



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

DECEMBER 2004

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, EEinGEORGIA, Scuttlebutt, the Scout Report, and others. We have attempted to verify web addresses, but make no guarantee of accuracy. 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".

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.

Social Science for Marine Protected Areas

The Social Science Methods for Marine Protected Areas website focuses on the human dimensions of coastal resource management. Several topics, including surveys, nonmarket valuation, and social assessments, are illustrated through case studies. The site is a collaboration between the NOAA Coastal Services Center and the National Marine Protected Areas Center. For more information, check out <http://www.csc.noaa.gov/mpass/>

Notable MPA Literature

Article: "Indicators for the Evaluation of Environmental Education, Interpretation and Information in Protected Areas"

This article, featured in *Applied Environmental Education and Communication: An International Journal*, presents a model of evaluation of environmental education, interpretation and information carried out in the protected areas of the Balearic Islands

off Spain. The article proposes indicators that can be used to analyze communications activities in protected areas.

Sureda, Jaume Oliver Miquel Castells Margalida, 2004. Indicators for the evaluation of environmental education, interpretation and information in protected areas. 3, 3: 171-81. Spain

Main MPA Library URL:

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

PROGRAMS OF THE MONTH

Southeast Phytoplankton Monitoring Network

The Southeast Phytoplankton Monitoring Network (SEPMN) is a NOAA-funded harmful algal bloom (HAB) monitoring program based in Charleston, SC. This program is designed to get students and the community involved in science research to help understand HABs and their effects on humans and the environment. Volunteers from South Carolina, Georgia, and soon in North Carolina and Florida assist NOAA researchers by performing plankton tows and identifying phytoplankton species that exist in local coastal waters. Volunteers include elementary, middle, and high school students, colleges and universities, civic groups and environmental organizations, and state and federal research institutions.

Benefits to participating in SEPMN include:

- Learning about phytoplankton and harmful algal blooms
- Conducting scientific research and field work
- Learning data collection and microscopy techniques
- Participating in a regional federally-funded research program
- Interacting with NOAA scientists

All SEPMN activities are in line with National and State Science standards. The SEPMN website also features a Resource Page, which is a compilation of books, videos, fact sheets, newsletters, journals, and web links, including several activities. For more information, check out the SEPMN site:

<http://www.chbr.noaa.gov/CoastalResearch/SEPMN/index.htm>

WET in the City and Team WET Schools

WET (Water Education for Teachers) in the City, an urban environmental education program of the Council for Environmental Education (CEE), engages K-12 youth in hands-on activities that creatively explore the science of water, its cultural context, and complex issues surrounding its management and stewardship. The program is delivered at the local level, city by city, and targets urban educators with relevant, localized water education through a network of city partners.

Team WET Schools is a companion program to WET in the City, bringing urban water issues to the forefront of environmental education in school buildings. A network of community and corporate partners grows around each Team WET School, supporting teachers to advance water education while encouraging students to participate in active water stewardship and community improvement. Team WET Schools are currently located in San Antonio and Houston, Texas, as well as Indianapolis, Indiana. Curriculum content includes a curriculum guide of activities, student handouts (available

in both English and Spanish) and field lab equipment – everything needed to teach WET in the City.

Please note that CEE is looking for Army Corps of Engineer projects (reservoirs, etc.) and Corps members who are interested in adopting a Team WET middle school. As a water resources agency, Corps involvement in Team WET Schools/WET in the City provides a great mechanism for fostering water stewardship in youth to help address the Nation's water challenges. Please contact Julie Marcy for more information: Julie.B.Marcy@erdc.usace.army.mil.

To learn more about WET in the City and Team WET Schools, check out <http://www.wetcity.org/>

WEBSITE OF THE MONTH

National Ocean Service Discovery Centers

NOAA's National Ocean Service has launched the NOS Education Discovery Center on the NOS website. The Discovery Center presents educational materials that students and educators can use to learn about the breadth of scientific research, technology, and activities conducted by NOS in the areas of oceans, coasts, and charting and navigation. The Discovery Center offers Discovery Classroom, Stories, and Kits incorporating numerous multimedia features. While developed for students and educators at the high school level, they contain information and features that can be enjoyed by anyone with an interest in science.

The Discovery Stories are case studies in coastal and ocean science drawn from research conducted by NOS. They are opportunities to learn through inquiry and are accompanied by a set of supporting resources, including student and teacher guides, interactive quizzes, exercises with real data, and interviews with NOS scientists that explore how scientists think. The first Discovery Story explores the Lionfish invasion.

The Discovery Classroom is a collection of inquiry-based, formal lesson plans based on the major thematic areas of the National Ocean Service website. All of the lessons are downloadable, emphasize hands-on activities using on-line data resources, and are correlated to National Science Education Standards and the American Association for the Advancement of Science Benchmarks for Science Literacy.

Current topics in the Discovery Classroom include

- Coral Reef Conservation
- International Collaboration
- Marine Protected Areas
- National Marine Sanctuaries
- Ocean Exploration
- Coastal Ecosystem Science
- Coastal Management
- Harmful Algal Blooms
- Natural Resource Restoration

Be sure to check out the MPA lesson plans, *Protect This!* and *Water Parks*. For more information, go to <http://www.nos.noaa.gov/education/welcome.html>

REQUESTS

Seeking Comments on Draft NCATE EE Program Standards

The North American Association of Environmental Educators is an organizational member of National Council for Accreditation of Teacher Education (NCATE) and is in the process of developing environmental education program standards for NCATE. The writing team has met and drafted an initial standards framework. Now, the writing team needs to hear from you. Please take the time to review the document and submit your comments by January 12, 2005. For more information, visit http://naaee.org/projects/ncate_stds_feedback.pdf

Seeking a Few Good Questions

The *Science Teacher*, the National Science Teachers Association's journal for secondary science educators, invites teachers to submit questions for the journal's "Ask the Experts" department. Questions are welcome from students as well as teachers, and those who submit questions selected for publication will receive a gift certificate to the NSTA Science Store. To look at the current issue's "Ask the Experts" column, go to http://www.nsta.org/main/news/stories/science_teacher.php?category_ID=88&news_story_ID=50014. To submit questions, contact Marc Rosner at MARosner@aol.com

Seeking Names of Teachers, Programs, & Schools Using Environment-Based Education

Dr. Julie Athman Ernst of the University of Minnesota, Duluth, seeks the names of K-12 teachers, formal instructional programs, or schools for a research project investigating what makes teachers able and motivated to use the environment as a theme or context for their teaching. Teachers of interest use environment-based or EIC-like approaches, where the environment is used as a context for integrating subject areas, as the source of real world projects and learning experiences, and as a means to improve academic outcomes. For more information, contact Dr. Ernst before January 30, 2005, at jernst@d.umn.edu.

Seeking Participants for Field Research through McGill University

David Delaney seeks school groups and volunteers to investigate alien species along the coastline. He will train your students on research methodology and then they will work as a team to make transects and randomly placed quadrats. They will learn how to record standardized data and answer scientific questions. Their work will be used in research currently being conducted by graduate students, university professors, and government scientists. For more information, contact David at david.delaney@elf.mcgill.ca

GRANTS AND OPPORTUNITIES

Action for Nature Young Eco-Hero Awards

Action for Nature seeks applications from students 8-16 for its 2005 Young Eco-Hero Awards program. The awards program recognizes the individual accomplishments of young people who have carried out environmental action projects. Projects must concern environmental advocacy and health, protection, or research. Winners will receive a cash award. The deadline for application is February 28, 2005. For more information, go to <http://www.actionfornature.org/eco-hero/>

CAPCO Science Class Challenge

The Consumer Aerosol Products Council (CAPCO) Science Class Challenge is meant to encourage students and teachers in grades 4-9 to learn about the Earth's protective upper ozone layer, CFCs (chlorofluorocarbons contained in some aerosol cans) and the environment by using provided activities or their own creative methods. The deadline for application is May 13, 2005. For more information, visit

<http://www.nocfcs.org/scc/scchome.htm>

FEDCO Classroom Enrichment Fund - California

The FEDCO Charitable Foundation provides grants for full-time public school teachers in Cerritos, Culver City, Norwalk La Mirada, Pasadena and Los Angeles Unified School Districts. Grants support hands-on, classroom, or "real-world" field trip projects that "bring learning to life" and increase student academic achievement. Grants are designed to encourage experiential learning, enhance student understanding and increase student achievement in relation to the curriculum standards in one of the core subject areas. The application deadline is February 21, 2005. For more information, check out

<http://calfund.org/6/fedco.php>

ING Unsung Heroes Award for K-12 Educators

ING Financial Services provides funds for K-12 teachers pioneering new methods and techniques that improve student learning. Applications are judged on innovative teaching methods, creative educational projects, and ability to make a positive influence on the children they teach. Application deadline is April 30, 2005. For more information, visit

<http://www.ing.com/us/about/connect/education/unsungapplication.pdf>.

International Sea Turtle Conservation Fund

The National Fish and Wildlife Foundation, in collaboration with the U.S. Fish and Wildlife Service and NOAA, announce the availability of matching grants for international sea turtle conservation projects. Priority will be given to projects in the Caribbean or along the Atlantic and Pacific Coasts of Latin America. Special consideration will be given to projects demonstrating clear and immediate benefit to the conservation of hawksbill turtles (*Eretmochelys imbricata*) in the wider Caribbean, and black and leatherback sea turtles (*Chelonia agassizii* and *Dermochelys coriacea*) on the Pacific coast of Latin America. Pre-proposal submission deadline is December 20, 2004. For more information, go to http://www.nfwf.org/programs/turtle_app.htm

Lake Superior Binational Forum – Mini-Grants and Environmental Stewardship Awards

Mini-grants are available to community groups, non-profit organizations, students or citizens interested in promoting sustainability in the Lake Superior region. The Lake Superior Sustainable Mini-Grant Program is designed to support programs that protect Lake Superior and promote community sustainability. Grants may be used to start a sustainability council, create an educational project to help students find social solutions to environmental problems, and more. Grant applications have no deadline. The Forum also sponsors an annual environmental stewardship awards program in a Youth Category that recognizes and promotes outstanding youth leadership in activities that protect or restore the natural environment in the Lake Superior basin. Individual students, youth clubs or groups, or schools can enter in this category. Nominations are

open February 15 through April 15, 2005. For more information, check out <http://www.superiorforum.info>

Strengthening Institutions Program

Institutions of higher education are eligible to apply for grants if they meet specific statutory and regulatory eligibility requirements. Funds are available for American Indian Tribally Controlled Colleges and Universities, Alaska Native and Native Hawaiian-Serving Institutions, and Developing Hispanic-Serving Institutions Programs. Application deadline is January 13, 2005. For more information, visit <http://www.ed.gov/legislation/FedRegister/announcements/2004-4/113004a.html>

Student Challenge Awards Program

The Student Challenge Awards Program seeks high school students with limited experiences in the sciences who are creative, inventive thinkers, motivated learners, and eager to increase their understanding of science and nature. Awards winners will work alongside inspiring professional scientists conducting scientific research. Teams consist of six to 10 students on one of 10 research expeditions stationed across North America. All expeditions last 12 to 16 days between June 15 and August 31, and cover all costs associated with the research, accommodations and travel. Students with limited resources and opportunity for enrichment are favored. The deadline for application is December 31, 2004. For more information, check out <http://www.earthwatch.org/education/student/scap/nominate.html>

Toyota International Teacher Program

This professional development opportunity for high school teachers from AL, CA, DC, IN, KY, MI, MO, NY, TX, and WV offers a fully funded, two-week (June 24 - July 11, 2005) cultural/educational study program to Japan focusing on history, education, environment and technology, and how these affect industry and society. Participants will be selected through a competitive, merit-based process. The application deadline is January 10, 2005. For more information, go to <http://www.iie.org/Template.cfm?&Template=/programs/toyota/default.htm>

Volvo Adventure Awards

The Volvo Adventure is an environmental award for ages 10-16 that rewards environmental action taken by young people. It gives young people the chance to gain international recognition for their local environmental projects and helps supports environmental education in schools and the local community. Awards are given for practical action plans in the categories of biodiversity, waste, water, transport, and energy. Deadline for submission is January 31, 2005. For more information, check out <http://www.volvoadventure.org/site/locationchoice.asp>

INTERNSHIPS AND TEMPORARY OPPORTUNITIES

Little Cayman Research Centre Summer Field Program

The Central Caribbean Marine Institute announces that the Little Cayman Research Centre (LCRC) is due to open in summer 2005. The LCRC is the newest education and research facility located in the on the island of Little Cayman. The 2005 Summer Program includes three field courses: introduction to coral reefs, structure and diversity in coral reefs, and the teachers institution: introduction to coral reef systems. For more information about these and other opportunities, visit www.reefresearch.org

CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT

American Society of Limnology and Oceanography

The annual meeting of the American Society of Limnology and Oceanography (ASLO), Santiago de Compostela, Spain, June 19-24, 2005, will include a special session on ocean literacy (SS49: An Ocean Literacy Campaign). Abstract submission deadline is February 1, 2005. Presentations that focus on efforts to integrate K-12 teachers and students in scientific research, and those that identify new scientific discoveries and make this information available to teachers and classrooms, are encouraged. For more information about the meeting, check out <http://aslo.org/santiago2005/index.html> . Contact Michiko Martin at michiko.martin@noaa.gov for more information about the special session.

Armada Project - Research & Mentoring Experiences for Teachers

The ARMADA Project provides K-12 teachers opportunities to actively participate in ocean, polar, environmental science research and peer mentoring. Master Teachers develop ways to bring their research experiences, including scientific data, methodologies, and technology, into the classroom. ARMADA teachers mentor new teachers and present at NSTA Conventions. For more information, check out <http://www.armadaproject.org>

Association of Marine Laboratories of the Caribbean Scientific Meeting

The scientific meeting of the Association of Marine Laboratories of the Caribbean will include poster and verbal presentations to promote the exchange of scientific and technical information concerning Caribbean marine sciences. Topic areas include coral reef ecology, Caribbean oceanography and coastal processes, public awareness and education, and more. The deadline for abstract submittal is April 1, 2005. For more information, contact education@curacao-sea-aquarium.com

Beach Management, Tourism and the Coastal Environment Workshop

Beach Management, Tourism and the Coastal Environment Workshop: *A Conference of America's Beaches*, planned for March 2-4, 2005 in Miami, Florida will focus on overlapping contemporary social and scientific issues. Topics include beach management and tourism, beach management in the face of coastal disasters, and beach management and the environment (including education). For more information, contact defraene@fiu.edu

Certified Interpretive Guide Training

The National Association for Interpretation (NAI) 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 State Arboretum of Virginia at Blandly Experimental Farm, Boyce, Virginia, will host a CIG workshop March 2 - 5, 2005. For more information, check out <http://interpnet.com/interpnet/miscpages/programs/Workshops/CIG/ArboretumMarch2005.htm>

Designing for e-Learning

This 15 week course explores the essential components of designing and developing an e-Learning course. Participants will explore principles, theories, and paradigms of distance education; review technology issues; and demonstrate design, development and assessment methodologies. You will have the opportunity to design and develop your own course by the end of the learning experience. Credit is available from University of Alaska Anchorage. For more information, visit <http://www.creative-conservation.com/designinfordistance.htm>

Developing Teacher Training Course - California

This face-to-face training course, scheduled for February 28 - March 4, 2005, in San Francisco, California, presents the essential components of work with schools and school systems, designing, conducting and evaluating teacher training. The course culminates with participants applying their skills at actual teacher workshop. Upon return to their sites, each participant is also expected to plan and conduct a workshop for teachers within a year. Course registration deadline is January 3, 2005. (Call for availability after the deadline). Special Note: Two prepaid tuition slots are available for National Park Service (NPS) and two for Bureau of Land Management (BLM) personnel. Registration for prepaid tuition slots is first-come first-serve. For more information, contact Georgia Jeppesen at (304) 876-7388 or georgia_jeppesen@fws.gov. Register on-line through the National Conservation Training Center at <https://otis.fws.gov> using the course number (OUT8161)

EECOM 2005 Conference - Call for Presentations

The Canadian Network for Environmental Education and Communication (EECOM) 2005 Conference will host *Creating Ripples - Education, Environment & Culture*, September 30-October 2, 2005 in Huntsville, Ontario. The call for presentations seeks abstracts on research, theory, and practice in the six strands: community engagement; critical reflection; ethics; global education; leadership; and outdoor experiences. The deadline for proposal submission is December 31, 2004. For more information, visit http://www.eecom.org/ripples2005/ripples_call.htm

Investigating and Evaluating Environmental Issues and Actions Workshop – Alaska and Hawaii

The Investigating and Evaluating Environmental Issues and Actions (IEEIA) Workshop will help teachers learn how to help students develop critical thinking skills, investigate environmental issues, and plan responsible citizenship action. Workshops will be held in Seward, Alaska, June 19-25, and Molokai, Hawaii, June 25–July 2, 2005, Application deadline is February 1, 2005. For more information, check out the Center for Instruction, Staff Development, and Evaluation, at <http://www.cisde.com/index.htm>. For information about the Hawaii workshop, contact cisde@midwest.net; and for Alaska, contact teachu@wabash.net

JASON Academy

The JASON Academy offers award-winning online courses. Sessions begin February 7, 2005, and include aquatic ecology, ocean science, rainforests-endangered ecosystems, and more. Several interactive science workshops will also be offered. For more information, check out http://www.jason.org/jason_academy/jason_academy.htm

LiMPETS Workshop - California

Learn about rocky intertidal and sandy beach monitoring techniques. The Channel Islands National Marine Sanctuary will host the 2005 West Coast LiMPETS Teacher Workshop in El Capitan Canyon, California, from March 3-6, 2005. The workshop will include an introduction to monitoring techniques; field trips to a sandy beach site and a rocky intertidal site to collect data; instruction for entering data into online databases; and guidance for setting up your own marine monitoring program with your students. For more information, go to

<http://limpets.noaa.gov/projectInformation/introduction/welcome.html>

National Association for Interpretation – Meetings, Conferences, and Workshops

The National Association for Interpretation holds an annual National Interpreters Workshop each fall. The Association is divided into 10 geographical regions and the Workshop rotates from one region to another. Regions help members network with others who work near them. Each region offers a spring regional workshop of two to four days in duration. These training and networking events place an emphasis on front-line interpretive training. A calendar of ancillary organization meetings, conferences, and workshops will be posted on the NAI website shortly. For more information about the NIW or regional workshops, or for contact information, visit

www.interpnet.com/interpnet/workshops.htm

National Teachers Enhancement Network Spring Courses

The National Teachers Enhancement Network delivers professional development opportunities through the Internet directly to K-12 science teachers. Educators access electronic teacher resources, discuss issues with other educators online, and participate in graduate telecomputing courses. Courses start January 24, 2005, and include water quality, weather and climate for teachers, evaluation and measurement in education, and more. For more information, check out <http://scienceteacher.org/courses.htm>

New Jersey Environmental Education Annual Conference

The 20th annual New Jersey Environmental Education conference theme is *Diversity: The Nature of New Jersey*. The conference will be held January 6-8, 2005 in Lawrenceville, New Jersey. There will be concurrent sessions with hands-on workshops, panel discussions, field trips, lectures, and groups discussions to improve your environmental education programs. For more information, go to

<http://www.anjee.net/conference/index.html>

EDUCATIONAL RESOURCES

ARTNC (North Carolina Museum of Art)

The North Carolina Museum of Art provides online educational resources featuring nature and science activities that can be used in environmental education. The website includes K-12 lesson plans and activities searchable by region, subject, and grade. While none specifically address the marine environment, concepts include animal behavior and adaptation, weather and climate, ecosystems, and more relevant topics. To learn more, visit <http://www.ncmoa.org/artnc/>

Fishing for Answers: Making Sense of the Global Fish Crisis

The goal of *Fishing for Answers* is to provide easily digestible but comprehensive fisheries information for consumers and policymakers. This report will allow consumers

to make links between what they eat and the effect on the ecosystem and fishers globally, as well as to stimulate dialogues among environmentalists, the fishing industry, and consumers. The executive summary is currently available, and the full print version will be made available soon. For more information, check out http://water.wri.org/pubs_pdf.cfm?PubID=3866

Global Amphibian Assessment

The Global Amphibian Assessment is a comprehensive assessment of the conservation status of the world's 5,743 known species of frogs, toads, salamanders, and caecilians. This website presents results of the assessments, including IUCN Red List threat category, range map, ecology information, and other data for every amphibian species. For more information, go to <http://www.globalamphibians.org/>

Graveyard of the Pacific: The Shipwrecks of Vancouver Island

The Virtual Museum of Canada explores the various shipwrecks that have taken place around Vancouver Island, off the mainland of British Columbia, from the year 1803 to the present day. Read tales of survival from these vessels, view an interactive map of the shipwrecks, and learn about the various hazards associated with the waters off Vancouver Island. There is also an interactive game called "Wrecks", that allows visitors to navigate the icy oceans of Vancouver Island in an attempt to bring their cargo to a safe harbor. To learn more, visit <http://www.pacificshipwrecks.ca/english/index.html>

Habitat Connections

The Fisheries Office of Habitat Conservation has re-launched their quarterly newsletter, *Habitat Connections*. The next three issues will focus on oyster habitat around the nation. To subscribe, contact Laura.Walko@noaa.gov

Impacts of a Warming Arctic: Arctic Climate Impact Assessment

In the Arctic Climate Impact Assessment, an international team of 300 scientists has determined that the Arctic is warming at nearly twice the rate as the rest of the planet. Increasing greenhouse gases from human activities are projected to make it even warmer, according to the four-year scientific study of the region. For more information, check out <http://amap.no/acia/>

Information Center for the Environment – Biological Inventory of the World's Protected Areas

The Information Center for the Environment, in cooperation with the United States Man and the Biosphere program, the Man and the Biosphere program of the United Nations Educational, Scientific, and Cultural Organization (UNESCO), and others, has produced databases containing documented, taxonomically standardized species inventories of plants and animals reported from the world's protected areas. They provide separate links from the website for Biosphere Reserves, and another for all Protected Areas reported. For more information, visit <http://www.ice.ucdavis.edu/bioinventory/bioinventory.html>

International Society for Reef Studies

Located within the Florida Institute of Technology, the International Society for Reef Studies (ISRS) is designed to disseminate its findings on both living and fossil coral reefs. "Reef Encounters" (right side, pull-down menu) will give an overview of some of the projects the organization is currently working on. For more information, check out <http://www.fit.edu/isrs/>

Marine Mammals Ashore: A Field Guide for Strandings

The National Aquarium in Baltimore announced reduced prices for *Marine Mammals Ashore: A Field Guide for Strandings* by J.R. Geraci and V.J. Lounsbury (1998). The CD-ROM includes the Field Guide (a comprehensive manual for understanding and dealing with a stranded seal, manatee, dolphin, whale, or sea otter), a multimedia overview of the CD-ROM including discussions by marine mammal experts from around the world, photographs, and more. For more information, contact mmashore@aquarium.org.

Marine Navigation in the Age of Exploration

The Seattle Art Museum hosted the exhibition, *Spain in the Age of Exploration, 1492-1819*. To accompany it, they developed an interactive website illustrating the use of four ancient nautical instruments: the quadrant, astrolabe, octant, and chronometer. Each instrument's section includes pictures, a bit of history, and a description of how it was used. For more information, visit

<http://www.seattleartmuseum.org/exhibit/interactives/spain/launchWin.htm>

Math And Science Song Information, Viewable Everywhere

Math And Science Song Information, Viewable Everywhere (MASSIVE), is a database containing information on more than 1700 science and math songs. The songs, suitable for a variety of ages and of varying sound quality, are both silly and serious. Visitors can search on a song or listen to MASSIVE radio, "an Internet radio station devoted entirely to science/math songs." For more information, check out

<http://www.science-groove.org/MASSIVE/>.

National Parks of New York Harbor

Aiming to make National Park Service rangers as recognized in New York City as they are on the trails of Yosemite, the National Parks of New York Harbor Project, a new public-private partnership of the National Park Service and the National Park Foundation, unveiled the first phase of an effort to heighten public support and increase access to 22 national park sites around the region of New York Harbor. Its centerpiece is an audio tour, the *Gateway to America: National Parks of New York Harbor Tour*. For more information, go to

<http://data2.itc.nps.gov/digest/printheadline.cfm?type=ParkNewsEvents&id=14951>

The Power of Place: Geography for the 21st Century

The Annenberg Channel presents *The Power of Place: Geography for the 21st Century*, to teach the geographic skills and concepts that are necessary to understand the world. Geography educators and content experts from around the globe shed light on the physical, human, political, historical, economic, and cultural factors that affect people and natural environments. Maps, animation, and academic commentary bring into focus case studies from 50 sites in 36 countries. Each case study features new interviews, maps, video footage, and graphics. Several case studies involve maritime issues. For more information, check out <http://www.learner.org/resources/series180.html>

SEA-GEOFISH

The southeast geographic fishery-independent survey and historical (SEA-GEOFISH) database is a web-based mapping application presenting data from a long-term fishery survey conducted by the South Carolina Department of Natural Resources. The geographic database includes data collected during more than 30 years of research cruises, sampling fishes and fish habitat off the Atlantic coast of the southeastern U.S.

Surveys used a variety of fish sampling gear such as trawls, traps and baited hooks. The maps include distribution of fish species; data on abundance, biomass, diversity and spawning; and information on management and jurisdiction. The application also offers users a series of GIS-based analysis tools for a greater understanding of the data. For more information, visit <http://ekman.csc.noaa.gov/seageofish/seageofish.htm>

Smart Consumers Education Module

World Wildlife Fund's latest education module in the Windows on the Wild series, for grades 6-9, is *Smart Consumers: An Educator's Guide to Exploring Consumer Issues and the Environment*. This 300-page toolkit includes an educator's guide with background information, hands-on activities, an annotated list of resources, a Community Action Guide, and more. For more information, check out http://www.worldwildlife.org/windows/education_guides.cfm#3

Sooty Shearwater Tracking

The www.seaturtle.org website posts the results of satellite tracking of the pelagic seabird, the sooty shearwater. The tracks illustrate the trans-Pacific migration of ten (so far) sooty shearwaters from California to the southern hemisphere. The data is updated every even-numbered day as these birds with satellite tags make their way across the Pacific. For more information, visit http://www.seaturtle.org/tracking/?project_id=46

Talking Biodiversity: Getting the Message Across

The Royal Society for the Protection of Birds (RSPB) has recently released a report entitled *Talking Biodiversity: Getting the Message Across*. This publication is part of an RSPB project which has explored different approaches and ideas that could help biodiversity specialists strengthen their communications strategies. Five articles highlight a range of issues, including the historical factors that continue to affect the rights of indigenous peoples, the roles of scientists and journalists, and more. Electronic or hard copies are available upon request from stella.rumbles@rspb.org.uk

Tree of Life: The Incredible Biodiversity of Life on Earth

This beautifully illustrated and child-friendly introduction to biodiversity, *Tree of Life*, shows how living things are classified into five kingdoms — and how each has much to tell us about all aspects of life on our planet. The book focuses on the idea that if every known species on Earth were a leaf on a tree, that tree would have 1,750,000 leaves. Since humans count for just one leaf on the tree, we have a lot to learn about the millions of other forms of life with which we share the world. For more information, check out the “Catalog Search” at http://www.kidscanpress.com/kidscanpress/KidsCanPress_3/us_version/KCP/f_home.htm

USS Monitor Center

The Mariners' Museum and NOAA broke ground on the USS Monitor Center in Newport News, Virginia. The USS Monitor Center will illuminate the individual human stories of those who designed and built the *Monitor* and the *CSS Virginia* and sailed them into battle on March 8 and 9, 1862. The Center will also highlight NOAA archaeologists, scientists and U.S. Navy divers who worked to discover and recover the *Monitor's* artifacts from the ocean's floor and those who are preserving these priceless artifacts for future generations. For more information, check out <http://www.monitorcenter.org/>

Watershed Action: Educate the Public

The Center for Global Environmental Education website offers information for teachers, grades 6-12, to plan educational activities for students to protect and clean up watersheds. Projects include trash cleanup, stenciling storm drains, testing soil nutrients, composting, planting to prevent erosion, and water quality monitoring. Instructions are provided, and links to related information are provided for teachers and students. To learn more, go to http://cgee.hamline.edu/watershed/action/projects/public_ed.htm

Western Regional Climate Center

One of six regional climate centers in the United States, the Western Regional Climate Center is administered by the NOAA, and is overseen by the National Climatic Data Center. Covering the area from Colorado to the boundary of the continental U.S., and including Hawaii and Alaska, this website hosts historical climate information and current atmospheric observations and frequently updated forecasts. In addition to the scientific information, the site also has a number of educational pages for teachers and young people. For more information, check out <http://www.wrcc.dri.edu/>

INITIATIVES, JOURNALS, AND OTHER NEWS

Ocean Science

Ocean Science is an online, open-access international scientific journal dedicated to the publication and discussion of research articles, short communications and review papers covering all aspects of the ocean, its physics, biology and chemistry, its interactions with the atmosphere above and the sediments below. The new journal is published by the European Geosciences Union. For more information, go to <http://www.ocean-science.net>

End-of-Year Gifts

National Marine Sanctuary Calendars

The National Marine Sanctuary Foundation has produced six dynamic calendar products filled with brilliant, colorful photos taken in our national marine sanctuaries. Choices include three wall calendars, a phone/address book, a desk blotter, and a monthly pocket planner. Half of all proceeds from sales will benefit the Foundation's nationwide education and outreach efforts. By purchasing a 2005 National Marine Sanctuaries calendar product, you can be face-to-face with the underwater world every day of the calendar year and feel good knowing that your purchase goes toward protecting these special marine areas. For more information, go to <http://nmsfocean.org>

Seas the Day! Desk Calendar

The Ocean Project works with and through a broad network of more than 500 zoos, aquariums, and museums to increase their partners' effectiveness in educating and communicating for conservation outcomes. They offer a monthly desk calendar featuring images from underwater photographer, Wolcott Henry (www.wolcotthenry.com), with conservation messages and tangible ways people can make a difference appearing on the backside of each themed month. For more information, contact Bill Mott at bmott@theoceanproject.org, or 401.272.8822.

Visions of Undersea Alaska: 2005 Engagement Calendar

Alaska's pristine seas teem with life beyond imagination. With more than 50 colorful underwater photos, this calendar from Sea Grant provides an up-close look at Alaska's

amazing sea life, ranging from tiny space-alien-like plankton to invertebrates, fish, marine mammals, and seaweeds. Photos were taken by scientists, scuba divers, and professional photographers in Southeast Alaska, the Aleutians, and other Alaska locations. Captions provide fascinating facts about each subject. For more information, visit http://www.uaf.edu/seagrant/Pubs_Videos/pubs/SG-ED-45.html

Wetland Gifts

Help support wetland education this holiday season by purchasing wetland related gifts from Environmental Concern Inc. All proceeds from the sale of these wetland candles or note cards will be used to support wetland education initiatives throughout the nation. For more information, check out www.wetland.org