



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

**MARCH 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](mailto: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](http://www.mpa.gov/information_tools/education.html#InfoExchange). Contact the MPA Center's education coordinator directly at [phyllis.dermer@noaa.gov](mailto: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**

**Special Issue of *An International Forum for the Littoral Sciences* focused on Research in the National Estuarine Research Reserves**

The National Estuarine Research Reserves System supported a special issue of The Coastal Education and Research Foundation's *Journal of Coastal Research*. Special Issue 45 of the journal includes an array of studies conducted at many of the 26 national estuarine research reserve program sites. The articles include both system-wide investigations and site-specific case studies of research and monitoring initiatives. For more information, contact Michael Kennish at [kennish@imcs.rutgers.edu](mailto:kennish@imcs.rutgers.edu).

Michael J. Kennish (ed.). 2004. NERRS research and monitoring: a nationally integrated program. *Journal of Coastal Research, Special Issue No. 45*. West Palm Beach, FL.

Main MPA Library URL:

[http://www2.mpa.gov/mpa/mpaservices/virtual\\_library/virtual\\_library.lasso](http://www2.mpa.gov/mpa/mpaservices/virtual_library/virtual_library.lasso).

## **PROGRAM OF THE MONTH**

### **Zoos and Aquariums Dive Into Wonders of Water - National Awareness Campaign**

More than 140 million North Americans visited an accredited zoo or aquarium in 2004. American Zoo and Aquarium Association (AZA) members are providers of animal care, conservation, and public education about wildlife, providing the highest standard of animal care while offering enjoyable educational experiences for families. This year, AZA zoos and aquariums embark on a public education campaign to let the world know that everyone can make a real difference to help animals and our planet.

AZA zoos and aquariums across the country will launch "Wonders of Water," a theme that will extend through 2006. It focuses on water-themed educational messages and family fun. Engaging events and activities will help visitors understand how everyone can help keep our oceans and waterways safe for animals and all living things – including people.

Whether we live by the coast or in the middle of the country, we all depend on oceans. When people visit AZA accredited zoos and aquariums they will learn about this interconnection among the oceans, animals and people. They will also learn about conservation issues facing our waterways, and what AZA zoos and aquariums are doing to help. AZA zoos and aquariums take an active lead in water conservation, including current efforts by the National Aquarium in Baltimore to support sea grass recovery in the Chesapeake Bay, the Shedd Aquarium's conservation efforts with seahorses, Disney's sea turtle beach monitoring programs, and other local efforts of zoos and aquariums in your own backyards,.

*Wonders of Water* officially kicks off on April 1, 2005, at the Shedd Aquarium in Chicago with world-renowned animal conservationist Jack Hanna. In addition, AZA's spokesperson, Aza, will stop by zoos and aquariums to help kids learn more about how they can help animals and the ocean. During the kickoff, Aza will unveil AZA's Animal Wild Card. This Animal Wild Card highlights animals that live in or near the water, explains the threats they face, and the efforts that AZA zoos and aquariums are involved in to help conserve these creatures and their habitats

[www.azasweb.com](http://www.azasweb.com)

## **OPPORTUNITY OF THE MONTH**

### **NOAA at the National Science Teachers Association Conference**

Make sure you visit the NOAA exhibit booth at the National Science Teachers Association Conference in Dallas, Texas, March 31-April 3, 2005. NOAA will host a speakers corner and have a variety of educational kits available. This year's exhibit topic is tsunamis. NOAA has prepared a tsunami kit which contains educational information, inquiry-based lessons, and a poster, as well as a book written at the elementary level about how a Teacher at Sea helped launch a tsunami buoy. Other kits that will be available for teachers include Discovery Kits on Corals, Geodesy and Tides, and Water Levels. These contain lesson plans for high school students, a tutorial that introduces each subject, and a roadmap to resources that leads to on-line data offerings. The NOAA booth will have other information on weather, fish, and satellites, meteorologists from the Dallas area Weather Forecast Office, as well as a Speakers'

Corner, which will feature talks about how NOAA sciences can be translated into the classroom.

## **REQUESTS**

### **Seeking Reviewers for Conference Proposals**

The North American Association of Environmental Educators (NAAEE) is seeking reviewers of proposals for sessions at the 34th Annual Conference. Selected reviewers will evaluate proposals on-line from May 23 -April 6, 2005.

<http://naaee.org/conferences/call4reviewers.php>

## **GRANTS AND OPPORTUNITIES**

### **Alaska Conservation Awards**

The Alaska Conservation Foundation Annual Conservation Awards honor individuals with a strong commitment to protecting Alaska's environment. Self nominations are accepted. Nomination categories include environmental education, civil service, photography, outstanding high school senior, and more. The nomination deadline is March 15, 2005.

<http://akcf.org/awards.htm>

### **Captain Planet Foundation Grants**

The Captain Planet Foundation provides grants to school and community groups to support hands-on environmental projects. The objective of the Foundation is to encourage innovative programs that empower youth around the world to work individually and collectively to solve environmental problems in their neighborhoods and communities. Upcoming applications are due March 31, 2005.

[www.captainplanetfdn.org](http://www.captainplanetfdn.org)

### **Earthwatch Educator Fellowship Awards**

Education Awards 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. Special funding is available for New Jersey, Los Angeles, San Francisco, Washington DC, and private schools nationwide.

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

### **Gloria Barron Prize for Young Heroes**

The Gloria Barron Prize for Young Heroes seeks nominations for its 2005 awards. The Barron Prize recognizes young people ages 8 to 18 in the U.S. and Canada who have shown leadership and courage in public service to people and our planet. The deadline for nomination is April 30, 2005.

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

### **Landscapes for Learning Awards**

*Fine Gardening* magazine and the National Gardening Association announce the second annual *Landscapes for Learning Awards*. Schools or community organizations across the United States with established youth gardens who plan to garden with at least 15 children between the ages of 3 and 18 in 2005 are eligible to apply. Applicants should

demonstrate a child-centered plan that emphasizes youth learning and working in an outdoor garden. Areas considered include youth participation, process, and creativity. The application deadline is March 15, 2005.

<http://www.kidsgardening.com/grants/fg.asp>

### **Leopold Leadership Fellowships**

The Aldo Leopold Leadership Program announces the call for applications for the 2006 Leopold Leadership Fellowships. Mid-career academic environmental scientists from North America are invited to apply for the 2006 fellowships that provide scientific leadership, communications and outreach training. Up to 20 fellows annually participate in an intensive training program designed to build and enhance the skills of academic environmental scientists to communicate with policy makers, media representatives, businesses, non-profit organizations, and the general public. The program seeks candidates with terminal degrees from a broad range of disciplines. The application deadline is April 25, 2005.

[www.leopoldleadership.org](http://www.leopoldleadership.org)

### **Native Hawaiian Education Program Funds**

The purpose of the Native Hawaiian Education program is to support innovative projects that enhance the educational services provided to Native Hawaiian children and adults. The deadline for applications is April 14, 2005.

<http://www.ed.gov/legislation/FedRegister/announcements/2005-1/022805c.html>

### **Oyster Shell Recycling Logo Design Competition**

The University of Georgia Marine Extension Service is having a logo design competition for the GEORGIA (Generating Enhanced Oyster Reefs in Georgia's Inshore Areas) program. The goal of the program is to restore, preserve, and enhance Georgia oyster reefs through community efforts. The competition is open to all, and each competitor may submit up to three entries. Simple designs are preferred that clearly identify the program and can be easily reproduced on various promotional media. The deadline for submission is April 1, 2005.

<http://eeingeorgia.org/content/ee/docs/oyster.pdf>

### **Wetlands Recovery Small Grants Program - California**

The Southern California Wetlands Recovery Project's Request for Proposals for the 2005 Small Grant Program is now posted on the Recovery Project's website under "What's New." The program provides funding for community-based restoration projects in coastal wetlands and watersheds in the region. The purpose of the program is to further the goals of the Wetlands Recovery Program Regional Strategy, build local capacity to plan and implement wetland restoration projects, promote community involvement in wetlands restoration activities, and foster education about wetlands ecosystems. Proposals are due March 11, 2005.

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

## **INTERNSHIPS AND TEMPORARY OPPORTUNITIES**

### **Blue Iguana Recovery Program Internship – Grand Cayman**

This internship is an invitation to field-hardy volunteers, offering an opportunity to help save the most endangered iguana on earth. They are looking for volunteers for 2-3 weeks of intensive field work on Grand Cayman.

<http://www.blueiguana.ky/>

### **Coral Reef Conservation Summer Internship Award**

The 2nd Annual American Samoa Governor Tauese P.F. Sunia Memorial Coral Reef Conservation Summer Internship Award is given to two excellent students (associate's degree or college sophomore) from Guam, the Commonwealth of the Northern Mariana Islands, Hawai'i, American Samoa, Puerto Rico, or the U.S. Virgin Islands. The winners will receive a three-month, expenses-paid summer internship working on coral reef conservation and management issues, starting in June 2005. The deadline for application is April 7, 2005.

Contact Shane Guan at [Shane\\_Guan@fws.gov](mailto:Shane_Guan@fws.gov) or 703-358-2457

### **National Marine Sanctuaries Field Studies Program – Hawai'i**

NOAA partners with the National Geographic Society to introduce ocean literacy and highlight the importance of our oceans and watersheds through the National Marine Sanctuaries Field Studies Program. Underserved student/teacher teams from around the country are invited to explore pristine sanctuary habitats while also learning the power of photography. Discover the watersheds of the Hawaiian Islands Humpback Whale National Marine Sanctuary, August 4-9, 2005.

<http://www.sanctuaries.noaa.gov/education/teachers/features/oceanfield.html>

### **Roundhouse Marine Studies Lab and Aquarium Summer Internship - California**

The Roundhouse Marine Studies Lab and Aquarium is dedicated to studying and teaching about the local marine life in the Santa Monica Bay. Two college-age interns will be selected to work side by side with aquarium directors, staff, and volunteers in conducting summer camps, planning activities, maintaining aquarium tanks, and interacting with campers, parents, and the general public.

<http://www.volunteermatch.org/ops/opp201225.html>

### **Sea Camp - Texas**

Texas A&M University at Galveston offers Sea Camp, a summer camp for students interested in the ocean and marine life. The camp has different sessions between May 29-July 30, in Galveston, Texas, and is geared for youths ages 10-18. There are 15 different topics and activities including nautical archaeology and oceanography, marine mammal workshops, fishing, ecology, biology, and coastal photography.

[www.tamug.edu/seacamp](http://www.tamug.edu/seacamp)

## **CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT**

### **Chesapeake Bay Gateways Network Conference - Maryland**

The 2005 Gateways Network conference will be held April 4-6, 2005 in Solomons, Maryland. There will be more than 30 sessions on topics which include developing education programs, planning and delivering effective interpretation, and inspiring resource stewardship. There are also six full-day seminars to pursue an in-depth topic.

[http://www.baygateways.net/2005\\_conference.cfm](http://www.baygateways.net/2005_conference.cfm)

### **Children's Water Festival - Georgia**

Winning Water will be an interactive day of learning for selected 4th grade classes in the Coosa, Tallapoosa, and Tennessee River basins on March 8, 2005, in Dalton, Georgia.

The purpose of the festival is to educate students about watersheds and water quality in a fun hands-on atmosphere. It will serve as a model for future water festivals in Georgia's other river basins. On March 7-8, there will be a 2-day workshop designed for those who want to learn about hosting a children's water event in their community.

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

[http://www.groundwater.org/pe/festival\\_expedition.html](http://www.groundwater.org/pe/festival_expedition.html)

### **Coast Alive Workshop - California**

Learn how to explore the complex biological issues of southern California's marine environment, coastal wetlands, and related watersheds through this Coast Alive! Workshop, April 8-9 in Long Beach, California. Middle school teachers who complete this teacher training workshop and field study will receive a \$100 stipend and materials.

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

### **Coastal Ecosystem Teacher Workshop - California**

This five-day professional development workshop, June 25-29, 2005, in San Francisco, California, is for middle and high school teachers and educators. Learn about the oceanography and ecology of the Gulf of the Farallones through field work and standards-based activities to take back to your classroom. This professional development workshop focuses on monitoring projects at the rocky shore and sandy beach. Registration deadline is May 20, 2005.

Contact April Devitt at (415) 561-6625 x304 or [adevitt@farallones.org](mailto:adevitt@farallones.org)

### **Coastal Program Managers' Meeting**

The annual Coastal Program Managers' Meeting provides a forum for the nation's ocean and coastal program managers and coworkers to exchange information about key resource management issues. The 2005 annual meeting will be held March 8-10, 2005 in Washington, D.C. Sessions include Getting to Know National Ocean Service Roundtables, Integrated Ocean Observing Systems, Developing the National System of Marine Protected Areas, and a Preview of the Smithsonian Ocean Hall Exhibit.

<http://www.coastalmanagement.noaa.gov/pmm/>

### **Coral Reef Task Force Meeting**

The 13th Biannual U.S. Coral Reef Task Force meeting and associated events will be held March 3-4, 2005 in Washington, D.C. The public business meeting will be Thursday, March 3, 2005. While there is no charge to attend either event, all those planning to be present should register in advance.

<http://www.coralreef.gov/meetings/announcements.html>

### **Environmental Art Exhibit - California**

This Environmental Art Exhibit takes place in Riverside, California on April 7, 2005. This year's theme is water. All artwork must pertain to water and/or water-related issues. The website has environmental art lesson plans and standards-aligned ideas. The entry deadline is March 19, 2005.

[http://www.creec.org/region10/stories/storyReader\\$20](http://www.creec.org/region10/stories/storyReader$20)

### **Environmental Education Alliance Conference - Georgia**

The Environmental Education Alliance of Georgia annual conference will be held March 11-13, 2005 in Helen, Georgia. Sessions topics include watersheds, invasive species, leadership training, and more.

[www.eealliance.org](http://www.eealliance.org)

### **Environmental Education Conference – Washington**

The Environmental Education Association of Washington and Environmental Education Association of Oregon invite you to their joint annual conference, June 23-25, 2005 in Vancouver, Washington. The theme, *Sound to Steens, Connecting Deserts to Oceans* includes strands in environmental education benchmark standards; Lewis and Clark; environmental education and the natural world in art, and more.

<http://www.eeaw.org/conference/2005/index.html>

### **GIS Workshops at National Marine Sanctuaries – Florida and Massachusetts**

A three-day geographic information systems (GIS) workshop for teachers will be offered this summer at two marine sanctuaries. During the workshop, teachers will receive hands-on training in GIS and global positions systems technologies, and learn how they can be used to study the marine environment. Participants will receive complimentary copies of the Exploring Data with GIS to Experience Marine Sanctuaries (EDGES) curriculum and Mapping Our World curriculum, along with a one-year site license for ArcView GIS software. They will also have the opportunity to explore the sanctuary and collect data for analysis using GIS software.

- Florida Keys National Marine Sanctuary, Key Largo, Florida, June 22-24, 2005
- Stellwagen Bank National Marine Sanctuary, Scituate, Massachusetts, July 6-8, 2005.

Contact Jenny Brady at [jennyb@evisual.org](mailto:jennyb@evisual.org)

### **Learning Ocean Science through Ocean Exploration Professional Development – South Carolina**

Join South Carolina Aquarium educators, March 12, 2005, for an introductory session, or April 16, 2005 for a follow-up session to the Ocean Exploration curriculum. Learn as you do inquiry- and standards-based activities tied directly to ocean expeditions. A copy of Learning Ocean Science through Ocean Exploration and CD-ROM will be provided. Registration is required and space is limited. A stipend and six renewal credits are available. The course is offered to teachers of grades 5-12. Hurry – the deadline for registration for the introductory session is March 4, 2005; the deadline for registration for the follow-up session is April 8, 2005.

Contact Katrina Bryan at 843.579.8546 or [kbryan@scaquarium.org](mailto:kbryan@scaquarium.org)

### **Master of Science in Resource Interpretation - Online**

An online master's degree specializing in resource interpretation is available through the College of Forestry and Agriculture at Stephen F. Austin State University in Nacogdoches, Texas. Course example include: Curriculum-based Learning, Interpretive Planning, Media and Graphics, and Field-based Programs. The courses have been designed in cooperation with the National Park Service. Applications are being accepted for the fall semester.

<http://www.sfasu.edu/msri/>

### **NASA Earth Science Education Community Meeting - Florida**

NASA will hold a second Earth science education community meeting on May 18-20, 2005, in Orlando, Florida, and invites diverse participation. At this meeting the Steering Committee will present a draft NASA earth science education roadmap for community review and comment. Classroom teachers are encouraged to apply for travel support, with an application deadline of April 4, 2005. The website will be updated later this month.

<http://www.ncar.ucar.edu/eo//roadmap/>

### **OCEANS 2005 Conference Call for Abstracts – Deadline Extended**

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. "One Ocean" emphasizes the vital need for global cooperation and engagement to protect our internationally connected waters, as well as the interrelationships among the scientific and engineering disciplines. This conference provides an opportunity to network with colleagues from across the spectrum of oceanic and marine interests, and your opportunity to emphasize the vital need for ocean education. The deadline for submitting abstracts for technical papers has been extended to April 15, 2005.

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

### **Schoolyard Habitats Distance Learning and Electronic Field Trip**

The Happenin' Habitats! website has a wealth of resources about the National Wildlife Federation's Schoolyard Habitats® Program. Tune in for a 30-minute broadcast, *Happenin' Habitats: An Introduction* on March 14, 2005. This distance learning program will teach your students about wildlife habitat and provide information about how to create and preserve habitat. In addition, check out the live electronic field trip on April 13, 2005. The website also includes teacher resources, a forum for information exchange, and information about inclusive instructional techniques for students with disabilities or language barriers.

<http://happeninhabitats.pwnet.org/index.php>

### **Stormwater and Aquaculture Effluent Technology Fair**

This two-day workshop will highlight innovative technologies and practices for controlling stormwater runoff and aquaculture effluent. Various companies and engineering firms will demonstrate their products or past projects. The fair will take place in Beaufort, North Carolina, March 8-9, 2005. It will also be broadcast over the Internet for those who are unable to attend in person.

[www.CoastLive.org](http://www.CoastLive.org)

### **Summer Institute on Invasive Species - Maine**

Bowdoin College offers a Coastal Science Institute for middle school science educators, June 26-July 1, 2005 in Brunswick, Maine. The college's proximity to the coastal and marine environment offers a unique opportunity for secondary school educators to engage in scientific inquiry and learning through interacting with a living coastal classroom. The theme for this year is invasive species, and will introduce teachers to laboratory and field techniques that will help to identify, monitor, and trace the spread of introduced species. Teachers will receive course packets, equipment, and software training that will help them implement invasive species monitoring and analysis in their own classrooms. The application deadline is March 8, 2005.

<http://academic.bowdoin.edu/csc/bccsi/index.shtml>

### **Summer Tropical Marine Courses**

The graduate program at the National University of México and The Florida International University are conducting a bilateral set of courses open to any interested student or manager. Two courses are offered for this summer: marine botany, with an emphasis on the Caribbean and South Florida, and a marine protected areas course. Scholarships may be available.



[http://serc.fiu.edu/seagrass/FIU\\_UNAM\\_Course/PMcourse.htm](http://serc.fiu.edu/seagrass/FIU_UNAM_Course/PMcourse.htm)

### **Virgin Islands Nonpoint Source Pollution Conference**

The 9th Virgin Islands Nonpoint Source Pollution Conference, *Preventing Pollution in the Caribbean: Reshaping Our Communities for the Future*, will be held May 18-20, 2005 in St. Thomas, U.S. Virgin Islands. The conference will present information on implementing and adapting environmentally-friendly practices to reduce or prevent pollution of terrestrial and marine environments in the Caribbean region. Topics of particular interest include watershed management, government initiatives, nonpoint source pollution education and outreach, and more.

<http://usvircd.org/NPS/VINPSconf2005.index.html>

### **Youth Environmental Symposium - Georgia**

The 2005 Georgia Youth Environmental Symposium showcases middle and high school student-led projects that address local environmental issues. All types of projects are eligible, including stream clean-ups, recycling programs, schoolyard habitat construction, environmental education, and advocacy initiatives. Ten finalists will be selected, and are eligible for one of three cash prizes. The deadline for entry is April 5, 2005.

<http://eeingeorgia.org/net/content/item.aspx?s=15004.0.68.4863>

## **EDUCATIONAL RESOURCES**

### **Animal Diversity Web**

The Animal Diversity Web is an online database of animal natural history, distribution, and classification sponsored by the University of Michigan. Visitors can look through thousands of individual species accounts. Each account may include such features as extended descriptions, pictures of each species, and recordings of sounds and short movies. The site has a virtual museum which includes a number of representative photographs of various animal species, and several hundred virtual reality movies of skulls. Sharks, echinoderms, bony fishes, amphibians and many more are represented.

<http://animaldiversity.ummz.umich.edu/site/index.html>

### **Beachcomber's Companion<sup>®</sup> Cards**

Woods Hole Sea Grant has developed Beachcomber's Companion<sup>®</sup> cards, an alternative to the traditional field guide. The cards feature user-friendly information for 50 Atlantic coast marine invertebrates, perfect for beachcombers of all ages. The cards cover marine invertebrates common to the Atlantic Coast. They help beachcombers identify a specimen by size, shape, features, and coloration; where to look for it; and interesting facts about the creature. The cards come in a mesh bag with a special marking pencil for the species checklist.

[www.beachcomberscompanion.net](http://www.beachcomberscompanion.net)

### **Biodiversity Facts And Figures**

The Science and Development Network Biodiversity pages have an updated Biodiversity Facts and Figures Section. Here, you will find the latest data on the extent and the distribution of the world's biodiversity. It also includes the most recent estimates of extinction threats for different groups of species, as well as facts and figures on the value of biodiversity and efforts to conserve it.

<http://www.scidev.net/ms/biofacts/>

### **Climate Change in the Classroom**

The Educational Global Climate Model incorporates a 3-D climate model developed at NASA's Goddard Institute for Space Studies. It is free and available for high school and university desktop computers. The climate model allows teachers and students to conduct experiments identical to those scientists run on supercomputers to simulate past and future climate changes.

[http://www.nasa.gov/vision/earth/everydaylife/climate\\_class.html](http://www.nasa.gov/vision/earth/everydaylife/climate_class.html)

### **Clue in to Climate Change**

Climate change can be examined through a number of lenses, including both rigorous scientific inquiry and through the perspective of persons living in various areas which happen to be undergoing significant climatic transitions. This website, sponsored by the Canadian Museum of Nature, examines climate change in the Arctic, and takes its inspiration from the Inuktitut word "sila" which means "climate and all things that surround us." The site includes interactive activities, first-hand narratives from those who live in the Arctic region, and an area where people can learn how to increase awareness of the rapidly changing situation in the region. Other features of the site include a glossary, three lesson plans, and an online quiz.

<http://www.nature.ca/sila/>

### **Coastal Socioeconomics**

The Management and Budget Special Projects Office launched a new website highlighting spatial trends in coastal socioeconomics. The site offers time series, geo-referenced data from the U.S. Census Bureau and the Bureau of Economic Analysis, and web based tools to facilitate data analysis. The primary objective of the site is to increase awareness and improve access for the coastal stewardship community to socioeconomic information.

<http://stics.noaa.gov>

### **Conservation International Marine Portal**

The Marine Portal from Conservation International provides access to over 1000 marine-related documents and publications, hundreds of websites and related resources, and information for regional and issue-specific experts and contacts. The portal is an interactive web-based tool designed to increase capacity building, bridge information gaps, expand communication networks, and serve as a springboard to other sites and resources of interest.

<http://portals.conservation.org/marine>

### **Ducks Unlimited Wetland Curriculum**

Ducks Unlimited has developed three units in a wetland ecosystems series. Each unit consists of an educator's guide and accompanying student journal. Teachers guides are also available for grades 4-6. The units include experiments and activities that provide a base to build a complete wetland curriculum.

- Habitats, Communities and the Diversity of Life (Grades 4-6)
- Interactions and Ecosystems (Grades 7-8)
- Evolution, Diversity and the Sustainability of Ecosystems (Grades 9-12)

Additional materials and activities for kids are also available.

[http://www.greenwing.org/dueducator/noncssdu\\_educator.html](http://www.greenwing.org/dueducator/noncssdu_educator.html)

### **Encyclopedia of Flora and Fauna of the Northwestern Hawaiian Islands**

The Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve has an online encyclopedia to showcase the flora and fauna that inhabit the region. The encyclopedia features over 130 plants and animals, complete with imagery and some video. For each organism, a short description is given along with information on status, distribution, habitat, quick facts, and more.

<http://noaa.stage.webthink.com/onms/Park/Parks/?pID=12>

### **Fisheries Law Enforcement and National Bio-Fact Loan Program**

NOAA Fisheries Service's Office for Law Enforcement has redesigned its website to provide one location for information about the office and its protection and conservation of our nation's living marine resources. Developed primarily to support the fishing industry and other resource users, the site has useful information about marine conservation laws, public awareness campaigns, and enforcement activities. Of special note for educators is the National Bio-Fact Loan Program, which can be found under the COPPS (Community Oriented Policing and Problem-Solving) link. Learn how universities, institutes, zoo, and aquariums can borrow seized marine wildlife products for scientific, educational or public display purposes. Additional educational information will be posted in the future.

[http://www.nmfs.noaa.gov/ole/ole\\_about.html](http://www.nmfs.noaa.gov/ole/ole_about.html)

### **From Shore to Sea Lecture Series - California**

Channel Islands National Marine Sanctuary and National Park celebrate their 25- year anniversaries with this year's lecture series by featuring speakers who have made significant contributions to the park and sanctuary. The programs, free and open to the public, will take place on the second Tuesday and Wednesday of the month.

<http://channelislands.noaa.gov/edu/shoretosea.html>

### **Gulf of Maine Primer of Marine Habitat Types**

The Gulf of Maine Council on the Marine Environment has recently released The Gulf of Maine Primer of Marine Habitat Types, which details the types of habitats found in the Gulf of Maine region. The primer provides scientific data and descriptive characterizations to assist with evaluating and safeguarding marine habitats.

<http://www.gulfofmaine.org/habitatprimer/>

### **International Migratory Bird Day**

International Migratory Bird Day celebrates the migrations of birds between their breeding grounds in the U.S. and Canada and their non-breeding grounds in Mexico, Central and South America and the Caribbean. This year's theme for May 14, 2005, is *Collisions: Clear the Way for Birds*. Examine the obstacles birds may encounter in flight and explores the many ways to minimize their impacts.

<http://www.birdday.org/imbd.htm>

### **Marine Cultural and Historic Newsletter**

NOAA's National Marine Protected Areas Center distributes the monthly *Marine Cultural and Historic Newsletter*. It includes news and updates from around the world, providing a short summary followed by the link to the original news site and/or relevant agency website. Sections include Federal Agencies; Activities in States and Territories; From the Halls of Academia; Global Perspectives; The Reference Library; and Upcoming Events. The newsletters can be accessed through the MPA Center's Cultural Resources website.

[http://www.mpa.gov/information\\_tools/cultural\\_resources.html](http://www.mpa.gov/information_tools/cultural_resources.html)

### **Massachusetts Coastal Zone Management Publications**

A new annual magazine from the Massachusetts Office of Coastal Zone Management, *Coastlines*, is available online. It focuses on coastal and marine habitats, from the depths where soft coral grows to the sand dunes that rise above the shore, and explores these habitats as critical components of sound coastal management. Other publications include CZ-Mail, a monthly update providing information on major program initiatives, available tools and publications, upcoming workshops and events, and grants. Guides include a Personal Watercraft Management Guide, a Volunteer's Handbook for Monitoring New England Salt Marshes, and more.

<http://www.mass.gov/czm/publications.htm>

### **NASA Education e-Newsletter**

The NASA Science Mission Directorate-Earth Science Education Update is a monthly email newsletter describing the latest news, programs, events, and resources related to NASA's earth science education program. It also includes related earth system science education news from other agencies and organizations. Current and back issues of this report are available on the website.

<http://science.hq.nasa.gov/education/edreports/index.html>

### **National Environment Research Council**

The Natural Environment Research Council is a leading funding agency for academic research and training in the environmental sciences at higher education institutions across the United Kingdom. The website contains a number of general interest publications, such as the quarterly magazine, *Planet Earth*. In addition, the science activities pages highlight summaries and background materials, along with links to some of the work that is done under the auspices of the council grants.

<http://www.nerc.ac.uk/funding/science.shtml>

### **North American Native Fishes Association**

The North American Native Fishes Association is dedicated to the appreciation, study and conservation of the continent's native fishes. The website features a checklist of freshwater fishes native to North America and a *Fish in Focus* section with images and brief descriptions. The site also contains information about an award program for breeders, grant programs, related links, and more.

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

### **Schoolyard Wildlife Habitats Best Management Practices**

The Georgia Wildlife Federation has been helping schools turn under-used areas of schoolyard into habitat for wildlife since 1987. The program provides an outdoor classroom, where students can apply what they learn in the classroom to the natural world. Many of similar projects have been difficult for schools to maintain over time. In order to improve their long-term sustainability, the Georgia Wildlife Federation provides "Planning First to Make Your Outdoor Classroom Last; A Best Management Practices (BMP) Guide for Creating and Sustaining Outdoor Classrooms in Georgia." It is downloadable from the website. Also, be sure to check out the Schoolyard Habitat distance learning and Landscapes for Learning funds, above.

[www.gwf.org/bmpindex.htm](http://www.gwf.org/bmpindex.htm)

### **Wild Republic's Learning Adventure**

Wild Republic's Learning Adventure features lesson plans about nature, animals and their habitat. The 2004-2005 lesson plans are provided by Audubon Adventures and include marine mammals, animal talk, ponds, and more. There is also a special purchase program for discounted plush animals, including water birds and birds of prey. <http://www.wildrepublic.com/lessonplans/2004/index.html>

### **World Wide Biome Project**

The World Wide Biome Project is designed to encourage students to learn about ecosystems in their locale and share their findings with students from around the world through the Internet. The prime focus of the site is to have students or entire classes do an evaluation of a habitat in their biome according to a standard method of investigation, and then send the data in to the World Wide Biome Project. Their data is then converted into a series of web pages. This allows students to learn from other projects and compare and contrast the information. <http://www2.kpr.edu.on.ca/cdcw/biomes/>

## **INITIATIVES**

### **Ducks Unlimited and Project WET Join Forces to Highlight World Wetlands Day**

Ducks Unlimited and Project WET (Water Education for Teachers) announce a new education partnership to celebrate World Wetlands Day, to benefit water, wetlands, wildlife, and people across North America. The partnership harnesses the power of both organizations to educate about the importance of wetlands and water resources. The partnership is also part of Ducks Unlimited's launch of its new wetlands education program, called Project Webfoot.

[http://www.ducks.org/News/WET\\_Partnership.asp](http://www.ducks.org/News/WET_Partnership.asp)

### **National Historic Trails – Certification**

The U.S. Fish and Wildlife Service is increasing its focus on the National Trails System. It is interested in gaining recognition for refuges and hatcheries along National Historic Trails, forming partnerships which help landowners protect and preserve their historic trail properties, and share them with others. It is also increasing its role with National Scenic Trails that cross lands it administers and increasing its participation in the National Recreation Trails program, nominating 18 trails for designation for 2005.

Contact Nathan Caldwell, (703) 358-2205, [nathan\\_caldwell@fws.gov](mailto:nathan_caldwell@fws.gov)  
[http://data2.itc.nps.gov/parks/poex/ppdocuments/Certification%20Brochure%20web\\_vie\\_w.pdf](http://data2.itc.nps.gov/parks/poex/ppdocuments/Certification%20Brochure%20web_vie_w.pdf)

### **Special Days in March and April**

- March 1: Great American Cleanup from Keep America Beautiful <http://www.kab.org/programs.asp?id=291&rid=68>
- March 22: World Water Day <http://www.worldwaterday.org/>
- March 23: World Meteorological Day <http://www.wmo.int/wmd/>
- April 10-16: National Environmental Education Week <http://www.eeweek.org>
- April 11-16: Excellence in Science, Technology, Engineering, and Mathematics Education week <http://www.esteme.org/>
- April 15-17: National Youth Service Day <http://www.ysa.org/nysd/>
- April 22: Earth Day <http://www.earthday.net/>