

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
INFORMATION EXCHANGE FOR MARINE EDUCATORS

JANUARY 2006

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

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

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://www.mpa.gov/information_tools/education.html#InfoExchange. Contact the editor directly at phyllis.dermer@noaa.gov, or by phone at (865) 932-5074, to discuss further enhancements or to contribute information for future issues.

NOTABLE ARTICLE

People and Reefs: Successes and Challenges in the Management of Coral Reef Marine Protected Areas

This 100-page publication was prepared by the UN Environment Programme in cooperation with the International Coral Reef Action Network. It features case studies of coastal coral-reef management initiatives worldwide, with lessons learned from each. The report introduces some of the key issues in coral reef conservation and the role of ICRAN and the UNEP Regional Seas Programme. Seven of the case studies are from the Caribbean. The report is downloadable from the UNEP website. <http://www.unep.org/regionalseas/Publications/itmems2reportfinal.pdf>

PROGRAM OF THE MONTH

Linking Girls to the Land

Linking Girls to the Land is an interagency partnership between Girl Scouts of the USA's Elliott Wildlife Values Project and federal natural resource agencies. The partnership works toward the vision that every girl will have an opportunity to participate in conservation and outdoor programs. Its purpose is to encourage partnerships between Girl Scout and federal natural resource agency representatives on national and local levels in order to offer more joint conservation and outdoor programs to 3.8 million Girl Scouts nationwide. The partnership offers funding, travel opportunities, awards, and workshops, and supports projects related to environmental education, volunteer service, outdoor skills development, and career exploration. Linking Girls to the Land is built on the existing infrastructure of the Girl Scouts and recognizes the handbooks, earned age-level awards, participation patches, and programs in place that include extensive outdoor and conservation education components, a longstanding emphasis on volunteer service, and Girl Scout troops and groups serving many communities near and distant from public lands.

The Water Drop Patch Project is for Brownie and Junior Girl Scouts and Girl Scouts ages 11-17. This project was jointly developed by the EPA and the Girl Scout Council of the Nation's Capital. The project encourages girls to become watershed and wetlands stewards; educate others in their community about the need to protect the nation's valuable water resources; gain an interest in science and math by exploring the natural world; and use the Internet as a source of information.

Studio 2B Focus: Makin' Waves begins with a quiz to help focus in on career options related to the ocean such as oceanography, marine biology, geological oceanography, and ocean engineering. Each section includes an array of different facts and activities. Girls are asked to research, write, create and do – everything from making jewelry using gems from the sea to learning how to read a tide chart. At the end, girls earn a silver-tone charm of a multi-glitter crest of waves and seashell and starfish dangles.

<http://www.epa.gov/adopt/patch/index.html>

WEBSITE OF THE MONTH

ROV Competition

The Marine Advanced Technology Education (MATE) Center and the Marine Technology Society's ROV Committee are partnering with Ocean.US and the Ocean Research Interactive Observatory Networks (ORION) Program to organize their 5th annual international student ROV design and building competition. The Neutral Buoyancy Laboratory at the NASA Johnson Space Center is planning to host the event, which will be held in June 2006.

The 2006 ROV competition will focus on ocean observing systems. Working with Ocean.US and the ORION Program, the MATE Center created a mission scenario that challenges teams to tasks associated with the operational aspects of deploying, operating, maintaining, and collecting data from observing systems. For example, students will design and build vehicles to deploy and network instruments for power and communications and recover equipment for maintenance and repair, among other tasks.

The mission scenarios, tasks, design and building specifications, and registration forms – along with general information about the competition program, including the 13 regional events expected to feed into the international competition – is posted on MATE's competition web site. Visit the site to find out on how you can get involved with this year's event as a competition team, sponsor, mentor, or judge.

Contact Jill Zande, MATE's ROV Competition Coordinator, (831) 646-3082 or jzande@marinetech.org

http://www.marinetech.org/rov_competition/index.php

MESSAGE FROM THE BRIDGE

Iced In

The Bridge features Data Activities that can be used to supplement curriculum material with timely and seasonal resources. As we move into the colder months, the Bridge would like to introduce you to the activity, *Iced In*. Iced In explores the effects of ice in the Great Lakes, and how the United States and Canadian Coast Guards work to predict and react to this natural hazard. The activity also discusses the formation of the Great Lakes and their importance to North American commerce. Students will evaluate and draw conclusions from archived ice data and make comparisons between predicted and observed data.

http://www.marine-ed.org/bridge/index_archive0204.html

REQUESTS

Request for Ocean Teaching Activities

KQED Public Broadcasting is developing an on-line activity guide for teachers to accompany an upcoming PBS series entitled, "Jean-Michel Cousteau's Ocean Adventures." All activities selected for the guide will be used only with permission and will be fully and properly credited. Please submit by January 10, 2006.

http://naaee.org/affiliates/ocean_teaching_activities_request.pdf

National Ocean Sciences Bowl Question Writers Needed

The Consortium for Oceanographic Research and Education (CORE) manages the National Ocean Sciences Bowl, a round-robin/double-elimination competition for teams of high school students. One format involves multiple-choice, short-answer questions. Questions are drawn from the scientific and technical disciplines used in studying the oceans (physics, chemistry, geology, atmospheric science, biology, etc.) as well as from topics on the contributions of the oceans to national and international economics, history and culture. CORE seeks writers to submit 100 questions by March 3, 2006 for the national competition.

Contact Henry Hope at hhope@coreocean.org

GRANTS AND OPPORTUNITIES

Albert Einstein Distinguished Educator Fellowship

Einstein Fellows spend a school year in the Washington, DC, area working in a Capitol Hill office or in a federal agency. Past agencies have included NOAA, NASA, Department of Education, and others. The fellowship is intended to support the intellectual and professional development of teachers who have a sincere desire to contribute their expertise of and be involved in the advancement of science,

mathematics, and technology education. This is paid fellowship offers a monthly stipend, along with moving, cost-of-living, and professional-travel allowances. The deadline for application is January 10, 2006.

<https://applicationlink.labworks.org/applicationlink/default.htm>

Amgen Award for Science Teaching Excellence – CA, CO, KY, MA, RI, WA, PR

Amgen invites educators with a minimum of three years teaching science in grades K-12 to apply for the Amgen Award for Science Teaching Excellence, an unrestricted cash award for educators in communities in which Amgen operates, who are elevating the level of science literacy through creativity in the classroom and motivation of students. As winners, their schools also receive a grant to be used to expand or enhance the school's science program, purchase new science resources, or further the professional development of their science teachers. The deadline for application is January 31, 2006.

<http://www.amgen.com/citizenship/aaste.html>

Anchors Away!

Anchors Away!, administered by the National Fish and Wildlife Foundation through the Coral Reef Conservation Fund, offers funding for partnership projects to install and maintain mooring buoys for conservation of coral reef ecosystems in the Gulf of Mexico and wider Caribbean Region. Applications will be accepted from US or international non-profit organizations, academic institutions, and government agencies (except U.S. federal agencies). US federal agencies are encouraged to work collaboratively with non-federal partners. Pre-proposals are due by 31 January 2006.

http://www.nfwf.org/programs/anchors_away.cfm

Armada Project

The Armada Project offers the opportunity for K-12 teachers to actively participate in ocean, environmental, and polar research and peer mentoring. Chosen Master Teachers (with five or more years of teaching experience) will spend one to three weeks during the summer participating in research around the globe. The deadline for application is February 6, 2006.

<http://www.armadaproject.org>

Bay Watershed Education and Training Grants – Santa Barbara, California

The National Marine Sanctuary Program's Bay Watershed Education and Training (B-WET) Program announces grants to implement environmental education projects in the following two priority areas: 1) meaningful outdoor experience, and 2) professional development in the area of environmental education for teachers. A funding announcement will be posted on the Grants.gov website after the new year. These grants focus solely on the Santa Barbara Channel watershed, including the counties of Santa Barbara and Ventura. Eligible organizations include public and independent schools and school systems, institutions of higher education, commercial and nonprofit organizations, state or local government agencies, and Indian tribal governments. For more information, contact Seaberry Nachbar at seaberry.nachbar@noaa.gov.

<http://www.grants.gov>

BoatU.S. Foundation Clean Water Grant

BoatU.S. Foundation Clean Water Grants fund projects that educate boaters about cleaner boating habits. Grants are open to nonprofit community groups with creative and innovative projects that teach boaters to reduce their impact on the waters they use for boating. Past projects have covered topics like monofilament fishing line recycling,

pollution prevention, and preventing the spread of aquatic nuisance species. The deadline for applications is February 1, 2006.

<http://www.boatus.com/cleanwater/grants/>

Cable's Leaders in Learning Awards

The Cable's Leaders in Learning Awards is Cable in the Classroom's annual awards program to recognize administrators, educators, community leaders and policymakers who demonstrate vision, innovation, action and transformation in education. The awards promote and encourage innovative learning practices by honoring individuals who have transformed an aspect of education on a large or small scale. The deadline for entry is January 31, 2006.

<http://www.ciconline.org/leadersinlearningawards/default.html>

Coastal Art and Poetry Contest - California

The California Coastal Commission invites California students to submit artwork or poetry with a California coastal or marine theme to the annual Coastal Art and Poetry Contest. The deadline for submission is January 31, 2006.

<http://www.coastal.ca.gov/publiced/pendx.html>

Disney Minnie Grants

Youth Service America and Disney are offering the Disney Minnie Grants for youth (ages 5-14) across the globe. These grants are for youth, or the teachers, schools, and organizations that engage them to implement service projects on National and Global Youth Service Day, April 21-23, 2006. Hurry – the application deadline is January 13, 2006.

http://www.ysa.org/awards/award_grant.cfm

Earth Expeditions

The Cincinnati Zoo and Botanical Garden, in partnership with Miami University's Project Dragonfly, offers Earth Expeditions, tuition-free graduate courses open to educators from all disciplines and settings. Seven different courses and field expeditions are offered, including Belize, with a focus on Maya forest and marine ecology, and the Philippines, with a focus on island biodiversity. The deadline for application is February 1, 2006.

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

Earthwatch Educator Fellowship Awards

Earthwatch expeditions are unique professional development experiences. Education fellowships are awarded through a competitive application process. Considerations are based on available funding in the applicant's geographic region, financial need, and the benefits that would result from participating on an Earthwatch expedition. Applications are accepted on a rolling basis, but those received after March 1, 2006 are subject to more limited funding and projects. A special Mississippi application is due February 26, 2006.

<http://www.earthwatch.org/education/educator/apply.html>

Environmental Literacy Grants

NOAA's Office of Education is requesting applications for environmental literacy projects. Funded projects will be between one and five years in duration and will further the use and incorporation of the ocean literacy essential principles and fundamental concepts in formal and informal education and/or measure ocean literacy among the

public; or strengthen the capacity to develop a workforce knowledgeable about weather and climate. All projects shall employ the strategies articulated in the NOAA Education Plan and involve NOAA entities as partners. Letters of interest are required and are due January 25, 2006; full proposals are due March 1, 2006.

http://www.oesd.noaa.gov/funding_opps.html

Freida J. Riley Teacher Award

This award, sponsored by the Christopher Columbus Fellowship Foundation, recognizes a K-12 classroom teacher who overcomes adversity or makes a significant sacrifice to positively impact students. The deadline to apply is March 1, 2006.

<http://www.nmoe.org/riley/images/Riley.pdf>

Give Wildlife a Chance Poster Contest - Georgia

Encourage your K-5 students to create "wild" art! 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 home-school students in kindergarten through fifth grade. The theme of this year's competition is *Georgia's Cycle of Life*. Entries will be judged on close correlation to the theme, quality of art, originality and visual impact. The deadline for submission is Friday, February 17, 2006.

<http://www.georgiawildlife.com/content/displaycontent.asp?txtDocument=134&txtPage=1>

Globe Program Grant

The National Science Foundation is seeking to establish new partnerships between GLOBE program participants and scientists associated with Integrated Earth Systems Science Programs, defined as major NSF- or NASA-funded research programs related to Earth system science. This solicitation seeks proposals from teams for projects that can be used to facilitate inquiry-based investigations of the environment and the Earth systems via the GLOBE program. The deadline for proposals is March 8, 2006.

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5466&org=GEO&from=home

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, 2006. 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>

Learn and Serve America Grants

The Corporation for National and Community Service offers the 2006 Learn and Serve America grant competition to support high quality service-learning projects that engage students in community service projects linked to academic studies. This competition is particularly focused on ensuring that more youth in disadvantaged circumstances are able to engage in service-learning and on expanding the use of service-learning to more schools, colleges and community organizations. Funds are available to intermediary organizations and may be used to create curriculum materials; support training and

technical assistance activities; and make subgrants to local partnerships to carry out service-learning. The deadline for application for higher education programs is February 28, 2006; for school- and community-based programs, the application deadline is March 7, 2006.

http://www.learnandserve.gov/for_organizations/funding/nofa.asp

Name the Calderas

In conjunction with the *GalAPAGoS: Where Ridge Meets Hotspot 2005* expedition sponsored by NOAA's Office of Ocean Exploration (see below), this contest offers your class the opportunity to help select a winning name for a pair of undersea calderas in the Pacific Ocean. These calderas are large underwater craters formed by a volcanic explosion or the collapse of a volcanic cone. Ask your class to look at the ocean exploration now at sea, at <http://oceanexplorer.noaa.gov/explorations/05galapagos/>. The name can be selected from a short list, with one vote per class. Check out the full contest announcement on the Marine Education Society of Australasia website, and email your selection to oeoffice@noaa.gov. The submission deadline is January 10, 2006.

http://www.mesa.edu.au/forums/topic.asp?TOPIC_ID=602

Society for Conservation GIS 2006 International Scholarship Program

The Society for Conservation GIS offers this support program covering some of the costs for one of two conservation GIS conferences, along with specialized 2-week training courses around these conferences. Consideration will include an evaluation of work done; activism with NGO's; and needs and resources in relation to the environmental and economic issues of your region. One scholarship group is for the 9th Annual SCGIS Conference in San Jose, California, June 24-28 2006, to be held in conjunction with the annual international conference of the Society for Conservation Biology. The second scholarships are for the Environmental Systems Research Institute (ESRI) International User Conference in San Diego, California, August 7-11 2006. The deadline for application is January 31, 2006.

http://www.scgis.org/2006_Conference/scholarshipAnn06.html

ThinkQuest Competition

ThinkQuest is an international competition where student teams (ages 9-19) engage in collaborative, project-based learning to create educational websites. This educational contest is open to students between the ages of 9 and 19 and their teacher-coaches from anywhere in the world. The program promotes collaboration and cross-cultural learning by encouraging students to team with peers in other regions to develop websites on educational topics. In the process of creating their site, students learn and practice their skills in research, writing, content organization and teamwork. The deadline for submission is March 22, 2006.

<http://www.thinkquest.org/competition/index.shtml>

Young Naturalist Awards – Deadline Extended

The American Museum of Natural History is holding a researched-based essay contest for students in grades 7-12 to promote participation and communication in science. The Young Naturalist Awards program invites students to plan and conduct their own scientific expedition that will provide questions, data, observations and conclusions on a topic in the field of biology, earth science or astronomy. You do not have to travel far from home. Take your expedition to a park, a lake, stream, beach, backyard, or through

the lens of a telescope as you look at the planets and stars. The deadline for application is now May 1, 2006.

<http://www.amnh.org/youngnaturalistawards>

INTERNSHIPS AND TEMPORARY OPPORTUNITIES

Graduate Student Summer Program in Earth System Science

The NASA Goddard Space Flight Center, in collaboration with the Goddard Earth Sciences and Technology Center of the University of Maryland, offers a number of graduate student research opportunities, June 5-August 11, 2006, designed to stimulate interest in interdisciplinary Earth science studies. The program includes an opportunity for students to conduct Oceanography and instrumentation research on coastal zone processes at NASA's Wallops Flight Facility in Virginia. The deadline for application is 28, 2006.

http://gest.umbc.edu/student_opp/2006_gssp.html

National Youth Science Camp

The National Youth Science Camp is a free residential summer program offering educational forums and recreational activities that encourage the development of thoughtful scientific leadership. The 2006 camp will be held June 25 – July 16, 2006 in the Monongahela National Forest, West Virginia.

<http://www.nysc.org/2006/index.html>

Undergraduate Summer Institute on Atmospheric, Hydrospheric, and Terrestrial Sciences

The Summer Institute on Atmospheric, Hydrospheric, and Terrestrial Sciences, June 12-August 18, 2006 in Greenbelt, Maryland, is designed to introduce undergraduate students majoring in all areas of the physical sciences to research opportunities in the atmospheric, biospheric, hydrospheric, and solar and space plasma sciences, both theoretical and experimental. No previous experience in these sciences is needed. The deadline application is February 17, 2006.

<http://neptune.gsfc.nasa.gov/summerinstitute/>

Volunteer Summer Program

This summer, John Pennekamp Coral Reef State Park in Key Largo, Florida offers volunteer sites to accommodate educators or college students for a month (June, July, or August) of tropical living. As volunteers, these educators will be given the opportunity to experience a variety of educational workshops. Each adventurer is expected to volunteer 20 hours per week for one month.

Contact Charlene H Wylie at Charlene.wylie@dep.state.fl.us

<http://www.floridastateparks.org>

CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT

Adopt-A-Stream Training - Georgia

The Elachee Nature Science Center offers Adopt-A-Stream Training, February 10-11, 2006, in Gainesville, Georgia. Join up for a total immersion into stream monitoring. Get an in-depth course in stream ecology as you become certified in both biological and

chemical monitoring techniques. This is an ideal service-learning training course for teachers and students (grades 5-12) alike.

http://www.elachee.org/TeachEduc/Teacher_Education.htm

Alien Species Field Trip and Monitoring – Maine through New Jersey

David Delaney from McGill University monitors two invasive species: Asian shore crab and the European green shore crab, and offers teachers and their students able to get to any coast from New Jersey to Maine after May 1, 2006 free science lessons and activities (quadrat sampling, trapping, mark recapture “scavenger hunts”) about alien species. Students will learn research methodology and then work as a team to gather data. They will learn how to record standardized data and answer scientific questions.

<http://www.invasivetracers.com>

Association for Environmental and Outdoor Education - California

The Association for Environmental and Outdoor Education (AEOE) is calling for presenters for their 2006 Spring Conference, *Environmental Education: From Words to Action*, April 28-30, 2006 in Malibu, California. The proposal submission deadline is January 31, 2006.

http://www.aeoe.org/conference/spring/2006/workshops/call_for_presenters.html

Education Programs for Youth: School's Out! – West Virginia

This three-day course from the Fish and Wildlife Service, March 20-22, 2006 in Shepherdstown, West Virginia, presents participants with the elements of designing outdoor programs for youth in a non-formal setting, such as wildlife refuges, parks, and elsewhere. The course offers opportunities to create or modify natural resource focused youth programs and staff training for these programs that help to address site missions and/or management objectives. Participants will use a program design model to work on their own youth program during the course, then complete and implement it as a required post-course assignment. Apply on-line (program OUT 8162) or contact Georgia Jeppesen at Georgia_jeppesen@fws.gov for an application. The registration deadline is January 23, 2006.

<http://training.fws.gov/applic.html>

EECOM 2006 Conference - Call for Presentations

The Canadian Network for Environmental Education and Communication (EECOM) 2006 Conference will host *Salt of the Earth – creating a Culture of Environmental Respect and Sustainability*, October 19-22, 2006 in White Point, Nova Scotia. The submission deadline is February 15, 2006.

http://www.saltoftheearth.ca/index_e.php

Environmental Education Alliance Conference - Georgia

The Environmental Education Alliance of Georgia annual conference will be held March 17-19, 2006 in Norcross, Georgia. Sessions strands include the Art, Science, and Business of Environmental Education. Scholarships are available, with preference given to presenters; first-time attendees; and those who enhance diversity through their profession, community affiliations, region of the state, culture, and/or age group. Applications must be received by January 20, 2006.

<http://www.eealliance.org/conference.htm>

Fisheries GIS Conference

The MIT Sea Grant College Program and the Northeast Fisheries Science Center are hosting a conference aimed at coordinating fisheries mapping initiatives. This one-day conference, *Geographic Information Systems and Ocean Mapping in Support of Fisheries Research and Management*, April 11, 2006 in Cambridge, Massachusetts, will bring together individuals and organizations involved in mapping, GIS, data sharing, and fisheries research and management to share existing work and coordinate future efforts in the northeast regional ecosystem, from Cape Hatteras through the Gulf of Maine. The deadline for abstracts is February 1, 2006.

<http://web.mit.edu/seagrant/GIS06/>

Generation Earth Workshop - California

Generation Earth, an environmental education program of the County of Los Angeles and presented by TreePeople, offers a free workshop for secondary school teachers, February 11, 2006 in Beverly Hills, California. Generation Earth works to educate and empower secondary students in L.A. County to take an active part in solving environmental concerns in their community. The workshop will include project management, fulfilling curriculum standards through environmental service learning, available resource opportunities through community partners, and a free Teacher's Action Guide with activities and lesson plans. Generation Earth offers free curriculum, resources (including buses for field trips), and project support throughout the school year to educators interested in completing an environmental service-learning project in their classroom.

Contact Loyda Ramos at lramos@treepeople.org

Global Issues and Sustainability Summer Institute – New Hampshire

Facing the Future is facilitating a one-week summer institute on July 9-14, 2006 in Meriden, New Hampshire, *It's All Connected: Integrating Global Issues and Sustainability across the Curriculum*. Get an in-depth look at global issues and sustainability while working with middle and high school teachers from around the country.

<http://www.eejust.org/educators/connected.html>

International Conference on School and Popular Meteorological and Oceanographic Education (EWOC 2006)

The 7th International Conference on School and Popular Meteorological and Oceanographic Education will be held July 3-7, 2006 in Boulder, Colorado. The focus of this conference is on education and outreach initiatives pertaining to weather, ocean, and climate. Abstracts for workshops and demonstrations featuring hands-on activities for educators, students, and the public are of particular interest. The deadline for abstracts is February 15, 2006.

<http://www.ametsoc.org/meet/fainst/ewoc2006.html>

International Tropical Marine Ecosystems Management Symposium

The International Tropical Marine Ecosystems Management Symposium (ITMEMS 3), Global Problems, Local Solutions, will take place October 15-20, 2006 in Cozumel, Mexico. Proposed topics include strengthening local/community capacities to conserve coral reefs and related ecosystems, including education outreach and training; emergency response; fisheries and aquaculture monitoring, evaluation, and learning; sustainable financing, and much more. ITMEMS is not an academic/scientific meeting, but an opportunity for people involved in the management of coral reefs and related

ecosystems to exchange knowledge and experiences. The deadline for abstract submission is May 31, 2006.

<http://www.icriforum.org/itmems3/itmems.html>

Managing Visitor Use in Coastal and Marine Protected Areas - Delaware

This free workshop, January 12-13, 2006 in Dover, Delaware, provides an overview of the human dimensions of protected area management; offers examples of visitor use and associated impacts to natural resources and visitor experiences; and demonstrates applications to help managers address the people side of resource management. In addition to training sessions, local and regional guest speakers will share case studies. Hurry - registrater by January 6, 2006.

Contact Katy O'Connell at Katy.OConnell@state.de.us or (302) 739-3436 ext. 20

National Conference and Expo on Coastal and Estuarine Habitat Restoration

Restore America's Estuaries announces the 3rd National Conference on Coastal and Estuarine Habitat Restoration, *Forging the National Imperative*, December 9-13, 2006 in New Orleans, Louisiana. The deadline for submission of presentation proposals is March 31, 2006, and for posters is April 30, 2006.

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

Onshore/Offshore Workshop - Washington

The Port Townsend Marine Science Center offers *Onshore/Offshore, Workshop on Marine Ecology and Conservation for Teachers*, a week-long course, June 24-29, 2006, on the Olympic Peninsula, Washington. Learning takes place on the beach, in the lab, and while sailing on board the Adventuress Schooner. Teachers take home standards-based activities for K-12 classrooms on marine biology, physical oceanography, basic navigation, tide and currents, marine mammals, and sand studies. Credits are available through City University.

http://www.ptmsc.org/programs/onshore_offshore.htm

Rookie Science Weekend Workshops - Delaware

The University of Delaware, College of Marine Studies and the Delaware Teachers of Science will once again be sponsoring two workshops for rookie science teachers, January 27-29, 2006 in Lewes, Delaware. These secondary and elementary workshops are for any teacher who has taught science in Delaware for five years or less.

Participants will leave this workshop with successful activities that they can use in their classrooms. The deadline for registration is January 11, 2006.

<http://www.ocean.udel.edu/public/teachercourses.html>

EDUCATIONAL RESOURCES

BiosciEdNet

BiosciEdNet, the BEN Collaborative, is spearheaded by the American Association for the Advancement of Science and is composed of professional societies and coalitions for biology education. BEN Collaborative is the Biological Sciences Pathway for the National Science Digital Library (NSDL), a program of the National Science Foundation. The BEN portal provides searchable access to the digital library collections of its partners to provide users with accurate and reliable biology education resources. Subjects include marine biology, oceanography, and more. Note that simple registration

is required; your email confirmation will include all the registration information including the password.

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

Bioscience Lesson Directory

ActionBioscience.org provides original peer-edited lessons, written by science educators, to specifically accompany peer-reviewed articles on the ActionBioscience website. Each lesson contains questions related to the article, as well as a variety of student activities that promote active learning and inquiry into current issues in the biosciences. Topics include biodiversity, alien species, ecosystem value, water issues, and more.

<http://www.actionbioscience.org/lessondirectory.html>

Burning Issues

Burning Issues in Wildhorse Basin is an online interactive wildland fire education curriculum for grades 5-9 addressing fire and ecosystems in the west. Created by the Wyoming Bureau of Land Management and Florida State University, this website deals with issues not specific to fire management along the coasts, but includes much pertinent information and easy-loading graphics to teach about the critical role fire plays in ecosystem management. The website includes activities, an educator's guide, vocabulary, and more.

<http://www.blm.gov/education/whb/#ln>

California Regional Environmental Education Community

Find out the latest environmental education news and resources in California with the CREEC (California Regional Environmental Education Community) Networks' electronic newsletters, tailored to the different regions of California. Topics covered include community events, educational resources, training and professional development opportunities, grants/contests and more. Newsletters and frequency of distribution varies according to region. Sign up from the map on the website. Also, visit the website to access the free resource directory to find out about the other resources provided by local, state and federal agencies.

<http://www.creec.org>

Caribbean Coral Videos in Spanish

The NOAA Central Library includes downloadable videos and documents. Three videos from the National Marine Fisheries Service, Office of Habitat Conservation, Caribbean Field Office, have been added to its catalog. They are: (1) Explorando los ecosistemas marinos de Puerto Rico (Exploring the marine ecosystems of Puerto Rico), a 17-minute tour of Puerto Rico's coastal and marine ecosystems; (2) Los corales y tu comunidad (Corals and your community), a 20-minute video that provides examples of how human actions damage coral reefs and associated systems; and (3) Programa de arrecifes de coral (Coral Reef Initiative Program), an 18-minute promotional video that describes the goals and interests of the Program. Access the videos by visiting the library website, clicking on NOAA Library Catalog (NOAALINC), and using the keyword search box.

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

Center for Remote Sensing of Ice Sheets

The Center for Remote Sensing of Ice Sheets (CReSIS) focuses on topics related to global climate change and remote sensing. Established by the National Science Foundation, the center combines the expertise of researchers from universities and

businesses in order to study and conduct research that will result in the technology necessary to achieve a better understanding of the mass balance of the polar ice sheets and its contribution to global climate change. The website includes a section on K-12 education with links to background information, lesson plans and activities, and images.

<http://www.cresis.ku.edu/EducationIndex.htm>

Earth and Sky Radio

Earth and Sky radio series offers short daily radio programs about science and nature, available on most National Public Radio (NPR) stations and the Armed Forces radio network. You can also listen to the logged broadcasts on the website. Recent segments focused on coral reefs and climate change.

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

EPA Office of Solid Waste Educational Resources

This site provides materials for teachers, students, and researchers to develop an increased knowledge of solid waste issues. These resources are intended to increase environmental awareness and inspire participation in environmental activities. The site includes activities and project ideas to learn more about waste reduction, reuse, and recycling. Information sources, tools, and data enable student researchers to collect environmental information for use in projects and reports. Curriculum, activities, games, student award and grant information, and career information are also provided.

<http://www.epa.gov/epaoswer/education/index.htm>

FEMA for Kids Website

For younger kids, check out this website for games, challenges, quizzes, and information on dealing with disasters. It also has resources for parents and teachers.

www.fema.gov/kids

GalAPAGoS: Where Ridge Meets Hotspot

The *GalAPAGoS: Where Ridge Meets Hotspot 2005 Expedition*, from December 3 through January 10, 2006 sponsored by NOAA's Office of Ocean Exploration, offers education opportunities for teachers, students, and the general public to virtually join a team of scientist, explorers, and educators as ocean explorers investigate a 400 km-long section of the Galapagos Spreading Center which is part of the global mid-ocean ridge system. The GalAPAGoS (Galapagos Acoustical, Plumes, and Geobiological Surveys) expedition will operate aboard the Research Vessel *Thomas G. Thompson*. The portion of the Galapagos Spreading Center where the surveys will take place is completely unexplored for hydrothermal vents and other fine-scale seafloor features. Everything mapped and imaged on this expedition will therefore be a new discovery. Using towed near-bottom sonars, hydrothermal plume sensors, and cameras, expedition explorers will seek to uncover hydrothermal, geological and biological responses to magma supply and crustal thickness along the survey region. Web coverage includes content essays and lesson plans written especially for this exploration, logs written by scientists and educators at sea to capture daily activities and discoveries, and an "Ask an Explorer" feature.

<http://oceanexplorer.noaa.gov/explorations/05galapagos/welcome.html>

Geographic Names Information System

The Geographic Names Information System, developed by the USGS in cooperation with the U.S. Board on Geographic Names, contains information for almost 2 million physical and cultural geographic features in the United States, its territories, and the

Antarctica. The federally recognized name of each feature described in the data base is identified, and references are made to a feature's location by state, county, and geographic coordinates. Check out place names featuring marine-related words, such as fish, coral, seaweed, squid, and more.

<http://geonames.usgs.gov/>

K-12 Teaching Resources from Delaware Sea Grant

The University of Delaware, Graduate College of Marine Studies and the Sea Grant College Program offer a variety of free or low-cost resources to K–12 teachers seeking marine science information and curriculum materials. Check out the Neat Stuff with the Interactive Habitat, quick-loading on-line videos and presentations, and the Catch of the Day.

<http://www.ocean.udel.edu/public/teacher.html>

Kids as Planners: A Guide to Strengthening Students, Schools and Communities through Service-Learning

The *Kids As Planners: A Guide To Strengthening Students, Schools And Communities Through Service-Learning* book provides teachers, school administrators, students and community partners with a process for designing, implementing and evaluating a service-learning project. It demonstrates how service-learning can effectively meet many educational reform objectives: standards-based learning, character education and school-to-career initiatives. The book includes reproducible examples, tools and strategies.

http://www.kidsconsortium.org/books_newsletters.html

McDonald and Woodward Publishing

McDonald and Woodward Publishing offers a variety of natural history books of interest, including an award-winning environmental education title, *Let the River Run Silver Again!* Other topics include water quality, watershed management, and wetlands publications. Resource management/protection titles, technical publications, and field guides from other publishers are also available.

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

Monterey Bay Aquarium Learning Center

The Monterey Bay Aquarium website hosts a number of educational materials for both students and teachers. The Kid's Corner has numerous on-line activities and games, including art projects, puzzles, music, and much more; a career corner; live web cams, and more. The Teacher's Place offers standards-based teaching units, a Sea Searchers Handbook, and a quarterly newsletter. There's also an animal field guide and an on-line dictionary.

<http://www.mbayaq.org/lc/>

NCCOS Publications Database

NOAA's National Centers for Coastal Ocean Science (NCCOS) conducts and supports research, monitoring, assessments, and technical assistance to meet NOAA's coastal stewardship and management responsibilities. NCCOS focuses its research on four ecosystems (coral reefs; estuaries; National Marine Sanctuaries; and coastal ocean regions) and its activities focus on five key ecosystem stressors (climate change, extreme natural events, pollution, invasive species; and land and resource use). It offers an on-line publications database with many down-loadable reports. Check out the

Popular Requests section, browse through over 1800 references, or use the search function.

<http://www8.nos.noaa.gov/nccos/publications.aspx>

Northeasters

Coastal Currents, a new publication series produced by the University of Delaware Sea Grant College Program in partnership with the Center for Applied Coastal Research, is designed to share timely information about coastal hazards and the natural processes that occur along Delaware's shoreline. The first publication focuses on northeasters and includes information on historic northeasters in Delaware, provides a web-based calculator for determining a northeaster's damage, and highlights storm preparedness tips.

<http://www.ocean.udel.edu/seagrant/publications/images/coastalcurrents.pdf>

NowCoast Website Updated

NOAA has released an updated version of nowCOAST, the web-mapping portal that provides links to real-time coastal observations and NOAA forecasts of interest to the maritime community. The new version provides map displays of recent GOES weather satellite imagery, surface in-situ meteorological data, and sea surface temperature observations. Data and imagery are updated hourly, and National Weather Service Doppler weather radar is updated every 15 minutes.

<http://nowcoast.noaa.gov/>

Ocean Etiquette and Responsible Marine Wildlife Viewing

Recognizing the importance of outreach partnerships, NOAA Fisheries and NOAA's National Marine Sanctuary Program have developed the Ocean Etiquette program to more effectively promote ocean stewardship. Anyone who visits, works, or plays in the marine environment and those who visit remotely (i.e. the Internet and aquariums) have an opportunity to make a difference in protecting the ocean. Ocean Etiquette is designed to provide the public with guidance on minimizing impacts to marine life and habitats. By making these direct connections between human behavior and environmental protection, the Ocean Etiquette program empowers visitors with specific knowledge of how to protect marine wildlife and habitats. The program champions policy and partnership development, as well as education and outreach initiatives

<http://www.nmfs.noaa.gov/pr/education/viewing.htm>

<http://www.sanctuaries.noaa.gov/protect/oceanetiquette.html>

Planet Earth

Annenberg Media offers this video instructional series for college and high school classrooms and adult learners. It teaches earth science, geology, oceanography, climatology, and astronomy through footage and insights from noted scientists. *The Blue Planet* will air January 11 and May 17, 2006; the *Climate Puzzle* airs January 18 and May 24, 2006. The online Simulcast can be viewed at

<http://www.learner.org/channel/broadband/video.html>.

<http://www.learner.org/channel/series49.html>

REEF Fish Survey Project Tutorial

The Reef Environmental Education Foundation (REEF) now offers an online resource in English or Spanish for those who would like to conduct or teach REEF Fish ID and surveys. The REEF Tutorial emphasizes carrying out the survey, including the paperwork.

http://www.reef.org/education/REEF_tutorial_eng
http://www.reef.org/education/REEF_tutorial_esp

Resources for Scientists in Partnership with Education

Resources for Scientists in Partnership with Education (ReSciPE) is a project of the Cooperative Institute for Research in Environmental Sciences (CIRES) with funding from the National Science Foundation. ReSciPE is designed to assist scientists who are engaged with K-12 education. The program offers professional development workshops, development and sharing of resources, and a research study.

<http://cires.colorado.edu/education/k12/rescipe/>

Shortcuts Comics

Shortcuts comic pages come out in many newspapers across the country each weekend. Each comic features well-researched information delivered in a kid-friendly style. Older issues are available as posters for sale and include topics of interest such as fish, clouds, and more; some include a short teacher guide. The November 7, 2005 issue was about Humpback Whales and was created with assistance from the Hawaiian Island Humpback Whales National Marine Sanctuary. While the poster is not yet available, the guide can be down-loaded from the Shortcuts website, and a .jpg of the poster is available by contacting Kelly Drinnen at kelly.drinnen@noaa.gov. Watch for upcoming topics of interest, including Earth Day, coral, and shipwrecks.

<http://www.comics.com/shortcuts/>

Teaching Green: The Middle Years and The Elementary Years

Teaching Green: The Middle Years, Hands-on Learning in Grades 6-8 and the separate *Teaching Green: The Elementary Years, Hands-on Learning in Grades K-5* contain best teaching strategies and activities contributed to *Green Teacher* magazine during the past decade, updated and revised for these anthologies. They are designed to serve as a complete “green” teaching resource for those working with school-aged youth, inside or outside of schools. Readers will find kid-tested ideas covering a wide spectrum of environmental topics.

www.greenteacher.com

Wave that Shook the World

This website from PBS is based on the NOVA TV program which originally aired on March 29, 2005 and tells the story of the 2004 tsunami, featuring video footage and scientific analysis of the onrushing waves that spread for 3,000 miles around the Indian Ocean basin. The website offers interactive features, questions and answers, a downloadable teacher’s guide, and more.

www.pbs.org/wgbh/nova/tsunami/

World Ocean Observatory

The World Ocean Observatory is dedicated to information, education and public discourse about the ocean defined as an integrated global social system. The intent is to communicate the full spectrum of ocean issues — climate, fresh water, food, energy, trade, transportation, public health, finance, governance, recreation and culture. The website contains links to ocean science, human uses, maps, databases, and more. The education section links to online curriculum and resources.

<http://thew2o.net/>

INITIATIVES and MISCELLANEOUS

Environmental Film Festival - California

The 2006 Wild and Scenic Environmental Film Festival, *Lights! Cameras! Environmental Action!*, January 13-16, 2006 in Nevada City, California, will feature an array of award-winning films and discussions about restoration projects, climate change, and ocean protection issues.

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

Guide to Responsible Travel Options in the Americas

The Rainforest Alliance and their partners have produced a user-friendly guide to help you select reputable hotels and tour operators practicing sustainable tourism principles. With winter coming and points south on the map looking ever more enticing, the tourist season is heating up, and while the idea of ecotourism frequently appeals, information can be hard to find. The Sustainable Tourism Certification Network of the Americas offers *Certified Tourism Products in the Americas* with descriptions of 138 hotels, restaurants and other types of tourism businesses in Guatemala, Costa Rica, Ecuador and the Caribbean.

http://www.rainforest-alliance.org/news/2005/travel_guide.html

National EE Week

The National Environmental Education & Training Foundation (NEETF) will coordinate the second annual National EE Week, April 16 to 22, 2006. Participating schools, environmental education organizations, education associations, nature centers, zoos, museums, aquariums and state and federal agencies can use National EE Week to prepare for Earth Day and involve thousands of educators and millions of students.

<http://www.eeweek.org>

NSTA Press Manuscript Central

NSTA Press welcomes proposals for new books of significant relevance and value to teachers of science grades K-college, and authors may now submit proposals of their work for consideration online at a new NSTA Press Manuscript Central site. NSTA Press publishes science content updates; books on best teaching practices; books that explicate and link to the National Science Education Standards; applications of the latest findings from science education research; and classroom activity books.

<http://mc.manuscriptcentral.com/nstapress>

WeatherFest

WeatherFest, January 29, 2006 in Atlanta, Georgia, is an interactive science and weather fair designed to promote the field of meteorology, oceanography, and related sciences to Atlanta and surrounding area families, students and teachers. WeatherFest will feature more than 50 science exhibits including hands-on experiments, educational information, career guides, and more. WeatherFest is part of the American Meteorological Society's 86th Annual Meeting.

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