

NATIONAL MARINE PROTECTED AREAS CENTER INFORMATION EXCHANGE FOR MARINE EDUCATORS JUNE 2005

This update is provided as a service 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 in the MPA Information Exchange.

The information included here has been compiled from many different sources, including SeaSpan, NSTA Express, edinfo at FREE, EE-NEWS@NAAEE, CREEC, Scuttlebutt, EEinGEORGIA, the Scout Report, 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 MPA Center's education coordinator 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 Addition to MPA Library Marine Highlights from World Conservation Union Congress

The 3rd IUCN World Conservation Congress was held from November 17-25, 2004 in Bangkok, Thailand. The IUCN Global Marine Programme has brought together the marine highlights from this event that include information on adopted resolutions, recommendations, and news on the main themes discussed, including the high seas, marine protected areas, coral reefs, and marine invasives.

http://www.iucn.org/themes/marine/pdf/PostWCC KeyMarineMsgs.pdf

Main MPA Library URL:

http://www2.mpa.gov/mpa/mpaservices/virtual library/virtual library.lasso .

INITIATIVE OF THE MONTH

World Ocean Day

World Ocean Day, observed yearly on June 8, is an opportunity to celebrate our world ocean and our personal connection to the sea. The Ocean Project helps to coordinate events and activities worldwide with aquariums, zoos, museums, and the World Ocean Network. The website includes activity ideas and helpful hints to get you started. A list of some of last year's celebrations is posted, and this year's list will be up on the website by June 1, 2005.

http://www.theoceanproject.org/news/oceanday.html

WEBSITE OF THE MONTH

NOAA Central Library Website

The NOAA Central Library web site features a variety of resources useful to marine educators. The *NOAA Library Catalog* is the gateway to the records of the NOAA Library Network's comprehensive research collection covering hydrographic surveying (from 1820-); oceanography, meteorology, and hydrology (from 1870-); living marine resources (from 1970 on with selected coverage from 1870); and meteorological satellite operations (from 1960-).

The site's *WINDandSEA: Oceanic and Atmospheric Sciences Internet Locator* features links to science and policy sites in the oceanic and atmospheric sciences, as well as a *Teachers' and Students' Corner* link in the top-of-page menu row, which links to over 100 NOAA webpages devoted to education, NOAA photo websites, science education organizations, and organizations concerned with introducing new technologies to the teaching profession.

The site's **NOAA Browser** provides a hierarchical set of links to NOAA office web sites, to help users navigate through NOAA's areas of responsibility from line offices down to programs and projects. The browser also links to useful NOAA organizational resources like a NOAA Program Support web site, an organizational handbook, and NOAA's Personnel Locator.

The **Databases & Article Searching** page provides access to citation databases, abstracts, and full-text documents; and the **E-Journals** page links to full-text of many journals, and tables of contents/abstracts for others. Annotations by journal titles explain which resources are freely available to users outside NOAA.

The **NOAA History Page** and **NOAA Heritage Page** provide access to information documenting the legacy of NOAA and the predecessor agencies that make NOAA America's oldest science agency. The **Photo Collection** features thousands of weather and space images, hundreds of images of our shores and coastal seas, and thousands of marine species images ranging from the great whales to minute plankton.

The NOAA Central Library web site also links to an *Aquaculture Information Center*, bibliographies on select ocean, weather, and fisheries topics; historical imaged collections of climate data, coast and geodetic survey annual reports, daily weather maps, and monthly weather review; and information on the library's government

depository collection. NOAA Central Library is also open to the public 9-4 Monday through Friday. See the *About the Library* section of the site for information on reference help, interlibrary loan, brown bag presentations at the library, and other library services.

http://www.lib.noaa.gov/

MESSAGE FROM THE BRIDGE

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

In preparation for summer activities, The Bridge recommends the following marine recreation sites:

- Kids in Boats. This Australian site includes boating safety resources and student activities about navigation, map reading, weather, and tides. http://www.safeboating.org.au/Boating/Kids in Boats/
- Newton's Apple offers two lesson plans that focus on scuba diving and the bends.

http://www.tpt.org/newtons/15/scuba.html http://www.tpt.org/newtons/11/bends.html

These recreational sites offer safety messages for students, and address important ocean science subjects such as physics, chemistry, and the atmosphere. For more ocean recreation links, visit the Bridge Recreation page http://www.marine-ed.org/bridge/index Lesson Plans Collection http://www.marine-ed.org/bridge/indexlesson.html.

GRANTS AND OPPORTUNITIES

American Star in Teaching

The U.S. Department of Education seeks nominations for its second annual American Stars of Teaching project, which recognizes outstanding teachers. This project focuses attention on exemplary classroom teachers who are successful in using innovative teaching strategies and raising student academic achievement for all of their students. One teacher, or team of teachers from a school, will be recognized in every state and the District of Columbia.

http://www.ed.gov/teachers/how/tools/initiative/american-stars.html

Acres for America

The National Fish and Wildlife Foundation and Wal-Mart Stores, Inc. announce the Acres for America partnership. The Acres for America program was established to provide funding for projects that conserve important habitat for fish, wildlife, and plants through acquisition of interest in real property. The goal of the program is to offset the footprint of Wal-Mart's domestic facilities on at least an acre by acre basis through these acquisitions. Applicants are urged to contact the National Fish and Wildlife Foundation regional director in their area (http://www.nfwf.org/contact.htm) to discuss project ideas prior to submitting pre-proposals. Annual pre-proposal deadlines are January 7, May 16, and September 17.

http://www.nfwf.org/programs/walmart/rfp.htm

Columbia Foundation Grants

The Columbia Foundation awards grants to enhance the quality of life through the arts; to advance human rights; and to create sustainable communities and economies. The

goal of the sustainable communities and economies grant is to advance community and economic development programs that work to secure – for the present and future, and within the means of nature – a just and equitable life for all species. This includes promotion of sustainable food systems that work toward protection of natural resources and biodiversity and the viability of marine ecosystems and fisheries. Priority is give for local San Francisco Bay area and California statewide projects. The deadline for proposals is December 1, 2005. http://www.columbia.org/

Delaware Estuary Grants Program

The National Fish and Wildlife Foundation, in cooperation with the Delaware Estuary, and others, announce a Request for Proposals for funds under the 2005 Delaware Estuary Grants Program. The program seeks to encourage innovative, locally-based restoration projects; develop local capacity to promote community based stewardship; promote a greater understanding of the Delaware Estuary; and strengthen the link between communities and the Delaware Estuary Program. Application deadline is July 1, 2005.

http://www.nfwf.org/programs/delaware.htm

Institute of Education Sciences Grants to Support Education Research

The Institute of Education Sciences announces twenty 2006 competitions for grants to support education research. The intent of these grants is to provide national leadership in expanding fundamental knowledge and understanding of education from early childhood education through postsecondary and adult education. The National Center for Education Research plans to support National Research and Development Centers with different focus.

http://www.ed.gov/about/offices/list/ies/programs.html

Lawrence Foundation Grants

The Lawrence Foundation is a private charitable foundation focused on making charitable contributions and grants to support pressing educational, environmental, health and other causes. The deadline for a letter of inquiry for the December grant cycle is August 1, 2005.

http://www.thelawrencefoundation.org

National Fish and Wildlife Grant Programs

The National Fish and Wildlife Foundation offers numerous grant programs. The Foundation awards challenge grants to projects benefiting conservation education, habitat protection and restoration, and natural resource management. Deadlines and areas of focus vary. Check the website on a routine basis for the latest opportunities. http://www.nfwf.org/

You be the Chemist Lesson Plan Competition

The Chemical Education Foundation is sponsoring a *You be the Chemist* lesson plan competition for educators in grades K-8. The Foundation will award prizes in three categories: scientific inquiry, structure of matter, and safety and recycling. The deadline for application is October 21, 2005.

http://www.chemed.org/Lesson Plan.html

INTERNSHIPS AND TEMPORARY OPPORTUNITIES

Coral Internships

Two-month summer internships are available for field assistants to help researchers with a project on coral spawning, larval culture, coral settlement, and Diadema recruitment. Applicants must have a B.S. in a science field, research, and diving experience. The internships will be from August 1 - September 30, 2005, in Key Largo, Florida. http://coral.aoml.noaa.gov/pipermail/coral-list/2005-May/001888.html

Project ISLE Summer Course

Project ISLE (Integrated Science Learning Expeditions) offers a summer course for science teachers, featuring scientific expeditions to island habitats to provide an integrated science-based experience to enhance classroom teaching. Two one-week courses in Hawaii, August 1-7 or August 8-14, 2005, cover topics in geology, volcanoes, ecology, astronomy, marine biology, and native cultures. The programs offers hands-on lessons for use in the classroom, lesson sharing, lectures by scientists, and explorations of natural sites and research facilities.

http://www.projectisle.com/

CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT

Applied Environmental Education Program Evaluation – Online

This 10-week on-line course, *Applied Environmental Education Program Evaluation*, will be offered September 12-November 18, 2005 through the University of Wisconsin-Stevens Point. 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. 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. Registration deadline is August 12, 2005.

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

California Science Education Conference

The California Science Education Conference, Science for a Changing World, will be held October 27-30, 2005 in Palm Springs, California. The conference will feature speakers, workshops, short courses, field courses, and special events addressing the diverse needs of science educators from all grade levels and all science disciplines. http://www.cascience.org/conference.html

Capitol Hill Oceans Week – Washington D.C.

The National Marine Sanctuary Foundation will host the annual Capitol Hill Oceans Week, June 7-9, 2005 in Washington D.C. Topics will include predicting and preparing for natural disasters, wetland restoration, aquaculture, oceans and human health, and marine transportation. The Foundation will also host a mini Ocean Film Festival and an Ocean Exhibit Fair during the week.

http://www.nmsfocean.org/chow2005/index.html

Envisioning a National System of MPAs: A Gulf of Mexico Region Public Dialogue- Louisiana

The National Marine Protected Areas Center is holding a series of regional public dialogues to solicit and collect input that will be used to develop the framework for the national system of marine protected areas. Each forum will begin with a presentation from MPA Center staff on our progress and current plans. Participants will then break into small groups to ask questions, discuss relevant issues, and offer their perspectives on developing the national system. The Gulf of Mexico Region Public Dialogue will be held on July 18, 2005, in New Orleans, Louisiana. Please RSVP to mpa.comments@noaa.gov, as space is limited. http://mpa.gov/national_system/

Fundamentals of Environmental Education - Online

This 10-week online course, the Fundamentals of Environmental Education, will be offered September 12 – November 18, 2005. The course is appropriate for both classroom teachers and for non-formal educators who work with students and teachers. The course provides educators with the knowledge and skills necessary to incorporate quality environmental education into their instruction. Participants discuss the history, definition, and goals of environmental education; develop an understanding of the professional roles and instructional methods of environmental educators; and interact with other educators from across the country. The registration deadline is August 12, 2005.

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

Gulf and Caribbean Fisheries Institute – Colombia

The 58th meeting of the Gulf and Caribbean Fisheries Institute will take place November 7-11, 2005 in San Andres, Colombia. The meeting is hosted by CORALINA who will be celebrating their 10th year of managing the coral reef resources of the San Andres archipelago. San Andres is off the coast of Nicaragua and is part of the Seaflower Biosphere Reserve. Topics include fish and fisheries, marine protected areas, marine science education, and more. Abstracts are due July 31, 2005. http://www.gcfi.org/Conferences/58th/SanAndres58.htm

NSTA Fall Regional Conventions

As a reminder, the 2005 NSTA regional conventions will be held this fall October 20-22, 2005 in Hartford, Connecticut, November 10-12, 2005 in Chicago, Illinois, and December 1-3 in Nashville, Tennessee.

http://www.nsta.org/conventions

Olympic Park Teacher Training and Summer Field Science Studies - Washington The Olympic Park Institute is offering Environmental Science teacher training, July 28-31, 2005, in Olympic National Park, Washington. In addition, two five-day field science study sessions are offered for students entering grades 8-12 in July, 2005. http://www.olympicparkinstitute.org/

Society for Conservation Biology's Annual Meeting

The Society for Conservation Biology will host its 19th annual meeting, *Conservation Biology Capacity Building and Practice in a Globalized World*, July 15-19, 2005 in Brasilia, Brazil. The four days will include hundreds of seminars, workshops, and other presentations, including education and community outreach. http://www.scb2005.unb.br/

Watershed Institute - California

Follow the path of water as it moves down the Salinas Valley and into the ocean at Monterey Bay Aquarium's Watershed Institute for grade 4-6 classroom teachers, from August 8-12, 2005. Learn to implement new teaching strategies and activities, investigate local streams and rivers, integrate inquiry science into your curriculum, and visit aquarium exhibits. The summer session is free, but is limited to 40 participants. Contact Alfonso Brillantes at abrillantes@mbayqaq.org or (831) 648-4862

Wetlands Institute - California

Discover the importance of wetland ecosystems at Monterey Bay Aquarium's Wetlands Institute, June 20-24, 2005. For grade 4-8 classroom teachers, this workshop helps you implement new teaching strategies and activities. Investigate wetlands and sloughs, integrate inquiry science into your curriculum, learn how to use LEGOS to gather and analyze data, and visit aquarium exhibits. This summer session is free, but is limited to 20 participants.

Contact Alfonso Brillantes at abrillantes@mbaygag.org or (831) 648-4862

EDUCATIONAL RESOURCES

Becoming Whales

From the Evolution and the Nature of Science Institutes, this website contains a 45-minute lesson about evolutionary links between whales and terrestrial mammals. Experience discoveries of whale evolution, or, as the website states, "The thrill of discovery...The loss of de feet." Downloadable materials for the lesson are provided as well. The site also includes a useful collection of extensions and resources. http://www.indiana.edu/~ensiweb/lessons/whale.ev.html

Bilingual Publication for Recreational Users of Coral Reefs

The Coral Reef: Precautions for Recreational Users in Puerto Rico and the U.S. Virgin Islands

El Arrecife de Coral: Precauciones para los Usuarios Recreativos en Puerto Rico y las Islas Vírgenes Estadounidenses

The waters surrounding the U.S. Virgin Islands and Puerto Rico contain coral reefs and associated systems such as seagrass beds and mangrove forests. These islands also support numerous recreational activities dependent upon the use of motorized aquatic vehicles. Recreational users are often unaware of the impacts caused by vessel traffic in shallow waters, anchoring, diving, fishing, and other popular marine activities. For this reason, NOAA's National Marine Fisheries Service has produced this recreational users guide that explains what coral reefs are and measures that can be taken to protect them. The guide was produced by Dr. Alida Ortíz of Consultores Educativos Ambientales with funding from NOAA's Coral Reef Conservation Program. The guide is distributed through the NMFS Habitat Conservation Division Caribbean Field Office in Puerto Rico. Contact Dr. Lisamarie Carrubba at 787-851-3700 or lisamarie.carubba@noaa.gov

Clean Air Lesson Plans

The Clean Air Campaign and the Georgia Environmental Protection Division have developed five new air quality curriculum units for grades 4 to 8. Each grade unit includes two to three lesson plans, along with a Teacher Resource Manual and support materials, which educate students about air chemistry, health and human behaviors, as

well as the air pollution challenges. The lessons cross several subjects including science, social studies, geography and English, offering students comprehensive and integrated insight into the topic areas.

http://www.cleanaircampaign.com/index.php/cac/for_schools/clean_air_lesson_plans

Changing Habitats...Vanishing Species

Harvard@Home produces web-based video programs with in-depth exploration of topics of general interest to the Harvard community and the broader public. *Changing Habitats...Vanishing Species* presents video clips and slides from a symposium presented in November 2004 about how environments are changing and why species are being lost. Presentations discuss the root causes, including climate and land use change, and their impact on species' habitats. Presentations included Professor E.O. Wilson on Habitat Loss and Species Extinctions and Ecological Extinction in the Sea by Professor Jeremy Jackson.

http://athome.harvard.edu/dh/chvs.html

Fish of the Great Lakes

The University of Wisconsin Sea Grant Institute has developed this website for the Fish of the Great Lakes. The website includes a downloadable version of George C. Becker's text *Fishes of Wisconsin*, profiles of the major fish species in the Great Lakes, information about fish anatomy, and even tips for safe cooking and eating. The Kids' Page includes a fish quiz, glossary, and more.

http://www.seagrant.wisc.edu/greatlakesfish/

Great Lakes BeachCast

The Great Lakes Information Network developed this website with funding from the EA in an effort to provide better beach information to the Great Lakes community. It will broadcast information about beach closings and educational content on human health concerns. The website provides news about erosion control projects, contamination and cleanup efforts, beach testing efforts, and more. There are also links to monitoring data. http://www.great-lakes.net/beachcast/index.html

John Muir Manuscript Letters

The Wisconsin Historical Society provides access to more than 100 pages of original letters written by John Muir, with the original handwritten letters side by side with typed versions and their transcriptions.

http://www.wisconsinhistory.org/turningpoints/search.asp?id=1224

Kinetic City

Developed by the American Association for the Advancement of Science, this website offers an assortment of science experiments, on-line games, activities, and projects. As an example, *A Touch of Class* is an on-line classification game, while the Grinder explores biodiversity. There are also downloadable leader guides for the activity kits. http://www.kineticcity.com/

LaCoast

The Louisiana Coastal Wetlands Conservation and Restoration Task Force website contains information and links relating to coastal restoration projects in coastal Louisiana. Materials include a variety of maps and background information about Louisiana's wetlands and their management. An informal group called the Louisiana Wetland Education Coalition provides an education website to help distribute materials

and workshop information that are focused on wetlands information and are appropriate for the K-12 education forum (both informal and formal education). The education pages include a summary of wetland functions and values, the Louisiana Wetland Web Quest with guided questions, videos and PSAs, and *The Fragile Fringe*, an on-line guide for teaching about coastal wetlands. The Kids' Corner includes a variety of web-based and downloadable materials.

http://www.lacoast.gov/

NASA Images – Visible Earth

NASA presents The Visible Earth, a catalog of over 32000 images and animations of our home planet. Topics include Human Dimensions (environmental impacts, natural hazards, etc), Hydrosphere, Oceans, and more. http://visibleearth.nasa.gov/

National Ocean Economics Program

This ocean economics website, supported by researchers and economists and sponsored by NOAA's Coastal Services Center, provides useful data on ocean-related economic activities and resource trends. The site includes a market values database, a non-market values portal, a living marine resources database, and a federal marine expenditures section.

http://noep.csumb.edu/

Nature History of Alaska

This course, Nature History of Alaska, was offered during the spring semester in 2005 through the University of Alaska Southeast. The participants included students in non-science majors, who had the opportunity to investigate some of the natural aspects of Alaska landscapes. Classes included a variety of investigative field trips including birding, creek bank exploration, and an in-depth tour and examination of the sea floor mapping research work conducted in southeast Alaska waters by the NOAA research vessel *Fairweather*. Another class meeting was held with the author of their primary text. Assignments included journaling, participation in community events, and more. For more information, contact Faith Duncan at fduncan@fs.fed.us.

https://uascentral.uas.alaska.edu/online/BIOL 104-K01/2term—Spring-

https://uascentral.uas.alaska.edu/online/BIOL104-K01/?term=Spring-2005&behavior=UAS&session=859605

NOAA Economic Statistics

The *Economic Statistics for NOAA* booklet serves as a common reference to the latest economic benefits NOAA products and services provide to the nation's gross domestic product and the environment. It contains a consistent set of statistics helpful to NOAA management, staff and the outside community. The booklet contains statistics on the economic effects of hurricanes, fisheries, travel and tourism, and more. It can be downloaded from the NOAA Economics & Social Science website, which includes a library of papers, articles, and analyses on the socioeconomic impact of oceanic and atmospheric science and related technologies.

http://www.economics.noaa.gov/

Ocean Adventure

The Thinkquest website, Ocean Adventure, explores the hydrothermal vents in the depths of the Earth's oceans. Learn what hypothermal vents are, where they are located, how they are formed, and why they are important. Take a virtual dive in an

actual submersible to learn more about these vents and their environments. Make sure to check out the downloadable classroom activities. http://library.thinkquest.org/18828/index.html

Protected Resources Education

The Office of Protected Resources works in cooperation with NOAA Fisheries Regions and Science Centers to provide educational experiences and materials for students, education professionals, and the public about the conservation and protection of marine species. The website includes links for kids to a variety of projects, activities, and information, including *The Kid's Times* about whales and turtles. There are also downloadable lesson plans and guidelines for responsible wildlife viewing. http://www.nmfs.noaa.gov/pr/education/

Regional Information Centers on MPA Planning Processes

The National Marine Protected Areas Center launched a series of web-based regional information centers designed to provide comprehensive information on ongoing federal, state, and tribal MPA planning processes. Stakeholders can search the information centers by region of the US or by state. While the information centers are a work in progress and not all regions are completely populated, the Pacific Coast and New England regions are either complete or include a significant amount of information. http://www3.mpa.gov/mpa_calendar/query/searchbyregion.aspx

SeaWorld Educational Resources

The SeaWorld website has books, teacher's guides, and videos both for sale through our catalog and free online. The down-loadable teacher guides include Shark, Splash of Math, Whales, and many more. The kids' Fun Zone includes song books, stories and activities. There is also a toll-free number or "Ask Shamu" email that students and teachers can contact with questions about animals. http://www.seaworld.org/education-programs/index.htm

Tools for Monitoring Coastal Habitats

This second volume of the two-volume restoration monitoring manual titled *Science-Based Restoration Monitoring of Coastal Habitats* is now available online, courtesy of scientists from NOAA's National Centers for Coastal Ocean Science. Volume Two provides tools and information for the development and implementation of restoration monitoring plans for 13 types of coastal habitats. The information provided in Volume Two is designed more for practitioners who may not have extensive experience in coastal ecology.

http://coastalscience.noaa.gov/ecosystems/estuaries/restoration_monitoring.html

INITIATIVES and JOURNALS

Litter Clean-Up Initiative

The concept of the Nicodemus Wilderness Project is to provide incentives for youth to explore and expand their horizons through volunteerism, environmental stewardship, and development of writing skills. The Apprentice Ecologist Program aims to engage 1000 kids and teens in a wilderness or nature litter clean-up project by 2006. http://www.wildernessproject.org/volunteer_apprentice_ecologist.shtml

Wildlife-Friendly Yard Program

As part of the American Zoo and Aquarium Association's (AZA) Wonders of Water Campaign focusing on ocean and water related issues, the AZA is spearheading a wildlife-friendly yard program. This new program will focus attention on some important issues surrounding the health of our waterways and provide people with a tangible way to take action. By encouraging people of all ages to help make their own yards friendlier for wildlife, habitats "downstream" from these lawns will be healthier for animals like otters, salmon, whales, manatees, and catfish. Participating organizations are encouraged to distribute yard signs to visitors who are willing to pledge to make their yards wildlife-friendly and provide information and resources for fulfilling this pledge. For additional information about how your organization can participate in this project, contact Dot Siegfried at dsiegfried@aza.org, or call (301) 562-0777, ext. 254. http://www.riverbanks.org/s04education/wildlifefriendly.shtml