

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
INFORMATION EXCHANGE FOR MARINE EDUCATORS

AUGUST 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.

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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 Article

From Sea to Shining Sea: Priorities for Ocean Policy Reform

A national ocean policy action plan for Congress, *From Sea to Shining Sea: Priorities for Ocean Policy Reform*, developed at the request of a bipartisan group of ten influential Senators, was delivered to Capitol Hill on June 13, 2006. The report calls for Congress to adopt a statement of national ocean policy that acknowledges in legislation the importance of the ocean to the nation's economic and ecological health and establishes a framework for all other ocean legislation. The report answers these three overarching questions posed by the Senators:

- What are the top ten actions that congress should take to implement the recommendations made by the two commissions?

- What are the highest priorities for funding needed to support development and implementation of ocean policies that are consistent with the commission's recommendations?
- What are the priority changes to law and the federal budget process needed to establish a more effective and integrated ocean and coastal governance approach?

http://www.jointoceancommission.org/press/press/release0613_assets/seareport.pdf

PROGRAM OF THE MONTH

Project Archaeology

Project Archaeology is a national heritage education program founded by the Bureau of Land Management for educators and their students and is currently housed at Montana State University in Bozeman under a partnership agreement. Project Archaeology uses archaeological inquiry to foster understanding of past and present cultures; improve social studies and science education; and enhance citizenship education to help preserve our archaeological legacy. It is a comprehensive archaeology and heritage education program for everyone interested in learning or teaching about our nation's cultural legacy and protecting it for future generations to learn from and enjoy. The project offers publications, professional development for educators, networking opportunities, and continuing support for participants. Using an innovative hands-on approach to history, Project Archaeology teaches scientific inquiry, citizenship, personal ethics and character, and cultural understanding.

The project operates through a network of state programs. State programs offer professional development workshops for educators, distribute the national curriculum along with state and regional materials, and support teachers in their archaeology education efforts. Programs have been established in 21 states and are currently under development in 20 more. To date, more than 6,000 educators have received professional development.

Project Archaeology uses *Intrigue of the Past: A Teacher's Activity Guide for Fourth through Seventh Grades*, which is divided into three sections:

- Fundamental Concepts - a series of lessons covering the basic concepts of archaeology;
- The Processes of Archaeology - explains how archaeologists do their work and interpret their results; and
- Issues in Archaeology - relates archaeology to personal ethics, stewardship of our heritage resources, citizenship, and cultural understanding.

The guide is delivered to educators through professional development workshops taught by a team of facilitators: an educator and an archaeologist. The teachers learn to use the guide, discuss the ethical issues surrounding archaeology, learn the perspectives that Native Americans and other ethnic groups have on archaeology and the past, and participate in field trips to museums or sites.

Coastal environments offered rich marine resources in the past, as they continue to today. Archaeologists often find significant sites and artifacts along the coasts. Several state Project Archaeology programs (Alabama, Arizona, Alaska, Colorado, Nevada, New Mexico, North Carolina, Utah, and Wyoming) have developed supplementary materials

to cover local and regional archaeology and history. All of these supplementary materials include discussions of the Bering Land Bridge and its role in the peopling of the Western Hemisphere. *Intrigue of the Past: North Carolina's First Peoples* contains a lesson on shifting coastlines and human occupation at the close of the Pleistocene era. *Intrigue of the Past: Discovering Archaeology in Alaska* contains chapters on Eskimo whaling in the Bering Sea and northwest coast marine adaptations in southeast Alaska. Project Archaeology is currently developing new materials on the archaeology of shelters which will include an investigation of a Tsimshian Plank House on the coast of British Columbia.

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

WEBSITE OF THE MONTH

Oceans Live

The National Marine Sanctuary Program and Immersion Presents (an after-school science education program) have launched OceansLive.Org, a marine science portal that offers live video and special content to educate about the ocean, including national marine sanctuaries. In addition to watching live video from research expeditions, the portal's visitors can learn more about oceanography, marine life, conservation and preservation, marine research technologies, and the nation's maritime heritage. To complement the video broadcasts, the portal offers lesson plans, videos, puzzles and games based on the marine environment.

The portal's first live "telepresence" broadcast focused on a research expedition to the wreck of the Civil War ironclad the *USS Monitor*, located off the North Carolina coast. The expedition was a collaborative effort between the Institute for Exploration and the Monitor National Marine Sanctuary to generate a digital photographic mosaic of the ship's hull and surrounding wreckage. Live programming was beamed via Internet 2 to sites across the country, and also converted for broadcast through the web portal. Additional features include information about mapping of the "Brick Wreck" in Florida and west coast efforts to find the *U.S.S. Macon*.

The website is divided into Maritime Heritage, Physical Ocean, Living Ocean, Conservation & Preservation, and Discoveries & Technologies sections. Each includes links to a myriad of websites with additional content, professional development, coastal and ocean-related news, games, lesson plans, and more.

<http://www.oceanslive.org/portal/>

MESSAGE FROM THE BRIDGE

One Stop for Ocean Sciences Education Resources

The Bridge website is a growing collection of the best marine education resources available on-line. It provides educators with a convenient source of accurate and useful information on global, national, and regional marine science topics, and gives researchers a contact point for educational outreach. The resources found on the Bridge are educator-reviewed to assure that the collection contains qualified, useful sites for formal and informal ocean sciences education. The Bridge gladly accepts site nominations via our online form. Researchers are especially encouraged to submit their education-friendly websites. If you know of a good ocean sciences education resource, share it with your fellow educators.

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

Site Nomination Form http://www.marine-ed.org/bridge/index_nomination.html

REQUESTS

Looking for Curriculum Writers

The San Luis Obispo County Office of Education is seeking Statements of Qualifications from highly qualified, experienced writers of instructional materials, curricula, and/or textbooks to work on the development of a model curriculum for California's Education and the Environment Initiative. The deadline for submission of statements from writers interested in developing grade 4-6 instructional materials is August 4, 2006, but subsequent deadlines will be established for work related to K-3, 7-8, and 9-12 grades.

<http://www.calepa.ca.gov/Education/EEL/documents/ModelPlan.pdf>

GRANTS AND OPPORTUNITIES

Earth Science Week Contests

The American Geological Institute sponsors Earth Science Week, October 8-14, 2006. This year's theme, *Be a Citizen Scientist!*, engages students and the public in conducting citizen science research and helps to spread science literacy. As part of Earth Science Week 2006, the institute is sponsoring three national contests, offering opportunities for both students and the general public to participate in the celebration, learn about the Earth sciences, and compete for prizes.

- Photography - Using and Studying Earth's Resources, open to all ages
- Visual arts - Earth Science in Your Home Town, students in grades K-5
- Essay - Be a Citizen Scientist!, students in grades 5-9

The deadline for application is October 5, 2006.

<http://www.earthsciweek.org/contests>

Edutopia's Grant Information Page

This website from the George Lucas Educational Foundation offers links to corporate, nonprofit, and government grant-making institutions, periodicals with grant information, and more.

<http://www.edutopia.org/foundation/grant.php>

Estuaries 101 Curricula Development Solicitation

NOAA's National Estuarine Research Reserve System (NERRS) offers this opportunity to develop a needs assessment and an Estuaries 101 Curriculum. NERRS requires the services of a contractor to develop and produce (1) a national K-12 teacher needs assessment, (2) an Estuaries 101 Curriculum, and (3) to train NOAA/NERRS educators in up-to-date effective teaching methodologies to support the expansion of the system. The deadline for submission is August 25, 2006.

<http://www.fbo.gov/spg/DOC/NOAA/AGAMD/NCND5000%2D6%2D00006/listing.html>

Grant Development Workshop – Michigan and Ohio

Sponsored by the Grant Training Center, these intensive three-day grant proposal workshops are geared for those who wish to strengthen their grant writing skills and for beginners who wish to acquire and master the techniques of preparing, writing, and winning proposals from various funding agencies. The center of attention will be on how to effectively tell the story that leads to funding, be it for the researcher, educator, or the

non-profit professional. The ultimate goal of the workshop is for each participant to successfully begin researching and writing his/her grant. The workshop is characterized by its intensity, relevance and balanced emphasis on knowledge and skills achieved through individual and group exercises, hands-on experiences, lectures, and one-on-one consultations.

- August 28-30, 2006, Detroit, Michigan
- September 6-8, 2006, Cleveland, Ohio

<http://www.grantrainingcenter.com>

Gulf Guardian Award

The Gulf of Mexico Program offers the Gulf Guardian Award to recognize citizens, companies, and organizations that are taking positive steps to keep the Gulf of Mexico and associated coastal water habitats healthy, beautiful and productive. The award was developed as a way to honor individuals and groups who are striving to make an environmental difference in the Gulf of Mexico. Each year, first, second and third place awards are given in six categories which include business, government, civic/nonprofit, youth/education, partnerships, and individuals. The deadline for nomination is September 15, 2006.

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

Kathryn Fuller Science for Nature Fellowships

The Kathryn Fuller Science for Nature Fellowships are 2-year postdoctoral research fellowships. Research proposals must be of importance to global biodiversity conservation and relevant to WWF's mission and program. Proposed topics may include, among other themes: biodiversity, community-based conservation, ecosystem functioning, global climate change, landscape level conservation, protected area studies, and more. The deadline for applications is November 15, 2006. Two awards will be made.

<http://www.worldwildlife.org/fellowships/fuller-fellow.cfm>

Keep America Beautiful National Awards

Keep America Beautiful, the community improvement organization, invites you to compete for national recognition by honoring your organization's efforts to deliver a more beautiful, cleaner and improved environment through new technologies, improved waste handling, and public space stewardship. Eligible activities include litter prevention, beautification and community improvement, and waste reduction. The deadline for application is September 15, 2006. The organization has other awards programs, also.

<http://www.kab.org/aboutus2.asp?id=124>

Mia J. Tegner Memorial Research Grants

Marine Conservation Biology Institute offers the Mia J. Tegner Memorial Research Grants in Marine Environmental History and Historical Ecology. The grants fund studies examining past ecosystem conditions (i.e., historical baselines). The work should be relevant to policy makers and conservationists in their efforts to restore and conserve marine biodiversity. The program will support projects from both natural and social scientists that seek to uncover interactions between natural and human history in the marine and estuarine environments worldwide, particularly studies that seek to describe systems prior to large-scale human impacts and industrialization. The deadline for application is September 29, 2006.

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

Minority Student Professional Development Program

The NASA and NSF-funded Minorities Striving and Pursuing Higher Degrees of Success in Earth System Science Professional Development Program invites applications for 2006-2007. The program provides professional development experiences to facilitate the advancement of minorities committed to achieving outstanding Earth system science careers. The deadline for application is August 21, 2006.

<http://msphds.usf.edu>

NERRS Education Calendar of Events

NOAA's National Estuarine Research Reserve System (NERRS) offers an online Education Calendar of Events. This searchable calendar allows users to find education activities by type, date, or reserve. Listings of events include the event title, date, location, contact, hosting reserve, and category (i.e. community ed/outreach, K-12 student, or post-secondary programs). Whenever available, visitors can also link to additional information.

<http://www8.nos.noaa.gov/publicnerrs/eduevents.aspx>

NOAA Restoration Center Funding Opportunities

NOAA's Community-based Restoration Program partners with grassroots organizations to encourage hands-on citizen participation in restoration projects. This participation builds coalitions of interested citizens and fosters long-term stewardship of the nation's coastal and marine resources. Under a competitive review process, projects are selected for funding based on ecological benefits, technical merit, level of community involvement, and cost-effectiveness. The FY'07 grant competition for Community-based Marine Debris Prevention and Removal Projects is now open, and applications are due October 30, 2006. Additional funding is described on the website.

http://www.nmfs.noaa.gov/habitat/restoration/funding_opportunities/funding.html

Polar Exploration - Going To Extremes

The Institute for Global Environmental Strategies announces the theme for their 11th annual art contest: Polar Exploration - Going to Extremes! This year's contest challenges young artists in grades 2-4 to explore the Earth's polar regions. The website offers contest guidelines, as well as information on how the contest supports national science and geography education standards, links to lesson plans, websites, books, and fun facts about the Arctic and Antarctic. The deadline for entry is November 10, 2006.

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

Sea Grant Funding Opportunities

The NOAA Notice of Availability of Grant Funds for Fiscal Year 2007 includes announcements of funding for the Gulf of Mexico Oyster Industry Program, the Oyster Disease Research Program, and the Aquatic Invasive Species Research and Outreach Program. The deadline for preliminary proposals is August 17, 2006; the deadline for full proposals is December 19, 2006.

<http://a257.g.akamaitech.net/7/257/2422/01jan20061800/edocket.access.gpo.gov/2006/pdf/06-5225.pdf>

Siemens Competition

The Siemens Competition promotes excellence by encouraging students to undertake individual or team research projects in science, mathematics, engineering and technology or in combinations of these disciplines. The deadline for registration is October 2, 2006.

<http://www.siemens-foundation.org/competition/>

Starbucks Foundation Grants

Starbucks funds programs for youth, ages 6-18, which integrate literacy with personal and civic action in the communities where they live. The Starbucks Foundation invites letters of inquiry in the fields of literacy (reading, writing and creative/media arts) and environmental literacy. Grant applications are reviewed twice yearly, with the next deadline September 1, 2006.

<http://www.starbucks.com/aboutus/grantinfo.asp>

Wildlife Without Borders – Mexico and Latin America and the Caribbean

The purpose of these competitive grants programs is to protect fish, wildlife and plant resources in the Western Hemisphere through academic and technical training in conservation and management of biological resources; training in management of nature reserves and other protected areas; community-level conservation education for the protection and sustained use of natural resources; technology and information exchange to promote international collaboration; and promotion of networks, partnerships and coalitions that assist in the implementation of conventions, treaties, protocols and other international activities for the conservation of biological resources. The deadline for application is December 1, 2006.

http://www.federalgrantswire.com/wildlife_without_borders_latina_merica_and_the_caribbean.html

http://www.federalgrantswire.com/wildlife_without_borders_mexico.html

CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT

Applied Environmental Education Program Evaluation – Online

This 11-week online course, Applied Environmental Education Program Evaluation, will be offered this fall through the University of Wisconsin-Stevens Point, September 18-December 1, 2006. This course was developed as a cooperative effort between the Environmental Education and Training Partnership (EETAP) at the University of Wisconsin-Stevens Point and the U.S. Fish and Wildlife Service National Conservation Training Center. The course is designed to assist environmental educators and natural resource professionals in evaluating their education programs. Participants have the opportunity to develop and apply skills in designing evaluation tools such as surveys, observation forms, and interview and focus group guides. The registration deadline is August 18, 2006.

<http://www.uwsp.edu/natres/rwilke/eetap/>

American Geophysical Union Fall Meeting

The American Geophysical Union Fall Meeting, December 11-15, 2006 in San Francisco, California, provides an opportunity for researchers, teachers, students, and consultants to present and review the latest issues affecting the Earth, the planets, and their environments in space. This meeting will cover topics in all areas of Earth and space sciences, including ocean sciences and education. The deadline for abstract submission is September 7, 2006.

<http://www.agu.org/meetings/fm06/>

Aquaculture Systems Workshop - Florida

Harbor Branch Oceanographic Institution and Cornell University will host a Water Quality and Recirculating Aquaculture Systems Workshop, November 13-17, 2006 in Fort Pierce, Florida. The one-week course focuses on the design, operation, and management of water reuse systems for finfish through hands-on laboratories and classroom presentations. At the conclusion of the workshop, individuals should be able to design their own recirculating systems and have a fundamental knowledge of principles influencing their design decisions. The registration deadline is October 27, 2006.

http://www.hboi.edu/aqua/acted_workshops.html

California and the World Ocean Conference

California and the World Ocean Conference, organized by the California Resources Agency, the California Environmental Protection Agency, and the Coastal Conservancy Association, will be held September 17-20, 2006 in Long Beach, California. Online registration is now open. The conference will emphasize the need to move from planning for future actions, to taking action to protect our ocean and coast. Concurrent sessions include education, place-based management, water quality, and much more.

<http://resources.ca.gov/ocean/cwo06/invitation.htm>

Coastal Zone Canada 2006 Conference and Youth Forum

Coastal Zone Canada 2006, *Arctic Change and Coastal Communities*, is the seventh conference in a biennial series, sponsored by the Canada Coastal Zone Association, August 14-18, 2006, in Tuktoyaktuk, Northwest Territories, Canada, and the first of the series to be located on the Arctic coast. The intent of the conference is to raise awareness about the unique challenges faced by residents of the Arctic coastal zone in the face of rapid changes occurring in Arctic marine ecosystems.

<http://www.czc06.ca/e/home.html>

Geological Society of America Meeting

Earthscope and the Joint Oceanographic Institutions (JOI) are convening a topical oral session, *Using Large Experiments and Programs for Education and Outreach: Examples From EarthScope, the JOI, and Others*, at the 2006 Geological Society of America meeting, October 22-25, 2006 in Philadelphia, Pennsylvania. This session will focus on special issues inherent to education and outreach in large experiments and programs with particular emphasis on developing and maintaining a high level of public interest and interaction. A broad range of participants is encouraged, including diversity-related projects, K-16 classroom outreach, professional development, and more. Additional sessions of possible interest are listed in the program.

<http://www.geosociety.org/meetings/2006/index.htm>

International Tropical Marine Ecosystems Management Symposium

The International Tropical Marine Ecosystems Management Symposium (ITMEMS), *Global Problems, Local Solutions*, will take place October 16-20 in Cozumel, Mexico. ITMEMS facilitates productive discussion and information sharing by people involved in management of coral reefs and related ecosystems, and the implementation of the International Coral Reef Initiative Framework for Action. ITMEMS 3 provides an opportunity to exchange lessons learned, good practices, and effective local solutions amongst peers and to develop communication networks within the tropical ecosystem management community. Sessions will include Communication, Education and Awareness.

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

Marine Aquarium Congress of North America – MACNA XVIII

The Marine Aquarium Conference of North America (MACNA) is the premier conference focused on the hobbyist and the industry that serves it. This year the conference theme is *Futures in Reefkeeping* and it will take place September 22-24, 2006 in Houston, Texas.

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

New England Environmental Education Alliance Conference

The 2006 New England Environmental Education Alliance conference, September 29-October 1, 2006 in West Greenwich, Rhode Island, offers the theme *Connecting to the Environment: Telling the Earth's Story*. The conference will seek ways to infuse all audiences with a deeper awareness of our links to the natural world.

<http://www.neeea.org/conference/index.html>

NOAA Ocean Exploration Workshop – Alabama

Bring the excitement of current ocean science discoveries to your students using the Ocean Exploration curriculum and CD-ROM's of the Ocean Explorer website at this workshop, September 16, 2006, with Part II on March 24, 2007 on Dauphin Island, Alabama. Do inquiry- and standards-based activities tied directly to ocean expeditions. Receive a copy of the Learning Ocean Science through Ocean Exploration curriculum and CD-ROMs interpreting these multidisciplinary ocean discovery voyages using “new technological eyes” to study earth and life science on the ocean floor. Registration is required prior to September 1, 2006.

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

Contact Denise Keaton at dkeaton@disl.org

Oceans'06 MTS/IEEE-Boston Conference

The Oceans'06 MTS/IEEE-Boston Conference and Exhibition will be held September 18-21, 2006 in Boston, Massachusetts. This ocean engineering, science, and technology conference and exhibition will emphasize the traditional core areas of marine science and technology development. Presentations include education topics.

<http://www.oceans06mtsieeboston.org/index.cfm>

Our Wetlands, Our World Educator Workshops - California

The California Coastal Commission is hosting free teacher workshops based on the downloadable *Our Wetlands, Our World* curriculum, in Newport Beach, California. This high school curriculum is focused on the natural history of and human impact on wetlands, specifically the Upper Newport Bay in California. Each activity addresses high school Science Content Standards for California, as well as English-Language Arts, Mathematics, and History/Social Science standards. Participate in several activities from the curriculum while previewing a potential field trip for you and your students at the Upper Newport Bay. Currently scheduled workshop dates are August 18, 2006, October 20, 2006, and January 19, 2007.

Contact Matt Yurko at myurko@coastal.ca.gov

Satellites and Education Conference

The Satellites and Education Conference will be held August 10-12, in Los Angeles, California. This conference promotes the use of satellites and related technologies as a vehicle for helping students to appreciate and understand the complex interrelationships among science, technology, individuals, societies, and the environment, while

developing and applying inquiry and technology skills to study authentic questions and problems.

<http://www.sated.org/index1.htm>

EDUCATIONAL RESOURCES

Australian Museum Online

The Australian Museum has a long tradition of educational outreach. For those who can't make a journey to the Museum, this website affords users access to materials created for this website and materials culled from *in situ* exhibits. The *Features* section contains exhibits ranging from explorations of the Great Barrier Reef to everything you want to know about sea slugs. *Explore* allows users access to fact sheets and educational materials. Research and Collections offers users the ability to learn more about the museum's different departments, including marine ecology, biodiversity, fishes, and much more.

<http://www.amonline.net.au/>

ClimateBiz

People in the fields of business and technology have developed a keen interest in creating products that are socially responsible. As a partnership between two nonprofit organizations, Business for Social Responsibility and the Green Business Network, the ClimateBiz website offers a place to learn from each other. *ClimateBiz 101* offers an overview of the interactions between the world of business and climate change, and also provides insights into how to best utilize the website. Other sections include background articles, tools and resources, Ask the Climate Expert, and more.

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

Creative Gallery on Sustainability Communications

The United Nations Environment Programme (UNEP) has created an online database of corporate and public advertising campaigns specifically dedicated to sustainability issues and classified by more than a dozen sustainability themes, including *Seas and Oceans*. The campaigns highlighted address sustainability issues through various themes, tones, types of media and strategies. Some reflect companies' public commitment towards social and environmental issues. Others feature awareness campaigns from public authorities. Some aim to favor the purchase of green products and services; others strive to change citizens' or consumers' attitudes and behaviors.

http://www.unep.fr/pc/sustain/advertising/ad/ad_list.asp?cat=all

Field Guide to the Monterey Bay National Marine Sanctuary

The Monterey Bay National Marine Sanctuary offers a new downloadable publication, *Field Guide to the Monterey Bay National Marine Sanctuary*. The 12-page tabloid-sized guide was developed by sanctuary staff and is designed for use by both visitors to and residents of communities adjacent to the marine sanctuary as a travel guide or for educational purposes. The guide includes information on each sanctuary habitat, as well as descriptions and photographs of the some of the sanctuary's most commonly seen marine wildlife and the best times of the year to view them. It also includes tips for watching marine wildlife responsibly and keeping sanctuary waters clean. Additionally, the guide includes a detailed map of the central California coast which identifies points of interest, and a feature on things to do in and around the sanctuary.

<http://montereybay.noaa.gov/reports/2006/fieldguide/welcome.html>

Marine Sanctuaries Media

The National Marine Sanctuary Foundation has teamed with Marine Sanctuaries Media to expand the foundation's mission of supporting educational programs, conservation, exploration and ongoing research of our nation's ocean and coastal treasures. This website offers the public the opportunity to purchase high-resolution images from the National Marine Sanctuaries library of exclusive content. The library contains more than 200,000 high-resolution images from within the national marine sanctuaries around the United States and American Samoa. The sanctuaries encompass deep coral gardens, near-shore coral reefs, whale migration corridors, deep sea canyons, historic shipwrecks and underwater archaeological sites, and more. All of the products from this offering are available in a wide range of print sizes. A portion of the revenues generated from this project will be returned to the foundation to further their mission. The website offers the ability to search content by product type, photographer, or individual marine sanctuary. The website also allows visitors to learn about each sanctuary, its upcoming events, a guided tour of the sanctuary, as well as the current site newsletter.

<http://www.marinesanctuariesmedia.com>

National Center for Case Study Teaching in Science

The use of case method to teach science is common in the fields of law and medicine, and in recent years it has been gaining a wider foothold in other fields. For those interested in learning more about this method of instruction, the National Center for Case Study Teaching in Science, based at the University of Buffalo, has developed a number of helpful resources. Visitors to the website can review the case study collection divided into topical areas, check out upcoming conferences and workshops, and more. Case studies on the website of possible interest include weather forecasting, invasive species, a section on ecology and the environment, geology, geography/GIS, and much more.

<http://ublib.buffalo.edu/libraries/projects/cases/case.html>

National Marine Sanctuaries Expeditions

Expedition coverage for five current or upcoming missions within the National Marine Sanctuaries Program is available online. These projects launch with a complete set of background materials, including maps, mission plans, team bios, history essays, technology features and more, providing web site visitors with everything they need to know about an upcoming expedition. Once underway, the teams send back daily expedition logs with photos and videos that are posted to the web site.

<http://sanctuaries.noaa.gov/missions/welcome.html>

Nature Stories Podcast

The Nature Conservancy presents the Nature Stories audio podcast, audio downloads of great stories and great places. Each week, Nature Stories will offer a new tale of people's connections with the natural world as an audio download. Many of the stories will be drawn from an upcoming public radio series, *Stories from the Heart of the Land*, which the Conservancy is developing for launch in 2007. Currently online are features focusing on fire, frogs, fishing culture, and more.

<http://www.nature.org/podcasts/>

On-Line Chart Viewer

The Office of Coast Survey has introduced the On-Line Chart Viewer. The viewer lets mariners and the public display any of the 1,000-plus nautical charts in the national suite using only an Internet browser. Each chart is updated weekly for Notice to Mariner

corrections by NOAA's experienced nautical cartographers. The fast, raster-serving software of the viewer permits rapid chart display, panning, and zooming. The website can be used for planning and research, as an easy reference document for navigation for recreational boaters, and as a quick tool for professional mariners to examine recent changes in their intended routes.

<http://www.NauticalCharts.gov/viewer>

Parks Online Resources for Teachers and Students

The website for the distance education program, Parks Online Resources for Teachers and Students (PORTS), furthers the mission of the California State Parks and augments the teaching of academic content standards in California's public schools. PORTS uses videoconference equipment and California's K-12 High-Speed Network to deliver units of study to classrooms around the state. These interactive programs allow California State Parks to educate students about park resources, reaching a generation that lacks the connection to natural and cultural landscapes that past generations have enjoyed. In short, because fewer students are visiting our state parks, they are delivering parks into the classroom. The website includes complete downloadable study units, including topics such as tidepools, elephant seals, and more.

<http://www.ports.parks.ca.gov/>

Peter's Online Typing Course

For those still using the hunt and peck method but unable to build up speed, check out Peter Hudson's free website. It's a place for "beginning typists and frustrated hunt-and-peckers who want to move from four-finger typing to full-blown touch typing."

<http://www.typing-lessons.org/>

Project PHAEDRA 2006

NOAA's Ocean Explorer website offers archived information about the Partnership for Hellenic/American Exploration in the Deep Regions of the Aegean (PHAEDRA), the second season of a multi-year Greek-American ocean research partnership. From June 25-July 4, 2006, an international team of engineers, geologists, geochemists, archaeologists, and historians embarked on the Greek research vessel Aegaeo to explore deep sites within Greek national waters. The PHAEDRA team used a combination of deep submergence technologies with integrated technological systems to collect data to answer questions fundamental to both social science and earth science. The website archives include content essays written especially for this mission, logs, and video and images, along with an education module including lesson plans designed specifically for this expedition; interactive multimedia presentations and learning activities on plate tectonics, mid-ocean ridges, subduction zones, and chemosynthesis and hydrothermal vent life; profiles of scientists representing careers featured during this mission; and a list of other resources and links.

<http://www.oceanexplorer.noaa.gov/explorations/06greece/welcome.html>

Sea Turtle Migration Tracking Education Program

The Caribbean Conservation Corporation celebrates the tenth year of its successful Sea Turtle Migration-Tracking Education Program, which allows children and other Internet users around the world to watch the migrations of sea turtles being tracked by satellite. The program is aimed at helping people around the world, especially school children, learn about the migration of turtles, the global range of the species, and the importance of protecting all coastal waters and habitats by following the turtles from nesting beaches to feeding ground located thousands of miles away. In addition to the regularly updated

maps with the most recent migratory movements of each turtle being tracked, the website provides background information about sea turtles, an opportunity to submit questions or offer comments through an online bulletin board, and much more.

<http://www.cccturtle.org>

Seas the Day Water Conservation

Seas the Day, working primarily through The Ocean Project's worldwide network of partners, aims to help create a sustainable society. By developing informational and inspirational products, the Seas the Day initiative complements and expands upon the The Ocean Project's efforts to enhance the conservation activities of its global partner network. Seas the Day focuses on a different conservation theme each month, providing inspiration and information for taking conservation personally; August's theme is *water conservation*. The website offers useful background materials and links along with specific actions we can do to promote sustainability of our ocean resources. In addition, check out the colorful Seas the Day 2007 Desktop Calendar (select "Seas the Day Stuff" from the side content links) as a supplemental promotional item for your organization.

<http://seastheday.theoceanproject.org//2006/august.htm>

Society for Historical Archaeology

This website highlights the study of the material remains of past societies that also left behind some other form of historical evidence. The education pages include downloadable lessons along with others that can be ordered for a nominal charge, including *History Beneath the Sea: Nautical Archaeology in the Classroom*. Additional website features include helpful information on careers in archaeology and a guide to programs in historical and underwater archaeology, information about meetings, and more.

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

Teaching Issues and Experiments in Ecology

Teaching Issues and Experiments in Ecology is a peer-reviewed, web-based collection of ecological educational materials by the Ecological Society of America. The website is divided into three sections: Experiments, Issues, and Teaching. All of the materials include background information on the topic addressed, instructions for students, and notes to faculty. Materials cover mimicry, population ecology, foraging and flocking behavior, and more.

<http://tiee.ecoed.net/index.html>

Virtual Presentation Assistant

The Virtual Presentation Assistant is an online tutorial dedicated to the art and skill of public speaking, and the website is maintained by the staff of the communication studies department at the University of Kansas. The site covers such topics as selecting an appropriate theme for a speech, how to research said speech, supporting your primary points, and links to other sites that deal with the subject at hand.

http://www2.ku.edu/~coms/virtual_assistant/vpa/vpa.htm

INITIATIVES and JOURNALS

Call for Manuscripts

Cloverdale Books offers a call for monographs in the fields of energy, wildlife conservation, ecological restoration, sustainable design environmental education, and environmental ethics for possible publication in the new Aldo Leopold Series on Environmental Sustainability.

<http://www.cloverdalecorp.com/Leopold/>

International Coastal Cleanup

On September 16, 2006, hundreds of thousands of people will descend on beaches, lakes, and streams all over the world to remove trash and debris, both on land and under the water. Volunteers of all ages will form the largest one-day volunteer event on behalf of clean oceans and waterways -- the International Coastal Cleanup. Youth participation is a major key to success. Each year, groups such as schools, scouts, and churches take advantage of the unique opportunity offered by the cleanup. This website offers teacher resources along with activities and games. (Note that some of the links don't work with all browsers -- use links on the sidebars if the content links don't work).

<http://www.coastalcleanup.org/pub1/index.cfm>

MERITO Cartoon Contest

MERITO is a consortium of science, education and community service organizations which provides a forum for multicultural outreach in the region among schools, universities, marine education organizations, and government agencies; increases ocean and watershed awareness and stewardship among diverse youth and families and within community groups; increases the number of diverse college students who choose marine science and its related fields as a career; and fosters participation by diverse community leaders in marine and coastal management issues.

In May 2006, MERITO at Channel Islands National Marine Sanctuary hosted a cartoon contest with environmental message for 8th-12th grade students in Santa Barbara and Ventura counties. The contest sparked extensive community involvement of schools, teachers, students and volunteered judges. The winning cartoonists received cash prizes and additional recognition, while the top 15 contestants received a trip to Santa Cruz Island aboard the *R/V Shearwater* and a cartooning workshop by MAD magazine cartoonist Sergio Aragonés. The selected cartoons promote protection of the Channel Islands National Marine Sanctuary, coastal watersheds and the importance of ocean water quality to a bilingual audience. A bilingual bus poster is currently being produced with the grand-prize winner's cartoon strip. Over 8 million passengers per year are expected to see and be inspired by the student's environmental cartoon.

Contact Rocío Lozano de Knowlton at Rocio.Lozano@noaa.gov

The National Hurricane Survival Initiative

A group of organizations, including the National Hurricane Center and the National Emergency Management Association, have banded together to create the National Hurricane Survival Initiative. This website offers information about hurricane preparedness to the general public. The site includes a storm readiness checklist, a hurricane questionnaire, and basic hurricane evacuation procedures. The "Storms Stats" area provides a primer on what exactly hurricanes are along with concise summaries of the wind and water damage that hurricanes can inflict. The site's materials are also available in Spanish.

<http://www.hurricanesafety.org/home2.shtml>

Take Pride in America

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 website includes a volunteer opportunity search engine, upcoming events, information kits, award opportunities, and more.

<http://www.takepride.gov/index.cfm>