

# MASTHEAD

Quarterly Newsletter of the Mid-Atlantic Marine Education Association

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## From the Editor's Chair

### Kathy Fuller, Incoming Masthead Editor (again)

Congratulations to Emily Peters for receiving the MAMEA President's Award for her contribution and service as Masthead Editor! Emily has moved into her new role as MAMEA President-Elect, and I wanted to introduce myself as the new Masthead Editor. While this role is not new to me, it has changed quite a bit since I was printing and mailing copies of the Masthead to our members almost 20 years ago. I would like to bring a few new sections to our newsletter, and of course keep the tried-and-true sections. The Board is playing with the delivery format, so this issue may look a little different than the next depending on which direction we decide upon.

I wondered about the origin of our newsletter name since the term "masthead" has several definitions. I was able to get some information from the first Masthead Editor, Lindy Millman. Lindy shared:

*"I went to the University of Delaware in the fall of 1980 to be the assistant director of Project COAST, after teaching in Delaware for 10 years. Les Picker was the director of the project and had been involved in marine education probably since the beginning of NMEA. I wanted to get involved in MAMEA, and Les suggested that I do a newsletter, since the organization did not have one. That was the birth of The Masthead. I'm not sure who came up with the name. I think we tossed different ideas around and came up with The Masthead - it may have been Les' idea.*

*For the first three years, the newsletter was printed and mailed from the University of Delaware. I did all the editing and layout (this was back in the days when you were still cutting and pasting). It has been a journey and a labor of love for me. It is something I am very proud of!"*

I am happy to carry on the tradition of The Masthead editor. Feel free to share any ideas for submissions, highlights, and sections that we can include. In this issue you will notice the new sections: Lifeline (focusing on safety practices), TKH Recommended Reading (need I say more?), and Spyglass (highlighting a member or member organization). I hope you enjoy!

Kathy Fuller

[mstkathyfuller@gmail.com](mailto:mstkathyfuller@gmail.com)



Striped Hermit Crab  
(Glen Echo Park Aquarium)



**MAMEA Wishes Our Regional NOSB Coaches and Competition Officials Best Fishes**

The National Ocean Sciences Bowl (NOSB) is a nationally recognized high school academic competition that provides an opportunity for students to test their knowledge of the marine sciences including biology, chemistry, physics, geology, marine history, policy and current events. NOSB was created in honor of the International Year of the Ocean and has grown to include 25 regional competitions. The MAMEA region home to three of these regional competitions.

Let's test your NOSB knowledge.

1. The MAMEA region in home to what three NOSB Regional Competitions?  
*W. Bay Scallop Bowl, Blue Lobster Bowl, Hurricane Bowl*  
*Y. Blue Heron Bowl, Blue Crab Bowl, Blue Lobster Bowl*  
*X. Chesapeake Bay Bowl, Blue Heron Bowl, Nor'easter Bowl*  
*Z. Blue Heron Bowl, Chesapeake Bay Bowl, Blue Crab Bowl*
  
2. How many years has the National Ocean Sciences Bowl been in existence?  
*W. 15 years*  
*X. 20 years*  
*Y. 25 years*  
*Z. 30 years*
  
3. How does MAMEA and NMEA support NOSB?  
*W. NMEA provides financial support.*  
*X. MAMEA provides memberships to first-time coaches at the regional bowls.*  
*Y. MAMEA provides complimentary conference registration to winning coaches of the regional bowls.*  
*Z. All of the above*



**Lifeline**

While Hypothermia becomes more of a concern during this time of year, please remember that it doesn't have to be "White Christmas" weather to find yourself chilled to the bone. A wonderful day with temps in the 70's but getting caught in a sudden brief rain shower followed by a breeze can drop body temperature to dangerous levels.

Remember to:

- Dress for the weather (layer as needed)
- If you get wet, get dry as soon as possible
- Warm yourself with a hot beverage (No Alcohol – goes down warm but does nothing to keep you warm)
- Seek medical attention if necessary or unsure (911 if needed)
- Someone with hypothermia gets the "Umbles" – They Mumble, Grumble, Stumble, and Fumble.

Have a Safe, Happy, and Healthy Holiday and New Year!

*Chuck Fuller*

**Join the 2022 MAMEA Conference Planning Team!**



Plans are already underway for next year's conference, which will be hosted in NORTH CAROLINA! We are seeking enthusiastic volunteers who are interested in assisting with conference logistics. Volunteers will support the President-Elect by serving on a conference planning committee. Conference committees include social chair, auction, breakout sessions, field trips, keynote speakers, sponsorships, and catering. If interested, please email Emily Peters at [epeters@aqua.org](mailto:epeters@aqua.org).

## VA SEA Winter Lesson Plan Log: Highlighting Hands-On, Research Based Marine Science Activities for K-12 Classrooms

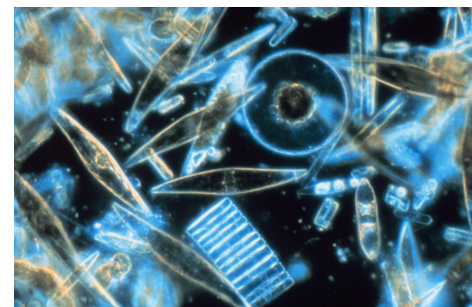
*Bethany Smith, Marine Education Specialist (bsmith@vims.edu)*

*Virginia Institute of Marine Science – Marine Advisory Program*

Graduate students in the Virginia Scientists & Educators Alliance (VA SEA) program (a program facilitated by educators at the Virginia Institute of Marine Science and Chesapeake Bay National Estuarine Research Reserve in Virginia) have created over 40 unique, hands-on lesson plans geared towards middle and high school audiences. These lesson plans provide real-world connections to classroom learning across a variety of science disciplines, and are easily scalable to meet the needs of your unique classroom. In this winter edition of the VA SEA Lesson Plan Log, we highlight three lessons that are sure to add some sparkle to your classroom!

### *Prismatic Little Plankton*

In this activity, designed by VIMS student Kristen Sharpe, your students will participate in chromatography experiments to investigate the properties of plant pigments. After learning the basics of chromatography, students will use those skills to analyze the chromatograph of a mystery algal sample. Through this real-life methodology, students simulate phytoplankton community analysis research done using high performance liquid chromatography. Kristen's lesson plan most closely addresses high school biology, physics, chemistry and oceanography standards.



### *Trees of the Seas*

In this activity, designed by VIMS student Michelle Woods, your students will gain a deeper understanding of harmful algal blooms and why they occur. Students will follow the scientific process by designing and running their own experiment to investigate how eutrophication can cause harmful algal blooms, tracking the blooms through several class periods. Students will ultimately use their data to draw conclusions about management actions and simple at-home strategies for mitigating, preventing, and controlling blooms. Michelle's lesson plan most closely addresses middle school life science and high school biology standards.

### *Watercolors: Relating Properties of Light to Organic Matter and Ecosystem Production*

In this activity, designed by VIMS student Derek Detweiler, your students will use the properties of light to determine the source and composition of dissolved organic matter in estuaries. By evaluating fluorescence and absorbance data, students are able to learn about the different types of dissolved organic matter and what land use types they typically originate from. Ultimately, students uncover how scientists can use the electromagnetic spectrum to study dissolved organic matter and describe its relationship to ecosystem production. Derek's lesson plan most closely addresses high school chemistry, biology, environmental science and oceanography standards.

Have you used any of the VA SEA resources in your classroom? Is there a specific topic / SOL you could really use a lesson for? Our team would love to hear from you! For complete lesson plans, including a background PowerPoint, student/teacher handouts and answer keys, please visit the VA SEA lesson plan collection at [www.vims.edu/vasea](http://www.vims.edu/vasea). Want to check out this year's cohort of 10 AWESOME lesson plans? The 2022 VA SEA Lesson Plan Expo is scheduled for April 28, 2022.





## SAVE THE DATE: NMEA 2022

Join us at NMEA 2022- in-person and virtual options available! July 9-13, 2022, NYSMEA (New York State Marine Education Association) is hosting the National Marine Educators Association annual conference! Based at Hofstra University in Hempstead, Long Island, the full conference has speakers and sessions on July 10-13, with full-day field trips on Tuesday, July 12. Being mindful of time zones for those attending remotely, the speakers and sessions will be scheduled from 2-6 pm ET, allowing in-person participants the opportunity to spend their mornings taking short excursions or getting together to explore common interests. Stay tuned for announcements about speakers, field trips, presentation proposal deadlines, etc., at <https://www.marine-ed.org/conference/2022>. MAMEA always has one of the largest groups at NMEA, and we're really looking forward to seeing you (in person or remotely) next year in New York!



NOAA ENVIRONMENTAL SCIENCE TRAINING CENTER

## WINTER WORKSHOP SERIES

### APPLYING EDUCATION RESEARCH

December 14, 2021, 1-4:30 pm EST

Explore current environmental education research and discuss how to use it in program planning and conversations with school system decision makers.

### MWEE FACILITATOR TRAINING

January 12 & 26, February 9 & 23, March 9, 2022, 9-11 am EST  
Attendance at all 5 sessions is encouraged

Start planning your next training by learning of resources and best practices for effective MWEE professional development.

### CONSERVATION AND CLIMATE

January 20, 2022, 1-4 pm EST

Learn how conservation projects are designed using climate change data, Indigenous knowledge, and community needs.

### EXTREME WEATHER AND RESILIENCE

March 3, 2022, 1-4 pm EST

Discover how responses to extreme weather events can support increased community and ecosystem resilience.

### MWEE PRACTITIONER SERIES

December 3 & 17, 2021

January 14 & 28, February 11, 2022

Attend what you can, sessions are Fridays, 1-2 pm EST

Join us for lightly facilitated conversations around each of the NAAEE Community Engagement Guidelines for Excellence, specifically in relation to how organizations can employ these in the context of MWEE programs.

ALL WORKSHOPS ARE VIRTUAL AND FREE

### REGISTER AND LEARN MORE



<https://bit.ly/3C5nUQR>



### A Fish Caught in Time: The Search for the Coelacanth by Samantha Weinberg (2001, Harper Perennial)

If, like me, you are curious about this fish that was once thought extinct, then this book is for you. The author takes you back in time to 1938 when an amateur ichthyologist recognized a coelacanth specimen that had been caught by a local fisherman. Marjorie Courtenay-Latimer was the curator of a small natural history museum in East London, South Africa. She was invited to examine a load of fishes that had been caught locally to see if there was something that her museum could use. Now you need to learn the rest of the story.....and follow the excitement that was generated by finding live coelacanths over time.

Terri Kirby-Hathaway



# Spyglass

**Focus On:**  
**Glen Echo Park Aquarium**  
*Glen Echo, Maryland*  
**Owner, Founder, and Longtime**  
**MAMEA Member - Andrew**  
**Wilson**



Glen Echo Park Aquarium (GEPA) is a small public aquarium dedicated to educating about the Chesapeake Bay, as well as, the tributaries that feed into it. We are a Chesapeake Bay discovery center with many living examples of the life of the Bay. GEPA opened on September 19, 2015, international talk like a pirate day! Located in historic Glen Echo Park, we are in a national park that preserves the history of Miss Clara Barton, the founder of the American Red Cross, and also preserves the history of a significant civil rights movement in 1960 that resulted in the amusement park being integrated in 1961. The Aquarium features freshwater, brackish water, and saltwater aquariums, as well as, artifacts of various animals found in the Bay. Our mural also depicts life of the rivers and Bay, including rare animals and endangered species, such as the manatee and sturgeon.

When we opened, we expected all ages to visit, but we've certainly seen primarily younger families visit more often. Preschool-age children thoroughly enjoy seeing the blue crabs eat, or summer flounder hide in the sand. Our touch tank has horseshoe crabs, clams, whelks, and hermit crabs. Because we are a tiny aquarium, we have opted to do visits as a tour, going around with our guess and pointing out animals and key features to each visitor. Besides live animals inside, we also have a large native plant section, a huge sandbox, and a tree fort shaped like a pirate ship in our outdoor space.

We are now in our sixth year of being open, and did not plan for a global pandemic, but thankfully, being in a national park was a huge advantage for us. The park has been extremely supportive, and now that things are getting back to normal, families are returning and enjoying our exhibits. We have big plans for the future including a huge lighthouse, wave tank, and a new oyster reef aquarium.



Inside the Glen Echo Park Aquarium

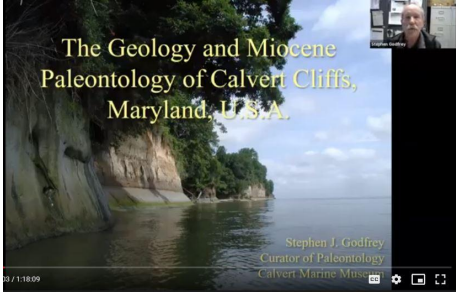
To learn more about the Aquarium, please visit our website <http://www.gepaquarium.org> and check us out on Instagram (@gepaquarium) and Facebook.

The Aquarium is open by appointment every day of the week, with appointments available between the hours of 9:00 a.m. to 5:00 p.m. To make an appointment, call or text 571-334-8713 or email [info@gepaquarium.org](mailto:info@gepaquarium.org). If you mention MAMEA, you might even get a behind-the-scenes tour!



# MAMEA 2021 Annual Conference is in the Books

And what an eventful conference it was! Thank you to all our speakers and attendees for pivoting to a virtual conference format less than three months before our conference started. We still worked in some Maryland flair to the conference, even though we were not able to be together in person. Session recordings are available on the Whova site through May 7, 2022.



### A huge thank you to our conference sponsors!



## Changing Tides

### Welcome to our New MAMEA Board Members and Thank You for Your Service to those Stepping Down

#### Incoming Tide (New Positions)



Evan Beatty, President



Lisa Tossey, Past President



Emily Peters, President-Elect



Tara Rudo, Virginia Representative



Kathy Fuller, Member-at-Large

#### Slack Tide (Re-elected)



Jackie Takacs, Treasurer



Tami Lunsford, Delaware Representative

#### Outgoing Tide (Completed Service)



Carrie Carlin, Out-going Past President

## Please Congratulate our 2021 MAMEA Award Winners!

*Rachel Riesbeck, Awards Committee Chair*

Each year, we honor selected colleagues for their stellar work in marine education. Based on nominations submitted by their peers, one Classroom Teacher and one Informal Educator are recognized. Additionally, the MAMEA President may acknowledge a highly-valued colleague with the President’s Award. At the 2021 MAMEA Virtual Conference out-going President, Lisa Tossey, had the honor of presenting two awards this year during the business meeting on November 5th.

**MAMEA’s 2021 Informal Educator Award** was presented to **Susie Hill**. Susie has provided quality marine education for the past 23 years as an education specialist for Nauticus. As the current Special Programs Manager, she enhances the knowledge for local students, educators, and the public through her many programs. Susie took charge of the MATE Mid-Atlantic Regional ROV competition and has implemented teacher trainings for leaders and organized the regional competitions. She recently traveled to Bermuda to work with Bermuda Institute of Ocean Sciences (BIOS) and coordinate their ROV Challenge for local middle school through community college-aged students. She assisted them in combining robotics with other topics they are studying including corals, fish, and plankton. While there, she helped with other BIOS programs including microplastics and water cycle workshops.



*Susie Hill with her award*

Susie invests a lot of her personal time and energy into attending professional development opportunities such as Teacher at Sea and Nautilus Exploration Program. She has used these experiences to enhance her trainings and programs including organizing a Facebook Live event for local students to meet Robert Ballard and the scientists aboard SRV Nautilus. Susie works hard to create other partnerships with organizations such as Jason Project and NOAA to facilitate workshops for local teachers.



*Emily Peters*

Susie has been an active supporter of MAMEA. As a long-term member, she has written many articles for the Masthead editions, shared her expertise and creativity at conference presentations, and acted as a liaison for the recent MAMEA conference held in Portsmouth. Her energy, enthusiasm and positive attitude make her a perfect marine science ambassador. She’s done an amazing job serving her community. Congratulations Susie!

**MAMEA’s 2021 President’s Award** was presented to **Emily Peters** by Lisa Tossey. Emily served as *Masthead* editor over one of the most challenging times we’ve faced in MAMEA, as we all found ourselves shifting our offices and classrooms into our homes and collectively facing the confusion of constantly changing COVID-19 guidelines and calendars. Everything changed - including the length of our leadership terms in MAMEA. Throughout the two years I served as president, Emily was a steady and unflappable presence during the stress and uncertainty of pandemic times, and rolled with the evolving changes that constantly impacted her role as editor.

I started many an email to her with “Apologies, but...” detailing another delay in information that was needed for the next *Masthead* as we sorted out exactly how we were shifting our conference to an online event, then acted quickly and efficiently to get the issue out as soon as we got dates and details sorted. The issues always looked beautiful and were a great read, not showing a shred of the chaos and uncertainty she had to deal with in pulling them together. I greatly appreciate her patience and support during those unprecedented times, as well as, her willingness to help in so many aspects throughout. Thank you Emily, and congratulations! *Lisa*



## Regional Updates

### DELAWARE UPDATE

*Tami Lunsford, DE Representative*

Delaware Sea Grant recently hosted a fabulous virtual workshop on ocean literacy with speakers from across the country and around our state. It was well-attended, informative, and interesting. Participants enjoyed full-group presentations and discussions followed by break-out sessions with more in-depth conversations. As with all great MAMEA events, networking and learning continues! Also, Delaware Sea Grant and the University of Delaware will be hosting the Chesapeake Bay Bowl, a regional competition of the National Ocean Sciences Bowl, on February 5, 2022. Contact David Christopher at [dmchrist@udel.edu](mailto:dmchrist@udel.edu) for information.



### MARYLAND/DC UPDATE

*Lauren Fauth, MD/DC Representative*

National Aquarium professional development workshops provide instructors from pre-K through grade 12 with the knowledge, curriculum resources and inspiration needed to bring science to life in your classrooms. Professional development workshops are scheduled at regular intervals throughout the year and are a perfect complement to your science curriculum. Some workshops award MSDE continuing professional development (CPD) credits. These workshops are designed to be affordable; registration is required. Click [here](#) for the most up to date workshop availability.

The National Aquarium was honored to host Her Deepness, Sylvia A. Earle, on Wednesday, December 1, 2021 for a peek into her new book, "National Geographic Ocean: A Global Odyssey." As a world-renowned expert on marine biology, Dr. Earle's unique experiences and perspectives inspired audiences both in-person and online. To watch the recorded presentation, visit <https://bit.ly/3rFbq0L>.

### ***From Calvert Nature Society and Calvert County Natural Resources Division***

Upcoming Programs; Reservations required, [www.calvertparks.org](http://www.calvertparks.org)

#### *Constellations over the Chesapeake*

All Ages

Saturday, February 13, 7:00-9:00 p.m.

Flag Ponds Nature Park

Bundle up to gaze at the night sky on the bay. Bring a chair and flashlight. We'll look for constellations and planets on the peaceful beach.

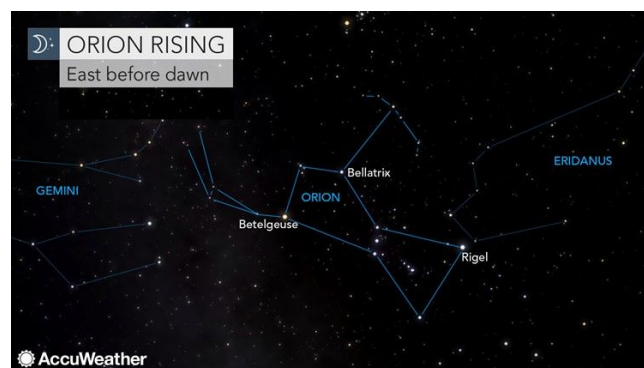
#### *Women in Science*

All Ages

Saturday, March 6, 2:00-3:00 p.m.

Flag Ponds Nature Park

Celebrate Women's History Month by learning about some of the incredible contributions women have made in the field of science, and hear what is currently being done to close the gender gap within the field.





## Regional Updates

### NORTH CAROLINA UPDATE

*Brittany Pace, NC Representative*

#### **Lunchtime Discovery Series at NCDEQ**

The NCDEQ Office of Environmental Education and Public Affairs hosts a guest lecture series called the "Lunchtime Discovery," hosted and streamed with partners at the NC Museum of Natural Sciences. Professionals from a wide range of environmental fields give presentations about their work and participate in a live moderated question and answer chat with viewers. These live virtual presentations are held each Wednesday from noon to 1pm. There are several recorded presentations on a wide variety of environmental topics that can be used in the classroom to supplement existing lessons on ecosystems, natural resources, and North Carolina history. View the upcoming schedule and archived talks [here](#).

Here are a few Archived Talks specific to marine science that may be of interest:

- The Sensory World of Squid - Dr. Carly York, Assistant Professor of Biology, Lenoir-Rhyne University
- A Journey to Understand Climate Change in Coastal Communities - Will Freund, Project Lead, Climate, Kayak, and Conversation
- A Time to Make Haste on Marine Waste - Dr. Liz DeMattia, Duke University Marine Lab Community Science Initiative
- Coastal Solutions: Working Together for a Healthy Coast - Sara Hallas & Rachel Bisesi, Coastal Education Coordinators, N.C. Coastal Federation
- A Mission Milestone: OCEARCH Expedition Carolinas and the Search for White Sharks off NC - Dr. Kimberly B. Ritchie, OCEARCH Collaborating Scientist and Associate Professor, Department of Natural Sciences, University of South Carolina at Beaufort
- Sustainable Seafood: Economic and Environmental Benefits of the North Carolina Oyster Trail - Jane Harrison & Leslie Vegas, Coastal Economics Specialists, NC Sea Grant

#### **Weekend Workshop in January at the NC Aquarium at Fort Fisher**

Join us for Sea Turtle Exploration, O.W.L. (Outdoor Wonders and Learning), and Project WET. You can choose to register for one, two, or all three workshops. If you register for all three, you will get part of your registration fee reimbursed after you attend the workshops. Each workshop is 9am-4pm.

- Sea Turtle Exploration – Saturday, January 15, 2022
- OWL – Outdoor Wonders and Learning – Sunday, January 16, 2022
- Project WET – Monday, January 17, 2022

For details and to register for any or all of the workshops click [here](#).



#### **“Tangled in Trash” App**

The first reporting tool designed to document when and where marine debris harms animals in the Carolinas and Georgia is now available. The “Tangled in Trash” app relies on information from anyone who finds wildlife entangled or injured in marine debris and trash. Find out more [here](#).

## Regional Updates

### VIRGINIA UPDATE

*Tara Rudo, VA Representative*

Chesapeake Bay National Estuarine Research Reserve-VA Discovery Lab Series. Info and registration can be found [here](#).



Virginia Association for Environmental Educators (VAEE) Conference is Feb. 24-26th in Sussex County, VA. [Registration](#) is open.

George Mason University K-12 Summer STEM programs. Click [here](#) for more information.

2022 Blue Crab Bowl is February 12th. For info on becoming a volunteer please click [here](#).



#### **Virginia Mini-Conference:**

I am planning the mini event currently for sometime in April. An email with information will be sent to members in 2022! Stay tuned! *Tara*

### MAMEA Board Members

Evan Beatty, President

Emily Peters, President-Elect

Lisa Tossey, Past President

David Christopher, Secretary

Jackie Takacs, Treasurer

Tami Lunsford, Delaware Representative

Lauren Fauth, Maryland/DC Representative

Tara Rudo, Virginia Representative

Brittany Pace, North Carolina Representative

Dawn Sherwood, Member-at-Large

Kathy Fuller, Member-at-Large

The MAMEA Board meets twice a year. More information and contact details can be found [here](#).



### MAMEA Committee Chairs

Chris Petrone, Action Plan

David Christopher, Archives

Vacant, Auction

Rachel Riesbeck, Awards

Jackie Takacs, Conference Advisory

Chris Petrone/Lisa Lawrence, Finance

Dawn Sherwood, Grants

Kathy Fuller, MASTHEAD

Lisa Tossey, Mentoring

Tami Lunsford, NMEA Representative

Lisa Tossey, Nominating

Lillie Reiter, Scholarship

Lauren Fauth/Evan Beatty, Social Media

David Christopher, Standing Rules

Lisa Lawrence, Webkeeper