NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION INFORMATION EXCHANGE FOR MARINE EDUCATORS FEBRUARY 2007

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.

Notable Reference

Sustainable Development Law and Policy

The Fall 2006 issue of *Sustainable Development Law and Policy* focusing on Fisheries and Oceans Law is available online. *Sustainable Development Law and Policy* is a student-run initiative at American University, Washington College of Law that focuses on reconciling the tensions between environmental sustainability, economic development, and human welfare. The journal embraces an interdisciplinary approach to provide a fuller view of current legal, political, and social developments. Recent issues have focused on emissions trading, access to water, and environmental compliance and enforcement.

http://www.wcl.american.edu/org/sustainabledevelopment/

WEBSITES OF THE MONTH

Marine Matters

The Marine Matters website, funded by World Wildlife Fund Canada, is about awareness, respect, conservation and wise use of what drifts, swims, crawls, floats, walks, and breathes in the ocean. The website provides information to assist with marine planning and highlighting activities ranging from grassroots outreach to formal education. The goal is to facilitate development of a community and conservation-based marine strategy for Haida Gwaii/Queen Charlotte Islands – a blueprint for Islanders to chart their maritime future. The website includes background information, maps, links to publications, downloadable lesson plans, and much more. http://www.marinematters.org/index.html

Physical Geography Animations and Webcam

The Wycombe High School, UK website offers a variety of physical geography animations, including coastal processes, animated rivers, atmosphere, glaciers, and much more. The animations can help students understand some of the long term changes that take place on and close to the surface of the Earth. There are also links to live geography webcams.

http://www.school-portal.co.uk/GroupHomePage.asp?GroupID=12426

MESSAGE FROM THE BRIDGE

Plan Your Summer with the Bridge

It is time to start planning your summer, and the Bridge can help. The Bridge contains summer opportunities and year-round courses, workshops, and other programming for educators and students. The summer is a great opportunity for students and teachers to learn outside of the classroom, meet new friends and colleagues, and see new places. Each program on the Bridge is complete with a link and brief description, and because we are constantly adding new resources and opportunities, we suggest checking back often. Those with new, exciting summer programs that are not found on the Bridge are encouraged to submit their website for inclusion.

Educator Summer Programs http://www.marine-

ed.org/bridge/index teacher summer.html

Student Summer Programs http://www.marine-ed.org/bridge/index_summer.html

REQUESTS

Looking for Information about Vegetated Shingle Beaches

Stephen Savage Albiol is searching for images and comparisons of flora species found on vegetated shingle beaches in New Zealand and Japan.

Contact him at stevep.savage@ntlworld.com

Sponsor a Field Trip or Workshop - Virginia

The North American Association for Environmental Education is holding its annual conference November 14-17 in Virginia Beach, Virginia. If you would like to host a field trip during the conference, please contact Bridget Chisholm, the conference manager. In addition to field trip hosting opportunities, NAAEE will hold all day workshops on

November 14, 2007. Workshops would focus on one of the seven strands: Marine Education, Community and Conservation Education, Technology and EE, Sustainability Education, Fundraising and Leadership Development, Environmental Justice and Cultural History and Service Learning. If you are interested in leading a workshop please contact Bridget as well.

GRANTS AND OPPORTUNITIES

Contact Bridget Chisholm at bchisholm@naaee.org

All-USA Teacher Teams

Four times a year, USA Today honors outstanding students and educators with the All-USA Academic and Teacher Teams. Categories include college, high school, teacher, and 2-year college teams. The deadline for K-12 teacher applications is April 30, 2007. http://www.usatoday.com/news/education/allstars/front.htm?Loc=vanity

American Stars of Teaching

American Stars of Teaching recognizes and honors superior teachers with a track record of improving student achievement, using innovative instructional strategies, and making a difference in the lives of their students. These teachers will be highlighted as representatives of the thousands of teachers who are making a difference in the classroom. The deadline for submission of nominations is April 1, 2007. http://www.t2tweb.us/AmStar/About.asp

Antarctic Research Immersion for Science Educators

ARISE (Antarctic Research Immersion for Science Educators) is a component of the ANtarctic geological DRILLing (ANDRILL) Program, which seeks to understand the geologic history of Antarctica through the study of core samples and data recovered from drilling below the seafloor at sites beneath the ice shelf and sea ice. The ARISE goal is to raise public awareness of Antarctic scientific drilling and integrate polar geosciences content into a wide range of learning environments through the direct participation of science educators in the program. The program seeks educators with a broad background in science activities and professional involvement indicating excellence in science education. The deadline for application is February 28, 2007. Check out the website for simulations, photos, and background information. http://andrill.org/education/arise/index.html

Boeing Grants

Boeing welcomes applications in five U.S. Focus Areas: education; health and human services; arts and culture; civic; and the environment. To protect and conserve the environment, they seek innovative programs that facilitate the development of integrated plans for acquisition and restoration of natural assets; protect critical natural assets; restore and improve critical habitat; and train citizens to protect and conserve the environment.

http://www.boeing.com/companyoffices/aboutus/community/guidelines.htm

Best Buy Scholarships

The Best Buy Scholarship Program rewards students for all of their homework inside and outside of the classroom. High school recipients are selected based on academic achievements and volunteer work. The deadline for application is February 15, 2007. http://communications.bestbuy.com/communityrelations/scholarships.asp

Captain Planet Foundation Grants

The Captain Planet Foundation provides grants to school and community groups to support hands-on environmental projects for youth in grades K-12. The objective of the foundation is to encourage innovative programs that empower youth around the world to work individually and collectively to solve environmental problems in their neighborhoods and communities. Upcoming applications are due March 31, 2007. http://www.captainplanetfdn.org/grants.html

Christopher Columbus Awards

This annual award is sponsored by the Christopher Columbus Fellowship Foundation in cooperation with the National Science Foundation. The Christopher Columbus Awards is a national, community-based science and technology program for middle school students. The program challenges the students to work in teams of three to four, with an adult coach, to identify a problem in their community and apply the scientific method to create an innovative solution to that problem. The application deadline is February 12, 2007.

http://www.christophercolumbusawards.com/

Five Star Restoration Grants

The Five Star Restoration Program is established by the U.S. Environmental Protection Agency in partnership with other organizations to promote education through community-based wetlands restoration projects in watersheds across the U.S. This grant program brings community groups together to provide environmental education and training through projects that restore wetlands and streams. The program provides challenge grants, technical support, and opportunities for information exchange. The deadline for application is March 9, 2007.

http://www.epa.gov/owow/wetlands/restore/5star/

Garden Club Scholarship in Coastal Wetland Studies

The Garden Club of America offers an annual award in Coastal Wetland Studies for a one-year scholarship for graduate studies in coastal wetlands and support of field-based research. The goals of the Garden Club are to promote wetlands conservation through the support of young scientists in their fieldwork and research. Selection criteria include the technical merit of the proposed work and the degree to which the work is relevant to the Garden Club objective of promoting wetlands conservation. Hurry – the application deadline is February 10, 2007.

http://ccrm.vims.edu/garden_club.html

Give Wildlife a Chance Poster Contest - Georgia

Georgia students are invited to participate in the annual Give Wildlife a Chance Poster Contest sponsored by the Georgia Department of Natural Resources, the State Botanical Garden of Georgia, and The Environmental Resources Network, Inc. This environmental art competition is open to public schools, private schools, and homeschool students in kindergarten through fifth grade. The theme of this year's competition is *Habitats for Wildlife: Make a Difference in Your Own Schoolyard!* Entries will be judged on close correlation to the theme, quality of art, originality and visual impact. The deadline for submission is Friday, February 23, 2007.

http://www.georgiawildlife.com/content/displaycontent.asp?txtDocument=530

ING Unsung Heroes

ING Unsung Heroes awards are given to K-12 educators pioneering new teaching methods and techniques that improve learning. Each project is judged on its innovative method, creativity, and ability to positively influence the students. The deadline for applications is April 30, 2007.

http://www.ing-

usa.com/us/aboutING/communityconnections/ineducation/unsungheroes/001137.html

International Paper Environmental Excellence Awards

International Paper, in partnership with The Conservation Fund, recognizes the efforts of people across the country working to protect the future of America's outdoor heritage. The *International Paper Conservation Partnership Award* recognizes an individual who has achieved significant results in the protection of habitat through a cooperative relationship with a business or corporation. The *International Paper Environmental Education Award* honors an educator who has developed an innovative approach to environmental education that significantly improves student comprehension of environmental issues, fosters an understanding of the link between environmental protection and economic growth, demonstrates leadership, and inspires achievement. Nominations are due April 30, 2007.

http://www.conservationfund.org/?article=2331

Jamaica Protected Areas Trust Forest Conservation Fund

Forest Conservation Fund grants will support activities which include forest restoration, implementation of sound natural resource management systems, establishment and maintenance of parks and protected areas, training in conservation management, protection of animal and plant species, research on medicinal uses of tropical forest plants, and development and support of the livelihoods of people and local communities in or near a tropical forest. The deadline for submission of Concept Notes for grant funding is February 23, 2007. See the website for further details, including priority areas.

http://www.forestry.gov.jm/Doc File/FCF CALL/concept call.html

Junior Duck Stamp Program and Art Competition

The U.S. Fish and Wildlife Service oversees the Federal Junior Duck Stamp Program. Each year, students are invited to create duck stamp drawings to show what they have learned about wetlands habitat and waterfowl conservation. These drawings can be entered into the annual Junior Duck Stamp art competition prior to March 15, 2007. In addition to the contest information, a Federal Junior Duck Stamp Program curriculum guide to teach conservation through the arts, filled with lessons about creating field journals, observing wildlife, stamp collecting and much more, is available on the website. Entries must be sent to your state's Junior Duck Stamp State Coordinator. http://www.fws.gov/duckstamps/junior/junior.htm

Lemelsen-MIT Inventeams Program

Lemelsen-MIT Inventeams Program offers grants to teams of high school students, teachers, and mentors who identify a problem and invent a solution for it. InvenTeams projects have spanned many fields, including environmental technologies. Applications are due April 27, 2007; apply as an early action applicant by March 16, 2007 and receive preliminary feedback by April 6, 2007.

http://web.mit.edu/inventeams/about.html

Ocean Science Leadership Awards

The QuikSCience COSEE-West Ocean Leadership Awards recognize educators who make outstanding contributions to K-12 ocean science education. Nomination categories include Formal Teaching Excellence, Informal Teaching Excellence, Early Career, and Commitment to Education. The deadline for nominations is April 6, 2007. http://www.usc.edu/org/cosee-west/quikscience/OceanLeadershipAwards.html

PADI Foundation Grants

The PADI Foundation encourages and supports underwater science, environmental projects, and education. The foundation funds and assists projects that will enrich mankind's understanding of the aquatic environment and encourage sensitivity to and protection of the delicate ecological balance of underwater life. It also funds projects to increase understanding of sport diving physics and physiology that will benefit the general diving public and add to the scientific understanding of man's ability to survive in the underwater environment. The deadline for application is February 15, 2007. http://www.padifoundation.org/

Presidential Awards for Excellence in Mathematics and Science Teaching

Each year, the White House recognizes outstanding mathematics and science teachers, highly qualified teachers who have both deep content knowledge of the subjects they teach and the ability to motivate and enable students to be successful in these areas. In odd-numbered years, secondary teachers (grades 7–12) are recognized. The deadline for nomination is May 1, 2007.

http://www.paemst.org

Red White and Green Climate Change Grant

Youth Service America and the Civil Society Institute offer the second round of the Red, White & Green Climate Change Grant. This opportunity offers funds to young people in the United States between the ages of 15-25 and to organizations that engage youth ages 15-25. Applicants are expected to develop and implement a service-learning project about climate change that engages their community, policy-makers, and candidates running for election in 2007 and 2008. The projects should be youth-led, and must take place between May 1 and October 31, 2007. The deadline for application is March 9, 2007.

http://www.ysa.org/awards/award grant.cfm#nowavailable

Save Our History Grant Program

The History Channel will fund dozens of educational community preservation projects across the country. Teachers or youth group leaders, in partnership with museums, historical societies, preservation organizations, libraries, and/or archives, are eligible to apply for grants to fund projects that help students explore and preserve their local history. The deadline for application is June 1, 2007. http://www.saveourhistory.com/

Thiess Riverprizes

International and National (Australia) Thiess Riverprizes are awarded each year during the International Riversymposium and recognize excellence in river management. The prizes have been established to advocate the protection and restoration of the world's rivers and waterways for future generations. The deadline for entry is March 30, 2007. http://www.riversymposium.com/index.php?page=ThiessRiverprize

The Wild Gift Wilderness Experience

The Wild Gift is open to all students and young professionals, ages 21 to 30. It provides a seminal experience in deep wilderness and encourages a commitment to a self-designed leadership project that will advance wildlands stewardship and the development of sustainable human community and lifestyle. The 17-month program is provided to Wild Gift recipients at no cost. The most important requirement is a record of accomplishment that reflects leadership talent. Five applicants are chosen each year. Applications are due on April 1, 2007. http://www.wildgift.org/

Yoshiyama Award for Exemplary Service to the Community

Each year, the Hitachi Foundation presents the Yoshiyama Award for Exemplary Service to the Community to ten high school seniors from around the United States. The award recognizes exemplary service and community involvement rather than academic achievement. Nominations are due April 2, 2007.

http://www.hitachifoundation.org/yoshiyama/

Young Naturalist Awards

The American Museum of Natural History's Young Naturalist Awards program is for students in grades seven through twelve. Plan and conduct your own scientific expedition, one which will provide original data, questions, and observations on a topic in the natural sciences. You are not expected to make a new scientific discovery. However, your expedition should provide you with a new understanding about the question you investigated. Tell about your expedition in an essay that includes artwork and/or photographs that help to illustrate your findings. Twelve winners, two from each grade, will be chosen. The deadline for entry is April 1, 2007. http://www.amnh.org/nationalcenter/youngnaturalistawards/

Youth Clean Community Challenge - Georgia

Register your class for the Youth Clean Community Challenge and have them become involved in litter prevention in their community. Elementary and middle/high school-aged groups can win the challenge for implementing litter prevention programs. The registration deadline is February 28, 2007. http://www.litteritcostsyou.org/yccc.aspx

YSA Youth Venture Funding

The Youth Service America/Youth Venture Program is a partnership that helps youth engage in community service and develop as young social entrepreneurs and offers funding and support to young people (ages 12-20) who want to create new, sustainable, civic-minded organizations, clubs, or businesses called Ventures. Ventures must be youth-led and designed to be a lasting asset to the community. The deadline for application is February 26th, 2007.

http://www.ysa.org/awards/award grant.cfm#nowavailable

INTERNSHIPS AND TEMPORARY OPPORTUNITIES

Doctoral Assistantship

A PhD research assistantship will be available summer/fall 2007 to study the movements, reproductive success, and survival of White-cheeked Pintails in Puerto Rico. This study will expand on the long-term commitment of the Puerto Rico

Department of Natural and Environmental Resources to conserve the White-cheeked Pintail and associated wetland habitats in Puerto Rico by providing new and more extensive data on population demographics as well as data on intra-and inter-wetland movements. Ability to speak Spanish preferred.

Contact Dr. Guy Baldassarre at gabaldas@esf.edu

Conservation Across Boundaries - Texas

Conservation Across Boundaries, June 15-29, 2007 in Sinton, Texas, is an inquiry-based, conservation education program that focuses on the science behind the conservation and management of wildlife species endemic to the coastal prairies and marsh ecosystems of south Texas and the short-grass prairie and montane ecosystems of north central Montana. Coursework incorporates hands-on field activities in the coastal prairies and marsh ecosystems in south Texas and in the short-grass prairie and montane ecosystems in north central Montana. Current computer technology associated with systems ecology and management, and geographic mapping will be taught during the course. Participants will be required to complete individual lessons and one joint project during the course and are expected to present a workshop or inservice about this course to teachers during the following school year. Reimbursements for expenses and graduate credit is available. The deadline for registration is February 26, 2007.

http://www.boone-

crockett.org/educationPrograms/education cab.asp?area=educationPrograms&ID=6080
AFEF&se=1&te=1

Marine Education and Research Internships – New Hampshire

Blue Ocean, based in Portsmouth, New Hampshire, is dedicated to promoting awareness and conservation of the marine environment through education and research in New England. Interns work one-on-one with our research scientists/educators aboard different whale watch boats and other locations in the Seacoast, New Hampshire and northern Massachusetts areas. This internship, geared toward college students and recent graduates but open to anyone over age 18, offers the opportunity to get hands-on experience in marine research, teaching, and working in a non-profit environment. The deadline for application is March 1, 2007.

http://www.blueoceansociety.org/intern.htm

MPA and Marine Botany Courses - Mexico

Study *Tropical Marine Botany* (June 23-30 2007) or *Marine Protected Areas for the South Florida, Caribbean and Mesoamerican Region* (July 1-8, 2007), in a joint summer program in Puerto Morelos, Mexico. Universidad Nacional Autónoma de México and Florida International University offer these courses to students, managers, and anyone interested in marine conservation and marine plants. Fellowships for Latin American-Caribbean students may be available for the MPA course.

Contact Dr. Ligia Collado Vides at colladol@fiu.edu

Shoals Marine Laboratory – New Hampshire

Operating under the College of Agriculture and Life Sciences at Cornell University in cooperation with the University of New Hampshire in Durham, New Hampshire, the Shoals Marine Laboratory offers opportunities for students to experience marine science. Located on Appledore Island in the Gulf of Maine, this near-pristine environment allows students to study many aspects of intertidal and sub-tidal ecology. The laboratory facilities on the island are complemented by the ocean-going capabilities

of the lab-owned research vessels. The academic program includes over twenty credit courses for undergraduates, graduates, and professionals, along with summer, adult, and family education programs. Check out the summer courses for high school students, Marine Environmental Science (August 6-20, 2007) and Oceanography of the Gulf of Maine (July 5-24, 2007)

http://www.sml.cornell.edu/about/ps-home.htm.

CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT

Adaptations from the Depths - Texas

This workshop, February 17, 2007 in Houston, Texas, is sponsored by Flower Garden Banks National Marine Sanctuary. Find out how creatures have adapted to survive in an underwater world. Free curriculum and materials will be available. And while you're on the website, check out the other workshops available at the Houston Zoo. http://www.houstonzoo.org/index.asp?page ID=344

The Amazing Life of the Elephant Seal - California

Dr. David Aurioles of the Instituto Politecnico Nacional in La Paz, Mexico, will present, in Spanish and English, the life of elephant seals, February 2-4, 2007 in Cambria, California. The weekend retreat is limited to 20 adult guests; join leading researchers for field trips, lectures, and personal interaction with a leading marine science researcher.

http://www.campoceanpines.org/

Climate Change E-Conference Series - Online

The EcoRes Forum is a new series of free, online e-conferences focusing on the ethical, political, and sociocultural aspects of climate change. The first e-conference, *From Anthropocentrism to Ecocentrism: Making the Shift*, April 14-30, 2007, will evaluate the current status - what is working, and what isn't, around the globe. Armed with this knowledge, participants will shift focus to the future, considering multi-prong approaches for moving forward on this issue.

http://www.eco-res.org

Climate Change Educator Conference - California

Educators and museum staff are invited to attend a NASA JPL Climate Change Educator¹s conference, March 3-4, 2007 in Pasadena, California, which will include presentations by Earth scientists, engineers, and educators. Participants will gain a better understanding of how NASA data is gathered that informs the climate debate and some of the recent results. There will also be discussion of past climate variations and their impacts on human society. The conference will provide examples and information on NASA Earth system science resources and an introduction to the upcoming International Polar Year.

http://education.ipl.nasa.gov/events/climate20070116.html

Conference of the Association of Marine Laboratories of the Caribbean

The 33rd Scientific Conference of the Association of Marine Laboratories of the Caribbean, hosted by the University of the Virgin Islands June 4-8, 2007 in St. Thomas, United State Virgin Islands, celebrates 50 Years of Caribbean Marine Research:

Changing Science, Changing Environments, Changing Perspectives. They anticipate having simultaneous English-Spanish interpretation at the meeting. The deadline for abstract submission (in English or Spanish) is April 15, 2007. http://www.amlc-carib.org/fileadmin/static/amlc_conf_new.html

Corals to Classrooms Workshop - Texas

The annual Corals to Classrooms educator workshop will be held June 19-20, 2007, in Galveston, Texas, sponsored by the Gulf of Mexico Foundation and hosted by the Flower Garden Banks National Marine Sanctuary. Participants will learn about coral reef ecosystems, the National Marine Sanctuary Program (specifically the Flower Garden Banks NMS located in the Gulf of Mexico) and reef fish identification. This is the same workshop as the Down Under, Out Yonder program, but without the SCUBA component. The deadline for registration is May 31, 2007.

http://www.gulfmex.org/duoy.htm

http://flowergarden.noaa.gov/education/workshops.html

Down Under, Out Yonder - Texas

The 2007 Down Under, Out Yonder educator workshops and field expeditions, hosted by the Flower Garden Banks National Marine Sanctuary and sponsored by the Gulf of Mexico Foundation, will be held July 7-11, 2007 and July 21-25, 2007 (2nd workshop for alumni only). This unique way to learn about coral reef ecosystems and the National Marine Sanctuary Program, specifically the Flower Garden Banks NMS located in the Gulf of Mexico, consists of two days of land-based workshop followed by three days of SCUBA diving in the sanctuary. All applicants must be previously SCUBA certified and have a fair amount of open water diving experience. Applications and information are available on both websites. This is a competitive application process; the application deadline is February 28, 2007.

http://flowergarden.noaa.gov/education/workshops.html http://www.qulfmex.org/duoy.htm

Farallones Marine Sanctuary Association Workshops - California

The Gulf of the Farallones National Marine Sanctuary is celebrating its 25th anniversary, and is offering a variety of teacher workshops for educators to learn about ocean concepts, student monitoring projects, and current research related to the Gulf of the Farallones. The lectures and field trips will take place in and around San Francisco, California.

- LiMPETS Introduction to Rocky Intertidal Monitoring, February 24, 2007
- LiMPETS Introduction to Sandy Beach Monitoring, March 10, 2007
- Intertidal Invertebrate Ecology, March 17, 2007
- Shifting Seas of Sand and Other Geologic Processes, April 21, 2007

All workshops and seminars are free; K-12 teachers will receive a stipend for their attendance.

http://farallones.org/education/teacher_workshops.php

Fossils in the Classroom - Alabama

The Dauphin Island Sea Lab will offer a fossil workshop, March 17 and 18, 2007 in Coffeeville and Thomasville, Alabama. The workshop will introduce teachers to organisms from past seas of Alabama. Participants will spend a day in the field collecting fossils and then label these treasures to be carried back to their classrooms. Contact Denise Keaton at dkeaton@disl.org

Fragile Ice Seminar - Online

In honor of the International Polar Year, NASA, NSTA, NOAA, and NSF present The Fragile Ice, a web seminar for grades 5-8 educators. Dr. Waleed Abdalati, head of the Cryospheric Sciences Branch at NASA's Goddard Space Flight Center, will be presenting online to share his expertise. Hurry – register online for the February 6, 2007 web seminar. The seminar will also be presented live at the NSTA National Conference March 30, 2007.

http://institute.nsta.org/fall06/ipyice/webseminar.asp

Environmental Challenges and Innovations Conference - Texas

The Texas Association of Environmental Professionals will host the First Annual Environmental Challenges and Innovations Conference: Gulf Coast 2007, February 15, 2007 in Houston, Texas. This event will provide a local forum for environmental professionals in industry, government agencies, and consulting/service companies, as well as university students in the greater Houston area to share technical presentations with their peers. The event will feature three simultaneous presentations with speakers organized by categories, including Water, Wetlands, Education and Outreach, and more. http://www.taep.org/TAEP/Conference/

Grounds for Teaching: Watershed Institute - Maryland

The Maryland Association for Environmental and Outdoor Education offers this four-day institute, March 20-23, 2770 in Anne Arundel County, Maryland, which will cover the best available science for using small spaces to help improve habitat diversity along with air and water quality. This workshop is designed for the informal educator who wants to incorporate more habitat restoration into their program.

Contact: habitat@maeoe.org

International Pacific Marine Educators Conference Presentations - Online

The International Pacific Marine Educators Conference, January 15-18, 2007, was hosted and sponsored by the Western Pacific Regional Fishery Management Council. Nearly 100 marine educators participated in the conference both onsite and online during two days of presentations and one day of workshops. The conference featured on-site and real-time web-delivered presentations; all of these presentations as well as the opening and closing ceremonies are now available as web-based streaming video at the College of Exploration website. Free registration is required. http://www.coexploration.org/ipmec/

International Riversymposium and Environmental Flows Conference

The 10th International Riversymposium & Environmental Flows Conference, a partnership between the International Riversymposium and The Nature Conservancy, September 3-6, 2007 in Brisbane, Australia, will provide an opportunity for delegates to gain exposure across a broad range of river management topics. The symposium will feature presentations on innovative practices and case studies from all over the world and a wide range of perspectives on managing river flows for people and ecosystem health.

http://www.riversymposium.com/index.php?page=Home

NASA Climate Change Lectures – DC and Online

NASA Goddard Space Flight Center and The Library of Congress are offering free public presentations by top NASA scientists on current topics, including climate change, urban

sprawl, and natural disasters. The lectures will take place in Washington, DC and will also be posted on the Library of Congress website.

- Who Left the Freezer Door Open? What the Poles Are Telling Us About Climate Change, January 24, 2007
- Honey Bees, Satellites, and Climate Change, April 3, 2007
- City Lights, Spy Satellites, and Urban Sprawl, June 27, 2007
- Predicting, Observing, and Mitigating Damage from Fires and Other Natural Disasters, October 17, 2007

http://www.loc.gov/rr/scitech/events/events.html#cybercasts

NAAEE Annual Conference and Research Symposium – Abstract Deadline Extended

The North American Association for Environmental Education Annual Conference and Research Symposium will be held November 14-17, 2007 in Virginia Beach, Virginia. The theme of the conference is *Explore New Horizons for Environmental Education*. The conference strands are Sustainability; Conservation and Community Education; EE Leadership Skills; Schools, Education, Achievement, and Literacy; and Joining Forces: Environmental Justice, Health, and Education. Sessions that are relevant and inclusive of business, researchers, and Spanish/French speakers will be included in every strand. The deadline for submission of abstracts has been extended to February 9, 2007. http://www.naaee.org/conference/2007-call-for-presentations

National Marine Educators Association Conference – Call for Papers

The National Marine Educators Association Conference, July 23- 27 2007 in Portland, Maine, will be hosted by the Gulf of Maine Marine Education Association. Educators, researchers, explorers, writers, artists, conservation managers, and anyone with a passion for the world of water is invited to submit a presentation. The conference theme is *Downeast2007: Ideas, Innovations, and Inspirations*. The deadline for submission of abstracts is March 1, 2007.

http://gommea.org/downeast2007/

NOAA Ocean Explorers Educators' Workshop – Hawai'i

Bring the excitement of modern day explorers to your teaching with this NOAA Ocean Explorers' Workshop, February 24, 2007 in Honolulu, Hawai'i. Stipends cover time, teaching materials, travel costs (including costs from neighbor islands), and a copy of Learning Ocean Sciences through Ocean Exploration curricula and CD-ROM. Since part of the program is web-based, your librarian or IT team member are welcome as well. Check out the *Marine Educators' Night at the Aquarium*, below. http://www.waquarium.org/class/family.html#noaa_ocean_explorers

Ocean Explorer Workshops - Various

NOAA's Ocean Explorer program offers professional development offerings around the country. Opportunities focus on how educators can use the science, technology, and mathematics associated with exploring the oceans in their classrooms to help increase awareness and understanding of the ocean world. These offerings are designed to introduce educators to premier ocean scientists/explorers and their research and explorations, and at the same time, provide exemplary tools and resources to engage students in ocean exploration by bringing the classroom closer to the ocean than it has ever been before. The website lists upcoming workshops through August 2007 throughout the country. Check the website for details and contact information.

http://www.oceanexplorer.noaa.gov/edu/development/development.html

Project Shark Awareness Teacher Training Workshops - Florida

Join the Florida Program for Shark Research to learn about the myths and realities of shark behavior, biology, and conservation. Workshop participants will receive information and materials that will enable them to conduct shark awareness programs in their individual school districts and classrooms. Materials include a teaching binder and CD with a PowerPoint presentation, teaching guide, handouts, and classroom learning activities, as well as a shark jaw, shark skin, shark embryo, shark vertebrae and more. Workshops will be held March 8-9, 2007 and April 19-20, 2007 in Gainesville Florida. Registration priority is given to Florida elementary school educators.

http://www.flmnh.ufl.edu/fish/education/psa/psa.htm

Contact Cathy Bester at cbester@flmnh.ufl.edu

Safari and Natural History Tour of South Africa

Join a safari and natural history tour to South Africa, July 15-29, 2007 and immerse yourself in the geological history, flora, fauna, Savanna ecosystems, settlement patterns, Zulu culture, rain forests, game management, mining, and natural history of South Africa. Participants will be involved in field studies, tours, game viewing, archaeology, spotlighting, and general observations of this beautiful country. Visit a fishing village on Hout Bay, cruise to Seal Island, examine Cape Peninsula's cape penguins, investigate the St. Lucia estuarine system, largest in Africa, and participate in bird watching along the southern shores.

Contact Richard Duncan at 503.744.0794 or r2duncan@comcast.net

Teach the River - California

Teach the River is open to the families, teachers, parents, or anyone who wants to learn and discover the wonders of the greater Fresno, California area. A wide variety of seminars, field trips, and other special events are offered from January through June. 2007, including river workdays, seminars, and more. Many of the seminars and field trips are available for academic credit through California State University, Fresno. http://www.teachtheriver.org/index.html

Teacher-to-Teacher Workshops – Various Locations

The U.S. Department of Education's Teacher-to-Teacher Initiative will be held in 22 cities throughout the country to provide free high-quality professional development opportunities for teachers. Prominent educators will share best practices in all grade levels and content areas. Check the website for locations and focus areas. Registration begins: April 8, 2007.

https://www.t2tweb.us/Workshops/Schedule.asp

TEAMS Spring Conference - Tennessee

Join the Tennessee Educators of Aquatic and Marine Sciences at their annual spring conference, April 13-15, 2007 in Brandon Springs, Tennessee. Grade specific sessions will help educators correlate aquatic lessons with science standards, following the conference theme, Survival: Science Standards Sessions. The deadline for registration is April 2, 2007.

Contact Tighe Forrester at forrester@ripleys.com

Waterfowl Workshop - Georgia

Newman Wetlands Center is offering a Waterfowl Workshop, February 17, 2007, in Hampton, Georgia. Learn to identify the many species of waterfowl that find their way each winter to the ponds, reservoirs and wetlands in metro Atlanta. The majority of time will be spent in field observation and learning identification techniques, with group discussions of the species, habitat requirements, and migration patterns. http://eeingeorgia.org/net/content/go.aspx?s=6346.0.68.4863

EDUCATIONAL RESOURCES

Antarctic Journal

Allan Miller, Albert Einstein Distinguished Educator Fellow at the National Science Foundation and a NASA Educator Astronaut finalist, has returned from a tour of duty in and around Antarctica. Miller chronicled his experience in an expedition - the first of at least 30 - that allows classroom teachers to travel to field research sites in the Arctic and Antarctic and work with scientists engaged in many different types of polar research throughout the upcoming International Polar Year http://www.polartrec.com/allanmillerjournal

Climate Change, Wildlife, and Wildlands Toolkit: A Toolkit for Teachers and Interpreters

The U.S. Environmental Protection Agency, in partnership with the National Park Service and with input from the U.S. Fish and Wildlife Service, developed a kit for use when talking with the public about how climate change is affecting our nation's wildlife and public lands. The website includes downloadable introductory materials, case studies, flash cards, and more. Check out the Climate Change Home Page with links to a myriad of useful resources.

http://www.epa.gov/climatechange/wycd/ORWKit.html

Eco-Discover Center - Florida

The Eco-Discovery Center is operated by NOAA's Florida Keys National Marine Sanctuary, the National Park Service and the U.S. Fish and Wildlife Service. Located on the Key West, Florida waterfront, the free-admission Eco-Discovery Center showcases the underwater and upland habitats that characterize the Keys. Through interactive and touch-screen exhibits, audio, and video, visitors can explore the Keys' hardwood hammock, mangrove, patch reef, seagrass, deep shelf and Dry Tortugas environments. Exhibition highlights include a walkthrough version of the Aquarius Undersea Lab, video tours of the undersea world, and video screens shaped like portholes which allow visitors to view indigenous fish and sea creatures.

http://floridakeys.noaa.gov/eco-discovery.html

EducaPoles

The EducaPoles website from the International Polar Foundation sets out to sensitize young people and the educational world to the importance of the Polar Regions and of climate change. The website offers news and background information along with teacher guides, student activities, animations, and much more. You can also sign up for a newsletter on science and climate change. Check out this website for lots of great materials.

http://www.educapoles.org/

Federal Resources for Educational Excellence

Federal Resources for Educational Excellence (FREE) has been redesigned with improved navigation. The site links to over 1500 teaching and learning resources available from the federal government. The Earth Sciences section offers quick links to resources on oceanography, climate change, and the environment, while Life Sciences offers zoology, botany, and more. http://free.ed.gov

Global Warming 101 Begins New Expedition

The Global Warming 101 expedition team of Inuit hunters, explorers, and educators, will embark on a four-month expedition to get a first-hand look at how global warming is impacting the Arctic landscape, wildlife, and human communities. Check out the website for new updates after February 14, 2007.

http://www.globalwarming101.com/content/view/32/88888907/

Gulf of Mexico Marine Debris Mapping Website

The NOAA Gulf of Mexico Marine Debris Project recently launched this website. Nearshore waters of Mississippi, Alabama, and Louisiana are being surveyed for the purpose of locating and mapping marine debris, identifying risks to commercial fishing and shrimping activities in the Northern Gulf of Mexico coastal zone and providing users with critical information and maps of debris laden survey areas. http://gulfofmexico.marinedebris.noaa.gov/

Immersion Presents: Secrets of the Gulf

Starting with live broadcasts March 4-9, 2007, Dr. Robert Ballard and a team of researchers will launch a virtual expedition to the Gulf of Mexico paralleling the actual research expedition. An important theme of the expedition will be connectivity. Biologists and geologists on the team will explore how the Flower Garden Banks National Marine Sanctuary's marine ecosystems are connected to one another, to other parts of Gulf, and to the land. Archaeologists will investigate connections between the sanctuary and human history. Throughout all of these efforts, the expedition team will gather important data to aid in the conservation and management of vital resources within the Gulf. For the virtual expedition, Immersion Presents will develop an interdisciplinary multimedia curriculum that will include an Adventure Series with handson activities exploring the region's geography, geological history, human history, biology, ecology, conservation and careers; Curriculum Extensions to meet the needs of upper elementary and middle school classrooms; interactive content for the website; live broadcasts; and more.

http://www.mysticaquarium.org/index.cgi/1290 http://www.immersionpresents.org/

Interactivate

Not marine, but very cool for those with high-speed Internet access. Interactivate is free, online interactive graphics and courseware for exploration in science and mathematics, with the emphasis on mathematics. The site is structured around collections of activities, lessons, and discussions and is browsable by subject, topic, audience, and resource type.

http://www.shodor.org/interactivate/guide/

Intruders in Paradise

Intruders in Paradise: Invasive Species in Florida, a Teachers Guide is now available for easy downloading from the Tampa Bay Estuary Program website. This teaching guide is specifically about invasive species in Florida. Designed for middle-school students, the guide contains classroom activities, website references, a master vocabulary list, fact sheets about individual invasive plants and animals commonly found in Florida, and additional resources. Activities are aligned with both FCAT learning benchmarks and Sunshine State curriculum standards for grades 6-8. CDs of the guide also are available by contacting Nanette Holland at nanette@tbep.org.
http://www.tbep.org/isteachersquide/index.html

Jetstream - An Online School for Weather

This NOAA website provides educators, emergency managers, or anyone interested in learning about weather with comprehensive, well-organized, colorfully illustrated curricula designed to help teach about the Earth's atmosphere. The self-contained modules include complete lesson plans and review questions. http://www.srh.noaa.gov/jetstream/matrix.htm

Living Marine Legacy of Gwaii Haanas V: Coastal Zone Values and Management around Haida Gwaii

The Gwaii Haanas National Park Reserve and Haida Heritage Site, on the Pacific coast of Canada, has released a 413-page report synthesizing nearly all information available about the site, including traditional indigenous knowledge, modern human uses, geology, biodiversity, habitat distribution, and more. For a hard copy of the report, contact Norm Sloan or provide an FTP site to which the document may be sent. The website includes background information Contact Norm Sloan at norm.sloan@pc.gc.ca

Network of Conservation Educators and Practitioners

The Network of Conservation Educators and Practitioners is a global project to improve the practice of biodiversity conservation by improving training in biodiversity conservation. The network seeks to connect those involved in doing and teaching biodiversity conservation; create and make widely available a variety of resources to teach biodiversity conservation; and develop networks and resource centers to increase mentoring and training opportunities in biodiversity conservation worldwide. The target audience is educators working with undergraduate and graduate students, and trainers working with conservation professionals in a variety of settings. A work in progress, the website includes free (registration is required) downloadable educational modules, including an Introduction to Marine Conservation Biology, The Importance of Invertebrate Biodiversity, and more. They also seek authors for additional modules. http://ncep.amnh.org

OceansLive Videos - Albatross

OceansLive.org aims to bring the ocean world to communities worldwide and make oceans accessible and local through a multi-media system approach. Visit OceansLive.org to view new archived videos, including a necropsy of a Laysan Albatross chick, highlighting the effect of marine debris on seabirds, and the banding of Masked Booby and Laysan Albatross chicks on Green Island in the Kure Atoll. http://oceanslive.org

Operation Laser Line Mission Summary

The mission summary from Operation Laser Line Scan 2006 has been published on Ocean Explorer. The purpose of this six-day research cruise, funded by the NOAA Office of Ocean Exploration, was to test the ability of laser line scanning technology to address questions related to the management of coral reef ecosystems. The mission summary offers an insight into some of the problems encountered with cutting edge research.

http://oceanexplorer.noaa.gov/explorations/06laserline/logs/summary/summary.html

PolarTREC

PolarTREC (Teachers and Researchers Exploring Collaborating in the Arctic and Antarctic) is a program funded by the National Science Foundation in which K-12 teachers participate in polar research, working closely with scientists as a pathway to improving science education. The website will offer new Learning Resources, a Virtual Base Camp, and more, starting in spring, 2007. Check out the Antarctic Journal (above), and archives of earlier base camp portals and lesson plans (including a link to an online snow science curriculum).

http://www.polartrec.com/

Promise of Place

The Promise of Place website is a project of the Center for Place-based Learning and Community Engagement and is supported by the USDA Forest Service. It offers program ideas, case studies, research, links, and other resources to support place-based education projects. The Planning Tools section of the Resources and Curriculum offers tools and exercises; curriculum and other sections are being populated. http://www.promiseofplace.org/

Science Netlinks: Web Resources for Science Teachers

The American Association for the Advancement of Science website offers background information and useful resources for educators, including Science Books and Film; Science Careers; and Science Netlinks. Science NetLinks offers standards-based Internet resources for students including downloadable lesson plans and links to additional background materials and websites.

http://www.aaas.org/port_educators.shtml http://www.sciencenetlinks.com/

Science Reference Services

The Library of Congress Science Reference Services website hosts a myriad of useful and interesting information. The Everyday Mysteries offers archived questions and answers about questions you've thought about but never pursued. The Science Tracer Bullet Series contains research guides that help locate information on science and technology subjects. They offer brief introductions to the topics and lists of resources and strategies for finding more. For help with student science projects, the website offers a long list of useful references, both Internet and hard copy. Additional reference lists are provided for subjects such as The Crisis in Science Education, Selected Internet Resources for Teachers, and much more. The librarians are available to help online, both through email and chat services.

http://www.loc.gov/rr/scitech/

Sea Search

Sea Search is a monitoring program for community groups volunteering in Victoria, Australia's Marine National Parks and Sanctuaries. Volunteers can explore and learn about the diversity of marine plants and animals found in Victoria's marine protected areas while adding to the scientific knowledge of the parks. Community and school groups work with park rangers and a project officer to collect seasonal data in their local MPA and at nearby control sites. The data collected contribute to management. The website includes an overview document for community-based monitoring, individual guides for intertidal, subtidal, and seagrass monitoring, data entry sheets, and field fact sheets. MPA News #81 (at http://www.mpanews.org) includes a discussion about the program, challenges faced, and lessons learned. http://www.seasearch.org.au/index.htm

Seven Essential Principles for Ocean Literacy

Dolphin Quest supports ocean literacy and offers Seven Essential Principles for Ocean Literacy: An Activity Guide for Educators. This activity guide is the first in a three volume series that will help teachers and informal educators for grades K-12th embrace the Ocean Literacy Principles and put them into practice in their curriculum. This initial volume includes an introduction to the importance of the principles in curriculum, and each chapter includes the fundamental concepts of that principle and a summary of how to put them into use in classrooms, including highlights from the National Science Education Standards scope and sequence matrix. This guide has 28 activity-based lessons, one for each grade group for each of the seven principles. Each lesson has fundamental concepts, National Education Standards, Hawaii Content Performance Standards and Bermuda Science Standards identified for the principle. Future volumes will be produced in 2007 and 2008.

http://dolphinquest.org/learningquest/school/school_programs.php?ID=177471150

Timeless Totems: The Carved History of the Alaskan Coast eField Trip

Take your students on an electronic field trip to Sitka National Historical Park in Alaska to find the answers to these questions. Ask the Experts will be available February 6-8, 2007 when students may ask questions via the eFieldTrips web site. Within 1-2 days, the experts at Sitka National Historic Park will post the answers to their questions. www.eFieldTrips.org

United Nations Atlas of the Oceans

The Atlas is an information system designed for use by policy makers, scientists, and students who need access to underlying data bases and approaches to sustainability. The information includes history, biology, climatology, food security, fishing, and more. http://www.oceansatlas.org/

University of Wisconsin-Madison Zoology Museum Collection

A recent addition to the University of Wisconsin-Madison digital collections, the Zoology Museum Collection, includes digitized versions of heavily illustrated biological journals, a few dated as early as 1859 with the majority from the first half of the 20th century. In addition to searching, journals can be displayed in a gallery view, allowing users to jump quickly to pages of interest. The Galápagos Collection includes skeletons, slides, pictures, books, and research papers collected and produced by UW-Madison scientists and researchers during ten expeditions to the Galápagos since 1969. http://digicoll.library.wisc.edu/Zoology/

Wildland Fire Lessons Learned Center

The purpose of this website is to improve safe work performance through organizational learning in interagency wildland fire. The website offers resource documents, newsletters, lessons learned, and more.

http://www.wildfirelessons.net/Home.aspx

INITIATIVES, JOURNALS, and MORE

California Derelict Fishing Gear Removal Project

California Derelict Fishing Gear Removal Project is a partnership between the California State Coastal Conservancy, the Northwest Straits Commission, and the National Fish and Wildlife Foundation. Anyone who loses fishing gear or observes derelict fishing gear underwater is encouraged to report their sighting. This project does not assess fault or blame, but rather encourages ocean users to report the presence of derelict gear, and hires experienced and certified SCUBA divers to remove gear from near-shore waters in a safe and environmentally sensitive manner.

http://www.derelictfishinggear.org

EJ Magazine

Published by the Knight Center for Environmental Journalism at Michigan State University, *EJ Magazine* is a student-produced magazine about environmental issues in the United States. The issues are available online. For the most part, the content is created by undergraduate and graduate students at Michigan State University, but others are encouraged to submit articles for consideration. http://www.eimagazine.com/

Lucas Miller, the Singing Zoologist

Lucas Miller, the singing zoologist, uses music, stories, puppets and humor to teach about monarch butterflies, wetlands, animal defenses, endangered species, and other nature-related topics. On the website, listen to examples of his songs, from wetlands to invasive species and more.

http://www.lucasmiller.net/

Marine Educators' Night at the Aquarium - Hawai'i

In conjunction with the NOAA Ocean Explorers' workshop, the Waikiki Aquarium will host an evening under the stars for marine educators, February 24, 2007 in Honolulu, Hawai'i. Explore the aquarium while discovering new education resources and meeting old friends. The evening will include a presentation by Dr. Frank Parrish on deep diving monk seals, along with light refreshments, and is free for teachers and home school instructors courtesy of the National Marine Sanctuary Foundation and in cooperation with the Oceania Chapter of the National Marine Educator's Association. Preregistration is required.

http://www.waquarium.org/class/family.html#marine_educators

Online NAAEE Directory

Take a few minutes to add your organization to NAAEE's Online Environmental Education Directory, the simple first step to building a consistent, quality process for helping EE practitioners find the resources they need. After your organization is in the system, you can gradually add descriptions of all your publications and programs, so that they are easily found by Internet searchers. Having your resources listed is also the

first step in the Resource Review system, NAAEE's effort to build a culture of quality based on the Guidelines for Excellence. http://naaee.org/cgi-bin/risee/noram/login

Trash Bash - Texas

The 2007 River, Lakes, Bays 'N Bayous Trash Bash will take place March 31, 2007 in various locations in the Houston, Texas area. http://www.trashbash.org/

Underwater Journal

Underwater Journal is a free, bimonthly, web-based diving magazine which covers ocean exploration and research along with the simple pleasures sports diving. http://www.underwaterjournal.com/index.htm

Yale Project on Climate Change

The Yale School of Forestry and Environmental Studies' Project on Climate Change offers resources and information to promote action on climate change. The resources are organized by category, including Business & Finance, News Media, Environmentalists & Civil Society, and more. http://www.environment.yale.edu/climate/