

**NATIONAL MARINE PROTECTED AREAS CENTER
INFORMATION EXCHANGE FOR MARINE EDUCATORS
FEBRUARY 2004**

This update is provided as a service from 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. Contact me directly to discuss further enhancements or to contribute information for future issues. Please share this email with your colleagues and constituents. Please let me know if you wish or do not wish to receive future updates by sending **me** an email (**do not** "reply to all") at phyllis.dermer@noaa.gov.

The information included here has been compiled from many different sources, including SeaSpan, NSTA Express, edinfo at FREE, EE-NEWS @NAAEE, Creec-LA, EEinGEORGIA, and others. I have attempted to verify web addresses, but make no guarantee of accuracy. The Department of Commerce/NOAA does not necessarily endorse the views expressed or the facts presented on these sites. If you have trouble downloading some of the more interactive activities, try using Internet Explorer[®] instead of Netscape[®].

MPA FACTS

What is a Marine Protected Area?

The term "marine protected area" is a broad umbrella term used to describe an area-based management approach used in marine, Great Lakes, and near-shore waters. The federal government, in Executive Order #13158, defines MPAs as:

"...any area of the marine environment that has been reserved by Federal, State, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein."

Less than 1 percent of US waters are no-take areas. Instead, the majority of U.S. MPAs are multiple use conservation areas that often permit both consumptive and nonconsumptive activities, such as fishing, diving, boating and swimming.

Examples of multiple use MPAs include most national marine sanctuaries, national estuarine research reserves, national parks and wildlife refuges with marine components, and many state underwater parks. These multiple use MPAs function both to protect ecosystems, and, at times, to support sustainable fisheries while allowing residents and other users to enjoy the resource.

For more information about this and other MPA facts, subscribe the MPA Center's monthly *Connections*, by sending an email request to Dana.Topousis@noaa.gov.

Notable Addition to MPA Library

Main MPA Library URL: http://mpa.gov/mpaservices/mpa_library.html

Great Lakes Shipwreck Bibliography

The Great Lakes hold an unknown quantity of historic archaeological sites, including shipwrecks. These shipwrecks are part of the maritime history of the United States, and many are in cultural marine protected areas. A list of publications on the shipwrecks in and around Michigan and Lake Superior is currently available in the MPA Virtual Library (use the search engine, keyword: shipwreck). The library has a preliminary bibliography of maritime archaeological and historical publications held in the Library of Michigan and the Office of the State Archaeologist, Michigan Historical Center; direct access to this abstract is at <http://www2.mpa.gov/mpa/mpaservices/library/Action.Lasso?-database=mpalib&-layout=tableview&-response=mpadisplay.lasso&-recordID=36900&-search>.

Halsey, John R., 2003, *A preliminary bibliography of maritime archaeological and historical publications held in the Library of Michigan and the Office of the State Archaeologist, Michigan Historical Center*, Lansing, MI

PROGRAM OF THE MONTH

Coral Reef Task Force Meeting with Outreach and Education

The 11th meeting of the United States Coral Reef Task Force (USCRTF) will be held in Washington, DC, February 24 – 25, 2004, in the auditorium of the Department of Commerce at 14th Street and Constitution Avenue, NW. The meeting is open to the public, and the Task Force will discuss priorities, progress, and other issues related to conservation and management of coral reef ecosystems.

February 24 will open with an Outreach and Education Working Group Mini-Symposium, *Together for Coral Reefs: Extending Outreach and Expanding Education in 2004*, to share resources and information. This symposium is designed to engage coral educators, coastal managers, and NGOs, with the ultimate goal to increase public awareness and appreciation of coral reefs, their intrinsic and extrinsic values, and stakeholders' capability and responsibility to contribute towards coral reef conservation. It will address *Sharing Tools and Success Stories* through a variety of presentations, followed by a panel discussion on *Partnering to Build a National Awareness of Coral Reefs: Priorities and Next Steps*.

The morning symposium will be followed by the first of two science panel discussions: *Threats Posed to Coral Reefs from Land-Based Sources of Pollution*. A second panel will discuss *Climate Change & Coral Reefs: Addressing a Global Threat*.

There is also limited space available for exhibits and displays that include coral reef related materials. For complete information, please contact Miguel Lugo, miguel.lugo@noaa.gov or 301-713-2989 x102. Detailed information will be posted on the Task Force website, <http://www.coralreef.gov>, as it becomes available.

WEBSITE OF THE MONTH

Center for Improved Engineering and Science Education (CIESE)

The Center for Improved Engineering and Science Education (CIESE) at the Stevens Institute of Technology sponsors and designs interdisciplinary projects that teachers throughout the world can use to enhance their curriculum through use of the Internet. The following projects are examples of how real time data from the Internet can be used in a K-12 classroom.

Virtual Gulf Stream Voyage

The Gulf Stream Voyage is an easy-to-use website which utilizes both real time data and primary source materials to guide students in their virtual exploration of the Gulf Stream. Students investigate the driving forces behind this ocean current, how it affects the Atlantic Ocean, and its place in the history of ocean exploration. This voyage includes activities and complete lesson plans as they explore marine science, earth science, chemistry, physics, biology, math, history, and language arts.

The Gulf Stream Voyage has three Core Activities that teach students how to access and interpret real time oceanographic and satellite data and to how use the information to solve a real world problem. It is recommended that students complete the Core Activities, which will provide content knowledge, before attempting the Enrichment Activities. The Teacher Guide section contains lesson plans for the Core Activities, as well as enrichment lessons.

The website provides a complete tutorial on the Gulf Stream. However, the activities are presented in a manner so that each may be used individually to supplement traditional classroom lessons. Students follow the lessons and access real time ocean data, atmospheric data, and historical primary source materials to explore authentic real world problems. For more information, check out:

<http://www.k12science.org/curriculum/gulfstream2/>

The Stowaway Adventure – Adventures on the High Seas

The Stowaway Adventure is a multidisciplinary learning experience designed to expose students to real world problem solving through unique uses of the Internet. The project consists of six real time data activities that guide students through the process of locating and tracking a ship at sea, predicting the ship's course heading and destination, determining the ship's speed, and monitoring weather conditions at sea to predict when rough weather might impact on the ship's arrival time. The project also contains Language Arts and Social Studies activities to support student learning. For more information, check out:

<http://www.k12science.org/curriculum/shipproj/index.html>

More projects can be found on the CIESE web site:

<http://www.k12science.org/currichome.html> .

REQUESTS

Looking for Anchorage Policy

The Trinidad and Tobago Maritime Services Division has recently created a Chaguaramas Marine Committee to address some of the issues in Chaguaramas Bay,

one of which is anchorage and moorings. Can you reference a source for an anchorage policy? If so, please contact Jacqueline Clarke at jacqueline_clarke@yahoo.com .

Request for Information about Cassiopeia

Leo Jimenez is a high school biology teacher searching for a good website or book with a diagram of external and internal parts of the upside down jellyfish (Cassiopeia sp.) common in Florida, along with other materials. Contact him at leo317_72@yahoo.com .

Request for Marine Science Classroom Course Information

In an attempt to compile a list of ALL the marine science/oceanography/etc. classroom courses available, please email Chris if your school (or a school that you know of) has these courses, even if it is just an elective. Please include the targeted grade level and school website. The goal is to post this compilation on the BRIDGE website (<http://www.vims.edu/bridge>) to facilitate collaboration and assist job seekers interested in classroom teaching in this field. Send the information to Chris Petrone at cpetrone@christchurchschool.org .

GRANTS AND OPPORTUNITIES

EE-Link

If you haven't come across it yet, check out EE-Link, a project of the North American Association for Environmental Education and a member of the EETAP consortium. The grants section of the website has links for strategies and techniques to develop funding for EE programs, and information on education-related grants that may be applicable to EE providers. The jobs page hosts jobs and internships. Both can be sorted for ease. Lots of other information is available and searchable on this website. For more information, check out <http://eelink.net/> .

American Meteorological Society/Industry Minority Scholarships

The AMS/Industry Minority Scholarships awards funding to minority students who have been traditionally underrepresented in the sciences, especially Hispanic, Native American, and Black/African American students. Funding for the scholarships is provided by industry and through donations made by members to the AMS 21st Century Campaign. Minority students who will be entering their freshman year of college in the fall of 2004 and plan to pursue careers in the atmospheric or related oceanic and hydrologic sciences are eligible to apply. For more information on this and other opportunities, check out <http://www.ametsoc.org/amsstudentinfo/scholfeldocs/#1> .

AT&T Cares Youth Service Action Fund

National Youth Service Day, a program of Youth Service America, is designed to mobilize youth as leaders to identify and address the needs of their communities through service and service learning; support youth on a lifelong path of service and civic engagement; and educate the public, the media, and policymakers about the year-round contributions of young people as community leaders. Fifty grants of \$500 each are available to young people (ages 5-25) and organizations to implement service projects for National Youth Service Day, April 16-18, 2004. Application deadline is February 13, 2004, so act quickly. For more information, check out http://www.ysa.org/awards/award_grant.cfm .

Two California Environmental Contests

The California Regional Environmental Education Community (CREEC) Region 10, covering Riverside, Inyo, Mono and San Bernardino counties, is holding an environmental art contest to promote the use of art and the environment. Entries will be judged in three categories: Environmental Art, Recycle Art, and Photojournalism. The deadline is March 28, 2004. For more information check out [http://www.creec.org/region10/stories/storyReader\\$18](http://www.creec.org/region10/stories/storyReader$18) , or contact Micah Henderson at 909/386-2797.

The Los Angeles County Department of Public Works and the LA Times are sponsoring an essay contest as part of their Plan-it Earth project: *What concerns you about the environment?* Submit an essay about one of the following environmental issues: managing household hazardous wastes; preventing pollution in storm drains; conserving natural resources through recycling; reusing and reducing consumption; protecting groundwater from contamination; or composting. The deadline is March 13, 2004. For more information, contact Judith Klein at judith.klein@latimes.com, or 818/772-3085.

CAPCO Science Class Challenge

The CAPCO Science Class Challenge is a classroom contest for grades 4-9 whose purpose is to encourage students and teachers to learn about the Earth's protective upper ozone layer, CFCs, and the environment by using provided activities or their own creative methods. Full-time teachers employed by a U.S. public or private school teaching within grades 4-9 are eligible to apply. The deadline for entry is May 21, 2004. For more information, check out <http://www.nocfcs.org/scc/scchome.htm> .

Christopher Columbus Awards

The Christopher Columbus Awards program is a national competition that combines science and technology with community problem-solving in a real-world setting. With the help of an adult coach, middle school students (grades 6th-8th) work in teams of three or four to identify an issue they care about and use science and technology to develop an innovative solution. Act quickly; apply by February 17, 2004. For more information, check out <http://www.christophercolumbusawards.com/intro.htm> .

2004 Eco-Hero Awards

Action for Nature seeks applications from students 8 to 16 for its 2004 Eco-Hero Awards Program. This program recognizes the individual accomplishments of young people who have carried out environmental action projects. Projects must concern environmental action, advocacy, protection, or research. Application deadline is February 29, 2004. For more information, check out <http://www.actionfornature.org/eco-hero/index.html> .

2004 Marine Art Contest

The Massachusetts Marine Educators announce the 2004 Marine Art Contest for students in grades K-12. This year's theme is *Protecting Our Nation's Ocean Resources*. Co-sponsors for the contest are the Stellwagen Bank National Marine Sanctuary and the New England Aquarium. The contest is open to all students and will be judged in five divisions: K-2, 3-5, 6-8, 9-12, and an open (K-12) scientific illustration division. Students are tasked with developing art that illustrates the issues involved in protecting marine resources, particularly those in designated marine protected areas. The contest closes April 30, 2004. For more information, check out <http://stellwagen.noaa.gov> .

Marion S. Bowers Discovery Award for Baltimore, MD Teachers

The Marion S. Bowers Discovery Award is open to teachers at any Baltimore City or County high school. Science teachers are encouraged to apply, but teachers in other disciplines will be considered. The award provides a teacher with the opportunity to work at the Aquarium alongside educators and staff, to help the teacher create new ways to use the Aquarium's exhibits and programs in the science classroom, and to share his/her discoveries with colleagues. The application deadline is March 1, 2004. For more information, contact Joe Harber at jharber@aquaria.org.

TOYchallenge 2004

TOYchallenge is a national toy design competition for children to create and design a toy or a game, hosted by the Sally Ride Science Club, Hasbro, and Smith College. Be a coach and get a team of kids (grades 5-8) together and sign up before February 16, 2004 (entries are due later). For more information, check out www.TOYchallenge.com.

INTERNSHIPS AND TEMPORARY OPPORTUNITIES

Blue Ocean Society for Marine Conservation Internships, NH

The Blue Ocean Society for Marine Conservation in Portsmouth, NH has internships available. The Portsmouth, NH-based non-profit organization promotes awareness and conservation of the marine environment through research, education and conservation work in New England. The summer application deadline is March 1, 2004. For more information, check out www.blueoceansociety.org/intern.htm.

Institute for Ecological Field Studies

The Institute for Ecological Field Studies Ltd offers international programs that promote the study of endangered environments through first hand observation and field-based instruction. For the past 15 years, students, junior high and high school teachers, and college professors have participated in programs located in the Bahamas and in Costa Rica. Students and teachers are eligible for transferable college credit through the University of Wisconsin. For more information, check out www.seafish.com.

Teacher Exchanges

From a recent discussion on the BRIDGE (<http://www.vims.edu/bridge/>) comes information about teacher and professional exchanges.

- Sea ExChange is a cooperative program to assist marine educators working at similar jobs and facilities to set up exchanges
http://www.mesa.edu.au/careers/sea_ExChange.asp
- New Zealand Teacher Exchanges
<http://www.teachnz.govt.nz/pathways/overseas/os-exchange.html>
- Outlines exchanges and directs to agencies that arrange exchanges
<http://www.escapeartist.com/international/teaching.htm>
- A site that will post exchangers
<http://www.learning-network.org/teacherexchanges/teacherexchange.html>

Teacher in the Field/at Sea Opportunities

NOAA has two field opportunities for teachers during summer 2004. Arizona and New Mexico teachers are targeted for NAME and New England for NEAQS, but all applications will be accepted. Application deadline is February 20, 2004.

- North American Monsoon Experiment (NAME), for one teacher each from the U.S. and Mexico, July 1 – August 15, 2004
- New England Air Quality Study - Intercontinental Transport and Chemical Transformation (NEAQS) for two teachers, July 01 – August 17, 2004

For more information, check out <http://www.ogp.noaa.gov/tas/> .

CONFERENCES AND WORKSHOPS

American Society of Limnology and Oceanography – Education Session

The American Society of Limnology and Oceanography (ASLO) 2004 summer meeting, June 13th - 18th, Savannah, Georgia, theme is *The Changing Landscapes of Oceans and Freshwaters*. The University of New Hampshire's Coastal Ocean Observation and Analysis Program and the Gulf of Maine Ocean Observing System (GoMOOS) will be co-hosting a special session titled, *The Educational Value of Coastal Ocean Observing Systems*. For information about the meeting, check out

<http://www.aslo.org/savannah2004> . For more information about the special session, contact Tom Shyka at tom@gomoos.org .

Association for Environmental & Outdoor Education Annual Conference

The Association for Environmental & Outdoor Education will convene *Teaching Outside the Lines*, April 30-May 2, 2004, Malibu, California. Workshop presenters need to register by February 14th in order to receive 50% off conference registration fees. For more information, check out <http://www.aeoe.org/conference/spr2004/> .

Camp SEA Lab Teacher Workshop

Camp SEA Lab is a marine science camp adventure for youth ages 8-13. Science, Education, and Adventure are the focus as SEA Campers explore the marine world from the top of the watershed to the bottom of the deep sea. They will host a free teacher workshop *From Sandy Shores to Salty Seas* on February 21, 2004. For more information, check out <http://www.campsealab.org/Programs/Teachers/> .

Certified Marine Investigator Training Seminar

For those place-based educators whose additional duties cover a lot of water, check out this seminar. The International Association of Marine Investigators offers its annual Certified Marine Investigator Training Seminar, February 22-25, West Palm Beach, Florida. For more information, check out

<http://www.iamimarine.org/2004%20Seminar.htm> .

Charlotte NC SE PORT

The Southeast COSEE SouthEast Portal to Ocean Research for Teachers (SE PORT) has an Ocean Awareness Day scheduled for March 27, 2004 at the Discovery Place, Charlotte North Carolina, for North and South Carolina educators. Please contact Mary Bures at maryb@discoveryplace.org for more information.

Dauphin Island Summer Teacher Workshops

Dauphin Island Sea Lab offers an array of summer teacher workshops. Each features hands-on learning experiences and classroom materials.

- Exploring the Florida Keys, May 30 – June 5, 2004
- Beaches, Birds & Barrier Islands, July 11-14, 2004
- Coastal Connections – Linking Watersheds to the Gulf of Mexico, July 18 – 22, 2004
- Grasses, Groupers & Gastropods, July 25 - 29, 2004
- Marine Application of Science and Technology, June 6-11, June 13-18, and June 20-25, 2004

Two other workshops, Alien Species of the Gulf of Mexico and Centers for Ocean Science Excellence in Education (COSEE) Workshop, are offered for qualified applicants. For more information, check out <http://dhp.disl.org/teachertraining.htm> .

Down Under, Out Yonder Workshop Update

The Flower Garden Banks National Marine Sanctuary *Down Under, Out Yonder* education workshop application, due March 29, 2004 (workshop dates July 10-14, 2004) are now available at <http://www.gulfmex.org/duoy.htm> .

EETAP Diversity Workshops for Environmental Educators

The Environmental Education and Training Partnership (EETAP) offers professional development diversity workshops for environmental educators. The workshops explore multicultural issues as they occur in the real world of environmental education through case study discussion. Participants explore the intersection of EE and cultural diversity and identify steps that can be taken to make one's own organization and program more inclusive and culturally diverse. For more information, check out http://www.eetap.org/html/new_products.php#PRODUCT_5 .

Enduring Resources for Earth Science Education

The Enduring Resources for Earth Science Education (ERESE) Teachers Workshop will be held at the Scripps Institution of Oceanography, July 11-24, 2004. The two-week summer workshop is open to middle and high school teachers who teach Earth science concepts. Participants will learn how to create Enduring Resources. The deadline for the submission of an application is March 1, 2004. For more information, check out <http://earthref.org/events/ERESE/2004/> .

Excellence in Science, Technology, and Math Education (ESTME)

Plans for the March 15-20, 2004, celebration of K-12 science and math education are firming up, including the speakers for the national Summit on Science. For more information, check out <http://www.estme.org/> and http://science.nsta.org/nstaexpress/nstaexpress_2004_01_05_summit.htm .

Expanding the Ark: The Emerging Science and Practice of Invertebrate Conservation

Of particular note to New York area students due to the special student registration rate: The American Museum of Natural History's Center for Biodiversity and Conservation, in collaboration with Conservation International, the National Parks Service, NatureServe, the U.S. Fish and Wildlife Service, and the Xerces Society, is convening a two-day symposium, March 24-25, 2004, New York City, New York, to examine the status of

invertebrate biodiversity. For more information, check out <http://research.amnh.org/biodiversity/symposia/expandingthearc/> .

Global H2O Partnership Conference

The Global H2O Partnership Conference, May 11-14, 2004, Cairns, Australia will convene to further the environmental, economic and social importance of oceans, coasts, and islands, and to facilitate the realization of the Montreal commitment by governments to mitigate water pollution and resource degradation from the Hilltops to the Oceans. For more information, check out <http://www.hilltops2oceans.org/> .

GIS Ocean Explorers Project in California

The Ocean Explorers project is a 3-year NSF funded project for middle and high school teachers to lead teams of teachers in the creation of lesson plans utilizing GIS technology in the study of the Channel Islands National Marine Sanctuary. There will be 2-3 day GIS introductory workshops in LA, as well as travel to the Channel Islands for a week-long research expedition this summer. Applications are due by February 15, 2004. For more information, check out <http://www.exploreoceans.org> .

International Children's Conference on the Environment

The 2004 Tunza International Children's Conference on the Environment, July 19-23, 2004, New London, Connecticut, will convene six hundred international students aged 10-13 to explore topics on the themes of *Oceans, Rivers, and Waterways, Extinction and Biodiversity, Indigenous People's Environmental Ways, and Energy—Save It, Renew It, Recycle It*. For more information, check out <http://www.icc04.org/commonpage.html> .

International Conference on Volunteer Administration

The Association for Volunteer Administration will host the International Conference on Volunteer Administration, *Journey of Discovery: Charting Your Course*, October 20-23, 2004, Portland, Oregon. For more information, check out <http://www.avaintl.org/education/conference.html> .

International Marine Protected Areas Congress

The First International Marine Protected Areas Congress will be held in Geelong, Australia, October 23-27, 2005. This global conference will address the World Commission on Protected Areas' Marine goal and primary themes, and will progress discussion on their widespread adoption and implementation consistent with resolutions relevant to marine protected areas arising from the Durban World Parks Congress. The planning for this conference is just underway, but you can download a broad program overview and register a request to receive materials at <http://www.impacongress.org/> .

Louisiana Department of Wildlife & Fisheries' Teacher Workshops

Workshops are held throughout the state and offer Louisiana teaching resources to all participants. Topics range from wetland issues (one-week workshop held on a barrier island) to a migratory waterfowl workshop (3-day workshop with an air boat ride through optimal duck habitat in central LA). For more information, check out the sidebar selections at <http://www.wlf.state.la.us/apps/netgear/index.asp?cn=lawlf&pid=315> .

Marine Pavilion and Town Hall Meeting at the AAAS Annual Meeting

The American Association for the Advancement of Science's annual meeting, February 12-16, 2004, Seattle, Washington, will emphasize the marine theme. The Marine Pavilion in the exhibit hall will feature a group of marine exhibitors in one area to

increase interest and exposure. In addition, they will hold a town hall meeting, *Oceans for Everyone*, on marine science issues that affect the Pacific Northwest and the nation on February 15, 2004, starting at 2pm. The town hall meeting is open to the general public, but pre-registration is required. For more information, check out <http://www.aaas.org/meetings/> .

NAAEE 2004 Conference

The 2004 North American Association of Environmental Educators Conference, November 6-10, 2004, Biloxi, Mississippi, will convene *Casting a Wide Net for Environmental Education*, reflecting the variety of initiatives underway to broaden the professional standing of the field, as well as new partnerships and collaborations. For additional information, check out <http://www.naaee.org/conferences/>, to be updated by mid-February.

National Science Teachers Association National Conventions – Call for 2005 Proposals

Plan ahead: NSTA's National Convention is set for Dallas, TX, March 31 - April 3, 2005. The theme for the 53rd convention is *Deep in the Heart of Science*. Proposals for sessions and presentations are being accepted only. As a reminder, NSTA's 2004 national convention area conventions is Atlanta, Georgia, April 1-4 (still time for earlybird registration), and the fall regional conventions will be held in Indianapolis, Nov. 4-6; Seattle, Nov. 18-20, and Richmond, VA, Dec. 2-4. Deadline for submissions for the 2005 National Convention is April 15, 2004. For more information, check out <http://www.nsta.org/sessions> .

New Jersey Teach at the Beach

The New Jersey Marine Education Association announces *Teach At The Beach* in Camden, New Jersey, May 14, 2004. The workshops and activities are designed to provide educators of all grades and disciplines with ideas, resources, lesson plans and programs dedicated to utilizing marine and aquatic environments as a background to classroom teaching. Lessons will integrate curriculum using NJ State Core Content Standards. For more information, check out <http://hometown.aol.com/newjerseyme/register.html> .

Pacific Congress on Marine Science and Technology

The 2004 Pacific Congress on Marine Science and Technology, May 30 - June 4, 2004, Honolulu, Hawaii, highlights *New Technologies, New Opportunities*. The biennial Congress brings together scholars and resource personnel to address key issues concerning marine technology related to the ocean's economic potential from a multi-disciplinary perspective, to strengthen information exchange and collaborative research. A workshop on Education in Marine Science and Technology will be co-chaired by Shauna Oh of California Sea Grant and Sherwood Maynard of University of Hawai'i. The workshop seeks to showcase exemplary education programs (formal, informal, public outreach, K-12, undergraduate) and the people who deliver them. For more information about the conference, check out www.hawaii.edu/pacon. For more information about the education workshop, contact Shauna Oh at shaunaoh@ucsd.edu .

Puget Sound Marine Science Education Workshop

Join a workshop to coordinate and advance the state of field-based marine science education in Puget Sound. The workshop, *Coordinating and Advancing Field-Based Marine Science Education in Puget Sound: Creating a vision for the future*, will be held

March 14-15, 2004, Seattle, Washington. For more information, check out <http://www.oceaninquiry.org/workshop/> .

Salmon-Trout Enhancement Program Conference

The Oregon Department of Fish & Wildlife's annual Salmon-Trout Enhancement Program Conference, Tillamook, Oregon, March 26-28, 2004 will convene *STEP into the Future*. The conference will focus on highlighting volunteer projects and educational programs throughout the Northwest and address issues affecting the health and management of salmonid populations. Sessions will include a variety of topics on education, fish propagation, habitat restoration, and fisheries management. For more information, check out http://www.dfw.state.or.us/STEP/conference_04.htm .

Scott Aquarium Teacher Workshops

The University of Southern Mississippi and the Scott Aquarium offer several teacher workshop opportunities for 2004:

- Storm Drains: Pollution Solution workshops, March 9, and April 20, 2004
- Marine Biotechnology: The Wave of the Future, February 11 - 13, 2004
- Aquatic Nuisance Species teacher workshop, February 15 -17, 2004
- Centers for Ocean Sciences Education Excellence: Central Gulf of Mexico (COSEE:CGOM) will sponsor an Informal Educators' Workshop, March 4-5, 2004
- The Wonders of Wetlands teacher workshop, April 21 - 23, 2004

For more information, a schedule of activities for a workshop, and/or to enroll, please call the Scott Aquarium at (228) 374-5550 or e-mail shelia.brown@usm.edu or kay.baggett@usm.edu .

Society for Ecological Restoration International: Call for Proposals

SER 2004 will convene *Restoration on the Edge*, August 25-27, 2004, Victoria, British Columbia, and invites proposals for papers, posters, and presentations in other media including electronic media, visual and installation art, and performance, to be presented during the conference. Submission deadline is April 1, 2004. For more information, check out <http://www.ser.org> .

Space Science Institute Workshops

The Space Science Institute is hosting two education workshops this spring:

- Designing Exemplary Professional Development Experiences for Educators, March 18-20, 2004, <http://halvas.space-science.org/registration/SpecialTopicSpring2004/1.asp>
- 4-Day Education Workshop for Scientists, Engineers, and E/PO Managers, April 25-28, 2004, <http://halvas.space-science.org/registration/k12spring2004/1.asp#ann>.

Understanding Aquatic Nuisance Species and Their Terrestrial Counterparts

The Dauphin Island Sea Lab and the J.L. Scott Marine Education Center and Aquarium announce a new on-line course for March, 2004, *Understanding Aquatic Nuisance Species and Their Terrestrial Counterparts*. The course is designed for 250 participants on a first sign-up basis. For more information, check out www.coexploration.org/ans .

EDUCATIONAL RESOURCES

AAAS Atlas of Population and the Environment

The AAAS Atlas of Population and Environment provides maps, text, and graphics that quantify and illustrate the broader links between population dynamics and the environment. Analyses of individual topics bring together what is known about the ways in which people impact the Earth's environment. Lastly, the atlas contains six case studies that look at population-environment relationships in selected areas. Check out the fresh water graphics and other graphs, and the bibliography (under sources). For more information, check out <http://atlas.aaas.org/> .

Audubon Lesson Plans On-Line

Wild Republic's Learning Adventure features lesson plans about nature, animals and their habitat; this year's focus is on birds. Educators at Audubon provided the necessary content for the 2003-2004 lesson plans, including Puffins, upwelling, coastal food webs, and more. Each unit is designed to enrich students' knowledge and understanding of birds, their characteristics and habitats. For more information, check out <http://www.wildrepublic.com/lessonplans/2003/index.html> .

Coastal and Estuarine Science News

The Estuarine Research Federation offers Coastal and Estuarine Science News, funded by the Ocean and Coastal Protection Division of the EPA, to strengthen the link between science and management in coastal systems. Back issues are posted at <http://www.erf.org/cesn/> . You can subscribe to the mailing at <http://www.erf.org/user-cgi/cesnlist.pl> .

The Dune Book

North Carolina Sea Grant offers a comprehensive book on sand dunes. This publication describes the benefits of dunes and dune vegetation, as well as the best dune management practices along developed shorelines where people, buildings and roads are already in place. It also describes how to select and plant the best dune grasses for the North Carolina coast and provides tips and colorful illustrations on the most common dune species. For more information, check out http://www.vims.edu/bridge/index_geology.html .

Interactive Estuary Poster

Check out this new feature on the Padilla Bay National Estuarine Research Reserve education web site. To access it, select Education, then the Kids Page. Move the cursor around to an animal or plant to bring up more information about it. To access this and other education resources and curriculum, check out www.padillabay.gov .

IUCN Caribbean Fishes Weblift

The Caribbean Fishes Specialist Group is composed of ichthyologists and fishery scientists who are engaged in research and conservation of fishes in the Caribbean region. They have created a weblift that provides links to on-line databases around the world that contain information about Caribbean fishes. For more information, check out <http://caribbeanfish.org/english.html>

National Energy Education Development Project

NEED (National Energy Education Development) develops curriculum and conducts teacher training for K-12 teachers and students. The program is focused on the

production, uses and science of energy in all its forms. The NEED program and website includes curriculum materials, professional development, evaluation tools, and an awards program. Note that you may be more successful opening some of the pdf files from the website if your Adobe Acrobat Reader® is already open. For more information, check out www.need.org .

Ocean Literacy

This web site and online survey are the result of a partnership of agencies and institutions concerned with improving ocean literacy. Check out the extensive links under Education Resources, Links, and National & Regional Programs. For more information, check out <http://oceanliteracy.org/> .

Plastic in the Ocean

Marine debris has recently been highlighted in newspapers and was featured on Canada's Discovery Channel. TV documentary maker Ian Connacher describes a flood of junk flowing into the sea – some to circulate endlessly in currents, some to be eaten by fish, and then by humans. He produced a feature piece on ocean plastic sampling, highlighting the implications of land-based sources of pollution on the marine environment. It can be viewed at <http://www.exn.ca/dailyplanet/view.asp?date=1/15/2004> .

Reach the World – Now Off the Cape Verde Islands

Reach the World is a nonprofit educational media developer and a provider of school-based training in instructional technologies. Its mission is to link students and teachers in low-income communities with real-world, global expeditions that have the power to expand learning beyond the classroom. Follow the voyage of the Makulu, as the trade winds carry her across the Atlantic Ocean towards Barbados in the Caribbean Sea. Check out the materials in the Floating Classroom. For more information, check out <http://reachtheworld.org/> .

Sea Turtles Resources

NOAA / NMFS Southeast Fisheries Science Center is now posting files of published and unpublished reports by staff about sea turtles. This is a work in progress and they hope to eventually upload publications from all their laboratories in the southeast. The address for this publications page is <http://www.sefsc.noaa.gov/seaturtlepublications.jsp>. The site also includes Proceedings from the annual Symposium on Sea Turtle Biology and Conservation at http://www.nmfs.noaa.gov/prot_res/PR3/Turtles/symposia.html .

The revised technical report written by Blair E. Witherington and R. Erik Martin, "Understanding, Assessing, and Resolving Light-Pollution Problems on Sea Turtle Nesting Beaches," with diagrams of common lighting fixtures and mounting positions as well as a model lighting ordinance for marine turtle protection, is now available on line at http://www.floridamarine.org/features/view_article.asp?id=2156 .

For a comprehensive site on Caribbean sea turtles, check out WIDECAST at www.widecast.org, or if Europe and the Mediterranean are your interest, visit the award-winning EuroTurtle site at <http://www.ex.ac.uk/~pcthornt/EuroTurtle/homep.htm>. The Sea Turtle Restoration Project has educational resources and background on current issues at www.seaturtles.org, the Marine Turtle Newsletter archives feature three decades of sea turtle research and commentary at www.seaturtle.org/mtn, and a new

site, hosted by Marinelife Center of Juno Beach, will soon have tracking data available for classroom use at www.floridaleatherbacks.com.

This Week at Hilton Pond – Seagulls

While the focus for this research center is the South Carolina Piedmont, the latest posting on seagulls underscores the fact that you cannot separate “marine” from the greater environment. Check out Garbage Gulls (and lots of other offerings) at <http://www.hiltonpond.org/ThisWeek040115.html> .

Water Resources of the Caribbean Countries & Territories

The CD *Water Resources of the Caribbean Countries & Territories* is now ready for distribution (for a nominal cost). The CD has information for 35 countries, islands and/or territories, including

- Maps
- Size, population, climate, economy
- Water availability, supply, and demand
- Vulnerability of coastal aquifers
- Coastal zone issues
- Legal setup and institutions

For more information, contact Jasminko Karanjac at jasminko.karanjac@uwimona.edu.jm .

Whooping Cranes Migration

This educational website was developed through a partnership of Annenberg/CPB, Journey North, and the Whooping Crane Eastern Partnership. This site connects to an extensive selection of lessons, activities and information, facts about Whooping Cranes in question/answer format, and background information about the Whooping Crane Reintroduction Study. Users can also connect to highlights from the Year 3 Reintroduction and Migration including maps, video clips, and photos. For more information, check out <http://www.learner.org/jnorth/fall2003/crane/index.html> .

INITIATIVES

Applied Environmental Education and Communication: Call for Papers

Applied Environmental Education and Communication is an international peer-reviewed quarterly for both academics and practitioners. It features articles, a discussion and editorial section, and books and materials reviews. A special themed issue on environmental education and communication for biodiversity will be published in 2004. The deadline for submissions is June 1, 2004. For more information, check out <http://www.aeec.org/submission/submission.asp> .

Dive In to Earth Day 2004

Organize a beach or underwater cleanup, host an educational slideshow or film, conduct a fish survey, or raise funds for a marine protected area, by "Diving In" this Earth Day. Last year's event garnered 270 activities, helping protect coral reefs and aquatic ecosystems in 58 countries and territories around the world. To take part in this international celebration with activities scheduled for the week of April 22, 2004, check out the Coral Reef Alliance's Dive In To Earth Day website, with Tools for Organizers, FAQs, registration, promotional materials, and other information and ideas. For more information, check out: <http://www.coralreefalliance.org/divein/> .

GPA Marine Email Newsletter

The GPA is the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities, for which the United Nations Environment Programme (UNEP) provides the secretariat. Monthly GPA Outreach newsletters and weekly GPA News Updates are a new source of information about related events and information relevant to the wider marine and freshwater sector. To subscribe to GPA Outreach, please send an e-mail to join-gpa-outreach@lists.healthdev.org .

Landscapes of the Heart: Call for manuscripts

Scholars, writers and environmentalists are invited to submit manuscripts for consideration in an expanded edition of the book *Landscapes of the Heart* – one that will cross the boundaries of ecology, economics, law, culture, health, the social sciences and the humanities. For more information, check out http://www.telusplanet.net/public/aleksiuk/homepage/call_for_papers .

Riverquarium to open in Georgia

The Flint Riverquarium is scheduled to open this summer in Albany, Georgia. The Riverquarium will promote conservation through aquatic exhibits and educational experiences that engage diverse audiences by interpreting the unique ecosystems of the Flint River watershed. Exhibits will feature fish such as catfish, bass, bream and other aquatic animals from the Flint River and waterways downstream, including Apalachicola Bay, Lake Seminole and the Gulf of Mexico. In addition, the Riverquarium hosts a World of Water exhibit featuring river systems from around the world. For more information, check out www.flintriverquarium.com .

Water for Life: UN Proclaims International Water Decade 2005-2015

At its 58th session, the United Nations General Assembly adopted a draft resolution proclaiming the period from 2005 to 2015 as the International Decade for Action, “Water for Life”, starting on World Water Day, 22 Mar 2005. The goal of the Decade is “a greater focus on water-related issues, with emphasis on women as managers of water to help to achieve internationally agreed water-related goals”. Coordination of activities for the Decade will be in the hands of the UN Under-Secretary-General for Economic and Social Affairs. For more information, check out <http://www.unesco.org/water/> .

World Water Day 2004

The UN International Strategy for Disaster Reduction and the World Meteorological Organization have been charged with coordinating World Water Day 2004 on March 22. This year’s theme is *Water and Disasters*. For more information, check out http://www.unesco.org/water/water_celebrations/index.shtml .