From the Captain’s Quarters

Dear MAMEAns:
As spring stirs our land and waters, MAMEA is moving ahead with initiatives designed to improve member communications, involve you more actively, and provide you with meaningful and accessible benefits.

MAMEA members represent our Association’s most valuable asset. Many of MAMEA’s renewing and life members are the founders and shapers of marine and environmental education in the Mid-Atlantic. Their dedication, great depth of knowledge, and efforts for over 30 years provide our Association with continuity of purpose.

As new members join us each year, fresh ideas, technology and enthusiasm constantly renew us. We want to help new and veteran members connect. And, we want to be sure that you are taking advantage of MAMEA’s many member benefits – from professional development opportunities, to project grants, recognition awards, and conference scholarships. The improved communications tools and mentoring efforts we have underway will help. We also encourage you to participate through service on the MAMEA Board. The Board is a great way to keep abreast of marine education in our region, and you can get the inside track on issues and initiatives at the national level, too.

The MAMEA website, Masthead, e-mail announcements, and Facebook page will help you keep abreast of opportunities available for you. Whatever your level of involvement, our objective is to assure that MAMEA is one of the best investments you make each year!

MAMEA Congratulates Mid-Atlantic NOSB Regional Participants

On February 21, over 40 Mid-Atlantic schools competed for regional honors in the National Ocean Sciences Bowl (NOSB®) competitions conducted in Maryland/DC, Virginia, and North Carolina. Designed to inspire and challenge high school students, these NOSB contests test the students’ knowledge of the marine sciences, covering the breadth of oceanography and maritime disciplines.

- The Chesapeake Bay Bowl, facilitated by American University, is headquartered in Washington, DC. This contest draws schools from Maryland, the DC metropolitan area, as well as selected cities in Northern Virginia and Delaware. From a field of ten, this year’s winner was Thomas Jefferson High School for Science and Technology, coached by teacher Lisa Wu.

- Virginia’s Regional Competition is the Blue Crab Bowl, coordinated by VA Sea Grant staff at the Virginia Institute of Marine Science and colleagues at Old Dominion University’s Department of Ocean, Earth & Atmosphere. This year’s competition drew 16 teams. For the second year, the winning team was from Bishop Sullivan Catholic High School in Virginia Beach, coached by teacher and MAMEA member Bill Dunn.

- North Carolina’s Blue Heron Bowl was hosted this year by the UNC-Wilmington. The winners, from Raleigh Charter High School, were coached by science teacher Whit Hames.

Visit the NOSB website at www.nosb.org for more information about the national competition. MAMEA supports the NOSB program by providing memberships as prizes for some coaches in each of the mid-Atlantic regional Bowls.
Letter from the Editor

Greetings fellow MAMEAns and welcome to the Spring 2009 digital Masthead. I hope you are enjoying the newsletter so far. First, thank you to those readers that took time out of their busy schedules to complete the brief survey regarding the Winter Masthead. Those interested in supplying feedback on this issue can find a link to another brief survey on page 13. In the following pages you will find information on upcoming events, as well as recaps of three great MAMEA mini-conferences that took place this winter. As the dogwoods, redbuds and azaleas continue to bloom, I cannot think of a better place to be during spring than the mid-Atlantic. Enjoy the spring colors and thanks for reading!

- Chris Petrone

To submit an activity, lesson plan, event, or other feature, please email the piece to petrone@vims.edu.

About the Cover Ship

Each issue of The Masthead features a different Mid-Atlantic sailing ship on the cover.

This issue’s ship is the Pride of Baltimore II. The original Pride tragically sunk in 1986 in a storm off Puerto Rico killing her captain and three crew members. The Pride II was commissioned and launched in 1988 and, like its predecessor, was built in Baltimore’s Inner Harbor. Both ships were reproductions of the 1812-era topsail schooners, referred to as Baltimore Clippers. These ships helped America win the War of 1812.

The Pride II has sailed nearly 200,000 miles and has visited over 200 ports in 40 countries. It is available for education and public tours, overnight and extended cruises, as well as private charters.

Visit the Pride of Baltimore II at www.marylandspride.org.

Photo courtesy of Baily Photo.

To become a member of NMEA:

Please visit http://www.marine-ed.org
MAMEA Board Initiatives Update  
by Carol Hopper Brill

The Spring 2009 MAMEA Board meeting on March 28 was action-packed! Board members from Delaware, DC, Maryland, Virginia and North Carolina addressed over 18 points of Association business. We are moving ahead on several initiatives to keep your Association active and responsive. We need your input on some issues, so watch for upcoming email communications.

- We will be moving MAMEA elections to a primarily electronic format and shifting the timing of the elections. This requires changes to the by-laws, so we will be calling for a vote by the membership. For those folks who lack email, we will still send out a paper ballot.

- In the past, the Past President served as MAMEA’s representative to the National Marine Education Association for one year. This short tenure did not allow sufficient time for our rep to “learn the ropes.” The Board voted to improve MAMEA’s representation by changing our NMEA representation to a 2-year term, managed by a Committee.

- The Past President’s experience with our regional chapter and members will be directed toward some new duties. The Board voted to have the Past President serve as the Chair of the Mentorship and Nominating Committees.

- The website design will be changing to something fresher and easier to keep updated. This will assure that members find the information they need in a more timely way.

- The Board is working on a new MAMEA informational flier and membership application form that better describes our association and the benefits that members receive.

- The Mentorship Committee is taking shape and has been polling members at the mini-conferences (and in this newsletter) about what kinds of activities and benefits are most useful to our members. The committee will help connect experienced members with folks new to the association and its activities.

- We continue working to improve MAMEA’s electronic communications:
  - Expect an email or phone call announcing the resetting of our MAMEA email discussion list. We are streamlining the list so it can better serve as a means for regional members to share questions and advice with one another.
  - We offer a MAMEA Facebook page as a way of linking members. Search MAMEA on Facebook and join the group!

2009 MAMEA Board Nominations  
by David Christopher

Make a difference in marine education — join the MAMEA Board!

MAMEA is looking for some fun, motivated individuals to join our board. This year we are accepting nominations for President Elect, Secretary, North Carolina Representative, and Maryland Representative. All nominations must be received by August 20, 2009. Please send your nominations to David Christopher, National Aquarium in Baltimore, 501 E. Pratt St., Baltimore, MD 21202 or dchristopher@aqua.org. An announcement of candidates will be posted on the MAMEA website and sent to MAMEA members via e-mail by September 2. Those without e-mail will receive a mailing. Voting will take place on October 3 at the MAMEA annual conference in Lewes, Delaware.

For more information on all the MAMEA board positions, please visit http://www.mamea.org/admin/BoardOfficerDuties.pdf.
NMEA Update
by David Christopher

The board of the National Marine Education Association (NMEA) held its mid-year board meeting in New Orleans on March 18. This was very productive meeting with a lot of discussion around how to reach out to diverse groups that are not currently involved in NMEA. The board meeting was followed the next day by a NMEA-sponsored marine education share-a-thon at the National Science Teachers Association (NSTA) annual conference. There were several MAMEA members in attendance including Bill Simpkins and David Christopher from the National Aquarium and Christopher Petrone from Virginia Sea Grant and VIMS. I would like to thank MAMEA member Beth Jewell for doing an excellent job coordinating this event. Beth currently serves as the NMEA representative to NSTA.

2009 Annual Conference
The National Marine Education Association (NMEA) is holding its 2009 annual conference: One World Conserving One Ocean, June 29 - July 3, 2009. The conference will be held on the Asilomar Conference Grounds in Monterey, California. This year’s conference will begin with optional, preconference field trips on Monday, June 29. Concurrent sessions will be held on Tuesday, June 30 and Wednesday, July 1. On Thursday, July 2, field based workshops will be offered at several outstanding sites around the Monterey area. The conference will conclude with optional field trips on Friday, July 3. Participants can also look forward to an exhibitor’s reception, the NMEA annual auction, and dinner at the Monterey Bay Aquarium.

Conference registration is currently on line. Please check www.nmeaweb.org/ for updated information and travel tips.

Summer Opportunities
by Chris Petrone

The Bridge website has everything you need to plan your summer professional development. See new places, learn new ways of teaching using real scientific experiments, and meet new friends and colleagues. The Bridge has exciting, career-building summer opportunities for not only educators, but also students.

In the Bridge’s Professional Development section, educators will find summer opportunities in addition to information on year-round courses and workshops, grants, awards, and various regional and national organizations. On the summer opportunities page, each program is complete with link and brief description.

The summer is also an excellent time for students to try new experiences in the marine-world. In the Bridge’s Guiding Students section, teachers, parents, and students will find extensive information on summer programs, but also on year-round educational opportunities. Student opportunities are broken down by age group and even include a section for non-traditional students.

Because the Bridge is constantly adding new resources and opportunities, we suggest checking back often. Also, we encourage those with new, exciting summer programs to send us their website for inclusion.

MAMEA TechCorner

We have all heard the term “wiki” tossed around in technology circles, but did you know that they are increasing in popularity for educational purposes, at a wiki rate? “Wiki” is actually a Hawaiian word for fast.

Technologically speaking, a wiki is defined as a single or collection of web pages designed to allow users to contribute or edit content. Wikis use various forms of web coding, including the common, user-friendly WYSIWYG (pronounced “wizzy-wig;” stands for What You See Is What You Get), which looks just like a Microsoft Word editor with most of the same functions. Wikis can be password-protected or open to the public and have uses including everything from manuscript writing to party organizing. Educators are using wikis as course webpages to: manage course content; post course information; provide students with additional resources and a place to contribute feedback and research; and to encourage collaborative learning by connecting students from around the globe. As a wiki administrator, you control who can view or edit your wiki, what pages users can edit, and you can see exactly who is posting what content.

Currently, the most popular wiki host is Wikispaces, where educators can obtain an upgraded wiki with all the features and benefits absolutely free (this normally cost $50 a year; limited time only!). A great example of an educational wiki is the GoAPES wiki for AP Environmental Science teachers and students.

Is a wiki right for your course, club or program? Only you can decide!
**2009 MAMEA Conference Announcement**

*New Inspiration in Marine Education*

Join us at the 2009 MAMEA Conference at the University of Delaware Virden Center in Lewes, Delaware, on October 2-3. The conference will begin on Friday with optional field trips including kayaking, a tour of the research labs, and a wetlands hike. The full conference will begin Friday night with dinner and a lecture on the uniqueness of Delaware’s marine and aquatic habitats. Saturday will include sessions on the latest marine and aquatic research and how we can include this new and exciting information in our classrooms and education programs. As always, the conference will end with a fun-filled auction and party.

As an added bonus, Sunday, October 4, is University of Delaware’s Coast Day with exhibits, lab tours, seafood cooking demonstrations, research vessel tours, a boat show, and much more!

More information on the annual conference, including how to register, will be posted on the MAMEA website soon. Do you have a great activity or program you want to share? See the call for presentations form found on the conference website. The deadline for presentation submission is September 8.

Scholarships are available to assist with registration and travel costs. A description and application form are available on the MAMEA website. The submission deadline for the October conference will be available online soon.

If you have any questions or would like to help with the conference or donate an item to the auction, please contact Tami Lunsford, MAMEA President-elect, at tami.lunsford@gmail.com.

We’ll see you in Lewes in October! Don’t miss out!
MAMEA Membership Benefits

You have read about the annual MAMEA conference taking place in October, and you are reading this newsletter, so you are already familiar with two great benefits of being a MAMEA member. Are you familiar with the others? All this for only $10 a year!

MAMEA Grant Program

The MAMEA Educational Project grant program provides funding to classroom teachers and other educators for marine and aquatic education projects.

Two $1,000 grants are available annually. One for formal educators (classrooms, K-16) and one for informal educators (museum, aquarium, zoo, science center, government agency staff). Projects must focus on marine or aquatic topics. Applicants are encouraged to plan innovative projects that conform to the program structure outline found on the website. Any current MAMEA member with at least one year’s membership may submit one proposal per year. Applications are due by September 21, 2009. The funding period is one year from the award date in October.

For more information, please visit www.mamea.org/minigrant.html.

MAMEA Educator Awards

Each year, MAMEA presents two awards to educators nominated by their peers. One award honors a formal classroom teacher, K-16. The other acknowledges an educator in an informal setting, such as museum, aquarium or employees with government agencies. To nominate someone for a 2009 MAMEA award, please visit www.mamea.org/awards.html for the application, guidelines, and eligibility requirements.

MAMEA Conference Scholarships

MAMEA’s Paul Standish Scholarships support the attendance of members to the annual fall conference. Last year, funds actually went unused! Visit www.mamea.org/conf.html for more information.

Mini-Conferences

by Carol Hopper Brill

Are you looking for affordable professional development in your own backyard? MAMEA Mini-Conferences are a keystone service to members.

One of MAMEA’s important annual objectives is to provide affordable and accessible Professional Development opportunities that address marine and aquatic education topics. I am very pleased to acknowledge and thank the Maryland, North Carolina and Virginia MAMEA state representatives and their colleagues from who put together excellent programs for educators in early 2009.

I was able to attend both the North Carolina and Virginia programs, and Past-President David Christopher assisted the Maryland program. We were impressed by the quality of the programs, their organization, timely themes and content. Participants included veteran MAMEAn's and attracted many new members as well.

We want MAMEA membership to be one of the best professional development investments you make each year. So, we asked the mini-conference participants some key questions of about the activities and resources they would like to see MAMEA provide. And, we received great feedback from participants, about what MAMEA can do to best serve its members.

To see what your fellow MAMEAn's would like as professional development opportunities, see the list posted on the MAMEA website and Facebook pages.

If you couldn’t attend the mini-conferences, we’d like to hear from you, too! We have a brief survey you can use at www.mamea.org/survey, or e-mail chopper@vims.edu with your ideas.

NMEA Membership Discount

MAMEA members also receive a discount membership rate on annual National Marine Educators Association membership fees. Visit www.marine-ed.org/ to learn more!
Species Spotlight

Common group name: SAV, or submerged aquatic vegetation

Selected individual scientific and common names: (local species, fresh to saline waters)
Vallisneria americana (wild celery); Hydrilla verticillata (hydrilla); Myriophyllum spicatum (water milfoil); Potamogeton perfoliatus (red head grass); Zannichellia palustris (horned pondweed); Elodea canadensis (common waterweed); Zostera marina (eelgrass); Ruppia maritima (widgeon grass)

Range: SAV species, in general, cover 10% of the world’s coastal ocean. Grow in fresh and salt water.

Field identification: Typically completely submerged; Green leaves; Flowering buds; Seeds; Rooted; Lack waxy cuticle;

Interesting factoids: SAV species are angiosperms that achieve pollination underwater. They represent critical habitat for many commercially and ecologically important species, providing food, shelter, nursery grounds and refuge from predators. SAV also improves water quality by producing oxygen, absorbing nitrogen and phosphorus and stabilizing bottom sediment.

What you can do to help SAV: Help improve water quality; Protect existing SAV beds; Participate in programs that grow and/or transplant SAV.

Additional Resources
- VIMS SAV in Chesapeake Bay and Delmarva Bays
- Chesapeake Bay Program Underwater Grasses
- Lippson and Lippson, Life in the Chesapeake Bay

Mid-Atlantic Research Update

Predicting Street-Level Storm Tides

As the summer nears and the threat of hurricanes looms, would you know if your house and property were at risk if there was a 3-foot storm surge predicted? Because much of the Mid-Atlantic lies so close to sea-level, a difference of inches when dealing with storm surge can have enormous impacts, especially in the lower Chesapeake Bay.

Scientists at the Virginia Institute of Marine Science (VIMS) are working with researchers from NOAA, Old Dominion University, the National Weather Service, University of Maryland, private industry and other partners to develop a state-of-the-art computer model that will better predict storm surge.

VIMS Associate Professor Harry Wang and Emeritus Professor John Boon are leading Virginia efforts to combine existing computer models with aerial-mapping and real-time data sensor technologies to better account for the Chesapeake Bay’s intricate system of small-scale watersheds, creeks, rivers and embayments. These features have dramatic effects on water movement into, out of and within the system. They also make accurate, large-scale prediction very difficult. For instance, a storm surge arriving at high tide can, in some areas of Chesapeake Bay, be 4 feet higher than if the surge were to arrive at low tide.

At the end of this project, scientists intend to have a model that will be able to predict storm surge street by street, allowing for more accurate and cost-effective evacuation plans and emergency management.

For more information on this project, please visit http://www.vims.edu/features/research/storm-tide.php.
Session Notes I

MAMEA Maryland Mini Conference: 
*Impacts of Climate Change on Maryland*

by Kathy Fuller

On Friday, March 13, fifty teachers joined the MAMEA MD Representative, eight National Aquarium staff members, and four presenters for the annual Teacher Overnight and MAMEA MD Mini-Conference at the National Aquarium in Baltimore. Presentations focused on climate change in Maryland with esteemed speakers Dave Nemazie of the University of Maryland Center for Environmental Sciences, Zoe Johnson of the Maryland Department of Natural Resources, Mary Jane Rutkowski of the Maryland Department of the Environment, and Nancy Hotchkiss of the National Aquarium. Teachers received a reusable lunch bag, reusable water bottle, Compact Fluorescent Light bulb, Global Warming poster (from UMCES), “Down to Earth Guide to Global Warming” book, “Global Warming and the Free State” report, and various handouts related to NMEA, MAMEA, and global warming. In addition to the presentations, the event included behind the scenes tours, dolphin show, 4D movie, snack, bag raffle, night dive presentation, night tour of the rainforest exhibit, breakfast, and guided gallery tours the next morning.

New MAMEA member Kevin Johnson of New Town High School in Owings Mills, MD said, “I really enjoyed the conference and your/aquarium staff’s hospitality. I look forward to sharing the climate change information with my colleagues and students. It was an awesome experience. Thank you!!!” Kevin added, “The overnight professional development has changed my thinking about the environment. My family now has applied one of the principles from the Saturday workshop. We eat two vegetarian meals a week, and are more conscientious about using water and recycling. The subsiding of the land and the rising sea level is scary. I want my grandchildren to be able to eat and see Chesapeake crabs.”

Maryland Mini-Conference Suggested Climate Resources

- UMCES Climate Change Impacts
- Maryland Shorelines Online
- Maryland Department of the Environment
- EPA Sea Level Rise Maps
Session Notes II

MAMEA North Carolina Mini Conference
by Allison Gleason Besch

MAMEA held their North Carolina mini-conference at the NC Maritime Museum in Beaufort on Jan. 23-24, 2009. The two-day workshop included sessions designed to showcase local education programs and connect classroom teachers with informal education resources.

Friday's sessions began with an interpretive walk around the town of Beaufort, which celebrates its 300th anniversary as an incorporated town this year. After words of welcome by MAMEA President Carol Hopper Brill and MAMEA NC State Representative Ruth Gourley, educators toured the Maritime Museum and its facilities, including the Harvey W. Smith Boatbuilding Center. The dinner session was served at Duke University's marine lab campus and highlighted local efforts to promote sustainable seafood dishes. All agreed that eating sustainably can also be quite tasty. The night session concluded with a productive round-table discussion of how to connect classroom teachers with informal resources from museums, aquariums and other concerned organizations. Results of the discussion are available at http://www.mamea.org/mins/2009RoundTableDiscussion.pdf.

After a continental breakfast, Saturday's participants engaged in museum education programs on marine research and mapping skills that are offered to schools year round. Presentations by Miriam Sutton of Newport Middle School, Laurie Streble of the N.C. Aquarium at Pine Knoll Shores and Lori Davis of the Rachel Carson National Estuarine Research Reserve showcased the diverse array of marine education resources available in the area. Many in the group stayed for an optional winter beach walk at the Rachel Carson reserve to observe over-wintering birds, horse behavior and seashore life.

In total, more than 30 educators attended, and the organization recruited 21 new or renewed memberships. A good time was had by all.

The NC mini-conference was even covered by the local news!
Session Notes III

MAMEA Virginia Mini Conference
by Chris Witherspoon

On Saturday, February 28, the Virginia Aquarium hosted the annual state mini-conference which focused on getting conservation-based activities into the classroom. The 33 participants started the day by meeting some of the Aquarium’s Animal Ambassadors that help the facility’s educators engage visitors in discussions about conservation.

The conference featured a keynote session by Susan Barco, the Aquarium’s Senior Scientist and Stranding Response Team Coordinator. Susan provided insight into how she analyzes stranding data to develop conservation questions for further investigation. Following the keynote address, participants took part in numerous activities, including exploration of hands-on activities for the classroom, a woods walk, and a discussion about developing effective “scavenger hunt-style” activities for visits to aquariums. To wrap up the day, Carol Hopper Brill and Dawn Sherwood talked to the group about the benefits of MAMEA membership and solicited feedback on what teachers would like to get from the organization.

If you have ideas for next year’s mini-conference or suggestions on how MAMEA can better serve your needs please contact Chris Witherspoon, Virginia Representative, at cmwither@VirginiaAquarium.com or 757-385-0270.

Masthead Resource Library

• **2009 Horseshoe Crab Census** - It’s that time of year when horseshoe crabs (*Limulus polyphemus*) invade beaches throughout the mid-Atlantic to spawn. Each year, volunteers from across the globe take part in the annual Horseshoe Crab Census along the shores of Delaware Bay. If you are in the area, why not volunteer? But even if you are not near Delaware Bay, this site features 13 years of data, census procedure guidelines and instructions if you want to conduct your own census or mock-census closer to home! [http://www.ocean.udel.edu/mas/bhall/hscensus/index.html](http://www.ocean.udel.edu/mas/bhall/hscensus/index.html)

• **Watershedology** offers a comprehensive lesson plan that provides avenues for children to make a positive connection with nature that reinforces basic science concepts using an interdisciplinary approach. Age-appropriate activities engage students in nature-based activities which make learning memorable and fun while promoting a conservation ethic. Watershedology is designed for use in conjunction with the Western Virginia Land Trust’s “Saving Our Land and Water” DVD, but may also be used independently. The DVD emphasizes why we should “Save Our Scenery” (SOS) including rural landscape vistas, forests and clean-flowing streams. Users can send feedback to the creator by emailing hensley.j@att.net. [http://www.westernvirginialandtrust.org/Docs/watershedology.pdf](http://www.westernvirginialandtrust.org/Docs/watershedology.pdf)

• **Virginia Sea Grant Strategic Planning** - As potential stakeholders in the Virginia Sea Grant program, your input is requested as VASG prepares its strategic plan. This document will guide the program as it creates its five year proposal. As classroom and informal educators, you are an important audience for the VASG program, particularly the education team. So make your voice heard! Please visit [www2.vims.edu/seagrant/](http://www2.vims.edu/seagrant/) for more information.
State Rep Reports

Professional Development

**Virginia Sea Grant**

*Coastal Ecosystems Field Course* - Virginia Institute of Marine Science’s Eastern Shore Lab, Wachapreague, VA. Teachers become the students as they learn from scientists, VA Sea Grant educators, and fellow teachers. Participants will receive: Virginia SOL-relevant content in marine biology, chemistry, physics, earth and ocean sciences; teaching resources for the classroom and field; and a meaningful outdoor educational experience that they will be able to draw instructional content from for years to come. This year’s field course will take place July 13-17. A supplies fee will apply. For more information, visit [www.vims.edu/adv/ed/wachapreague](http://www.vims.edu/adv/ed/wachapreague).

**Virginia Living Museum**

The Virginia Living Museum's Teacher Training Institute provides outstanding SOL-correlated, grade-level targeted teacher training programs in life, environmental and earth science for teachers of grades K-12. Programs can range from one-day workshops to week-long courses that can be taken for three graduate credits in science or for recertification points. For a complete list of 2009 workshops, please visit [www.thevlm.org/teachertraining.aspx](http://www.thevlm.org/teachertraining.aspx).

**Virginia Aquarium & Marine Science Center**

The Virginia Aquarium & Marine Science Center will unveil its spectacular $25 million renovation in 2009. *Restless Planet* includes four immersive habitats, dozens of new exhibits and 110,000 gallons of new aquariums. The Aquarium’s original main exhibit gallery has been dramatically overhauled to represent *Restless Planet*, which compares diverse environments from Virginia’s past to similar environments still in existence today. New exhibits will recreate habitats including: Malaysian Peat Swamp, Coastal Sahara Desert, Red Sea, and Indonesia’s Flores Island. Check the Virginia Aquarium’s website for the exhibit opening date and teacher opportunities – [www.virginiaaquarium.com](http://www.virginiaaquarium.com).

**Virginia Naturally**

Visit the Virginia Naturally website to find news of professional development, grant opportunities, as well as opportunities and service projects for students. See Virginia Naturally news at: [www.vanaturally.com/vanaturally/april09news.html](http://www.vanaturally.com/vanaturally/april09news.html).

Grant Opportunities

**Chesapeake Bay Restoration Fund Grant Program - Due October 1 annually**

Applications will be accepted from state agencies, local governments, and public or private not-for-profit agencies, institutions, or organizations. Grants will not be awarded to individuals. Preferences will be given to environmental education and action-oriented conservation and restoration projects within Virginia’s Chesapeake Bay watershed. Applicants should complete the grant application form available from the Chesapeake Bay Restoration Advisory Committee. No application will be accepted after the 5:00 p.m., October 1, 2009. For the application, visit [http://dls.state.va.us/GROUPS/cbrfac/GUIDELNS.HTM](http://dls.state.va.us/GROUPS/cbrfac/GUIDELNS.HTM) or for more information, view the brochure.

**Vernier Technology Awards - Deadline: November 30, 2009**

Vernier Software and Technology, in conjunction with NSTA, offers seven awards of $3,000 to teachers for the innovative use of data-collection technology in the science classroom (elementary, high school, and college).
**State Rep Reports**

**NORTH CAROLINA**

Ruth Gourley

**North Carolina Aquariums**

**Fort Fisher**

- Amphibians in the Classroom Project is an outreach project which fosters a sense of environmental stewardship among students while creating a better understanding of amphibians and the environment humans and amphibians share. This past March, the NC Aquarium at Fort Fisher provided over 15 local classrooms with supplies that enable the students to raise toad from eggs. The final fieldtrip, set in May, is a toad release in a local wetland. One teacher from last year’s program stated that her students remember the program and are still talking about the toad release!

- The North Carolina Aquarium at Fort Fisher has a new treasure in its collection. A female albino alligator, currently in Aquarium quarantine, awaits completion of her new home in the Cape Fear Conservatory. A new exhibit, expected to open on May 29, is under development for the alligator. At approximately four years old, the albino alligator is almost five feet long and weighs about 19 pounds. Obtained from St. Augustine Alligator Farm in Florida, this rare alligator originally came from a nest in Louisiana. Eggs are taken from this nest each year - if left in the wild an albino alligator would not survive. The North Carolina Aquarium at Fort Fisher plans to keep the new albino and watch her grow. She can be expected to grow up to a foot each year!

**Roanoke Island**

- Aquatic Adventures Camp at North Carolina Aquarium at Roanoke Island this summer! Ages range from 6 yrs to 12 yrs old. With two locations, one at the Aquarium in Manteo and the second site at the Nature Conservancy’s Nags Head Woods Preserve in Kill Devil Hills. Explore the many habitats along NC coastal barrier islands. Come face to face with Aquarium inhabitants and make new friends along the way! Call 252-473-3494 for more information.

**Pine Knoll Shores**

- It’s CRUNCH! Time at the North Carolina Aquarium at Pine Knoll Shores! The month of July, CRUNCH! the Giant Snapping Turtle will be on display at the North Carolina Aquarium at Pine Knoll Shores. At 165 pounds, the 150 year-old alligator snapping turtle outweighs many humans and will be sure to impress any visitor! Come learn more about this ancient species and its' relatives. Visit the Pine Knoll Shores webpage at www.ncaquariums.com for details and information about programs and activities offered throughout the summer.

**North Carolina Maritime Museum**

Beaufort, NC, offers educators a variety of experiences that can expand their horizons throughout the summer. Attend a lecture on “Forty Years of Nautical Archaeology,” learn traditional boating and boating skills, compare local beach finds with shells from around the and attend a program on “Bonehenge,” the museum’s sperm whale biology and skeleton re-articulation project. The Summer Science School for Children (starting first grade and up) and the Junior Sailing Program (for 8 year olds and above) run from June to mid-August. Brochures and applications are now available. For more information, visit www.ncmaritimemuseum.org or email maritime@ncmail.net.

*continued on next page*
**N.C. Report continued**

*Ocean and You, Inc.*

We would like to announce the formation of a new company to provide marine education to schools in the Raleigh/Durham/Chapel Hill area of North Carolina. *Ocean and You, Inc*, was created to help schoolchildren understand the ocean, primarily through science, but also through art and literature. We teach creative and critical thinking in support of conservation. The company was founded by Cynthia Cudaback, Genevieve Healy and Jennifer Todd. Between us, we have over 20 years experience in marine science education. We have taught elementary, middle school and college, developed programs for science museums, and helped science teachers get research experience. We are eager to share our love of the ocean with students in our area. We would appreciate feedback and advice from others who have sailed this route. Check out our website at [http://cynthiacudaback.org/OceanAndYou/index.html](http://cynthiacudaback.org/OceanAndYou/index.html).

**North Carolina Coastal Reserve**

The 2009 Children’s Program Schedule is now available! The Rachel Carson National Estuarine Research Reserve is offering programs this summer for children of all ages. All classes will be hands-on, field based estuarine studies. To register, contact Lori Davis at (252) 838-0883 or email lori.c.davis@ncmail.net.

- **Junior Naturalist** - Beginning June 17, the Junior Naturalist program for students in grades 4-8 will run Wednesdays through August 5, from 9-12 p.m. Students will conduct field investigations of estuaries. Activities will include marsh seining, water quality sampling, animal population studies, beach and marsh profiles, and phytoplankton identification. Participants may register for all eight sessions for $100. Registration is now open.

- **Adventures in the Estuary** - Two sessions of Adventures in the Estuary will be held this summer (for students in grades 1-3). The first session will be June 16, 18, 23, 25 and the second session will be August 4, 6, 11, 13. Each session is $40 (for all four classes). Classes meet 9am-12pm.

- **Preschool Storytime and Crafts** - June 15, July 13, August 10. All sessions will consist of a story, estuarine critter observation and a craft. Sessions are from 9-10am and free of charge but registration is required. Topics will include hermit crabs, snails and birds.

All summer programs will be held at the Reserve’s classroom located on Pivers Island in Beaufort. For more information about the Rachel Carson Reserve, visit our website at [www.nccoastalreserve.net](http://www.nccoastalreserve.net).

*Reader’s Review*

So what did you think of this issue of *The Masthead*? Please visit [http://www.mamea.org/mastheadsurvey](http://www.mamea.org/mastheadsurvey) and take a very brief survey.

If you did not get your program announcement or lesson plan in this issue of *The Masthead*, be sure to [submit today](http://www.mamea.org/mastheadsurvey) for the summer issue (due out in late August)! In the meantime, stay tuned to the MAMEA website and Facebook group for the latest news, information, and networking opportunities from the **greatest marine education association in the Mid-Atlantic**!