

**NATIONAL MARINE PROTECTED AREAS CENTER  
 INFORMATION EXCHANGE FOR MARINE EDUCATORS  
 MARCH 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. Please share this email with your colleagues and constituents. Contact me directly to discuss further enhancements or to contribute information for future issues. 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](mailto: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<sup>®</sup> instead of Netscape<sup>®</sup>.

MPA FACTS .....	3
MPA.GOV Website Redesign.....	3
Notable Addition to MPA Library .....	3
PROGRAM OF THE MONTH.....	3
Team OCEAN – On-Water Ocean Conservation Education Action Network .....	3
WEBSITES OF THE MONTH.....	4
Student Activism (From the National Student Summit on Ocean Issues).....	4
REQUESTS .....	5
Looking for a Children’s Coral Reef Video.....	5
Looking for Elementary-Level Environmental Books .....	5
Looking for Marine Biology Text and Lab Manual.....	5
Looking for Reviewers.....	5
Looking for Solar Power Sources .....	6
GRANTS AND OPPORTUNITIES.....	6
Aldo Leopold Leadership Program 2005 Fellowships .....	6
Aquarius Writing Contest 2004.....	6
Bay Watershed Education and Training (B-WET) Funds.....	6
Dolores Fisher Award.....	6
Georgia Outdoors Nature Photography Contest.....	7
Georgia Watchable Wildlife and Wildlife Education Grants.....	7
ING Unsung Heroes Award for K-12 Educators.....	7
Institute of Education Sciences Funding.....	7
Minority Science & Engineering Improvement Program (MSEIP) .....	7
National Hispanic Environmental Council Travel Scholarships .....	7
Presidential Awards for Excellence in Mathematics and Science Teaching.....	8
Project AWARE Foundation Grants.....	8
Teacher Quality Enhancement Grants Program -- Partnership Grants .....	8

Wetlands Recovery Project Small Grants Program .....	8
Young Birder of The Year Contest and Birding Scholarships.....	8
INTERNSHIPS AND TEMPORARY OPPORTUNITIES .....	8
Marine Ecology Project Summer Research Assistants .....	8
Resource Education Internship at Yaquina Head .....	9
CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT .....	9
Coastal Ecosystem Education Program .....	9
Coastal Program Managers Annual Meeting .....	9
National Estuary Program 2004 National Meeting .....	9
Coastal Zone Canada 2004.....	9
Conference on Coastal and Estuarine Habitat Restoration - Extension .....	9
Linking the Ocean to the Classroom.....	10
Littoral 2004: Delivering Sustainable Coasts .....	10
MARE Summer Leadership Institute .....	10
MATE Center Faculty Development Institutes .....	10
Mote International Symposium in Fisheries Ecology .....	10
National Association for Interpretation – Annual Meeting & Call for Presentations .	10
Professional Development in Georgia .....	11
REVEL Project 2004 .....	11
Stone Lab Summer Teacher Courses .....	11
Take the Pulse of Our Changing Planet Workshop .....	11
Using Marine Biology to Teach Physiology and Ecology Workshops.....	11
EDUCATIONAL RESOURCES AND INFORMATION .....	12
<i>After the Storm</i> Television Special about Watersheds .....	12
Back to the Sea of Cortez: Sailing with the Spirits of John Steinbeck and Ed Ricketts	12
.....	12
Classroom Earth .....	12
Coral Reef Report .....	12
Clearing Magazine .....	13
EarthCare.....	13
Economic Values of the World’s Wetlands .....	13
Essential Science for Teachers from the Annenberg/CPB Channel.....	13
Georgia Encyclopedia .....	13
Ghost Crab Trap Removal Program .....	13
Global Biodiversity Information Portal.....	13
GPA Outreach Online Debate .....	14
Inter-American Biodiversity Information Network .....	14
Journey North 2004.....	14
KIDZONE .....	14
Local Fisheries Knowledge Project.....	14
National Geographic Crittercam .....	15
NOAA Fisheries Bycatch Website Updated.....	15
Project Oceanica Update .....	15
Ramsar Site Database .....	15
Sanctuary Integrated Monitoring Network.....	15
State of the Nation’s Ecosystems: Annual Update 2003.....	15
WaterNews .....	16
INITIATIVES .....	16
Copper River Delta Shorebird Festival .....	16
Rare: Inspiring Conservation.....	16
SE-PORT Ocean Awareness Days from SouthEast COSEE.....	16

## MPA FACTS

### **MPA.GOV Website Redesign**

The MPA Center's Website has undergone an extensive redesign and is now easier to use than ever. In addition to updated information, we have added new sections on MPA Programs, Information and Tools, and Regional Information Centers. New features on the site include a common terminology and classification system for U.S. marine protected areas in the Great Lakes, coastal, and marine environment; expanded library search capabilities; and an extended Information and Tools section with fact sheets, press releases, presentations, Frequently Asked Questions, and much more.

The Education section, under Information & Tools, now hosts the current month's edition of this Information Exchange for Marine Educators, along with printable archives of all of the information shared to date. Future plans include making the archived information more user-friendly through the addition of search capabilities for all of the different programs and opportunities. For a direct link to the materials from the Information Exchange, browse to

[http://www.mpa.gov/information\\_tools/education.html#InfoExchange](http://www.mpa.gov/information_tools/education.html#InfoExchange) . For more information, check out [www.mpa.gov](http://www.mpa.gov) .

### **Notable Addition to MPA Library**

*Marine Reserves as a Tool for Ecosystem-Based Management: The Potential Importance of Megafauna*

Marine predators attract significant attention in ocean conservation planning and are therefore often used politically to promote reserve designation. This article discusses whether their ecology and life history can help provide a rigorous ecological foundation for marine reserve design.

Hooker, S. K. and Gerber, L. R. (2004) *Marine Reserves as a Tool for Ecosystem-Based Management: The Potential Importance of Megafauna*. *Bioscience* 54 (1) 27-39.

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**

### **Team OCEAN – On-Water Ocean Conservation Education Action Network**

The Team OCEAN Program was developed as a way to promote the safe and enjoyable use of the marine environments of the Florida Keys National Marine Sanctuary (FKNMS), while advocating the protection of our natural resources. This is achieved through the fulfillment of three primary goals:

- Public Education, including informative brochures as well as one-on-one interpretation;
- Promoting Stewardship, by instilling a sense of personal understanding, ownership, and responsibility for the Sanctuary among the general public; and
- Sanctuary Presence on the Water, emphasizing the importance of the proper use of our resources, now and for future generations.

Trained volunteer teams use sanctuary-owned vessels and are stationed at heavily visited reef sites during the peak recreational boating seasons in order to educate and inform the public about the FKNMS Program, proper use of sanctuary resources, and

basic safety precautions. Team OCEAN's on-the-water interpretation has proven to be a very effective way to reach the public, educating the public about our sanctuaries and proper resource enjoyment and use.

The Team OCEAN Program has expanded and is now being used in the Monterey Bay National Marine Sanctuary. Ocean kayakers are one of the sanctuary's fastest growing and most under-reached user groups. A large percentage of ocean kayakers are visitors to the area and are unaware of or undereducated about the sanctuary's existence and sensitive wildlife. The Team OCEAN Kayaker Outreach Program is a seasonal field program that provides face-to-face interpretation of sanctuary natural history and programs, as well as Watchable Wildlife guidelines on how to enjoy marine wildlife without disturbance. While the target audience is primarily ocean kayakers, it also reaches out to other sanctuary resource users who may be encountered on the water (e.g. boaters and divers).

Other programs, such as the Florida Park Service's John Pennekamp Coral Reef State Park, have seen the success of Team OCEAN and have requested training from sanctuary personnel so they can begin their own similar program. For more information about the Florida Keys NMS Team OCEAN program, check out <http://www.fknms.nos.noaa.gov/edu/ocean.html> . For more information about the Monterey Bay NMS Team OCEAN Kayaker Outreach Program, contact Dawn Hayes, Education Coordinator at 831-647-4256.

## WEBSITES OF THE MONTH

### **Student Activism (From the National Student Summit on Ocean Issues)**

The National Student Summit on Ocean Issues brought together groups of students, teachers, and marine educators to discuss pressing regional ocean issues. In addition to their presentations, the students prepared Commitments to Action, outlining their commitments to "many actions to help mitigate some serious national ocean issues." Here are just a few examples:

Students participating from the International Game Fish Association (IGFA) Fishing Hall of Fame and Museum in Southeastern Florida have founded the volunteer group **Regional Ocean Conservation Club** (ROCC). It is their goal that ROCCs be started in coastal regions throughout the country, including inland teams. The overall goal of each ROCC will be to promote conservation efforts in their area. ROCC begins at the high school level; each school team will be headed by an environmentally concerned teacher and will consist of a base of student volunteers. Each of these teams will volunteer their time to work towards a specific conservation project, such as beach cleanups for these students located close to Florida's Atlantic coast. For further information regarding the ROCC, please contact Dawn Miller of IGFA at [dmiller@igfa.org](mailto:dmiller@igfa.org) ; their team will eagerly answer whatever questions you may have about the future of the Regional Ocean Conservation Clubs. (Submitted by Cassy Meyers)

Students participating from the Alaska SeaLife Center have formed the **Students for Coral Awareness in Alaska** (SCAA). Their webpage provides a brief overview of the program, a copy of their paper on the effects of bottom trawling on marine habitats, and more. They currently meet online and in small groups in Juneau, but would like to expand to other meeting places and cities. They plan to help save corals by spreading

awareness not only to fellow students but also to adults. For more information, check out [www.scaa.lordofthecows.com](http://www.scaa.lordofthecows.com) . (Submitted by Elizabeth Stickel, Gordon Byrnes, and Kyle Deloach)

The student representatives at the summit were not only active in supporting environmental volunteerism, but were also involved in a wide array of activities. The goal of ***Students Advocating For Future Education*** (S.A.F.F.E.) is to unify students' voices in order to bring about reform and improvement in the educational system through direct communication with governors, legislators, and members of the community. S.A.F.F.E. is purely student lead with the intent of establishing and maintaining ongoing awareness and communication regarding the many aspects of education - their focus being stable and adequate funding. For more information, check out <http://www.saffe.com> . (Submitted by Yuanbo Liu)

Other students are involved in teaching at elementary schools, wetland clean-ups, and more. Review the student presentations and their proclamation at [http://www.coastalamerica.gov/text/soc\\_summit.html](http://www.coastalamerica.gov/text/soc_summit.html) .

## REQUESTS

### **Looking for a Children's Coral Reef Video**

Sherry Flumerfelt is looking for a good educational children's video about coral reefs that can be used for a *Dive In To Earth Day* event in Bali. The video would preferably be short – English is fine. A donated video would be ideal, as the organizers don't have a budget and most of the videos she has reviewed cost at least \$50. Please contact her directly at [sflumerfelt@coral.org](mailto:sflumerfelt@coral.org) .

### **Looking for Elementary-Level Environmental Books**

Kristy Putnam is looking for suggestions for environmental fiction books appropriate for grades 1-8, both books they could read in the classroom before coming to an environmental center and ones that programs could be based around at the center. She has received information about many books for younger kids, but only a few for middle school kids. If you know of any good short novels that would be appropriate for outdoor and environmental programs, please let her know. She has also compiled a list of suggestions received so far and is willing to share. Please contact her directly – for either suggestions or the list – at [klputnam@cisunix.unh.edu](mailto:klputnam@cisunix.unh.edu) .

### **Looking for Marine Biology Text and Lab Manual**

Ray Rodriguez is developing a marine biology senior elective at his high school and is reviewing textbooks to use in the course. He's looking for a text that emphasizes marine life but also provides a strong foundation of physical and chemical oceanography, preferably designed for high school. He is also looking for course lab manuals. Please contact him directly at [rrodriguez@jesuittampa.org](mailto:rrodriguez@jesuittampa.org) .

### **Looking for Reviewers**

Seaberry Nachbar is looking for reviewers to review 3-4 environmental education proposals within two weeks in late March early April. The proposals are focused on outdoor experiential education for students and professional development for teachers in the area of environmental education. It is an easy process, completed on-line, and an

opportunity to learn about what is going on in EE in California and Hawaii. Please contact her directly at [seaberry.nachbar@noaa.gov](mailto:seaberry.nachbar@noaa.gov) .

### **Looking for Solar Power Sources**

Tracie Beasley is looking for solar energy sources that can be used to run pond pumps. She is working with some schools that are installing ponds and would like to help them use solar energy instead of electric energy sources. Solar sources rather than solar pumps would be better for this group of schools because they will likely be using pond kits which already include pumps. But if you have helpful solar pump information, please share that also. Please contact her directly at [beasley@nwf.org](mailto:beasley@nwf.org) .

## **GRANTS AND OPPORTUNITIES**

### **Aldo Leopold Leadership Program 2005 Fellowships**

The program invites academic environmental scientists from Canada, Mexico, and the United States to apply for the 2005 fellowships, with an application deadline of April 19, 2004. The fellows undergo 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's goal is to increase the understanding of complex environmental issues among non-scientific audiences in order to improve policies and practices for sustainability of the planet. For more information, check out <http://www.leopoldleadership.org> .

### **Aquarius Writing Contest 2004**

Aquarius aquanauts want to hear in 1000 words or less about why students in grades 8-12 want to live underwater in Aquarius for two weeks. Their essay must begin with, "I want to live for two weeks underwater in Aquarius because..." Detailed contest rules are available on the Aquarius web site; entries must be received by April 9th, 2004. For more information, check out "What's new" at [www.uncw.edu/aquarius](http://www.uncw.edu/aquarius) .

### **Bay Watershed Education and Training (B-WET) Funds**

Recognizing that an educated community is the key to understanding and sustaining the Nation's ocean and coastal environments, the NOAA Bay Watershed Education and Training (B-WET) Program provides funds to improve the understanding of environmental stewardship of students and teachers through education. The B-WET grant program for the Chesapeake and Monterey Bay watersheds and the Hawaiian Islands is a competitively based program that supports existing environmental education programs, fosters the growth of new programs, and encourages the development of partnerships among environmental education programs. Funded projects provide "meaningful" outdoor experiences for students and professional development opportunities for teachers. The deadline for proposals is March 29, 2004. For more information, check out <http://sanctuaries.noaa.gov/bwet/> .

### **Dolores Fisher Award**

The Education Department of the Mel Fisher Maritime Heritage Society announces an award open to young women 16-30, in honor of Dolores Fisher and her extraordinary achievements and strong interests in the oceans. Selection will be based on the criteria of character and potential. The application deadline is March 15, 2004. For more information, check out [www.melfisher.org/deoaward.htm](http://www.melfisher.org/deoaward.htm) .

### **Georgia Outdoors Nature Photography Contest**

The Fourth Annual Georgia Outdoors Nature Photography Contest is a competition intended to solicit outstanding examples of amateur photography that utilize the great outdoors as the photographer's canvas. Through the medium of photography, Georgia Outdoors and Georgia Public Television hope to educate its public about both the beauty and the necessity of our outdoor heritage. Entry deadline is April 1, 2004. For more information, check out

<http://www.gpb.org/gptv/georgiaoutdoors/photocontest/2004/rules.asp> .

### **Georgia Watchable Wildlife and Wildlife Education Grants**

The Georgia Department of Natural Resources, Wildlife Resources Division is accepting proposals for nongame educational and watchable wildlife projects. Applicants may include local governments and non-profit organizations. The proposal deadline is April 16, 2004. For more information, check out

<http://georgiawildlife.dnr.state.ga.us/content/displaycontent.asp?txtDocument=351> .

### **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. At least one award will be granted in each of the 50 United States. Application deadline is April 30, 2004. For more information, check out

[http://www.ing-usa.com/us/about/connect/education/unsung\\_heroes.html](http://www.ing-usa.com/us/about/connect/education/unsung_heroes.html) .

### **Institute of Education Sciences Funding**

The U.S. Department of Education's Institute of Education Sciences announced a new program to fund graduate training programs in the education sciences. These programs will train a new generation of education researchers capable of producing scientific evidence to guide education policy and classroom practice. For more information, check out <http://www.ed.gov/programs/edresearch/applicant.html#predoc04> .

### **Minority Science & Engineering Improvement Program (MSEIP)**

The MSEIP is designed to effect long-range improvement in science & engineering education at predominantly minority institutions and to increase the flow of underrepresented ethnic minorities, particularly minority women, into scientific and technological careers. The application deadline is March 12, 2004. For special projects described in 34 CFR 637.14(b) & (c), eligible applicants include nonprofit science-oriented organizations, professional scientific societies, institutions of higher education, and consortia of organizations. For information, check out

[www.ed.gov/legislation/FedRegister/announcements/2004-1/012704c.html](http://www.ed.gov/legislation/FedRegister/announcements/2004-1/012704c.html) .

### **National Hispanic Environmental Council Travel Scholarships**

The National Hispanic Environmental Council announces this year's Travel Scholarship for college students from a wide variety of disciplines related to the environment, natural resources, agriculture, and energy, to attend the 9th Annual *National Hispanic Sustainable Energy & Environmental Conference*, April 3-6, 2004, in Albuquerque, NM. The Conference will feature workshops; a Career Fair (with on-the-spot hiring taking place); site visits to environmental facilities; and an excellent opportunity to network with other students and environmental professionals. For more information, check out

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

### **Presidential Awards for Excellence in Mathematics and Science Teaching**

The National Science Foundation awards outstanding K-6 math or science teachers through the Presidential Awards for Excellence in Mathematics and Science Teaching. Every year up to 108 national awardees are honored. Anyone can nominate a K-6 teacher. Submission deadline is May 3, 2004. For more information, check out <http://www.paemst.org/>.

### **Project AWARE Foundation Grants**

The Project AWARE Foundation conserves underwater environments through education, advocacy and action. The Foundation funds projects that have a direct benefit to the aquatic environment such as public education, grassroots conservation and enhancement projects, volunteer-supported community activism, and more. Grant proposals are reviewed quarterly. While you're looking for the grants, check out other pages on the website, such as the *Protect the Living Reef* video and curriculum. For more information, check out <http://www.projectaware.org/>.

### **Teacher Quality Enhancement Grants Program -- Partnership Grants**

These grants promote improvements in the quality of new teachers, with the ultimate goal of increasing student achievement in the nation's K-12 classrooms. Partnership grants are designed to promote significant improvements in teacher education by strengthening the vital role of K-12 educators in the design and implementation of effective teacher education programs, and by increasing collaboration among these educators and institutions of higher education and schools of arts and sciences. Pre-application deadline is April 2, 2004, and the full applications are due June 14, 2004. For more information, check out [www.ed.gov/legislation/FedRegister/announcements/2004-1/030304e.html](http://www.ed.gov/legislation/FedRegister/announcements/2004-1/030304e.html).

### **Wetlands Recovery Project Small Grants Program**

The WRP Small Grants Program funds community-based restoration projects in coastal wetlands and watersheds in Southern California. The purpose of the program is to further the goals of the WRP 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. Act quickly: application deadline is March 12, 2004. For more information, check out <http://www.coastalconservancy.ca.gov/scwrp/index.html>.

### **Young Birder of The Year Contest and Birding Scholarships**

The American Birding Association (ABA) offers a variety of funds for birders. The ABA/Leica Young Birder of the Year is an annual contest for youth ages 18 or younger. The contest, for two age groups, 10–13, and 14–18, runs from April through September. Materials are due at ABA by October 15, 2004. The ABA also provides scholarships to help young people attend bird-related summer camps, workshops, training programs, conventions, and other activities. For more information, check out <http://www.americanbirding.org/>.

## **INTERNSHIPS AND TEMPORARY OPPORTUNITIES**

### **Marine Ecology Project Summer Research Assistants**

The Partnership for the Interdisciplinary Studies of Coastal Oceans (PISCO) is a large-scale marine research program that focuses on understanding the nearshore



ecosystems of the U.S. West Coast. An interdisciplinary collaboration of scientists from four universities, PISCO integrates long-term monitoring of ecological and oceanographic processes at dozens of coastal sites with experimental work in the lab and field. Interns will assist professors, postdoctoral fellows, technicians, and graduate students in research on ecosystem dynamics in rocky intertidal and nearshore oceanic communities along the West coast. For more information, check out [www.piscoweb.org](http://www.piscoweb.org)

### **Resource Education Internship at Yaquina Head**

There are two Resource Education and Interpretation Internship opportunities with the BLM on the Oregon Coast, for April 1-October 1, 2004 and June 13-October 1, 2004. Educators at Yaquina Head may find themselves exploring tidepools with elementary school students, describing the migration of gray whales as they swim past, answering questions about the area at the site's interpretive center and greeting visitors at the fee collection booth, or guiding visitors into the past inside Oregon's tallest lighthouse. For more information, check out <http://www.or.blm.gov/salem/yaquina/voluntr.htm> .

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

### **Coastal Ecosystem Education Program**

A free, one-week Coastal Ecosystem Education Program workshop offers professional training about rocky intertidal and sandy beach monitoring projects. The complimentary curriculum offers background information and activities about the ecology and oceanography of the Gulf of the Farallones National Marine Sanctuary. Registration deadline is June 1, 2004. For more information, check out <http://www.farallones.org> .

### **Coastal Program Managers Annual Meeting National Estuary Program 2004 National Meeting**

These two annual meetings will be held March 8-11, 2004, in Washington, DC. The Office of Ocean and Coastal Resource Management hosts its annual meeting to provide a forum for the Nation's ocean and coastal program managers to meet with one another and to exchange information about important resource management issues. For more information about each, check out the websites at <http://coastalmanagement.noaa.gov/pmm/> and <http://www.anep-usa.org/meetings/spring04/index.htm> .

### **Coastal Zone Canada 2004**

The Coastal Zone Canada Association will host the biennial CZC04 conference, *All Within One Ocean*, in St. John's, Newfoundland and Labrador, June 27-30, 2004. Presentations will focus on challenges, strategies, and tools for managing, protecting, studying, and using coastal resources effectively. For more information, check out <http://www.czca-azcc.org/index2.htm> .

### **Conference on Coastal and Estuarine Habitat Restoration - Extension**

Restore America's Estuaries has extended the due date for the Student Poster Contest to May 3, 2004. The Conference will be held September 12-15, 2004, in Seattle, Washington. For more information, check out <http://www.estuaries.org/2ndnationalconference.php> .

### **Linking the Ocean to the Classroom**

This educators workshop about the Gulf of Maine, June 28-July 1, Durham, New Hampshire, will explore the latest technology and methods used to study the basis of the entire marine food web, phytoplankton. Educators and scientists will discuss, plan, and generate new ways of incorporating real-time and archived ocean observation data using an inquiry based model while still meeting the state or national standards. The application deadline is March 26, 2004; workshop hosts will cover the living expenses of accepted participants. For more information, check out <http://www.cooa.unh.edu/workshop.html> .

### **Littoral 2004: Delivering Sustainable Coasts**

The seventh international conference put on by EUROCOAST and EUCC—The Coastal Union will be held in Aberdeen, Scotland, September 20-22, 2004. Education and Training is a conference sub-theme. For more information, check out <http://www.littoral2004.org> .

### **MARE Summer Leadership Institute**

The MARE Program from University of California/Berkeley's Lawrence Hall of Science is offering a one-week residential summer institute, August 1-8, 2004, UC Santa Cruz campus. Participants will gain skills to help them lead a school or district in the implementation of Ocean Week or Month using MARE's whole-school ocean immersion model and K-8 science curriculum. Daily instruction will include ocean science content delivered by educators, scientists and researchers, including experience with inquiry-based science and strategies for incorporating technology, literacy, storytelling, and art into your science program. For more information, check out <http://www.lhs.berkeley.edu/MARE> .

### **MATE Center Faculty Development Institutes**

The Marine Advanced Technology Education (MATE) Center announces two faculty development institutes for summer 2004:

- Building Remotely Operated Vehicles (ROVs), July 1 - July 9, 2004
- GIS and Marine Science: Using GIS to model marine habitats, July 11-17, 2004

There is no fee for participating in the institutes and some travel stipends are available. In addition, educators interested in organizing future workshops or regional student ROV competitions to feed into the national competition can participate in an optional day at the end of the ROV institute. For more information, check out <http://www.marinetech.org/education/institutes.php> .

### **Mote International Symposium in Fisheries Ecology**

*The Good, The Bad and The Ugly: Integrating Marine and Human Ecology in Managing Fisheries*, Sarasota Florida, November 9-11, 2004, is the fifth annual Florida State University Mote International Symposium in Fisheries Ecology. This symposium will focus on contrasting the strategies and contexts associated with successful management versus those associated with management failures. Abstracts are due June 1, 2004. For more information, check <http://www.bio.fsu.edu/mote/current.html> .

### **National Association for Interpretation – Annual Meeting & Call for Presentations**

NAI is dedicated to the advancement of the profession of interpretation (on-site informal education programs at parks, zoos, nature centers, historic sites, museums, and aquaria). NAI currently serves 4,500 members in the United States, Canada, and thirty

other nations. Their annual meeting, *An Interpreter's Voyage*, will be held November 16-20, 2004, Grand Rapids, Michigan. The deadline for presentation proposals is April 4, 2004. For more information, check out <http://www.interpnet.com/niw2004/> .

### **Professional Development in Georgia**

The Georgia Youth Science and Technology Center provides professional development for Georgia's educators, including workshops and excursion classes that involve travel to unique areas of the globe. Upcoming training includes:

- Changes in Latitudes: A Study of the Ecosystems of the Florida Keys
- Sapelo Island Excursion: Introduction to the Coastal Ecology of Sapelo Island
- Cumberland Island

For more information, check out <http://www.spsu.edu/gystc/events.html> .

### **REVEL Project 2004**

The Research and Education: Volcanoes, Exploration and Life (REVEL) Project invites highly-motivated 7-12 grade science teachers who want to bring cutting-edge earth and ocean research into their classrooms to apply to the program. Through the REVEL Project, teachers are immersed in the scientific process as they explore the seafloor of the Juan de Fuca Plate in the Northeast Pacific Ocean. Application deadline is March 26, 2004. Applicants must be employed in a K-12 public, private or parochial school in the United States. Minority applicants are especially encouraged to apply. For more information, check out <http://www.ocean.washington.edu/outreach/revel/> .

### **Stone Lab Summer Teacher Courses**

F.T. Stone Laboratory, Ohio State University's Island Campus in Lake Erie, offers college credit courses to undergraduate and graduate students, educators, and outstanding high school students every summer. From Lake Erie geology to aquatic biology courses, students receive a hands-on science experience in one-day, one-week, or term courses. For more information, check out

<http://www.sg.ohio-state.edu/SLAB/PRINT.HTM#workshops> .

### **Take the Pulse of Our Changing Planet Workshop**

The Mid-Atlantic Center for Ocean Science Education Excellence (MACOSEE) offers a professional development workshop for middle school science teachers in Cambridge, Maryland, July 11-17, 2004. Scientists take Earth's pulse through a network of high-tech stations called ocean observing systems. This workshop showcases these new observatories and how observatory data can enhance your science lessons. Teaching materials, stipend, plus room and board are provided.

And while you're on the website, check out the Scientist Connections, designed to give the academic community information and suggestions about how they can become better involved and aware of education and outreach, especially below the graduate/undergraduate level. For complete information, check out [www.macosee.net](http://www.macosee.net) .

### **Using Marine Biology to Teach Physiology and Ecology Workshops**

The Institute for Biomedical Philosophy offers teacher workshops utilizing marine biology as a hook to teach physiology and ecology. These programs are open to teachers, pre-service teachers, administrators, informal educators, and science educator faculty. They are based on the national science education and teaching standards with content that can be integrated across the curriculum. The workshops are scheduled right before or after the NMEA meeting in St Petersburg. And at the NSTA Atlanta meeting, look for

*The Notion That the Ocean Is a Magical Teaching Potion: Using Marine Biology to Teach Physiology and Ecology.* For more information, check out <http://www.biophi.org/pages/1/index.htm> .

## **EDUCATIONAL RESOURCES AND INFORMATION**

### ***After the Storm* Television Special about Watersheds**

The Environmental Protection Agency and the Weather Channel co-produced *After the Storm*, a television special about watersheds. Premiering early February, it will be rebroadcast May 9th and June 26th (8:30 and 11:30 pm EST). *After the Storm* shows the connection between weather and watersheds and the importance of watershed protection. Key scientists, water quality experts, and citizens involved in local and national watershed protection efforts provide insight into the problems as well as solutions to today's water quality crisis.

EPA will own the rights to the special after 6 months, and they intend to make *After the Storm* available to other television stations and educational organizations interested in broadcasting the show. For more information, check out [www.epa.gov/weatherchannel](http://www.epa.gov/weatherchannel) .

### **Back to the Sea of Cortez: Sailing with the Spirits of John Steinbeck and Ed Ricketts**

A team of scientists will embark, beginning March 11, 2004, on a 73-foot fishing boat to retrace the historic expedition that John Steinbeck and Edward F. "Doc" Ricketts made to explore the Sea of Cortez in 1940. Their journey was immortalized in a book they wrote together, *The Log from the Sea of Cortez*. Jon Christensen, a science writer and Steinbeck Fellow, will travel with the expedition and post a daily log of the journey online. Students and teachers in Baja California will join the expedition for different days of studying life in the tide pools. Teachers and students are invited to join the expedition online, to communicate with the crew by e-mail, and to explore the connections between science, literature, history, the environment, conservation, and our oceans. For more information, check [www.seaofcortez.org](http://www.seaofcortez.org) and [www.mardecortez.org](http://www.mardecortez.org) .

### **Classroom Earth**

The National Environmental Education & Training Foundation (NEETF) announces the launch of Classroom Earth, a free website to help educators find the best and most usable environmental education programs available. ClassroomEarth.org is a collection of environmental education programs and resources for K-12 teachers, parents, and students. This new site will help educators, after-school providers, and home-schooling parents to get started or improve their skills in environmental education. The pages for each program contain a clear description, overview of content and topics, materials, educator feedback, fast steps for implementing the program, and more. For more information, check out [www.ClassroomEarth.org](http://www.ClassroomEarth.org) .

### **Coral Reef Report**

This new online magazine has been launched to "celebrate the power and mystery of the planet's coral reefs." The Coral Reef Report features articles, personal stories, and audio interviews with scientists and others. The site also features a rotating photo gallery. For more information, including the inaugural issue raffle prize, check out <http://coralreefreport.info> .

### **Clearing Magazine**

The quarterly resource magazine, *Clearing: Environmental Education Resources for Teachers*, provides the latest news, information, perspectives, teaching ideas, and resources available to teachers of all grade levels and all subject areas with environmental and natural resources education. Published since 1978, Clearing has published over 100 issues. For more information, check out <http://www.clearingmagazine.org/> .

### **EarthCare**

This resource features online stories about conservation, earth and ocean stewardship, ecosystems, and more. It showcases the Earth & Sky radio spots, along with links for more information. For more information, check out <http://www.earthsky.org/shows/earthcare> .

### **Economic Values of the World's Wetlands**

This reports highlights the high economic value of functioning wetlands. Seventy billion U.S dollars worth of goods and services from freshwater resources could be at risk annually if governments fail to manage their wetlands sustainably. To download the report, check out <http://www.panda.org/downloads/freshwater/wetlandsbrochurefinal.pdf>

### **Essential Science for Teachers from the Annenberg/CPB Channel**

*Life Science*, premiering March 3rd on the Annenberg/CPB Channel, is the first in a three-part course series *Essential Science for Teachers*. These new courses help K-6 teachers understand science concepts needed to teach a standards-based curricula. Real-world examples, demonstrations, animations, still graphics, and interviews with scientists enrich content segments. Upcoming modules includes *Variation, Adaptation, and Natural Selection*; *Material Cycles in Ecosystems*; and others. For more information, check out <http://www.learner.org/redirect/february/lifescience1.html> .

### **Georgia Encyclopedia**

The New Georgia Encyclopedia provides an accessible, authoritative source of information about people, places, events, historical themes, institutions, and many other topics relating to the state. It includes a section on Land and Resources, including articles and information on ecological functions of the environment, environmental regions of Georgia, and more. For more information, check out [www.georgiaencyclopedia.org](http://www.georgiaencyclopedia.org) .

### **Ghost Crab Trap Removal Program**

The Barataria-Terrebonne National Estuary Program is supporting this Department of Wildlife and Fisheries' program through a ghost trap "sweep" within the Barataria-Terrebonne National Estuary, planned for February 28 through March 14, 2004. A ghost crab trap may be an old, bent, barnacle-encrusted trap without a buoy or float, or even be a relatively new trap with a line and buoy still attached (sometimes referred to as "derelict" traps). For more information, check out <http://www.blue-crab.net/derelict.html> .

### **Global Biodiversity Information Portal**

The Global Biodiversity Information Facility (GBIF) is an international non-profit organization devoted to providing free and universal access to data regarding the world's biodiversity. Check out the GBIF Communications Portal at [www.gbif.org](http://www.gbif.org) . Many

countries and organizations participate in GBIF and have made their data available at the GBIF Data Portal. For more information, check out [www.gbif.net](http://www.gbif.net) .

### **GPA Outreach Online Debate**

The Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities (GPA) will host an interactive online debate as part of GPA Outreach, March 8-17, 2004. The debate is strategically placed to enable a variety of stakeholders to input into the 5th Global Civil Society Forum, which runs alongside the 8th Special Session of the Governing Council/Global Ministerial Environmental Forum. The debate will focus on *Water Management and Governance* and *Perspectives on Water and Poverty Reduction*. Expert practitioners will be lending their views, and all stakeholders are encouraged to participate. For more information, check out <http://www.unedforum.org/debate/> .

### **Inter-American Biodiversity Information Network**

The IABIN was created in 1996 as an initiative of the Santa Cruz Summit of the Americas meeting of Heads of State. Steadily gaining momentum, there are now 34 countries in the Americas that have officially named IABIN focal points. The website has extensive links to biodiversity databases, a search engine (both under tools), and other information. For more information, check out <http://www.iabin.net/defaulteng.html> .

### **Journey North 2004**

Journey North is a free online program engaging students in a study of wildlife migration and seasonal change. K-12 students share their own field observations with classrooms across the hemisphere. They track the coming of spring through the migration patterns of birds and mammals, the budding of plants, changing sunlight, and other natural events. In addition, students are linked with scientists who provide their expertise directly to the classroom. Find standards-based lesson plan, activities, and information to help students make local observations and fit them into a global context. For more information, check out <http://www.learner.org/jnorth/> .

### **KIDZONE**

The National Wildlife Federation presents this all-new website, with ideas for specific age groups from toddler to teen. The pages contain online games, nature-related activities, and lots of other information and projects. The focus is terrestrial, but there are plenty of interesting ideas. For more information, check out <http://www.nwf.org/kidzone> .

### **Local Fisheries Knowledge Project**

Looking through the lens of marine fisheries, high school students learn about history, culture, science, language arts, and business as part of NOAA's pilot Local Fisheries Knowledge Project. This new website highlights a pilot education project in which high school students interview fishermen and others in related industries. The site includes a description of the project, its educational framework, a description of the communities in which the 2003-2004 pilot is taking place, and some general information about local fisheries knowledge research. Transcripts from the interviews will be accessible from the website within the next few months as students populate the database. For more information, check out <http://www.st.nmfs.gov/lfkproject/> .

### **National Geographic Crittercam**

The Crittercam is a research tool using a video camera temporarily attached to animals (including marine mammals) to study their behavior. The National Geographic Channel hosts a TV series highlighting Crittercam footage and research. Samples of the videos are available on the website, along with excerpts from the shows. For more information, check out <http://www.nationalgeographic.com/channel/crittercam/> .

### **NOAA Fisheries Bycatch Website Updated**

The bycatch section of the NOAA Fisheries website has received a major update to include recent activity, including sea turtle bycatch reduction research; amending the fishery management plan for Atlantic tunas, swordfish, and sharks; management to reduce seabird incidental take; and amending the fishery management plan for the shrimp fishery of the Gulf of Mexico. For more information, check out <http://www.nmfs.noaa.gov/bycatch.htm> .

### **Project Oceanica Update**

Project Oceanica continues to add new features to their website, including Fish Watch and Shelf Edge Reefs. Check out the Transects Program, designed to immerse undergraduate and graduate students in oceanographic research by taking them to sea to collect biological and geological samples and later analyze the data in the laboratory. Transects is funded for two years, and a total of four 5-day research cruises and follow-up oceanographic research courses will be offered over the 2 year project. The next cruise is scheduled for May and the course will follow during the first summer session. For more information, check out <http://oceanica.cofc.edu/home.htm> .

### **Ramsar Site Database**

The Ramsar Sites Database is now online. Wetlands International manages and develops the database. A search facility now makes it possible to find one or more Ramsar sites by selecting on nearly any combination of criteria, including wetland type or land use, designation date, and others. For more information, check out <http://www.wetlands.org/RSDB/default.htm> .

### **Sanctuary Integrated Monitoring Network**

The Monterey Bay National Marine Sanctuary launched the Sanctuary Integrated Monitoring Network (SIMoN). Users can access the website to obtain local water quality monitoring information, generate watershed maps, locate monitoring information, link to data sets from individual stations, and download GIS layers. For more information, check out <http://mbnms-simon.org> .

### **State of the Nation's Ecosystems: Annual Update 2003**

The first annual update of the 2002 report *The State of the Nation's Ecosystems: Measuring the Lands, Waters, and Living Resources of the United States* has been released by The Heinz Center. The report was published in 2002, with a 20-page chapter on Coasts and Oceans, as well as chapters on five other types of ecosystems. The 2003 update provides access to data on ecosystem conditions that have become available since the full report was published. For more information, check out <http://www.heinzctr.org/ecosystems/report.html> .

## **WaterNews**

WaterNews is a weekly on-line publication of the U.S. Environmental Protection Agency's Office of Water that announces publications, policies, and activities. For more information, check out <http://www.epa.gov/water/waternews/> .

## **INITIATIVES**

### **Copper River Delta Shorebird Festival**

The Copper River Delta Shorebird Festival, May 7-9, 2004, hosts activities, workshops, and community events. The Delta is part of the Western Hemisphere Shorebird Reserve Network. Its Shorebird Festival is one of Alaska's premier birding events, with millions of shorebirds and over 30 species of migratory shorebirds resting and feeding there during spring migration. The Delta is the largest continuous wetland on the Pacific coast of North America, and may afford the opportunity to see trumpeter swans, red-necked phalarope, northern pintails, shovelers and many other waterfowl. For more information about the festival, check out

<http://www.cordovachamber.com/index.cfm?showsecondarylinks=true&showcontentlinkID=352&primarylinkID=352> .

### **Rare: Inspiring Conservation**

The RARE Center for Tropical Conservation has pioneered innovative approaches to achieving conservation results through community-based education. Rare supports hundreds of grassroots conservationists around the world each year, providing them with training, technical support, and resources. They, in turn, inspire conservation among thousands of local residents, decision-makers, and tourists in some of the planet's most important places for biodiversity. Its Pride campaign bridges the gap between the scientific realm and the daily lives of local people through social marketing techniques, making conservation messages relevant to the local community. Campaigns have facilitated the creation of new reserves in Grenada, the Bahamas, the Cayman Islands, and elsewhere. For more information, check out <http://www.rarecenter.org/> .

### **SE-PORT Ocean Awareness Days from SouthEast COSEE**

The South East Portal to Ocean Research for Teachers (SE-PORT) is an initiative from the SouthEast Center for Ocean Sciences Education Excellence (SouthEast COSEE). The targeted region includes Georgia, North Carolina and South Carolina. SE-PORTs are partnerships between SouthEast COSEE, an informal education institution (e.g. aquarium, science center), and the teachers who participate in the SouthEast COSEE Ocean Sciences Education Leadership Institutes. Two upcoming SE-PORT Ocean Awareness Days are offered for middle and high school teachers:

- Discovery Place, Charlotte, NC, March 27, 2004
- Hollings Marine Lab, Charleston, SC, April 17, 2004

For more information, check out <http://www.scseagrant.org/se-cosee/partners.htm> .