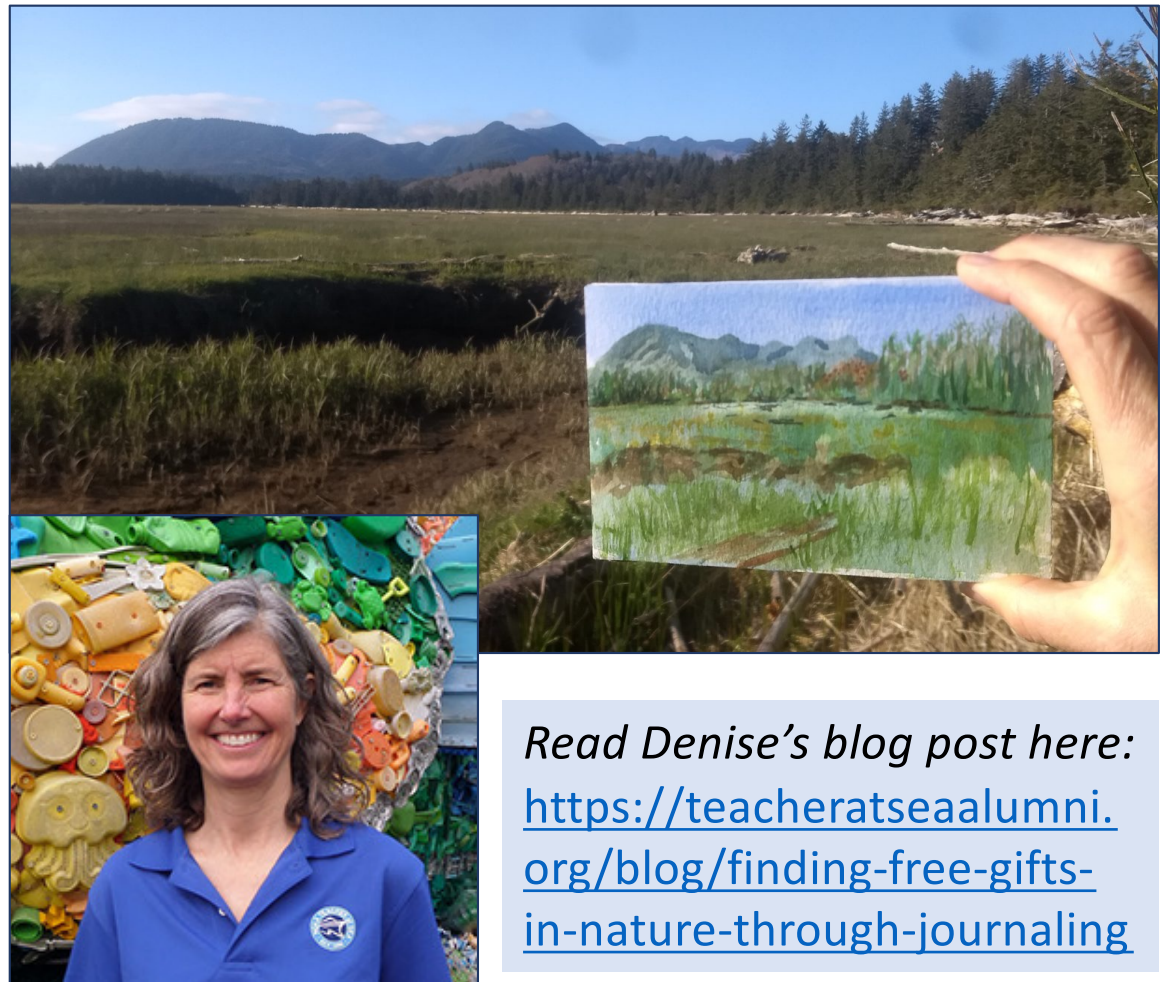


Navigating Science with Art: October: TAS Denise Harrington



TAS '14/16 Denise Harrington: Finding Free Gifts in Nature through Journaling

“Equal parts science and art, **journals are a first step for students to become stewards** of the place in which they live. By observing and documenting the plants, animals, and features, they understand it better... Through deep knowledge comes appreciation, and ultimately a desire to protect the environment in which we live.”



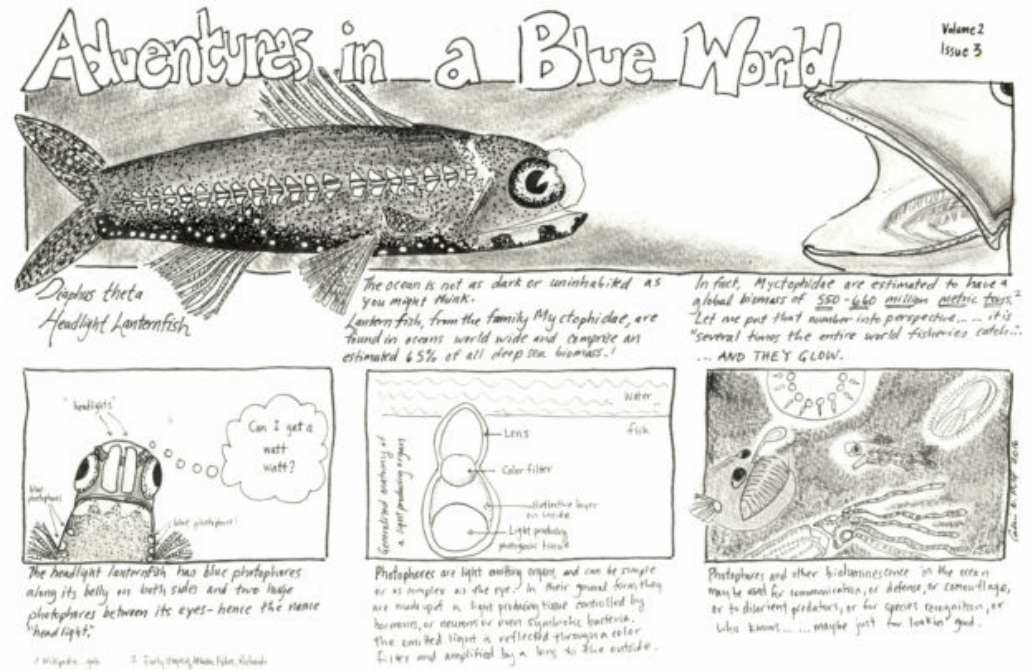
Read Denise's blog post here:
<https://teacheratseaalumni.org/blog/finding-free-gifts-in-nature-through-journaling>



Navigating Science with Art: November: T.A.S Cat Prenot



TAS '11/16 Cat Prenot: Connecting through Cartoons



“Just as I use cartoons to help my students understand complex topics, students can make their own cartoons to create meaning. **Cartoons don't have to be intricate to communicate ideas.**”

Read Cat's blog post here:
<https://teacheratsealumni.org/blog/connecting-through-cartoons>



New England Teacher at Sea Alumni Meeting

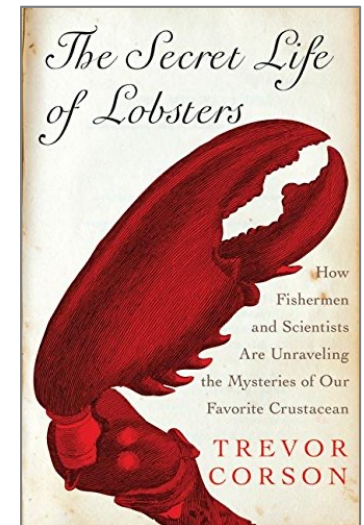


March 12, 2022



- **Attendees:** 7 TAS alumni from 6 northeast states
- **Agenda:** Introductions, small group discussions, virtual science museum scavenger hunt

- **Next Step:** New England TASA Book Club discussion of *The Secret Life of Lobsters* by Trevor Corson to follow in 2023

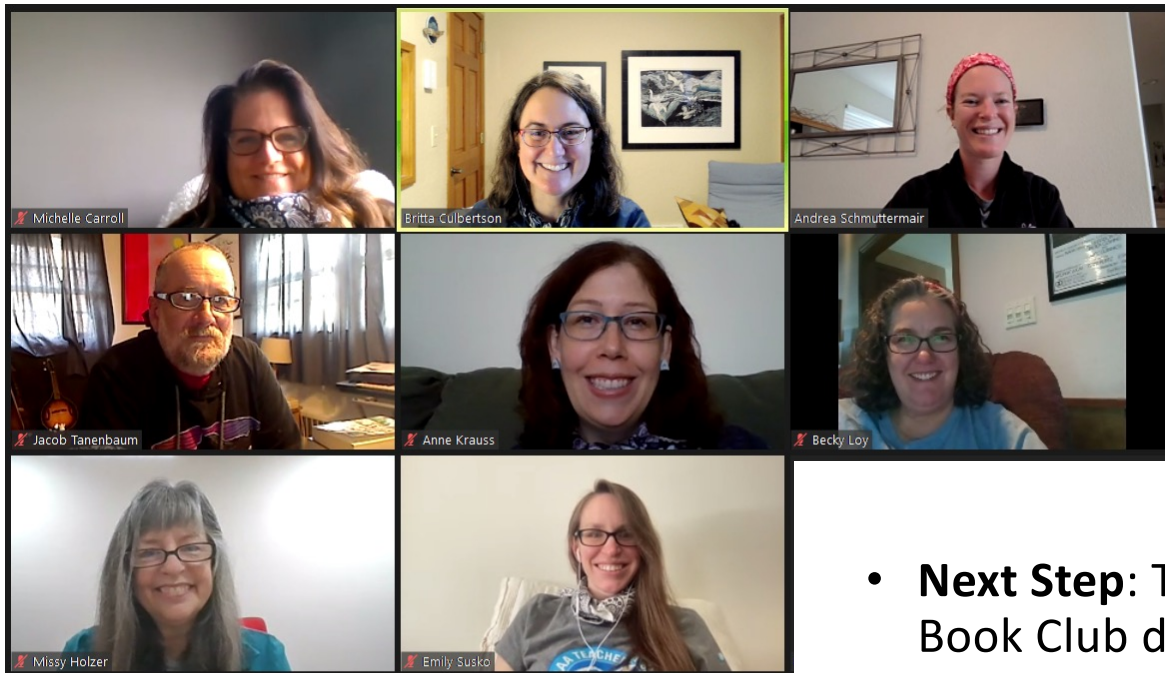




Tri-State Teacher at Sea Alumni Meeting

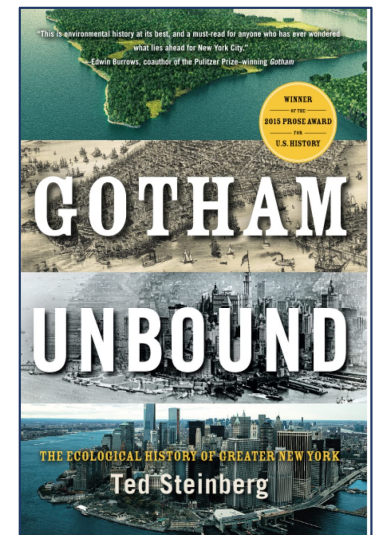


April 23, 2022



- **Attendees:** 6 TAS alumni from New York, New Jersey, Pennsylvania
- **Agenda:** Introductions, small group discussions, virtual science museum scavenger hunt

- **Next Step:** Tri-State TASA Book Club discussion of *Gotham Unbound* by Ted Steinberg to follow in 2023



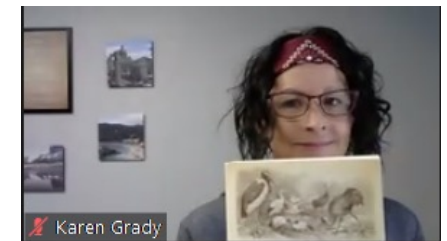
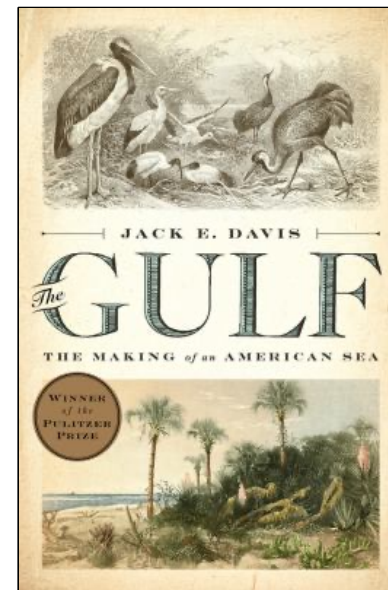


Gulf of Mexico Teacher at Sea Alumni Book Club



April 4 – May 16, 2022

- 6 alumni and staff participants from Gulf states
- Discussed *The Gulf: The Making of an American Sea* by Jack E. Davis in parts over 5 meetings
- Discussion moderated by Arkansas-based TAS alumna
- Opportunity to share regional perspectives, expertise, resources





Pacific Southwest Teacher at Sea Alumni Book Club



October 6 – December 1, 2022



- 18 alumni and staff participants from CA, NV, AZ, CO, other regions
- Discussed *Where the Water Goes* by David Owen over 5 meetings
- Discussion moderated by two California-based TAS alumni
- Opportunity to share regional perspectives, expertise, resources
- Book club playlist!

PLAYLIST

River Songs ~ NOAA Book Club

Jeffrey Peterson • 3 likes
• 15 songs, 1 hr 8 min



Book Club Impacts



TAS '02 Jennifer McDonald from California co-moderated the Southwest TASA Book Club discussion of Where the Water Goes.

“I enjoyed each and every meeting and ALL the fantastic resources that everyone shared...**This was just what I needed this semester**, enrichment for my own continuing education/lifelong learning about the world and that amazing kind of energy that comes from discussion and exchange with people who enjoy the same. **The conversation every time was nourishment for my book-loving, curious mind.**”

- TAS '02 Jennifer McDonald



Introducing the TASAA Project ROVe: Remotely Operated Vehicles for educators



TAS Andrea Schmittermair
TASAA ROV Education Coordinator

Following her TASAA Fellowship, Andrea transitioned to the role of ROV Education Coordinator and developed her independent project into a year of **ROV professional development courses** for TAS alumni, named **Project ROVe**.



Oh, the Places We Rove: Andrea's journey into the world of ROVs <https://teacheratseaalumni.org/blog/oh-the-places-we-rove>



Project ROVe: Introduction to ROVs, Cohort 1



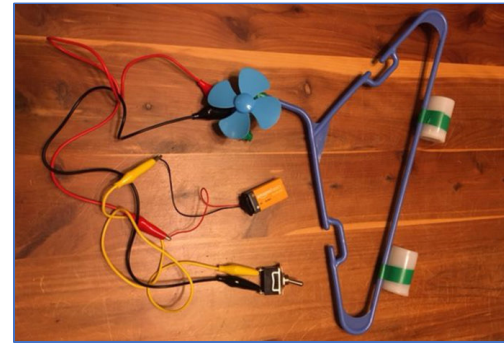
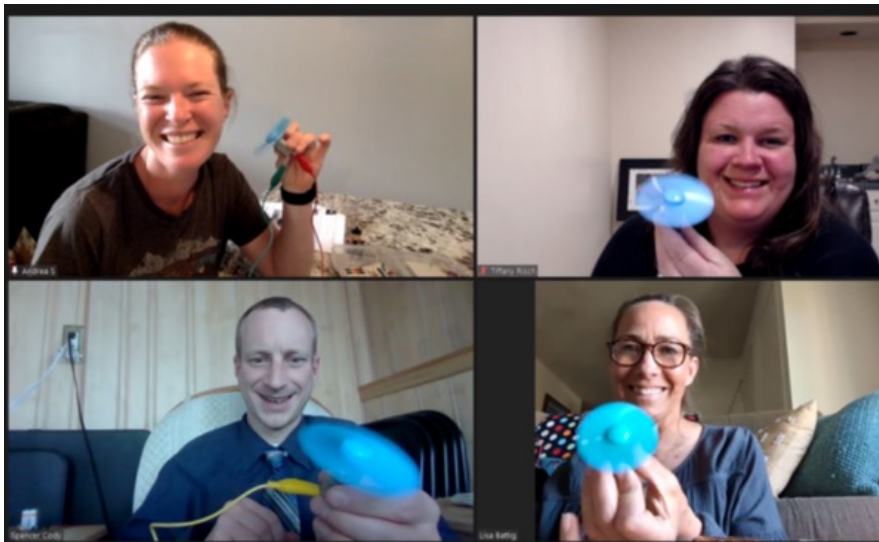
January – June 2022

Project ROVe: Introduction to ROVs

- 15 participants (2 applied for graduate credit)
- Monthly virtual meetings
- Course materials shipped to each participant
- Readings, hands-on activities, guest speakers, competitions

Blog: *Project ROVe: Exploring New Depths with ROVs*

<https://teacheratseaalumni.org/blog/project-rove>





Project ROVe: Design and Build Workshop



July 19–21, 2022

Project ROVe: Design and Build In-Person Workshop



- Held at Mariners' Museum and Park, Newport News, VA
- 10 participants
- Alumni worked in teams to build MATE Pufferfish ROVs
- Alumni shared plans for classroom implementation

Watch a video about the Design and Build workshop:
<https://vimeo.com/777447176/5172c717a0>



Project ROVe: Introduction to ROVs, Cohort 2



September 2022 – February 2023

Project ROVe: Introduction to ROVs

- 15 participants (including 1 non-alum from American Samoa NOAA Ed/Outreach)
- Monthly virtual meetings
- Course materials shipped to each participant
- Readings, hands-on activities, guest speakers, competitions
- Virtual mixers with Cohort 1





Project ROVE Impacts



*TAS '15 Jeff Miller solders a circuit board.
Photo by Ryan Hawk*

“It’s great being able to spend time with other teachers who have a passion for similar things...especially this group, because **we’ve all shared the Teacher at Sea experience, and so we have that camaraderie already built in.** Then you bring people from all over the country to do something that they like, and they want to bring it back and engage their students, it’s just a fabulous experience.”

- TAS '15 **Jeff Miller**



Teacher at Sea Alumni Association NOAA Fellowship: Year 2



TAS Denise Harrington

TAS '14 NOAA Ship *Rainier*, TASA '16 NOAA Ship *Oregon II*

- Consulted on several education-related projects submitted by NOAA offices and programs
- Supported alumni activities and communications
- Developed independent projects and partnerships focused on marine debris and art, including a virtual workshop for TASA on creating wreaths from derelict crab lines

Meet Denise:

<https://teacheratseaalumni.org/2022/05/12/tasa-denise-harrington-to-serve-as-tasaa-noaa-fellow-for-2022-23-school-year/>



Closing out A Successful Year with the TASAA Repurposed Rope Wreath Holiday Party



December 15, 2022



Blog with instructions:
<https://teacheratseaalumni.org/blog/repurposed-rope-wreaths/>



In December, TASAA NOAA Fellow **Denise Harrington** hosted a virtual workshop on creating holiday wreaths from repurposed rope, such as the derelict crab lines she finds on the Oregon coast. The Association raffled off eight kits of salvaged rope to interested alumni.