

THE MASTHEAD

Winter, 2002



Mid-Atlantic Marine Education Association

From the Captain's Quarters

As I write this, I realize just how fast this school year has been clipping along. My first quarter grades are a distant memory for my students and second quarter interims loom on the horizon. Our annual conference is over and the school year is well under way. MAMEA was present at the Virginia Association of Science Teachers Conference in Richmond and plans are underway for MAMEA participation in the National Science Teachers Association Conference in Philadelphia. It has been a busy fall.

The fall conference was a huge success with over 100 people attending from MAMEA land as well as Georgia, Tennessee, Arkansas, Oregon, and Pennsylvania. Dr. Mark Patterson spoke to us about his research on the Florida coral reefs during his keynote address Friday night. Other highlights of the conference included exciting field trips, the *Ocean in Motion* exhibit from the Virginia Marine Science Museum, *Exploring Queen Anne's Revenge* kiosk, broadcast from the *Estuaries Live!* virtual field trip, and 21 concurrent sessions. The pig roast and auction were also a great success.

This issue of the *Masthead* introduces our new editor, Barry Fox. He is a 4-H Marine/Aquatic Education Specialist with Virginia Cooperative Extension, Virginia State University and also serves as our Grants Committee Chair. We are also excited to announce that John Chubb is taking over as the Awards Committee Chair. John is a marine science teacher at Broadwater Academy in Exmore Virginia.

It is not too late to get involved with the planning of the National Marine Educators Association Conference to be held in Wilmington NC, July 20-24, 2003. Check out the conference website (www.marine-ed.org/nmea2003) or contact Terri Kirby-Hathaway (terri.hathaway@ncmail.net) or Andrew Wood (awood@audubon.org) for more information. I would like to extend a personal invitation to one and all to take part in this conference. *Taking Marine Education by Storm* will be a great opportunity for all MAMEA'ns to showcase what we are about!

Beth Jewell
MAMEA President

ANNOUNCEMENT

Motions will be presented at the MAMEA mid-year board meeting, to be held on January 18 or 19 (please check the MAMEA Web site for date and times), to address outstanding issues related to membership status, creating a discretionary fund for the president, and amendments to the annual budget. All members are hereby notified of an opportunity to participate in the discussion and a possible vote to follow.



NMEA 2003

For more information about the 2003 NMEA Conference, read the article (pages 3 & 11) in this issue of *Masthead* and log on to www.marine-ed.org/nmea2003.

Hello and best wishes for a terrific new year from your new editor. It's a great honor that your MAMEA Board has entrusted the legacy of the *Masthead* to me. I will do my best to meet the high standards set by our previous editors. I'm dedicated to making this a model newsletter for all environmental educators.

I'm asking for your help by sending in articles, news briefs, program and conference announcements, information on new educational resources, lesson plans, and anything that will advance the field of marine/aquatic education. In addition, I'm going to try some new sections, as space and time permits. This is YOUR newsletter, so any suggestions, comments and input of all types are most welcome.

I look forward to serving in this capacity and providing the best for our membership.

Sincerely,
Barry Fox, Editor (bfox@vsu.edu)



Virginia Water Conference 2003 (March 23 - 25, 2003 - Virginia Beach, Virginia)

The Virginia Lakes and Watersheds Association will hold its Annual Virginia Water Conference in Virginia Beach at the Double Tree Hotel, which is offering very good room rates. The facilities look great and are very close to the beach and all the other Virginia Beach amenities. The conference has hosted approximately 200 participants each year and hopes to continue a strong attendance from federal, state, and local agency employees, lake owners and operators, consultants, educators and product vendors, etc.

The Association's directors will be soliciting presentations over the next few months. In addition to the solicited presentations, the submission of abstracts for consideration is encouraged. Please e-mail abstracts to Stuart Stein (sstein@gky.com). Each abstract must include author name, address, phone number, and e-mail address as well as a 1/2- to 1-page description of the presentation. Please contact Stuart Stein if you have any questions. Complete information about the conference can be found at www.gky.com/vlwa after the first of the year.

America As Seen By Its First Explorers by John Bakeless is a captivating book that visualizes what this country looked like before "we" got a hold of it. The stuff in this book is not found in the typical history book. It brings the discoveries of early explorers such as Narvaez, De Soto, Coronado, Cartier, and Champlain to life with dramatic descriptions of the land, its native peoples and their hazardous adventures. The book is available from Dover Publications at: <http://store.doverpublications.com/>.

Bay Country, by Tom Horton, is a collection of essays about the life, workings, comings and goings in the Chesapeake Bay. He writes about Bay processes, crabs, trees, tributaries, islands and energy. His style is captivating and gives the reader a sense of "being there." The publisher is Ticknor and Fields of New York, 1987, Johns Hopkins University Press.

The ***Virginia Water Central*** is the newsletter for the Virginia Water Resources Research Center at Virginia

Tech. It is an excellent resource for water resource news, educational resources and issues. It is available in hard copy from the Center located at 10 Sandy Hall (0444), Blacksburg, VA 24061 and in digital form at www.vwrrc.vt.edu. Every marine/aquatic educator should read this newsletter.

CFAST is the Commercial Fish and Shellfish Technology newsletter produced jointly by VA Tech, Cooperative Extension and Virginia Sea Grant. It provides current information about advancements in the seafood industry and can be useful for marine, ecology and social studies teachers. To request a subscription, contact CFAST, 119 Food Science and Technology Building, VA Tech, Blacksburg, VA 24061 or e-mail cfast@vt.edu.

Virginia's Oyster Reef Teaching Experience (VORTEX) is alive and well. There are some wonderful resources available from: <http://www.vims.edu/mollusc/education/vortex.html>. Just log on and check it out.

The National Environmental Data Index is available at: <http://www.nedi.gov/>. The Index is maintained by the National Atmospheric and Oceanic Administration Environmental Information Service. The service provides a full text search of information from twelve government agencies including the US Department of Agriculture, Department of Energy, Department of Interior, Environmental Protection Agency, and NASA. Users can choose to search from all or individual agencies, type of information, and by several specific subjects. Due to the breadth of the data, use of specific search criteria is recommended.

A one-hour documentary about communities grappling with growth, sprawl and landscape change in northern New England will air on public television on Wednesday January 29. It is called ***Livable Landscapes: By Chance or Choice*** and was produced by Melissa Paly, with partial funding from the U.S. EPA - New England. A viewers guide and website are currently being developed to make the documentary more useful. Contact your local public TV station for details.

The ***Masthead*** is the official newsletter of the Mid-Atlantic Marine Educators Association (MAMEA) and produced quarterly. The Association is an affiliate of the National Marine Educators Association and dedicated to the advancement of marine and freshwater education curricula, programs, and events that foster effective instruction, learning and environmental stewardship. Annual dues are \$10.00. For membership application, send your name, institutional affiliation, address, telephone/Fax numbers and e-mail address with payment to Andrew Wilson, MAMEA Treasurer, 1004 S. Dickenson Ave., Sterling, VA 20164 (e-mail: underthesea@erols.com). For more information, contact any Board member.

2003 NMEA Conference

PSST...2003! It's no secret. Get ready for the next fabulous NMEA conference, one you won't want to miss! The Mid-Atlantic Marine Education Association and the University of North Carolina at Wilmington invite you to join your colleagues in Wilmington, North Carolina where we'll be *Taking Marine Education By Storm*, July 20-24, 2003, at the first NMEA conference to be held in North Carolina.

The port city of Wilmington, established on the Cape Fear River in the early 1700s, is an ideal starting point for coastal adventures. Each day of the conference will be filled with opportunities to enhance your knowledge and forge new partnerships in marine and coastal education. Beginning with the opening reception featuring Blackbeard the Pirate, each day will bring a special event. We'll be guests at the newly-renovated North Carolina Aquarium at Fort Fisher, cruise the Cape Fear River aboard the riverboat Henrietta III, enjoy lively songs of the NC coast at the Stegner concert, and enjoy a grand finale with an oceanfront beach party.

The conference theme will be enhanced by featured keynote speaker Dr. Steve Lyons from the *The Weather Channel* who will engage us in an in-depth analysis of the challenges facing scientists who predict and track storms. Coastal geology and climate will be the topics of additional presentations by well-known North Carolina researchers.

Field trips will offer in-depth explorations of this semi-tropical region including a boat trip to Masonboro Island National Estuarine Research Reserve, located on an undeveloped barrier island. Conferees can visit

Green Swamp, home to numerous species of insectivorous plants including Venus flytrap, sundew and pitcher plants. They can also participate in a marine fossil dig at a local quarry. Other unique natural areas include state parks and historic sites with sandy beaches, maritime forests, savannahs, and pocosins. All of these features are a short drive from the beautiful riverfront city of Wilmington, which offers plenty of opportunities for shopping, sight seeing and entertainment for families.

Home base for the conference is UNC-Wilmington, a lively 650-acre campus with an internationally recognized marine science program. Nestled amid stately long leaf pines and moss-draped live oaks, UNC-W is near historic downtown Wilmington and five miles west of the Atlantic Ocean. Campus dining and lodging (yes, the dormitories are air-conditioned!) will be available at a very reasonable cost. Off-site lodging options will also be available for those who choose to commute to campus.

More than 150 concurrent sessions on themes such as Climate and Weather, Technology in Ocean Sciences Education, Elementary Education, and Maritime Heritage will stimulate and re-energize you for the coming school year. Session proposals are now being accepted. See the call for sessions in this issue of the *Masthead* (page 11), *NMEA News*, or send your proposal electronically via the conference website www.marine-ed.org/nmea2003. Bookmark the site and check it frequently for updates throughout the year. See you in Wilmington!

**Terri Kirby Hathaway
Andy Wood**

2002 MAMEA Awards

Congratulations to Mercy McCurdy and Amy Sauls for receiving the 2002 MAMEA Traditional and Non-traditional Educator Awards. Their awards were presented at the 2002 MAMEA Conference in Gloucester, Virginia.

Mercy McCurdy of Maryland received the award for Traditional Educator. Mercy has been a virtual dynamo in every aspect of marine education, both in the schoolhouse and her community. Taking Marine Biology and Oceanography to students across the spectrum of abilities, she has brought these subjects to life. Her work with curriculum committees has extended her reach into classrooms across Anne Arundel County. When not in the classroom or leading a field trip, you may find Mercy volunteering at the National Aquarium in Baltimore, at an environmental lecture, presenting a workshop at a national conference, or vacationing in places like Costa Rica where she can gather additional information for her students. A veteran teacher of 23 years, Mercy McCurdy still has that zest for learning and sharing for which she is recognized.



Amy Sauls, a coastal education specialist at the North Carolina National Estuarine Research Reserve, is the 2002 Non-traditional Educator. Amy's major thrust has been to involve students, their teachers, aspiring teachers, and the general public in marine environmental topics and issues. She has spearheaded bringing marine education into elementary and middle school classrooms. This has involved energizing and training teachers, establishing interpretive areas at the schools, conducting workshops, establishing scholarships for teachers to become more active in MAMEA and guiding the development of distance learning activities through Web sites like www.estuarylive.org and www.coastlive.org. Amy has a particular talent for developing a marine science interest in teachers with little previous background.

John Chubb



Resources

Woody Plant ID, a tree identification CD-ROM, (for those of you who work in forested watersheds or just love trees) is available from Kendall-Hunt Publishing (1-800-228-0810). It covers 129 woody species with 2000 color pictures, compares similar species, describes ranges and allows you to create quizzes. It costs about \$50. When calling, ask for Woody Plant ID, ISBN #0-7872-3803-1, authors Seiler/VTIP.

The **National Small Flows Clearing House** has a wide variety of educational materials on community sewage treatment, a topic near and dear to the hearts of all. For newsletter information and a complete listing of materials and prices, go to www.nsfrc.wvu.edu and view the Products Catalog, especially the Public Education section.

The University of California, Agriculture and Natural Resources Communication Services division is offering a series of teacher project guides for youth ages 10 - 15 (grades 4 - 9). Titles include: **Creek Watchers, Fresh Water Guardians, Wetlands Protectors, Water Inspectors** and **Plastic Eliminators**. Each publication costs \$8.50. For more information, contact UCA-ANRCS, 6701 San Pablo Ave., 2nd

Street, Oakland, CA 94608-1239 or call 1-800-994-8849 to order.

The U.S. Army Corps of Engineers has just released an interactive CD entitled the **Zebra Mussel Information System** (version 2.0). It is a fully researchable compendium of technical and life history information on this invasive species. For a copy, contact Michael Grodowitz (grodowm@wes.army.mil) U.S. Army Engineer Research and Development Center (ERDC), Waterways Experiment Station, CEERD-EE-A, 3909 Halls Ferry Rd. Vicksburg, MS 39180.

The **Izaak Walton League** offers a variety of excellent educational, training and equipment resources for stream ecology and restoration projects. For more information, contact www.iwla.org/merchant2.

New York Sea Grant is offering a limited number of free CDs entitled **Aquatic Exotics on the Move**. It is a collection of 27 lesson plans created by K - 12 teachers about invasive species in the Great Lakes. Much of it is applicable to the mid-Atlantic region. To request a copy, call Ellen George at 716-645-3610 or E-mail elg7@cornell.edu with your name and address.



On the WEB

- The National Farm*A*Syst and Home*A*Syst Program has an electronic newsletter entitled **Farm and Home Environmental Management**. It concentrates on best management practices for the farm and home. To view the newsletter or for more information, go to: www.uwex.edu/farmasyst.
- The **NASA Global Change Directory** is on line at <http://globalchange.nasa.gov>. It is a massive database of 10,600 reports from 1300 agencies and institutions. It is a great research tool for high school and college students.

- *Bay Clips* is an on-line, daily news service about Chesapeake Bay issues produced by Christopher Conner of the Chesapeake Bay Program. To subscribe, visit: www.chesapeakebay.net/baynews.htm.
- Students can try their hand at forecasting the weather and reporting their forecast to their teacher at www.uwm.edu/~kahl/Forecast/register.html.
- New wetlands fact sheets are available at www.epa.gov/owow/wetlands.
- If you're interested in applying for grant funds, a good funding source review site is: www.cos.com. Log in to register for frequent funding updates.
- Students can visit a virtual estuary at www.epa.gov/owow/estuaries/kids/visit/index.htm.
- To learn more about watersheds and weather, students can go to www.watershed.interactive-environment.com/main/.
- The *Environmental News Network* is a global news service that provides daily updates on things happening in and affecting the earth's environment. To subscribe, go to <http://em.com> and click on subscribe.

Around the Association



NORTH CAROLINA (Amy Sauls)

North Carolina Maritime Museum

The North Carolina Maritime Museum will feature a photographic exhibit, *All in One River* (February 1 - April 6). Ben Casey, writer/photographer, documented the Neuse River during his journey from its headwaters near Raleigh to the Pamlico Sound. Its unique beauty persists despite pollution problems and hurricane flooding. Another museum exhibit will commemorate the 30th anniversary of the discovery of the USS *Monitor* off Cape Hatteras by Duke University's research vessel *Eastward* (April 12 - September). The repository of artifacts from the *Queen Anne's Revenge* shipwreck (Blackbeard's flagship) will open for tours in the spring. A traveling exhibit is available by request, and the permanent exhibit on Blackbeard is on display in the museum.

The boating program will provide a full schedule of classes in boat building, adult sailing, sea kayaking and the annual Wooden Boat Show on May 3. The Junior Sailing Program will use the fun of sailing to teach seamanship. Summer Science School offers day classes on seashore life, kayaking, fishing, underwater archaeology and overnight camps at Cape Lookout. Brochures/applications will be available in the spring.

Coastal environmental programs will feature bird watching and field trips to barrier islands, wetlands and forests. Teachers may call the museum to make reservations for school group tours.

View the current calendar of events, educational services and *Queen Anne's Revenge* information at www.ah.dcr.state.nc.us/sections/maritime and www.ncmm-friends.org. For more information, contact: maritime@ncmail.net, telephone: 252-728-7317, or fax 252-728-2108.

NC National Estuarine Research Reserve

This fall, events at the North Carolina National Estuarine Research Reserve's education office have been very exciting. It started with celebrating National Estuaries Day with our live interactive field trip called *Estuary Live* on October 1 - 4. We reached thousands of students around the world. The next broadcast is scheduled for April 9-11, 2003. For more information, go to www.estuarylive.org.

Our Coastal Communities Services Program conducted four workshops. Three of these were on the upcoming new phase II storm water rules for Wilmington, Washington, and Jacksonville, NC. A workshop on human dimensions and visitor use in conjunction with NOAA's Coastal Services Center was conducted in Wilmington. All were a great success!

Adding to all of this, we dedicated our tenth reserve, Bird Island, near the NC/SC border and a new boardwalk at the Northern Currituck Banks reserve allowing better public access. To find out more about the NCNERR, check out our Web site at www.ncnerr.org.



VIRGINIA (Lisa Ayers Lawrence)

Congratulations go to MAMEA President **Beth Jewell** and MAMEA member **Cathy Roberts** who were two of three secondary science educators honored with the Virginia Association of Science Teachers' (VAST) **Presidential Award for Excellence in Science Teaching**. This spring, one of the three will be chosen as the national winner from Virginia. The National Science Foundation sponsors this award.

The Virginia Institute of Marine Science (VIMS) and Old Dominion University will host the sixth annual **Blue Crab Bowl** at the VIMS campus, February 21-22, 2003. Sixteen high school teams from across the state will compete in this marine science academic competition. An competition format enhanced with "team challenges" promises to make for an exciting event. The winners will receive an all-expense paid trip to the National Ocean Sciences Bowl in La Jolla, California, April 25-28, 2003. For more information, contact Liz Smith at crab@vims.edu Susan Haynes at shaynes@vims.edu or visit the Blue Crab Bowl Web page at www.vims.edu/adv/bcb.

The Water Wizard Van, a traveling water resources education vehicle, won the **2002 National Association of Extension 4-H Agents award for Natural Resources and Environmental Stewardship**. The Van contains a variety of educational resources and equipment including the Enviroscape, groundwater model, electronic activity boards, water test kits, wildlife puppets, and much more. It rotates to each of Virginia's six 4-H Educational Centers on a bimonthly basis and is used by 4-H Agents, teachers, Soil & Water Conservation personnel and others. Users receive a 4-hour training and can pick up the Van to conduct programs at schools, fairs and other public events. Since its inception in 1999, the Van has made more than 30,000 educational contacts. For more information about this program, log on <http://www.ext.vt.edu/resources/4h/wizard/> or contact Barry Fox at bfox@vsu.edu.

MARYLAND (Kathy Siegfried)

Maryland Mini-Conference and Sleepover 2003
Restoring the Chesapeake
National Aquarium in Baltimore, Baltimore, MD
March 14-15, 2003, 6:30 p.m. - 11:30 p.m.

The National Aquarium in Baltimore and MAMEA are teaming up again this year for the 2003 Maryland mini-conference and teacher sleepover. This year's theme is *Restoring the Chesapeake*. Participants will have the

opportunity to learn about Chesapeake Bay conservation lessons and activities for classroom and field, grant opportunities to fund restoration projects and visit the Fort McHenry wetland restoration site Saturday morning. View the Aquarium's exhibits after hours, go behind the scenes, see the dolphin show, and sleep with the fish and dolphins snoozing close by. Registration Fee: \$25 current MAMEA members; \$35 new or renewing MAMEA members (includes 1 year MAMEA membership) and includes program materials, evening snack, and continental breakfast. For more information contact Kathy Siegfried at ksiegfried@aqua.org or call 410-576-3888.

National Ocean Science Bowl
2003 Chesapeake Bay Bowl
February 22, 2003,
Goucher College, Baltimore, MD

Do you know what the draft of a ship is? What toxic chemical led to the "walleye scare" of the 1970s? These are just a few of the questions that could be asked at the 5th Annual Chesapeake Bay Bowl. High school students from Maryland, District of Columbia, Delaware and southern Pennsylvania will put their ocean science knowledge to the test on February 22, 2003 at Goucher College. The National Aquarium in Baltimore and Lockheed Martin will sponsor this daylong regional competition of the National Ocean Sciences Bowl. The winning team will be invited to compete in the national competition in La Jolla, California in April. If you are interested in volunteering, contact Julie Petrella at 410-576-8820 or email jpetrella@aqua.org. (Answers: The draft of a ship is the depth of the ship's bottom from the surface of the water. Mercury led to the scare.)

POW! Planning of Wetlands Workshop
National Aquarium in Baltimore, Baltimore, MD
March 22, 29, and April 5, 2003, 9:00 a.m. - 4:00 p.m.
The National Aquarium in Baltimore is proud to present *POW! Planning of Wetlands*, a course offered in conjunction with Environmental Concern, Inc. and sponsored by the Chesapeake Bay Trust. The 3-day POW! course is designed to guide educators in the construction, restoration, enhancement and monitoring of wetlands in or near schoolyards. Participants will study the planning and designing of wetlands using hands-on activities suitable for formal and informal education groups. POW! includes twenty-five hands-on activities for students in grades 5-12, with some modified activities suitable for grades K-4. Participants will receive a *POW! Planning of Wetlands* curriculum guide and one Maryland Continuing Professional Development Credit. For more information, contact David Christopher at dchristopher@aqua.org or call 410-576-8799.

**Green Eggs and Sand Workshop
Delaware's Aquatic Resources Mallard Lodge in
Smyrna, DE**

May 16-18, 2003 & May 30-June 1, 2003

Looking to infuse a global biodiversity and current real life resource management challenges into your classroom? Join educators from DE, MD and NJ this spring and experience the horseshoe crab and shorebird phenomenon first-hand on the beach. Learn from the experts and receive materials to educate middle and secondary students about the phenomenon and related issues. Registration is due by February 1, 2003. For more information contact:

Gary Kreamer of DE Aquatic Resources Education at 302-653-2882 or Gary.Kreamer@state.de.us

Cindy Grove of MD Aquatic Resources Education at 410-260-8716 or cgrove@dnr.state.md.us

Sue Canale of NJ Aquatic Resources Education at 609-748-2031 or scanale@dep.state.nj.us

Katy Lamborn of DE National Estuarine Research Reserve at 302-739-3436 or Katy.Lamborn@state.de.us

**Fort McHenry Wetland Clean-Up 2003 Dates
A Day in the Muck with the National Aquarium in
Baltimore!**

The National Aquarium in Baltimore invites the public to participate in a hands-on wetland restoration project! In partnership with the National Park Service, the Aquarium is working to restore, monitor and maintain a tidal wetland adjacent to the Fort McHenry National Monument and Historic Shrine, one of the few remaining in the lower Patapsco River watershed. The Aquarium will be hosting four Public Restoration Days during 2003. These events are free of charge and will be held: April 12, June 7, September 27 and December 7 from 9:00 a.m.- 2:00 p.m. Data will be collected to track the function of this tidal wetland and monitor the amount and type of debris. To receive a registration packet, contact Kathy Dalton at least two weeks prior to each scheduled event: Kathy Dalton 410-659-4274 or kdalton@aqua.org.

Please note: Notify us in advance if special accommodations are required as access to the wetland is limited. Due to hazardous work conditions associated with urban debris and marsh waterfront features, the minimum age for this program is 14 years.

NEW CD-ROM! *Living Waters of the Chesapeake*

The interactive CD-ROM *Living Waters of the Chesapeake* was created by the National Aquarium In Baltimore Conservation Department to assist educators in inspiring students to help restore the Chesapeake Bay. This program is divided into six sections: How's the Bay Doing?, What is a Watershed?, Your Watershed Address, The Bay Needs You!, Chesapeake Challenges, Test Your Chesapeake Bay Knowledge!. The program also includes teacher and student activities. If you would like to add a copy of this CD-ROM to your resource library, please send your request to conserve@aqua.org.

**Chesapeake Bay Aquarium In the Classroom
University of Maryland Biotechnology Institute
Workshop, August 11 - 15, 2003**

The University of Maryland Biotechnology Institute (UMBI) is funding an opportunity for teachers to participate in a week-long workshop that will allow them to set up a 20 gallon Chesapeake Bay aquarium in their classroom. The seminar will take place at the University of Maryland's Biotechnology Institute's downtown location in Baltimore. Participants will be given all the necessary equipment as well as instruction on maintenance of the aquarium. Two days will be set aside to collect organisms from Bay locations. The purpose is to utilize an aquarium as a hands-on instructional tool for the students and to develop curricula associated with the Chesapeake Bay. The program will run the week of August 11th - 15th and is limited to 15 participants.

Teachers and students will gain an understanding of:

- The Ecology of Chesapeake Bay,
- Preparation of Fresh and Salt Water,
- Maintaining Living Organisms,
- Species Identification,
- Bay Conservation Issues and
- Estuary Management.

For more information contact: Jeff Morgen, Education Specialist, UMBI Science and Technology Education Programs, 701 East Pratt Street, Baltimore, MD 21202, 410-576-5778, morgen@umbi.umd.edu

MAMEA needs your suggestions and input to help improve the *Masthead* and provide better services for its members. Please take a few moments to complete the questionnaire on page 10 to evaluate the *Masthead* format and content. Your candid suggestions are most welcome.

In addition, as editor, I need to know what is going on out there. There are many positive and exciting programs that MAMEA members are conducting and participating in that would make great success stories. Help us highlight and promote your successes by completing the form on page 10. You can make this your newsletter by being an active contributor.

This is a sample of newsworthy environmental happenings around the United States. Often the news sources are not complete in their coverage and regular updates on any one issue or event are hard to come by. As you will see, much of the news is not positive and it is difficult to find positive, environmental trends. In any event, this will perhaps give the reader a cause for he or she (or their students) to do more research on a given topic.

Out and About

More than 770 cities and towns across the U.S. are facing a costly problem - what to do about combined sewage overflows. With outdated and over-taxed sewage systems, the towns and cities are often in violation of EPA regulations. The total cost of upgrade will exceed \$45 billion and residents will see water and sewage bills increase drastically as municipalities grapple with the problem. Pittsburgh alone plans on spending \$3 billion in the next 12 years to address the sewage overflow problem and protect its drinking water.

Marine invasive species have discovered a new way to move from continent to continent - on floating plastic. Barnacles, worms, corals and invertebrates of all types are "hitching rides on floating debris and moving to new areas where they can pose a threat to native species."

On the Bay

In 1996, Virginia leaders reported that only 5% of the state's waterways were impaired. In 1998 that figure jumped to 13%. The most recent study, with over one million samples during the five-year period, reports a 44% impairment rate for the 9,700 miles of streams and rivers surveyed. The most common pollutants are bacteria. Nutrients are very prevalent and toxic chemicals are present in low levels throughout much of the watersheds. Toxic hot spots (high concentrations) exist at a number of locations. Virginia must complete its TMDL (Total Maximum Daily Load) studies by 2010 at a cost of \$60 million to meet EPA guidelines.

Maryland is losing its farmland faster than the national average. In the next 10 years the state will lose 400 of its 12,400 farms - 40,000 acres to development. There are many reasons for the land conversion but few recommendations to stem the tide.

A University of Virginia doctoral student has identified a connection between marsh grass health and blue crab populations. Blue crabs feed on periwinkles, a marine snail, and periwinkles graze on *Spartina* (cord grass). Remove the crabs and the periwinkles "whack" the grasses. His studies, in Virginia and Louisiana, show similar results. Blue crabs help keep periwinkle

Atrazine, a widely used herbicide, has been found to severely affect the reproductive condition of frogs. It demasculinizes tadpoles and turns them into hermaphrodites. The herbicide lowers the levels of the male hormone testosterone in mature male frogs by a factor of ten, lower than levels in female frogs. The EPA currently allows up to 3 ppb Atrazine in drinking water with a four-day exposure of 12 ppb. Researchers found effects on frogs at concentrations as low as 0.1 ppb. Atrazine has been widely used across much of North America over the past 40 years.

There are 2618 fish advisories or bans in the U.S. This means that 28% of the nation's lakes and waterways have contaminated fish. Virginia has advisories in the Potomac, South, Shenandoah, Elizabeth, Staunton and James Rivers.

populations down, thus controlling damage to cord grass. Blue crab populations are at historic lows in both states.

The Chesapeake Bay showed significant improvements in SAV (submerged aquatic vegetation) during the recent drought, with coverage increasing by more than 16,000 acres. However, increased salinities in the mid and upper Bay allowed Dermo and MSX (oyster diseases) to wreck havoc on healthy oyster beds. In addition, mid and upper fresh water Bay grasses were severely stressed by increased salinities.

The Chesapeake Bay Foundation rates the Bay on thirteen key factors with a scale of 0 - 100. In 1980 the Bay scored a 23 and 28 in 2000. In 2001, it scored a 27. A score of 70 would indicate a "saved" Bay. You can do the math - we have a long way to go.

The proposed \$160 million reservoir in King William County on the Pamunkey River would supply drinking water for eight cities and counties for decades. However, it will submerge more than 400 acres of historic wetlands and has already cost the Newport News Water Works \$20 million in 15 years of regulatory litigation.

Paul Standish Scholarship

The *Paul Standish Scholarship* is awarded annually to one MAMEA member interested in attending the regional conference but in need of financial assistance. The Scholarship covers the full registration package excluding field trips and other additional fees. Applicants must have at least one year of membership in the Association prior to application. To apply, complete this application form and submit a letter of application justifying the need for the scholarship and explaining how the conference will benefit you and your students. Application deadline is **August 1, 2003**. Include on your application letter: **your full name, years of MAMEA membership, institutional organization, subjects/grades taught, address, home and work telephone, Fax and e-mail.**

Mail, Fax or e-mail your application to: Barry Fox, Box 9081, Virginia State University, Petersburg, VA 23806 (804-524-5848) (Fax: 804-524-5057) Email - bfox@vsu.edu.

This scholarship was started in 1998 in memory of Paul Standish, a dedicated educator from Williamsburg, Virginia. He served as the VA Representative and MAMEA Treasurer for many years. Paul valued the stimulating exchange of ideas and camaraderie this conference provides and wanted to encourage marine educators to attend.

MAMEA Educational Project Grant Program

Purpose:

The MAMEA Educational Project Grant Program provides funding to classroom teachers and other educators for marine and aquatic educational projects.

Eligibility:

Any MAMEA member (individually or through a fiscal agent) may submit one proposal per year.

Program Structure:

- Projects must focus on marine or aquatic topics. Applicants are encouraged to plan innovative projects that conform to grant guidelines.
- One \$500 grant will be available for the 2003-2004 year.
- Cost sharing (match, in-kind, cooperative funding) is encouraged.
- Institutional indirect, overhead costs or personal compensation (other than honoraria) should not be included.
- Up to 80% of the total amount of the grant may be available to the grantee at the beginning of the grant period. The remaining 20% is issued subject to Board acceptance of the final report.
- Original material produced should be in the public domain and prominently display credit to MAMEA.
- Proposals must clearly describe plans for ownership and continuing management, distribution, and post-grant use of project products and equipment purchased through the grant. After the grant period, the grantee may continue to produce and distribute project products at cost.
- Project staff should include an advisor from the target user group and receive input from knowledgeable professional educators (and/or scientists) other than the applicant.
- Grant application deadline is **August 1, 2003**. Applications are accepted year-round. The application form is available at <http://www.vims.edu/adv/mamea/minigrant.html> or contact the Grants Chair.

Send **five copies** of the completed application, with attachments, to:

MAMEA Grants Committee Chair

Barry Fox, Box 9081, Virginia State University, Petersburg, VA 23806 (804-524-5848) (Fax: 804-524-5057)

E-mail: bfox@vsu.edu

Evaluations of Proposals:

The Grants Committee consists of 5 individuals appointed by the President with staggered 3-year terms. The Grants Committee makes decisions on proposals and notifies awardees as soon as possible after the spring Board meeting, and announces recipients of awards at the fall conference. Applications are evaluated using the guidelines as presented in the Grant Application.

Obligations of Grantee:

- Applications must include all requested information in the sequence indicated on the application form. The application (excluding letters and optional materials) should not exceed **five pages**.
- Grantees will submit a final report to the Treasurer of MAMEA within 90 days of the end of the funding period. The report (no more than **five pages**) should include the following items: project title, project staff's names and titles, description of activities completed and/or copies of materials produced, audience numbers and description, evaluated impacts and user comments, copies of news articles and/or pictures and plans for project continuation (if applicable).
- Grantees will present a seminar or poster session at a MAMEA conference (regional or local) and/or submit an article to an environmental or science education newsletter or publication about the funded activity.

What do you think of the *Masthead*?

Please take a few minutes to evaluate this newsletter. All suggestions and comments are welcome. You may contact me directly at 804-524-5848 (bfox@vsu.edu) or mail this form to Box 9081, Virginia State University, Petersburg, VA 23806. Thank you for your input. Barry Fox - Editor

Format

Comment

Type Size	<input type="checkbox"/> too large	<input type="checkbox"/> too small	<input type="checkbox"/> just right	_____
Type Font	<input type="checkbox"/> readable	<input type="checkbox"/> somewhat readable		_____
	<input type="checkbox"/> not readable			_____
Layout	<input type="checkbox"/> effective	<input type="checkbox"/> confusing	<input type="checkbox"/> ineffective	_____
Graphics	<input type="checkbox"/> too many	<input type="checkbox"/> too few	<input type="checkbox"/> just right	_____
	<input type="checkbox"/> effective	<input type="checkbox"/> ineffective		_____
Length	<input type="checkbox"/> too long	<input type="checkbox"/> too short	<input type="checkbox"/> just right	_____
Overall	<input type="checkbox"/> excellent	<input type="checkbox"/> good	<input type="checkbox"/> fair	_____
	<input type="checkbox"/> poor			_____

Content: Rate each section as indicated. (1-excellent, 2-very good, 3-good, 4-fair, 5-poor)

<input type="checkbox"/> <i>From the Captain's Quarters</i>	_____
<input type="checkbox"/> <i>Scuttlebutt</i>	_____
<input type="checkbox"/> Conference Announcements	_____
<input type="checkbox"/> Awards/Recognition	_____
<input type="checkbox"/> <i>Resources/On the Web</i>	_____
<input type="checkbox"/> <i>Around the Association</i>	_____
<input type="checkbox"/> Trends and issues (<i>Out and About/On the Bay</i>)	_____
<input type="checkbox"/> Scholarships and grants	_____
<input type="checkbox"/> Overall	_____

What would you like to see added, deleted or changed? _____

Tell Your Story

What have you done lately or are doing in marine and aquatic education? Have you read a good book, conducted a program, written an effective lesson plan, visited a resource area or museum or received training in a curriculum or educational program? I'm sure other MAMEA'ns would like to hear about these and other activities and find out how to get involved. Please take a few minutes to tell your story for an article in the *Masthead*. Complete the information below and include a brief article of 200 words or less. Pictures are welcome but individuals photographed must sign the release form below. Send your articles to Barry Fox, *Masthead* editor.

Type of Activity book review* field trip** program conducted**
 training received** lesson plan*** other _____

Name _____ **Institutional organization** _____

Address _____

Telephone (H) _____ **(W)** _____ **E-mail** _____

***Title/Author(s)/Publisher** _____

****Location/Dates/Time** _____

****Number and type of participants** _____

****Subject area/Content or Title** _____

*****Subject area/Title** _____

Photo release: The following individuals give permission for their photograph to be used in the MAMEA Masthead newsletter. Minors must have parental signature.

Name _____	_____	_____
print	signature	parent/guardian
Name _____	_____	_____
print	signature	parent/guardian

Put additional release signatures on the back of this form

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Be sure to

- **Check out the NMEA Conference and consider submitting a workshop proposal,**
- **Complete the *Masthead* evaluation form,**
- **Attend one of the programs and use the resources described in this issue,**
- **Apply for the MAMEA mini-grant,**
- **Consider submitting an article for a future *Masthead* issue.**
- **Renew your MAMEA Membership!!**