

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
INFORMATION EXCHANGE FOR MARINE EDUCATORS

OCTOBER 2006

This update is provided with support from NOAA's Office of Education and by 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://www.mpa.gov/information_tools/education.html#InfoExchange. 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 Book

ABCs of Ecology

The naturalists at Ferry Beach Ecology School on the coast of Maine have contributed their collective knowledge and innovative teaching methods to publish *The ABCs of Ecology®: An Educator's Guide to Learning Outside*. This 230-page book is useful for those looking for outdoor activities and lesson plans to help children understand the world in which they live, and includes chapters and background information on geology, climate, forest, ABCs of ecology, and watersheds. The lessons are geared for 3rd - 8th grade levels

<http://www.fbcs.org/store/ABCsoEcologyFlyer.pdf>

PROGRAM OF THE MONTH

Teaching Psychology for Sustainability: A Manual of Resources

This interesting instructor's resource is available online. The site includes an overview with a list of general resources that identify connections between psychology and environmental issues; instructor resources, including lecture and discussion topics, class activities, multimedia resources, and suggested readings for students; a bibliography with links to publisher sites for authored books and tables of contents for edited volumes; and a compendium of syllabi from instructors who currently teach psychology for sustainability.

<http://www.teachgreenpsych.com>

WEBSITE OF THE MONTH

National Sea Grant Library

This searchable database of 40,000 records is the official Sea Grant archive and maintains the nation's most comprehensive collection of Sea Grant funded documents covering a wide variety of subjects including marine education, aquaculture, fisheries, coastal zone management, oceanography, marine recreation, and law. The National Sea Grant Library has almost 13,000 Sea Grant documents, including marine science K-12 activity sheets and teacher's guides, available in PDF format on their website.

Staff lend documents, CD-ROMs, videos, DVDs, and other materials worldwide to aid scientists, teachers, students, fishermen, and others in their research and studies. All of the documents, CD-ROMs, videos and DVDs may be borrowed from the NSGL for one month and most can be obtained from the sponsoring Sea Grant programs.

Check out the Ask a Librarian section for some of the interesting queries they've received over the years, and What's New for the latest research publications. The website also features digital libraries on education and marine careers.

<http://nsql.gso.uri.edu/>

MESSAGE FROM THE BRIDGE

Use Sea Turtles in Your Next Lesson

Sea turtles can be used to demonstrate concepts in many facets of the ocean sciences. The Bridge features a collection of Data Analysis Teaching Activities (DATAs) that can be used to supplement curriculum materials. For an activity in ecology, explore the DATA: See Turtles Nest, See Turtles Hatch, which evaluates nesting and hatching data from a community organization in Kenya. Or, if you would like to incorporate bycatch in your next unit, see Off the Hook!, where students use National Marine Fisheries Service data to examine the use of J-hooks versus circle hooks. For physical and biological oceanography, see our Scientist Spotlight on Kate Mansfield, a sea turtle biologist, which contains a sea turtle tracking activity. The Bridge also has sea turtle links to teacher-reviewed external resources for even more information.

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

See Turtles Nest, See Turtles Hatch http://www.marine-ed.org/bridge/index_archive0700.html

Off the Hook! http://www.marine-ed.org/bridge/index_archive0404.html

Scientist Spotlight: Kate Mansfield http://www.marine-ed.org/bridge/index_mansfield.html

REQUESTS

Call for Products for NASA Science Education Product Review

The Science Mission Directorate Education Product Review invites you to submit Earth system science education products and resources for review for formal (elementary through post-secondary) and informal education. The notice of intent is due November 6, 2006; products are due November 27, 2006.

http://science.hq.nasa.gov/education/ed_product_review.html

Seeking Collaborators for Marine Education Strand

The 36th annual conference of the North American Association for Environmental Education, November 14–17, 2007 in Virginia Beach, Virginia, will have a strand on marine education. A call for papers will be available in mid-November and those interested in helping to design the strand should email Bridget Chisholm at

Bchisholm@naaee.org.

<http://www.naaee.org>

Seeking Innovative Practices in Marine Enforcement and Coastal Development

The Nature Conservancy's Parks in Peril program is currently collecting a series of stories or case studies that illustrate innovative approaches to solving two key challenges within marine conservation in the Meso-American and Caribbean regions: (1) enforcement and (2) development. These stories may be included in a publication as a learning resource for marine conservation practitioners in the region. Specific information about how stakeholder participation was encouraged in your management solution is of particular interest.

Contact Colleen Corrigan at ccorrigan@tnc.org

GRANTS AND OPPORTUNITIES

BiosciEdNet Scholars

The National Science Digital Library (NSDL) Biological Sciences Pathway invites undergraduate faculty in the biological sciences to apply to become BiosciEdNet (BEN) Scholars. BEN Scholars will promote the use of digital libraries and inquiry-based learning in higher education biological sciences lecture and laboratory courses. Scholars receive training in leadership and effective use of digital libraries; resources to use in their own classrooms and to share with colleagues through presentations, workshops and one-on-one mentoring; integration into the BEN Scholars Network; recognition from the participating organizations; travel support; and a small stipend. The deadline for application is October 22, 2006.

<http://www.bioscienet.org/portal/scholarApp.php>

California Coastal Art and Poetry Contest

The California Coastal Commission invites California students in kindergarten through 12th grade to submit artwork or poetry with a California coastal or marine theme to the annual Coastal Art and Poetry Contest. The deadline for entry is January 31, 2007.

<http://www.coastforyou.org>

Charles S. Falkenberg Award

The American Geophysical Union is seeking nominations for the 2007 Charles S. Falkenberg Award for a scientist under 45 years of age who has contributed to the quality of life, economic opportunities, and stewardship of the planet through the use of Earth science information and to the public awareness of the importance of understanding our planet. The deadline for application is October 15, 2006.

<http://www.agu.org/inside/awardnom.html>

Fund for Teachers

Fund for Teachers enriches the professional growth of teachers by recognizing and supporting them as they identify and pursue opportunities around the globe that will have the greatest impact on their practice, the academic lives of their students and on their school communities. Fund for Teachers provides grants directly to K-12 teachers, with three or more years of experience, to support professional development of the teacher's own design during the summer. Teachers from specific states and areas within those states are eligible to apply – see the website for details. The deadline for application is January 16, 2007.

<http://www.fundforteachers.org/apply.html>

Graduate Assistance in Areas of National Need

This program provides fellowships in areas of national need to assist graduate students with excellent academic records who demonstrate financial need and plan to pursue the highest degree available in their courses of study. Areas of study include biology and engineering. The deadline for application is November 20, 2006.

<http://www.ed.gov/legislation/FedRegister/announcements/2006-3/091106a.html>

Lowe's Toolbox for Education Grants

The Lowe's Toolbox for Education offers grants to schools (K-12) and parent/teacher groups across the United States. School projects should encourage parent involvement and build stronger community ties. Samples of funded projects are ones that engage students with their school's surrounding environment. Only the first 1,500 applications per grant period are accepted. The 2006-07 school year grant cycle deadlines are October 15, 2006 and February 15, 2007.

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

Making a Difference Award

The DCAT (Drug, Chemical and Associated Technologies Association) Making a Difference Award recognizes a science program developed and implemented by middle-level science teachers, grades 6-12. Entries must show innovative and effective teaching strategies combined with a science program that has influenced students to explore and investigate science and its application to global problems. The deadline for application submission is October 15, 2006.

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

Marine Wildlife Photo Contest

The Ocean Conservancy encourages readers to share their deepest feelings about the oceans through their annual marine wildlife photo contest. Subject matter must consist of marine wildlife or marine habitats, and must be photographed in a natural setting. The deadline for entry is October 31, 2006.

<http://www.oceanconservancy.org/site/PageServer?pagename=photoContest>

Museums for America Grants

Museums for America grants strengthen a museum's ability to serve the public more effectively by supporting high-priority activities that advance the institution's mission and strategic goals. Funding will support projects and activities that strengthen museums as active resources for lifelong learning and as key players in establishing livable communities. The deadline for applications is November 15, 2006.

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

National Education Association Foundation Grants

The NEA Foundation for the Improvement of Education, the foundation of the National Education Association, inspires public education employees to ensure that all students succeed. Learning and Leadership Grants provide opportunities for teachers, education support professionals, and higher education faculty and staff to engage in high-quality professional development and lead their colleagues in professional growth. Student Achievement Grants are offered to improve the academic achievement of students by engaging in critical thinking and problem solving that deepen knowledge of standards-based subject matter. The work should also improve students' habits of inquiry, self-directed learning, and critical reflection. The next deadline for either application is October 15, 2006.

<http://www.neafoundation.org/grants.htm>

NOAA Ship-Naming Contest – California, Oregon, and Washington

NOAA invites students in grades 6-12 in the states of California, Oregon and Washington to choose a name for one of its new ships through a ship naming competition. The vessel is the last of four new fisheries ships to be built and will operate off the West Coast of the United States. Teachers and student advisors are encouraged to think about how to bring this program into the curriculum and to collect the materials needed to help their students participate in the competition. The deadline for entry is December 15, 2006.

<http://www.education.noaa.gov/shipname/rules.html>

Preserve America Presidential Award

The Preserve America Presidential Awards are given to organizations, businesses, government entities, and individuals for exemplary accomplishments in the sustainable use and preservation of cultural or natural heritage assets; demonstrated commitment to the protection and interpretation of America's cultural or natural heritage assets; and the integration of these assets into contemporary community life, and combination of innovative, creative, and responsible approaches to showcasing historic resources in communities. The deadline for nominations is November 1, 2006.

<http://www.preserveamerica.gov/presidentialaward.html>

Prudential Spirit of Community Awards

The Prudential Spirit of Community Awards honor young people in middle and high school grades for outstanding volunteer service to their communities. The deadline for application is October 31, 2006.

<http://www.prudential.com/spirit>

QuikSCience Challenge – Southern California

The University of Southern California, Wrigley Institute for Environmental Studies and Quiksilver, Inc. offer the QuikSCience Challenge, a multi-faceted competition for student teams designed to spark their interest in science and the oceans. The Challenge seeks

to foster leadership qualities in young people through environmental awareness and stewardship. There are two competitions, one for middle school teams and one for high school teams. Teams consist of six students and one adult teacher or mentor, with all team participants from the same school. The deadline for entry is November 10, 2006. (The website will be updated for this year's challenge soon).

<http://www.usc.edu/quikscience>

State Farm Good Neighbor Service-Learning Grant

The State Farm Companies Foundation offers grants, available from Youth Service America, for teachers, youth, and school-based service-learning coordinators to implement service-learning projects for National and Global Youth Service Day in April 2007. The deadline for application is October 16, 2006.

http://www.ysa.org/awards/award_grant.cfm

Toyota Tapestry Grant Program

Toyota Tapestry Grants are administered by NSTA and are available to K-12 teachers of science. The grants recognize outstanding educators who are making a difference by demonstrating excellence and creativity in science teaching. The deadline for entry is January 18, 2007

<http://www.nsta.org/programs/tapestry/>

INTERNSHIPS AND TEMPORARY OPPORTUNITIES

California State Fellowship

The California Sea Grant College Program is soliciting applications for the 2006-2007 California State Fellowship Program. The State Fellow Program offers an educational opportunity for graduate students who are interested both in marine resources and in the policy decisions affecting those resources. The program matches highly motivated and qualified graduate students with state or federal agencies in California for a 9-month paid fellowship. Hurry – the deadline for applications is October 6, 2006.

<http://www.csgc.ucsd.edu/EDUCATION/StateFellow.html>

Ramsar Internship

The Ramsar Secretariat welcomes applications for the position of Intern/Assistant Advisor for the Americas Region, a 12-month posting (possibly extendable to 18 months) in the Ramsar Secretariat in Switzerland to begin in February 2007. With an age limit for applicants of 30 years old, the post offers an opportunity for young graduates to become acquainted with the workings of an intergovernmental treaty dealing with the conservation and sustainable use of natural resources. Full ability to work in English and Spanish is required. The deadline for application is October 31, 2006.

http://ramsar.org/about/about_internships.htm

Spring Semester Abroad - Costa Rica

Earth Education International offers undergraduates an interdisciplinary Sustainable Global Stewardship program, January - May 2007 in San Ramón, Costa Rica, which is open to all majors and includes a home-stay experience, extensive field study, and a service-learning component. The deadline for application is October 22, 2006.

<http://www.earthedintl.org/Spring.htm>

CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT

Adaptations from the Depths - Texas

This workshop, February 17, 2007 in Houston, Texas, is sponsored by Flower Garden Banks National Marine Sanctuary. Find out how creatures have adapted to survive in an underwater world. Free curriculum and materials will be available. And while you're on the website, check out the other workshops available at the Houston Zoo.

http://www.houstonzoo.org/index.asp?page_ID=344

Autosub Under Ice Webconference and Educator Workshop

This three week long on-line conference and educator workshop, September 18-October 6, 2006, will focus on the science, technology and engineering of the Autosub Under Ice programme. Learn about this cutting edge science and technology directly from the scientists and engineers. Resources and lesson plans are included, and the program will provide a foundation for learning during the International Polar Year, which begins in March 2007. All the presentations have been transcribed and are offered as webpage-based text and pictures, and available for video downloading.

<http://www.coexploration.org/autosub>

Classroom Exploration of the Oceans - Online

Join this virtual teacher workshop series to explore America's little-known ocean realm during the upcoming Classroom Exploration of the Ocean Virtual Teacher Workshop Series, October 9–20 and November 6–17, 2006. This professional development program is offered free to anyone who has access to the Internet. Leading and emerging scientists will present their research, explorations and discoveries in these unique ocean areas to you online through engaging keynotes which will be followed by opportunities for you to ask the scientists questions online about their work. Links to educational resources, networking opportunities, and more are also available.

<http://www.coexploration.org/ceo2006>

Eureka! Series - California

The California Institute for Biodiversity, in partnership with California State Parks, offers the Eureka! Series. This educational program provides field-based science education for California's students, including standards-based multimedia curriculum, intensive training for teachers that directly enables them to use the curriculum to its full potential and lead field trips, and material that is tailored to specific regions of California, making it more relevant to students' lives and their surrounding environment. The Eureka! Series is a collection of regionally-based programs throughout California that strategically combine high-quality, multimedia classroom materials with local field experiences in California's state parks and other natural areas. The goal of the program is to improve teaching, increase students' interest in science, and encourage academic achievement in the areas of science, math, and reading for students in grades 5-10. Check out the dates and locations of upcoming teacher institutes.

<http://eukaseries.org/main/>

Fragile Ice Symposium - Utah

Celebrate the International Polar Year at the regional NSTA conference, December 8, 2006 in Salt Lake City, Utah. The Fragile Ice Symposium is designed for grade 5-8 educators in celebration of the International Polar Year. This event is a blended professional development experience that includes this face-to-face learning opportunity

at the conference followed by online experiences (a discussion listserv and two NSTA Web Seminars) designed to extend the interactivity between the participants and the presenters.

<http://institute.nsta.org/fall06/ipyice/symposium.asp>

International Conference on the Environment

The 13th International Interdisciplinary Conference on the Environment, June 30-July 3, 2007 in Portland, Maine, is motivated by the increasing need to combine ideas and research findings from different disciplines to enhance understanding of the interactions between the natural environment and human institutions. Abstracts are welcome, with areas of special interest including environmental issues in New England and the Maritime provinces, coastal resource management, accreditation of environmental programs, and more. The deadline for abstracts is May 18, 2007.

<http://ieaonline.org/conference.htm>

International Pacific Marine Educators Conference

The International Pacific Marine Educators Conference, January 15-20, 2007 in Suva, Fiji, will allow marine educators worldwide to share resources and build a network aimed at ensuring the health of the Pacific Ocean and the communities who depend upon it. The conference is an outcome of the One Ocean Marine Forum, whose purpose was to design a worldwide network of educators for sustainable oceans. Web conferencing will allow educators who are unable to travel to Fiji to participate. The deadline for abstracts is October 15, 2006.

<http://www.ipmec.info/>

International Sea Turtle Symposium

The 27th annual international Sea Turtle Symposium, to be held February 22-28, 2007 in Myrtle Beach, South Carolina, is now open for early registration. The website includes general information, registration, abstract submission procedures, travel grant information, and hotel reservations. The deadline for early registration, travel grant application, and abstract submission is October 15, 2006. Thematic sessions include ecology and evolutionary biology; conservation and management; monitoring; education, outreach and advocacy; and more.

<http://iconferences.seaturtle.org/>

Learning Ocean Science through Ocean Exploration - Florida

NOAA's Office of Ocean Exploration offers the professional development workshop, Learning Ocean Science through Ocean Exploration for Grade 6-12 science teachers, November 18, 2006 in St. Petersburg, Florida. Registration is required and space is limited. This is the first of a two-part workshop series, with the second workshop on September 8, 2007. Educators attending both full-day workshops will receive a \$100 stipend.

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

Marine Resources Population Dynamics Workshop - Florida

This undergraduate workshop, presented by the National Marine Fisheries Service and Virginia Tech, will be held at the Mote Tropical Research Laboratory on Summerland Key, Florida, January 6-12, 2007. The all-expenses-paid week will include coursework, fieldwork, and social activities. The deadline for applications is November 1, 2006.

<http://www.nmfs.vt.edu/workshop/info.1.07.htm>

Nab the Aquatic Invader Workshop - Indiana

This workshop from Illinois-Indiana Sea Grant in conjunction with the National Park Service, November 8, 2006 in East Chicago, Indiana, offers professional development training to help educators for grades 4-10 get their students involved in community stewardship projects that help prevent spread of aquatic invaders. Teachers can earn \$300 stipend for creating an activity and facilitating student stewardship projects.

<http://www.iisgcp.org/cal/Promo%20for%20Nov-2006%20Wkshop.%20Final%20Copy.pdf>

NSTA Conference Proposal Deadlines

Submit an online proposal for an NSTA conference and share your teaching experiences. The 2007–2008 NSTA conferences, proposal deadlines, and dates are:

- 2007 Area Conferences on Science Education, January 15, 2007
 - Detroit, Michigan October 18–20, 2007
 - Denver, Colorado November 8–10, 2007
 - Birmingham, Alabama December 6–8, 2007
- 2008 National Conference on Science Education, April 15, 2007
 - Boston, Massachusetts March 27–30, 2008

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

Ocean's Role in Weather and Climate - Maryland

NSTA is partnering with NOAA to present a symposium for middle and high school level educators on the topic of the ocean's influence on weather and climate during the NSTA area conference in Baltimore, Maryland on November 2, 2006. This event is a blended professional development opportunity including this face-to-face learning opportunity at the conference followed by several online experiences, extending the interactivity with NOAA staff. The half-day symposium will focus on the interconnections among air, sea, and land; the processes by which energy is stored, released and transferred among them; and how our understanding and ability to monitor ocean conditions is key to predicting climate change. Two phenomena will be presented: El Nino and Hurricanes.

<http://institute.nsta.org/fall06/oceans/symposium.asp>

Ocean Literacy Summit - Massachusetts

Join ocean scientists, science writers, educators and their administrators, and policymakers at the New England Ocean Sciences Education Collaborative Ocean Literacy Summit, November 4, 2006 in Boston, Massachusetts. The summit will include workshops, discussions, networking, and exhibits, with a principal focus on ocean science literacy (OSL), an understanding of the ocean's influence on you and your influence on the ocean. Learn how the national OSL Principles can be used to frame ocean science research, teach about science, and incorporate ocean sciences into standard curricula. The deadline for registration is October 13, 2006.

<http://necosee.net/NEOSECOCeceanScienceLiteracySummit.htm>

Power Presentations - Online

The American Society of Training and Development, Southcentral Alaska chapter, is offering a two hour on-line seminar that focuses on creating exciting PowerPoint® presentations. The seminar is not a class in PowerPoint®. Rather, it's a fun, interactive course on how to more effectively use PowerPoint® and other applications to work creatively and efficiently to create world-class graphics and present with confidence.

<http://www.astdalaska.org/PowerPresentations.htm>

Teach at the Beach– New Jersey

The New Jersey Marine Education Association will offer its annual Teach at the Beach, Friday, May 18, 2007 in Manahawkin, New Jersey. The workshop is designed to provide educators of all grades and disciplines with a wealth of ideas, resources, lesson plans, and programs dedicated to utilizing marine and aquatic environments as a background to classroom teaching. The deadline for registration is April 15, 2007; the event is limited to the first 125 registrants.

<http://hometown.aol.com/newjerseyme/register.html>

Tread Lightly! Awareness Course - Online

The Tread Lightly!® Awareness Course is now available online. This course is appropriate for anyone who goes ATV riding, mountain biking, snowmobiling, or owns a four wheel drive vehicle or a personal watercraft; land and water managers are also encouraged to use it in their educational programs. The free 30-minute interactive course covers outdoor ethics. They combine flash animation, audio voice-overs, hypothetical scenarios and quick quizzes. Note that you may need to temporarily disable your popup blocker. Also new on the website is the Tread Lightly! Kids Club.

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

Waves, Wetlands, and Watersheds Workshops - California

The California Coastal Commission offers free educator workshops as an introduction to the science activity guide for teachers, *Waves, Wetlands, and Watersheds*. The book addresses issues such as marine debris, coastal processes, water use, endangered species, and more. It is aligned to the California State Science Content Standards for grades 3 through 8, and includes Community Action lessons adaptable for all ages up to and beyond 12th grade. Pre-registration is required.

<http://www.coastal.ca.gov/publiced/waves/waves1.html>

Zoos and Aquariums Committing to Conservation Conference

The Zoos and Aquariums Committing to Conservation conference will be held January 26-31, 2007 in Houston, Texas. Roundtable and workshop sessions will include how to initiate an internal conservation program at your institution, *in situ* conservation education, partnering with field researchers and a number of tax-related roundtables, and more.

<http://www.houstonzoo.org/ZACC/Index.aqf>

EDUCATIONAL RESOURCES

Arctic and Antarctic

This NSF website looks at research being conducted in the two polar regions of the earth. These inhospitable environments provide natural laboratories for scientists to study basic questions such as, Is earth's climate changing? What are the limits of life in extreme environments? The website includes interactives about ongoing and future research along with links to classroom resources.

<http://nsf.gov/news/overviews/arcticantarctic/index.jsp>

Climate Discovery Teacher's Guide

This website from the National Center for Atmospheric Research includes three units with downloadable lessons for grades 5-9 to facilitate student learning about our planet's

climate system. The units review how the sun's magnetism interacts with the earth's magnetic field, how scientists study ancient climates, and understanding how the earth system works. An unit on Investigating Climate Future is expected to be available in 2007.

<http://eo.ucar.edu/educators/ClimateDiscovery/>

The Coastal Union

EUCC - The Coastal Union is an association with members and member organizations in 40 countries. Founded in 1989 with the aim of promoting coastal conservation by bridging the gap between scientists, environmentalists, site managers, planners and policy makers, it has grown since then into the largest network of coastal practitioners and experts in Europe. Their website includes information about dune management, coastal landscapes and typology, the European Code of Conduct for Coastal Zones, and more. All issues of the EUCC Coastal News can now be accessed from a link on the front page of the website.

<http://www.coastalguide.org>

Dr. E's Science Page PowerPoints®

An educational award-winning website from La Canada (California) High School's Dr. Mark Ewoldsen and students in the Advanced Placement Environmental Science class, Dr. E's Science Page provides PowerPoint® presentations on a variety of subjects, including biomes, coral reefs, endangered species, ocean pollution, and more.

<http://www.lcusd.net/lchs/mewoldsen/PowerPoint.htm>

Drawing from Nature

The *Drawing from Nature* series runs regularly as the lead story in the Sunday edition of the *Los Angeles Times Kids Reading Room Page*. Each article in the series introduces children to a different subject from nature and a related art technique. Photos record both the children's work in progress and their final art project. While the nature subjects are chosen from animals or plants found at the UCLA Stunt Ranch Santa Monica Mountains Reserve or in the Mildred E. Mathias Botanical Garden at UCLA, this project might be able to serve as a blueprint for an ocean-themed related series in a newspaper near you.

<http://nrs.ucop.edu/Reserves/stunt/news/LALivingadpic.html>

Earth Climate Course

NASA's Goddard Institute for Space Studies offers educators and students a website with a complete module to learn about how a planet's climate is determined. Learn how our environment is a system of human and natural processes that result in changes over various space and time scales. Presented with a science problem, students seek answers and consensus by experimenting with physical and computer models, collecting and analyzing their own measurements, and conducting comparisons with real world data from satellites and ground-based observations. Educators can download the entire set of teacher notes, student activities, and data sets. Each section can stand alone as well.

<http://icp.giss.nasa.gov/education/modules/eccm/>

Field Trip Earth

Field Trip Earth focuses on field-based wildlife conservation research projects ongoing around the world. Some of the projects are "live," meaning that research activities, and one or more research scientists, are currently active in the field. Other projects are

archived so that students can continue to access the relevant articles, photos, videos, and other materials. All of the projects provide classrooms and others around the world the opportunity to interact meaningfully with wildlife researchers and other conservation experts. Students can read researchers' field diary entries, direct questions to the researchers, watch video taken in the field, and more. Information is available for sea turtles, waterfowl, and more.

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

Gulf of Maine Research Institute

The Gulf of Maine Research Institute website offers materials to teach and learn about aquatic environments. Topics range from how satellites image the Earth to detailed examinations of species and habitats including lobsters, turtles, herring, marine mammals, and aquatic environments from Katahdin to the sea. Working with NASA, the site offers materials that describe global climate change, hurricanes, and over a hundred classroom-tested activities. Current web-based NASA projects include online Earth-science recertification courses for teachers and outreach for a three-year biological nanotechnology project that is investigating how marine organisms construct shells out of molecular-scale building blocks of calcium and silica.

<http://www.gma.org/educate/default.asp>

H2OUSE

This website was developed by the California Urban Water Conservation Council under a cooperative agreement with the EPA. The website offers water-wise resources, including actions you can take around your house to conserve water, an extensive resources links section, water budget calculator, garden lists, and more.

<http://www.h2ouse.org/>

Hot Science - Cool Talks

The Hot Science - Cool Talks outreach lecture series is presented by the Environmental Science Institute and the Jackson School of Geosciences in Austin, Texas. The program provides a means for leading researchers from the University of Texas and other prominent universities to communicate their research to the public in general and the K-12 educational community in particular. The program includes pre-lecture activities, discussions following the lectures, and an Internet broadcast for those who cannot attend. For every lecture there is a CD-ROM that includes the PowerPoint presentation used during the lecture, detailed notes for each slide, links to web and other additional resources on the subject material, and more. Upcoming lecture topics include whales and climate change, along with many topical archived lectures.

<http://www.esi.utexas.edu/outreach/lectures.html>

Index of NASA Earth Science Portal Stories

The Institute for Global Environmental Strategies develops articles on NASA-sponsored education products and programs in Earth science. All products featured have passed the NASA Earth Science Education Product Review. An archived index of the stories is available on the website. Browse for resources that may be incorporated into the curriculum or used to help introduce a topic to students. *OceanWorld* and *Honey, I Shrunk the Beach* are just two resources of possible interest to this group.

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

List of Caribbean Marine Protected Areas

A list of Caribbean marine protected areas was gleaned from the *Reefs at Risk* publication and the World Resources Institute. The website also includes important metadata and descriptor information. In addition, users can copy the latitude and longitude information and paste it directly into Google Earth.

<http://www.coral.aoml.noaa.gov/mpa/sites/>

MaudNESS Cruise

This website offers archived reports of a 56-day cruise into the Southern Ocean (Antarctic) to learn about conditions and events that cause ocean circulation, a key factor in setting the climate around the world. The story is told through the journal of a 5th grade teacher aboard the icebreaker ship. Learn about crew members (their roles and backgrounds), the science, and day-to-day life aboard a research cruise.

http://www.esr.org/maudness_cruise/cruise_main.html

National Geophysical Data Center

NOAA's National Geophysical Data Center website includes a climate timeline informational tool which can be used to demonstrate the transformation of the Earth's climate over the past 100,000 years, along with interactive hands-on activities that include an origami balloon of global elevations and a dodecahedron globe that offers a three-dimensional visualization for use by students and teachers. The "Visualizing Data" area offers animated dives to the bottom of the Marianas Trench, coastal relief imagery, Great Lakes bathymetry, and more.

<http://www.ngdc.noaa.gov/education/education.html>

Ocean Science Concept-Driven Teaching Interactive

The jointly developed NOAA Environmental Cooperative Science Center (ECSC) / NSF Ocean Science Concept-driven Teaching Interactive (OSCI) Teaching Module blends both traditional lecture-based and concept-driven/interactive methodologies through the integration of mini-lectures, readings, writing, in-class activities and focused group discussions. The website offers prospective users a comprehensive overview of the module and understanding of its implementation.

<http://www.famu.edu/oldsite/acad/colleges/esi/OSCI/>

Places We Live

Project Learning Tree has developed new curriculum materials to give students an awareness of the environmental, social, and economic impacts of decisions connected to community growth and change. *Exploring Environmental Issues: Places We Live* gets students exploring their own neighborhoods, learning about their community's development through time, and involved in local community action projects.

http://www.plt.org/cms/pages/31_41_39.html

Preserving Ocean Resources

This four page newspaper offers information relating long term ocean health and marine protected areas. Up to 10 copies are available to high school educators who are incorporating MPAs into their curriculum.

Contact christie_anastasia@nps.gov

Science and the Sea

Check out this website from the University of Texas Marine Science Institute in Port Aransas. You will find 2-minute radio broadcasts, information about marine debris and man-made structures in the sea, quizzes, and more.

<http://scienceandthesea.org/>

Science Behind the Scenery

This free DVD, *Science Behind the Scenery*, is available to middle school and high school educators from the Point Reyes National Seashore. The DVD explores the Science at Point Reyes National Seashore, Northern Elephant Seals, Coho Salmon and Steelhead Trout, Fire Management, Vegetation Mapping, and much more. English and Spanish subtitle options are included.

<http://www.nps.gov/archive/pore/educate.htm>

The Secret Lives of Wild Animals

NSF-supported scientists are developing innovative tracking and information-management technologies to unobtrusively follow the movements of wild animals. Multidisciplinary teams of biologists, computer scientists, and engineers are observing and tracking animals in their natural environment to learn exactly how animals spend their minutes, days and years. The website hosts video downloads of some of the research undertaken to track dragonflies, deals, deer, and others, along with additional information.

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

Smithsonian Photography Initiative

The Smithsonian Photography Initiative is dedicated to promoting the use of Smithsonian photographic resources (roughly 13 million images located in approximately seven hundred collections). This website offers an online repository of images, a gateway to exhibitions, and a community where visitors can find not only images, but can also connect with others with similar interests, ranging from experts to amateurs. The images are copyright protected, but fair use of copyrighted material includes the use of protected materials for non-commercial educational purposes, such as teaching and scholarship.

<http://www.photography.si.edu/>

INITIATIVES, JOURNALS, and MORE

Border-Wide EE Coalition

The Border-Wide EE Coalition Web site is a rich source of environmental education information for the US-Mexico border region. The portal provides a calendar and live search feature on every page, lists bilingual publications, hundreds of organizations, contacts, events, and more.

<http://redeafronteriza.net/> (Spanish)

<http://bordereeweb.net/> (English)

La Fete d'Ecologie: Barataria-Terrebonne - Louisiana

The Barataria-Terrebonne National Estuary Program and Foundation are gearing up for this year's "La Fete d'Ecologie: Barataria-Terrebonne," on September 30, 2006 in Thibodaux, Louisiana. This educational festival highlights the natural, cultural, and historical resources of the Barataria-Terrebonne National Estuary with food, music,

educational kids' activities, and more. The goal of La Fete d'Ecologie is to educate people about the environment that they live in, the history of the region, and the unique blend of cultures found in the estuary in a fun, family-friendly way.

[http://www.btneq.org/client_files/nl_files/fete%2006%20crablines\(1\).pdf](http://www.btneq.org/client_files/nl_files/fete%2006%20crablines(1).pdf)

Museums and the Web

Museums and the Web offers museum specialists the opportunity to learn about each other's work, engage in online discussion, and share information about research activities. Discussion topics include educational practices and in-house evaluation practices.

<http://conference.archimuse.com/>

National Student Summit on Oceans and Coasts

Coastal America will be hosting the 2nd National Student Summit on Oceans and Coasts, December 5-8, 2006 in Washington, D.C. The Summit objective is to inspire academic and career interest in marine science and public policy. Student delegations have been selected by the network of Coastal Ecosystem Learning Centers, Centers for Ocean Sciences Education Excellence, and Sea Grant partners. Modeled after the White House Conference on Cooperative Conservation, the Summit goal is to increase ocean literacy through student driven solutions, action, and mentorship. Delegations will make presentations at the National Academies and Capitol Hill and provide a student voice into the Cooperative Conservation Listening sessions.

Contact Marguerite Duffy at Marguerite.Duffy@usda.gov

Thank You Ocean

A public awareness and information outreach effort is being launched by the California Resources Agency and NOAA. Empowering Californians to protect the Pacific is the focus of the campaign. The campaign is designed to spur citizen involvement and activity to help protect the ocean's health and resources. The website includes a downloadable public service announcement, links to information and activities about the ocean, ways to make a difference, and more.

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

World Water Monitoring Day

World Water Monitoring Day is October 18, 2006. World Water Monitoring Day offers communities around the world a chance to positively impact the health of rivers, lakes, estuaries, and other waterbodies. Register your activities on this website or check out links to some of the information and monitoring going on in your area.

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