

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
INFORMATION EXCHANGE FOR MARINE EDUCATORS

FEBRUARY 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.

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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.

MESSAGE FROM THE BRIDGE

The Bridge Facebook Page

For educators and scientists that use the Facebook social network, or those thinking about joining, you can now become more in-tune with the Bridge online ocean science educator resource by becoming a fan of the Bridge Facebook page. In addition to seeing when and where our next Bridge presentations will be, we will be introducing new sites as they are added to the Bridge, posting pictures from sessions and exhibits, and holding discussions concerning resources you all would like to see added to the Bridge and which Data Analysis Teaching Activities (DATAs) you all like the best and how you have modified them. For those that are not on Facebook, you can still access the Bridge Facebook page, however some contents may not be available. So check out the Bridge

Facebook page today; and if you already have an account, log in and click on “Become a Fan.”

<http://www.facebook.com/pages/Gloucester-Point-VA/The-Bridge/34259244804?ref=s>
<http://www.marine-ed.org/bridge>

REQUESTS

BLUE Ocean Film Festival – Request for Entries

The BLUE Ocean Film Festival, June 11-14, 2009 in Savannah, Georgia, is a global film festival and conservation summit for underwater filmmakers and marine researchers. They are currently accepting film submissions; check the website for submission deadlines.

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

IYOR Report – Call for Information

The ICRI International Year of the Reef 2008 was a worldwide campaign to raise awareness about the value and importance of coral reefs and threats to their sustainability, and to motivate people to take action to protect them. The organizers are ready to compile the IYOR report, reflecting on successes as well as areas for growth and improvement, and you are encouraged to submit your activities undertaken to support IYOR.

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

Volunteers Needed – Texas

Volunteers are needed for the 2009 National Ocean Sciences Bowl regional competition, the Dolphin Challenge, on February 21, 2009 in College Station, Texas. They need moderators, science judges, rules judges, scorekeepers, timekeepers, runners, and other general assistants.

Contact Bianca Whitaker at bdcwhitaker@tamu.edu

GRANTS AND OPPORTUNITIES

Ambassadors in Education Award

A project of the National Civic League and sponsored by MetLife Foundation, the MetLife Foundation Ambassadors in Education Award recognizes outstanding educators in the public school system. The award honors middle school and high school educators who are building partnerships and communicating beyond their schools for the betterment of the entire community. The deadline for nominations is February 18, 2009. Check the website for eligible communities.

<http://www.ncl.org/metlife/index.html>

Bezos Scholars Program

The Bezos Scholars Program @ the Aspen Institute is a seven-day, all-expense-paid scholarship that each summer brings together twelve of the country’s top public high school juniors at the Aspen Ideas Festival. They are searching for independent thinkers, demonstrated leaders and engaged community members: curious and inspired high school juniors and exceptional educators. Upon selection of student scholars, an educator from each represented school is invited to participate, thereby offering a unique leadership development opportunity for principals, teachers, college counselors and curriculum coordinators. The deadline for application is February 12, 2009.

<http://www.bezosfamilyfoundation.org/scholars/>

Birds in Art/Art in Birds Contest

The Cornell Lab of Ornithology offers the Birds in Art/Art in Birds Contest. It encourages us to go outside and look for art in birds through photography, painting, story-telling, sculpture, or more. It could be a broken down nest in winter, a song recording, a video of a bird perching on your window; get creative. The deadline for entry is February 28, 2009.

<http://www.birds.cornell.edu/celebration/challenge/birds-in-art>

Celebrate Urban Birds Project Mini-Grants

The Cornell Lab of Ornithology invites organizations and educators to apply for its Celebrate Urban Birds project mini-grants. These mini-grants help fund neighborhood events across North America; organizations working with traditionally underserved communities are strongly urged to apply. No experience with birds required. The deadline for application is February 15, 2009.

<http://www.birds.cornell.edu/celebration/temporary/mini-grants-available>

Danielle de St. Jorre Scholarship

The International Ocean Institute presents an annual scholarship for one woman from Small Island Developing States (SIDS) involved in marine related research activities to improve their knowledge in the subject through attending training or university degree programs. The deadline for application is February 14, 2009.

http://www.ioinst.org/categories.php?category_no=47

Governor's Environmental Stewardship Awards - Tennessee

The purpose of the Governor's Environmental Stewardship Awards is to recognize outstanding achievements by individuals, businesses, organizations, educational institutions, and agencies for successful environmental projects and conservation measures. It also promotes leadership by example and in turn increases conservation of the natural resources of the State of Tennessee. The deadline for nomination is March 31, 2009.

<http://state.tn.us/environment/awards/>

Hawaii Coral Reef Initiative Funding

The Hawaii Coral Reef Initiative is now accepting pre-proposals for its FY2009 funding cycle. In this coming year, the initiative will focus on two place-based programs which serve to integrate science, management and stakeholder participation to develop and implement appropriate policies and actions. The two ecosystems are Maunalua Bay on Oahu and the Kahekili Herbivore Management Region on Maui, based on a combination of community leadership, ecological characteristics, and socio-economic considerations. Hurry – the deadline for mandatory preliminary proposals is February 6, 2009.

<http://www.hawaii.edu/ssri/hcri/>

Home Sweet Home Habitat Art Contest - Georgia

Second through fifth graders are invited to create original artwork to help increase environmental awareness of Georgia's Carolina Bays. You don't have to be the best artist to have your art selected. A bright, colorful design that shows why we should protect these habitats is what the Georgia Conservancy is looking for. The first place artwork will be converted to a handheld fan to be given away to schools, events, and at workshops. The deadline for entry is March 3, 2009.

<http://www.georgiaconservancy.org/index.php?page=education>

Innovations in Education Grants

The 2009 Hewlett-Packard Innovations in Education grants provide funding for student success in math and science in middle schools and/or high schools. The deadline for application is March 30, 2009.

<http://www.hp.com/hpinfo/grants/us/2009-HPIIE-Secondary-US.pdf>

International Sea Turtle Conservation Funds

The National Fish and Wildlife Foundation announces the availability of matching grant funding for international sea turtle conservation projects in the Western Hemisphere. Funding is provided by the National Fish and Wildlife Foundation, the U.S. Fish and Wildlife Service, and NOAA. The deadline for application is February 13, 2009.

<http://www.nfwf.org/AM/Template.cfm?Section=Search&template=/CM/HTMLDisplay.cfm&ContentID=11319>

National Association of Biology Teachers Awards

The National Association of Biology Teachers recognizes excellence in teaching with a variety of awards, including the Ecology/Environmental Science Teaching Award. Check the website for information about the different awards and their deadlines. The environmental teaching award deadline is March 15, 2009.

<http://www.nabt.org/websites/institution/index.php?p=20>

Native Hawaiian Education Program

The Native Hawaiian Education program supports innovative projects that enhance the educational services provided to Native Hawaiian children and adults. The deadline for application is March 24, 2009.

<http://www.ed.gov/legislation/FedRegister/announcements/2009-1/012309f.html>

New England Aquarium Activities

The New England Aquarium offers downloadable activities and teacher guides on their website. Check out Get to Know a Fish, How Animals Stay Warm, concept maps, and more.

http://www.neaq.org/education_and_activities/teacher_resources/classroom_resources/classroom_activities/index.php

NOAA Environmental Literacy Grants for K-12 Education

NOAA's Office of Education is requesting applications for environmental literacy projects designed to build capacity within NOAA's Science On a Sphere Users Collaborative Network to enhance the educational use of spherical display systems as public exhibits. The deadline for applications is February 19, 2009. See the website for details.

http://www.oesd.noaa.gov/funding_opps.html

Ocean Animal Aquarium Teachers' Guide

The Marine Biological Laboratory's Marine Resources Center offers a downloadable Ocean Animal Aquarium Teachers' Guide, with lessons and activities that you can do with an ocean animal aquarium in your classroom, and ways to integrate the aquarium into daily classroom activities.

http://www.mbl.edu/mrc/services/pdf/teachers_guide.pdf

Oceans for Life Program

Oceans for Life is an initiative to increase cultural understanding through ocean science. This program will provide high quality, immersive ocean field studies and follow-on education programs to facilitate cross-cultural learning, appreciation, and lasting experiences between Middle Eastern and Western students. Participants will produce youth media projects to document their experience with the assistance of National Geographic photographers and American University film students to share with their schools and local communities. Teachers are invited to help with the recruitment of high school students for the pilot field studies during the summer of 2009. The deadline for student applications is February 27, 2009.

<http://sanctuaries.noaa.gov/education/ofl/welcome.html>

Open Architecture Challenge

The Open Architecture Challenge invites teachers, students, and design professionals to work together to design the classroom of the future for their school. Faculty and students partner with design professionals to create a safer, healthier and more sustainable learning environment. The deadline for registration is May 1, 2009.

<http://www.openarchitecturenetwork.org/challenge>

Portal to Papahānaumokuākea

Join students from Duke University's Nicholas School of the Environment as they examine the challenges associated with managing and conserving marine biodiversity, using aspects of the Papahānaumokuākea Marine National Monument in the Northwestern Hawaiian Islands as the focus of several case studies. Check out their daily blogs and videos, and comment on what they are learning and the work they are doing at this remote marine wilderness.

<http://www.nicholas.duke.edu/hawaii/>

Ramsar Convention Small Grants Fund

The Ramsar Convention Small Grants Fund provides support for a number of small projects for the conservation and wise use of wetlands. Parties from eligible developing countries are encouraged to submit proposals for the 2009 period. The deadline for submission of draft proposals is April 30, 2009.

http://www.ramsar.org/sqf/key_sqf_index.htm

Science Education and Public Outreach Forums Cooperative Agreement Notice

NASA's Science Mission Directorate is soliciting proposals for Science Education and Public Outreach Forums to collaborate in execution of its Education and Public Outreach program. It is anticipated that there will be a total of four awards with one Science Education and Public Outreach Forum being individually affiliated with each of the four science divisions, including one in Earth Science. The deadline for the notice of intent is February 11, 2009.

<http://nspires.nasaprs.com/external/solicitations/solicitations.do?method=open&stack=publish>

Stockholm Junior Water Prize

The Stockholm Junior Water Prize is a youth award for a water-related science project. High school students submit their research papers online. As a first step, state winners and their science teachers win a trip to the U.S. competition in Alaska. The deadline for entry varies, but for many states is April 15, 2009.

<http://www.wef.org/AboutWater/ForStudents/SJWP/CriteriaGuidelines.htm>

Wildlife Forever State-Fish Art Project

The Wildlife Forever State-Fish Art Project is an interdisciplinary conservation education program that uses art to spark the imagination of students and foster a sense of discovery of the natural world. The program has two primary components: 1) the comprehensive State-Fish Art Lesson Plan, *Fish ON!* for students in grades 4-12, and 2) a national art contest which serves as an outreach initiative and showcase for youth in the arts. The deadline for entry is March 31, 2009.

<http://www.statefishart.com/index.htm>

Youth Eco-Essay Contest

The Youth Eco-Essay Contest for ages 6-16 is part of the launch of a new book launch of *Duckey and the Ocean Protectors*, an environmental and educational tale of sea creatures who are out to save the ocean. Note that no purchase is necessary; the deadline for entry is May 31, 2009.

<http://www.duckeyops.com/contest/>

INTERNSHIPS AND TEMPORARY OPPORTUNITIES

Great Lakes Summer Student Fellowship Program

The Cooperative Institute for Limnology and Ecosystems Research, administered by the University of Michigan, announces the 2009 Great Lakes Summer Student Fellowship Program. They seek to fill 22 full-time, twelve-week positions. Preference is given to currently enrolled or just-graduated undergraduates, although graduate student applications will also be considered. Summer fellowships are available in a broad range of fields including Aquatic Ecology, Outreach and Communications, Maritime Archaeology, and more. The deadline for application is February 27, 2009.

<http://ciler.snre.umich.edu/summerfellowpositions.php>

Knauss Fellowship

The Knauss Fellowship provides a unique educational experience to students who have an interest in ocean, coastal, and Great Lakes resources and in the national policy decisions affecting those resources. As a reminder, the deadline for application is February 20, 2009. Contact your state Sea Grant program director.

<http://www.seagrants.noaa.gov/knauss/>

PADI Foundation Funding

The PADI Foundation encourages and supports underwater science, environmental projects, and education. The foundation funds and assists projects that increase mankind's understanding of the aquatic environment and encourages sensitivity to and protection of the delicate ecological balance of underwater life. In addition, the foundation also funds projects to increase understanding of sport diving physics and physiology that benefit the general diving public and add to the scientific understanding of man's relationship and ability to survive in the underwater environment. The deadline for submission is February 15, 2009.

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

SEA Student Scholarships

SEA, Sea Education Association, offers student scholarships for their Spring I (February 10-May 4, 2009) and Spring II (March 24-June 16, 2009) undergraduate programs. All

SEA Semesters include six weeks of study at their campus in Woods Hole, Massachusetts and six weeks of oceanographic research and continued coursework at sea aboard one of their research/sailing school vessels.

<http://www.sea.edu/admissions/affordability.asp>

Teaching Ambassador Fellowships

The U.S. Department of Education offers Teaching Ambassador Fellowship at the U.S. Department of Education for the 2009-2010 school year. Currently practicing, state certified pre-K-12 grade public school teachers and instructional specialists/coaches with at least three years of teaching experience are eligible to apply. Twenty part-time classroom fellows and five full-time Washington fellows will learn about, and contribute to the national dialogue on education policy. The deadline for application is March 16, 2009.

<http://www.ed.gov/programs/teacherfellowship/index.html>

CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT

Blue Vision Summit

The Blue Vision Summit, March 7–10 in Washington, D.C., will host regional and national groups who care about our public seas. The summit will include two days of speakers and panels on federal action on the ocean, solutions that are working, and ways to address climate change impacts. The third day is set aside for Capitol Hill Day, offering an opportunity to meet your representative. The deadline for earlybird registration is February 7, 2009.

<http://www.bluefront.org/bluevision/>

Coral Reef Ecology Field Course - Bermuda

The Bermuda Institute of Ocean Sciences will offer their Coral Reef Ecology field course July 12-August 1, 2009, in Bermuda. The course is open to undergraduates and graduate students with strong academic credentials, and to teachers and professionals. The course is open only to SCUBA divers. The application deadline for the first round of admissions and scholarship decisions is March 13, 2009.

http://www.bios.edu/education/coral_reef_ecology.html

Dauphin Island Sea Lab Summer Programs for Students and Teachers - Alabama

Dauphin Island Sea Lab, Dauphin Island, Alabama, offers a wide variety of summer programs for students and teachers. Check the website for dates.

For Students

- Oceans Alive!: Half day beach exploration for children 5-8 years with parent;
- Treasure Island: Half day history treasure hunt for children 9-11 years;
- Gulf Island Journey: Marine summer camp on a barrier island for middle school students;
- Summer High School Course: Four week marine science course for high school students.

For Teachers

- The Delta: Explore the Mobile-Tensaw Delta;
- Coastal Connections: Linking watersheds to the Gulf of Mexico;
- Sharks and Rays: Ins and outs of shark biology;

- Applications of Science and Technology: Special, free teacher workshop for Alabama math or science teacher for grades 5-9; availability is limited;
- COSEE: Central Gulf of Mexico: For Alabama educators; deadline for registration is May 31, 2009.

For College and Graduate Students: Courses in this intense program will be offered from May to August.

http://press.disl.org/1_08_09summer.htm

Educator-Scientist Collaborative Workshop – New Hampshire

COSEE-Ocean Systems is offering this workshop for science educators of grades 9-12, March 13-14, 2009 in Durham, New Hampshire, with an optional informal event with scientists and possible overnight accommodations March 12, 2009. Middle school educators are also welcome to apply. The workshop will center on teams of educators and scientists (1 scientist : 3 educators ratio) who will create online learning resources that align with National Science Education Standards, Climate Literacy Principles, and Ocean Literacy Principles. Topics will focus on the current research topics of the internationally known scientists who will fully participate in all aspects of the workshop. Hurry – the application deadline is February 9, 2009.

<http://cosee.umaine.edu/events/index.cfm?FuseAction=ShowEvent&EventID=60&timeFilter=Future>

High School Marine Science Symposium - Massachusetts

The Annual High School Marine Science Symposium, sponsored by the University of Massachusetts at Dartmouth, New Bedford ECHO Project, and the Massachusetts Marine Educators, will take place March 18, 2009 in Dartmouth, Massachusetts.

<http://www.massmarineeducators.org/hsmss2009.shtml>

Learning Ocean Science through Ocean Exploration - Various

NOAA's Ocean Exploration Program and partners will offer introductory and follow-up Learning Ocean Science through Ocean Exploration professional development workshops for science teachers. Participants will receive the curriculum with CD-ROM's, certificates of participation, and more. Contact the noted educator for registration and more information.

- Tennessee with the Tennessee Aquarium, a follow-up workshop May 2, 2009. The deadline for registration is April 17, 2009. Contact George Bartnik at gpb@tennis.org
- Massachusetts with the New England Aquarium, a follow-up workshop May 16, 2009. The deadline for registration is May 1, 2009. Contact Jayshree Oberoi at joberoi@neaq.org
- California with Aquarium of the Pacific, a follow-up workshop May 16, 2009. The deadline for registration is May 1, 2009. Contact Alie Lebeau at alebeau@lbaop.org

Master Naturalist Program - Florida

The mission of the Florida Master Naturalist Program is to promote awareness, understanding, and respect of Florida's natural world among Florida's citizens and visitors. Instructors use science-based information and interpretive techniques that prepare students to share their knowledge with others. Check the website for details.

<http://www.masternaturalist.ifas.ufl.edu/>

National Conference for Nonpoint Source and Stormwater Outreach

The theme of the Fifth National Conference for Nonpoint Source and Stormwater Outreach, May 11-14, 2009 in Portland, Oregon, is *Achieving Results with Tight Budgets*. The conference will explore practical, current examples of successful outreach programs and projects.

<http://epa.gov/nps/outreach2009/>

School of Rock 2009

The School of Rock 2009: Cores, CORKS and Hydrology on the Juan de Fuca Ridge, is a hands-on, research-based expedition for Earth and ocean science educators. Slated for June 23 –July 5, 2009 aboard the *JOIDES Resolution*, this workshop is open to science teachers at all levels, including undergraduate faculty, preservice, and informal educators. Hurry – the deadline for application is February 4, 2009.

http://www.oceanleadership.org/learning/school_of_rock/09

Summer Marine Studies Courses - Oregon

The Oregon Institute of Marine Biology offers a variety of summer courses in Charleston, Oregon for undergraduates and teachers. Course length varies from weekend to 8-week courses, and range from Biological Illustration to Biology of Fishes. Scholarships may be available.

<http://www.uoregon.edu/~oimb/Academics/summer.htm>

Teach at the Beach – New Jersey

The New Jersey Marine Education Association will offer its annual Teach at the Beach, May 15, 2009 in Tuckerton, New Jersey. The workshop is designed to provide educators of all grades and disciplines with ideas, resources, lesson plans, and programs dedicated to utilizing marine and aquatic environments as a background to classroom teaching. The deadline for registration is March 15, 2009; the event is limited to the first 125 registrants.

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

U.S. Coral Reef Task Force Meeting – Washington, DC

The 21st bi-annual meeting of the U.S. Coral Reef Task Force will be held February 25, 2009 in Washington, DC.

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

EDUCATIONAL RESOURCES

Advanced Placement Environmental Science Course – Online

Based on curriculum developed for California schools, the Advanced Placement Environmental Science course developed by the University of California College Prep initiative is now available through the Encyclopedia of Earth website. The online course includes 25 chapters on topics ranging from energy flows to environmental laws and regulations; the chapters may be used independently as a resource for teachers and students or sequentially as a full course.

http://www.eoearth.org/article/AP_Environmental_Science_Online_Course

Algalita Marine Research Foundation Materials

The Algalita Marine Research Foundation is dedicated to the protection of the marine environment and its watersheds through research, education, and restoration. They

offer K-12 education programs which include curriculums and/or DVDs set to California's science standards. In addition, they have downloadable materials on plastic debris, a watershed companion curriculum, research articles, and more. Some materials are available in Spanish.

<http://www.algalita.org/education.html>

Australian Marine Environment Protection Association Educational Materials

The Australian Marine Environment Protection Association offers a variety of educational web pages and materials. Topics include marine stormwater pollution, the effects of climate change on coral bleaching, marine pest and threat, and much more. Check out the flash versions and downloadable teacher resources.

<http://www.ausmepa.org.au/home/>

BioMEDIA Associates

BioMEDIA ASSOCIATES produces multimedia programming for life science instruction for middle school, high school, and college students that captures the diversity of the living world. The website offers a large amount of overview information and vibrant illustrations, including a series of free posters.

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

Climate Change From Pole to Pole: Biology Investigations

NSTA offers the text, *Climate Change From Pole to Pole: Biology Investigations*, with case studies and background information on how to teach the science of climate change. The six researched and field-tested activities building on four content chapters, provide students the opportunity to solve real-life scientific problems using guiding questions, graphs and data tables, short reading assignments, and independent research.

http://www.nsta.org/store/product_detail.aspx?id=10.2505/9781933531236&lid=exp

Coral Science Web Site

The mission of the Coral Science website is to bridge the gap between coral science and society, and to stimulate awareness for our fragile planet and its ecosystems. They offer scientific articles about ocean related research. Current topics include coral calcification, coral immunology, coral bleaching, and more.

<http://www.coralscience.org/home/>

The Cycle

RecycleBank offers The Cycle, an animated interactive look at the process of single stream recycling and materials reprocessing, following theoretical recyclables after they are collected. The Cycle takes viewers through each step of the process.

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

Delaware Sea Grant Social Networking

Delaware Sea Grant invites you to check their activities out through Facebook, Twitter, and YouTube. They will share photos, news, resources, and more through these sources.

<http://www.facebook.com/pages/Delaware-Sea-Grant/40576461700>

<http://twitter.com/DESeaGrant>

<http://www.youtube.com/deseagrnt>

Digital Research Tools

Created by the director of the Digital Media Center at Rice University, this collaborative wiki collects information about tools and resources that can help scholars conduct research more efficiently or creatively. Visitors can browse through topical headings that include Authoring, Blogging, and Data Mining, among others. Visitors can search for specific tools that can help collect data, edit images, make a dynamic map, and more.

<http://digitalresearchtools.pbwiki.com/>

Dynamic Earth

The Smithsonian Museum of Natural History brings a brief introduction into the physical science of the history of Earth alive in a unique fashion with this website. Sections include Gems and Minerals, Rocks and Mining, Plate Tectonics and Volcanoes, and the Solar System. The website can be viewed either as multimedia or in a print version.

http://www.mnh.si.edu/earth/main_frames.html

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 three of NOAA's National Estuarine Research Reserves. The broadcasts will include a discussion of the impacts of global climate change on our coastal ecosystems. For those who can't watch the live broadcasts, check out the archives.

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

Expert Voices Weblog

The National Science Digital Library Expert Voices site provides the latest science news straight from the source: scientists. Expert Voices is a weblog site for experts in STEM (science, technology, engineering, and mathematics) and a forum for educational discussion about the latest STEM news. The weblog supports collaborative STEM conversations among content experts, scientists, teachers, and students from key NSDL audience groups: K12 teachers, university faculty, librarians, and library builders. Moderated conversations are designed to tie NSDL resources to science news and add context for resources that enhance discovery, selection, and use.

<http://expertvoices.nsdli.org/>

Explore! Ice Worlds

Developed by the Lunar and Planetary Institute and funded by NASA, *Explore! Ice Worlds* is a suite of activities designed for children ages 8-13 in celebration of the International Polar Year. The activities are intended for the informal learning environments, including libraries, after-school programs, and museums. All activities are tied to National Science Education Standards and use inexpensive, easy-to-find materials. Free webcast training in using these activities will be available, including discussions with a NASA polar scientist and demonstrations of the activities on February 10, 17, and 24, 2009 for 1.5 hours each or February 12 or March 4, 2009 for 4 hours. Contact Katy Buckaloo at buckaloo@lpi.usra.edu to register for the training.

<http://www.lpi.usra.edu/education/explore/ice/activities/>

Flotsam and Jetsam

Flotsam and Jetsam, the Journal of the Massachusetts Marine Educators, is an online quarterly. Each issue has a central theme, such as Ocean Floor Geology, National

Marine Sanctuaries, and more, and includes at least one curriculum activity. Previous years' editions are available for general view.

<http://massmarineeducators.org/journal.shtml>

Human Toll of Climate Change

The Center for American Progress has created an interactive map on the human toll of climate change. Compiled from multiple sources, the map provides scientific information on a variety of climate change threats and plots the information geographically to show areas of concern. Contributions of scientific research to the database are invited.

<http://maps.scienceprogress.org/climate/index.php>

Immersion Presents through the Internet

The Immersion Presents team is working to provide schools with a viable auditorium quality live broadcast option for sites without access to Internet2. A collaboration between Mystic Aquarium & Institute for Exploration, the University of Rhode Island, and NOAA, they feature live broadcasts from one or more real-world scientific expeditions each year and include hands-on science activities and much more.

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

Jellyfish Gone Wild

Jellyfish Gone Wild features photos and videos of jellyfish, stinging statistics about jellyfish swarms, and explanations of how and why jellyfish swarms form. The report, available as text or interactive display, provides an overview of the science of jellyfish swarms, tinged with humor. The website also offers additional resources, including jellyfish anatomy, life cycle, and links to other information.

http://www.nsf.gov/news/special_reports/jellyfish/index.jsp

Manta Ray Catalogue

A catalogue of individual manta rays visiting the Flower Garden Banks National Marine Sanctuary is available at the sanctuary offices and online. Markings on the undersides of each animal are unique and help scientists to try to learn more about these animals. The website also offers a downloadable poster.

<http://flowergarden.noaa.gov/science/mantacatalog.html>

Marine Mineral Studies

The U.S. Department of the Interior's website on marine mineral mining on the Outer Continental Shelf is primarily concerned with providing information about the environmental impact that dredging activity has on marine life, with links to renourishment projects. The Kid Connection offers downloadable booklets and directions for simple experiments which allow kids to see erosion and sedimentation in action, along with links to careers in marine minerals.

<http://www.mms.gov/SandAndGravel/MarineMineralStudies.htm>

Ocean Conservation Booklets

Pew Environment Group and Marine Fish Conservation Network have colorful educational booklets available for free, which provide a general background on ocean conservation and overfishing. They would be happy to ship requests of over 100 to those interested. The booklet is also available for downloading from the website.

<http://www.endoverfishing.org/resources/OceanConservationBooklet2008-PewLogo.pdf>

Contact Joseph Gordon at JGordon@pewtrusts.org

Ocean Stewardship: Education and Outreach

Oikonos works locally and internationally to increase ecosystem knowledge through science, art, technology, education, and applied conservation. A goal of Oikonos Ecosystem Knowledge is to form collaborations with education experts and develop innovative programs that disseminate project specific results to a broad diverse community. The website has a variety of downloadable marine debris information resources and an interesting gallery.

<http://www.oikonos.org/projects/oceanstewardship.htm>

Permafrost/Active Layer Monitoring Network

With support from NASA and the International Polar Year, the University of Alaska Fairbanks launched the Alaska Permafrost Project, a network of over 100 schools in Alaska and Yukon, Canada that measure permafrost temperature and active layer depth on a weekly basis. The network places all of their data plots and latest information on their website as well as Google Earth. The website also offers other education materials.

<http://www.uaf.edu/permafrost/>

Polar Cruise Blog

This blog is a project associated with the Palmer Station site, a member of the Long-Term Ecological Research Network. The cruise, January 6-February 9, 2009, is one of the annual interdisciplinary cruises contributing to the creation of a long-term time series record which began in 1991.

<http://pal.lternet.edu/outreach/blogs/cruise/>

Science Tracks Downloads From Teachers' Domain

Teachers' Domain offers free science track downloads for iPods. Topics available include Life Science, Earth and Space Science, and more. Resources available for download include videos and educator guides with discussion questions, background essays, and additional materials.

<http://deimos3.apple.com/WebObjects/Core.woa/Browse/wgbh.org>

Survey and Questionnaire Tutorial

The StatPac group offers a tutorial which teaches how to conduct a survey and design a questionnaire. Learn the latest survey research techniques, what works and what doesn't. The tutorial addresses how to maximize survey response rates and design a questionnaire that gets at the true opinions of your sample.

<http://www.statpac.com/surveys/>

Turtle Talks Activity Book

Turtle Talks is a youth conservation eco-literacy project. A team member authored a downloadable children's activity book on sea turtles.

http://www.oceana.org/fileadmin/oceana/uploads/reports/TurtleTalks_en.pdf

Wildlife Forever

The mission of Wildlife Forever is to conserve America's wildlife heritage through conservation education, preservation of habitat and management of fish and wildlife. The Wildlife Forever CD-ROM Curriculum is a conservation education supplement that teaches students about a variety of wildlife species, natural resources, ecological concepts, and conservation. The curriculum includes 14 lesson plans designed to

cultivate a feeling of personal responsibility for the wonders of nature. They also offer a downloadable lesson plan from the website, along with other products and resources.

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

INITIATIVES, JOURNALS, and MORE

EcoZone Green Schools Initiative

NOAA's National Ocean Service recently joined the EcoZone Green Schools Initiative, a public-private environmental outreach and education effort sponsored by EcoMedia and the CBS Corporation. The program's goal is to inspire students to do what they can to help the environment. The Green Schools Initiative will begin as pilot projects in Miami, San Francisco, and Chicago, with the purpose of performing "green" makeovers on area schools.

<http://www.ecozonemedia.com/greenmyschool/>

Endangered Species Day

May 15, 2009 is Endangered Species Day. Events will be held across the country to raise awareness about the threats to endangered species, including global warming, and success stories in species recovery. Register your event, download educational materials, and more from the website.

http://www.stopextinction.org/cgi-bin/giga.cgi?cmd=cause_dir_custom&cause_id=1704&page=day

The Gulf of Mexico at a Glance Report

One objective of the Gulf of Mexico Alliance is to build public awareness about the linkages between the Gulf region's ecological health, the quality of residents' everyday lives, and the economic vitality of the region. To this end, The Gulf of Mexico at a Glance presents regional aggregations of selected economic activities that are focused in coastal and ocean areas, as well as selected social and environmental attributes of the region.

http://gulfofmexicoalliance.org/pdfs/gulf_glance_1008.pdf

Mesoamerican Coral Reef Watch Program

A website has been launched to encourage individuals, tourism operators, and organizations to submit regular reports of coral reef health throughout the Mesoamerican region. The primary aim of the site is to provide information and education regarding bleaching events, detect early stages of coral bleaching events over a wide geographic range, and to use coral bleaching as a means to communicate the broader impacts of climate change on the Mesoamerican Barrier Reef.

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

National Teach-in on Global Warming Solutions

Don't forget - on February 5, 2009, the National Teach-In on Global Warming Solutions will engage Americans in solutions-driven dialogue, including young people, national political leaders, and other key decision-makers. The website has links to information about weekly planning calls, educational resources, and more.

<http://nationalteachin.org/>