



**NATIONAL MARINE PROTECTED AREAS CENTER
INFORMATION EXCHANGE FOR MARINE EDUCATORS**

FEBRUARY 2005

This update is provided as a service by the National Marine Protected Areas Center to share information pertinent to the marine educator community. It is intended to encourage exchange of information and programs. We hope that it will also promote collaboration among the different educators addressing similar issues in their programs. Please share this email with your colleagues and constituents. If you request materials or respond to a request for information, please mention that you learned about it in the MPA Information Exchange.

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

To subscribe to this distribution list, send a blank message to requests@willamette.nos.noaa.gov with "subscribe infoexchange" in the subject field. Similarly, to remove yourself from the list, send the subject "unsubscribe infoexchange".

Collected archives of the information presented in past newsletters are available at http://www.mpa.gov/information_tools/education.html#InfoExchange. Contact the MPA Center's education coordinator directly at phyllis.dermer@noaa.gov, or by phone at (865) 932-5074, to discuss further enhancements or to contribute information for future issues.

Notable MPA Literature

Spanish issue of *Current: the Journal of Marine Education* focused on Marine Protected Areas

The National Marine Protected Areas Center sponsored the Spanish translation of the July/August 2004 edition of the National Marine Educators Association's quarterly journal, *Current: the Journal of Marine Education*. The issue focuses on marine protected areas (MPAs) and explores challenges facing MPA managers committed to wise public resource use and conservation, education about our nation's coastal and marine environment, and the public's interest in both enjoying these resources and preserving them for future generations. Over the coming year, the MPA Center will develop other activities to supplement the articles, and will post those activities on the www.MPA.gov website.

Contact Phyllis Dermer at phyllis.dermer@noaa.gov, or (865) 932-5074

Main MPA Library URL:

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

PROGRAM OF THE MONTH

Classroom Exploration of Oceans 2005

Three online virtual teacher workshops focus on efforts currently underway to protect and conserve special places in the ocean and explore still unknown areas of the deep ocean. They will focus on new discoveries being made in ocean exploration, delve into historic and physical events newly found or still hidden in the ocean depths, and discuss what we still need to know for effective marine conservation and management. Resources include access to research findings, lesson plans, links to news stories, video clips, and more. The workshops will motivate and inspire educators to teach about the ocean and ocean exploration and raise the level of ocean awareness among the education community, and ultimately increase students' knowledge and understanding of oceans. All participants will receive educational resources and other lesson plans produced by NOAA's Office of Ocean Exploration.

Oceans for Life: January 24 - February 6, 2005

The conference was introduced with a discussion about "Oceans for Life." Learn about the Polynesian story and how the oceans have shaped the Pan Pacific from early migration to new exploration. Other keynote presentations include a discussion about ocean management of the Northwestern Hawaiian Islands and Hawaii's deep-sea precious corals.

Mysteries and Sirens of the Deep: April 4 - 17, 2005

"Mysteries and Sirens of the Deep – Shipwrecks and Underwater Sound, What Can They Teach Us?"

Extreme Environments: October 10 - 23, 2005

"Extreme Environments, Underwater Observatories and Technology -- An Avalanche of New Resources for the Classroom"

<http://www.coexploration.org/ceo/>

WEBSITE OF THE MONTH

National Marine Sanctuaries Education Website

NOAA's National Marine Sanctuary Program's education mission is to enhance public awareness, understanding, and appreciation of the marine environment. National marine sanctuaries embrace part of our collective riches as a nation. Within their protected waters, giant humpback whales breed and calve their young, coral colonies flourish, and shipwrecks tell stories of our maritime history. Sanctuary habitats include rocky reefs, kelp forests, whale migration corridors, deep-sea canyons, and underwater archaeological sites. From this education website you can take a sanctuary tour by watching underwater video clips and exploring photographic image galleries.

The National Marine Sanctuary Program aims to provide teachers with resources and training to support ocean literacy in America's classrooms. Educators will find curriculum, lesson plans, and activities that will excite their students about science and technology.

A few examples of the hands-on programs offered include an environmental monitoring program designed for students called LIMPETS; National Marine Sanctuary field studies for teachers and students in partnership with the National Geographic Society; and the Dive into Education Marine Science Program.

National marine sanctuaries are living classrooms that can be explored in person or through interactive digital labs and activities. In the student section, you will find games, online story books, information on marine careers, activities, free materials and other cool stuff. Pilot the DeepWorker submersible in Monterey Bay's virtual kelp forest or learn about a year in the life of a Northern Elephant seal. In the "For Fun" section, school children can dive into word puzzles, online coloring books and digital labs.

Discover the wonders of a kelp forest, coral reef, or ships from a bygone era. Each sanctuary has many unique volunteer opportunities that allow you to get up close and personal with the wonders of America's ocean and Great Lakes treasures.

<http://sanctuaries.noaa.gov/education>

REQUESTS

Seeking Interpretive Materials in Arabic

Lynne Murdock is interested in obtaining samples, examples, or references of interpretive messages that have been developed in Arabic by public agency land managers, zoo, aquarium or nature center staff.

Contact lynne_murdock@nps.gov

Seeking Sample Teacher Workshop Agendas and Marketing Materials

Georgia Jeppesen would like to include examples of materials used for actual teacher workshops with the materials distributed at the *Developing Teacher Training* course from the National Conservation Training Center. She would like examples of agendas that have been used for teacher workshops or institutes, and also samples of any marketing (public service announcements, newspaper ads, postcards, etc.) used for workshops or other events that target classroom teachers.

Contact Georgia Jeppesen at Georgia_Jeppesen@fws.gov

GRANTS AND OPPORTUNITIES

Canon Envirothon

This annual competition is open to high school students throughout North America. Designed to teach kids about environmental education, the best teams from 47 states and Canadian provinces compete at a summer play-off on a selected topic. The 2005 Envirothon topic is "Managing Cultural Landscapes." The competition will be held July 18-24, 2005 in Springfield, Missouri.

<http://www.envirothon.org/competition/Canon2005/index.htm>

Citizen Science Writing Competition from SustainUS

Citizen Science, the science and technology program of SustainUS, announces the Citizen Scientist Science Writing Competition for young people (ages 13-26) in the United States. The best scientific papers written for a general audience on any topic relating to the economic, social, or environmental dimensions of sustainable development will be published in the *Citizen Science* online journal. Authors will have an

exclusive opportunity to present their respective ideas at the United Nations. Deadline for submission is February 25, 2005.

<http://www.sustainus.org/mambo/cs/csapplication.pdf>

Dolores Fisher Award

The Education Department of the Mel Fisher Maritime Heritage Society announces an award open to women, age 35 or younger, in honor of Dolores Fisher and her extraordinary achievements and strong interests in the oceans. Selection will be based on the criteria of character and potential. The application deadline is March 15, 2005. For more information, check out www.melfisher.org/deoaward.htm .

Earthbound3 Challenge

As part of Earthbound3, Earthwatch is holding a contest open to elementary, middle and high school teams of teachers and students. Teams are challenged to design and implement a local action plan that will foster a sustainable environment in their community. Preliminary project ideas are due by February 29, 2005, and the project deadline is May 15, 2005.

http://earthbound3.earthwatch.org/about_contest.html

Geographic Learning for Sustainable Development

The My Community, Our Earth Project: Geographic Learning for Sustainable Development (MyCOE) project is a partnership for youth to use geographic analysis tools to address community changes and sustainability. By participating in MyCOE, students create projects using geographical tools and methods to document community changes and illustrate how citizens in their neighborhoods, villages, cities, and countries can improve quality of life and conserve natural resources. A student contest encourages youth to create sustainable development solutions where they live, using the tools and concepts of geography. Youth from middle school, secondary school, or university levels are invited to work as individuals or teams. The deadline for submission is March 1, 2005.

<http://www.geography.org/sustainable/>

Graduate Assistantships – American University

The Department of Biology at American University announces several graduate assistantships available for students interested in pursuing a master's degree in Biology. Faculty interest and current research in the department includes several marine studies.

http://www.american.edu/cas/bio/welcome_bio.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 waterfowl, wetlands, and more. These drawings can be entered into the annual Junior Duck Stamp art competition prior to March 15, 2005. 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.

<http://duckstamps.fws.gov/junior/junior.htm>

Melinda Gray Ardia Environmental Foundation Grants

K-12 teachers worldwide are invited to apply for grants to develop or implement environmental curricula that integrate hands-on ecology exercises into the classroom.

Curricula that encourage the integration of multiple disciplines and which include cooperative work with multiple school districts will be given special consideration. The application deadline is April 9, 2005.

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

Nancy Foster Scholarship Program

NOAA's Dr. Nancy Foster Scholarship Program recognizes outstanding scholarship and encourages independent graduate level research, particularly by female and minority students, in oceanography, marine biology and maritime archaeology. The 2005-2006 application process begins February 11 and ends April 15, 2005.

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

Presidential Awards for Excellence in Mathematics and Science Teaching

The National Science Foundation awards outstanding K-12 math or science teachers through the Presidential Awards for Excellence in Mathematics and Science Teaching. Every year up to 108 national awardees are honored. Anyone can nominate a K-6 teacher. Submission deadline is May 2, 2005.

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

Ramsar Small Grants Fund

The Ramsar Small Grants Fund for Wetland Conservation and Wise Use assists developing countries and those with economies in transition in implementing the Convention and enabling the conservation and wise use of wetland resources. Suitable project proposals are those which contribute to the implementation of the Convention's Strategic Plan 2003-2008 for the conservation and wise use of wetlands; provide emergency assistance for Ramsar sites; or provide preparatory assistance to allow non-Contracting Parties to progress toward accession. The application deadline is June 30, 2005.

http://ramsar.org/key_sgf_index.htm

River of Words Poetry and Art Contest

River of Words conducts an international poetry and art contest for youth on the theme of watersheds each year. The contest is designed to help youth explore the natural and cultural history of the place they live, and to express, through poetry and art, what they discover. Prizes are awarded in art and poetry categories, according to age group. Submission deadline is February 15, 2005.

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

Vinny Awards

Combine skills in research and writing with teamwork and creativity to win prizes and recognition. Named after Leonardo da Vinci, The Vinny® Awards is a contest to produce a one minute video that explains how Science, Technology, Engineering and/or Mathematics (STEM) can be used to help solve a global problem. Teams of students work with a teacher and a mentor to research a global problem and ways that STEM is or can be used to help solve the problem.

<http://vinny.pcs.cnu.edu/>

INTERNSHIPS AND TEMPORARY OPPORTUNITIES

Marine Education and Research Internships – New Hampshire

The Blue Ocean Society for Marine Conservation is looking for enthusiastic, motivated people to join us as unpaid interns for 10-12 week sessions throughout the year. They are a non-profit organization that promotes awareness and conservation of the marine environment through research, education and conservation. Their research is conducted from whale watch boats which run from May through October.

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

North Carolina Aquarium Internships - North Carolina

The North Carolina Aquarium at Roanoke Island has internships available in the husbandry and education departments for summer 2005. They also have seasonal positions within the education department. For details, call 252 473-3494.

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

REEF Marine Conservation Internships - Florida

The deadline for summer 2005 marine conservation internships with the Reef Environmental Education Foundation (REEF) is March 4, 2005. The internships are available for college-age individuals (juniors, seniors, and graduate students). The internships will be based out of REEF Headquarters in Key Largo, Florida; a small stipend and housing are provided. The REEF Marine Conservation Internship Program accepts applicants three times a year, for spring, summer and fall appointments.

<http://www.reef.org/intern>

Seasonal Interpretive Positions - Oregon

The Bureau of Land Management at Yaquina Head Outstanding Natural Area in Newport, Oregon is currently developing a new interpretive program for the summer of 2005. They are recruiting to fill new seasonal interpretive positions. The positions include park rangers, visitor use assistants, and resource education interns.

<http://www5.or.blm.gov/salem/yaquina/voluntr.htm>

Summer Opportunity for High School Students

The Hutton Junior Fisheries Biology Program, sponsored by the American Fisheries Society, is a summer mentoring program designed to stimulate interest in careers in fisheries science and management among groups underrepresented in the fisheries professions. Students (Grades 10-12) work alongside their mentor who is a fisheries professional in their local community. The application deadline is February 15, 2005.

<http://www.fisheries.org/html/hutton.shtml>

Turtle Monitoring and Education Volunteer Opportunities - Grenada

Ocean Spirits, a non-profit environmental organization based in Grenada, is seeking volunteers for the 2005 sea turtle nesting season. Potential candidates can apply for either 3 or 6 week placements. There are two programs: Leatherback tagging and monitoring, and education and community.

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

CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT

American Association for the Advancement of Science Annual Meeting

The annual meeting of the American Association for the Advancement of Science, February 17-21, 2005, in Washington, DC, brings together the breadth of science, engineering and technology from the world's premier researchers. In this interdisciplinary event, learn of the newest results in genome sciences or nanotechnology in the morning, tour the depths of the world's oceans in the afternoon, and hear from prominent leaders of national and international science in the evening. Education and outreach will be featured throughout the meeting.

http://www.aaas.org/meetings/Annual_Meeting/02_PE/PE.shtml

American Fisheries Society and Symposium

The 135th American Fisheries Society's annual meeting will be held September 11-15, 2005 in Anchorage, Alaska. The theme is *Creating a Fisheries Mosaic: Connections Across Jurisdictions, Disciplines, and Cultures*. Posters are solicited for a symposium entitled "Partnerships for a Common Purpose: Cooperative Fisheries Research and Management." The deadline for submitting poster abstracts is March 4, 2005. The symposium is sponsored by NOAA's National Sea Grant Office, National Marine Fisheries Service, and others.

<http://www.wdafs.org/Anchorage2005/index.htm>

http://www.fisheries.org/apa_symposium05/

Association of Partners for Public Lands Convention

The Association of Partners for Public Lands convention, *Portland Pathways*, March 6-10, 2005 in Portland, Oregon, provides opportunities to network with public lands agency representatives, nonprofit organization staff, board members and other volunteers who are engaged in efforts to connect people with our nation's parks, open spaces, forests, lakes, refuges, cultural, and historic sites. The sessions include volunteerism; marketing on a low budget; and outreach programming to diverse audiences.

http://www.appl.org/Training_Conventions/2005/2005%20Convention_Main.htm

Certified Interpretive Guide Training

The National Association for Interpretation offers a professional certification program to recognize individuals who exhibit knowledge and skills necessary to assure quality interpretive services to all audiences. The Certified Interpretive Guide (CIG) program is one level in that program. The Pacific Northwest region will host a 32-hour CIG workshop March 20-23, 2005 immediately preceding the region's spring workshop in Bellingham, Washington. Other certification programs and locations are posted on the website.

<http://www.interpnet.com/interpnet/miscpages/programs/main.htm>

Coastal Legacy Workshop for Teachers – North and South Carolina and Georgia

Coastal Legacy, a week-long professional development event, offered by the Center for Ocean Sciences Education Excellence Southeast, will assist you integrate Sea Island culture and heritage into your science and mathematics instruction. The workshop will be held July 25-30, 2005 on St. Helena Island, South Carolina. Teachers will explore South Carolina and Georgian coastal habitats, land use, geology, and geography of the Southeast region, in the context of the Gullah/Geechee culture. Teachers will receive

educational resources and lessons, access to scientists and community leaders, and opportunities to be regional leaders.

<http://www.scseagrant.org/se-cosee/education.htm>

Creative Conservation E-Learning

This company designs, develops, and teaches professional development e-Learning programs to meet the needs of your organization. Each design is a unique blend of current e-Learning technologies and proven methodologies with an emphasis on learning. Courses include Designing for Distance, Project WILD, and Project Learning Tree professional development workshops.

<http://www.creative-conservation.com/index.htm>

Dive into Education Workshop - Georgia

NOAA's National Marine Sanctuary Program invites educators throughout the southeast to participate in the Dive into Education workshop, May 13-14, 2005 on Tybee Island, Georgia. The workshop will feature programs specifically adapted to address science performance standards in ocean science and other disciplines. National level educators will bring their unique programs, materials and perspectives from their part of the country. The deadline for application is April 8, 2005.

<http://www.graysreef.nos.noaa.gov/education/workshop051305.html>

Down Under, Out Yonder Professional Development Workshop

Flower Garden Banks National Marine Sanctuary invites scuba-certified K-12 educators from around the country for a week-long underwater exploration workshop called Down Under, Out Yonder, June 25-29, 2005, in Galveston and Houston, Texas. Covering topics such as coral biology, reef fish identification, geology, sustainable fisheries and natural resource management, the workshop's goals are to inspire and motivate educators to include coral reefs and the resources of Flower Garden Banks National Marine Sanctuary in their lesson plans. The workshop includes 14 hours of classroom lectures followed by a three-day dive trip to Flower Garden Banks National Marine Sanctuary. Hurry – the deadline for application is February 18, 2005.

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

Environmental Film and Video Festival - Call For Submissions

The Toronto International Environmental Film and Video Festival has issued a call for submissions for *Planet in Focus: Toronto International Environmental Film and Video Festival*, September 28 - October 2, 2005. Toronto, Canada. Submissions of films and videos are invited that critically examine the concept of 'environment' and challenge current human/nature relations. The deadline for submission is May 2, 2005.

<http://www.planetinfocus.org/festival/submissions.shtml>

Freshwater Symposium and Call for Posters

The American Museum of Natural History will host the symposium, *New Currents in Conserving Freshwater Systems*, April 7 and 8, 2005 in New York City, New York, for scientists and conservation practitioners to highlight recent successful initiatives in freshwater conservation, discuss cutting-edge ideas and tools, and investigate how and where these innovations might be implemented on the ground. The symposium will showcase projects that are rooted in the best available science, integrate scientific fields, and link science with other disciplines. Topics include stakeholder education and engagement. The deadline for poster abstract submission is February 18, 2005.

<http://cbc.amnh.org/symposia/freshwater/>

Holbrook Global Field Expeditions

Lifelong learners may consider joining one of these international environmental workshops for teachers or field programs for students. In collaboration with state, national and international partnerships, these programs are designed to offer the opportunity to explore topics focused on environmental literacy. The field-based learning seminars travel to Hawaii, Galapagos Islands, and other locations. Graduate credits are available.

<http://www.holbrooktravel.com/pages/educationExpeditions/default.aspx>

International Conference on Education and Information Systems

The 3rd International Conference on Education and Information Systems: *Technologies and Applications, EISTA 2005*, will be held July 14-17, 2005 in Orlando, Florida. The conference will provide a forum for the presentation of both solutions and problems of the application of information communication technologies in education and training. Practitioners and consultants are invited to present case study papers and innovative solutions. Corporations are invited to present education and training information systems and software based solutions. Abstracts are due February 16, 2005, with a possibility of an extended deadline if needed.

<http://www.confinf.org/eista05/website/default.asp>

Master Tread Trainer Program

The nonprofit Tread Lightly! organization promotes responsible outdoor recreation through education and restoration. The Tread Trainer program is designed to train participants in innovative, practical methods of spreading outdoor ethics (specifically regarding motorized and mechanized recreation) to the public. The training is provided through a one-day course and will qualify the participant to become a Tread Lightly! representative – a "Master Tread Trainer." In addition to the training, participants receive a manual, guidebooks, public service announcements, and other materials. The 2005 training schedule posted on the website.

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

NAAEE Annual Conference – Call for Papers

The North American Association for Environmental Education's 34th annual conference will be held October 25-29, 2005 in Albuquerque, New Mexico. The conference theme is *Sustainability and EE: Focus on the Future*. The strands are environment, economy, society, global responsibility and perspectives, with a special focus on three audiences: Spanish-Language speakers, K-12 teachers, and environmental education research. Proposals are due March 22, 2005.

<http://naaee.org/conferences>

Ocean Symposium 2005

The Ocean Symposium, *Our Oceans, Our Future: Linking land, people, and seas*, will be held Tutuila Island, American Samoa, from May 24-26, 2005, culminating in an Ocean Fest on May 27, 2005 sponsored by Fagatele Bay National Marine Sanctuary. The symposium strives to increase environment stewardship among the community and to foster partnership between national, regional, local and federal government as well as between agencies and non-governmental organizations.

<http://www.amsamoa.com/ocean.htm>

Oceans 2005 Conference

The Marine Technology Society and the Institute of Electrical and Electronics Engineers Oceanic Engineering Society present the 2005 Oceans Conference, *One Ocean*, September 19-23, 2005, in Washington, DC. This international professional meeting and exposition is devoted to the full spectrum of ocean sciences, technology, policy, engineering, and education. While past conventions have focused on technology, this year the focus includes education, policy, and exploration. Abstracts are due February 15, 2005.

<http://www.oceans2005.org/>

Ocean Treasure: The Natural and Cultural Resources of the Stellwagen Bank National Marine Sanctuary – Massachusetts

The Stellwagen Bank National Marine Sanctuary and Cape Cod Museum of Natural History are sponsoring a 13-week lecture series and course entitled *Ocean Treasure: the Natural and Cultural Resources of the Stellwagen Bank National Marine Sanctuary*. Graduate credits are available. Participants may register for the entire course, audit the classes, or attend on a day-by-day basis. Each session, Tuesday nights from 6-9pm, February 1- May 9, 2005, will feature specialists who will introduce the resource and discuss cutting edge research in the field.

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

Project Design and Evaluation Workshop - Oregon

The Project Design and Evaluation course, February 15-17, 2005, in Hillsboro, Oregon, provides coastal resource managers and education professionals with the knowledge, skills, and tools to design and implement projects that have measurable impacts on the audience they want to reach. This interactive curriculum can help you increase the effectiveness of your projects by applying valid instructional design theory to their design. Please register by February 4, 2005.

Contact Patrick Willis at patw@ci.hillsboro.or.us or (503) 681 6206

Project Learning Tree E-Learning Workshop

This online workshop, February 21 - April 3, 2005, is designed for educators in grades preK-8. Educators from the following states are invited to participate in this workshop: Arkansas, Colorado, Florida, Idaho, Maine, Minnesota, Missouri, New York, North Dakota, Oklahoma, Oregon, Rhode Island, Vermont, and West Virginia. The course syllabus is available on the website. Registration deadline is February 11, 2005.

<http://www.creative-conservation.com/trainingopps.htm>

Research and Education: Volcanoes, Exploration and Life (REVEL) Project

The Research and Education: Volcanoes, Exploration and Life (REVEL) Project invites grade 5-12 science teachers to bring cutting-edge earth and ocean research into their classrooms. Through the program, teachers are immersed in the scientific process as they participate in and contribute to a deep-sea, seagoing research cruise in the northeast Pacific Ocean. Applications for the 2005 REVEL sea-going season are available on-line; they must be postmarked by March 31, 2005.

<http://www.ocean.washington.edu/outreach/revel/>

Sea Science Career Day - Florida

This career day will be hosted by Florida Sea Grant Extension and the Miami Museum of Science, February 26, 2005 in Miami, Florida. The Sea Science Career Day is for high

school students who are enrolled in the Upward Bound Program or in 9-12th Grades. There will be several speakers and it is open to the public. Contact Marella Crane at mjcrane@mail.ifas.ufl.edu

Teach at the Beach – New Jersey

The New Jersey Marine Educators Association announces the 2005 *Teach at the Beach*, May 13, 2005, in Sandy Hook, New Jersey. Register early; due to the increasing popularity of this workshop, the number of participants is limited to 110 and there will be no walk-in registration.

<http://hometown.aol.com/newjerseymea/index.html>

Tidal Wetlands Seminar - Virginia

The Center for Coastal Resources Management Wetlands Program will hold a Tidal Wetlands Seminar, March 9, 2005 at Gloucester Point, Virginia. The seminar will include a comprehensive review of tidal wetland community functions and values, the permit application review process, current scientific guidelines for evaluating impacts to tidal wetlands, and the Living Shorelines Stewardship Initiative. Registration deadline is March 2, 2005.

Contact Dawn Fleming at dawnf@vims.edu

Treasures of NOAA's Ark - Maryland

Discover the Treasures of NOAA's Ark at the First Annual NOAA Heritage Week, February 7-11, 2005, Silver Spring, Maryland. Conservators will be on hand to offer tips about caring for precious personal treasures and heirlooms, from old family photos to quilts, clothing, and other fabric items. Special presentations will include National Weather Service forecast office operations and the evolution of survey technology over time.

<http://preserveamerica.noaa.gov/heritageweek.html>

Urban Watershed Summit - California

Heal the Bay, in conjunction with the Los Angeles and San Gabriel Rivers Watershed Council and others, will host an Urban Watershed Summit February 12, 2005, in Compton, California. The day-long summit will bring attendees together to create new partnerships and launch coordinated efforts to clean, restore, and revitalize local urban watersheds. Attendees will learn how to develop successful partnerships and effective community outreach tools.

Contact Debbi Dodson at ddodson@san.rr.com

Web Content Design and Evaluation Workshop – Alabama

The Weeks Bay Reserve will host a NOAA Coastal Services Center workshop on web content design and evaluation, February 24, 2005, in Fairhope, Alabama. Creating a website is much more than just turning your brochures and white papers into web pages. This one-day course focuses on how to plan, organize, and evaluate your website to ensure you are meeting your communication objectives. Hurry - the registration deadline is February 4, 2005.

Contact Margaret H. Sedlecky at weeksbay@gulftel.com or 251 928-9792 or Tina Sanchez at 251 433-6541

Wildlife Recreation and Nature Tourism Certificate

The University of Wisconsin-River Falls, in partnership with Watchable Wildlife, Inc., has developed a new graduate-level certificate program to help conservationists, community

leaders, and recreation and hospitality providers build the skills necessary to effectively preserve the natural resources of and generate jobs and revenue for their communities. The course can be taken on campus or through distance learning via the Internet.

<http://www.uwrf.edu/oqs/wrnt/>

EDUCATIONAL RESOURCES

Biodiversity Education Network

The Biodiversity Education Network is a coalition of organizations dedicated to enhancing local, regional, and national efforts to educate people of all ages about biodiversity. It was created to promote networking among those organizations and individuals who are working in biodiversity education. The website provides a searchable database of biodiversity materials, a calendar of events, and an outline for developing an education program along with links to additional resources.

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

Bioscience Literacy

This educational resource of the American Institute of Biological Sciences is designed to promote bioscience literacy. It highlights articles in English and Spanish by scientists, science educators and science students on issues related to seven bioscience challenges, including the environment, biodiversity, and bioscience education. In addition, the website provides lessons and resources to enhance bioscience teaching.

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

Caribbean Volcano Forecast

The *Holocene Volcanic Activity in the Caribbean Plate Margins: Forecast and Risk Assessment* is available from R.B. Trombley, principal research volcanologist for the Southwest Volcano Research Centre in Apache Junction, Arizona. The website will be updated as appropriate. Additional Caribbean plate information is also posted.

<http://www.ig.utexas.edu/CaribPlate/forum/volcanoes/>

Catch the SEACOOS Wave!

Visit the Southeast Atlantic Coastal Ocean Observation System (SEACOOS) Virtual Waves Classroom and check out the new waves poster. Learn about the properties of waves through the glossary and other resources on this website. The website includes information about research, news, and a *Community and Classrooms* link to the waves classroom and teacher workshop information. The site provides access to real time wave data, lessons plans, and a four-color *Making Waves* poster with concepts such as "Anatomy of a Wave," "What Causes Ocean Waves?" and more.

www.seacoos.org

Environmental Film Festival - Washington DC

The 13th annual Environmental Film Festival in the nation's capital, March 10-20, 2005, in Washington, DC, will screen 90 documentary, feature, animated, archival, and children's films. Screenings are enhanced by discussion with scientists and filmmakers, and many are free. The complete film schedule will be posted on the website later this month.

<http://www.dcenvironmentalfilmfest.org/index.html>

GIS Faculty Development Institutes - California

The Marine Advanced Technology Education (MATE) Center announces two faculty development institutes for summer 2005:

- Creating a GIS Field Project to Address Marine and Coastal Issues, June 27-July 2, 2005, and
- Building Remotely Operated Vehicles (ROVs), July 30-August 5, 2005.

There is no fee for participating in the institutes. Some travel stipends, accommodations, and meals are available. In addition to classroom and hands-on time, participants will take field trips around the Monterey Bay area.

http://www.mpcfakulty.net/tami_lunsford/SI_05_Institute/Information.htm

Hitchhikers Guide to Exotic Species

The Massachusetts Institute of Technology Sea Grant Program has produced the Hitchhikers Guide to Exotic Species. The guide contains color photographs and information on several introduced species that can be found along the New England coast, as well as some native species for comparison purposes, and is printed on waterproof paper.

<http://massbay.mit.edu/>

Information and Communication Technology Literacy Map

The National Science Teachers Association and the Partnership for 21st Century Skills, a public-private organization focusing on skills necessary for student success in the 21st Century, have released a Science Information and Communication Technology (ICT) Literacy Map. The guide demonstrates how educators can develop science lessons that combine learning skills such as information and communication skills, with tools such as the Internet and multi-media production tools. It guides K-12 educators through a wide range of learning skill examples, and cites specific student outcomes demonstrating ICT Literacy success for grades 4, 8, and 12.

<http://www.21stcenturyskills.org/matrices/default.asp>

Learning Resources at the Royal BC Museum

The website of the Royal BC Museum, British Columbia, hosts a variety of information about topics drawn on the museum's research and public programming. On-line programs offer information about endangered species, whales, the giant Pacific octopus, and more. Included are activity sheets, lesson plans, and background information.

http://www.royalbcmuseum.bc.ca/programs/index_programs.html

National Atlas of the United States

The online National Atlas of the United States is designed to make it easy to find, get, and use geographic information about our nation. Natural phenomena and human activities, such as water quality, tropical cyclone data, toxics release inventory, and ecoregions, are just some of the data layers that you can select from. The maps can be displayed on-line or printed. An additional section hosts subject matter articles.

<http://www.nationalatlas.gov/>

NeMO – New Millennium Observatory

NeMO's been found! This New Millennium Observatory website allows students to explore a seafloor observatory geographically or by topic. Learn about seafloor animals, hydrothermal vents, mid-ocean ridges, axial volcano, lava flow, technology, and tools. Operate (remotely) a vehicle that takes you to the seafloor near an active submarine

volcano. Explore black smoker vents, new lava flows, and unusual life forms. The website includes background information, curriculum, and interactive virtual explorations.
<http://www.pmel.noaa.gov/vents/nemo/index.html>

New Zealand's National Institute of Water & Atmospheric Research

New Zealand's leading provider of atmospheric and aquatic science is committed to education in New Zealand at all levels. *Water & Atmosphere* is their flagship publication; it is distributed to schools and a wide range of other institutions. Specialist publications such as *Aquaculture Update* and *Biodiversity Update* are industry-focused with a strong educational message. The publications are also available online. Selected articles from *Water & Atmosphere* include a note to show how they relate to the New Zealand curriculum. The website includes a section on activities and classroom resources, common weather and hydrological terms, and stuff for students.
<http://www.niwa.co.nz/>

NowCOAST: Web Mapping Portal to Real-time Coastal Observations and NOAA Forecasts

NOAA's Coast Survey Development Laboratory has released an updated version of its Internet mapping portal, nowCOAST. The website allows one-stop access to real-time coastal observations and NOAA forecasts for any coastal region in the U.S. The new version features several enhancements including a new map viewer, a separate data browser window, an accompanying informational web page, and new links to additional observations and NOAA forecasts.
<http://nowcoast.noaa.gov>

PAST Foundation

The mission of the PAST Foundation, a nonprofit educational foundation, is to promote a better understanding of history and culture by teaming professional anthropologists and historians with the public to explore potential cultural sites both locally and globally. To promote the understanding of local history and culture, professional anthropologists and archaeologists are teamed with K-12 students to explore potential cultural sites in their area. After extensive supervised classroom training, students have the opportunity to go into the field to learn the techniques of modern archaeology and to discover firsthand what wonders lie beneath the soil and water of all nations. Planning is currently underway for the PAST Foundation's 2005 Field School. This practicum explores the wide array of public outreach possibilities for maritime collections and documents and interprets maritime sites for the public both in traditional venues and as underwater marine managed parks. Fieldwork sessions will alternate with distance education modules. The field season is expected to last for eight weeks, and extend from mid-June to mid-August.
<http://www.pastfoundation.org/>

Pito Deep Expedition

Teachers and students can explore the geological, geophysical and geochemical study of the upper ocean crust exposed at Pito Deep, west of Easter Island. From January 30 - March 8, 2005, scientists will be documenting the scientific expedition through "Dispatches from Sea" located on the Pit Deep Expedition website.
<http://www.nicholas.duke.edu/pitodeep/index.html>

Project AWARE Teachers Guide

The Project AWARE Foundation conserves underwater environments through education, advocacy and action. The Foundation funds projects that have a direct benefit to the aquatic environment such as public education, grassroots conservation and enhancement projects, volunteer-supported community activism, and more. The website highlights wreck awareness through Respect Our Wrecks, including on-line public service announcements, a downloadable Aware Kids teacher's guide, grants, and more.

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

Research and Monitoring in the National Estuarine Research Reserve System

Special Issue 45 of the *Journal of Coastal Research* is a volume dedicated to research and monitoring in the National Estuarine Research Reserve System (NERRS). It represents the outgrowth of many years of research and monitoring conducted at 26 NERRS sites around the country. The papers comprising this comprehensive publication consist of a wide array of studies conducted by individuals in academia, state and federal government agencies, and independent research institutions.

Contact Dr. Michael J. Kennish at kennish@imcs.rutgers.edu

Special Days for Environmental Education 2005 Planner

Each year there are special days set aside for environmental education. We all know Earth Day is in April, but when is America Recycles Day, Arbor Day, National Wildlife Week, and American Wetlands Month? This web page from EE in Georgia highlights special environmental days.

<http://eeingeorgia.org/net/content/item.aspx?s=16215>

Tsunami Curriculum

These websites are a small sampling of those that host background and curriculum about tsunamis.

Asia Society K-12 Teacher's Resource Site

<http://www.askasia.org/tsunami/>

Gross Point Public School System

<http://www.gpschools.org/ci/tsunami.htm>

National Science Teachers Association

http://science.nsta.org/nstaexpress/nstaexpress_2004_01_10_tsunami.htm

NOAA Intergovernmental Oceanographic Commission

http://www.prh.noaa.gov/itic/library/pubs/curriculum/tsunami_curriculum.html

U.S. Geological Survey, Coastal and Marine Geology Program

<http://temp.water.usgs.gov/tsunami/>

U.N. Atlas of the Oceans – Impact of Tsunamis on Ecosystems

<http://www.oceansatlas.org/id/71687>

INITIATIVES

Coral Reef Park Buddy Program - 2005

The Coral Reef Alliance (CORAL) invites you to participate in the Park Buddy Program to support coral reef conservation projects around the world. The Park Buddy Program aims to support coral park managers in their efforts to protect their biologically diverse and increasingly threatened reefs. The program, in its second year, offers ocean lovers the chance to directly support fundraising efforts for four urgent conservation projects. CORAL is launching its Park Buddy program as part of the annual Dive In To Earth Day event, held each year during the week of Earth Day, April 22nd.

<http://www.coralreefalliance.org/divein/parkbuddy/>

Dive In To Earth Day

Dive In To Earth Day offers you the opportunity to take a stand for the protection of coral reefs and your local marine environment, and raise global awareness about pressing conservation issues. Dive In To Earth Day is an international Earth Day celebration that brings together communities, park managers and dive shops around the world. In the past five years, Dive In organizers have held 1158 marine conservation events in 89 countries and territories around the world, removing trash, educating children and their communities, supporting coral reef protected areas, and much more. Roll up your sleeves and organize or participate in a Dive In activity; a reef or lake cleanup, an educational snorkeling trip, or a children's art contest. Register your event online at http://fmpro.coralreefalliance.org/divein/reg_1.htm. The first 300 organizers to register by April 1st will receive our package with posters and support materials (also now available in Spanish).

<http://www.coralreefalliance.org/divein/>

National Environmental Education Week

National Environmental Education Week, April 10 - 16, 2005, is a full week of educational preparation for Earth Day and will involve some 400,000 educators and 15 million students. Educators can participate by conducting environmental education programming during the week. Check out the "To-Do List" and "Tools and Links" sections on the site for suggested activities, ideas, and resources to involve, educate, and inspire.

<http://www.eeweek.org>

Teacher Loan Forgiveness - The Taxpayer-Teacher Protection Act

Teachers who teach math, science, or special education and who have taught for five years in a Title I school may be eligible for new loan forgiveness limits.

<http://www.ed.gov/teachers/how/tools/initiative/updates/2005/0124.html>