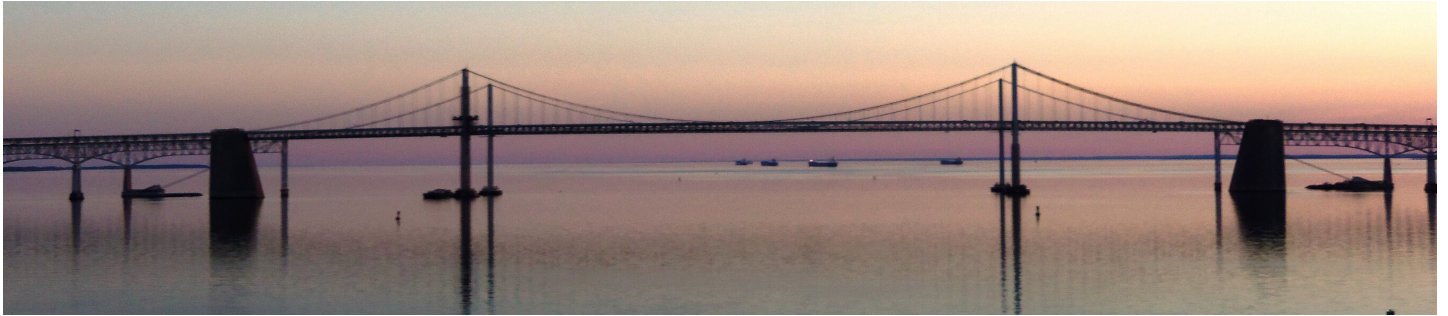




MASTHEAD

Quarterly Newsletter of the Mid-Atlantic Marine Education Association



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From the Captain's Quarters

Happy holidays MAMEAns!

It was wonderful having so many of you gather in Chincoteague last month for our annual conference and seeing so many familiar faces, as well as meeting new ones on such a beautiful autumn weekend. And the Antares rocket launch was a nice little bonus! We missed all who were not able to attend, but hope to see you next year - MAMEA20 has tentatively been scheduled for the weekend of November 6, 2020, in Solomons Island, Maryland. Mark your calendars now!

The holiday season is a time of gratitude and reflection, and I am so thankful for all of the incredible work done by our members - engaging and enlightening others about our marine and aquatic ecosystems, those who call it home, and the complex issues they are facing. Our work is more important than ever in this time of change. As we look toward the new year, we will continue our tradition of offering unique professional development opportunities, like our mini-conferences, as well as moving forward with upgrades for our members, including a refreshed user-friendly website that will be optimized for a variety of devices.

And finally, a big "thanks!" to Carrie Carlin for shepherding MAMEA through the past year. I'll continue her call for those who are interested in being more active in our organization, as we still have many opportunities and committees that may be perfect for you! Please let me know how you are interested in getting involved and I'll put you in touch with the right member to get started: tossey@mdsg.umd.edu Wishing all a safe and happy holiday season!

Cheers,

Lisa Tossey
MAMEA President

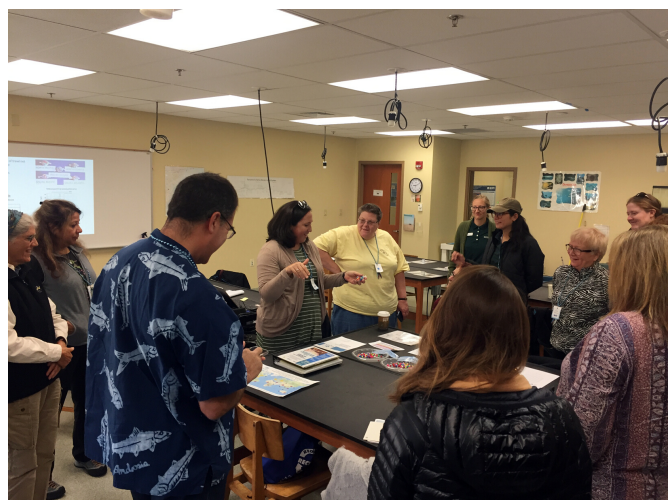
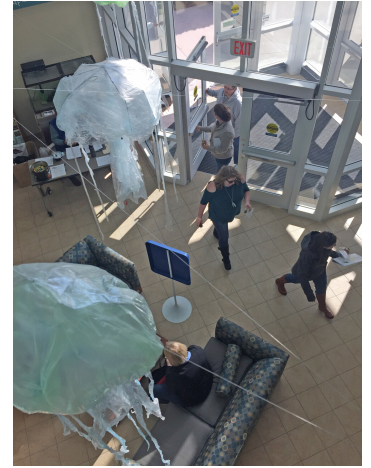
MAMEA 2019 Annual Conference Recap

Lisa Tossey
MAMEA President

Thanks to all who joined us for our annual conference at the Chincoteague Bay Field Station (CBFS) in the first weekend in November. We had more than 60 educators take part from across the region for a fun few days of networking, learning, and field trips!

After our board met Friday afternoon we kicked off the #MAMEA19 conference with a reception and our evening speaker, Brian Scharle, a wildlife biologist with USDA APHIS Wildlife Services-Virginia and NASA/Wallops Flight Facility. Scharle spoke about his unique predator management work along the Virginia barrier islands that is necessary in order to protect threatened and endangered shorebirds that nest there. After his presentation, we brought the evening to a toasty, but sticky close, making s'mores - and new connections - around a bonfire.

Everyone got an early start on Saturday, which was about as beautiful as you could ask for - a picture-perfect autumn day on the shore! After breakfast a couple of CBFS educators got the day off to an energetic start with a presentation that highlighted the diverse programming that is done at the station, including some fun outreach programs and professional development opportunities. After that the morning concurrent sessions got underway, with a very cool addition to the morning break: everyone stepped outside to check out the launch of an Antares rocket from neighboring Wallops Island. The weather provided a crystal clear view of the rocket's ascent on its resupply mission to the International Space Station.



MAMEA 2019 Annual Conference Recap (con't.)



At the close of the morning sessions, everyone reconvened to hear the plenary speaker Dr. Cora Johnston, site director of University of Virginia’s Virginia Coast Reserve. Dr. Johnston, who is an Eastern Shore native and a coastal ecologist, spoke about the changes she has seen in the region over time and highlighted the diverse research projects and outreach initiatives that are underway in the surrounding areas.

After a very full morning, attendees gathered in the dining hall for lunch, followed by the annual business meeting and a celebration of fellow members through the MAMEA awards. Two more blocks of concurrent sessions filled the afternoon before the evening events got underway, including the sand swap, a fabulous dinner (the home-cooked meals were certainly made with love!), and the always entertaining auction, which brings in much appreciated funds for our scholarships.

Fortunately the weather held for remainder of the weekend and two groups headed out with some CBFS educators on Sunday morning to explore the area further on field trips - one by boat on a “wild pony safari” around the national refuge, and the other on foot on a behind-the-scenes eco tour along a private stretch of Wallops Island.

Don’t miss out on the fun next year! Save the (tentative) date for #MAMEA20: November 6-8 in Solomons Island, Maryland!



NMEA Rep Report

Sarah Nuss

MAMEA representative to NMEA

NMEA at NSTA

The NMEA Mid-Year Board Meeting will be held at the NSTA National Conference: on Science Education in Boston, Massachusetts on April 1st. On April 2nd, NMEA will be hosting a track of marine education related sessions that will be kicked off with a Whale of a Share-a-Thon. If you have resources that you would like MAMEA to share with teachers nationwide, please send directly to me (mcguire@vims.edu) by mid-March. We hope to see you in Boston!



NMEA 2020 Conference

Be sure your calendars are marked for the 2020 NMEA conference in Honolulu, Hawaii July 13-17! Visit <https://www.marine-ed.org/conference/2020> for up to date information on the conference, and be sure to book your hotel room ASAP. Please note: Due to a recently adopted O’ahu law, many Airbnb rentals are no longer legal. We suggest booking at the conference hotel, the Ala Moana Hotel, to avoid any issues with your accommodation. See you in Hawaii!



Nominating Committee Update

Carrie Carlin

Nomination Committee Chair

Are you interested in being a MAMEA board member? A great way to learn what the MAMEA board does is by joining a committee. We are currently looking for members to join any of the following committees: social media, awards, scholarships & auction. Please email me at ccarlin@hcps.us if interested.

Have YOU got a great project idea that needs funding?

Carol Hopper Brill

Grants Committee Chair

You could sit on Santa's knee and make a wish... Or, you could take advantage of your MAMEA membership benefits, work up a proposal, and apply for support in the next cycle of MAMEA Educational Project Grants (2020/21).

Each year, two MAMEA grants for up to \$1,000 are available: One for formal educators (classrooms, K-16); and one for informal educators (museum, aquarium, zoo, science center, government agency staff). Projects should actively engage learners (students or educators) and focus on marine or aquatic topics. To be eligible, applicants must be current MAMEA members with at least one year's membership. To be competitive, projects should meet the program structure described on the MAMEA Grants page at www.mamea.org/minigrant.html. You can read about projects that have received MAMEA support in the past, see www.mamea.org/pastgrants.html.

Visit the Grants page on the MAMEA website for the grant application form, as well as important details about the application process and grantee responsibilities. Or, contact the Grants Committee Chair, Carol Hopper Brill at chopper@vims.edu. Applications are accepted throughout the year, but proposals will only be reviewed and awarded in the fall. The deadline for the 2020/21 cycle is September 15, 2020. Grant awards will be announced at the Annual MAMEA conference, and the funding period is 12 months, from November 2020 to October 2021, with no extensions. So that all members can benefit from the investments made by the MAMEA Grant program, Grantees share the outcomes, lessons learned or educational products from their grant projects. This may be in the form of a Masthead article or as a session presentation at the annual Conference.

So, put your thinking caps on, MAMEA is looking for great ideas to support. Maybe MAMEA can help you get your next educational project off the drawing board and into reality.

MAMEA Education Program Grant News

Carol Hopper Brill
Grants Committee Chair



MAMEA 2019 Conference Sessions feature Grantee Report

Andy Gould, MAMEA grantee for 2018/19 reported on his successful project at the 2019 MAMEA Conference. Andy, School Programs Coordinator for the North Carolina Aquarium at Fort Fisher, was the informal educator grantee for 2018/19. In his session presentation titled “Amphibian Citizen Science in the Classroom,” he explained how he expanded the reach of this project using a MAMEA grant.

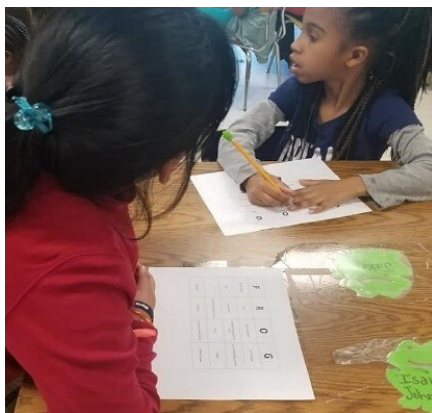
His objective was to expand involvement in FrogWatch USA by schools in his area. A national citizen science program of the Association of Zoos and Aquariums, FrogWatch USA it provides individuals, groups and families with an opportunity to learn about wetlands in their communities and report data on the calls of local frogs and toads.



Andy Gould trains local school students as citizen scientists for FrogWatch USA, a program of the American Association of Zoos and Aquariums (AZA). Photo courtesy of A. Gould.

Andy has been working to involve schools in the project. One dedicated partner school works closely with him, allowing students and teachers to accompany him into the field at night for in-person monitoring of frog calls. But, not all schools were able to take students into wetlands after dark.

Andy needed additional options in order to expand the program and attract the participation of additional schools. He did that through his in-person training sessions and using technology - the MAMEA grant funds allowed him to purchase professional sound recording equipment that could be used to make recordings of frog calls in local wetlands. The students, then, analyzed it during class time via Skype or in-person visit. By adding this option, Andy was able to include two more schools and more than double the number of students he reached, involving a total of 111 students in grades ranging from 2nd to 5th.



In training sessions, students in grades 2 through 5 learned about frogs and how to distinguish their calls as a means of monitoring frog populations. Photo courtesy of A. Gould.

Circumstances prevented Andy from comparing learning outcomes from the school conducting first hand listening sessions in the field with those schools using the recordings alone. He remains a proponent of in-person monitoring because those students had a better understanding of research methods, environmental factors affecting frog activity, and how to use data sheets. Never-the-less, his pre- and post-tests exhibited a 52% change in amphibian call knowledge among all students.

In his MAMEA conference presentation, Andy mentioned an unexpected outcome of the project: There is a newly identified frog species in the Mid-Atlantic. The Atlantic coast leopard frog, *Rana (Lithobates) kauffeldi*, is a cryptic species. It so closely resembles the Northern and Southern leopard frogs, that it was only identified in 2014, based on DNA evidence. While it hasn't been



Using professional grade sound recording equipment, Andy expanded the number of students who could participate in FrogWatch. Photo from Wildlife Acoustics, <https://www.wildlifeacoustics.com/>.

heard yet in the Wilmington area where Andy’s schools are monitoring wetlands, it has been documented in Virginia. Hear a recording at https://www.virginiaherpetologicalsociety.com/amphibians/frog-sandtoads/atlantic_coast_leopard_frog/atlantic_coast_leopard_frog.php. And, you can sample other FrogWatch recordings at: <https://soundcloud.com/frogwatch-usa>.

Based on the success of the recording option, Andy hopes to continue reaching more schools with FrogWatch participation. This will increase the amount of useful data collected and giving a more complete picture of frog populations in our Mid-Atlantic region.

2019/20 MAMEA Educational Program Grant Awarded to CarolAnn Curran

CarolAnn Curran, Maritime Science Teacher for Ocean View Elementary in Norfolk, Virginia, is the recipient of MAMEA’s 2019/20 Educational Grant for a Classroom Educator. With her proposal, CarolAnn plans to teach science and sustainability by establishing an aquaculture program in the school’s Maritime Lab.

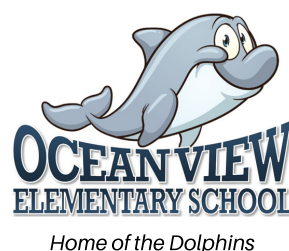
Ocean View Elementary is a Title I School that strives to provide opportunities for their students and community. Ocean View has been designated a Maritime School because of the environmental programming infused throughout the curriculum. As the Maritime Science Teacher, CarolAnn works with all grade levels to provide engaging activities that inspire and spark scientific inquiry. She already has students learning actively as they conduct Oyster Gardening and collect data in citizen science initiatives with community partners like the Chesapeake Bay Foundation, Oyster Reef Keepers and Nauticus.

The School’s new state-of-the-art educational facility opened in 2017, including a Maritime Lab that provides more opportunities. CarolAnn’s new project, titled Aquaculture in the Classroom, will show students how science is used to solve real-world problems. Her project goals are to increase educational opportunities and develop critical thinking skills, as well as to inspire strategies that cultivate sustainability and social justice. Using a model developed by a science specialist from Hanover County, Ocean View students will raise fish and vegetables.

The MAMEA grant will help the start-up of Ocean View Elementary’s new aquaculture facility by funding key equipment, materials and supplies. CarolAnn has additional funding from her school and from in-kind donations. She hopes that all students and staff will be involved and inspired by the project, enriching their understanding of scientific processes, developing confidence and community awareness. We wish CarolAnn the very best and look forward to learning about the project over the coming year. Congratulations!



CarolAnn Curran involves Ocean View students in many science projects. These kindergardeners are learning about wildlife classification and identification.



Students learn about the responsibilities that come with growing shellfish as they clean oyster cages with Ms. Curran.

Delaware

Amy Barra

Delaware State Representative

The fall 2019 Delaware mini conference was a success! Amy Barra, of the Delaware Center for the Inland Bays and Liz Wist from the Maryland Coastal Bays program introduced 6 new MAMEA members to some of the techniques and lessons from BEETLES (Better Environmental Education Teaching, Learning and Expertise Sharing). Mini conference participants were able to take part in two student activities- one outside the Center office, and the other on the beach by the Indian River Inlet Bridge. Participants were excited to continue exploring the free BEETLES resources and to try some of the research-based techniques in their own programs! Four of the six conference participants were seasonal instructors with the DE Center for the Inland Bays and exclusively used BEETLES activities in their fall field trip programs. The participating students were wildly enthusiastic about the new activities and teacher repeatedly followed up with Center staff with a barrage of compliments. It was very rewarding seeing techniques learned during the DE mini conference be so successfully implemented!

Upcoming DE Events:

Delaware Wetlands Conference - January 29 and 30, 2020

Join us on January 29th and 30th, 2020 as more than 320 wetland enthusiasts, experts and students from the Mid-Atlantic region gather in Wilmington, Delaware to attend the 9th biennial 2020 Delaware Wetlands Conference. Participants will share the latest in wetland research, innovations to outreach and education, and the progress of conservation programs. Ample opportunities will also be provided to network and make new connections.

<http://www.dnrec.delaware.gov/Admin/DelawareWetlands/Pages/Delaware-Wetlands-Conference.aspx>

National Network for Ocean and Climate Change Interpreters (NNOCCI) Workshop - February 26 and 27, 2020

Join staff from the Delaware and Maryland Chesapeake Bay National Estuarine Research Reserve's to learn about how to strategically frame conversations about climate change when talking with the public and stakeholders. The workshop will be held at the St. Jones Reserve in Dover, Delaware. Registration will open in January 2020, the workshop will be FREE and registration will be limited.

Jobs:

Although not open yet, there will be both education positions opening at the Delaware National Estuarine Research Reserve. The education coordinator is a full time merit state employee position and the assistant education coordinator is a casual seasonal with 29.5 hours a week. Keep on the lookout information on these positions this winter.

The Outreach & Education Coordinator position will soon be open at the DE Center for the Inland Bays. This is a full time permanent position.

Spring 2020 seasonal educator positions are expected to open at the DE Center for the Inland Bays. Look for more information in March/April.

Maryland

Lauren Fauth

Maryland State Representative

Teacher Workshops at the National Aquarium

February 29, 2020: Project WILD and WILD Aquatic

Engage in hands-on, inter-disciplinary activities focusing on wildlife, the environment and conservation. Activities are drawn from the popular Project WILD Curriculum and Activity Guide. This workshop is appropriate for informal and formal educators of K-12 students. Participants receive copies of both the Project WILD and WILD Aquatic Curriculum and Activity Guides. Participants may be eligible to receive 1 MSDE Professional Development Credit.

Time: 9:30 am to 4 pm

Cost: \$15 per person (includes Aquarium admission and refreshments. Lunch is not included.)

Registration Deadline: February 14, 2020

April 18, 2020: Project Learning Tree

Investigate environmental education concepts through activities from the Project Learning Tree Activity Guide. Project Learning Tree is an award-winning, multi-disciplinary curriculum for educators of students in grades Pre-K through 8. Participants in this workshop receive a copy of the Project Learning Tree Environmental Education Activity Guide. Participants may be eligible to receive 1 MSDE Professional Development Credit.

Time: 9:30 am to 4 pm

Cost: \$20 per person (includes Aquarium admission and refreshments. Lunch is not included.)

Registration Deadline: April 10, 2020

To register for these workshops please contact the Central Reservations department at the National Aquarium at 410-576-3833 or reserve@aqua.org. Questions- Contact Lauren Fauth at LFauth@aqua.org

Trash Sorting Challenge at the Bostwick House

SAT DEC, 14 | 12:00 PM - 3:00 PM | BLADENSBURG, MD

Event hosted by the Anacostia Watershed Society. Our River Terrace Trash Trap cleanups have been a huge success in helping us to make progress towards our goal for a trash free Anacostia River. This trash trap catches trash before it ends up in the River! At the event we will sort removed trash into 13 categories; plastic bottles, plastic grocery bags, food wrappers, Styrofoam food containers, other Styrofoam products, recreational balls, other plastics, glass bottles, aluminum cans, tires, treated lumber, other non-plastics, and large items. We will count the pieces of trash and measure the weight and volume for each category. Registration required at the link provided.

Registration is required. Please register at least 2 days prior to the event date. Registration Link: <https://anacostiaws.salsalabs.org/121419trashsortingchallengeatthebostwickhouse/index.html?page=register>

For more information, contact Emily Castelli at ecastelli2@anacostiaws.org

Virginia

Cathy Roberts
Virginia State Representative

Congratulations Cindy

A huge shout out and Congratulations to Cindy Pinell of Suffolk VA. She is the 2019 recipient of the MAMEA Informal Marine Educator Award. We recognize and applaud her amazing efforts with 7th grade and high school students, helping them to experience their local watershed and waterways while developing habits of good environmental stewardship. Her energy and enthusiasm with the students and teachers is endless.

Save the date: January 19, 2020 Virginia Mini Conference

9:00 AM - 5:00 PM. Whales and more...to include a whale watching trip, weather permitting. Virginia Aquarium, Virginia Beach.

Winter Wildlife Festival, Virginia Beach

January 24-26, 2020

Princess Anne Recreational Center

1400 Nimmo Pkwy, Virginia Beach, Virginia 23456

Join us for the festival's 10th anniversary. Presented by Virginia Beach Parks & Recreation with the Virginia Department of Game and Inland Fisheries.

Walk-up Workshops:

All workshops are free and last approximately one hour. Pre-registration is preferred.

Large Whales of Virginia

Saturday, January 25 • 9:30 a.m. - 10:30 a.m.

Location: Princess Anne Recreation Center (1400 Nimmo Parkway)

Ages 10 & up

The waters off Virginia Beach are teeming with diverse species of flora & fauna of all sizes. Learn more about the largest animals that frequent our coastal habitat during the winter: whales! In addition to species specifics & sightings reports, you'll find out more about the three decades of research and conservation that's been put forth by the Virginia Aquarium & Marine Science Center to help learn more about & protect these mammals.

Amphibians and Reptiles in the Winter: Naptime for Some, Hanky-Panky for Others

Saturday, January 25 • 11 a.m. - noon

Location: Princess Anne Recreation Center (1400 Nimmo Parkway)

Ages 10 & up

Many of Virginia's reptiles and amphibians undergo periods of extreme seasonal inactivity when the weather turns cold. They may experience decreased heart rates, slowed metabolisms and lower overall body temperatures. However, some species become quite active and take advantage of the winter rains and seasonally flooded wetlands to reproduce. Either way, this is a uniquely challenging time of the year. This presentation will discuss some of those challenges and the adaptations reptiles and amphibians have evolved to survive and thrive during the winter.

If You Burn it, They Will Come

Saturday, January 25 • 1 p.m. - 2 p.m.

Location: Princess Anne Recreation Center (1400 Nimmo Parkway)

Ages 10 & up

In 2019, a breeding pair of endangered Red-cockaded Woodpeckers was successfully established at DGIF's Big Woods Wildlife Management Area (WMA); the first occurrence for any state-managed land in Virginia. In this workshop, you will learn an overview of this recent conservation success story and how DGIF and partners restored habitat at the WMA to provide habitat for these endangered birds and a host of other species. The talk will discuss timber management and prescribed fire as key methods in the restoration process.

Sea Watch Station**Saturday, January 25 • 1:30 p.m. - 3:30 p.m.**

Location: Boardwalk at Rudee Inlet

All ages

Stop by to see what birds are flying over the waves, feeding, or resting on the water. You are likely to see Surf & Black Scoters, Buffleheads, Northern Gannets, Double-crested Cormorants, and an assortment of gulls (Ring-billed, Herring, Lesser Black-backed, & Great Black-backed). Red-throated & Common Loons, Red-breasted Mergansers, Laughing Gulls, and Forster's Terns are also possible. And if you are really lucky, you might see a Common Eider, White-winged Scoter, Horned Grebe, or Bonaparte's Gull. Bring binoculars if you have them. If not, we'll have birding scopes set up. Dress warmly!

Virginia Beach Notable Trees Program**Saturday, January 25 • 2:30 p.m. - 3:30 p.m.**

Location: Princess Anne Recreation Center (1400 Nimmo Parkway)

Ages 10 & up

Historically, Virginia Beach was covered in Maritime Forests made up of thousands of Old Growth trees; today, a few of these trees still remain and are the oldest living things in our City. Join Lynnhaven River Now's Captain Brent James as he introduces you to Virginia Beach Notable Tree program whose purpose is to identify, catalogue, memorialize, and publicize these hardy survivors.

Saving Sea Turtles**Sunday, January 26 • noon - 1 p.m.**

Location: Princess Anne Recreation Center (1400 Nimmo Parkway)

Ages 10 & up

Virginia Aquarium veterinarian Dr. Ally McNaughton will discuss the Pier Partner Program. The Aquarium's Stranding Response team works with the local recreational fishing piers to report and safely bring in sea turtles that have interacted with or ingested fishing hooks. The animals are assessed and ranked by the severity of their hook interaction to help determine the best method for hook removal and the extent of medical care required prior to release.

SmartPhone Birding**Sunday, January 26 • 3 p.m. - 4 p.m.**

Location: Princess Anne Recreation Center (1400 Nimmo Parkway)

Ages 10 & up

We may call it a phone, but these pocket computers with cameras give us more access to birding information than ever. Join keynote Sharon Stiteler to learn about the latest apps for identifying and reporting birds. You may be surprised with some new technology coming down the pike. This program will also cover how to take pictures and videos with your smartphone using a spotting scope or binoculars.

Save the Date!

Annual Mid-Atlantic Regional ROV Underwater Robotics Competition

Saturday, April 25, 2020- 8 a.m.-4 p.m.

Old Dominion University Recreation and Wellness Center - Norfolk, Virginia



Teacher, Scout Leader, and Team Mentor Workshop at Nauticus!

Get Familiar with Remotely Operated Vehicles (ROVs) | Saturday, January 11, 2020, 9 a.m.-3 p.m | Limit 25

Cost: \$25 per person plus tax (includes light breakfast, lunch, and activities)

To register for the workshop, please see the link:

[Nauticus.org/RegisterROV2020](https://nauticus.org/RegisterROV2020)

For information regarding the Competition, contact:

Susie Hill, Mid-Atlantic Regional ROV Competition Coordinator, 757-664-1041, rebecca.hill@norfolk.gov, <https://midatlantic.materovcompetition.org/>



Education Grant Awarded to The Mariners' Museum to Build a Pollinator Garden

Andrea Rocchio

The Mariners' Museum and Park

NEWPORT NEWS, Va. – Staying true to its mission of connecting people to the world's water, The Mariners' Museum and Park is taking that purpose into green space with the addition of a pollinator garden. The pollinator garden is part of a program resulting from a local community partnership between The Mariners' Museum and Park and The Nature Conservancy, which focuses on forest ecosystem education.

During the month of October, The Mariners' Museum and Park Education Department successfully piloted a third-grade outdoor science program called Nature Explorers. In the program, students learned about ecosystems and how to be sensory learners in the world via exploration outside. This program is part of a grant given to The Mariners' Museum and Park's Education Department by The Nature Conservancy.

The decline of pollinators, specifically bees and butterflies, throughout the country in recent years has the Museum seeking to find ways to help conserve and protect the myriad of wildlife, trees, and plants. A pollinator garden at The Mariner's Museum and Park is one way to help revive the health of bees, butterflies, and other pollinators in planting specific nectar and pollen producing plants to attract such pollinating insects.

The Mariners' Museum and Park laid the foundation of the pollinator garden and now many native plants have been added by students. The garden serves as one of three outdoor education stations to make observations and conduct discussions about pollinators and their importance in the local and surrounding communities. Assistance to maintain the garden will be a coordinated effort between The Mariners' Museum and Park and the Peninsula Master Naturalists.

The pollinator garden is located in the green space near the outdoor wooden play ships, and sits between the Museum's overflow parking lot and business entrance off Museum Drive. All stations are wheelchair accessible and offer learning opportunities in a unique outdoor setting for both traditional and homeschool students.

For more information about this new project at the Museum or to learn more about the many education programs the Museum offers for students, please visit www.MarinersMuseum.org.



North Carolina

Brittany Pace

North Carolina State Representative

Hello from the new NC Rep!

My name is Brittany Pace. I am the Coastal Education Coordinator for Fort Caswell's Environmental Stewardship Program. Fort Caswell is located on Oak Island, across the Cape Fear River from Bald Head Island. Caswell's Environmental Stewardship Program provides marine science education to K-12 school groups. We see over 5,600 people per year from within North Carolina and outside the state. For 10 years, southeastern North Carolina has been my home. I am excited to serve as your NC Rep! I look forward to getting to know each of you and creating a network of partnerships with your organizations. Feel free to contact me at bpace@fortcaswell.com or 910-278-9501.



Upcoming Programs

Oak Island's Beach Preservation Society is hosting a Public Lecture Series.

You can find more information and registration links on their website <https://beachoki.org/lectures-workshops>. These FREE lectures will be held from 7-8pm at 801 Ocean Drive, Oak Island, NC 28465.

WEDNESDAY, DECEMBER 4, 2019

NC Sea Grant's Terri Kirby Hathaway, marine education specialist, excels at making ocean topics fascinating. Take a break from holiday stress and learn about how sea animals make it all happen!

FRIDAY, FEBRUARY 28 2020

Roger Shew, Lecturer of Geology in UNCW's Department of Earth and Ocean Sciences, joins us for an evening look at Oak Island's geology, from deep past to current changes. Where did our beach come from? Where is it going? Every Oak Islander needs to know!

The NC Museum of Natural Sciences in downtown Raleigh, NC is currently accepting applications for our 2020 Girls in Science: Future Focus program.

This program will meet weekly from January-March and is open to current 6th and 7th grade girls. Each week for ten weeks, participants will come to the Museum to meet a different woman in science, hear her story and engage in fun hands-on activities and exciting behind-the-scenes experiences related to her field of work. Scholarships are available!

Online applications include a student form, parent form and two recommendations. The deadline is fast approaching - applications are due November 22nd by 5 p.m. More information and application links can be found here: <https://naturalsciences.org/learn/girls-in-science-future-focus>

If you are a woman in science or know someone who would be interested in joining us as a guest presenter for one of our meetings, please contact Erin Apple at erin.apple@naturalsciences.org.



NC Science Festival

We're busy gearing up for the 10th annual NC Science Festival, which returns in April 2020, and we're excited for the biggest and best celebration of science ever! If you're interested in hosting an event as part of the Festival, please visit our website for more information and to submit your event details. Submissions are due January 10, 2020, but if you already know what you want to do, go ahead and submit now.

I'm also happy to announce that our mini grant applications are now available. If you've got a great idea for an event, but need some help funding it, please consider applying for up to \$1000 from our Event Sponsorship Program. Applications are due November 30, 2019. And for those of you on UNC System campuses, mini grants of up to \$5000 are available through the UNC Challenge Grant program, and those applications are also due 11/30/2019.

Contact: Erik MacIntosh, Programs Manager, NC Science Festival; 919-962-3274; etm@unc.edu www.ncsciencefestival.org



Baja Ecology Educator Program



Explore Bahia de los Angeles in the San Felipe Desert from both the water and on land. Snorkel turquoise blue waters rich with sea life. Discover why the UNESCO designated World Heritage Site and its extraordinary diversity of marine life is a conservation priority.

Immerse yourself in the ecosystems of Baja. Collect data and conduct citizen science in the field. Study whale sharks and other fauna to contribute to global conservation efforts. Return home with valuable experiences and skills to share with others.

Dates: July 1-10, 2020
 Cost: \$1,750 + airfare to San Diego
 Applications due Dec. 1, 2019
 Contact: Gail at (910) 772-0546
ncaquariums.com/fort-fisher





Blue Heron Bowl Coming to Outer Banks

<https://www.coastalstudiesinstitute.org/outreach/blue-heron-bowl/>

What: Blue Heron Bowl

When: Saturday, Feb. 1, 2020

Where: ECU's Coastal Studies Institute, 850 Highway 345, Wanchese

Cost: FREE entry

RSVP: Contact Dave Sybert (sybertd@ecu.edu or 252-475-5451)

The 2020 Blue Heron Bowl, a regional part of the National Ocean Sciences Bowl (NOSB), will be hosted by the Coastal Studies Institute on North Carolina's Outer Banks. This competition is open to high school teams in North Carolina.

Two teams, each composed of four students and one alternate, square off against each other to answer questions related to marine science. Many of these students are coached by a marine science or general science teacher that sponsors their training.

The Blue Heron Bowl consists of a set of matches. Each match consists six minutes of toss-up and bonus questions, followed by two team challenge questions, ending with a final six minutes of toss-up and bonus questions.

Winners of the Blue Heron Bowl will be sent to the national competition in April; location of the national finals has yet to be determined. Our Blue Heron Bowl champion will face-off against 25 other teams in the national finals!

Registration for the 2020 competition closes on December 20!

Goals of the NOSB competition are to increase knowledge of the oceans and to raise visibility and public understanding of the national investment in ocean-related research. The competition gives oceanographic research programs the opportunity to develop new connections with their local pre-college community and to open students' eyes to ocean-related careers.

Ultimately, the success of the Blue Heron Bowl requires the concerted efforts of many volunteer staff and sponsors. Sponsors help offset the costs incurred, while volunteers serve as moderators, scientific judges, rules judges, timekeepers and scorekeepers. The 2020 event will need assistance from many, so consider joining the Blue Heron Bowl squad of volunteers!

Interested teachers and prospective volunteers should contact Dave Sybert (sybertd@ecu.edu or 252-475-5451) as soon as possible to get started on this exciting event!

Please Congratulate our 2019 MAMEA Award Winners!

Rachel Clark
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 2019 MAMEA Conference in Chincoteague, VA, out-going President Carrie Carlin had the honor of presenting two awards this year during the Annual Business Meeting on November 9th.

MAMEA's 2019 Informal Educator Award was presented to Cindy Pinell.



Cindy has been a driving force and mentor in environmental stewardship in Suffolk, VA for several years working with programs sponsored by Nansemond River Preservation Alliance and Suffolk River Heritage. Cindy began her involvement in oyster restoration and water quality monitoring in the Suffolk waterways as a volunteer with her daughter's Girl Scout troop. Her enthusiasm for this important mission led her to recruit friends and neighbors and mentor them in dockside oyster growing and water monitoring. She became a spearhead of the Suffolk citizen oyster growers and Girl Scout leader. She also recruited several elementary teachers and encouraged them to incorporate the oyster project in their science curriculum. To assist teachers in this, Cindy retrieved oysters from floats, delivered them to the classrooms, served as the visiting expert interacting with students in science activities that day, and then returned the oysters to the floats at the end of the school day. In addition, she helped develop and lead successful environmental experiences for locals at Bennetts Creek Park during the Clean the Bay Day and Suffolk Riverfest Events.

In fall 2012, the Nansemond River Preservation Alliance partnered with Suffolk City Schools to bring a comprehensive watershed curriculum to all 1100 seventh grade science students in the four Middle Schools. Cindy helped lead the charge, involving the students in local oyster restoration and water quality monitoring. The effort required additional citizen scientists and volunteers to work with classroom teachers patterned after Cindy's previous elementary school work. Cindy has worked tirelessly to bring success to this program. Cindy's efforts both directly and indirectly help students develop a sense of place and become responsible environmental stewards. Cindy does all of this with the only compensation for her time, efforts, and expenses being the enthusiasm of students and citizens for the local environment and its preservation.

Cindy has been a member of MAMEA for three years. She has participated in the annual conference each year gleaning information and lesson activity ideas for use with the students of Suffolk. Cindy has also networked with other MAMEA members to develop a cadre of resources for both herself and the teachers of the classes where she delivers lessons.

You can often find Cindy along the Suffolk waterways, undaunted, up to her armpits in marsh mud, with frozen fingertips, wind dancing through her hair, or rain dripping from her nose because environmental science doesn't always happen on the warm sunny days. As one member of the Nansemond River Preservation Alliance Education Committee said "You need only pick up the phone and say 'Can you help me?' and Cindy is there", whether it is to chase runaway oyster floats, plan an event, assist a new citizen oyster grower, or serve as a last minute substitution in a classroom. You've done an amazing job serving your community. Congratulations Cindy!

MAMEA’s 2019 President Award was presented to Sarah McGuire Nuss for all of her help throughout Carrie's presidency. She was a vital member of the 2018 conference planning committee and making sure that things ran smoothly throughout the conference. Congratulations Sarah!

Special Recognition was awarded to Dr. Carol Hopper Brill for her many years of dedication to MAMEA. Carol has served a variety of roles within the organization from Virginia Representative, President and the last several terms as Secretary. Carol has set a precedent of having the most meticulous and organized notes for the entire organization. Carol will be retiring this summer and we wanted to recognize all that she has contributed. Please congratulate Carol on this award and upcoming retirement.

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The MAMEA Board meets twice a year. For more information visit: <http://www.mamea.org/board.html>