

**NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION**  
**INFORMATION EXCHANGE FOR MARINE EDUCATORS**

**MARCH 2012**

This update is funded by the National Marine Sanctuary Foundation in partnership with NOAA's Ocean Exploration and Research Program, with additional support from the National Marine Protected Areas Center, to share information pertinent to the marine educator community. It is intended to encourage exchange of information and programs. We hope that it will also promote collaboration among the different educators addressing similar issues in their programs.

Please share this email with your colleagues and constituents. If you request materials or respond to a request for information, please mention that you learned about it from NOAA's Information Exchange.

The information included here has been compiled from many different sources, including EE-NEWS@NAAEE, EEinGEORGIA, the Scout Report, scuttlebutt, NSTA Express, and others. We have verified web addresses, but make no guarantee that they will remain active. The Department of Commerce/NOAA does not necessarily endorse or promote the views or facts presented on these sites.

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Collected archives and issues of the newsletter, past and present, are available at <http://mpa.gov/resources/education/#exchange>. Contact the editor directly at [phyllis.dermer@noaa.gov](mailto:phyllis.dermer@noaa.gov), or by phone at (865) 932-5074, to discuss further enhancements or to contribute information for future issues.

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### **Notable Reference**

#### **Rethinking Protected Areas in a Changing World**

The George Wright Society adheres to an open-access publication philosophy and as such, they have published on the web "Rethinking Protected Areas in a Changing World: Proceedings of the 2011 Conference on Parks, Protected Areas, and Cultural Sites." Note that it is a 423-page volume containing 71 papers from the conference last year in New Orleans, but each section can be downloaded individually. Topics include fire, climate change, ecotourism, and much more.  
<http://www.georgewright.org/proceedings2011>

## **MORE FROM NCSR**

### **Curriculum Development and Application Guides**

The Northwest Center for Sustainable Resources offers these guides designed to assist educators in the development of curriculum and the application of supporting instructional technology. The *Toolbox for Curriculum Documentation and Testing* is intended to assist faculty in documentation and testing of their instructional materials and is adaptable to newly developed materials as well as to revision of existing materials. Chapters include protocol development, documentation, and testing. *Imaging Technology Using Google Earth and NASA World Wind* provides guidance on using these tools in teaching and includes instruction in navigating the programs. Other materials include a Student Questionnaire – Science as a Process and a Natural Resource Education Student Outreach and Recruiting presentation.

<http://www.ncsr.org/materials/CurriculumDevelopmentandApplicationGuides2.html>

## **WEBSITE OF THE MONTH**

### **EROS Image Gallery Collections**

This collection of images from USGS' Earth Resources Observation and Science division, records events of historic significance, beautiful sights, and images that stir the imagination. Check out the ongoing series, Earth as Art (now on collection 3); the Image of the Week with side-by-side satellite images from different dates; and more. The images can be downloaded, or a hard copy ordered from the USGS. Note that free registration may be required for downloading and the files may be large.

<http://eros.usgs.gov/imagegallery/>

## **MESSAGE FROM THE BRIDGE**

### **The Bridge at NSTA**

The Bridge is headed to the National Science Teachers Association annual conference, March 29-April 1, 2012 in Indianapolis, Indiana. The Bridge will be on display at the National Marine Educators Association (NMEA)'s Whale of a Tale Share-a-thon on Thursday, March 29 from 8:00–9:00 AM in the Westin Indianapolis Grand Ballroom 5. Join them also on Saturday for a demonstration of the data-based lesson plan "Sea Level Trends" as part of the Centers for Ocean Sciences Education Excellence (COSEE) track. This presentation will be Saturday, March 31 at 10 am in the JW Marriott Room 312. Check out the activity that they'll be presenting at the conference.

[http://www2.vims.edu/bridge/DATA.cfm?Bridge\\_Location=archive0910.html](http://www2.vims.edu/bridge/DATA.cfm?Bridge_Location=archive0910.html)

<http://www.nsta.org/conferences/2012ind/>

## **REQUESTS**

### **Field-test Opportunity for Science Teachers**

The Biological Sciences Curriculum Study seeks grades 9-12 teachers to field test the online graduate-level course, Energy: A Multidisciplinary Approach for Teachers, designed to enhance teachers' knowledge and practice related to energy concepts. The deadline for application is April 1, 2012.

<http://www.bsccs.org/emat>

## **GRANTS AND OPPORTUNITIES**

### **21st Century Museum Professionals Grants**

The Institute of Museum and Library Services is calling for proposals from museums, museum service organizations, and universities for projects designed to enhance the professional development of museum staff. 21st Century Museum Professionals grants are intended to have an impact on multiple institutions by reaching broad groups of museum professionals throughout the nation. The deadline for application is March 15, 2012.

<http://www.ims.gov/applicants/grants/21CenturyMuseums.shtm>

### **BLUE Ocean Film Festival – Call for Submissions**

The BLUE Ocean Film Festival, September 24-30, 2012 in Monterey, California, is a global film festival and conservation summit for underwater filmmakers and marine researchers. The deadline for submission is March 16, 2012.

<http://blueoceanfilmfestival.org/>

### **Business App Challenge**

The Department of Commerce offers the Commerce Business Apps Challenge to motivate developers to find innovative ways to utilize Commerce and other publicly available data to help businesses identify opportunities, grow, enhance productivity and create jobs. The deadline for entry is April 30, 2012.

<http://docbusinessapps.challenge.gov/>

### **Butler-Cooley Excellence in Teaching Award**

The Turnaround Management Association and the John William Butler Foundation honor exceptional teachers who have changed the outcome of students' lives and the communities in which they live with the Butler-Cooley Excellence in Teaching Awards. The deadline for applications is May 1, 2012.

<http://www.turnaround.org/about/awards.asp>

### **California Sea Grant Funding**

The California Sea Grant College Program is soliciting preliminary proposals for 1-year Special Focus Awards to begin February 1, 2013. Faculty and academic staff from universities and scientists from research institutions throughout California are invited to apply. The deadline for submission is March 15, 2012. See the website for complete details.

<http://www.csgc.ucsd.edu/FUNDING/APPLYING/PRELIMINARY/IndxPrelim.html>

### **Community-based Restoration Grants**

The Nature Conservancy and NOAA offer a restoration matching grants program for innovative restoration project nationwide supporting NOAA trust resources, particularly those projects that have a multi-species benefit or emphasize Ecosystem-Based Management. One area of particular interest is native shellfish restoration projects. The deadline for submission is April 13, 2012.

[http://www.habitat.noaa.gov/pdf/rfp\\_tnc-noaa\\_crp\\_partnership\\_2012.pdf](http://www.habitat.noaa.gov/pdf/rfp_tnc-noaa_crp_partnership_2012.pdf)

### **Craig Tufts Environmental Education Fund**

Family Summits, Inc. and partners offer the annual Craig Tufts Educational Scholarship Award, given to a young person 8-18 years old, to attend a week-long, summer outdoor

educational adventure camp with a parent or guardian. The deadline for application is March 30, 2012.

<http://familysummits.org/craigtufts.php>

### **Dorothy Stout Professional Development Grants**

The National Association of Geoscience Teachers awards grants to K-12 teachers and faculty and students at two-year colleges. The grant supports professional growth in, or classroom teaching of, Earth science. The deadline for application is April 15, 2012.

<http://www.nagt.org/nagt/programs/stout.html>

### **Earth Day Photo Contest**

The Institute for Global Environmental Strategies is holding an Earth Day Photo Contest for students in grades 5-8. During the week of Earth Day, April 16-27, 2012, students should take a photograph of something that is changing in their local environment, then submit the photo and explanation. The deadline for entry is May 11, 2012.

<http://www.strategies.org/education/index.aspx?sub=education&sub2=earthday&sub3=contest2012>

### **EOL Education Innovation Challenge**

The EOL Education Innovation Challenge is an international competition that aims to stimulate the development and implementation of educational software tools, services, games and activities involving the Encyclopedia of Life (EOL). The deadline for submission is March 23, 2012.

<http://eol.org/info/290>

### **GLOBE Earth Day Video Competition**

The GLOBE Earth Day video competition encourages students to create a short video of their classmates exploring and investigating the local climate through data collection and climate-focused GLOBE learning activities. The deadline for submission is March 15, 2012.

<http://globe.gov/scrc/earthdayvideo>

### **Gloria Barron Prize for Young Heroes**

The Gloria Barron Prize recognizes young people, ages 8-18, who have shown leadership and courage in public service to people and the planet. The deadline for nomination is April 30, 2012.

<http://www.barronprize.org/>

### **Humpback Whale Month Ocean Contest**

Students in grades K-8 can participate in the 2012 Humpback Whale Month Ocean Contest by submitting ocean artwork, a poem, or short story to the Hawaiian Islands Humpback Whale National Marine Sanctuary. Students also become members of the Ocean Guardian Kids Club and receive a Humpback Whale Kids Packet. The deadline for submission is March 15, 2012.

<http://hawaiihumpbackwhale.noaa.gov/education/oceancontest.html>

### **ING Unsung Heroes Awards**

The ING Unsung Heroes program helps K-12 educators and their schools fund innovative classroom projects. At least one award will be granted in each of the fifty states, provided one or more qualified applications are received from each state. The deadline for application is April 30, 2012.

<http://ing.us/about-ing/citizenship/childrens-education/ing-unsung-heroes>

### **McCarthy Dressman Teacher Grants**

The McCarthy Dressman Education Foundation partners with individuals to expand educational opportunities for America's youth that inspire students by nurturing their curiosity about the world and their place in it. Funding includes Academic Enrichment Grants and Teacher Development Grants. For both grants, the deadline for application is April 15, 2012.

<http://www.mccartheydressman.org/>

### **Minorities in Scientific Ocean Drilling Fellowship**

The Integrated Ocean Drilling Program is currently accepting applications for the Minorities in Scientific Ocean Drilling Fellowship. The fellowship is open to minority graduate students enrolled in a geoscience or engineering program at any U.S. university or college. The deadline for application is April 30, 2012.

<http://www.oceanleadership.org/education/diversity/minorities-in-scientific-ocean-drilling-fellowship/>

### **Name the Turtle Contest**

The Sea Turtle Restoration Project is sponsoring a Name-the-Turtle Contest for elementary and middle school classes. The winner will be announced by April 1, 2012.

<http://seaturtles.org/article.php?id=2203>

### **NiSource Charitable Foundation Grants**

The foundation funds nonprofit organizations focusing on learning and science education, environmental and energy sustainability, community vitality and development, and public safety and human services in areas served by NiSource. The deadline for application is April 1, 2012.

<http://www.nisource.com/en/sustainability/communities/corporate-giving.aspx>

### **NMEA Stipends and Scholarships**

NMEA's Expanding Audience Committee is seeking nominations for the 2012 Expanding Audience Stipend Awards, which aims to recruit and assist individuals from groups underrepresented in science or those who serve underrepresented or underserved audiences, to become a part of the NMEA family. NMEA also offers additional conference scholarships. The deadline for application is April 15, 2012.

<http://www.marine-ed.org/scholarships-stipends.html>

### **Nominate a Champion of Change**

The White House Champions of Change program highlights examples of citizens doing extraordinary things to make a difference in their communities.

<http://www.whitehouse.gov/champions/nominate>

### **North Face Explore Fund**

The North Face Explore Fund grant program supports non-profit organizations that encourage youth outdoor participation, focusing primarily on creating more connections between children and nature, increasing access to both front and back country recreation as well as providing education for both personal and environmental health. The deadline for application is April 6, 2012.

<http://www.explorefund.org/>

### **NSTA New Science Teacher Academy Fellowships**

NSTA fellowships offer grades 6-12 teachers in their second or third years of teaching a year-long immersion in a host of science-related activities and professional development opportunities. See the website for details.

<http://www.nsta.org/academy/>

### **Presidential Award for Excellence in Mathematics and Science Teaching**

NSF is now accepting nominations for the 2012 Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST). This year, the award will recognize outstanding mathematics and science teachers in grades K-6 for their contributions to improving teaching and learning. The deadline for nomination is May 1, 2012.

<https://www.paemst.org/>

### **Project Blue Planet**

This contest from the Smithsonian National Zoological Park and partners challenges kids nationwide to get their schools and communities involved to improve the environment for marine life. Depending on the school's environmental priorities, there are four ways to achieve a "Seal" of Approval. Project categories include waste, energy, habitat, and lifestyle. The project deadline is June 1, 2012.

<http://nationalzoo.si.edu/Education/BluePlanet/default.cfm?fonzref=makewaves.htm>

### **Project Earth 2012 Earth Day Contest**

Students, teachers, classes, or schools participating in an environmental activity that involves K-12 students are invited to share their environmental efforts and enter the project into the Project Earth 2012 U.S. Earth Day Contest. The deadline for entry is April 15, 2012.

<http://www.projectearth.net/Competition/Details/6e9e3c01-eb56-4408-b71a-4a4e02d9d45f>

### **Rachel Carson Silent Spring Essay Contest**

The Rachel Carson Center is soliciting essays from students and the public ages 13 and above that analyze the impact and reception of the book, Silent Spring, as well as Carson's legacy. The deadline for submission is March 15, 2012.

<http://eelinked.naaee.net/n/eelinked/posts/Silent-Spring-Essay-Contest>

### **Sea Turtle Conservation Fund**

The National Fish and Wildlife Foundation announces the availability of matching grant funding for sea turtle conservation projects in the Western Hemisphere. The full RFP for the Fall 2012 funding cycle will be posted soon. The deadline for pre-proposals is April 1, 2012. A webinar to discuss the new priority areas will be held March 5, 2012.

<https://www1.gotomeeting.com/register/388426688>

[www.nfwf.org/seaturtle](http://www.nfwf.org/seaturtle)

### **SeaWorld & Busch Gardens Environmental Excellence Awards**

SeaWorld Parks & Entertainment recognize the outstanding efforts of K-12 students and teachers across the country who are working at the grassroots level to protect and preserve the environment. Hurry - the deadline for nomination is March 5, 2012.

<http://www.seaworld.org/conservation-matters/eea/individual-awards.htm>

### **Service Learning Funding Opportunities**

The National Service-Learning Clearinghouse offers Current Funding Opportunities, a listing of current funding opportunities in the service-learning and national service communities.

<http://www.servicelearning.org/funding-opportunities>

### **State Farm Youth Advisory Board Grant Program**

The State Farm Youth Advisory Board Grant Program funds student-led service-learning projects throughout the U.S. and Canada. Specific areas of interest include natural and societal disasters, environmental responsibility, and more. Educators interacting with students in public K-12 schools are eligible to apply. The deadline for application is May 4, 2012.

<http://www.statefarmyab.com/apply/national-grants/>

### **State-Fish Art Project**

The Wildlife Forever State-Fish Art Project challenges young artists to create an illustration of their state fish and a written composition on its behavior, habitat, and efforts to conserve it. The deadline for entry is March 31, 2012.

<http://www.wildlifeforever.org/contest/new2012>

### **Teams that Make a Difference Awards**

Pearson Education and the Association for Middle Level Education offer the Teams that Make a Difference awards program that identifies teams of teachers, parents, community members, and others who have created a program, activity, or strategy that focuses on student achievement or connects students with their communities. The deadline for application is April 15, 2012.

<http://www.amle.org/AboutNMSA/Awards/TeamsthatMakeaDifference/tabid/407/Default.aspx?PageContentID=82>

### **ThinkQuest Competition**

This competition challenges students to apply their critical thinking, communication, and technology skills to solve a real-world problem. Participants may enroll in one or more of the following competition events: Projects, Digital Media, and Application Development. The deadline for entry is April 25, 2012.

<http://www.thinkquest.org/competition/>

### **TogetherGreen Innovation Grants**

The TogetherGreen Innovation Grants supports conservation partnerships that engage diverse communities and find innovative solutions to environmental challenges. The deadline for application is April 2, 2012.

<http://www.togethergreen.org/grants/>

## **CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT**

### **Aquaponics and Quest Workshops - Maine**

Herring Gut Learning Center offers two aquaponics teacher workshops, July 10-12 and July 17-19 in Port Clyde, Maine. Participants receive teacher training in aquaponics using Herring Gut's small-scale commercial aquaponics greenhouse and hatchery; a complete classroom kit including tank, filter, pumps, planting materials and an operating

manual; standards-based curriculum materials, and more. In addition, a new course, Classroom Quests, will be offered July 24-26, 2012. Both courses provide detailed instruction in how to successfully run a classroom project that integrates science and math with language arts and other subjects. The deadline for application is May 31, 2012.

<http://www.herringgut.org/summerworkshopsdetail.html?id=1>

### **Climate Change Education Professional Learning Community - Online**

NAAEE is supporting a new Professional Learning Community on climate change education. The sessions start March 15, 2012 and will take place the first and third Thursdays of each month.

Contact Karen Hollweg at [khollweg@naaee.net](mailto:khollweg@naaee.net)

### **Coastal Ecosystems Long Term Ecological Research Program – Georgia**

The Georgia Coastal Ecosystems Long Term Ecological Research Program studies how long-term changes caused by climate change, sea level rise, and human alterations of the landscape affect coastal ecosystems. The Schoolyard Program, July 8-13, 2012 on Sapelo Island, Georgia, provides in-service training for K-12 educators in field ecology, immersing science and math teachers in hands-on research activities in the field to enable them to bring lessons and actual research data back to the classroom. Apply early; expenses are covered by a grant.

<http://www.marex.uga.edu/aquarium/teacherWorkshops.html>

### **Coastal Marine Sciences Workshop - Maryland**

The University of Maryland Eastern Shore offers a free annual CMARS Teacher Development Workshop for grades 6-12 educators, July 15-28, 2012 in Princess Anne and Berlin, Maryland. The deadline for application is March 30, 2012.

<http://www.umes.edu/CREST/Default.aspx?id=33372>

### **Earth Ambassador Training Program for Informal Educators - Online**

Informal educators are invited to apply to the Earth Ambassador Program, part of NASA Climate Day. Earth Ambassadors are committed to the support of a series of nationwide NASA Climate Day events hosted at their institution using the NASA Climate Day Kit containing educational and public outreach resources. The free virtual workshop will take place June 4-15, 2012; the deadline for application is March 5, 2012.

<http://bit.ly/NCDapp>

### **EISTA 2012 - Call for Papers**

The deadline for submission of draft papers for the International Conference on Education and Information Systems, Technologies and Applications: EISTA 2012, July 17-20 in Orlando, Florida, is March 7, 2012.

<http://www.2012iisconferences.org/eista>

### **Global Youth Leadership Institute - Connecticut**

The Global Youth Leadership Institute is offering a Middle School Leadership Institute, August 1-5, 2012 in Stonington, Connecticut. Middle school students and faculty from across the country and from overseas are welcome. Scholarships may be available.

<http://www.gyli.org/index.php?cid=9>



### **Green Eggs & Sand Workshop – Massachusetts and Georgia**

The Green Eggs & Sand workshop is designed to explore the Atlantic Coast horseshoe crab/shorebird phenomenon and management controversy.

- May 4-6, 2012 in Savannah, Georgia; space is limited and registrations are made first-come-first-serve
- June 1-3, 2012 in Cape Cod, Massachusetts; the deadline for registration is May 1, 2012

<http://www.marex.uga.edu/aquarium/teacherWorkshops.html#GEAS>

[http://www.massaudubon.org/catalog/listing.php?program\\_code=1087-WF12SP1](http://www.massaudubon.org/catalog/listing.php?program_code=1087-WF12SP1)

### **International Symposium on the Ocean in a High-CO2 World**

The Monterey Bay Aquarium Research Institute will support the attendance of up to ten educators at the upcoming Third International Symposium on the Ocean in a High-CO2 World, September 24-27, 2012 in Monterey, California. The symposium will offer scientists working to understand ocean acidification opportunities to share their research results and develop new research collaborations; hundreds are expected to attend. Registration and other expenses will be covered; travel and housing costs will not. The deadline for application is March 31, 2012.

<http://www.mbari.org/education/highco2/educators.htm>

<http://www.highco2-iii.org/main.cfm?cid=2259>

### **LiMPETS Workshops - California**

Join the staff of the Farallones Marine Sanctuary Association in these upcoming professional development workshops in San Francisco.

- Advanced LiMPETS Rocky Intertidal Data Analysis for the Classroom Workshop, March 7, 2012
- LiMPETS Introduction to Sandy Beach Monitoring Workshop, March 17, 2012

[http://farallones.org/education/teacher\\_workshops\\_limpets.php](http://farallones.org/education/teacher_workshops_limpets.php)

### **National Association for Interpretation Workshop**

The call for presentations is open for the National Association for Interpretation's (NAI) annual meeting, November 13-17, 2012 in Hampton, Virginia. The deadline for proposals is March 31, 2012.

[http://www.interpnet.com/workshop/cfp\\_nai2012.html](http://www.interpnet.com/workshop/cfp_nai2012.html)

### **National Environmental Summit for High School Students – North Carolina**

The Center for the Environment will host a National Environmental Summit for High School Students, July 9-14, 2012 in Salisbury, North Carolina. A limited number of full and partial scholarships are available.

<http://www.centerfortheenvironment.org/redesigning-our-future.html>

### **NEOSEC Café - Online**

The NEOSEC Café is a monthly, virtual reading club that doubles as an informal professional development opportunity. This initiative aspires to share current literature related to research and practice in marine education with colleagues by conference call. Each call is hosted by a NEOSEC (New England Ocean Science Education Collaborative) member representative who will present a summary of the reading and lead a discussion. The café is the second Wednesday of the month; the next call is scheduled for March 14, 2012.

Contact Carole McCauley at [C.McCauley@neu.edu](mailto:C.McCauley@neu.edu)

### **NMEA - Call for Research Posters**

The National Marine Educators Association will host an education research poster session at the 2012 National Marine Educators Conference, *North to Alaska's Seas: a Confluence of Science and Culture*, June 24-28, 2012 in Anchorage, Alaska. Graduate students are encouraged to apply. The deadline for submission is March 12, 2012.

<https://docs.google.com/spreadsheet/viewform?formkey=dEVTcDBRTGg1MGcyWkFRSWo0VGtQU3c6MQ#gid=0>

### **NOAA EPP Education and Science Forum**

The Sixth Biennial Education and Science Forum, March 26—28, 2012 in Tallahassee, Florida, is jointly sponsored by Florida A&M University and NOAA's Office of Education Educational Partnership Program (EPP). EPP supports development of a diverse STEM future workforce that directly supports the NOAA mission and expands opportunities for innovation and U.S. global competitiveness.

<http://www.ecsc.famu.edu/2012/forum.html>

### **Ocean Exploration Workshop - Connecticut**

NOAA's Ocean Exploration Program and partners offer the Okeanos Explorer Education Materials Collection, Volume 1: Why Do We Explore? Professional Development Workshop for Educators, May 12, 2012 with Mystic Aquarium in Mystic, Connecticut. The deadline for registration is April 27, 2012. Participants will receive curriculum with CD-ROM's, certificates of participation, and more.

Contact the Reservations Department at [reservations@mysticaquarium.org](mailto:reservations@mysticaquarium.org)

<http://oceanexplorer.noaa.gov/edu/development/development.html>

### **Professional Science Master's Degree Program - Online**

The University of Maryland Eastern Shore's Professional Science Master's degree programs provide an alternate professional career path for bachelor's degree holders in the STEM disciplines. They are recruiting students with strong quantitative backgrounds for admission into the Professional Science Master's Degree Program in Quantitative Fisheries as well as Resource Economics. Courses are offered online.

<http://www.umes.edu/psm/Default.aspx?id=30892>

### **Project WET Conference - Request for Presentations**

The Project WET USA conference team requests proposals for presentations that focus on school districts in partnership with local organizations to provide a community-based approach to water education. The goal of the conference, May 23-25, 2012 in Bridgewater, Massachusetts, is to increase the knowledge and capacity of conference participants to effectively reach children, parents, educators, and communities of the world with water education. The deadline for submission is March 31, 2012.

<http://www.bridgew.edu/wal/>

### **Sea Turtle and Diamondback Terrapin Conservation Teacher Workshop - Georgia**

Join biologists from Georgia and South Carolina who will share their knowledge of the anatomy and life history, conservation, and management of the Loggerhead Sea Turtle and Diamondback terrapin in this workshop, June 4-8, 2012 on Sapelo Island, Georgia. Participants receive curriculum and resource materials. The deadline for registration is May 1, 2011.

Contact Georgia Graves at [georgiabeachwalk@bellsouth.net](mailto:georgiabeachwalk@bellsouth.net)

### **Sea TURTLE Program for Students - Massachusetts**

The New England Aquarium offers the Sea TURTLE (Teen Underwater Research, Training and Learning Expedition) program for students in grades 10-12. Students earn Open Water SCUBA diving certification, immerse themselves in the marine biology of New England, and test their diving skills on a local overnight expedition. Need-based scholarships are available for a limited number of applicants. The deadline for application is April 2, 2012.

[http://www.neaq.org/education\\_and\\_activities/programs\\_and\\_classes/teen\\_programs/Sea\\_TURTLE.php](http://www.neaq.org/education_and_activities/programs_and_classes/teen_programs/Sea_TURTLE.php)

### **Spring Workshops - California**

The Exploratorium Teacher Institute in San Francisco is offering field workshops for middle and high school science teachers, February 18, March 17, and April 21, 2012. Explore a part of the California's watershed through hands-on experiences while cruising on the Marine Science Institute's 90-foot research vessel.

[http://www.exploratorium.edu/teacher\\_institute/](http://www.exploratorium.edu/teacher_institute/)

### **Stone Laboratory Summer Courses – Ohio**

Stone Laboratory, Ohio State University's island campus on Lake Erie, offers science courses each summer for educators, advanced high school students, undergraduate, and graduate students. Teachers can learn innovative ways to incorporate Great Lakes science into their classrooms. Educator courses include Climate Change Education, Principles of Oceanography for Educators, Field Ecology, and much more. Scholarship funds may be available. Hurry – some deadlines for application to the courses are mid-March and for scholarship aid, March 13, 2012.

<http://stonelab.osu.edu/>

### **Submerged Cultural Resources Awareness Workshop - Tennessee**

The Advisory Council on Underwater Archaeology will hold a Submerged Cultural Resources Awareness Workshop at the annual meeting of the Society for American Archaeology, April 18-22, 2012 in Memphis, Tennessee. The workshop introduces terrestrial archeologists, land managers, and regulatory agencies to basic concepts in underwater archeology in order to knowledgeably address and respond to underwater cultural resource issues. The deadline for advanced registration rates for the meeting is March 17, 2012.

<https://ecommerce.saa.org/saa/source/meetings/meetingshome.cfm?section=events>

### **Summer Programs – Alabama**

Dauphin Island Sea Lab Discovery Hall Programs promote conservation through education, research, and outreach. Through hands-on activities in vibrant marine habitats, people can see the impact of science on their daily lives.

#### *Students*

- Barrier Island Explorer, for rising 5th-6th grade students; June 10-13, June 24-27, July 29-August 1, 2012
- Gulf Island Journey, for rising 7th-9th grade students; June 3-8, June 10-15, July 8-13, July 22-27, 2012
- High School Summer Course, for rising 10th-12th grade students; June 17-July 13, 2012. The deadline for application is April 13, 2012

*Teachers – all programs are fully sponsored; registration fees may apply*

- Mouth of the South: The Mobile-Tensaw Delta; June 3-7, 2012. The deadline for registration is May 11, 2012
- Reefs, Rhizomes and Restoration; June 17-21, 2012
- Fins, Fishes and Fisheries; July 15-19, 2012
- Climate Change in the Gulf of Mexico; July 17-20, 2012

See the website for details and for additional programs, including day camps and field trips.

<http://dhp.disl.org/>

### **Teachers on the Estuary Workshops – Various**

Three National Estuarine Research Reserves (NERRs) are offering Teachers on the Estuary (TOTE), a free four-day research and field-based workshop geared towards middle and high schools teachers. The workshops provide resources and hands-on experiences to support the incorporation of estuary and watershed topics into classroom teaching. Participants will work with local scientists and coastal educators to explore estuary habitats, practice scientific field activities, and bring data into the classroom. The deadline for application is April 29, 2012.

- Massachusetts: July 9-12, 2012 plus follow-up session
- Alabama: July 31- Aug.3, 2012
- Rhode Island: August 9-12, 2012 plus follow-up session

<http://estuaries.noaa.gov/GetInvolved/Default.aspx?id=401>

### **Wilderness Training - Online**

Free, on-line courses are offered by Arthur Carhart National Wilderness Training Center. Courses include Natural Resource Management in Wilderness, Managing Cultural Resources in Wilderness, and more. Registration is open; prerequisites may be required.

<http://carhart.wilderness.net/>

## **EDUCATIONAL RESOURCES**

### **Aquarium Lecture Series - Massachusetts**

The New England Aquarium offers a free lecture series in Boston, Massachusetts; registration is requested. Upcoming lectures cover sea-level changes, penguins, sea turtles, and more. Archived lectures are available online through WGBH.

[http://www.neaq.org/education\\_and\\_activities/programs\\_and\\_classes/aquarium\\_lecture\\_series/index.php](http://www.neaq.org/education_and_activities/programs_and_classes/aquarium_lecture_series/index.php)

### **California Tidepools App**

Created by the Channel Islands National Marine Sanctuary and partners, this free iPhone app teaches about the creatures that live in California tidepools. The database contains photos, common and scientific names, habitat, eats and eaten by, fun facts, frequently asked questions, and more.

<http://itunes.apple.com/app/california-tidepools/id497631839?mt=8>

### **Career Development Webinar Series**

The Association of Polar Early Career Scientists is currently working with mentors and partners to develop a webinar series for members in order to assist them with their career development goals. You can register for upcoming free webinars or view

archived recordings from the "Watch Past Webinars" page. Check out Making Science Animations, register for Getting Your Message Across, and more.

<http://apecs.is/webinars>

### **Climate Change Articles**

Taylor & Francis Online offers online access to abstracting and journals. Inspired by the Durban 2011 climate change conference, they have handpicked a selection of articles on climate change from a wide range of journals and offer access to them for free. Journals include English Studies, Polar Geography, Journal of Land Use Science, and many more. Free registration is required.

<http://www.tandfonline.com/page/climate-2012>

### **Coastal and Marine Geology Program**

The USGS Coastal and Marine Geology Program website offers overviews of a range of topics from El Nino to sea-level change, pollution to corals, and more. The drop down Content Type menu includes Educational Materials. The resources include summaries of reports and projects along with numerous additional links. It may take a bit of searching to find exactly what you need, but it can be worthwhile. One link took me to the USGS Coastal and Marine Knowledge Bank, an initiative to develop and present a national-scale, interdisciplinary scientific framework for marine environments, the coastal zone, and coastal watersheds.

<http://marine.usgs.gov/index.php>

### **Comparing Oceans**

This website from NASA's Learning from Satellites features a variety of classroom activities and lessons that compare the world's oceans. Activities include The Gulf of Maine, Satellite Comparisons, Design a Fish, Ocean Soundings, and more. Discover why weather at identical latitudes is not always the same, learn the different ways whales eat, and find out the temperature difference between the Gulf Stream and surrounding water. Space Available offers information for teachers on how satellites work.

<http://octopus.gma.org/surfing/ocean/index.html>

### **Conservation Partnerships**

The Nature Conservancy supports this online resource center to help conservation practitioners learn how to create and manage more effective partnerships for greater conservation impact. The website leads users through six interactive lessons, addressing such questions as "Do I need to partner?", "How do I negotiate a partnership?", "How do we implement our joint work most effectively?", and more. The website also hosts a searchable library of reports, case studies, and sample documents on how to put partnership concepts into action.

<http://www.conservationpartnerships.org/>

### **Cool the Earth**

Cool The Earth is a free, ready-to-run climate change assembly program that educates K-8 students and their families about climate change and aims to inspire them to take simple actions to reduce their carbon emissions.

<http://cooltheearth.org/our-program/>

### **DiveSelector**

The intention of DiveSelector.com is to compare diving destinations based on specific criteria in the hopes that divers could select destinations where the quality is highest and result in a shift in diver demand, causing destinations to make extra effort to protect their environment as a way to attract divers. Current data is based upon limited survey results; fill out a survey about your latest diving trips.

<http://diveselector.com/>

### **EE Week**

The EE Week 2012 Promotional Toolkit offers participants an easy way to share information about EE Week, April 15-21, and the 2012 theme, *Greening STEM: The Environment as Inspiration for 21st Century Learning*. Sign up for the webinar, Technology Goes Wild: New Tools for Connecting Classrooms with Nature, March 14, 2012.

<http://eeweek.org/>

### **Encyclopedia of Life Collections**

Explore the current collections on the Encyclopedia of Life website. Users have organized lists of species, information, media, and more into a virtual collection that can be annotated and shared. Check out best images, illustrations, morphology, and more.

[http://eol.org/info/discover\\_collections](http://eol.org/info/discover_collections)

### **Fishinars**

REEF sponsors this series of short, free webinars to help teach the finer points of identifying fish and invertebrates underwater. Upcoming topics include parrotfish, Hawaii's top 15, and Caribbean fish. Archived episodes are available. Free registration is required.

<http://www.reef.org/resources/webinars>

### **FLASH Ocean Science Videos**

COSEE Florida is working with ocean scientists to create short FLASH (FLorida Aquatic Science Heroes) video presentations featuring their research. The videos are designed to serve as resources for middle and high school instruction. They are available through YouTube and TeacherTube, and each is accompanied by additional teacher resources.

<http://www.coseeflorida.org/Initiatives/community/FLASH1/>

### **GIS and Problem-Based Science in the Classroom**

Foothill College has partnered with San Jose State University to bring web mapping technology to the high school and college classroom. The website includes two GIS modules, *An Introduction to GIS on the Web* and *Water and Fish*. There are sample exercises, PowerPoints, teacher resources, background materials on biodiversity, and more.

<http://www.foothill.edu/fac/klenkeit/nsf/>

### **Great Southern Coccolithophore Belt Expedition**

Follow this team of international researchers as they conduct fieldwork in the Southern Ocean, February 18-March 23, 2012. Scientists are investigating a phytoplankton feature known as the Great Southern Coccolithophore Belt, an area with an unusually high population of a type of calcifying phytoplankton. The belt stretches around the entire Southern Hemisphere.

<http://greatbeltresearchcruise.com/>

### **Green Teacher Webinars**

The free Green Teacher webinar series has resumed for 2012. Upcoming topics include climate change education, March 8, 2012, and schoolyards re-imagined, March 27, 2012.

<http://www.greenteacher.com/webinars.html>

### **Illinois-Indiana Sea Grant Program Resources**

The Illinois-Indiana Sea Grant Program combines research, education, and outreach to empower southern Lake Michigan communities to secure a healthy environment and economy. Their education efforts include aquatic invasive species, fish consumption, water quality, and more. Check out the free lesson plans, including The ABCs of PCBs, Nab the Aquatic Invader! and more.

[http://www.iisgcp.org/education/topics\\_education.html](http://www.iisgcp.org/education/topics_education.html)

### **Interactive Media Tutorials**

The Interactive Media Center at the State University of New York, University of Albany offers a series of online reference resources and web-based tutorials designed to aid people involved with web page building, image editing, audio and video projects, and electronic publishing. Topics include Tips to Better Digital Photos, Photoshop CS4: Basic Tips & Tricks, Web Design and Layout Tutorial, Search Engine Optimization, and more.

[http://library.albany.edu/imc/tutorials\\_handouts.htm](http://library.albany.edu/imc/tutorials_handouts.htm)

### **IOOS Websites**

Check out the updated Integrated Ocean Observing System websites. The Gulf of Mexico Coastal Ocean Observing System, Central and Northern California Ocean Observing System, and Great Lakes Observing System - regional entities of the U.S. Integrated Ocean Observing System (IOOS) - have new websites to provide better and easier access to data. The Gulf of Mexico website includes map layers to show nautical charts, marine hazard warnings, and habitat maps such as essential fish habitat and marine protected areas. Great Lakes offers access to the Great Lakes Data Catalog. California has a new graphing system with quicker data plots and depth measurements.

<http://www.ioos.gov/>

<http://gcoos.tamu.edu/products/>

<http://204.115.180.244/CeNCOOS/DataPortal.html>

<http://www.glos.us/>

### **Journey North**

Journey North has launched for 2012; explore the interrelated aspects of seasonal change. Check out the free app for mobile phones and report your own observations.

<http://www.learner.org/jnorth/season/>

<http://www.learner.org/jnorth/mobile/index.html>

### **Living Edens**

This website for the PBS series, The Living Edens, offers a variety of free educational materials meant to accompany the individual programs, but which can be useful stand-alones. There are teacher resources, featured creatures, and individual profiles from each shoot. Check out Palau, with the Aquatic Classroom and Under the Sea; Madagascar, with Eden Evolution and Classroom Resources; and much more.

<http://www.pbs.org/edens/>

### **Marine Debris Monitoring Field Guide**

The NOAA Marine Debris Program provides information to individuals or groups interested in undertaking shoreline monitoring studies for Japan tsunami marine debris. Request a copy of the Shoreline Survey Field Guide and electronic data sheet.

Contact [MD.monitoring@noaa.gov](mailto:MD.monitoring@noaa.gov)

<http://marinedebris.noaa.gov/info/japanfaqs.html>

### **Marine Ecosystem Illustrations**

National Geographic offers two new sets of marine ecosystem illustrations, free and downloadable from the National Geographic Education website. Ecosystems include abyssal plain communities, antarctic, arctic, abyssal water column, hydrothermal vents, kelp forest, mangroves, open ocean, coral reefs, rocky shores, and sandy shores.

[http://education.nationalgeographic.com/education/multimedia/marine-ecosystem-illustrations-grades-3-5/?ar\\_a=1&ar\\_r=999](http://education.nationalgeographic.com/education/multimedia/marine-ecosystem-illustrations-grades-3-5/?ar_a=1&ar_r=999)

[http://education.nationalgeographic.com/education/multimedia/marine-community-illustrations-grades-9-12/?ar\\_a=1](http://education.nationalgeographic.com/education/multimedia/marine-community-illustrations-grades-9-12/?ar_a=1)

### **Microdocs**

Produced through Stanford University and Garthwait & Griffin films, Microdocs - Short Attention Span Science Theater offers short science videos about ecological sustainability topics, including whales, coral reefs, tidepools, and more. Check out the latest videos (including Ocean Babies on Acid), teacher resources, Solutions Around the World, and more.

<http://www.microdocs.org/>

### **Ocean Mysteries**

Georgia Aquarium launched an educational TV series on ABC stations, Ocean Mysteries with Jeff Corwin. Accompanied by experts from Georgia Aquarium, animal expert Jeff Corwin uncovers the secret world of aquatic environments. Created specifically for learning and featuring 22 original episodes in the first season, it is the Aquarium's hope that teachers will use the series and its curriculum to enhance learning and inspire interest in caring for and conserving aquatic animals around the world. Check out the teachers guides.

<http://www.georgiaaquarium.org/ocean-mysteries/>

### **Ocean Sciences Quiz**

The National Ocean Sciences Bowl and the MIT Sea Grant College Program has developed an online game to promote ocean literacy and engage students, teachers, and teams worldwide. The single-player version of the Ocean Sciences Quiz is now available to play online; the multi-player mode will be available later this spring.

<http://osq.mit.edu/>

### **One World One Ocean Online Ocean Series**

One World One Ocean offers a look into a wide range of ocean topics with video tailored for all audiences. Topics include news, expeditions, and more. Series include: The Weekly Dive, Boat to Belly, Artists & Oceans, and Ocean Heroes.

<http://www.oneworldoneocean.org/>



### **Predicting Seasonal Weather**

This special report from the National Science Foundation investigates how atmospheric oscillations play a part in controlling the weather on a seasonal time scale. Sections cover real-time weather forecasts, the creation of a more effective prediction model, and a demonstration of the new model.

[http://www.nsf.gov/news/special\\_reports/autumnwinter/intro.jsp](http://www.nsf.gov/news/special_reports/autumnwinter/intro.jsp)

### **Science Oxford Live**

Science Oxford Live offers podcasts on a wide range of science topics. Archived topics include Worst Science, FameLab (the search for the new faces of science communication), Earth's Changing Climate, Biodiversity, and many more. Sign up for the newsletter to find out about upcoming events.

<http://www.scienceoxfordlive.com/watch-us>

### **SeaWorld Resources**

SeaWorld provides teachers with information and activities that can motivate students to conserve wildlife, the oceans, and the natural world. Teachers can download Teacher Guides and classroom activities. Information about animals includes Animal InfoBooks for in-depth information about many species and issues, and Animal Bytes for quick information and fun facts about animals. There's also an Animal Sounds Library, and Wild World with information about grass land, tide pool, and tropical forest ecosystems.

<http://www.seaworld.org/just-for-teachers/index.htm>

### **Shorefishes of the Tropical Eastern Pacific**

This database offers information about the distributions of shallow-water shore fishes from the Tropical Eastern Pacific biogeographic region. Users can identify and generate publishable maps for more than 1000 tropical eastern Pacific shore fish species. The database is available online and through a free iPhone app.

<http://biogeodb.stri.si.edu/sfstep/>

<http://itunes.apple.com/ca/app/fishes-east-pacific.-an-identification/id494644648?mt=8>

### **Social Media and Marine Ecosystems and Management**

The February issue (MEAM, Vol. 5, No. 4) of the Marine Ecosystems and Management newsletter offers several perspectives on the use of new media tools in ecosystem based management and marine spatial planning. These include documenting illegal fishing activity using smartphones, using web-based training, a cartoon guide on marine spatial planning, online fundraising, and more. Check out the current issue and watch for more in the future.

<http://depts.washington.edu/meam/issues.html>

### **STATellite**

STATellite, the newsletter of the Science Teachers Association of Texas published in February, June, August and December, can be read or downloaded from the Internet. The current issue offers teaching tips about how to engage your students with smart phones, using social media, and more.

<http://www.statweb.org/statellite>

### **TED Talks**

Be sure to check out TED Talks on a regular basis. TED (Technology, Entertainment, Design) – Ideas worth spreading, offers “riveting talks by remarkable people, free to the

world (in 18 minutes)”. Each talk offers an interactive transcript and subtitles. You can view them by the latest, funniest, most jaw-dropping, and more.

<http://www.ted.com/>

### **Volcanism and Landslides**

Follow along with scientists on the JOIDES Resolution Expedition 340: Lesser Antilles Volcanism and Landslides, March 6-April 17, 2012. The website will host mission blogs, videos, links to educational resources, and more. Schedule a live video broadcast with your students or other groups; sign up today.

<http://joidesresolution.org/node/2219>

### **Wilderness Curriculum**

The Wilderness Education Training Manual Series from the Arthur Carhart National Wilderness Training Center offers educators free curriculum, overheads, and other materials. The Wilderness and Land Ethic Curriculum is available for K-8 and 9-12.

<http://carhart.wilderness.net/index.cfm?fuse=curriculum>

### **World of Fresh Water**

This downloadable document from the EPA offers activities designed primarily for students in grades 4-6, though most are adaptable for older age groups. They address a spectrum of freshwater research efforts ranging from the methods used in collecting samples to ecosystem-level studies. Chapters include Water Facts and Usage, Ecosystems, Water Pollution, and Collecting, Sampling & Keeping Aquatic Organisms.

<http://www.pinellas.wateratlas.usf.edu/upload/documents/Freshwater%20Research.pdf>

## **INITIATIVES, JOURNALS, and MORE**

### **Converge Magazine: Technology in Education**

The Center for Digital Education offers the online magazine, *Converge*, about the convergence of education and technology. In addition to the regular features, it offers quarterly themed Special Reports, including Digital Teaching and Professional Development, Mobility and Security, and more.

<http://www.convergemag.com/>

### **Girl Scouts Forever Green**

Girl Scouts Forever Green, Girl Scouts’ 100th Anniversary Take Action Project, is a global effort by girls to lead their families, schools, and communities in improving the environment and protecting natural resources. The initiative invites girls to engage others in taking action on three month-long projects in February, March, or April - Reduce Waste, Earth Hour, and Rain Gardens - and throughout the year.

<http://www.girlscouts.org/geforevergreen/>

### **GLOBE at Night Campaign**

Participate in GLOBE at Night, March 13-22 and April 11-20, a citizen-science campaign to raise awareness of the impact of light pollution by inviting citizen scientists to measure their night sky brightness and report their observations to a website from a computer or smart phone. The website includes activity packets, instructions, and more.

<http://www.globeatnight.org/>

### **MPA Enforcement International**

MPA Enforcement International, LLC is a newly formed for-profit marine resource protection consulting and training firm. Comprised of staff with diverse expertise, MPA Enforcement International's mission is to provide solutions for management and enforcement of marine protected areas anywhere in the world.

<http://www.mpaenforcementinternational.com/>

### **National Wildlife Week**

National Wildlife Week, March 19-25, 2012, is a signature event of the National Wildlife Foundation's Be Out There™ campaign, an initiative to connect families and communities to nature, raise healthier kids, instill a conservation ethic, and inspire a life-long appreciation of wildlife and the environment.

<http://www.nwf.org/Wildlife/Activities/National-Wildlife-Week.aspx>

### **Osprey-Watch**

The Center for Conservation Biology has launched Osprey-Watch, a project created to engage a global community to collect data on breeding osprey. Osprey-Watch is a user-friendly, web-based platform that allows observers across the globe to map their nests, log observations, upload photos, and interact within an observer forum. Information entered into the platform will be immediately accessible to users and will be summarized following the breeding season.

<http://www.osprey-watch.org/>

### **Student Ocean Art Contest**

The Coastal America Student Ocean Art Contest asks students to express through art and an essay, the importance of the ocean as well as their understanding of one or more of the Essential Principles of Ocean Literacy. The 2011-2012 winners will be announced in May; check out the winning entries from last year's contest.

[http://www.coastalamerica.gov/index.php?option=com\\_content&view=article&id=1589&Itemid=215](http://www.coastalamerica.gov/index.php?option=com_content&view=article&id=1589&Itemid=215)

### **Sun-Earth Day**

Sun-Earth Day is comprised of a series of programs and events that occur throughout the year culminating with a celebration on or near the Spring Equinox, March 19, 2012. Check out the lesson plans and activities on this website and through its links to others.

<http://sunearthday.nasa.gov/2012/getinvolved/ed.php>

### **Vischeck**

Vischeck offers a way of showing what things look like to someone who is color blind. You can try Vischeck online or download programs to run on your own computer. The website also offers Daltonize to allow for color blind image correction.

<http://www.vischeck.com/vischeck/>

### **World Water Day**

World Water Day, March 22, 2012, focuses attention on the importance of freshwater and advocates for the sustainable management of freshwater resources. This year's theme is Water and Food Security.

<http://www.unwater.org/worldwaterday/>