



NATIONAL MARINE PROTECTED AREAS CENTER INFORMATION EXCHANGE FOR MARINE EDUCATORS

JULY 2004

MPA FACTS

New Canadian MPA: The Gully

MPAs are being used worldwide as an ecosystem management tool. A neighboring example is the Gully, Canada's first east coast MPA designated under the Oceans Act, located off Nova Scotia, near Sable Island. It is the largest submarine canyon in eastern North America. The Gully contains a rich diversity of marine habitats and species, including deep-sea corals and the northern bottlenose whale. The website contains audio, pictures, and videos in addition to background information. For more information, check out

<http://www.mar.dfo-mpo.gc.ca/oceans/e/essim/essim-gully-e.html> .

Notable Addition to MPA Library

Southeast Regional Marine Plan: Implementing Australia's Oceans Policy in the Southeast Marine Region

Australia's National Oceans Office has released the first in a series of regional plans to ensure the protection and sustainable development of its vast ocean territory. The plan, downloadable from the website, addresses the southeast region's rich biodiversity, and the economic, social, and cultural values important to the region's communities.

South-east Regional Marine Plan: Implementing Australia's Oceans Policy in the South-east Marine Region (2004)

http://www.oceans.gov.au/pdf/SERMP/NOO1_Oceans.pdf

Main MPA Library URL:

http://www2.mpa.gov/mpa/mpaservices/virtual_library/virtual_library.lasso .

PROGRAM OF THE MONTH

National Marine Educators Association Annual Conference

Come join your colleagues July 18–22, 2004 in St. Petersburg, Florida, for the National Marine Educators Association Conference. This year's theme is *Bridge the Gulf—Marine Science in the Sunshine*. Here are just some of the planned sessions you might want to attend. For complete information about the conference, check out http://www.floridamarine.org/education/category_main.asp?id=2088

Alissa Barron, NOAA's Coral Reef Conservation Program (Monday, 2:35-3:25)
Coral Reefs: An Integrative Teaching Tool (and a Guide to NOAA Resources)

- Why coral reefs are an imagination-friendly environmental education tool
- Guide to NOAA's coral reef educational resources

Amy Sauls, North Carolina National Estuarine Research Reserve
Using Dead Dried Organisms (Thursday, 1:45-2:35).
The presentation provides suggestions, demonstrations and experiences in collecting marine items for use in educational programs – great for informal educators & teachers.

Atziri Ibanez, National Estuarine Research Reserves, and Susan Lovelace
EstuaryLive: Internet Field Trip and Resources (Monday, 2:35-3:25)
Be an EstuaryLive Internet FieldTrip Evaluator. Learn about this interactive field trip through our nation's estuaries over the Internet, featuring the NERR System.

Bruce Moravchik, NOAA's Communication and Education Division (Monday, 3:40-4:00 and Thursday 10:20-11:10)
NOAA's New Discovery Kits: Bringing Real Science to Your Classroom
These online educational resource kits can aid you in teaching life and earth sciences in your classroom. Check out <http://oceanservice.noaa.gov/education> .

Catherine Marzin and Michiko Martin, NOAA's National Marine Sanctuary Program
Lost at Sea: The USS Alligator Story (Monday, 11:05-11:55)
This exciting story of a submarine lost at sea in a horrendous storm offers numerous possibilities for student-led inquiry into meteorology, oceanography, and engineering.

Cathy J. Sakas, NOAA's Gray's Reef National Marine Sanctuary
Rivers to Reefs (Thursday, 2:15-2:35)
Rivers to Reefs is an overview of the education module that describes the Altamaha River Watershed and its influence on the waters of the Georgia coast.

Dan Hogan, U.S. Fish and Wildlife Service (Thursday)
U.S. FWS Habitat Restoration Information Tracking System (HabITS)
HabITS is a nationwide Internet-based accomplishment reporting system tracking habitat improvement accomplishments and program-specific technical assistance workloads.

Eric Simms, Rutgers Marine and Coastal Sciences
The C.O.O.L. Classroom: Bringing Real Time Ocean Science Data and Technology from a Coastal Ocean Observatory into the Classroom (Tuesday, 2:40-3:30).
Use the same technology and data as ocean scientists to develop critical thinking, analytical skills, and explore concepts in biology, physics, and earth science.

John Broadwater and Kate Thompson, NOAA's National Marine Sanctuary Program
Shipwrecks and Heritage: A Comprehensive approach to maritime heritage education in the National Marine Sanctuary Program (Monday, 2:35-3:25)
Learn how shipwrecks can be used to teach science, archaeology, social studies, and history in the classroom.

Kathy McElroy and JR Sosky, Monterey Bay Aquarium
An Ocean Buffet of Integrated K-2 Activities (Thursday, 1:45-2:35)
Join Monterey Bay Aquarium educators as we share engaging hands-on classroom activities integrating science with math and language arts: fish math, models and more.

Michelle Templeton, NOAA's Monterey Bay National Marine Sanctuary, MERITO Program Manager
Integrating Multicultural Outreach in Marine Protection (Thursday, 1:45-2:35)

Highlights include developing multicultural partnerships, K-12 science programming, community-based outreach, teacher training opportunities and college internships.

Michiko Martin, NOAA's National Marine Sanctuary Program
Marine Sanctuaries Live! (Tuesday, 2:40-3:30)

Learn how NOAA is partnering with other leaders in ocean education to bring ocean monitoring data and stunning real-time imagery into classrooms.

Phyllis Dermer, NOAA's National Marine Protected Areas Center
Connecting Educators and Marine Protected Areas (Monday, 2:35-2:55)

Our projects help connect marine education and resource protection. Learn about some of the MPA Center projects including the new issue of Current, Info Exchange, & more.

Seaberry Nachbar and Shannon Sprague, NOAA's National Marine Sanctuary Program and NOAA/Fisheries, Chesapeake Bay Office (Thursday, 10:20-11:10)

Environment-Based Education: Creating Revitalized Teachers and Learners

We highlight a selection of 2003 grant recipients from the Chesapeake and Monterey Bay watersheds, focusing on accomplishments, results, similarities, and project diversity.

WEBSITE OF THE MONTH

PRBO Marine Division

The mission of PRBO's Marine Division is to use science to guide ocean ecosystem protection, conservation, and management. Our newly updated website features detailed information about our many marine projects. These focus on four key areas:

1. Ocean predators as bio-indicators of climate change and habitat quality.
2. Population dynamics, reproduction, and survival of seabird, marine mammal and white shark populations.
3. Life history characteristics: diet, feeding ecology, and energetic needs of seabirds in relation to marine fisheries and pollution.
4. Creation of marine protected areas and marine reserves to protect ocean ecosystems.

PRBO's first marine project began over 30 years ago on the Farallon Islands, home to the largest seabird and marine mammal colonies in the continental United States south of Alaska. PRBO biologists on the island monitor bird and mammal populations in order to understand, protect, and conserve the island ecosystem and its globally significant marine life. More than 150,000 seabirds of twelve different species nest on the island. Elephant Seals began re-colonizing the island in the late 1950's after being locally extirpated due to intensive hunting during the 1800's. In 1972, the first pup in over a century was born on the Farallones, and the population has been increasing ever since.

Our marine website also features information on how to protect sea bird colonies from disturbance, and lists many volunteer opportunities for anyone interested in assisting with PRBO's marine research. While you're looking through the marine website, check out the main PRBO links and the Internship page. For more information about the marine division, check out www.PRBO.org/marine .

REQUESTS

Looking for Book Reviewers

NAAEE is looking for book reviewers to read EE-related books and submit brief (250- to 400-word) reviews to the NAAEE Communicator. As a reviewer, you get a free copy of the book to be reviewed, plus your own byline and a publication credit. For more information, please contact Joanne Glenn at communicator@naaee.org.

Looking for EE News Briefs

NAAEE is looking for news of your environmental education initiatives—news that has a leading-edge quality or that has addressed and solved some problem. Put "BRIEFS" in the header, and include your contact information on each submission. Send your briefs (~100 words) to Joanne Lozar Glenn at communicator@naaee.org.

Volunteers Needed For AEOE Conference

The Association for Environmental and Outdoor Education, California, (AEOE) is currently looking for conference volunteers for next spring's conference. Some activities include pre-conference assistance, on-site organization, professional development, scholarships, sign making, and registration. If you have time and the desire to help put on the 2005 Spring Conference, April 15-17, 2005, contact Heather Butler at hbutler@wolfschool.org.

GRANTS AND OPPORTUNITIES

American Bird Conservancy Small Grants

ABC's William Belton Small Grants Fund, in partnership with the U.S. Fish & Wildlife Service, will provide support for projects to conserve Endangered and Critically Endangered bird species in Latin America and the Caribbean. Conservation projects at sites identified by the Alliance for Zero Extinction as essential for the conservation of Endangered and Critically Endangered bird species will be given highest priority for support. Grant requests can include funding for the development and implementation of conservation plans, the development of new protected areas, community development projects to protect key habitats, and other locally based efforts to protect the sites. Expeditions to search for "Lost Species" will also be considered. Important: please submit a letter of inquiry prior to July 15, 2004 for consideration. For more information, check out http://www.abcbirds.org/international/small_grants_2004.htm.

B-WET Grants for Monterey Bay Watershed - 2005

The B-WET grant program is a competitively based program that supports existing environmental education programs, fosters the growth of new programs, and encourages the development of partnerships among environmental education programs throughout the Monterey Bay watershed. Funded projects provide meaningful outdoor experiences for students and professional development opportunities for teachers' environmental education. Proposals will be accepted between August 15 and October 15, 2004. For more information, contact Seaberry Nachbar at seaberry.nachbar@noaa.gov. Materials will be posted soon at <http://sanctuaries.nos.noaa.gov/bwet>.

California Governor's Environmental And Economic Leadership Awards

These awards represent the state's highest and most prestigious environmental honor. The awards recognize achievements by individuals, organizations and businesses

related to the conservation of California's precious resources, protection and enhancement of California's environment and the building of public-private partnerships. Award categories are Children's Environmental Education, Watershed & Ecosystem Restoration, Sustainable Practice, Environmental-Economic Partnerships, Land Use, Technology Innovation and Sustainable Facilities. The deadline for application is August 2, 2004. For more information, check out <http://www.calepa.ca.gov/Awards/GEELA/> .

Delta Education/CPO Science Inquiry-Based Science Teaching Excellence Awards

The National Science Teachers Association (NSTA) is accepting nominations for the 2005 Delta Education/CPO Science Inquiry-based Science Teaching Excellence Awards. Full-time K-12 science teachers who successfully use inquiry-based science to enhance teaching and learning in the classroom are eligible to apply for an award in one of three grade categories. The application deadline is October 15, 2004. For more information, check out <http://www.nsta.org/565> .

Grable-Curtis Rural Teacher Grants for Geography Action! 2004: Cultural Connections

With resources provided by our Grable-Curtis Fund, the National Geographic Society is providing grants of up to \$500 to help teachers educate students about cultural diversity and understanding. Applicants for a Rural Teacher Grant must currently be a classroom teacher or school administrator in an accredited K-12 public or private school in a rural area. The Foundation has a special interest in supporting teachers in Idaho and Maine. For more information, check out http://www.nationalgeographic.com/education/teacher_community/grable_curtis.pdf .

Groundwater Foundation's Award for Excellence and Leadership in Groundwater

The Groundwater Foundation offers the annual W.C. Foxley – E.P. Taiganides Award for Excellence and Leadership in Groundwater. Any student (age 12-17 in the U.S.) that gives time, energy, and knowledge to promote the protection of groundwater in his/her community is eligible. Nominations are due July 14, 2004. For more information, check out <http://www.groundwater.org/aw/youthabout.html> .

Grosvenor Grant Program

The Grosvenor Grant program from the National Geographic Society Education Foundation supports efforts to engage K-12 students and teachers in the exploration of geographic skills and perspectives leading to an appreciation of the world, its peoples, and its resources. Projects involving disadvantaged children and underserved urban and rural regions in the United States are encouraged. The application deadline is September 7, 2004. For more information, check out http://nationalgeographic.com/education/teacher_community/grosvenorgrants/ .

Institute of Education Sciences Education Research Grants

Ten Institute of Education Sciences grants to support education research will provide national leadership in expanding fundamental knowledge and understanding of education from early childhood education through postsecondary study. For information, check out www.ed.gov/legislation/FedRegister/announcements/2004-3/070104a.html .

Native American Children Scholarship For International Children's Conference On The Environment

It's getting late, but the Environmental Protection Agency is providing scholarships for Native American children delegates to attend the International Children's Conference on the Environment, July 19-23, 2004, New London, Connecticut. Scholarships will cover the cost of transportation for children delegates. For more information, check out <http://www.icc04.org/epascholarship.html> .

Ocean Exploration Initiative Funding

NOAA is seeking applications for funding in support of projects and expeditions to unknown or poorly known oceanic and Great Lakes regions. These projects should be designed to expand the knowledge of the ocean's physical, chemical, biological and archaeological characteristics, processes, and resources. NOAA's Office of Ocean Exploration will serve as the primary contact and funding authority. Pre-proposals must be received by August 30, 2004; email or fax submissions will not be accepted. For more information, check out <http://explore.noaa.gov/opportunity/welcome.html> .

Ramsar Wetland Conservation Award

The Ramsar Wetland Conservation Award was established in 1996 to honor individuals, organizations, and governments around the world for actions that have significantly contributed to long-term conservation and sustainable use of wetlands. The 2005 Awards will be made in the three categories of management, science, and education. Nomination deadline is October 31, 2004. For more information, check out http://ramsar.org/key_awards_index.htm .

Tread Lightly!'s Restoration for Recreation Program / HUMMER Helps Grant

Tread Lightly! and HUMMER have partnered to provide the HUMMER Helps grant giving program. The program is designed to increase the level of positive recreation behaviors among outdoor enthusiasts, with 3 application cycles yearly. Note: only Tread Lightly! club members are eligible. For more information, check out <http://www.treadlightly.org/grant.mv?> .

INTERNSHIPS AND TEMPORARY OPPORTUNITIES

Reef HQ (Great Barrier Reef Aquarium) Curatorial Internships

As part of its education and outreach role, Reef HQ offers up to four curatorial internship positions to suitable applicants for 2005. Each intern is responsible for a research and development project, which will be the core duty of the candidate. However, interns may also assist Reef HQ staff with animal husbandry responsibilities of exhibits, including feeding of fish, turtles, corals, maintenance of aquariums systems, and other routine duties related to animal care. This program is designed for individuals intending to undertake a technical or professional career in marine science, aquaculture or a closely related discipline. Application deadline is August 15, 2004, with a start date between February and August 2005. For more information, check out <http://www.reefhq.org.au/intern.html> .

Wider Caribbean Environmental Youth Program

The Wider Caribbean Environmental Youth Program is an eight-day learning experience presented at the Virgin Islands Environmental Resource Station on St. John, U.S. Virgin Islands, for Caribbean students, ages 12-16. Students will take part in outdoor

environmental education programs focused on the natural history, ecology and conservation on Caribbean islands. For more information, check out www.islands.org/virgin/viers .

CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT

Coastal Zone '05, Call for Papers

Coastal Zone 05, *Balancing on the Edge*, July 18-21, 2005, New Orleans, Louisiana, focuses on balancing the issues and interests of land and sea, including education and training. With over 1,000 participants expected from all over the world, this conference will provide valuable tools, lessons learned, and new ideas to help address coastal management issues. For more information, check out <http://www.csc.noaa.gov/cz/> .

Digital Library for Earth System Education Annual Meeting

Sponsored by the National Science Foundation, the theme for this year's annual meeting of the Digital Library for Earth System Education, Madison, Wisconsin, July 11-13, 2004, is *DLESE: A Teaching and Learning Tool*. The DLESE is a free online resource designed to provide access to teaching resources about earth systems for a wide range of learners, and provide services to help users effectively create, use and evaluate digital learning resources. Participation in the conference by marine science K-12 teachers, informal educators, and curriculum and library developers is encouraged, and there is funding available. For more information, check out <http://cimss.ssec.wisc.edu/dlese/2004/> .

Environmental Education Methods

Environmental Education Methods (OUT8160) is a 4-day course offered by the U.S. Fish and Wildlife Service at the National Conservation Training Center in Shepherdstown, West Virginia, September 13-16, 2004. It helps participants incorporate evaluation strategies into program planning and implementation, and learn about working with students, teachers, youth groups, and their leaders, both on and off public lands. This course is only offered alternate years, so secure your place in the course now. The deadline for registration is July 19, 2004. For more information, check out <http://training.fws.gov/courses.html>, or contact Georgia Jeppesen, at georgia_jeppesen@fws.gov, 304-876-7366.

Generation Earth Back To School Forum – Los Angeles County

This workshop, for Los Angeles County middle and high school teachers, August 28, 2004, offers environmental education resources and assists teachers in planning action projects for the coming year. Teachers will create a plan to increase the quality of environmental education in their classrooms. Generation Earth provides resources and referrals that support teachers' plans for the coming school year. For more information, check out <http://www.generationearth.com/action/index.htm> .

Geological Society of America Annual Meeting

The 2004 Annual Meeting, November 7-10, 2004, Denver, Colorado, presents *Geoscience in a Changing World*. The annual meeting is the principal forum for presentation and discussion of the latest ideas in geoscience education, and this year will feature more than 25 sessions on education-related topics, along with watershed

and marine geoscience. The abstract deadline is July 13, 2004. For more information, check out <http://www.geosociety.org/meetings/2004/geninfo.htm> .

Hawaiian Fishponds Workshop

This free teacher workshop, July 10, 2004, Maui, Hawaii, focuses on science, social studies, Hawaiian culture and language, through the study of native Hawaiian fishponds. The program, presented by NOAA's National Marine Sanctuary Program, is funded by the U.S. Department of Education to develop culturally relevant curricula utilizing the Hawaiian fishpond as a resource. Project Kāheha Loko, "Call of the Pond," has developed these curricula in partnership with the Hawai'i Department of Education and others. The deadline for registration has passed, but those interested in the program can contact Kaimana Lee at (808) 879-2818.

International Conference on Aquatic Invasive Species

The Institute of Technology, Sligo, is the host sponsor of the 13th International Conference on Aquatic Invasive Species, Ennis, County Clare, Ireland, September 20-24, 2004. This international forum will review accumulated scientific knowledge on the impacts of aquatic invasive species, introduce new technologies or advancements in control and mitigation, discuss policy, legislation, and approaches to effective public education and outreach initiatives to prevent new introductions. For more information, check out http://www.aquatic-invasive-species-conference.org/conference_home.htm .

Master Naturalist Program - Florida

The Florida Master Naturalist Program is an adult environmental education program from the University of Florida. Three 40-hour teaching modules include freshwater wetlands, coastal systems, and upland habitats. Students learn science-based curriculum and interpretation skills in the classroom and in the field. For more information, check out <http://www.masternaturalist.org/> .

Parks As Labs, Studies Of Wildland Fire Ecology & Globe Workshop in Santa Monica

This combination workshop, Santa Monica Mountains National Recreation Area, California, August 9-12, 2004, for middle and high school teachers, presents participants with skills and knowledge about these three environmental education programs. Participants will receive teacher manuals, GLOBE protocols and data sheets. Priority enrollment is given to middle and high school teachers of science and environmental studies. For more information, check out <http://www.nps.gov/samo/educate/workshops/PAL-Fire-GLOBE.htm> .

Project WILD & Monarchs Across Georgia Workshop

Cobb County Adopt-A-Stream, Marietta, Georgia, presents this dual workshop September 21-22, 2004. Project WILD emphasizes the intrinsic and ecological values of wildlife, as well as its importance as a basis for teaching how ecosystems function. Monarchs Across Georgia teaches ways to make your schoolyard or backyard an attractive habitat for monarchs and many other butterflies. You will also learn to identify common butterflies, learn to monitor their populations, and submit the collected data. Practice the skills involved in catching and tagging monarch butterflies. Curriculum and resources are provided for both programs. The deadline for registration is September 7, 2004. For more information, check out <http://eeingeorgia.org/event.asp?eventID=19621> .

EDUCATIONAL RESOURCES

Alternatives for Coastal Development: One Site, Three Scenarios

This website, *Alternatives for Coastal Development: One Site, Three Scenarios*, illustrates three different development scenarios created for a residential area in coastal Georgia. The website includes maps and details of three different designs; comparisons of environmental, economic, and social indicators; three-dimensional views of each; detailed project methodology; and growth and development-related information. For more information, check out <http://www.csc.noaa.gov/alternatives/> .

Ask Dr. Global Change

From the U.S. Global Change Research Information Office, "Dr. Global Change" offers a searchable collection of answers to questions about global warming, ozone depletion, greenhouse gases, and other issues related to climate change. Students can also submit questions of their own and explore related links. This reference service also assists researchers, educators, resource managers, and others in finding information relevant to global environmental change. For more information, check out <http://gcrio.custhelp.com/cgi-bin/gcrio.cfg/php/enduser/home.php> .

Boston Harbor Islands Curriculum

The Boston Harbor Islands, part of the National Park System, include 34 islands that lie within Boston Harbor. The national park area extends seaward 11 miles from downtown Boston. Managed by a unique partnership, the islands have been closely linked to Massachusetts Bay and to coastal communities for thousands of years. The landmass of the Boston Harbor Islands is between 1,600 - 3,100 acres, depending on the tides. In addition to maps and visitor information, the website includes downloadable curriculum for teachers and on-line quizzes for students. For more information, check out <http://www.bostonislands.org/learn/index.html> .

Crittercam: See What the Animals See

What do marine animals do when we're not around? National Geographic's Crittercam allows researchers to follow wildlife through the use of advanced monitoring equipment attached to the animal. The Crittercam website has maps, lesson plans, and activities. For more information, check out <http://www.nationalgeographic.com/crittercam/index.html> .

Deep-Sea Creatures Quiz from National Geographic

Dive to the depths to test your knowledge of some of the Earth's most unusual creatures. Try this quiz and read the accompanying background information. And while you're on the website, check out the other games including weather wizard, frogs, and much more in the archives. For more information, check out <http://magma.nationalgeographic.com/ngexplorer/0309/games/game.cgi> .

Edutopia Magazine

The George Lucas Educational Foundation is a nonprofit operating foundation that documents and disseminates models of innovative K-12 practices through the creation of media from films, books, newsletters, and more. This website contains all of the content published since 1997. There is an email newsletter, and they are offering free subscriptions to a new magazine, *Edutopia*. For more information, check out <http://www.gleef.org/getstarted/educators.php> .

Estuary Live: Embark on an Estuarine Odyssey

National Estuaries Day is a Coast Week celebration to promote the importance of estuaries and the need to protect them. Estuary Live is a collaborative effort between NOAA's National Estuarine Research Reserve System, EPA's National Estuary Program, and many local partners. Celebrate by participating in this feature event – a free, live, interactive field trip over the Internet. This year's program will include field trips to seven estuaries: Puget Sound, Slough Slough, Weeks Bay, Rachel Carson Reserve, Great Bay, Peconic Estuary, and Waquoit Bay. Mark your calendars for September 23-25, 2004. Visit the website for the education topics and standards; additional information and teaching materials will be posted soon. For more information, check out www.estuaries.gov.

Extreme 2004: Expedition To The Deep Frontier

University of Delaware marine scientists will lead *Extreme 2004: Expedition to the Deep Frontier*, from November 30-December 20, 2004, a National Science Foundation expedition to hydrothermal vents in the Pacific Ocean. Middle- and high-school classrooms are invited to join via a virtual field trip. Working aboard the submersible Alvin and research vessel Atlantis, the scientists will explore how vent life can survive the extreme temperatures and toxic chemistry in one of the ocean's most demanding habitats.

With support from NSF and NOAA Sea Grant, the University of Delaware will offer participating teachers free classroom materials about the deep sea, including student resource guides, curricula, a video, and more. The website will be updated daily during the 21-day expedition with journals, photos and video clips from the seafloor, and interviews with the crew. Check out <http://www.ocean.udel.edu/expeditions>.

Federal Education Digital Resources Library

The Federal Education Digital Resources Library (FEDRL) features a collection of free science and mathematics education resources. The site provides descriptions of a range of online materials that were developed with U.S. Department of Education or National Science Foundation funding. These materials include lesson plans, magazine articles, student resources, and materials for teachers' professional development. For more information, check out <http://encdl.org/search/simple/0,5046,,00.shtm>.

Fish Species Identification and Data Programme

The UN's Food And Agriculture Organization (FAO) website for [fish] Species Identification and Data Programme is set up to improve the identification of marine organisms of actual and potential interest to fisheries, provide tools, and improve fisheries data quality. The website has species identification publications, regional guides, fact sheets, species distribution maps, and more. Many of the publications are downloadable. For more information, check out <http://www.fao.org/fi/SIDP> > <http://www.fao.org/fi/SIDP>.

Global Ultraviolet Index

EPA and NOAA adopted a new Global Ultraviolet Index to help reduce overexposure to dangerous UV rays. The index, developed by the World Health Organization and other international organizations, replaces existing reporting methods. The index is designed to foster understanding of which precautions to take in protecting ourselves from different levels of UV radiation. For more information, check out http://www.cpc.ncep.noaa.gov/products/stratosphere/uv_index/uv_current.html or

<http://www.epa.gov/sunwise/uvilaunch.html> .

Green Conference Guide from EECOM

From the Canadian Network for Environmental Education and Communication (EECOM), this online guide can help make your next conference or meeting greener. For more information, check out <http://www.eecom.org/english/greenconf.html> .

Ichthyology & Other Slimy Words

The Cabrillo Marine Aquarium, San Pedro, California, offers public classes, marine laboratory workshops, field trips, and voyages for all ages. Their *Ichthyology & Other Slimy Words* workshops allow you to explore the inner and outer workings of sharks and other fish through dissection, fish printing, and more. Two sessions are offered, July 19-23 and August 23-27. They also provide many other programs. For more information, check out <http://www.cabrilloaq.org/education.html> .

In the Deep Ocean

The Ocean Technology Foundation (OTF) has a new science center exhibit, *In the Deep Ocean*. The exhibit explores the past, present and future of our oceans. Its centerpiece is a 12-foot interactive model of an undersea station called Ocean Base, where people can live for weeks or months at a time. This habitat is one of OTF's long-term goals. Watch for curriculum related to Ocean Base on the website in the future. For more information, check out <http://www.virtualtour.semapp.org> .

Invasive Species Lectures On-Line

The Virtual Library of the American Institute of Biological Sciences contains plenary lectures by biologists recorded at AIBS annual meetings. Additional content includes presentations from the AIBS National Roundtable series. You can view synchronized audio and video of all presentations, plus slides and transcripts of presentations. The theme of the 2004 meeting was *Invasive Species: The Search for Solutions*. For more information, check out <http://www.aibs.org/virtual-library/> .

Juan de Fuca Ridge Expedition

It's not too late to follow the REVEL expedition, June 14-July 13, 2004, as researchers and 8 teachers explore the deep ocean off the Pacific Northwest coast on the research vessel Atlantis. During this expedition to the Juan de Fuca Ridge, 200 miles west of Washington and British Columbia, scientists, engineers and educators will use an Autonomous Underwater Vehicle to study the transfer of heat from hydrothermal vents plumes into the ocean. For more information, check out www.ocean.washington.edu/outreach/revel .

Learning Center on Caribbean Weather and Climate

The Learning Center on Caribbean Weather and Climate is designed for a wide range of users, especially from the secondary school level upwards. The general, fundamental phenomena that create weather and climate are explained, including atmospheric composition, solar radiation, the hydrological cycle, and more. Learning projects in the Caribbean are presented alongside tips and resources for teachers. For more information, check out <http://cawedu.net/index.htm> .

Natural Inquirer Journal from USDA

This journal, *The Natural Inquirer*, was created so that scientists can share their research with middle school students. Each article describes scientific research conducted by scientists in the USDA Forest Service. The website lets you search for articles by topic and by issue. While it focuses, naturally, on forests, topics of interest for marine educators include wildlife, habitat, and water. For more information, check out www.naturalinquirer.usda.gov .

Ozone Forecasts

Experimental air quality forecasts have begun. NOAA's National Weather Service will produce hourly forecasts updated twice daily for the northern U.S. from Maine to the Carolinas and west to Indiana, Kentucky and Tennessee. The air quality forecast was developed by NOAA Research and the weather service, in partnership with the EPA. EPA's site will also include interpretive health-based air quality index maps based on the forecast guidance. For more information, check out <http://www.epa.gov/airnow/>

Participatory Management Clearinghouse for Wetlands

The Participatory Management Clearinghouse (PMC) is a joint initiative of the Bureau of the Convention on Wetlands (Ramsar), IUCN (The World Conservation Union), and SIDA (The Swedish International Development Cooperation). It has been set up to facilitate the sharing of information concerning participatory management of natural resources, while disseminating field experiences on that topic. Classified thematically by ecosystems, regions, or themes, the posted documents, specific projects and case studies cover issues such as biodiversity and traditional knowledge, gender, water, equitable sharing, protected areas, and indigenous peoples. The website includes dynamic maps and a search system. For more information, check out <http://www.PMCnet.org> .

Ramsar 'Toolkit', second edition (2004)

The 14-volume Ramsar Convention Handbooks for the Conservation and Wise Use of Wetlands, 2nd edition, is available as PDF[®] (optimized for printing, but large), and for faster downloading in the "raw" Word[®] versions. The Ramsar Convention promotes an integrated package of actions to ensure the conservation and wise use of wetlands. The handbooks incorporate the guidelines, relevant material from other sources, and case studies designed to illustrate key aspects of the guidelines. The full text of most case studies can be found on the website of the Convention (http://ramsar.org/wurc_index.htm). For more information, check out http://ramsar.org/lib_handbooks_e.htm .

Resource Ranger Club

The Environmental Education Coordination Team was formed to coordinate EE efforts in the Pensacola, Florida area. Team members include agency and industry personnel, teachers, and others. They have developed the curriculum-based Resource Ranger Club, an environmental club in elementary and middle schools. This club includes classroom presentations, follow-up activities, field trips, and a series of award-winning video shows. To date, the video series includes the Watershed, Stormwater, Seagrasses, the Water Cycle and Wetlands. Future videos planned include Recycling, Construction Best Management Practices, and Stream Restoration. Each video includes classroom activities and tips on what one can do to help with that challenge.

EECT would like to see the videos shown in a nationwide market, and would like to see expansion of the Resource Ranger Club as well. For more information, contact Eleanor Godwin at godwine@wfrpc.dst.fl.us or 850-595-8910 ext 226.

RubiStar – Free Generic Rubrics for Teachers

Rubrics can be quite time-consuming to develop. The RubiStar website provides tools to help the teacher who wants to use rubrics but does not have the time to develop them from scratch. RubiStar provides generic rubrics that can simply be printed and used for many typical projects and research assignments, or customize your own from their format. For more information, check out <http://rubistar.4teachers.org> .

Travel Matters

The Travel Matters website helps students, teachers, and others learn about how their travel habits and vehicular choices affect climate change. TravelMatters offers interactive emissions calculators, on-line emissions maps, and education content that emphasizes the close relationship between more efficient transit systems and lower greenhouse gas emissions. The website includes questions, activities guides, an interactive quiz, resource lists, and more. For more information, check out <http://www.travelmatters.org> .

Tread Lightly! Play Nice Campaign

Tread Lightly! has just completed a revamp of its *Play Nice* Public Service Announcement Campaign, created to encourage and inspire recreationists to minimize their impact and be responsible in the outdoors. Available PSAs include fishing, personal watercraft use, and more. For more information, check out <http://www.treadlightly.org/edu.mv?edu=Public%20Service%20Announcements> .

Virtual Whale Watch

Bring a whale to school. Landlocked pre-K-6 students in Mid-Atlantic states can participate in a simulated whale watch and activities to stimulate their interest in marine science and endangered species. The website features a Kid's Page with whale sounds, "Ask a Scientist," resources, and information appropriate for pre-K-6. For more information, check out <http://members.aol.com/passintime> .

INITIATIVES and JOURNALS

Environmental Education Capacity Building Publications Survey

The National Environmental Education Advancement Project (NEEAP), funded through Environmental Education and Training Partnership (EETAP), has an online survey that seeks to document the value and use of various EE publications by those involved in EE capacity building efforts at the national, state and local levels. Your time and advice is greatly appreciated. For more information, check out <http://www.uwsp.edu/cnr/neeap/publications/pubsurvey.htm> .

WET-WASH Initiative for Coastal Sewage Contamination

Globally, sewage is the largest source of marine contamination by volume. To address this, the United Nations launched a new campaign to clean up the seas by ensuring that people have access to toilets and safe drinking water. The campaign linking UNEP/GPA (United Nations Environment Program's Global Programme of Action for the Protection of the Marine Environment from Land-based Activities) and the Water Supply and

Sanitation Collaborative Council (WSSCC) was launched during the *H2O - From Hilltops to Oceans* global conference. The partnership combines the Wastewater Emission Targets (WET) initiative with the Water, Sanitation and Hygiene for all campaign (WASH). The WET-WASH website has downloadable resources, including a training manual and 10 keys for sustainable municipal wastewater management. For more information, check out <http://www.gpa.unep.org/pollute/sewage.htm> .

World Wetlands Day

World Wetlands Day takes place yearly on the 2nd of February and offers an opportunity "to undertake actions aimed at raising public awareness of wetland values and benefits in general and the Ramsar Convention in particular." The Ramsar Secretariat has promotional materials available free of charge; this year, there will be a new poster with the slogan "There's wealth in wetland diversity - don't lose it!". It will be available in physical format in English, French, and Spanish and electronically in QuarkXpress for those who may wish to produce them in their own languages or with local content added. This year's theme is *cultural and biological diversity of wetlands*. For more information, check out http://ramsar.org/wwd_index.htm .