From the Captain’s Quarters

Dear MAMEA members,

With the New Year comes new energy and excitement within MAMEA. Our Delaware, Washington DC and North Carolina reps just hosted fantastic mini conferences for their regions. Participants explored aquariums, learned about sea turtles, went on night hikes, slept with the fishes, and immersed themselves in aquatic education!

Not to be outdone, our Maryland and Virginia reps are busy planning their mini conferences for later this spring. These conferences will include an overnight at the National Aquarium in Baltimore and a kayak trip in Virginia’s River Country. MAMEA mini conferences are a great opportunity for members to reconnect with colleagues in their area and welcome new educators to our MAMEA family. If you haven’t already taken advantage of these fun, informative and inexpensive professional development opportunities, I highly encourage you to do so.

MAMEA offers other great benefits to its membership, as well. Did you know we offer up to five $300 scholarships for members to attend our annual conference? The Paul Standish scholarships (in honor of a beloved former MAMEA Treasurer) help cover the travel and registration expenses associated with attending our annual fall conference. Looking for some funds to kick start a new marine education project? Each year, MAMEA offers two $1,000 mini-grants – one for classroom teachers and one for non-formal educators – to fund innovative marine and aquatic education projects. And, if you know of a dedicated, deserving MAMEAn, please be sure to nominate them for one of our awards.

In closing, MAMEA has many wonderful opportunities for members to explore. We are excited about our programs and services which provide support to our members at a time when many schools and organizations are feeling extreme financial strain. The days are growing longer and the water warmer. Soon, summer will be upon us and we will be able to get back outside and get our feet wet!

Happy Spring!

Lisa Ayers Lawrence
MAMEA President
Greetings once again MAMEA, and welcome to Issue number 1 of the 32nd Volume of the Masthead!

As the weather starts to warm (though it was never really that cold this winter), our thoughts are turning to our favorite outdoor activities, summer professional development workshops, and maybe even a family vacation to the beach or some other fantastic place. Hopefully your plans for this summer include heading to the “Last Frontier” and back to cooler weather for the annual National Marine Educators Association conference at the University of Alaska-Anchorage. You can find more information at the NMEA website, www.marine-ed.org. If you do attend, please plan to join us for the MAMEA chapter meeting during the conference to get chapter updates, including election results, and to catch up with your MAMEA pals!

In this issue, you will find information from many of our MAMEA committee chairs on their respective programs, as well two great resources: NOSB’s Ocean Science Quiz game and a list of the best marine careers websites from Carol Hopper Brill. Carol has provided careers information to hundreds of students and teachers, including a great marine careers role-playing activity that she demonstrated at the 2006 MAMEA conference in North East, MD. We have included another Mid-Atlantic marine/environmental research update, as this seemed popular in the last edition, as well as a complete look around our region from our MAMEA state representatives.

I hope you enjoy this edition of The Masthead!

- Chris Petrone

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MAMEA is one of 17 regional NMEA chapters. To become a member of NMEA, please visit www.marine-ed.org
MAMEA Board Nominations and Elections
by Ruth Gourley, Nominations Committee Chair

Election season is in full swing around the nation and in our own region. For our upcoming May 2012 election, the following positions are up for election:

- **President-elect** – this is the first year of a three-year commitment. The President-elect’s main duty is to be the annual conference chair and plan that year’s conference. The second and third year of this position are President and Past-President. The President provides leadership, works with the board and committees; guides initiatives for the Association; shapes committees through the appointment of Chairs and committee members; develops the agenda and presides over two meetings a year. The Past-President provides support for the Board and committees for Association initiatives; serves as Chair of the Mentoring and Nominating Committees; and serves on several committees, including Grants and Awards.
- **Treasurer** – this is a two-year commitment. The treasurer is in charge of MAMEA’s financials, including collecting dues, paying bills and creating the annual Treasurer’s Report for our members.
- The state representatives are also a two-year commitment. You must be a member of that state to qualify as a state representative. Some of their responsibilities are to share marine education and MAMEA news with their home state members and organize an annual marine education event for their members. The three state rep positions are up for election: Delaware, DC, and Virginia.

If you want to know more about these positions, please see the Standing Rules link under the Board Members Toolkit section of our website (www.mamea.org/toolkit.html). If you would like to nominate a MAMEA member for election or have any questions, please feel free to contact me at ruth.gourley@ncaquariums.com. Nominations will be accepted through April 16, 2012.

NMEA Update
by Tami Lunsford, NMEA Representative

The 2012 National Marine Education Association conference will be held in Anchorage, Alaska, from June 24-28. Registration will be $385 and early registration closes on April 15. Housing is available in dorms for $45/night or in two different local hotels for $139 or $180/night. Scholarships and stipends are available: members of NMEA may apply for a $500 scholarship and non-members who represent and/or educate underrepresented minorities may be nominated (including self-nominations) for an Expanding Audiences stipend that includes free registration and possibly additional travel support (pending potential outside funding). The conference themes are Science and Art, Science and Culture, Science and Technology, and Large Marine Ecosystem Science and Education. There will be field trips during and after the conference. It is going to be a fun, exciting, and educational week. We hope you can attend! You can find out more about the conference, scholarships, and stipends at www.nmeaweb.org.

NMEA2014 Update
by Tami Lunsford and David Christopher, NMEA2014 Co-Chairs

The NMEA 2014 planning committee held its third meeting on Sunday, January 29, from 1-3 pm. It was a very productive meeting! You can find the meeting minutes on our Wiki (url below). We reviewed the twelve logo contest submissions by local students and we are currently voting on our favorite logos. The winning logos will receive prizes. After being modified slightly they will be used later this spring to advertise the event. We now have a Facebook page, Twitter account, and URL for future use, also (forthcoming). The committee will begin promoting the event with postcards at the NMEA conference in Anchorage, Alaska, this summer. We are currently working on fundraising and reaching out to local and Federal organizations and agencies who we believe would be good partners and participants in the conference. If you would like to be involved or want to know what we are doing in planning and who is doing what on the committee, please visit our Wiki at http://nmea-2014.wikispaces.com/ and plan to attend our next planning meeting on Sunday, October 14, following the annual MAMEA conference at Horn Point, MD!
MAMEA 2012 Conference Update
by Kathy Fuller, MAMEA President-elect

2012 Mid-Atlantic Marine Education Association (MAMEA) Regional Conference
October 12-14, 2012 in Cambridge, Maryland
“Aquatic Conservation Science through Research and Education”

Join educators from the Mid-Atlantic region to celebrate marine education Chesapeake Bay style. The 2012 MAMEA conference will be held on the campus of the University of Maryland’s Center for Environmental Science (UMCES) Horn Point Lab on the shores of the Choptank River in Cambridge, MD. Participants will have the opportunity to learn about all things aquatic during presentations by invited speakers, concurrent sessions and field trips. Saturday’s schedule will also allow time for conference participants to tour the Horn Point Lab facilities during their open house. Housing options include single-sex cabins on campus or an offsite hotel.

Invited Speakers
Friday Evening – Naturalist and Researcher Greg Kearns from Patuxent River Park will explain his work studying the nesting osprey population of the Patuxent River.
Saturday Morning – Laura Baker of Maryland Environmental Service will share information on the restoration of Poplar Island and the educational opportunities available through the research being conducted on the island.

Field Trips
Sunday Morning – Witness the restoration of Poplar Island first hand during a tour of the island. Participants will take a short boat ride to the island and tour by bus. Not only will participants learn more about the restoration efforts, but the tour also offers excellent wildlife viewing opportunities.

Check back for other field trip opportunities for Friday afternoon and Sunday morning.

More details coming soon. Questions? Contact Kathy Fuller, MAMEA President-Elect at kfuller@aqua.org or 410-576-3888.

Have an idea for a great educational project and need funding?
by Carol Hopper Brill, MAMEA Grants Chair

Do you have a great idea for an educational project that engages students or educators?

A MAMEA grant may be just what you need to get your project off the ground! Start working on your proposal now – be ready for the next round of MAMEA Educational Project grants! To be eligible, applicants must be current MAMEA members with at least one year’s membership.

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 must focus on marine or aquatic topics. Applicants are encouraged to plan innovative projects that 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 – on the website at 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; the deadline for the 2012 cycle is September 15, 2012. Grant awards will be announced at the MAMEA conference in October 2012, and the funding period is 12 months, from November 1, 2012 to October 31, 2013.
North Carolina Aquarium at Fort Fisher receives grant

The N.C. Aquarium at Fort Fisher’s “Amphibians in the Classroom” program recently received a grant from The Walmart Foundation and the Walmart Supercenter on Carolina Beach Road. The $1,000 award will help fund outreach learning in local second-grade classrooms—with the assistance of the Southern toad.

For five years, the Aquarium has partnered with local teachers and students to raise Southern toad eggs to toadlets during the six- to eight-week program. Aquarium staff collects eggs, installs the classroom tanks, collaborates with teachers, offers amphibian-themed lesson plans and guides a toad-release fieldtrip to a local wetland. The program fosters a sense of environmental stewardship among students, while creating a better understanding of amphibians and the environment we share.

“Students who participate in this program have shown a measurable increase in understanding amphibian life cycles, habitats and the human impact on nature,” said Aquarium Director Peggy Sloan. “We are so pleased Walmart values our effort. While the importance of these programs and community partnerships continues to grow, funding for them has become an increasing challenge.”

Past funding for the annual program was received by the Cherbec Foundation.

Virginia Naturally webinars are open to all environmental educators

by David Ruble, Virginia Department of Environmental Quality

Explore current topics in coastal resource education including: Blue & Green Infrastructure Planning; Establishing a Native Plant Social Marketing Campaign; Getting Families Outdoors; and much more! The webinars are free—all you will need is internet access and a phone line to join the conversation. The Virginia Office of Environmental Education is coordinating this webinar series for the coming year on topics of interest to community educators, planners, and education managers. Download the whole schedule through Virginia’s portal to environmental education at www.vanaturally.com.

A visit to the Virginia Aquarium & Marine Science Center

After a heated bidding war, Virginia teacher and longtime MAMEAn Beth Jewell came out the victor, and placed the top bid in the 2011 MAMEA conference live auction for four passes to the “Marine Mammal Experience” at the Virginia Aquarium & Marine Science Center in Virginia Beach (www.virginiaaquarium.com). Beth cashed in the prize package in early December and invited some long-time MAMEA friends, including some that probably bid against her!
MAMEA Expands Support of Regional NOSB Competitions
by Carol Hopper Brill

Last October, the MAMEA Board voted to expand our support and awards for the three Regional National Ocean Sciences Bowl (NOSB©) Competitions in the Mid-Atlantic: the Chesapeake Bay Bowl, serving Maryland, DC, Delaware and adjacent states; the Blue Crab Bowl in Virginia; and North Carolina’s Blue Heron Bowl. NOSB is an academic tournament designed to inspire and challenge high school students. NOSB competitions test students’ knowledge of the marine sciences, covering the breadth of oceanography and maritime disciplines. First launched in 1998, NOSB is now managed by the Consortium for Ocean Leadership which brings together leading oceanographic institutions, universities, industries and aquariums. Learn more about NOSB at www.nosb.org.

- **MAMEA continues to promote our three Regional Bowls each year**, posting announcements about the upcoming Bowls and providing contact information for the competitions’ organizers in the Masthead newsletter. And, we’re proud to feature and congratulate each Bowl’s winning team at the end of the competition season.
- **MAMEA donates one-year memberships for coaches new to each of the competitions**, and
- **MAMEA now rewards the 1st Place Coach of our three regional competitions with a complementary registration to the Annual MAMEA Conference**.

Our aim is to encourage and support these teachers, connecting them with the community of marine educators represented by MAMEA. We want to be sure they are aware of professional development opportunities and rich resources they have here in the Mid-Atlantic. And, we hope they will share their enthusiasm and ideas for teaching marine science and creating challenging opportunities for their students.

Ocean Science Quiz game now available
by Melissa Brodeur, National Ocean Sciences Bowl

The National Ocean Sciences Bowl (NOSB) has been working with the Massachusetts Institute of Technology (MIT) Sea Grant College Program to develop an online game to promote ocean literacy and engage students, teachers, and NOSB teams worldwide. The first phase (single-player) of the Ocean Sciences Quiz (OSQ) is now available. To play, please go to http://osq.mit.edu.

To further involve students and build the question database, NOSB is holding a question writing contest for the OSQ. Learn more about the contest and prizes by clicking the floating bottle on the front page. While anyone can submit questions, this contest is only open to current high school students. Contest winners will be notified in May 2012.

The next phase of the QSQ will be released this spring. With phase two, multiple players will be able to play on the same computer and explanations as to why a particular answer is correct will be available. Phase three will allow multiple players to play each other on the internet. This final phase will be available in the winter of 2013. For more information, please go to http://osq.mit.edu/about.html.
Looking for Resources on Marine Careers?
by Carol Hopper Brill

Are you looking for good resources on marine careers to share with students or teachers and guidance counselors? Here’s a list of some excellent websites. Many of these sites will link you to additional resources, including printable booklets about marine careers. Some feature personal profiles that explain how marine professionals became interested in field, or what important factors helped them achieve their goal. Other sites have fun interactive features that can hold the interest of younger students. And, some include both the academic career paths and the important trades that support marine science, too. If you have a favorite career website that isn’t on this list, let us know and we’ll consider it for this list.

- [www.vims.edu/bridge/](http://www.vims.edu/bridge/) – Select “Guiding Students,” then “Marine Careers.” Links to marine career sites reviewed by Virginia Institute of Marine Science educators.
- [www.aqua.org/marinescienceguide.html](http://www.aqua.org/marinescienceguide.html) – Careers – Resources and Information, National Aquarium-Baltimore
- [http://hopkins.stanford.edu/careers.htm](http://hopkins.stanford.edu/careers.htm) – Stanford University’s Hopkins Marine Station
- [www.deseagrant.org/education/careers](http://www.deseagrant.org/education/careers) – University of Delaware Sea Grant College Program.
- [www.marinecareers.net](http://www.marinecareers.net) – National Sea Grant College Program
- [www.oceancareers.com/](http://www.oceancareers.com/) – Centers for Ocean Sciences Excellence (COSEE)
- [www.nosb.org/ocean-careers/career-resources/](http://www.nosb.org/ocean-careers/career-resources/) – National Ocean Sciences Bowl (NOSB)
- [http://joidesres.org/node/263](http://joidesres.org/node/263) – Joint Institution for Oceanography. Describes jobs aboard a research scientific drilling vessel, includes interactive features.
- [www.mbayaq.org/lc/kids_place/kidseq_careers.asp](http://www.mbayaq.org/lc/kids_place/kidseq_careers.asp) – Science Careers, Monterey Bay Aquarium
- [www.dolphintrainer.com/career_guide.htm](http://www.dolphintrainer.com/career_guide.htm) – Career Guide to Marine Mammal Care & Training

Mid-Atlantic Marine Research Update

*The following are articles from marine research institutes around our region.*

**Volunteers to help scientists analyze images on sea floor** - Digital cameras make it easy to take a lot of photos – so many, in fact, that they can be difficult to sort through. Try having more than 250,000. That is how many images researchers took of the ocean floor last summer as part of a new approach to estimating the mid-Atlantic sea scallop population. Now they are tasked with examining each photo, searching for scallops within the frame and counting exactly how many and what size. It’s a big job, and one in which [University of Delaware](http://www.udel.edu/) researchers hope to enlist the help of science-minded volunteers.

**Baltimore’s harbor health leaves room for improvement** - In the first Inner Harbor health report card of its kind, the ecological health of the harbor and its watershed has been assessed as poor, according to EcoCheck scientists from the [University of Maryland Center for Environmental Science](http://www.umces.edu/) and National Oceanic and Atmospheric Administration. The report found that the Inner Harbor is polluted with nutrients and sediments that wash into the harbor, leading to oxygen levels in the water that are too low to support fish, crabs and other organisms.

**Eelgrass restoration aids overall recovery of coastal bays** – [Virginia Institute of Marine Science](http://www.vims.edu/) scientists and research partners document how a 15-year eelgrass restoration effort has led to a healthier and more vibrant ecosystem in Virginia’s seaside bays.

**Reconsidering the Consequences of Selective Fisheries** - To reduce commercial fishing’s impacts on ecosystems and fisheries productivity, many experts in recent years have advocated for increased selectivity in the size and species of fish that can be harvested. But a new “Policy Forum” analysis published today in [Science](http://www.sciencemag.org/) by an international team of researchers, including several from [Duke University’s Nicholas School of the Environment](http://www.duke.edu/), suggests it may be time to rethink this approach.
Travel with the National Aquarium!
South Africa, September 9—21
This September, Adventure Tours begins a new travel season with a scheduled trip to South Africa through the Education department in Washington, DC. The program, which began in 2009 with a trip to Ecuador and the Galapagos Islands, aligns well with the Aquarium’s mission to inspire conservation of the world’s aquatic treasures. Adventure Tours are specifically designed to take people who want to travel with the National Aquarium to various destinations around the world and explore their diverse ecosystems, wildlife, and cultures. The trip to South Africa provides an opportunity to see both the aquatic world of South Africa and the notorious wildlife found on safaris – elephants, lions, and leopards. Tour participants will have the option to sign up for a cage dive with great white sharks. Cape Town and the Cape of Good Hope, Kirstenbosch Botanical Gardens, Table Mountain, Grootbos Nature Reserve, Sabi Sand Game Reserve, Johannesburg, the Apartheid Museum, and the Nelson Mandela Family Museum are all on the itinerary.
To receive the full 22-page PDF with trip details, contact Bill Simpkins (bsimpkins@aqua.org). This tour is for anyone who wishes to travel with the National Aquarium. It truly will be an —adventure of a lifetime!

Sex In the Sea – April 21, 2012
(a one-day, 5 hour workshop)
Aquatic animals exhibit many interesting adaptations for survival. When it comes to reproduction, the adaptations are as varied and strange as one can imagine. How and why do fish change sex? Why do male seahorses give birth? Is it true that a lot of animals live to reproduce and then die? Answers to these and many other questions will be explored in this new workshop to help you answer some of those questions your students may ask!

Aquatic and Marine Science for Today’s Classroom Teacher - May 12 and 19, 2012
(a two-day, 10 hour workshop)
Among the topics you’ll explore are:
• Diversity of life—a basic review of biological classification
• Freshwater ecosystems—rivers, streams, lakes, bogs and swamps
• Marine ecosystems—estuaries, tide pools, coral reefs and kelp forests
• Major animal groups—fish, sharks, sea turtles and other aquatic reptiles
• How to incorporate marine and aquatic science into your curriculum
• How to utilize the National Aquarium as a classroom resource
• Other resources that are available and how to use them

To register for one or more workshops, please see registration information at http://nationalaquarium.org/workshops.html.

DC & DELAWARE

Delaware and DC held their first MAMEA-sponsored event in many years on February 4. It was a great day! Seven educators from NJ and DE met in Newark, DE to ride down to DC together and meet up with eight more MD, VA, and DC participants for a day to “Explore America’s Aquatic Treasures.” The trip included a fabulous guided tour of the Sant Ocean Hall at the Smithsonian National Museum of Natural History, exploration of the National Aquarium in DC, a talk on sea turtles and sea turtle legislation, and a happy hour. Many of the participants are new to MAMEA, and we look forward to having them as active members for years to come!
State Rep Reports

NORTH CAROLINA

The NC Regional Mini-Conference, *Today’s Minds, Tomorrow’s Ocean*, was held on Feb.3-4, 2012, at the NC Aquarium at Fort Fisher. Participants enjoyed a beach night hike, a sleepover at the aquarium, and lively discussions on the topics of climate change, technology, grants, and other current issues. We were also treated to a presentation by Dr. Rosanne Fortner, who shared several engaging lessons with the group. We had 16 educators in attendance, representing middle and high school teachers, and several non-formal educators. Many participants remarked that their favorite parts of the conference were the networking opportunities and the discussion sessions. Overall, the event proved to be a relaxing time to gather with fellow marine educators and share our experiences, our expertise, and a few laughs along the way!

VIRGINIA

Virginia Mini-Conference –
Ecology of the Bay Kayak Trip – The Mid-Atlantic Marine Education Association would like to invite formal and non-formal educators to participate in a kayak trip on May 12, 2012. Participants will bring a packed lunch and “meet” on the beach for lunch and activities. Everyone will join in a seining activity, marine debris activity, water quality and data collection activity, and will have the chance to share ideas with each other. It’s a great opportunity to see the Chesapeake Bay’s flora and fauna up close and have a chance to practice identifying these organisms. The kayak trip will take place **May 12, 2012** in Yorktown, VA at Back Creek Park. Kayaks and professional development will be provided by Chesapeake Experience. Jill Bieri, Director of Chesapeake Experience, has over 20 years of experience on the Bay, holds a master’s degree in marine science and has worked as both a scientific researcher and an environmental educator. Registration is $15 for current MAMEA members and $25 for non-members (includes a 1 year MAMEA membership). To register and pay online with PayPal (no account required), complete the form here – [www.mamea.org/vamini.html](http://www.mamea.org/vamini.html). Registration closes May 3rd and no refunds will be given after that date. This is a rain or shine event.

Upcoming Workshops and Events –

- **Bring Your Own Bucket: Critter Collection** – Want to set up an aquarium in your classroom but don’t know how or where to collect the critters for it? The Chesapeake Bay National Estuarine Research Reserve in Virginia is holding a collection day at the Virginia Institute of Marine Science on **Saturday, April 14th** from 9:00am to 12:00pm. CBNERRVA education staff will lead a short information session on estuarine aquarium keeping, classroom experiments using aquaria, and safety instructions for the collection exercise at 9:30pm. ALL teachers must attend this training ONCE before collecting animals for their aquaria. We will collect hardy critters that will work well in small 10-20 gallon classroom aquaria. Please note, this collection day is NOT suited for those looking to fill large 50+ gallon aquaria! This event is for teachers only, no students will be allowed to attend or participate, other than your own children. You may want to bring a friend, spouse, coworker with you to help pull the nets. If interested in registering, contact Sarah McGuire at mcguire@vims.edu or 804-684-7878. Limited space available!
- **VIMS Chesapeake Bay Academy: Virginia Coastal Ecosystems Field Course** – This 5-day residential Academy (**July 8-12**) introduces relevant marine science topics and field techniques in the distinctive surroundings of Virginia’s Eastern Shore. Conducted at VIMS Eastern Shore Lab in Wachapreague, the course includes a minimum of 40 hours instructional time in the classroom, lab, field and online. Instructors include marine educators from VIMS Marine Advisory Program and guest speakers from environmental agencies. Classroom and lab portions highlight content and skills that support Virginia Standards of Learning, and integrate existing environmental education curricula and online resources. The field component models the planning and implementation of MWEEs, and introduces basic marine science content, current scientific research, low and high-tech field research methods. The target audience for this workshop is middle and high school teachers in Virginia. To register, visit the VA Naturally website – [www.vanaturally.com/bayacademy.html](http://www.vanaturally.com/bayacademy.html). Information will be posted soon on this and other Bay Academies taking place this summer.