

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

INFORMATION EXCHANGE FOR MARINE EDUCATORS

JULY 2008

This update is provided with support from NOAA's Office of Education and by the National Marine Protected Areas Center to share information pertinent to the marine educator community. It is intended to encourage exchange of information and programs. We hope that it will also promote collaboration among the different educators addressing similar issues in their programs.

Please share this email with your colleagues and constituents. If you request materials or respond to a request for information, please mention that you learned about it from NOAA's Information Exchange.

The information included here has been compiled from many different sources, including EE-NEWS@NAAEE, EEinGEORGIA, CREEC, the Scout Report, edinfo at FREE, scuttlebutt, NSTA Express, and others. We have verified web addresses, but make no guarantee that they will remain active. The Department of Commerce/NOAA does not necessarily endorse or promote the views or facts presented on these sites.

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Collected archives of the information presented in past newsletters are available at http://mpa.gov/helpful_resources/education_training.html. Contact the editor directly at phyllis.dermer@noaa.gov, or by phone at (865) 932-5074, to discuss further enhancements or to contribute information for future issues.

PROGRAM OF THE MONTH

Animals in Curriculum-based Ecosystem Studies

Animals in Curriculum-based Ecosystem Studies (ACES) is an expansion of Signals of Spring, an award-winning, classroom based curriculum program in which students use Earth imagery to explain the movement of animals that are tracked by NOAA's operational satellites. Follow seabirds, sea turtles, marine mammals, and fish as they migrate. Students in middle and high school study aspects of the animal's life history, conservation status, food web, and connections to ocean processes and remote sensing data. The curriculum also introduces environmental issues the animals face, and the environments of NOAA's National Marine Sanctuaries. Check out the professional development for this course, August 13-15, 2008 – note that the deadline for registration is July 15, 2008.

<http://www.signalsofspring.net/aces/>

WEBSITE OF THE MONTH

Global Climate Change

NASA offers this new website, Global Climate Change, NASA's Eyes on the Earth. The site, managed by the Jet Propulsion Laboratory, is a one-stop-shop for all of the latest climate information from NASA's Earth-monitoring missions and research. The website offers background information, interactives, and much more. Categories include key indicators, uncertainties, solutions, and news.

<http://climate.jpl.nasa.gov/>

MESSAGE FROM THE BRIDGE

The Bridge Celebrates 10th Birthday

As the NMEA annual conference draws near, July 21-25, 2008 in Savannah, Georgia, the Bridge educators are not only preparing some great new resources and activities to present, but also a week long celebration of the Bridge's 10th birthday. There will be three Bridge presentations including: "Sea Turtles Nest!," which investigates turtle hatching data; "New Views on Sand," which examines the diversity of the world's sands; and for those looking for a more physical oceanography-based session, look for "Don't Even Sink About It!" This activity walks educators through Bridge/COSEE-NOW DATA (Data Analysis Teaching Activity) that explores density and buoyancy considerations of commercial shipping. The Bridge will also have an exhibit at the conference, so stop by and pick up more great Bridge resources. The birthday celebration begins at Monday evening's opening reception, complete with Bridge birthday cake.

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

REQUESTS

Community Literacy Journal Seeks Articles

The peer reviewed *Community Literacy Journal* is inviting article submissions for its Fall 2009 special issue on Sustainability, the Environment, and Community Literacy, that explore the interconnections among community, biospheric literacy, and sustainable practices. The deadline for submission is July 15, 2008.

<http://communityliteracy.org/special-issue-32-cfp-sustainability-the-environment-and-community-literacy/>

High School Science Teachers Needed for Field Test

Technical Education Research Centers (TERC) is seeking high school science teachers to pilot or field test its *Biocomplexity and the Habitable Planet*, a grade 11-12 capstone course in ecosystem/environmental science, during the 2008-2009 school year. A stipend will be provided.

Contact Tara Robillard at tara_robillard@terc.edu

Looking for Book Reviewers

Green Theory & Praxis: The Journal of Ecopedagogy is seeking reviewers for books on K-12 environmental education. The editor will select the books and provide copies to reviewers.

<http://greentheoryandpraxis.ecopedagogy.org/index.php/journal>

Contact Jeri Pollock at jeri.pollock@canteiros.org

Seeking Reviewers

Donna Gorman from Sylvan Dell Publishing is looking for someone who might be interested in looking over an upcoming book, *Ocean Hide and Seek*, about ocean animal camouflage. The information is geared to young elementary students ages 4-8. Contact Donna at DonnaGerman@SylvanDellPublishing.com

GRANTS AND OPPORTUNITIES

Center for Ocean Solutions Early Career Fellowship

The Center for Ocean Solutions offers an Early Career Fellowship program for one or more recent graduates (JD, MBA or PhD) in the natural, physical, or social sciences in the last five years, and who have completed substantial course work and/or gained experience in ocean or coastal science, law, or policy. Ocean Solutions is working to develop current and future leaders who understand the value of interdisciplinary problem solving. This fellowship program is designed to draw on and enhance the academic and professional skills of early career professionals and researchers by placing them in interdisciplinary collaborations focused on identifying, developing, and implementing enduring solutions to challenges facing earth's oceans. Applications will be reviewed on a rolling basis starting July 15, 2008.

<http://www.centerforoceansolutions.org/earlycareerfellowship.html>

Community Partner of the Year Award

The Wildlife Habitat Council offers this award to one organization or individual for making a significant contribution and lasting impact on a corporate site's wildlife habitat enhancement programs through hands-on environmental awareness and enhancement activities. The deadline for application is July 31, 2008.

<http://www.wildlifehc.org/awards/claward.cfm>

Darwin Initiative Grants

The Darwin Initiative assists countries (UK Overseas Territories are preferred) that are rich in biodiversity but poor in financial resources to implement the Convention on Biological Diversity through the funding of collaborative projects which draw on United Kingdom biodiversity expertise. Darwin grants address issues for the Convention on Trade in Endangered Species, the Convention on Migratory Species, and the Convention on Biodiversity. The deadline for stage one applications is August 15, 2008.

<http://darwin.defra.gov.uk/>

Disney Minnie Grants

The Disney Minnie grants are available to support youth-led projects (ages 5-14) to engage children and youth as community volunteers. Individual youth as well as organizations that engage youth are eligible to apply. The deadline for application is August 30, 2008.

<http://ysa.org/AwardsGrants/tabid/58/Default.aspx>

Donna L Heinrich Environmental Education Grant

The Gopher Tortoise Council's Donna J. Heinrich Environmental Education Grant supports educators and organizations committed to developing educational projects about the gopher tortoise. The deadline for submission is August 31, 2008.

<http://www.gophertortoisecouncil.org/grants.php>

eBook Grants

Sylvan Dell Publishing offers elementary school teachers eBooks, enabling books to be projected for classroom reading. The company is offering resource grants for a one-year site license (school year 2008/2009) providing unlimited access to all Sylvan Dell eBooks, featuring flipviewer technology with selectable English and Spanish text and audio. The license can be used on all school computers and may be placed on secure school websites, enabling students and their families to login and have access from their homes. Grants will be awarded to one elementary school per district and are open to every district in the United States and the first 25 private schools in each state not under district supervision. To facilitate submission, individual schools may submit the grant application directly.

<http://www.sylvandellpublishing.com/ResourceGrant.htm>

Forecast Earth Summit – Washington, D.C.

The Weather Channel's Forecast Earth invites high school students to the Forecast Earth Summit, December 5-7, 2008 in Washington, D.C. Students must submit an essay outlining what they are personally doing to combat climate change. Twenty students will attend the three-day event, focusing on promoting environmental literacy among the high school audience and affording the selected students the opportunity to talk with environmental leaders, scientists, and other students. The deadline for submission is October 19, 2008.

<https://www.forecastearthsummit.org/>

Hope for Education

Samsung's Hope for Education is an educational philanthropy program designed to better educate U.S. elementary, middle, and high schools through the delivery of new digital technologies and software. The program challenges students, teachers, parents or anyone who knows of a school in need to write an essay regarding the importance of technology in education, and how it can benefit a school in their community. The deadline for application is August 31, 2008.

<http://pages.samsung.com/us/hopeforeducation/>

Ocean in Focus Conservation Photography Contest

The Marine Photobank and Project AWARE Foundation invite you to participate in the Ocean in Focus Conservation Photography Contest. Submit your compelling photos that engage viewers in pressing marine issues and solutions that address the rapid decline of our ocean's health. The deadline for submission is September 30, 2008. Interesting prizes include carbon offsets through NativeEnergy.

<http://www.marinephotobank.org/resources/OceaninFocusPhotoContestHome.php>

Teachers for a Competitive Tomorrow

The purpose of these programs from the Department of Education is to develop and implement programs to provide integrated courses of study that lead to a baccalaureate or master's degree in science, technology, engineering, mathematics, or a critical foreign language with concurrent teacher certification, or develop and implement 2- or 3-year part-time master's degree programs for teachers in order to enhance the teachers' content knowledge and pedagogical skills. The deadline for application is July 21, 2008.

<http://www.ed.gov/legislation/FedRegister/announcements/2008-2/060408a.html>

<http://www.ed.gov/legislation/FedRegister/announcements/2008-2/060408b.html>

INTERNSHIPS AND TEMPORARY OPPORTUNITIES

Mid-Career Research Fellowships

The Australian Research Council (ARC) Centre of Excellence for Coral Reef Studies, will be offering funding for mid-career researchers. Further information will be available from the ARC Centre's booth at the ICRS meeting in Fort Lauderdale.

Contact Terry Hughes for information if you will not attend ICRS, at terry.hughes@jcu.edu.au

Southeast Environmental Education Jobs and Internships

Check out this Southeast Environmental Education Jobs and Internships webpage from EEinGeorgia.

<http://www.southeastee.org/core/item/topic.aspx?s=0.0.107.22&ssg=1&tid=80300>

Temporary eBook Access Available

Sylvan Dell Publishing has completed Spanish translations of all of their books, aimed at elementary school children, and has made them available as eBooks on their website. In thanks for help in translation, they offer a temporary viewing code so the books can be accessed in either English or Spanish with audio in both languages. You can use the code TOJBSU up until 07/26/2008 at the following temporary link. Books include Ocean Seasons, Water Beds, Zoo Day, and many more.

<http://www.sylvandellpublishing.com/ebooktrials.php?e=TOJBSU>

CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT

American Meteorological Society Annual Meeting

The American Meteorological Society Annual Meeting, January 11-15, 2009 in Phoenix, Arizona, will feature workshops and short courses, town hall meetings, the Sunday WeatherFest, a Monday Presidential Policy Forum on the role of weather and climate in urban affairs, and two special named symposia. The theme is *Urban Weather and Climate: Now and the Future*. The call for papers is open for various specialty conferences, symposia, and special sessions, including the Symposium on Education (abstract deadline is August 1, 2008). The student conference and career fair will be held January 10-11, 2009.

<http://www.ametsoc.org/meet/annual/call.html>

Behavior, Energy, and Climate Change Conference

The 2008 Behavior, Energy and Climate Change Conference, November 16-19, 2008 in Sacramento, California, focuses on understanding the nature of individual and organizational behavior and decision making and using that knowledge to accelerate our transition to an energy-efficient and low carbon economy. Explore the practical application of social and behavioral insights to address climate challenges, review recent behavioral research, discuss current and emerging policy issues, share effective program/communication strategies, and encourage collaboration across government, utility, business, and research sectors.

http://piee.stanford.edu/cgi-bin/htm/Behavior/becc_conference.php?ref=nav4

Conference on Case Study Teaching in Science

The National Center for Case Study Teaching in Science from the State University of New York at Buffalo is hosting the 9th Annual Conference on Case Study Teaching in

Science, September 26-27, 2008 in Amherst, New York. The deadline for submission for poster session proposals is August 29, 2008. The aim of the conference is to bring together people who are interested in teaching science using case studies. The conference features plenary speakers, a poster session, and a number of mini-workshops organized in two tracks - one for the beginner and the other for the more experienced case teacher.

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

EECOM 2008 - Canada

The theme for the Canadian Network for Environmental Education and Communication annual conference (EECOM 2008), September 25-28, 2008 in Newfoundland, Canada, is *An Environmental Learning Gathering - Reconnect Rethink Rejoice*.

http://www.eecom.org/index.php?option=com_jcalpro&Itemid=89&extmode=view&extid=1

ESRI Education User Conference

Explore the power of spatial thinking at the ESRI Education User Conference, August 2-5, 2008 in San Diego California. Meet with GIS education community members, and learn how to apply the software in your classroom.

http://www.esri.com/events/educ/index.html?email=mww_20080611

Estuaries 101 and Chesapeake Exploration - Virginia

The Chesapeake Bay National Estuarine Research Reserve and the Virginia Institute of Marine Science offer this 4-day curriculum training opportunity, August 11-14, 2008, in Gloucester Point, Virginia. This workshop is designed to provide teachers from throughout the Chesapeake Bay region with the resources, knowledge, and experience necessary to facilitate the integration of estuaries and their related issues into the classroom. The training program offers educators hands-on experience using the new curriculums, *Estuaries 101* and *Chesapeake Exploration*. A stipend may be available. Contact Sarah McGuire at mcguire@vims.edu

FLEXE: From Local to EXtreme Environments - Mississippi

The Pennsylvania State and partners are offering this FLEXE/ GLOBE Teacher Workshop, *FLEXE: From Local to EXtreme Environments, Bringing Deep-sea Science into the Earth Science Classroom*, July 24-25, 2008, in Ocean Springs, Mississippi. A project of GLOBE, FLEXE aims to help students understand remote environments through direct exploration of analogous systems in their local environment. The course will teach about extreme environments such as deep-sea hydrothermal vents and implement a number of activities into their curriculum. Room, board, and a stipend are available.

Contact Shelia Brown at shelia.brown@usm.edu

Florida's Wildlife: On the Frontline of Climate Change

The Florida Fish and Wildlife Conservation Commission invites you to participate in the workshop, *Florida's Wildlife: On the Frontline of Climate Change*, August 20-22, 2008, in Orlando, Florida. Learn from presenters and share your knowledge and expertise in this workshop to identify key research needs, improve awareness of impacts on wildlife, and develop ideas to optimize species conservation for integration into Florida Fish and Wildlife's comprehensive climate change strategy. They are also looking for educational posters from non-profits, institutions, and agencies.

<http://www.ces.fau.edu/floc/index.php>

International Aquarium Congress

The International Aquarium Congress, held every four years, will be held October 20-24, 2008 in Shanghai, China. The congress gathers professionals from public aquariums around the world to share and learn about new developments in conservation, research, technology, management, and other related issues for the industry. The congress theme is *Progress and Conservation: The role of aquariums in protecting the aquatic environment.*

<http://www.iac2008.cn/>

Joint Annual Meeting

The joint meeting between The Geological Society of America (GSA) and other organizations will be hosted October 5-9, 2008 in Houston, Texas. The Joint Session Categories encompass the multidisciplinary themes declared by The International Year of Planet Earth - health, climate, groundwater, ocean, soils, deep Earth, megacities, hazards, resources, and life. Student volunteers are needed.

<https://www.acsmeetings.org/2008/>

Learning Ocean Science through Ocean Exploration - Various

NOAA's Ocean Exploration Program and partners will offer introductory *Learning Ocean Science through Ocean Exploration* professional development workshops for grade 5-12 science teachers, with follow-up workshops at later dates. Participants will receive the curriculum with CD-ROM's, certificates of participation, and more. Contact the noted educator for registration and more information.

- Alabama – with Dauphin Island Sea Lab, September 13, 2008, with a follow-up workshop May 14, 2009, Dauphin Island, Alabama. The deadline for registration is August 22, 2008. Contact Denise Keaton at dkeaton@disl.org
- Massachusetts – with New England Aquarium, October 11, 2008, with a follow-up workshop May 16, 2009 in Boston, Massachusetts. Contact Jayshree Oberoi at oberoi@neaq.org
- Tennessee – with Tennessee Aquarium, August 23, 2008, with a follow-up workshop on May 2, 2009 in Chattanooga, Tennessee. The deadline for registration is August 11, 2008. Contact George Bartnik at gpb@tennis.org
- Florida – with University of South Florida College of Marine Science, September 20, 2008 in St. Petersburg, Florida. The deadline for registration is August 29, 2008. Contact Teresa Greely at greely@marine.usf.edu

Monterey Bay Aquarium Teacher Institutes - California

The Monterey Bay Aquarium offers several different institutes and workshops for teachers. *The Coastal Systems Teacher Institute*, July 21-25, 2008, is designed for teachers of grades 3-5; the *Dynamic Cycles Institute*, July 7-11 is designed for 6-12th grade teachers. The summer institutes are free and a stipend and credit are available. Three follow-up sessions are required. Check the website for registration and other details.

http://www.mbari.org/lc/teachers_place/edu_programs.asp

National Conservation Training Center Courses – West Virginia

The U.S. Fish and Wildlife Service offers professional development courses at the National Conservation Training Center campus in West Virginia, many of which may be of interest to this group. For more information, contact the individual identified below.

- OUT8119: Sustainable Funding Strategies for Non-Profit Partners, September 3-5, 2008; call for availability; contact: Laura Jones at Laura.Jones@fws.gov
- OUT8194: Trail Management: Plans, Projects and People, October 6-10, 2008, the deadline for registration is July 28, 2008 - after deadline call for availability; contact Matt Gay at Matt.Gay@fws.gov

http://training.fws.gov/documents/Section1_NCTC_Sponsored_Courses.pdf

Northwest Aquatic and Marine Educators Conference - Washington

The Northwest Aquatic and Marine Educators will host their annual conference, *Living on an Island: Salish Sea Stewardship*, July 9-12, 2008 on San Juan Island, Washington.
<http://www.wsg.washington.edu/education/events/name.html>

Ocean Science Professional Development Workshop - Washington

This four-day *Ocean Science Professional Development Workshop* for teachers of grades 4-5, August 4-7, 2008 in Forks, Washington, explores the dynamic relationships in the marine environment from Puget Sound to the Olympic Coast to the deep ocean. The workshop is designed to prepare teachers to facilitate an inquiry-based, marine science-rich experience necessary to bring students to higher standards and understanding of ocean literacy principles. Participants in this course will be eligible for free admission to the Seattle Aquarium and a field trip to a local beach, including free transportation for their class. Registration is required and space is limited.

Contact Jacqueline Laverdure at Jacqueline.Laverdure@noaa.gov

Professional Development Institute - Massachusetts

The New England Aquarium offers a free summer Professional Development Institute for Massachusetts science teachers, July 28-August 6, 2008 and two Saturdays in Fall, 2008, in New Bedford, Massachusetts. Funded by the Massachusetts Department of Education, the institute will serve upper elementary and middle school science teachers from districts of need, but all Massachusetts teachers are welcome to apply.

Contact the Teacher Resource Center at trc@neaq.org

Teach Fundamentals of Environmental Education

To increase the number of educators receiving EE training, the Environmental Education and Training Partnership (EETAP) will make the course *Fundamentals of Environmental Education* available to universities across the country. There is no cost to obtain, and a \$500 honorarium is offered after faculty have successfully taught the course to at least 15 students.

<http://www.naaee.org/programs-and-initiatives/distributionflyer.pdf>

Teacher Workshops – North Carolina

The North Carolina Aquarium at Fort Fisher offers a variety of teacher workshops from July 14-18, 2008. All workshops are free of charge and teacher credit is available.

- July 14: *Aquariums Teacher Workshop* introduces K-12 teachers to pre- and post-visit activities designed to enhance an aquarium field trip as well as integrate ocean awareness in the classroom across disciplines.
- July 15: *Incorporating Environmental Education* into the Humanities helps educators bring environmental appreciation and education into the humanities.
- July 15: *Art and Nature* with the North Carolina Museum of Art, investigates the artist's use of nature as a subject that reflects and addresses cultural attitudes and beliefs about the importance of the environment.

- July 16: *Project Learning Tree* uses trees as "windows" into natural and built environments, helping people gain an awareness and knowledge of the world around them and their place within it.
- July 17: *Project WET* provides water education curriculum for K-12 teachers.
- July 17: *Field Trip Earth* with the North Carolina Zoological Society, facilitates communication between classrooms and field scientists at work with wildlife around the world.
- July 18: *Plants that bite back* focuses on activities and resources for the middle grades to teach about carnivorous plants. (To register for this workshop, contact Martha Flanagan at martha.flanagan@ncmail.net)

To register for workshops on July 14-17, 2008, please email: ncaff.registrar@ncmail.net

Water Expo - Spain

Expo Zaragoza 2008, an international exposition June 11-September 14, 2008 in Zaragoza Spain, is billed as the biggest water festival on earth. It focuses on the issue of water as an increasingly scarce and indispensable resource, as well as methods to improve its management and availability. Organizers expect that the event will draw six million visitors and the participation of 70 to 90 countries in addition to international organizations. There will be themed weeks, agora, events and parallel meetings.

<http://www.expozaragoza2008.es/>

Youth Service Institute 2008 - Call For Presentations

The Youth Service Institute, October 26-28 in Orlando, Florida, will focus on four target areas of service and service-learning success: taking programs to scale; fostering and strengthening diversity outreach and inclusive initiatives; collaborating to improve communities; and substantive service. The Institute will present opportunities for participants to strategize critical ways to think and act both locally and globally, learning inventive ways to engage young people as assets and resources on Global Youth Service Day and throughout the year. Presenters can share innovative and successful approaches that address one or more of these components. The deadline for submission is July 11, 2008.

<http://ysa.org/ProgramsServices/YouthServiceInstitute/tqid/181/Default.aspx>

EDUCATIONAL RESOURCES

Beyond Penguins and Polar Bears

Beyond Penguins and Polar Bears, from Ohio State University and partners, is a new online magazine to help elementary school teachers develop their knowledge of the Arctic and Antarctica and organize science and literacy instruction around polar themes. Issues provide lessons and readings on data collection and representation, map skills, comparing the Arctic and Antarctica, paleontology and archaeology, and more. Book recommendations are included.

<http://beyondpenguins.nsdl.org/>

Blue Planet Run

The book *Blue Planet Run* provides readers with a look at the water problems facing humanity and some of the solutions being pursued by large and small companies, by entrepreneurs and activists, and by nongovernmental organizations and foundations. It can be thought of as two books in one: First, it is about a 15,000-mile relay race in which 20 athletes spent 95 days running around the globe to spread awareness of the

world's water crisis. Secondly, it is a showcase of images captured by leading photojournalists around the world who documented the human face of the crisis and its possible solutions. The book may be purchased or downloaded (beware: large file, 122 pages) from this website. All royalties from the book will be used to provide clean water to people around the world.

http://www.amazon.com/Blue-Planet-Run-Provide-Drinking/dp/160109017X/ref=cm_taf_title_featured?ie=UTF8&tag=tellafriend-20

Census of Marine Life

The Census of Marine Life is a global network of researchers in more than 80 nations engaged in a 10-year scientific initiative to assess and explain the diversity, distribution, and abundance of life in the oceans. The affiliated World Register of Marine Species announced that it now contains over 120,000 validated marine species names, more than half of the estimated 230,000 marine species known to science. So many of the species had been named more than once that nearly a third of the names, or 56,400, were struck from the draft list. The project's education and outreach programs are coordinated by the Office of Marine Programs at the University of Rhode Island Graduate School of Oceanography. Each Census project has an education and outreach initiative. These include Arctic Ocean Biodiversity, Abyssal Marine Life, Natural Geography In Shore Areas, and more.

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

Centre for Evidence-Based Conservation

The objective of the Centre for Evidence-Based Conservation (CEBC) is to conduct and widely disseminate systematic reviews of evidence pertaining to questions identified by decision-makers in the conservation and environmental sectors. The Centre aims to investigate the effectiveness of a diverse variety of actions, from practical site management to national and international policy. In addition, the center seeks to provide training in conducting, interpreting, and utilizing the results of systematic reviews. The CEBC is a Research and Dissemination Unit based at Bangor University, Wales. This provides the Centre with both an academic infrastructure and impartiality. It is supported and funded by a consortium of organizations from the conservation and environmental sector. The website includes resources, reviews, news, and links to a library.

<http://www.cebc.bangor.ac.uk/index.php.en?menu=0&catid=0>

Cleaning Water

Cleaning Water, from NASA, is a lesson in which students (Grades 3-5) create and test a system to filter "gray" water. In this lesson, students will design and build their own water filtering system and collect data to compare water before and after filtering. The activity is downloadable from the website, and is available in English and Spanish.

http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Cleaning_Water_Activity.html

Climate Action: Energy For A Changing World

The European Union member nations agreed to work on a package of proposals that will help fight climate change and promote renewable energy. This website serves as the clearinghouse for the information related to this ambitious project. Information is available in all of the European Union languages. There are country fact sheets, working documents, reports on emissions trading schemes, and more.

http://ec.europa.eu/energy/climate_actions/

Community Tool Box

The National Park Service Rivers, Trails and Conservation Assistance program is always exploring new ways to help communities work together to improve their special places. They offer some tried and true methods learned from the communities where they work and have put them together in a ToolBox for public participation. These include decision making support, organization, events, outreach, and much more. In addition, check out the online resources for open space conservation and other useful links at the National Center For Recreation & Conservation (NCRC) website.

<http://www.nps.gov/phso/rtcatoolbox/index.htm>

http://www.nps.gov/ncrc/programs/rtca/helpfultools/ht_publications.html#river

Coral Reef Education and Outreach Materials

NOAA's Coral Reef Conservation Program offers links to education and outreach materials about coral and coral reefs from a variety of sources. The website offers background information, an online glossary, and links to a wide variety of activities and lesson plans. The contents of the 2008 Coral Reef Educational Resources CD will be available online before mid-July. These classroom materials were developed by members of the Education and Outreach Working Group of the U.S. Coral Reef Task Force, and were compiled in celebration of the International Year of the Reef. They cover a wide range of topics related to coral reefs, including basic coral reef biology, ecosystems, human use, threats, and conservation efforts. There are over fifty lesson plans, two full curricula, many student activities, teacher guides, slideshows, posters, and videos.

<http://www.coralreef.noaa.gov/outreach/welcome.html>

EarthPulse: A Visual Guide to Global Trends

The interactive website, *EarthPulse: A Visual Guide to Global Trends*, from National Geographic Maps, analyzes our connected world with maps, diagrams, and imagery.

<http://www.nationalgeographic.com/earthpulse/index.html>

Education Center at ICRS

The 11th International Coral Reef Symposium (ICRS) in Fort Lauderdale will have an education center open to the public free of charge. Teachers, naturalists, scientists, and others can enjoy the four days filled with educational programs and demonstrations in the Coral Theater, informative booths hosted by facilities from across the globe, hands-on activities, and more.

<http://www.nova.edu/ncri/11icrs/education.html>

Encyclopedia of Earth Collections

The Encyclopedia of Earth (EoE) brings together some of the world's leading scientists and organizations and presents the essential knowledge underlying a variety of issues. The EoE, one component of the Earth Portal, is a free, expert-driven, scaleable, online information resource about the environment published online by the National Council for Science and the Environment. Current collections include climate change, coral reefs, ecology, environmental and social issues in economics, natural world heritage sites, and more.

<http://www.eoearth.org/article/Collections>

Energy and Material Cycles Visualizations

Energy and Material Cycles Visualizations, from the Science Education Resource Center at Carleton College, provides animations, images, graphs, and photos on the carbon cycle, greenhouse gases, sea ice, continental drift, and more.

<http://serc.carleton.edu/NAGTWorkshops/visualization/collections/Cycles.html>

How We Know What We Know About Our Changing Climate

Authors Lynne Cherry and Gary Braasch have released *How We Know What We Know About Our Changing Climate*, a new book for middle school-age children that explains climate science. The book presents scientific and photographic evidence gathered by scientists around the world. A preview of the book is available on the website. A teacher's guide is available for the book.

http://www.dawnpub.com/shopping_cart/INDEX.CFM?ProductID=135&do=detail

International Polar Day – Land and Life

International Polar year 2007-8 celebrated its fifth polar day, focusing on Land and Life. The World Ocean Observatory presents global, live events to connect students and teachers in classrooms with scientists in the field. After the live webcast, the materials are archived for continued reference. Check out the other materials that have been added to the World Ocean Observatory event archive.

<http://www.thew2o.net/events/polaryear/events.htm>

Learn About Weather, Climate

The USA Today website offers a weather links page, with frequently asked questions and categorized links to USATODAY.com weather background information. There are animated graphics, the basics of weather science, and more. It may take a couple of clicks to find what you're looking for, but the explanations and graphics are easy to understand.

<http://www.usatoday.com/weather/wresources.htm>

Listen for Whales

Listen for Whales is a project of Cornell Lab of Ornithology's Bioacoustics Research Program that is working to protect Right Whales from the shipping coming in and out of Boston harbor. The website offers background information, interactives, and links to more resources and information.

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

Museums in the Sea

The Florida Coastal Management Program and partners are developing Museums in the Sea, offering a virtual tour of Florida's Underwater Archaeological Preserves. Learn about Florida's underwater heritage, ecological, and recreational tourism opportunities at eleven shipwreck locations around the state. Through the website, visitors can choose a shipwreck, take a guided underwater tour of the wreck site, watch a narrated history of the vessel, and observe the marine life that lives in the wreckage. The website is still under development, but five of the tours are already online.

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

Musical Plates Project

Musical Plates, from the Center for Innovation in Engineering and Science Education, is a multidisciplinary project that challenges students to tap into real-time earthquake data, interact with experts online, and publish their investigative work on a special website.

Four core activities teach students how to access and interpret online earthquake and volcano data and use this information to solve real-world problems. The website offers a teacher guide, reference material, projects, ask an expert, and more.

<http://www.k12science.org/curriculum/musicalplates3/en/index.shtml>

NestWatch

Cornell Lab of Ornithology, the group that offers eBird, All About Birds, The Birds of North America Online, and more, has a new citizen science project, NestWatch.

Participants visit nests during spring and summer to collect simple information about location, habitat, species, number of eggs, and number of young in the nest and submit their observations online. The observations can help scientists measure the impact of such things as climate change and habitat destruction.

<http://watch.birds.cornell.edu/nest/home/index>

Ocean Guardian Activity Book

The Ocean Guardian Activity Book, created by the NOAA Office of National Marine Sanctuaries and the Marine Debris Program, is appropriate for children in grades K-3. Learn about the ocean and its importance through word searches, games, and coloring pages.

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

Schreyer Institute for Teaching Excellence: Tools for Teaching and Learning

The Schreyer Institute for Teaching Excellence at Pennsylvania State University has created this website to give educators access to a wide range of teaching and learning tools. Sections include Course Design and Planning, Teaching and Assessment Strategies, Tools for Course Evaluation, and more. Within these sections, users can read and download specific activities geared towards syllabus improvement, writing effective and meaningful tests, and incorporating problem-based activities into the classroom.

<http://www.schreyerinstitute.psu.edu/Tools/>

Seascapes: Getting to Know the Sea Around Us

Quebec-Labrador Foundation's Marine Program offers this guide describing the process for developing a comprehensive compendium of information about coastal marine areas in the Gulf of Maine. Included is a description of each of the basic physical, biological, and socio-economic components that together create a unique identity for any nearshore area in this region.

<http://www qlf org/publications/seascapes html>

Six Degrees to the Ocean

An Ocean Conservancy website takes the "six degrees of separation" concept and marries it with the ocean. The theory is that any headline appearing in the news can somehow relate back to the ocean within six steps of connection. The activity illustrates just what a small world we live in and how integral the ocean is to our world.

<http://www.oceanconservancy.org/site/News2?page=NewsArticle&id=10981>

Teacher Day at NAAEE

Teacher Day is October 18, 2008 at the NAAEE Annual Conference, with teacher-focused breakouts designed specifically for their needs. Beginning with the Exhibit Fair, teachers are offered resources and the chance to meet with providers, make new

contacts, and find information and materials to help students learn about the environment in exciting new ways. There will be dozens of other sessions on how to make teaching more effective using the environment as an integrating context for learning.

<http://www.naaee.org/conference>

WorldWideScience

The WorldWideScience site is a global science gateway that is meant to help connect a worldwide audience to various national and international scientific databases. The site is maintained by the Office of Science and Technical Information with the U.S. Department of Energy. Visitors to the site's homepage can click on an interactive map of the world's countries to locate participants and their websites. After clicking on a country, a list of available resources will appear in a box immediately to the right of the world map. There is also an advanced search option, along with contact information.

<http://worldwidescience.org/>

INITIATIVES, JOURNALS, and MUCH MORE

Above and Below the Waves: Coastal and Oceanic Treasures Conserved in the National Park System

The National Park Service established the Ocean Park Stewardship Plan, with goals and priorities to restore and maintain the tremendous biological and recreational values of ocean and coastal resources across the National Park System, in collaboration with state and federal agencies and park stakeholders. Examples of successful joint stewardship programs can serve as models for managing marine resources that attract academic interest. At Point Reyes National Seashore, the Pacific Coast Research Learning Center hosts collaborative projects such as the Marine All Taxa Biodiversity Inventory. Channel Islands Live! is a joint classroom-based program between Channel Islands National Park and Ventura Department of Education featuring live transmission from the kelp forest into the classroom that allows students to interact with a National Park Service ranger as the ranger interprets the natural history of the kelp forest from under water. National Park Service Research Learning Centers are designed to facilitate needed research in parks while sharing the results in a compelling manner to a range of audiences.

http://www.nps.gov/pub_aff/oceans/conserve.htm

Climate Change Forum

The Frontlines Forum seeks community-based experiences with climate change: impacts, opportunities and adaptation strategies. It provides a platform for sharing observations, concerns, and innovations. They invite contributions from indigenous or rural communities in small islands, high altitudes, the Arctic, desert margins, and other vulnerable environments.

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

Coastweeks

Coastweeks, September 20-October 11, 2008, is a celebration of coastal and water resources. Each fall, people all over the United States participate in a three-week celebration of our coastal resources that begins on the third Saturday in September. The kick off for the celebration is Coastal Cleanup Day, when tens of thousands of people

across the country come together to keep our coasts and inland waterways free of debris. Search the web to find out what's happening around your area.

Eddies

Eddies: Reflections on Fisheries Conservation is a new quarterly magazine focused on the Fish and Wildlife Service fisheries program. The full-color magazine highlights the aquatic conservation work of the service's fisheries program and its partners. You can read it online or subscribe to email alerts.

<http://www.fws.gov/eddies/>

IOOS Messaging Materials

The Integrated Ocean Observing System (IOOS) is a system of systems that routinely and continuously provides quality controlled data and information on current and future states of the oceans and Great Lakes from the global scale of ocean basins to local scales of coastal ecosystems. It is a multidisciplinary system designed to provide data in forms and at rates required by decision makers to address seven societal goals.

Partners have begun development of an IOOS communications toolkit with key messages and design template, available for downloading from the website.

<http://www.ocean.us/node/978>

National Parks America Tour

Unilever's National Parks America Tour is a volunteer-driven initiative designed to engage employees, community groups, school children, scouts, and citizens of all ages in volunteer service-to-the-land activities in America's National Parks. With more than 25 events each year, National Parks America Tour volunteers assist by completing priority improvement projects.

<http://www.unilevernationalparks.com/npat.html>

Public/Private Reef Conservation Campaign in Hawaii

The National Fish and Wildlife Foundation and partners has joined with Tesoro Corporation in developing a coral reef conservation program in Hawai'i that includes a public school curriculum and a community awareness campaign. The program is designed to support coral reef conservation and community projects.

<http://www.honoluluadvertiser.com/apps/pbcs.dll/article?AID=/20080622/NEWS11/806220343/1021/LOCALNEWSFRONT>

TogetherGreen

TogetherGreen is a National Audubon Society program with support from Toyota, to build conservation leadership, engage people in conservation action, and achieve lasting conservation results. The program offers grants, featured projects, volunteer opportunities, and more.

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

Tribal Directory Assessment Tool

The Tribal Directory Assessment Tool, developed by the Office of Environment and Energy's Environmental Planning Division to assist users with Section 106 compliance and tribal consultation, was designed to help users quickly identify tribes and provide users with appropriate tribal contact information. Two key aspects of the tool are its ability to link tribes' areas of interest down to the county level, and perform a variety of queries related to tribes.

<http://www.hud.gov/offices/cpd/environment/tribal/index.cfm>