SUMMER 2019 VOL.39 ISSUE 1



Quarterly Newsletter of the Mid-Atlantic Marine Education Association



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## From the Captain's Quarters

Greetings MAMEA Family,

Welcome to the start of summer; a time for flip flops, sunglasses and hopefully some fun in the sun! As my school year is winding down I am looking forward to spending time relaxing at the beach with my family. I am also gearing up to network and socialize with fellow MAMEA members at the NMEA annual conference at the University of New Hampshire in July. All conference information and registration can be found on the NMEA website (https://www.marine-ed.org/page/nmea2019).

In MAMEA news, we are looking for members who would like to take a more active role in our organization. We have several committees who are in need of volunteers. The committees include: Auction (setup & acquiring donations), Awards (review nominations), Social Media (update Facebook & Instagram accounts) and Conference Planning (creating field trips, etc). If you are interested in joining any of these committees please email me at ccarlin@hanover.k12.va.us. Look for an email in the coming weeks about MAMEA elections, I encourage you all to vote.

Finally, I would like to thank Emily for putting together her first ever edition of the MASTHEAD. This is a thankless job and I know it takes a lot of work to put it together. Lastly, I hope you all have a great summer!

Best,

Carrie Carlin
MAMEA President

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# NMEA 2019 Conference Registration Open

Kathy Fuller NMEA Representative

Make sure your calendars are marked for the 2019 NMEA conference in Durham, NH, July 21-25th. Visit the NMEA website (www.marine-ed.org/page/2019conference) to get up to date information on the conference. See you in Durham!



## 2019 MAMEA Annual Conference Preview



Mark your calendars now for a fun-filled MAMEA19 the weekend of November 1!

We will be gathering for our annual conference this fall in Chincoteague, Va. (Link: https://www.chincoteaguechamber.com/) - a quaint, historic island community made famous by their wild ponies. The conference will be based at the Chincoteague Bay Field Station (Link: http://www.cbfieldstation.org/) - an active environmental education center just off the main island that offers modern meeting spaces, wet labs, and a spacious food hall.



The CBFS also has dorms, which will allow us to offer low cost housing on site, and has access to great field trip sites including neighboring Wallops Island (Link: https://www.wallopsisland.org/), home to NASA's flight facility and rocket launches, and the Chincoteague National Wildlife Refuge (Link: https://www.fws.gov/refuge/chincoteague/), home of the hardy ponies who make their famous swim each summer during their annual round-up.

We're finalizing many details right now and will share them soon! Interested in helping to plan the conference or volunteering to help out? Let us know: tossey@mdsg.umd.edu.





#### MAMEA 2019 Scholarship Applications Opening Soon

Each year, MAMEA awards up to five Paul Standish scholarships to MAMEA members who are interested in attending the MAMEA conference. The scholarship covers up to \$300 of expenses directly related to participation in the conference. Conference scholarships are given as reimbursements after attending the conference.

For the second year in a row, we are excited to also offer an Expanding Audiences conference scholarship. This scholarship will support individuals new to MAMEA in an effort to increase the diversity of our membership. This may include diversity within race, ethnicity, gender, marine/fresh, formal/informal,early/late career, and entry level to executive level. The intent is to support qualified individuals to share their expertise, experiences, and perspectives through active participation in the MAMEA annual conference, and through continued participation within the organization. The scholarship will cover up to \$400 of conference expenses. Start thinking of someone you may want to nominate for this scholarship!

Please check the website for more information at http://www.mamea.org/scholarship.html.

Scholarships will open in late summer. If you have any questions about the application process, please contact Sarah Nuss at mcguire@vims.edu.

# Have a great idea for an educational project next year? Need funding?? A MAMEA Educational Project Grant might be what you need!

MAMEA can help you can get your next educational project off the drawing board and into reality, engaging students or fellow educators. Plan now for the upcoming cycle of MAMEA Educational Project grants – proposals are due September 15!

Two grants for up to \$1,000 are available annually: 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 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. Proposals are accepted throughout the year, but the deadline for the 2019/20 cycle is September 15, 2019. Grant awards will be announced at the MAMEA Fall Conference in November. The funding period is 12 months, from November 1 to October 31.

# MAMEA Board Elections 2019/20 – Voting open June 8 to July 8!

Lauren Fauth and Carol Hopper-Brill MAMEA Elections Committee

The election of MAMEA's Board members for 2019/20 will be open June 8 to July 8, 2019! We encourage all MAMEA members to exercise their right to vote. For all members with a functional e-mail address, MAMEA elections are conducted electronically. You will receive an electronic ballot in an e-mail on June 8. Members without functional e-mail receive a paper ballot. Both ballots allow for write-in candidates. Be sure to submit your ballot by the July 8 deadline.

The 2019/20 election seeks to fill the following positions:

President-Elect (serves a 3 year cycle as President-Elect, President & Past-President)

1 Candidate: Evan Beatty

Secretary (2 year term)

1 Candidate: David Christopher

**MD Representative** (2 year term)

1 Candidate: Lauren Fauth

NC State Representative (2 year term)

1 Candidates: Brittany Pace

#### At-Large Representative (2 year term)

4 Candidates: Lillie Reiter; Dawn Sherwood; David Wehunt; Andrew Wilson

To review the candidate profiles, visit the MAMEA website: www.mamea.org/.

Then, please vote using the unique ballot that was e-mailed to you. If you have misplaced your e-mail ballot or if you have questions about the election process, please contact Secretary Carol Hopper Brill <a href="mailto:chopper@vims.edu">chopper@vims.edu</a>, or Membership Chair Lisa Lawrence ayers@vims.edu.

Voting will close on July 8 and both electronic and paper ballots will be tallied as prescribed by MAMEA By-Laws and Standing Rules. Election results will be announced during the MAMEA Chapter meeting (July 23) at the annual NMEA Conference, this year in Durham, NH. New Board members for 2019/20 will take office at the annual MAMEA Business Meeting on November 2, during the 2019 MAMEA annual Conference taking place in Chincoteague, VA.



# **Delaware Chapter**

Amy Barra Delaware State Representative



#### **Announcements**

David Christopher, the Marine Education Specialist with DE Sea Grant was the featured NMEA member in June 2019. See his big here.

Maggie Pletta announced that the planning for the annual conference is underway and coordinators are in need of any volunteers who wish to assist on the Auction Planning Committee. If interested, please contact Maggie Pletta at Margaret.Pletta@delaware.gov for more information about how you can help.

Amy Barra from the Delaware Center for the Inland Bays (and DE MAMEA rep) along with staff from NASA Wallops Flight Facility, Assateague National Seashore and Chincoteague Wildlife Refuge were accepted into the Earth to Sky's Climate Academy. The team will train at NASA Goddard and then will provide professional development to educators focused on the Atlantic coast of Delmarva.

#### **Upcoming Programs**

The Delaware National Estuarine Research Reserve (DNERR) is offering a variety of free public programs for all ages, including boat trips, canoe trips, hikes, and discovery labs. The full list can be viewed at: http://de.gov/dnerrprograms

#### **Save the Dates**

September 21, 2019, National Estuaries Day

Be sure to save the date for National Estuaries Day on September 21. The Delaware National Estuarine Research Reserve will be hosting a tree planting and other activities to celebrate the estuary. The Delaware Center for the Inland Bays will be coordinating with the other National Estuary Programs on social communications, please be sure to check in and share your love for estuaries!

October 1, 2019, DE mini conference!

Save the date on October 1 for the Delaware mini-conference, a Better Environmental Education, Teaching, Learning and Expertise Sharing (BEETLES) full day experience, starting at the Hyatt in Dewey, DE. The workshop will be co-run by Education Coordinators, Amy Barra from the Delaware Center for the Inland Bays and Liz Wist, from the Maryland Coastal Bays Program. This workshop will be part of the annual National Estuary Program technical transfer conference. BEETLES was designed for educators who teach science in an outdoor setting, but this workshop will also be beneficial for communicators and outreach staff in addition to field instructors. For more information, e-mail abarra@inlandbays.org

# Discover the Delaware

# Delaware National Estuarine Research Reserve



#### **Discovery Labs!**

Join Reserve staff to be a scientist to collect your own data! Please double check the location when registering.

#### Saturday, June 15th, 10 AM - 2 PM

Dover Library, 35 E Loockerman St, Dover, DE STEM Makerfest

Calling all marine explorers! Discover the microscopic world and the small creatures that live in it. Also learn about horseshoe crabs by looking at a live one.

#### Friday, June 21st, 12:30 PM - 2:00 PM

North Bowers Beach

Discover the creatures that live within the waters at Bower's Beach and have fun while seining the coast! Gain an appreciation for both the aquatic ecosystem of Delaware Bay, as well as your own home's habitat!

#### Saturday, July 13th, 10:00 AM - 11:30 AM

818 Kitts Hummock Road, Dover, DE
Join Reserve staff for this month's Discovery Saturday to learn
how our researchers are studying the plant blooms and
pollinators to study climate change. Then collect data along
with our researcher!

#### Saturday, August 10th, 10:00 AM - 11:30 AM

801 Blackbird Landing Road, Townsend, DE

Bluebirds! Come learn about Delaware's native bluebirds and build your own birdhouse! Be a researcher with our researcher, discover bluebird nest boxes and collect data based on what we find in them.

#### Campfires!

Join the Reserve staff around a campfire to learn about the different animals that are important to Delaware. Feel free to bring your own s'mores supplies for roasting.

#### Tuesday, July 2nd, 7:00 PM - 8:00 PM

340 Kitts Hummock Road, Dover, DE Play a game of Jeopardy, Partnered with the John Dickinson Plantation.

#### Thursday, August 1st, 7:00 PM - 8:00 PM

340 Kitts Hummock Road, Dover, DE Play a game of Jeopardy, Partnered with the John Dickinson Plantation

#### Save the Date!

National Estuaries Day Celebration Saturday, September 21st Blackbird Creek Fall Festival Saturday, October 19th

#### Get Outside!

Join the Reserve staff to hike around! Please be sure to check the location when registering

#### Wednesday, July 10th, 10:00 AM - 11:00 AM

801 Blackbird Landing Road, Townsend, DE Join the Reserve staff for a walk around Blackbird Creek while creating a memory board to remember some of your unique finds.

#### Saturday, August 24th, 10:00 AM - 11:00 AM

818 Kitts Hummock Road, Dover, DE

Join Reserve staff before school goes back! Enjoy the scenery from the Reserve boardwalk and through the Ted Harvey Wildlife Area as we walk to the Kingston upon Hull Home.

# Explore the Delaware Bay by Boat

Get out on the water! Join the Reserve staff in our 24 foot skiff boat or in canoes to experience Delaware in a different way. *These boating experiences are designed for ages 5-adult.* Life jackets will be provided and are required to be worn on the trip. Space is limited.

#### Boat Trip on the St. Jones River

Meet at Scotton Landing off of Barkers Landing Road in Dover, DE

Tuesday, June 4th, 9:30 AM - 11:30 AM Tuesday, July 16th, 9:00 AM - 11:00 AM Thursday, August 15th, 9:00 AM - 11:00 AM

#### Canoe Trips on the Blackbird Creek

801 Blackbird Landing Road, Townsend, DE Thursday, June 13th, 9:30 AM - 11:30 AM Friday, June 28th, 9:00 AM - 11:00 AM Saturday, July 20th, 3:30 PM - 5:30 PM Tuesday, August 6th, 5:30 PM - 7:30 PM Tuesday, August 27th, 10 AM - 12PM





Registration is required for all programs. Programs can be canceled due to low registrations or inclement weather.

To register contact Maggie Pletta at Margaret.Pletta@delaware.gov or (302) 739-6377

Facebook.com/DNERR | Twitter.com/DNERR | Instagram.com/DelawareNERR

# Virginia Chapter

Cathy Roberts
Virginia State Representative

#### MEXICO VIRGINIA AQUARIUM BAJA WHALES EXPEDITION February 7 - 15, 2020

- See gray whales up close and personal! Enjoy thrilling opportunities to encounter these gentle giants from a small boat.
- Visit a natural reserve in an enormous salt marsh where birds migrate from Russia, Canada, and other latitudes.
- Watch lively folk dancing at a local school in San Ignacio, a charming mission town in the midst of a lush, tranquil oasis.
- Explore scenic desert landscapes of gigantic granite boulders, boojum trees, cardon cacti and elephant trees.

**PRICING** \$3,345 Cost includes meals, accommodations, and activities as indicated in the itinerary, round-trip flights from Norfolk, private vehicle transportation in-country, full-time guide, departure tax, and carbon offset. Does not include gratuities for guide or driver, alcoholic beverages, or items of a personal nature.

# Virginia Center for Coal & Energy Research; Virginia Coal and Energy Alliance; and United States Energy Association Present:

25th Annual Project Coal & Gas: Production & Usage Energy Education
July 14 through July 20, 2019
The University of Virginia's College at Wise, Virginia

FOR MORE INFORMATION: Virginia Coal & Energy Alliance P. O. Box 339 Lebanon, VA 24266 PHONE: 276-889-4001 FAX: 276-889-3055 E-MAIL: vcea@virginiacoalenergy.com, pmeeks@vt.edu

Website: www.virginiacoalenergy.com





Virginia Tech's Powell River Project Research & Education Center





# VIRGINIA ASSOCIATION OF SCIENCE TEACHERS 2019 ANNUAL PROFESSIONAL DEVELOPMENT INSTITUTE

November 14-16, 2019 Hotel Roanoke and Conference Center, Roanoke, VA.

Join the University Corporation for Atmospheric Research (UCAR) and GLOBE for a 2.5-day hands-on teacher workshop featuring our new FREE weather unit! Investigate weather patterns and extreme weather events through activities, data analysis, modeling, and weather measurements using GLOBE Protocols. This curriculum will help your students understand NGSS-based weather concepts such as the uneven heating of Earth, local and global atmospheric circulation, and air mass formation and collision. Visit https://scied.ucar.edu/globe-weather-curriculum to learn more. Stipends will be provided.

AUGUST 19, 2019 8:30 AM-4:30 PM AUGUST 20, 2019 8:30 AM-4:30 PM AUGUST 21, 2019 8:30 AM-12:30 PM NASA Langley Research Center in Hampton, VA\*\*

\*\*NASA Langley Research Center is a secure government facility. All registrants must be U.S. Citizens in order to obtain a visitor badge.

#### **Summer Professional Development Opportunity: Trees to Products**

Virginia Cooperative Extension in collaboration with the Southwest Virginia Chapter of the Society of American Foresters and other members of the forest industr is offering an environmental education opportunity for teachers from July 8-11.

The Trees to Products program is designed to correlate with the Virginia Standards of Learning for grades K - 12. It awards 30 hours of professional development credits for participants, along with Project Learning Tree certification.

Teachers will tour key forest-industry sites to learn about sustainable forest management. They will also learn about how forests provide wildlife habitat and recreational opportunities, and the importance of forests in view-shed and water-quality efforts. Participants will see how trees are converted into a variety of everyday products.

Participants pay a \$25 registration fee for the four-day conference. The costs of all meals, transportation, and lodging are provided by the sponsors, with the exception of transportation to the conference headquarters in Wise, Va.

For more information or to register, contact Bill Worrell at (276) 889-8056 or bworrell@vt.edu. https://tinyurl.com/Trees2Products2019

#### **TEAMS 2.0 Integrated & Inclusive Instruction Begins & Ends with Science**

PROFESSIONAL DEVELOPMENT CONFERENCE Presented by the Virginia Association of Science Teachers, Region IV

Thursday, July 11, 2019 - 8:30 a.m. - 2:30 p.m. Location: PWC School

Speakers, Panels, and Presentations for All PK-12 Educators and Secondary Teachers

Fees: \$20/person \$10/current VAST/BNVCTM member

Team of 4 from one school - \$70; w/ one VAST/ BNVCTM member: \$60

First 10 Schools registered will receive a copy of: STEAM+ Arts Integration: Insights & Practical Applications, Edited by Jacqueline Cofield, 2017. Registration fees include: refreshments, lunch, materials. Educators: 6.0 Recertification points.

Please send all of the following information for each participant by Saturday, July 7th.:

Name:

School District:

School:

Subject Area/Grade Level:

Current VAST Member? Y/N BNVCTM? Y/N

Email address (Summer)

Fees due at the workshop. Fee due from each participant- check payable to: "VAST" - cash/ check on-site. Teams- please submit registration form for each person.

Please contact Susan for Special rate for Students in Pre-Service or if using school invoice.

EMAIL: Region4@VAST.org to Susan Bardenhagen MAIL: Region IV Coordinator, P O Box 2974, Manassas, VA 20108

#### Shenandoah National Park Presents 2nd-5th Grade Teacher Workshop

September 27,2019 9 AM - 3 PM 2nd-5th Grades http://www.nps.gov/shen

#### Workshop Description

At the workshop, teachers will learn how to incorporate the park's 2nd-5th grade programs into their classroom lesson plans. Park rangers will familiarize teachers with Shenandoah National Park and the program materials, introduce classroom pre-visit and post-visit activities, demonstrate ranger-led activities planned for the students, and define the responsibilities of teachers, rangers, students, and chaperones on field trips. Workshop attendance is required before bringing students on a park program.

The workshop is offered FREE of charge. Reservations are required. Workshop attendance may satisfy school district requirements for professional development credit and recertification points.

#### Program Descriptions

The 2nd-5th grade programs are ranger-guided, outdoor learning experiences held in Shenandoah National Park. The programs directly support the Virginia Science Standards of Learning (SOLs) 2nd Grade Habitats of Shenandoah Science SOLs 2.5, 2.8

3rd Grade Adaptations for Survival Science SOLs 3.4, 3.10

4th Grade Ecosystems: The World-wide Web of Life Science SOL 4.5

5th Grade Geology: Our Rockin' Earth Science SOL 5.7

#### Registration

Reservations are required and space is limited. To register, or for more information, call the Shenandoah National Park Education Office at 540-999-3500, ext. 3489, or email shen\_education@nps.gov http://www.nps.gov/shen

#### FREE ENGINEERING PD FOR Gr. 6-12 TEACHERS

OLD DOMINION UNIVERSITY NORFOLK, VA JULY 15-19, 2019

--Engage with science and engineering practices of NGSS through real-world applications of engineering and hands-on activities you can incorporate in your classroom.

--Excellent opportunity to meet volunteers from industry and build connections to benefit your students.

#### WHO SHOULD ATTEND?

- --Middle school and high school teachers with an interest in science, engineering, and industrial/career and technical education.
- -- Pre-service science teachers.
- --Engage in hands-on, low-cost activities that you can integrate into your classroom immediately.
- --Help your students discover career opportunities in science and engineering, and meet practicing engineers.
- --Strong connection to NGSS.

#### **GRADUATE CREDITS AVAILABLE!**

--Two (2) graduate credits available (at participant's expense) through the University of Missouri-Kansas City at \$250. (This is optional.)

#### WHAT'S INCLUDED?

4 CEUs (40 hours), demonstration materials, and meals.

#### QUESTIONS?

Jeane Deatherage, Administrator of Foundation Programs jeane.deatherage@asminternational.org | 800 336 5152, ext. 5433.

To Register: SURVEYMONKEY.COM/R/JMM9GKH

#### Save the Date:

Aug 16, 2019

#### **Southeastern Forests and Climate Science**

Receive Project Learning Tree Climate Change Curriculum Tour the Brock Center, Virginia Beach, VA More information soon.

#### Virginia Mini Conference: Sea Turtle Science

On April 27 a small but mighty group of MAMEA educators braved the challenges of the "Something in the Water" Festival's 35,000 to participate in the VA MAMEA Mini Conference. They spent their day at the VA Aquarium focused on Sea Turtles. Activities included information about local research on Sea Turtles of the Atlantic. They travelled to the Marine Animal Care Center to observe and feed recovering Kemps Ridleys and Loggerheads. The afternoon was filled with opportunities to participate in activities designed to help students and visitors understand the life history of sea turtles and their interaction with their environment.

An update for participants...Broccoli, the hooked Kemps Ridley, Birdsong and Nandua, the cold stunned Loggerheads were released locally into the Atlantic May 9th. Nandua had a satellite tracker attached and the first few days of the journey South are below.



Birdneck



Broccoli



Nandua







**Renaissance Academy Field Trips** 

Brent Horner Science Teacher, Renaissance Academy

The Renaissance Academy is an alternative school located in Virginia Beach. Our science program was determined to conduct water quality testing over time and space this year with resounding success. Our oceanography classes, led by field trip coordinator Brent Horner, conducted 6 field trips to various water sources in the area to include the Brock Environmental Center, The Virginia Aquarium and Seashore State Park on Shore Drive. These field trips were all free to our students subsided by grants from various sources to include a grant from the Virginia Aquarium and matching funds through the Renaissance Academy.

Students were taught how to use various equipment in water quality testing. They conducted these tests over the course of the school year (time) and at every field trip site we visited (space). They collected and correlated the data over the course of the year to answer the questions: does the chemistry of sea water change during the different seasons and is the sea water chemistry the same throughout the Chesapeake Bay watershed. It was great to see these students in a field environment modeling the collections practices learned in class as well as the questions they came up with after they tallied up their data. One thing they did find out; the questions in science never stop.

# Nauticus and MATE (Marine Advanced Technology Education) Host Annual Mid-Atlantic Regional ROV Underwater Robotics Competition

Susie Hill

Education Specialist/ Special Programs Manager Nauticus featuring the Battleship Wisconsin



Saturday, May 4, 2019

An AMAZING day at our 13th Annual Mid-Atlantic Regional ROV Underwater Robotics Competition at the Old Dominion University Student Recreation and Wellness Center in Norfolk, VA! A grand total of 13 teams from Maryland and Virginia and over 50 judges! Teams were judged on a creative marketing display poster, engineering panel presentation, and water mission product demonstration.

Thank you to all of the teams that participated- Ruffner Middle (1st Place- SCOUT (beginner level), Norview Middle, James Blair Middle, Grassfield High School, Heritage High School, Cape Henry Collegiate (1st Place- NAVIGATOR (intermediate level), Thomas Jefferson High School of Science and Technology, Snow Hill High School, Chesapeake Bay Governors School, Landstown High School, and our 1st Place RANGER (advanced level) winning team, Granby High School, whose Girls in Engineering team will be going to Tennessee in June to represent us at the MATE International Competition!

Thank you to our big supporters- Norfolk Naval Shipyard, Naval Civilian Managers Association, Marine Technology Society- Hampton Roads Section, L3 Technologies, Interstate Batteries, Chesapeake Bay Diving Center, Ty Swartz Photography, Virginia Ship Repair Association, Mid-Atlantic Regional Maintenance Center, NOAA, and Norfolk Technical Center!



Granby High School Girls in Engineering; Norfolk, VA Winner- RANGER Level



Chesapeake Bay Governors School; Warsaw, VA Winner- NAVIGATOR Level



Granby High School Girls in Engineering; Norfolk, VA Winner- RANGER Level



### PROFESSIONAL DEVELOPMENT

at Virginia Aquarium & Marine Science Center

#### Summer 2019

#### CLIMATE SCIENCE (6th-12th grade)

Wednesday, June  $19^{th}$  9:00 – 3:00PM | Brock Environmental Center Lunch provided.

This teacher training focuses on the difference between weather and climate, how our climate system works, how our climate is changing and its impacts, and student focused solutions. Teachers will enhance their knowledge of the climate system and impacts through various hands-on activities, group discussions, and demonstrations.

#### WETLANDS & WATERSHEDS (4th - 6th Grade)

Friday, June 21<sup>st</sup> 9:00AM – 3:00PM | Virginia Aquarium, Classroom Bring a packed lunch. Wear comfortable shoes that can get muddy for outdoor exploration.

This teacher training focuses on how watersheds work and what role wetlands play in keeping water clean. We will explore a saltmarsh looking at zonation patterns, identify plants and animals, and take measurements. Get a closer look at animals in the surrounding habitat by trawling off our research vessel. We will finish the day with lab activities to use in the classroom that helps demonstrate concepts about watersheds and wetland characteristics.

#### **REGISTRATION**

There is no fee to participate in these workshops, but spaces are limited. Please register by emailing the School & Youth Programs Specialist, Rachel Clark at <a href="mailto:riesbec@virginiaaquarium.com">riesbec@virginiaaquarium.com</a> or calling (757) 385-0275.







## PROFESSIONAL DEVELOPMENT

at Virginia Aquarium & Marine Science Center

#### Summer 2019

#### MARINE MAMMAL SCIENCE (3<sup>rd</sup> – 7<sup>th</sup> grade)

Tuesday, June 25<sup>th</sup> 9:00AM – 3:00PM | Virginia Aquarium, Promenade Room Bring a packed lunch. Wear comfortable closed-toed shoes.

This teacher training focuses on marine mammals found along the coast of Virginia. We will begin with an introduction to marine mammals and classroom activities that highlight their anatomy, feeding structures and adaptations. We will enhance teacher's knowledge of marine mammals by searching for dolphins on our research vessel, going behind the scenes with our harbor seals, and touring the Marine Animal Care Center.

#### SEA TURTLE SCIENCE (3rd - 5th grade)

Thursday, June 27<sup>th</sup> 9:00<sub>AM</sub> – 3:00<sub>PM</sub> | Virginia Aquarium, Promenade Room Bring a packed lunch. Wear comfortable closed-toed shoes.

This teacher training focuses on the many types of turtles found in Virginia including freshwater turtles, land turtles, and sea turtles. We will provide instructions for hands-on activities to use in the Classroom, hear from our Stranding Response team about sea turtle strandings, and finish with a behind-the-scenes tour of the sea turtle exhibit and Marine Animal Care Center.

#### **REGISTRATION**

There is no fee to participate in these workshops, but spaces are limited. Please register by emailing the School & Youth Programs Specialist, Rachel Clark at <a href="mailto:riesbec@virginiaaquarium.com">riesbec@virginiaaquarium.com</a> or calling (757) 385-0275.





# **North Carolina Chapter**

Andy Gould North Carolina State Representative

#### Great Turn Out for the NC Mini Conference "Tidelines and Turtles" at Fort Caswell, NC!

On March 15-16th, marine educators from North Carolina and Virginia gathered at Fort Caswell to learn about efforts to monitor erosion and the impacts of erosion on sea turtle nesting. We had 37 educators attend, including many sea turtle volunteers who teach the public about turtles each summer. Some highlights of the event included a presentation from Dr. Devon Eulie from UNC Wilmington about how we measure erosion on our coast, a prestation from Alina Herron, graduation student at UNC Wilmington, about the specific erosion project at Fort Caswell, and a presentation from Brittany Pace, Education Coordinator at Fort Caswell, about the extensive efforts taken over the 2018 nesting season to protect nesting sea turtles and their eggs during a beach nourishment project. Participants also explored hands on STEM lessons about sea turtles. The event was a fantastic way for MAMEA members to share and learn together! Thank you to Fort Caswell staff for hosting us and making it a wonderful weekend on the coast!





Dr. Devon Eulie shares about erosion and monitoring erosion on NC's coast.

Alina Herron shows participants how to use GPS units to map beach profiles and measure erosion.



Participants model turtle tracks and challenge each other to identify species by crawl patterns.

#### **NC CATCH**

Wednesday, July 10, 2019 9 a.m -4 p.m, Blue Jay Center for Environmental Education, Raleigh NC

NC CATCH (Caring for Aquatics Through Conservation Habits) is an aquatic resource education program that provides workshop training to adults to enable them to work with youth ages 8 to 15 in discovering aquatic environments through learning activities, educational materials, aquatic field trips and fishing experiences. NC CATCH is taught by a North Carolina Wildlife Resource Commission education specialist and is appropriate for educators and youth leaders, introducing participants to proper conservation habits, outdoor ethics, fish and aquatic species information, water safety tips and practical fishing skills.

At each workshop, participants receive an NC CATCH Instructor's Guide. Trained participants are eligible to order student handbooks, posters, fish identification cards and fish mobiles and obtain rod and reel loan information. Middle school teachers, curriculum specialists, scout leaders, recreation therapists, park personnel, camp counselors, fishing and environmental club members, 4-H leaders and other youth leaders will find these materials adaptable and appropriate. North Carolina CATCH is interdisciplinary and can be used to meet many middle school competency goals and objectives.

This 6-hour workshop counts as a Criteria I workshop in the NC Environmental Education Certification Program. FREE, but preregistration is required --> https://apm.activecommunities.com/wakeparks/Activity\_Search/3973

#### SSA: Dragonflies 101

Saturday, Jul 13, 2019 10 AM to 11:30 AM, Blue Jay Center for Environmental Education, Raleigh NC

Explore the amazing world of flying dragons! Nature's flying jewels patrol our skies and our waterways always on the hunt for an insect feast. Learn simple dragonfly terminology before experiencing the magic of the dragonfly life cycle from nymph to adulthood. Use aquatic dipnets to capture and examine dragonfly nymphs as well as binoculars and a breadth of resources to identify adults on the wing. Criteria II credit avaliable for the NCEE Certification Program Ages 16yrs & up; Free program

Pre-registration required --> http://apm.activecommunities.com/wakeparks/Activity\_Search/3971

#### **Sea Turtle Exploration**

Saturday, July 20th, 2019 9 AM - 3:30 PM

The North Carolina Aquarium at Fort Fisher presents Sea Turtle Exploration: a curriculum to help educators engage students in the fundamentals of STEAM through ready-to-use, standards based lesson plans and sea turtles. Join us on Saturday, July 20th, 2019 for a hands-on teacher workshop guiding you through our new curriculum and website.

Aligned with the new Common Core standards, your class will be able to "adopt" a turtle and learn about its care and growth. By adopting our sea turtle you will receive weekly updates with information including the turtle's current weight and length. Each class will also receive a certificate of participation.

By the end of the workshop, you will be familiar with the website and curriculum and how to implement the lessons in your own classroom. The workshop will include a behind the scenes tour to meet one of our sea turtles. Please bring a reusable water bottle and you may choose to also pack a waste-free lunch. Our snack shop, Shark Bites will be opened and there are lunch options off-site. This workshop will count towards NC Environmental Education Certification (Criteria I) and consists of 6 contact hours that may count toward CEUs for teachers.

Help keep our seas plastic-free! Please bring a reusable water container, a refillable coffee cup, and a waste-free lunch!

The cost of this teacher workshop is \$25. This fee includes a Behind the Scenes Tour and access to curriculum. The Oak Island Beach Preservation Society will pay the registration fee for any formal or informal Brunswick County Educators.

For additional workshop information, call 910-772-0546. For assistance with registration, call 910-772-0542.

# 2019 National Ocean Sciences Bowl: Congratulations to Top Mid-Atlantic Teams!

Carol Hopper-Brill

NMEA Secretary & Blue Crab Bowl Co-Regional Coordinator

Three successful Mid-Atlantic Regional Bowls were conducted in February as part of the 22nd annual National Ocean Sciences Bowl (NOSB®). It's a big commitment for the participating students, their teachers, and for the Bowl organizers. But, it's so rewarding! The Mid-Atlantic's three regional bowls attract hundreds of high school science students. Teacher coaches guide teams as they build content knowledge in diverse marine sciences, policy and related topics. Teachers credit NOSB for creating an opportunity to incorporate more ocean-related science into their curricula, and allowing them to demonstrate the integrated, multidisciplinary nature of marine sciences. Student competitors not only explore ocean subjects and demonstrate their command of wideranging subjects, they develop the poise and leadership skills required in working with teammates, as well as in head-to-head competition with other teens.

**The Chesapeake Bay Bowl**, held on February 16, was hosted by George Mason University and took place at the GMU's Potomac Science Center in Woodbridge, VA. The contest drew teams from four states including Delaware, Maryland, Pennsylvania, and Northern Virginia.

Participating schools included: Newark Charter High School (Newark, DE); Montgomery Blair High's Magnet Program (Silver Spring, MD); Lower Dauphin High (Hummelstown, PA); State College Area High School (State College, PA); Thomas Jefferson High School for Science & Technology (Vienna, VA); Calvert High (Prince Frederick, MD), among others.

Thomas Jefferson School for Science and Technology surged ahead to capture First Place, beating out three-time winner Montgomery Blair High.

For more details on the CBB 2019 competition, visit the Chesapeake Bay Bowl's Facebook page at www.facebook.com/ChesapeakeBayBowl. Or, contact 2019 Regional Coordinator Tina Bell at tbell22@gmu.edu.

Next year, the Chesapeake Bay Bowl changes venue and coordinator, so watch for an update at http://nosb.org/compete/competitions/regional-competition-map/maryland/.



Thomas Jefferson School for Science and Technology from Vienna, VA, recaptured First Place at the 2019 Chesapeake Bay Bowl. George Mason University sponsored the event, held February 16 at GMU's Potomac Science Center in Woodbridge, VA. The "TJ" winning team was coached by science teacher Shawn Stickler, team members included (left to right): Alex Zhang; Kenny Johnson; Mark Putman; Chris Kan; and MJ Old. Image courtesy of Tina Bell.

**Virginia's Blue Crab Bowl** is co-coordinated by the Virginia Institute of Marine Science's Marine Advisory Program and Old Dominion University's Department of Ocean, Earth & Atmosphere. Thanks to support from both VIMS and ODU, the 2019 contest was held February 15-16 at the Virginia Institute of Marine Science campus in Gloucester Point, VA.

Nearly 80 students, on 16 teams, represented 12 Virginia high schools, including: Bishop Sullivan Catholic High School (Virginia Beach); Broadwater Academy (Exmore); Chesapeake Bay Governor's School, Glenns Campus; Chesapeake Bay Governor's School, Warsaw Campus; Churchland High School (Portsmouth); Fauquier High School (Warrenton); Governor's School for Science & Technology-New Horizons (Hampton); Isle of Wight Academy (Isle of Wight); Maury High School (Norfolk); Norfolk Collegiate School (Norfolk); Seton School (Manassas); and York High (Yorktown).

Over seventy volunteers from VIMS and ODU worked to officiate the Bowl and keep the event running smoothly. This year, newcomer Norfolk Collegiate School surprised everyone with a win in their very first year of competition. Coached by Dr. Frank Thomson, Norfolk Collegiate captured First Place, while Broadwater Academy Team A, with coach Joe Spagnolo, scooped up Second Place. Third Place went to Chesapeake Bay Governor's School, Glenns Campus, coached by Sara Beam, and Fourth Place was awarded to Fauquier High School, coached by George Murphy.

For a description of the competition and event program, visit the Blue Crab Bowl website at: http://web.vims.edu/BCB/about.html. The BCB Regional Coordinators are: Carol Hopper Brill at chopper@vims.edu; and Bill Dun at wdunn@odu.edu.



First-time competitors from Norfolk Collegiate School surged into First Place at the 2019 Blue Crab Bowl, Virginia's 22nd Regional National Ocean Sciences Bowl. The all-day academic event was held at the Virginia Institute of Marine Science in Gloucester Point, VA. Coached by science teacher Dr. Frank Thomson (far left), Norfolk Collegiate team members included (left to right): Kendra Honey; Team Captain Braeden Thomson, Austin Honey, Carson Giocondo, and Libby Snowden. Photo by Chris Katella/VIMS.

North Carolina's 3rd Annual Blue Heron Bowl took place at the University of North Carolina at Wilmington, hosted by UNCW Center for Marine Science and the Watson School of Education. Twelve teams, drawn from schools in North Carolina and Tennessee, competed at UNCW on February 2. In a cliff-hanger of a competition, Raleigh Charter High School, coached by Whit Hames, captured First Place this year. Blue Heron Bowl Coordinator Erin Moran described the tense finish as "One of the most exciting endings to a competition we have ever seen. Raleigh Charter and North Carolina School of Science and Math were tied to the very end. With an audience on the edge of their seats, Raleigh Charter defeated the reigning champion team by just several points!"

Raleigh Charter High School went on to gain other honors at NOSB's National Finals, held in Washington D.C. in April, where they tied for 3rd place in the challenging Science Expert Briefing portion of competition.

For additional information on the 2019 competition, contact Regional Coordinator Erin Moran at morane@uncw.edu. Next year, the Blue Heron Bowl will shift to a different host site, watch their website for more information, https://sites.google.com/site/blueheronbowl/.



The Blue Heron Bowl, held February 2, took place at the University of North Carolina at Wilmington, hosted by MarineQuest, the UNCW Center for Marine Science and the Watson School of Education. Under the leadership of Coach Whit Hames, Raleigh Charter High School won back the First Place title in a tight race with their top competitor. Members of the successful team include (left to right): Sophia Macomber, Nicholas Hames, Roumi Dutta, Ashwin Sivayogan, Patrick Koenig, and Coach Whit Hames. Photo courtesy of Erin Moran.

# MAMEA Honors the Mid-Atlantic's Top NOSB Coaches and New Coaches

To recognize the dedicated teachers who guide a team to one of the Mid-Atlantic regional NOSB competitions, MAMEA provides NOSB Coach Awards each year. For teachers coaching a NOSB team for the first time, MAMEA offers a New Coach Award, a one-year membership to help link these teachers to MAMEA's active community of marine and aquatic educators. The MAMEA Top Coach awards recognize the accomplishments of the Bowls' winning coaches with a complementary registration to MAMEA's Fall Conference.

Please, welcome these 2019 NOSB Mid-Atlantic New Coaches as MAMEA members:

#### Blue Crab Bowl:

Charles Carlson, Broadwater Academy, Exmore, VA

Heather Peffley, Isle of Wight Academy, Isle of Wight, VA

Frank Thomson, Norfolk Collegiate School, Norfolk, VA

#### Blue Heron Bowl:

Lisa Serfling, Manteo High School, Manteo, NC

#### Chesapeake Bay Bowl:

Charles Gustin, Calvert High School, Prince Frederick, MD

Tom Hanninen, Lower Dauphin High School, Hummelstown, PA

Dawn Koons, Lower Dauphin High School, Hummelstown, PA

Kathleen Morrow, Thomas Jefferson School for Science & Technology, Alexandria, VA

And, congratulations go to the Top Coaches from our three Mid-Atlantic Bowls. They receive complementary registration to the MAMEA Annual Conference. We look forward to seeing them at the 2019 Conference in Chincoteague, VA, this coming November.

- ■Blue Crab Bowl: Frank Thomson, Norfolk Collegiate School, Norfolk, VA
- ■Blue Heron Bowl: Raleigh Charter High School, Raleigh, NC
- ■Chesapeake Bay Bowl: Shawn Stickler, Thomas Jefferson School for Science & Technology, Alexandria, VA

For more information about the National Ocean Sciences Bowl, as well as great up-to-the-minute news about marine research and policy issues, visit the NOSB website at www.nosb.org or the NOSB Facebook page at www.facebook.com/nosb.org.







#### **Educator Awards - Call for Nominations!**

Rachel Clark Awards Committee Chair

#### Nominate an outstanding educator!

MAMEA sponsors TWO annual awards to recognize outstanding efforts by marine educators in our region:

- --One award honors a formal classroom teacher, K-16, primary through college;
- --The other acknowledges an educator in an informal setting, such as museum, aquarium, zoo, science center staff or employees with government agencies.

#### **Eligibility Criteria**

Nominees should be individuals who have:

- --Been a MAMEA member for at least one year
- -- Demonstrate a commitment to marine education
- -- Excel as educators
- --Develop and use innovative marine education materials
- --Share information with colleagues
- --Promote marine education professionally

To see past recipients and to nominate an outstanding educator, check out the Awards page on www.mamea.org. Nominations will be accepted through <u>September 15, 2019</u>. Winners will be announced at the MAMEA 2019 Annual Conference in Chincoteague, VA.

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