

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
INFORMATION EXCHANGE FOR MARINE EDUCATORS

APRIL 2009

This update is funded by the National Marine Sanctuaries Foundation in partnership with NOAA's Ocean Exploration and Research Program, with additional support from the Office of Education and 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, CREEC, the Scout Report, edinfo at FREE, 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.

To subscribe to this distribution list, send a blank message to requests@willamette.nos.noaa.gov with "subscribe infoexchange" in the subject field. Similarly, to remove yourself from the list, send the subject "unsubscribe infoexchange".

Collected archives of the information presented in past newsletters are available at http://mpa.gov/helpful_resources/education_training.html. Contact the editor directly at phyllis.dermer@noaa.gov, or by phone at (865) 932-5074, to discuss further enhancements or to contribute information for future issues.

Notable References

Coastal Heritage

Coastal Heritage is a quarterly publication of the South Carolina Sea Grant Consortium, a university-based network supporting research, education, and outreach to conserve coastal resources and enhance economic opportunity for the people of South Carolina. Each issue is accompanied by Curriculum Connection guides, which offer focus questions, links to in-depth information, educational activities and resources, and more. The latest issue is *Cold-Water Corals: Ancient life in the deep, dark sea*. You can access the latest issue along with complete archives from the website.

<http://www.cosee-se.org/teacher/?join=209>

The Economic and Market Value of Coasts and Estuaries: What's At Stake?

The book, *The Economic and Market Value of America's Coasts and Estuaries: What's at Stake*, examines the economic value of our coasts and estuaries with an eye to understanding the economic benefits of protecting and restoring America's coasts and estuaries. Coasts and estuaries generate both economic value and economic impact. Updates to chapters, new chapters, and links to the types of data found in this book are available online at www.estuaries.org and www.coastalvalues.org.

<http://www.estuaries.org/assets/documents/FINAL%20ECON%20WITH%20COVER%20PDF%205-20-2008.pdf>

Ecosystem Services Report Series

Duke University's Nicholas Institute has launched a new series of reports examining critical issues in ecosystem services. The first two reports in the series focus on valuation, the first under the Wetland Reserve Program, the second focusing on ecosystem service markets as a possible means to achieve biodiversity conservation goals on private lands.

<http://www.nicholas.duke.edu/institute/products.html#>

PROGRAM OF THE MONTH

Audio Guide to Urban Birds: By Students, For Students

This is not directly ocean-related, but it might give you some great ideas for a class project for your students. Learn more about common urban birds with this project, written and narrated by high school students from Boston, Massachusetts. The Urban Bird Sounds Project features recordings and descriptions of birds, tips for remembering their songs and calls, and short quizzes to test your skills. The website allows you to download audio and teaching materials, take online quizzes, and more. There is also a step-by-step guide to producing a similar project.

<http://www.urbanbirdsounds.org/Site/Welcome.html>

WEBSITES OF THE MONTH

NOAA Environmental Visualization Lab

The NOAA Environmental Visualization Lab offers this new website with a wealth of content, including streaming and downloadable video files, high resolution satellite images, and various educational resources. Imagery and animations will continue to be updated. For best viewing quality, it is recommended to download the video file locally by right clicking on the file link and saving to a local computer drive. In the coming weeks they will be improving the site as they receive feedback, so please send any comments that you might have.

<http://www.nnvl.noaa.gov/>

Oceans Online

MatchACollege.com, an online resource of information for college information, offers additional web pages to help students find relevant information to help research their goals. They offer a page listing 100 websites for exploring the ocean online, with categories including explorations and expeditions, video, interactives, data and monitoring, learning and education, and more. Take time to check out their list of photo galleries. You may want to bookmark this page for future reference.

<http://www.matchacollege.com/blog/2009/100-excellent-websites-for-exploring-the-ocean-online/>

MESSAGE FROM THE BRIDGE

Go Visit an Aquarium

If you are looking for a great field trip opportunity, a break from the classroom routine, or a summer camp or vacation destination, the Bridge can help you find an aquarium or ocean science-related museum near you. In the Resource Center section, you will find a listing of aquariums and ocean science museums; there are even several listings from outside the U.S. Studies show that many of students' most memorable and effective learning experiences occur outside the classroom, where they can see and touch marine science concepts first hand. The Bridge also features information on field trips to research institutions and other outdoor education centers. Aquariums, ocean science museums, and education facilities not found in the Bridge's collection are encouraged to submit their site for inclusion.

<http://www.marine-ed.org/bridge>

REQUESTS

Need Volunteers?

The Verizon Foundation's Employee Engagement team is inviting environmental organizations to post their volunteer projects, especially those scheduled in April and during Earth Week, on the Verizon Volunteer Connections website. Through this website, Verizon employees will be able to review your volunteer opportunities and sign up to lend a hand with your project.

http://foundation.verizon.com/pls/cybergrants/ao_login.login?x_gm_id=1&x_proposal_type_id=250

GRANTS AND OPPORTUNITIES

California Council on Science and Technology Fellowships

The California Council on Science and Technology has launched the inaugural class of science policy fellows for Sacramento. Modeled on the federal AAAS and Sea Grant fellow programs, the program will bring ten scientists and engineers to legislative offices in California in 2010, beginning with training in the fall of this year. The deadline for application is May 29, 2009.

<http://fellows.ccst.us/index.php>

Captain Planet Foundation Grants

The Captain Planet Foundation provides grants to school and community groups to support hands-on environmental projects for youth in grades K-12. The objective of the foundation is to encourage innovative programs that empower youth around the world to work individually and collectively to solve environmental problems in their neighborhoods and communities. Deadlines for submitting grant applications are March 31, June 30, September 30, and December 31 of each year.

<http://www.captainplanetfdn.org/grants.html>

Coastal and Marine Habitat Restoration Proposals

NOAA is seeking proposals for coastal habitat restoration projects under the American Recovery and Reinvestment Act of 2009. The effort is designed to create resilient and healthy American communities by generating and saving jobs, employing several thousand people, and restoring valuable coastal and marine habitat. Proposals can include wetlands restoration, dam removals, shellfish restoration, and coral reef restoration. To ensure relevance, readiness and accountability to the American public, the solicitation requires that projects be "shovel-ready." Hurry - proposals are due by April 6, 2009.

<http://www.nmfs.noaa.gov/habitat/recovery/>

Dollars for Change Service-Learning Grants

Youth Service America's National Youth Council and State Farm Companies Foundation offer Dollars for Change Grants to youth ages 12-25 who will collaborate with a teacher or service-learning coordinator. The awards support high-impact, semester-long service-learning projects. The deadline for application is April 30, 2009.

<http://ysa.org/MyYSA/YSAContent/YSAnews/tabid/219/articleType/ArticleView/articleId/129/DollarsforChangeGrant.aspx>

Earthwatch Fellowship

Earthwatch offers a wide range of programs and resources for educators and students. Earthwatch's *Live From the Field Fellowship* program is still accepting applications until April 6 2009. All K-12 educators are eligible to apply for this opportunity.

<http://www.earthwatch.org/lff>

Education Research and Special Education Research Grant Programs

The Institute of Education Sciences offers this grant to provide national leadership in expanding fundamental knowledge and understanding of education from early childhood education through postsecondary and adult education. There are several opportunities in this notice; the earliest deadline for application is June 25, 2009.

<http://www.ed.gov/legislation/FedRegister/announcements/2009-1/032309b.pdf>

EPA Water Quality Video Contest

EPA's Office of Wetlands, Oceans, and Watersheds has launched the EPA Water Quality Video Contest. Videos can focus on a wide variety of topics, including: low impact development, wetlands, marine debris, and other water-related topics. The deadline for entry is Earth Day, April 22, 2009.

<http://www.epa.gov/owow/videocontest.html>

Families Gone Wild Sweepstakes

Barbara's Bakery offers Families Gone Wild, a contest geared toward getting people on refuges to discover and experience the remarkable diversity of wildlife and habitats that they protect. Submit a photo or video taken at a National Wildlife Refuge along with a brief write-up of your experience. The deadline for entry is August 24, 2009.

<http://www.barbarasbakery.us/alaska/>

Fulbright Scholar Program

The Fulbright Scholar Program offers 69 grants in lecturing, research or combined lecturing/research awards in environmental science. In addition, faculty and professionals in environmental science also can apply for one of the 144 All Discipline awards open to all fields. The deadline for application is August 1, 2009.

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

Fund for Wild Nature

The Fund for Wild Nature provides money for campaigns to save and restore native species and wild ecosystems, including actions to defend wilderness and biological diversity. They fund advocacy, litigation, public policy work, development of citizen science, and similar endeavors. The next deadline for application is May 1, 2009.

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

Geotourism Innovation Competition

National Geographic and Ashoka Changemakers support an annual global Geotourism Challenge; the theme for 2009 is Power of Place - Sustaining the Future of Destinations. This competition is designed to identify and showcase innovators that promote tourism that sustains or enhances the geographical character of a place. The deadline for nomination is May 20, 2009.

<http://www.changemakers.net/en-us/node/18726>

Global Reef Expedition

The Global Reef Expedition: Science Without Borders[®] is scheduled to take place from 2010-2013. Countries are invited to submit Letters of Engagement to the Khaled bin Sultan Living Oceans Foundation to conduct collaborative coral reef research in waters throughout the Atlantic, Pacific, and Indian Oceans. The Expedition will provide the opportunity for coral reef researchers, in collaboration with local partners, to conduct management-driven coral reef research under the Living Oceans Foundation Science Without Borders[®] program. Together, the foundation and local partners will explore, map, and characterize coral reefs in remote locations and compare these to near shore reefs off populated coastlines.

http://www.globalreefexpedition.com/index.php?option=com_content&view=article&id=68&Itemid=86

Gloria Barron Prize for Young Heroes

The Gloria Barron Prize recognizes young people ages 8 to 18 who have shown leadership and courage in public service to people and our planet. The deadline for nomination is April 30, 2009.

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

GreenWorks! Grants

GreenWorks! grants engage Project Learning Tree educators and their students with their local community in "learning-by-doing" environmental projects. Student leadership, service-learning, and community participation are the cornerstones to GreenWorks! projects. GreenWorks! grants are awarded in the spring and fall of each year, with the next deadline of April 30, 2009.

http://www.plt.org/cms/pages/21_22_21.html

Gulf Guardian Awards

The Gulf of Mexico Program is now accepting nominations for the 2009 Gulf Guardian Awards. Awards are given for positive steps to keep the Gulf healthy, beautiful, and productive in 7 categories: business, government, individual, civic/nonprofit, youth and education, partnership, and bi-national efforts between the U.S. and Mexico and/or the Caribbean. The deadline for nomination is May 15, 2009.

<http://www.epa.gov/gmpo/gulfguard.html>

Kenton R. Miller Award

The Kenton R. Miller Award for Innovation in Protected Area Sustainability is open for nominations. The award recognizes individuals that have innovated a new mechanism, policy, tool, or field practice that will promote the sustainability of Wilderness Areas. The deadline for nominations is June 1, 2009.

http://www.iucn.org/about/union/commissions/wcpa/wcpa_focus/?2669/kenton-miller-award

Khaled bin Sultan Living Oceans Foundation Fellowships

The Khaled bin Sultan Living Oceans Foundation sponsors graduate fellowships for doctoral students and post-doctoral researchers whose research focuses on conserving, protecting, and rehabilitating marine resources. Fellowship applications are now being accepted for the 2009-2010 Academic Year. Fellows may receive up to three continuous years of financial support based upon annual competitive reapplication. The deadline for application is April 30, 2009.

http://www.livingoceansfoundation.org/index.php?option=com_content&task=view&id=56&Itemid=115

LEGO® Smart™ Creativity Contest

LEGO® Education is hosting an activity challenge for educators of all grades and subject areas. Educators create a hands-on activity using only the bricks included in a LEGO Smart Kit. This can range from a simple build to a more advanced mathematical problem. The deadline for entry is August 31, 2009.

<http://www.legoeducation.com/forms/activitycontest.asp>

NAAEE Awards

NAAEE members recognize individuals and organizations that excel in environmental education by presenting a variety of annual awards. The award winners will be honored during the annual conference with this year's theme, *The Power of Partnerships: Creative Leadership in Environmental Education*, October 7 - 10, 2009 in Portland, Oregon. Awards are included for environmental justice, outstanding service, K-12 educator, and more. The deadline for nomination is April 22, 2009.

<http://www.naaee.org/programs-and-initiatives/awards/call-for-nominations>

NAAEE Conference Scholarships

NAAEE offers scholarship opportunities for the annual conference, *The Power of Partnerships: Creative Leadership in Environmental Education*, October 7 - 10, 2009 in Portland, Oregon. Awards include an Affordability Scholarship, Diversity Scholarship, and more. The deadline for application is June 12, 2009 (for Oregon, May 1, 2009).

<http://www.naaee.org/conference/scholarships>

National School Inventors Challenge

The National School Inventors Challenge from Popular Science magazine calls upon teachers to *Improve Our World*. The deadline for entry is June 30, 2009.

<http://www.popsci.com/sciencecontest>

National Wildlife Federation Photo Contest

The National Wildlife Federation is accepting entries to their 39th annual contest. They are looking for striking images of nature — on land, in the air and beneath the water's surface—from anywhere in the world. The images may show animal behavior, portraits

of wildlife in natural habitat, plant life, natural landscapes, or people interacting with nature. There are seven categories in three separate divisions: Professional, Amateur, and Youth. The deadline for entry is July 20, 2009.

<http://www.nwf.org/PhotoZone/photocontestrules.cfm>

Native Hawaiian Career and Technical Education Program

The Native Hawaiian Career and Technical Education Program provides grants to eligible applicants to plan, conduct, and administer programs, or portions of programs, for the benefit of Native Hawaiians to support and help to improve career and technical education programs. The deadline for application is April 23, 2009. See the proposal for complete details.

<http://www.ed.gov/legislation/FedRegister/announcements/2009-1/032409h.html>

Open Meadows Foundation

Open Meadows Foundation is a grant-making organization for projects that are led by and benefit women and girls, particularly those from vulnerable communities. Small and start-up organizations are strongly encouraged to apply; proposals from organizations not previously funded have priority. The next deadline for proposals is August 15, 2009.

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

Paddle Georgia Educator Scholarships

Join more than 300 paddling enthusiasts and river lovers for Paddle Georgia 2009, June 20-26 on the Coosawattee and Oostanaula Rivers in northwest Georgia. Educator certificate workshops in Adopt-A-Stream and Project WET are included to help you bring your experiences back to your students. Full scholarships will cover registration fees and Project WET materials; the deadline for application is April 21, 2009.

http://www.garivers.org/paddle_georgia/pghome.html

Rachel Carson Sense of Wonder Contest

The EPA, Generations United, the Dance Exchange, and the Rachel Carson Council, Inc., announce a poetry, essay, and photo and dance contest "that best expresses the Sense of Wonder that you feel for the sea, the night sky, forests, birds, wildlife, and all that is beautiful to your eyes." Share this love of nature with a child and others around you. To enter the contest, you must work as a team with a person from a generation older or younger than yourself. Entries will be judged on creativity, originality and ability to capture a sense of wonder. The entries will also be judged on how the project brought the intergenerational team in touch with the natural world. The deadline for entry is June 10, 2009.

<http://www.epa.gov/aging/resources/thesenseofwonder/index.htm>

Request for Proposal - Florida

The Florida Department of Environmental Protection Office of Coastal and Managed Areas is requesting proposals to select a contractor for the development of management alternatives for the Southeast Florida region according to stakeholder working panels. The goal of each working panel will be to provide detailed information about how they perceive the current status and trends of coral reefs, threats to these ecosystems, stakeholder group conflicts, coral reef ecosystem protection goals, and to identify degrees of preference for a suite of potential coral reef management tools for the region. The deadline for application is April 15, 2009.

http://vbs.dms.state.fl.us/vbs/ad.view_ad?advertisement_key_num=77748

Rosa Parks and Grace Lee Boggs Award for Outstanding Service

The NAAEE Awards Committee and Diversity Committee announce the creation of the Rosa Parks and Grace Lee Boggs Award for Outstanding Service, which recognizes an individual for their leadership to educate about and promote action that addresses environmental justice concerns at the local, regional, or global levels. The award recognizes a person that demonstrates the values and inner strength of Rosa Parks and Grace Lee Boggs. The deadline for nomination is April 22, 2009.

<http://www.naaee.org/programs-and-initiatives/awards/>

Sharks Rule! Art Contest

Project AWARE Foundation is holding a global art contest for children ages 3-12. The theme is *Sharks Rule!* Students can show their support for shark conservation. Three winners will be chosen from each global region and age group: 3-5, 6-8, and 9-12 years. Lesson plans, games, and activities on sharks and their importance to our ecosystem can be found in the AWARE Kids Teachers Guide. The deadline for entry is October 31, 2009.

<http://www.projectaware.org/kids/html/artcontest.asp>

Stimulus Bill Funding

The American Recovery and Reinvestment Act of 2009 (Stimulus Bill) includes funding for green infrastructure and wetlands and river restoration. The Association of State Wetland Managers, Inc. has established a website collecting information on the stimulus funding that can be used to conserve, manage, and protect wetlands and other water resources. The website includes information about funding available through EPA, NOAA, and more. In addition, many of the traditional infrastructure projects will increase the permit and permit review workloads for federal agencies. In the coming months many federal agencies may be awarding contracts or taking on temporary employees to address the increased workload. Beware – the application deadline turnaround on these funds may be short.

<http://www.aswm.org/fwp/stimulus/index.htm>

Take Pride in America National Awards

The Take Pride in America partnership is dedicated to installing a sense of volunteerism and good stewardship in all public land users, promoting volunteerism, and other civic-minded programs through a wide variety of organizations and initiatives. The Take Pride in America National Awards recognize individuals and groups for outstanding stewardship projects or awareness efforts involving federal, state, and local lands and waters. The deadline for application is May 1, 2009.

<http://www.takepride.gov/awards/index.html>

Thacher Scholars Award

As a reminder, the 2009 Thacher Scholars Award will be given to secondary school students (grades 9-12) demonstrating the best use of geospatial technologies or data to study Earth. The deadline for entry is April 6, 2009.

<http://www.strategies.org/ThacherScholars/>

ThinkQuest Narrative Competition

Teams consisting of a teacher and 3-6 students select a topic and create rich content using online project tools. The deadline for submission is May 4, 2009.

<http://www.thinkquest.org/competition/narrative/index.html>

VI-EPSCoR Incubator Grants

Virgin Islands Experimental Program to Stimulate Competitive Research (VI-EPSCoR) Incubator Grants support researchers in exploring new research directions related to the project thrust on Bio-complexity of Caribbean Coral Reefs. The deadline for application is April 11, 2009.

<http://coral.aoml.noaa.gov/pipermail/coral-list/2009-March/038665.html>

World of Children Awards Program

The World of Children is seeking nominations for the 2009 Awards program, recognizing individuals who make a difference in the lives of children across the globe. The awards provide funds to support the programs they have created. The deadline for nomination is April 17, 2009.

<http://www.worldofchildren.org/Awards.htm>

INTERNSHIPS AND TEMPORARY OPPORTUNITIES

Earthwatch's Teen Teams

Earthwatch's Teen Teams give 16 and 17 year olds a chance to take part in Earthwatch Teen Team expeditions. Some funding may be available.

<http://www.earthwatch.org/teenteam>

High School Summer Programs

Sea Education Association (SEA) is still accepting applications for the 3-week 2009 High School Summer Seminars. The programs offer students a hands-on introduction to the field of marine science while encouraging them to develop a greater understanding of and appreciation for our oceans.

- Science at SEA, July 9–27, July 21–August 8, or August 2–20, 2009
- Oceanography of the Southern California Bight, August 8–26, 2009

http://www.sea.edu/academics/program_highschoolprograms.asp

Summer Marine Science Education Positions – Rhode Island

The Narragansett Bay National Estuarine Research Reserve based on Prudence Island in Rhode Island is currently advertising two seasonal positions in marine science education, along with other seasonal positions.

<http://www.nbnerr.org/seasonals.htm>

Teacher at Sea – Deep Earth

Deep Earth Academy invites educators at all levels to apply to sail on an upcoming Bering Sea expedition, July 5-September 4, 2009, of the Integrated Ocean Drilling Program (IODP). IODP is an international marine research program that explores Earth's history and structure by drilling and recovering cores from the ocean floor and monitoring sub-seafloor environments. The deadline for application is April 17, 2009.

<http://www.iodp-usio.org/Education/TAS.html>

Teacher at Sea – Marine Debris

Work alongside a research team of doctoral students and assistants from Scripps Institution of Oceanography as they embark on an expedition to explore Plastics in the North Pacific Gyre, August 9-21, 2009 from San Diego, California. Recently referenced as the "Great Pacific Trash Heap," the debris caught in the center of the North Pacific has the potential to damage marine life and alter the biological environment. This at-

sea, science and educational experience is for individuals interested in broadening their scientific knowledge; participating in state-of-the-art, hands-on, oceanic research; and communicating interdisciplinary educational experiences in the classroom and beyond.
<http://cce.lternet.edu/outreach/teachers/teachersatsea/>

TIDE Camp - Delaware

University of Delaware's College of Marine and Earth Studies sponsors the Summer TIDE (Taking an Interest in Delaware's Estuary) Camp, July 6-18, 2009 in Newark and Lewes, Delaware. The 13-day marine and earth studies summer program for high school students focuses on the atmospheric, oceanic, and biogeochemical processes at work in the Delaware Bay. The camp academic activities include classroom instruction, discussions, lectures, and visits to modern oceanographic/atmospheric laboratories, as well as field excursions to the Delaware Bay for sampling and exploration. The deadline for application is April 17, 2009.

<http://www.ocean.udel.edu/TIDE/>

CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT

AAAS Annual Meeting – Request for Proposals

The American Association for the Advancement of Science (AAAS) Annual Meeting, February 18-22, 2010 in San Diego, California, will offer a venue to communicate cutting edge marine science to thousands of scientists and hundreds of journalists from around the world. The meeting's theme is *Bridging Science and Society*. The deadline for submission is April 28, 2009.

<http://www.aaas.org/meetings/>

Archeological Resource Protection Training – Florida and Maine

The Federal Law Enforcement Training Center will present two classes offering training in all aspects of an archeological investigation and subsequent prosecution of crimes. The class cumulates in a 12-hour archeological crime scene practical exercise. The course will be offered April 13-17, 2009 in Jacksonville, Florida, and April 27-May 1, 2009 in Winter Harbor, Maine.

For registration information, contact Virginia McCleskey at 912-554-4828

As the World Turns (Warmer and Colder) – South Carolina

COSEE SE is teaming up with regional marine and climate scientists to offer a free weeklong investigation for formal and informal educators in North or South Carolina or Georgia, into past, present, and future climate change topics, July 20-25, 2009 in Georgetown, South Carolina. Activities and resources provided will be aligned to state standards and will specifically address STEM (science, technology, engineering and math) disciplines. The deadline for application is April 30, 2009.

<http://www.cosee-se.org/teacher/?join=203>

Chesapeake Classrooms – Various

The Chesapeake Bay Foundation and supporters offer Chesapeake Classrooms, professional development that meets the evolving needs of teachers and schools while enabling teachers to involve their students in outdoor bay or stream experiences that are aligned with local school systems standards. Options include Summer Immersion

Courses, Field Investigation Workshops, Student Action Training, and Curriculum Workshops. Grants may be available.

http://www.cbf.org/site/PageServer?pagename=lrn_sub_teachers_professional

Coastal Ecology Teacher Workshop - Georgia

Join Sapelo Island National Estuarine Research Reserve for an in-depth look at Georgia's coastal systems and discover the abundance and variety of wildlife found along our shores, June 16-19, 2009 on Sapelo Island, Georgia. Emphasis is placed on estuarine and marine ecology, coastal species identification and adaptations, commercial and recreational fisheries, and management. The deadline for registration is May 1, 2009.

Contact Georgia Graves at georgiabeachwalk@bellsouth.net

Coastal and Estuarine Research Federation Conference – Call for Presentations

The call for presentations for the Coastal and Estuarine Research Federation's 20th Biennial Conference, Estuaries and Coasts in a Changing World, November 1-5, 2009 in Portland, Oregon, is open. The deadline for abstract submission is May 15, 2009.

<http://www.sgmeet.com/cerf2009/>

Coastal Marine Ecology of the Florida Keys - Florida

MarineLab is offering its Coastal Marine Ecology of the Florida Keys teacher workshop, July 26-31, 2009 in Key Largo, Florida. Protected by the Florida Keys National Marine Sanctuary, Everglades National Park, and John Pennekamp Coral Reef State Park, the waters surrounding the Florida Keys are home to a diverse array of fish and invertebrate species, along with dolphins and manatees. The largest coral reef in the continental U.S. is only a few miles away by boat. The workshops are designed for informal or formal science teachers, who can choose the snorkeling or SCUBA diving option for the workshop.

http://www.marinelab.org/Teacher_Workshops.html

Coastal Zone 09

Coastal Zone 09, *Revolutionary Times: Catching the Wave of Change*, will be held July 19-23, 2009 in Boston, Massachusetts. Coastal Zone conferences typically draw approximately 900 participants from federal, state, local, and tribal governments, academia, nonprofit organizations, and private industry. They share case studies, lessons learned, and success stories on the many facets of change, and share tools and information to help in managing changing coastal and ocean resources. This year's conference tracks are Coastal Communities Adapting to Changing Conditions, Conservation in the Face of Change, and Ocean and Great Lakes Planning for Changing Human Uses.

<http://www.csc.noaa.gov/cz/>

COSEE-Coastal Trends Professional Development – Maryland and Delaware

COSEE-Coastal Trends is offering several professional development opportunities for teachers this summer. The workshops are free; register as soon as possible as both workshops will be filled on a first-come first serve basis. A stipend and travel expenses are available for the research experiences.

- Coastal Trends Workshop, August 4-6, 2009, Cambridge, Maryland
- Teaching Ocean Science Workshop, July 7-10, 2009, Cambridge, Maryland
- Teacher Research Experiences – two positions, in Cambridge, Maryland and Lewes, Delaware. The deadline for application is May 1, 2009.

<http://www.cosecoastaltrends.net/>

EETAP Summer Courses - Online

The University of Wisconsin-Stevens Point and the Environmental Education and Training Partnership (EETAP) offer the following online summer courses:

- Fundamentals of Environmental Education, June 1-August 21, 2009
- Making EE Relevant for Culturally Diverse Audiences, June 1-August 7, 2009

The deadline for registration is May 1, 2009. Scholarships may be available. Check out the fall offerings, also, as courses often fill up early.

- Applied Environmental Education Program Evaluation, September 7-December 4, 2009
- Fundamentals of Environmental Education, September 7-November 27, 2009
- Leadership Development in Natural Resources: Strategic Planning and Implementation, September 22–November 21, 2009
- Making EE Relevant for Culturally Diverse Audiences, September 7-November 13, 2009

<http://www.uwsp.edu/natres/eetap/index.aspx>

Invasive Species of Everglades National Park eFieldTrip

The eFieldTrip, *Don't Let It Loose! Invasive Species of Everglades National Park*, is an educational outreach program in the Bureau of Land Management's Share the Adventure series. The eFieldTrip has three major components – a virtual visit, a trip journal, and Ask the Experts, open April 14-16, 2009.

<http://www.efieldtrips.org/EvergladesInvasives/index.htm>

Life & Death, Love & Sex, Drama in the Intertidal Zone - California

The Gulf of the Farallones National Marine Sanctuary and Farallones Marine Sanctuary Association offer *Life & Death, Love & Sex, Drama in the Intertidal Zone*, May 2, 2009 in San Francisco, California. Learn about the reproductive strategies and defense mechanisms of local intertidal animals that allow them to survive in their dynamic habitat. Registration is free and a stipend may be available.

http://limpetsmonitoring.org/resources_workshops.php

National Conservation Training Center Courses – West Virginia

The U.S. Fish and Wildlife Service offers professional development courses at the National Conservation Training Center campus in West Virginia. For more information about a specific course, contact the individual identified below.

- TEC7163: Remote Camera Setup for Wildlife Management Course, June 9–11, 2009. Contact Matt Poole at Matt_Poole@fws.gov
- OUT8106: Powerful Presentation Tools and Techniques, July 27- 31, 2009; the deadline for registration May 18, 2009. Contact: Juanita Gustines at Juanita_Gustines@fws.gov
- OUT8181: Working with the News Media, August 3-5, 2009; the deadline for registration is May 26, 2009. Contact Sandy Spakoff at sandy_spakoff@fws.gov

http://training.fws.gov/documents/Section1_NCTC_Sponsored_Courses.pdf

National Marine Educators Association Conference

NMEA09, the National Marine Educators Association Conference, June 29-July 3, 2009 in Pacific Grove, California, offers the theme, *One World Conserving One Ocean*. From six pre-conference and field-based workshops to evening events, concurrent sessions

and keynote speakers, NMEA09 will provide you with a chance to connect with colleagues, learn new teaching strategies, and get in on the most up-to-date ocean research. Conference strands include Conservation and Sustainability, Teaching Ideas and Strategies, Reaching New Audiences, Exploration and New Discoveries, Inspiration and Empowerment, and Partnerships and Collaboration. Advance registration ends April 15, 2009; book your lodging at Asilomar Conference Grounds at the same time for the best deal.

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

NSTA 2010 Call for Proposals

Proposals for the NSTA 2010 National Conference, March 18-21, 2010 in Philadelphia are due on April 15, 2009. NMEA will again be organizing a strand of marine science sessions and hopes to include as many NMEA proposals as possible. Those submitting proposals for the Ocean Literacy strand should contact Beth Jewell at beth.jewell@fcps.edu. The NSTA Liaison Committee will review submitted abstracts for diversity, interest, engaging activities, and connections to the Ocean Literacy Essentials Principles and Fundamental Concepts.

<http://www.nsta.org/conferences/sessions.aspx>

NSTA Web Seminars

NSTA Web Seminars are 90-minute, live professional development experiences that use online learning technologies to allow participants to interact with experts, education specialists, and others. Educators can use online tools that allow them to mark-up and annotate presenter's slides or share desktop applications in addition to engaging in chat with others online and answering quizzes and poll questions. Seminars may be archived and available for viewing after the live event has occurred. Upcoming seminars focus on climate change, polar science, and more; note that Ocean Acidification will be presented April 2, 2009.

<http://learningcenter.nsta.org/products/webseminars.aspx>

Ocean and Human Health Seminar - Online

The College of Exploration and Ocean Technology Foundation offer this two-week online seminar on the relationship between the oceans and human health, April 6-17, 2009. It is designed to be a general overview of some of the ways in which our ocean provides benefits and risks to human health. The effects of climate change and Harmful Algal Blooms on ocean and human health, marine animals as biomedical models, and the discovery of new medicines from marine life will be some of the topics presented. The seminar is geared toward educators, health, and environmental professionals, but is also appropriate for interested members of the general public. Registration after the deadline will be accepted.

<http://www.coexploration.org/ohh/seminar09.html>

Reef Fish and Friends - Florida

REEF Fish and Friends is a monthly meeting/seminar series in Key Largo, focused on fish. The lectures, offered the second Tuesday of each month in Key Largo, Florida, are free and open to the public. Upcoming topics focus on Lionfish, Parrotfish, and Wrasse.

<http://www.reef.org/fishandfriends>

Rivers to Reef Teacher Workshop - Georgia

This week-long teacher workshop, June 14-19, 2009 from Atlanta, Georgia, is led by staff from the Georgia Aquarium and NOAA's Grays Reef National Marine Sanctuary.

Teachers will learn about watersheds, water quality, current aquatic issues and river, marsh, and reef ecosystems. The workshop takes teachers from the headwaters of the Ocmulgee River to the Georgia coast. Application to this workshop is competitive and is based on the three essay questions. The deadline for application is April 15, 2009.

<http://www.georgiaaquarium.org/teachersAndKids/professionalDevelopment.aspx>

Sanctuary Currents Symposium - California

The 2009 Sanctuary Currents Symposium, *Back to the Future - Preserving the Sanctuary by Exploring its Past*, April 18, 2009 in Monterey, California explores how the ecosystems of the Monterey Bay National Marine Sanctuary have changed over time. Admission to the symposium is free.

<http://montereybay.noaa.gov/research/currsymp2009/welcome.html>

Scientist in Your Classroom GK-12 Program - Texas

The National Science Foundation sponsors this UT Austin Environmental Science Institute program that partners graduate students in the sciences with K-12 teachers in Texas to enhance science education through new classroom activities, workshops, and field projects. The program emphasizes collaboration in K-12 classrooms and in field projects on Texas watersheds, estuaries, and ocean-going vessels.

<http://www.esi.utexas.edu/gk12/>

Sea Turtle and Diamondback Terrapin Conservation Teacher Workshop - Georgia

Join biologists from Georgia and South Carolina, June 22-26, 2009 on Sapelo Island, Georgia, who will share their knowledge in anatomy and life history, conservation, and management of the Loggerhead Sea Turtle and Diamondback terrapin. Learn why the Georgia coast is important to these animals and ways you can help them by educating your students.

Contact Georgia Graves at georgiabeachwalk@bellsouth.net

Shoals Marine Laboratory Summer Courses - Maine

The Shoals Marine Laboratory on Appledore Island, Maine, offers credit and non-credit courses for teachers, students, and families. Take classes in Field Marine Science, Field Marine Biology and Ecology, Marine Vertebrates, Island Archaeology, and much more. View the complete listings on the website, along with application instructions and registration deadlines.

<http://www.sml.cornell.edu/>

Summer Courses for K-12 Teachers - Maine

College of the Atlantic in Bar Harbor, Maine, offers a variety of summer courses for K-12 teachers. Some courses are primarily field based, while others offer more classroom time with occasional outings. All courses combine lecture and discussion with a variety of hands-on activities. Offerings include Introduction to Whales, Porpoises, and Seals; Earth Science Across the Curriculum; Biological Oceanography; and much more.

<http://www.coa.edu/html/summercoursefacultybios.htm>

Something Fishy Aquaculture Workshop - Alabama

Auburn University offers the free aquaculture workshop for teachers, *Utilizing Recirculating Aquaculture Systems*, June 8-12, 2009 in Gadsden, Alabama, to teach principles of math and science.

Contact Hugh Hammer at hhammer@gadsdenstate.edu or David Cline at clinedj@auburn.edu

Swamp School

The Swamp School provides education and training in environmental and wetlands management. Online, classroom, and field course offerings are focused on assessment for wetland delineation, design for mitigation, planning of watersheds, carbon offset through conservation and restoration, and education for teachers and wetlands enthusiasts.

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

Teachers on the Estuary - Massachusetts and Rhode Island

Teachers on the Estuary is a National Estuarine Research Reserve System program featuring field and research-based professional development integrating content, methods, and activities on watersheds and estuaries. Two programs are scheduled for July 8-10, 2009 in Falmouth, Massachusetts, and July 27- 30, 2009 on Prudence Island, Rhode Island. Each includes an additional half-day program in the fall. Funds are available for participation. The deadline for application is April 30, 2009.

<http://www.nbnerr.org/tote.htm>

Wetlands Education Center Teacher Workshop - Texas

The Mission Aransas National Estuarine Research Reserve offers a K-12 teacher workshop, May 1-3, 2009 in Port Aransas, Texas, focusing on the Wetlands Education Center curriculum. Topics includes barrier islands, the salt marsh, and more. Participants will gain hands on experience aligned with grade level TEKS and National Science Standards. The deadline for registration is April 24, 2009.

<http://www.utmsi.utexas.edu/outreach/teacher-workshops/current-workshops.html>

EDUCATIONAL RESOURCES

Alaska Native Perspectives on Earth and Climate

Teachers' Domain has launched a new collection of media resources that looks at earth sciences from the perspective of the people of Alaska. In this collection, students learn both Native ways of knowing nature, and ongoing scientific research about Alaska's unique geology, and how climate change and development are affecting the region.

<http://www.teachersdomain.org/special/ean/>

America's Climate Choices

In response to a request from Congress, the National Academies have launched America's Climate Choices, a suite of studies designed to inform and guide responses to climate change across the nation. Experts representing various levels of government, the private sector, nongovernmental organizations, and research and academic institutions have been selected to serve on four panels and an overarching committee. At this time, *Understanding and Responding to Climate Change* is posted on the website, and a link to a webcast of the Summit on America's Climate Choices, March 30-31, 2009, is available. Consensus reports will be released in the future.

<http://www.americasclimatechoices.org/index.shtml>

Be Water Wise in School

Presented by The Groundwater Foundation, this newly developed guide brings education and action together. Written as a complete guide ready for implementation in the classroom, it contains background information for teachers, lesson plan instructions,

pre- and post-tests, vocabulary lists, website links for further student research and service-learning project ideas. *Be Water Wise in School* is completely hands on and has been correlated to National Science Education Standards.

<http://www.groundwater.org/shop/proddetail.asp?prod=1114d>

Blue Whales

National Geographic offers an interactive article on blue whales, derived from a March, 2009 feature in the print edition of National Geographic magazine. The website offers an in-depth look into the recovery of the blue whale population off the coast of Costa Rica in recent years, a quiz on these creatures, and an online video.

<http://ngm.nationalgeographic.com/2009/03/blue-whales/brower-text>

California Climate Change Extension

The California Climate Change Extension website offers scientific information about climate change in California. Interviews with leading climate change researchers are posted as 20-30 minute downloadable audio segments; they are also separated by topic into 2-3 minute short videos under Quick Topics. Transcripts of the interviews are also available for downloading. Additional links are provided to many resources for California climate change information.

<http://groups.ucanr.org/CAClimateChangeExt/>

Climate Change Games

Red Redemption Ltd., based in Oxford, England, is an environmental games company producing scientific, educational, and environmental games. The website hosts online games, including Climate Challenge (for older students) and Operation Climate Control (for younger students).

<http://red-redemption.com/news/>

Climate Change: A Wisconsin Activity Guide

This climate change guide from Wisconsin's Department of Natural Resources is a resource for Wisconsin's teachers (grades 7-12) to help students develop the knowledge and skills needed to become informed and active participants in society's climate change discussions. The guide touches on both the scientific aspects of climate change and social issues. It contains activities applicable to a variety of subjects including sciences, math, language arts, social studies, and art. You can preview online, order free copies, or download the pdf.

<http://www.dnr.wi.gov/eeek/teacher/climatechangeguide.htm>

Climate Change Kids Site

The EPA's Climate Change Kids Site looks at climate change -- what it is, why it matters, and what kids can do about it. The website offers games, animations, quizzes, and more.

<http://epa.gov/climatechange/kids/>

Climate Change Listservs

The EPA offers several listservs for various audiences that provide information on new climate changes resources and current news and strategies.

http://www.epa.gov/climatechange/news_listservs.html

Coral Reef Bleaching Module

NOAA's Coral Reef Watch program has developed an interactive lesson for the Bilko software that teaches users how to predict coral bleaching from satellite sea surface temperature data. The lesson and software are both available for free download on the website, along with other modules. The step-by-step lesson follows the operational Coral Reef Watch methodology, so users will gain in-depth knowledge of how the NOAA data are produced.

http://www.noc.soton.ac.uk/bilko/noaa_crw.php

Deep Earth Academy Climate Change Resources

The Deep Earth Academy (formerly JOI Learning) facilitates and develops programs and materials based on scientific ocean drilling expeditions and Earth Systems Science to strengthen students' mathematics, science, and analytical skills. Their approach includes use of data, inquiry-centered activities, and interdisciplinary explorations. The materials are centered around data and questions related to the deep sea core samples that are obtained from scientific ocean drilling expeditions. The website hosts lessons related to climate change plus a number of resources that can be provided free of charge, including posters, DVDs, drilling globes, and more.

<http://www.oceanleadership.org/learning/climate>

Education & the Environment Initiative Units

New draft Education and the Environment Initiative (EEI) curriculum units are available on the California EPA website for review. The posted units are in draft form, have been reviewed by content experts for technical accuracy, and will be field tested by teachers in California. Units will be posted as soon as they are available and will remain on the website for 30 days.

<http://www.calepa.ca.gov/Education/EEI/Curriculum/Default.htm#CurriculumUnits>

EstuaryLive!

EstuaryLive! will take place May 1 and May 15, 2009 with an annual, free, live, interactive field trip through our nation's estuaries. This year's program will feature six 30-minute segments broadcasting live from the Hudson River in New York, South Slough in Oregon, and Padilla Bay in Washington. This year's program will include a discussion of the impacts of global climate change on our coastal ecosystems. The Weeks Bay Reserve in Alabama will broadcast a local EstuaryLive! program on May 15, 2009. Be sure to register for the events. For those who can't watch the live broadcasts, check out the archives for past programs.

<http://www.estuaries.gov/GetInvolved/Default.aspx?id=373>

Every Drop Counts

Facing the Future presents *Every Drop Counts*, a series of water-related lessons beginning with a water trivia game and a short demonstration of how much of Earth's water is available for human and other species' needs. The series includes a "water walk" and a personal water-use audit. It is designed for use in middle and high school classrooms and is available as a free download. Check out the other free materials on the website.

<http://www.facingthefuture.org/Curriculum/DownloadFreeCurriculum/tabid/114/Default.aspx>

Games Planet Arcade

This arcade from NOAA is a portal to games and interactive activities focused on ocean and air themes. It highlights the science and the activities of NOAA and other agencies and organizations promoting environmental stewardship. There are puzzles, interactives, and links to in-depth learning games.

Holding on to the Green Zone

The Bureau of Land Management, in collaboration with the University of Wisconsin-Extension and the USDA Cooperative State Research, Education and Extension Service, offers *Holding on to the Green Zone: A Youth Program for the Study and Stewardship of Community Riparian Areas*. The program engages students in activities to explore and understand the role and importance of riparian areas. A Student Action Guide and a Leader Guide are available for download, and the program is correlated to national education standards.

http://www.blm.gov/wo/st/en/res/Education_in_BLM/riparian_module.html

How to Get Free Classroom Supplies

Edutopia offers an article in which educators share tips for stocking up on classroom supplies without reaching into their own wallets.

<http://www.edutopia.org/free-school-supplies-fundraising-donation>

Learning Landscapes

The new Bureau of Land Management's website contains resources and information for kids, teachers, and learners of all ages. The Kids section includes links to History Mysteries, Burning Issues, Silent Invaders, and more. The Teachers section includes classroom activities and teachers guides along with links to background information.

http://www.blm.gov/wo/st/en/res/Education_in_BLM/Learning_Landscapes.html

MarineMap

MarineMap, a web-based decision support tool, has been designed to allow stakeholders and resource managers to experiment with different MPA designs on their own computers, at their own pace. Because MarineMap was developed to meet the specific needs of the California's Marine Life Protection Act Initiative, the program provides feedback to users on how well their MPAs meet guidelines provided by the initiative's Science Advisory Team. The consortium that developed MarineMap is interested in adapting it for use in other marine spatial planning efforts.

<http://marinemap.org/marinemap/>

Message in a Glider

In April, Rutgers University scientists and students will send an underwater robotic glider on a mission to cross the Atlantic Ocean. The 3,300 mile voyage will take at least 6 months for the slow-moving low-energy glider. The ocean is a harsh environment, and the glider will encounter many challenges on its journey. Never before has an underwater robot successfully traveled an ocean all on its own. Classrooms around the country are invited to participate in this adventure, by sending a message in the glider and following the journey as the glider crosses the ocean.

<http://rucool.marine.rutgers.edu/atlantic/bottle/>

MidwestFrogs

This website offers downloadable frog calls and documentary video clips of scientists discussing frog issues, including declining amphibians and malformed frogs. This is not just about the Midwest.

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

Ocean Acidification – Distance Learning

The Seacoast Science Center in Rye, New Hampshire offers a new distance education program on Ocean Acidification. Students will be introduced to ocean acidification; learn what it is, what is causing it, and what its effects could be on our oceans. These concepts will be reinforced with participation in lab experiments featuring acids and bases, pH, calcification, and the carbon cycle. The course can be tailored to fit in 40-60 minute periods or in shorter time blocks.

http://www.seacoastsciencecenter.org/programs/distance_learning.php

Ocean's Role in Weather and Climate

NOAA offers this website with materials to help you understand factors that impact the Earth's weather and climate, and how changes in temperature or air circulation are part of complex, long-term cycles. Understanding the influence of ocean conditions on the Earth's climate and monitoring changes in ocean conditions are key to predicting climate change. The website offers classroom resources, teacher tutorials, web seminar archives, and more.

http://oceanservice.noaa.gov/education/pd/oceans_weather_climate/

Oil and Water Don't Mix

The Australian Maritime Safety Authority offers oil spill information and educational materials relating to oil pollution of the marine environment. The online activity, *Oil and Water Don't Mix*, is meant for primary school; additional materials include a bioremediation exercise, mathematics and oil spills, and more.

http://www.amsa.gov.au/Marine_Environment_Protection/Educational_resources_and_information/Oil_Spill_Information_and_Educational_Material.asp

PolarTREC

PolarTREC expeditions to the Arctic and Antarctica are underway and you can use the Internet to follow teachers while they participate in polar research, working closely with scientists as a pathway to improving science education. PolarTREC is an educational research experience, funded by the U.S. National Science Foundation and managed by the Arctic Research Consortium of the U.S. You can learn more about the research and have students follow their expeditions through journals, photos, videos, "ask the team" forums, and more from the website.

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

Science Fairs Central

Discovery Education provides digital resources to schools and homes with the goal of making educators more effective, increasing student achievement, and connecting classrooms and families to a world of learning. They offer the Scotch Science Fair Central website, a resource center for science fairs.

<http://school.discoveryeducation.com/sciencefaircentral/>

Socioeconomic Website

The Office of National Marine Sanctuaries offers this new website focusing on socioeconomics. The focus on socioeconomic in the sanctuary system aims to provide the best possible social science to give all stakeholders a voice in the management of sanctuary resources and foster a more cooperative management process. In addition to basic background on socioeconomics, the website currently has links to information for the Channel Islands, the Florida Keys, and economic valuation in national marine sanctuaries.

<http://sanctuaries.noaa.gov/science/socioeconomic>

Understanding Science

The Understanding Science website aims to communicate what science is and how it works. The site, intended for both the general public and K-16 teachers, draws visitors into real-life examples and looks at the social side of science, science and society.

<http://undsci.berkeley.edu/>

WaterLife

The NOAA Games website offers *WaterLife: Where Rivers Meet the Sea*, an interactive online game about estuaries developed in partnership with Montgomery College. Set in California's Elkhorn Slough National Estuarine Research Reserve, the game explains what an estuary is and describes diverse ecosystems in estuaries and the influence of tides on the ecosystems. The game also addresses restoration efforts, marine debris, and emphasizes personal responsibility in caring for the environment. An accompanying Field Guide contains educational information to assist the user and provides links to additional resources.

<http://games.noaa.gov>

WikiEducator

The Commonwealth of Learning is an intergovernmental organization created by Commonwealth Heads of Government, Canada, to encourage the development and sharing of open learning and distance education knowledge, resources, and technologies. They support WikiEducator, an online community resource for the development of free educational content. The WikiEducator is an evolving community intended for the collaborative:

- planning of education projects linked with the development of free content;
- development of free content on Wikieducator for e-learning;
- work on building open education resources ;
- networking on funding proposals developed as free content.

Check out the Virtual University for Small States links (VUSSC Node).

http://www.wikieducator.org/Main_Page

Year of Science Education Sampler

NOAA Education celebrates the 2009 Year of Science with a website and companion DVD, offering background materials, multimedia resources, informal activities, lesson plans, and curricula from across NOAA. The materials are geared for educators and students of grades 3-12. The resources from the DVD can be individually downloaded from the website.

<http://oceanservice.noaa.gov/education/yos/>

INITIATIVES, JOURNALS, and MORE

5K Race for the Planet “Seahorse Sprint”

The Fort Fisher Green Team is out to prove that you can host a sustainable 5K race and fun family-oriented event, April 19, 2009 in Kure Beach, North Carolina. While competing in another area race, Green Team members were disappointed to see Styrofoam cups and trash cans filled with plastic bottles. Inspired to set an example for the racing community, the Green Team is co-sponsoring the aquarium’s first “Seahorse Sprint” along with Pepsi, Land Management Group, and TrySports Wilmington. Green efforts include organic cotton shirts for race participants, biodegradable cups and plates with collection for composting, recycling containers, and more. Contact Samantha Herbert for information to set up similar events, at Samantha.Herbert@ncmail.net. <http://www.ncaquariums.com/5k-race-for-the-planet-seahorse-sprint>

American Wetlands Month

EPA and its partners celebrate May as American Wetlands Month, celebrating the vital importance of wetlands to the nation’s ecological, economic, and social health. It is also a great opportunity to teach about the important role that wetlands play in our environment and the significant benefits they provide: improved water quality, increased water storage and supply, reduced flood and storm surge risk, and critical habitat for plants, fish, and wildlife. The website includes links to events, educational materials, and much more.

<http://www.epa.gov/wetlands/awm/>

Bay and River Sojourns

The Alliance for the Chesapeake Bay 2009 River Sojourns are multi-day expeditions down the Patuxent, James, and Susquehanna Rivers of the Chesapeake watershed. Various trips are offered; see the website for details in upcoming days.

- Patuxent River – June 18-22, 2009
- North Branch Susquehanna – June 18-23, 2009
- Lower Susquehanna – June 24-28, 2009
- James River – July 10-14, 2009

<http://www.acb-online.org/2008Sojourns.cfm>

Earth Day

Earth Day 2009, April 22, will mark the beginning of the Green Generation Campaign™. This two-year initiative will culminate with the 40th anniversary of Earth Day in 2010. The Green Generation’s core principles are:

- A carbon-free future based on renewable energy that will end our common dependency on fossil fuels, including coal.
- An individual’s commitment to responsible, sustainable consumption.
- Creation of a new green economy that lifts people out of poverty by creating millions of quality green jobs and transforms the global education system into a green one.

Earth Day celebration events are planned in schools, communities, villages, towns and cities around the world. During the weekend of April 17-19, 2009, there will be large-scale volunteer events in major cities, including Washington, DC, Boston, San Francisco, and many others. Check out the websites, educational resources, and links to events near you.

<http://www.earthday.net/earthday2009>

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

Global Youth Service Day

Global Youth Service Day April 24-26, 2009, highlights and celebrates the difference youth make in their communities year-round through community service and service-learning.

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

LeadAmerica

LeadAmerica is a youth leadership organization which sponsors college-accredited, academic-, and career-focused leadership programs for promising young leaders. The Ambassadors Abroad programs provide students with a dynamic, academic, and interactive introduction to the complex historical and contemporary issues facing nations around the world.

<http://www.lead-america.org/>

National Environmental Education Week

National Environmental Education Week, April 12-18, 2009, promotes understanding and protection of the natural world by actively engaging K-12 students and educators of all subjects in an inspired week of environmental learning and service before Earth Day. This year's EE Week theme is *Be Water Wise!* Registered partners have access to a wide variety of free environmental education resources, including a school water auditing tool and water quality monitoring resources. Answers to Ask an Expert will be posted on the website during EE week.

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

National Park Week

National Park Week, April 18-26, 2009, is an annual week for celebration and recognition of National Parks. Parks can provide recreational experiences, opportunities to learn and grow, and places of quiet refuge. Check the website for a schedule of Park Week events.

<http://www.nps.gov/npweek/>

NMEA News

NMEA News, The National Marine Educators Association's quarterly on-line newsletter, keeps members up-to-date with news from regional chapters and committees, information about professional development opportunities, and communications from NMEA leadership. Check out the latest issue, available for downloading from the website. Make sure to note the extensive opportunities for students and teachers.

<http://www.marine-ed.org/>

Shark Week – North Carolina

The North Carolina Aquariums will celebrate Shark Week, July 26-August 1, 2009, at all three facilities: Roanoke Island, Pine Knoll Shores, and Fort Fisher. Activities throughout the week will reveal the mysterious and misunderstood world of sharks. Contact each site for information about Shark Week activities at their facility.

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

World Ocean Day

World Ocean Day (WOD), every June 8th, provides an opportunity to join with people around the world to celebrate our world's ocean, which connects us all. The Ocean Project, working with the World Ocean Network, helps to coordinate events and activities

with aquariums, zoos, museums, conservation organizations, universities, schools, and businesses around the world. The theme for WOD 09, *One climate, one ocean, one future*, will help bring local and global attention to the impact climate change is having on the ocean, what that impact will mean for human life, and how we can all make important changes to reduce our CO₂ emissions. Enter your event, check out what's happening in your area, download the media and outreach kit, and more.

<http://theoceanproject.org/wod/index.php>