

**NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION**  
**INFORMATION EXCHANGE FOR MARINE EDUCATORS**

**APRIL 2006**

This update is provided with support from NOAA's Office of Education and 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.

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## **Notable Articles**

### **UN Report on Mangroves and Coral Reefs**

The United Nations Environment Programme (UNEP) recently released its report on corals and mangroves, *In the Front Line: Shoreline Protection and other Ecosystem Services from Mangroves and Coral Reefs*. The report was produced by UNEP's World Conservation Monitoring Centre in collaboration with the International Coral Reef Action Network and the World Conservation Union. Among the report highlights are environmental and estimated economic value of coral reefs. The website offers the downloadable report, further resources, and links to other materials.

<http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=466&ArticleID=5112&l=en>

### **From the Serengeti to Austin Texas - Watching Wildlife is Bringing in the Bucks**

Wildlife watching is fast becoming a multi-million, if not multi-billion, dollar industry with the potential to fight poverty by pumping vital income into local communities and conservation initiatives. These findings come from a new report, *Wildlife Watching and Tourism: A study on the benefits and risks of a fast growing tourism activity and its impacts on species*, launched at the meeting of the Convention on Biological Diversity in Curitiba, Brazil. The study underlines that many wild animals are worth more alive than dead. The report shows that a wide range of species are attracting tourists, from bats to butterflies to sting rays. The report focuses on 12 case studies to highlight the growing economic importance of wildlife watching while flagging some of the pitfalls that may arise through poor or insensitive management. Concrete recommendations are made on how best to promote environmentally, economically and socially sound wildlife watching, including advice to visitors, drivers and divers.

<http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=471&ArticleID=5238&l=en>

## **PROGRAM OF THE MONTH**

### **Jean-Michel Cousteau: Ocean Adventures**

The six-part TV series premiering on PBS stations this April, *Jean-Michel Cousteau: Ocean Adventures*, is produced by KQED Public Broadcasting and the Ocean Futures Society. The series illuminates the need for better understanding and sustainable management of the oceans' natural treasures. The series premieres April 5, 2006 and will run through the fall.

- ***Voyage to Kure*** (parts 1 and 2): The Cousteau team sets sail to the Northwest Hawaiian Island archipelago where they discover diverse wildlife populations and investigate these species' fight against extinction and the devastating effects of pollution, mining, fishing and development. April 5 and 12, 2006.
- ***Sharks At Risk***: To better understand shark behavior and the impact their reputation has had on their survival, the team observes gray sharks in French Polynesia and great white sharks in South Africa. July 12, 2006.
- ***The Gray Whale Obstacle Course***: The team follows gray whales, from the lagoons of Baja California north to frigid feeding grounds in the Bering Sea, through the longest and most polluted migration routes of any whale species. July 19, 2006.
- ***America's Underwater Treasures (parts 1 and 2)***: This final installment brings viewers to the National Marine Sanctuary System – a diverse group of ecosystems which promises to inspire an ethic of ocean preservation that will translate far beyond any national borders. Fall '06

The website includes a variety of educational offerings, including standards-based lesson plans, informal activities, on-line games, and more, designed for middle school but easily adaptable for other grades. *Questing*, a watershed investigation, will also be available before the end of May, 2006. There are tips for using the Ocean Adventures series and materials in the classroom, a teacher's guide for *Voyage to Kure*, fact sheets and links to additional information on the web, and an on-line glossary. Note that one of the lesson plans deals with ocean careers. Educators are encouraged to tape the programs; taping rights allow use for a full year after broadcast.

<http://www.pbs.org/kqed/oceanadventures/>

## **WEBSITE OF THE MONTH**

### **Marine Education in Urban Settings**

The Sea Grant Program at the University of Southern California (USC) actively embraces environmental education as a vital tool in efforts to manage the impacts of urban populations on the marine environment. Ensuring that minority students in urban areas have opportunities to learn about the marine environment is of major importance. To accomplish this, the program offers resources and helps educators teach the principles of marine science and environmental stewardship to urban youth.

In addition to the following programs, the website includes online activities, links to marine education and coastal and marine information, and a career guide.

### ***Island Explorers Program***

The Island Explorers program is a student-centered science curriculum for upper elementary and lower middle school grades that is characterized by hands-on, real-life marine science activities that directly correlate with the California Science Framework. It uniquely focuses on Southern California and Catalina Island coastal environs. As part of the overall Island Explorers program, students participate on several field trips to local beaches and aquaria, participate in an Adopt-a-Beach cleanup, and at the end of the year, travel on a research vessel to the USC Wrigley Institute for Environmental Studies marine laboratory on Santa Catalina Island. Primary goals of Island Explorers are to promote science literacy and to encourage interest and life-long learning of the marine sciences, especially for minority students. The lesson plans are available online.

### ***Parent/Child Education Program***

The Island Explorers Program launched a special short course for students and their parents in marine and environmental science that focuses on the urban/ocean connection. The parent-child teams study marine science one evening a week for seven weeks. The USC Social Science Research Institute and graduate students from the Department of Occupational Science and Therapy developed activities to enhance living skills and self esteem. The marine science and life skills activities are designed to compliment each other; for example, a marine food web activity can be paired with an activity about seafood safety and nutrition. The program also includes a career component and a field trip.

### ***Girls and Boys Science Camps***

The USC Summer Science Program, in collaboration with the Wrigley Institute of Environmental Studies and the USC Office of Summer and Special programs hosts separate camps for young men and women to encourage them to become a part of a community of scientists discovering and exploring the aquatic and terrestrial life of Catalina Island and its surrounding waters. These field-oriented programs challenge students to explore ecological and biological principles through an interactive approach to learning. Field and laboratory research, self-guided experiments, and educational simulations instruct students about the interaction between physical, chemical, and biological components of the environment, as well as the impact that human activities can have on it. Science is integrated with cultural and social studies to offer a well-rounded view of an island ecosystem. A dynamic community of men and women scientists is built through team projects, instructional and recreational activities, and

mentoring programs. Students interact with graduate students and faculty who are studying various aspects of science and explore diverse careers in environmental, biological, and physical sciences.

### ***Island Scholars Program***

The Island Scholars Program is a unique curricular enhancement program for selected 4th-6th grade students of Santa Catalina Island. This collaborative effort with the education institutions on Catalina Island and Wrigley Institute for Environmental Studies, provides these students with the opportunity to study the terrestrial, marine, and human history of their island. It culminates in a two day field trip to the USC Wrigley Marine Science Center, bringing the students together to share, mentor, and add to their learning experience in the environment of a research center.

<http://www.usc.edu/summer>

<http://www.usc.edu/org/seagrant/MSEdu.html>

## **MESSAGE FROM THE BRIDGE**

### **Ocean Observing Systems**

For educators interested in bringing real-time coastal and open ocean data into their classrooms, the Bridge introduced its new section devoted to ocean observing system technology. Educators can find a multitude of annotated links to the country's top ocean observing websites. Also featured on the site are several classroom-ready Data Analysis Teaching Activities (DATAs) which use real-time and archived ocean observing data. These activities will help educators become more familiar with using this cutting-edge technology to teach students various marine science and oceanography concepts. The new Bridge section also includes a downloadable poster, presented at the 2006 Ocean Sciences Meeting, which details the Bridge's online ocean observing system survey conducted earlier this year.

[http://www.marine-ed.org/bridge/index\\_oos.html](http://www.marine-ed.org/bridge/index_oos.html)

### **National Marine Educators Association Annual Conference**

The National Marine Educators Association (NMEA) will host its annual conference, *A City of Islands!*, July 15-23, 2006 in New York, New York. The extended deadline for presentations is April 15, 2006. Both Conference and dorm room registration are now active.

<http://nysmea.org/con06/>

## **REQUESTS**

### **Looking for Virtual Dissections of Marine Animals**

Susan Hieter of the International School of Aruba is looking for websites that host virtual dissections of marine animals.

Contact Susan at [scubasuebh@yahoo.com](mailto:scubasuebh@yahoo.com)

## **GRANTS AND OPPORTUNITIES**

### **Adult and Community Watershed Education and Training Grants - Monterey Bay**

The Monterey B-WET grant program 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

throughout the Monterey Bay watershed. Funded projects provide meaningful watershed education to adults and communities in the Monterey Bay watershed. Proposals are due April 13, 2006.

<http://www.sanctuaries.noaa.gov/news/bwet/welcome.html>

### **Alaska Native Education Program**

The purpose of the Alaska Native Education Program is to develop and support supplemental educational programs to benefit Alaska Natives. The number of awards is estimated to be between 20-40, with a project period of up to 36 months. The deadline for application is April 27, 2006.

<http://www.ed.gov/legislation/FedRegister/announcements/2006-1/031306b.html>

### **All-USA Academic and Teacher Teams**

Four times a year, USA Today honors outstanding students and educators with the All-USA Academic and Teacher Teams. Categories include college, high school, teacher, and 2-year college teams. Teachers can be nominated by anyone willing to put in writing why they are outstanding; nominees must complete the form explaining how they achieve their success. The deadline for K-12 teacher applications is April 29, 2006.

<http://www.usatoday.com/news/education/allstars/front.htm?Loc=vanity>

### **Braitmayer Foundation Education Grants**

The Braitmayer Foundation offers grants to fund a broad range of K-12 education programs with curricular reform initiatives and professional development opportunities for teachers. The grants can be used as seed money, challenge grants, or to match other grants to the recipient organizations. Grant applications are accepted twice each year; the deadline for the summer grant cycle is June 1, 2006.

<http://www.braitmayerfoundation.org/guid.htm>

### **Brimstone Award for Applied Storytelling**

The National Storytelling Network's annual Brimstone Award for Applied Storytelling is awarded for a project that focuses on the transformational properties of storytelling to increase understanding of the ways storytelling can promote change in individuals and communities. Educators are invited to submit a storytelling project that is service-oriented, based in a community or organization, and replicable in other places and situations. Preliminary proposals are due May 8, 2006, and full proposals due by July 10, 2006.

<http://www.storynet.org/grant/brimstone/index.htm>

### **Butler-Cooley Excellence in Teaching Award**

The Turnaround Management Association and the John William Butler Foundation honor exceptional teachers who have changed the outcome of students' lives and the communities in which they live with the 2006 Butler-Cooley Excellence in Teaching Awards. The deadline for applications is May 1, 2006.

<http://www.turnaround.org/about/awards.asp>

### **Fund for Wild Nature**

The Fund for Wild Nature provides money for campaigns to save and restore native species and wild ecosystems, including actions to defend wilderness and biological diversity. They fund advocacy, litigation, public policy work, development of citizen science, and similar endeavors, but do not fund basic scientific research, private land

acquisition, individual action or study, or conferences. There are multiple proposal cycles each year; the next deadline for application is April 28, 2006.

<http://www.fundwildnature.org/proposal.html>

### **GameStop Youth Grants**

Each fall and each spring, Do Something gives grants to 30 young people (25 years old or younger) - including 10 Canadians - who submit creative proposals for solving local problems. The grants are awarded to projects in community building, health, and the environment. The application deadline is May 15, 2006.

<http://www.dosomething.org/awards/grants/apply/>

### **Grants to Support Education Research for Fiscal Year 2007**

The Institute of Education Sciences announces competitions for grants to support education research. The intent of these grants is to provide national leadership in expanding fundamental knowledge and understanding of education from early childhood education through postsecondary and adult education.

<http://www.ed.gov/legislation/FedRegister/announcements/2006-1/032206a.html>

### **Headlands Institute Community Action Award - California**

The Headlands Institute offers the Headlands Institute Community Action Award program that seeks to recognize the important role that young people play in positively influencing and impacting their home communities and environment. They seek nominations of individual California elementary or middle school classrooms (including students and teachers) who are working together to make a significant positive contribution to the environment of their home communities. Nomination letters are due April 7, 2006.

<http://www.yni.org/hi/communityActionAward.html>

### **International Paper Environmental Awards**

International Paper, in partnership with The Conservation Fund, recognizes the efforts of people across the country working to protect the future of America's outdoor heritage. Each year, the partners honor two individuals whose work demonstrates that a healthy environment and a healthy economy are mutually supportive. The International Paper Conservation Partnership Award recognizes an individual who has achieved significant results in the protection of habitat through a cooperative relationship with a business or corporation. The International Paper Environmental Education Award honors educators who have shown special skills in giving their students a better understanding of the complex relationship between environmental protection and economic growth. Nominations are due April 17, 2006.

<http://www.conservationfund.org/?article=2331>

### **International Student Film Festival Award**

The deadline for submissions to the International Student Film Festival in both high school and college categories is May 1, 2006. Films may be submitted on mini DV, DVD or VHS. Filmmakers may submit up to three films, of any length, with up to three names listed per film. Categories include activism, action, documentary, and more.

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

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

The National Science Foundation awards outstanding K-12 math or science teachers through the Presidential Awards for Excellence in Mathematics and Science Teaching.

Every year up to 108 national awardees are honored. Anyone can nominate a K-6 teacher. Nominations for grades 7-12 teachers will be accepted in 2007. The deadline for submission is May 1, 2006.

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

### **Presidential Freedom Scholarships**

Two students from every high school in the U.S. are eligible for Presidential Freedom Scholarships in recognition of their outstanding service to the community. This annual college scholarship program is administered by the Corporation for National and Community Service's Learn and Serve America program and provides half of the award, which must be matched with \$500 from a community organization, civic group, or business and secured for the student by his or her high school. The application deadline is May 12, 2006.

<http://www.learnandserve.gov/about/programs/pfs.asp>

### **STUDIO 2B Aquarius Project**

The National Marine Sanctuary Foundation and the Girl Scouts of the USA's Elliott Wildlife Values Project sponsor the Aquarius Project, an intensive week of ocean science and discovery, July 10-16, 2006, for a nationally selected group of six Girl Scouts. The event is based out of the National Undersea Research Center's Key Largo, Florida field station, home to the world's only underwater laboratory, the Aquarius Habitat, and the Marine Resources Development Foundation's Marine Lab. The Girl Scouts will learn fundamentals of ocean exploration and technology, coral reef ecology, maritime archaeology, habitat preservation, and marine biology. Lectures and field work will include a SCUBA dive to the Aquarius Habitat to visit aquanauts at work, investigating coral reefs with marine scientists, snorkeling around mangroves, and SCUBA diving to numerous sites including a shipwreck in the Florida Keys National Marine Sanctuary. Each participant will devise an action plan and project for taking what they learned home to their schools, Girl Scout councils, and communities. Applicants must be age 15-18 at the time of the event and certified in open water SCUBA diving. There is no event fee. Hurry - the application deadline is April 19, 2006.

[http://www.studio2b.org/escape/destinations/event\\_details.asp?eventid=341](http://www.studio2b.org/escape/destinations/event_details.asp?eventid=341)

### **Take Pride in America National Awards**

Take Pride in America is a national partnership that aims to encourage, support, and recognize volunteers and groups such as Girl Scouts and many others who work to improve public lands, including parks, forests, grasslands, reservoirs, wildlife refuges, cultural and historic sites, local playgrounds, and other recreation areas. The awards recognize individuals and public and private groups for outstanding stewardship projects or awareness efforts involving federal, state, local and Indian lands, waters and cultural resources. The deadline for application is June 16, 2006

<http://www.TakePride.gov>

### **Toyota International Teacher Program – Galapagos Islands**

The Toyota International Teacher Program will send 20 secondary school teachers (grades 7 to 12) on a fully funded, 10-day study program to the Galapagos Islands from October 27-November 8, 2006. Teachers will be selected from 10 states: Arizona, California, Florida, Georgia, Illinois, New Jersey, New Mexico, New York, Texas, and Washington, D.C. While visiting the islands, educators of all subject areas will observe and explore environmental projects; speak with experts, community advocates; and participate in group learning activities aimed at encouraging an internationally and

environmentally orientated interdisciplinary curriculum. The deadline for application is April 21, 2006. A future opportunity includes a similar excursion to Costa Rica with a focus on *Preserving Environmental and Cultural Heritage*.

<http://www.iie.org/Template.cfm?&Template=/programs/toyota/default.htm>

### **Wetland Research Fellowship**

The Ohio State University offers the Director's Wetland Research Fellowship competition for potential Ph.D. students interested in wetland ecology, science, engineering, and/or policy at Ohio State University, Columbus, Ohio.

<http://swamp.osu.edu>

## **INTERNSHIPS AND TEMPORARY OPPORTUNITIES**

### **GIS Volunteer(s) Wanted During Summer 2006**

The Montserrat Centre Hills Project is looking for one or more volunteers to assist with field mapping work. This is an ideal opportunity for graduate students seeking practical field experience, professionals seeking a rewarding sabbatical or "working holiday", or hiking/GIS/travel enthusiasts such as geocachers or orienteers. Efforts will contribute to significant enhancement of the national GIS. Results will be used by policy makers, scientists, and planners in the development of a management plan for the Centre Hills, which is under consideration to become Montserrat's first National Park. The timeframe is flexible between July and August 2006. It is anticipated that the work could be carried out by an individual in approximately 6 weeks, or the work shared in a shorter timeframe. Ideal candidates will be self-funded, either through an academic scholarship, work fellowship, or some other such arrangement. However, it is possible that some support may be sourced to cover costs/accommodations in Montserrat.

Contact [darwin@candw.ms](mailto:darwin@candw.ms) for more information.

### **NOAA Science Camp**

NOAA will hold its annual Science Camp for 11-13 year old students from July 11-15, 2006 in Seattle, Washington. The objective of the camp is to provide youth with an opportunity to experience NOAA science first-hand and learn how it applies to their local and global community. Short courses will be conducted by different NOAA offices. Students will age fish and assess fish populations, simulate a dive in a hyperbaric chamber, analyze water sample, and much more. Scholarships are available.

<http://www.nwfsc.noaa.gov/sciencecamp.cfm>

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

### **Building Coastal Knowledge and GI - Ireland**

The ECO-IMAGINE Conference, *Building Coastal Knowledge and GI*, in Cork, Ireland, June 13-17, 2006, is organized in co-operation with the Coastal and Marine Resources Centre of the University College Cork. Some Marie Curie grants are available for supporting the participation of early stage and more experienced researchers in the conference. The deadline for application for grants is April 21, 2006.

<http://www.gisig.it/eco-imagine>

### **Conserving Birds in Human-Dominated Landscapes**

The Center for Biodiversity and Conservation's Eleventh Annual Spring Symposium,



April 27-28, 2006, in New York, New York, *Conserving Birds in Human-Dominated Landscapes*, will explore the growing recognition of diverse avian responses to broad-scale human activities in urban centers, agricultural areas, coastal communities, working forests-the wide array of landscapes we call home. Within human-dominated systems, shifts are occurring in bird abundance, distribution, behavior, life histories and, ultimately, evolutionary potential. This conference will focus on unique challenges to, and key opportunities for invigorating bird diversity in the areas most heavily impacted by human activities.

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

### **Education and the Environment Initiative Workshops - California**

The California Environmental Protection Agency and the California Integrated Waste Management Board invite participants to learn more about the Education and the Environment Initiative and become part of the statewide effort to implement this initiative. Participate in one of six regional professional development workshops across the state followed by two rounds of technical assistance workshops in those same regions, in May, July, and August. This process is intended to inform California's non-profit environmental organizations about the initiative and to provide professional development and technical support to help adapt materials and programs to reflect California's Environmental Principles and Concepts and the Model Curriculum that is being developed.

<http://www.calepa.ca.gov/Education/EEI/>

### **Environmental Educators Training Program - California**

The Environmental Educators Training Program, cooperatively presented by the Headlands Institute, the National Park Service and UC Berkeley Extension, is a residential training program for formal and nonformal educators to enhance knowledge of environmental sciences, concerns, and skills for teaching integrated, hands-on curriculum. Courses are offered July 31-August 4, 2006 and August 14-18, 2006 in Sausalito, California.

<http://www.yni.org/hi/educator.html>

### **Ocean Exploration Professional Development Workshop - Oregon**

Bring the excitement of current ocean science discoveries to your students using NOAA's Ocean Exploration curriculum and CD-ROM's of the Ocean Explorer Web site, June 17, 2006 in Corvallis, Oregon. Perform inquiry- and standards-based activities tied directly to ocean expeditions. Participants will receive a copy of the Learning Ocean Science through Ocean Exploration curriculum and CD-ROM's interpreting these multidisciplinary ocean discovery voyages using "new technological eyes" to study earth and life science on the ocean floor. Pre-service and in-service teachers of grades 6-12 are invited to register by June 2, 2006.

[www.oceanexplorer.noaa.gov](http://www.oceanexplorer.noaa.gov)

Contact Melissa Feldberg at [melissa.feldberg@oregonstate.edu](mailto:melissa.feldberg@oregonstate.edu)

### **Ossabaw Island Educator Workshops - Georgia**

Ossabaw Island is managed by the Georgia Department of Natural Resources (DNR). The Ossabaw Island Foundation, a Savannah-based non-profit organization which has the exclusive right to use certain areas on the north end and non-exclusive access to other areas, works cooperatively with DNR to manage access to Ossabaw for public educational programs. Upcoming educator workshops include *Biostudy of Birds*, April 28-30, 2006, and *Sea Turtle Ecology*, July 14-17, 2006.

<http://eeingeorgia.org/net/content/go.aspx?locationid=13063&eventid=39124&c=28668&locationid=13063&s=13063.0.68.4863>

### **Regional Student ROV Competitions in the Sanctuaries**

The NOAA National Marine Sanctuary Program offers ways to get students involved with marine technology and its application in ocean studies through the ROV program. The National Marine Sanctuaries are hosting three Regional Student ROV (Remotely Operated Vehicles) competitions. Teachers and students can attend a variety of ROV workshops around the country to learn how to build Lego and PVC pipe ROVs, as well as sign up to compete in regional ROV competitions.

- April 8, 2006: First-Annual Mid-Atlantic Regional ROV Competition, Norfolk, Virginia
- April 21-23, 2006: Southeast ROV Regional Competition, Savannah, Georgia
- May 13, 2006: Virginia and Maryland ROV Regional Competition, Norfolk, Virginia

<http://sanctuaries.noaa.gov/education/events/welcome.html>

### **Sapelo Island National Estuarine Research Reserve Celebrations - Georgia**

2006 marks the 30th anniversary of Sapelo Island National Estuarine Research Reserve on Sapelo Island, Georgia. To celebrate, there a variety of programs that will showcase the reserve and the beauty of Sapelo Island. Programs include history, natural resource ecology, art, music, and more.

Contact Brooke Vallaster at [brooke@darientel.net](mailto:brooke@darientel.net)

### **Shipboard and Shoreline Science Workshop Cruise - Ohio**

The Center for Ocean Sciences Education Excellence Great Lakes invites 4th-10th grade teachers and non-formal educators to participate in its first annual Lake Guardian Shipboard and Shoreline Science workshop, June 18-24, 2006. This year's cruise on Lake Erie is designed to promote Great Lakes and ocean sciences in formal and informal education and forge lasting relationships between science researchers and educators. This one-week workshop takes place aboard the U.S. EPA's 180ft research vessel the *R/V Lake Guardian*. It will offer first hand explorations of Lake Erie geography, resources, processes and issues, and demonstrate how Great Lakes science parallels the science of the world ocean. Participants will be involved in field exercises, work with scientists, examine curricula and resources, and explore classroom activities relating to the Great Lakes and ocean resources. Fifteen teachers will be selected from around the Great Lakes basin. The deadline for application is April 7, 2006.

<http://coseegreatlakes.net/events/>

### **Sustainable Marine Tourism Workshops – Southeast Florida**

Marine entrepreneurs are invited to learn how preserving coral reefs will safeguard businesses. The Southeast Florida Coral Reef Initiative is sponsoring a series of free workshops for the marine tourism industry during May 2006 entitled "Coral Reefs and Sustainable Marine Tourism: Protect Your Business by Protecting Your Reef." The workshops, conducted by the Coral Reef Alliance (CORAL), will feature international and local experts discussing the socioeconomic value of the coral reefs, innovative local solutions and market sustainability. Interactive discussions will explore emerging issues and encourage reef conservation as a best management practice. Pre-registration is required.

- Broward County Workshop, May 3, 2006, Davie

- Miami-Dade Workshop, May 6, 2006, Miami Shores
  - Palm Beach County Workshop, May 10-11, 2006, West palm Beach
- Contact the workshop facilitator, Dr. Alex Brylske at [abrylske@coral.org](mailto:abrylske@coral.org)

### **U.S. Coral Reef Task Force Meeting**

The 15<sup>th</sup> U.S. Coral Reef Task Force Meeting will take place May 4, 2006 in Washington, D.C. There are no registration fees, but registration is requested, available on-line from the website. Exhibit space is available for approximately 20 exhibits, offered on a first-come, first-served basis.

For more information, contact Beth Dieveney at [Beth.Dieveney@noaa.gov](mailto:Beth.Dieveney@noaa.gov)  
<http://www.coralreef.gov/announcements/index.html>

## **EDUCATIONAL RESOURCES**

### **Air and Waste Management Association Lesson Plans**

The Air and Waste Management Association offers Environmental Education Resource Guides on CD, with background information, fact sheets, glossaries, and 50 lesson plans for grades K-5 on several air and water pollution topics. The website offers four of the lesson plans free for downloading, about nonpoint source pollution and air quality.

<http://www.awma.org/education/freelessons.asp>

### **Bad Science**

This website identifies some scientific phenomena which are persistently presented incorrectly by teachers and writers, and provides scientifically correct explanations. The author hopes “to sensitize students, teachers, and writers to the horrors of such glib explanations or representations.” The website includes Bad Meteorology, Bad Chemistry, and more.

<http://www.ems.psu.edu/~fraser/BadScience.html>

### **BirdNote**

BirdNote is a radio series about the intriguing ways of birds. Each show is scheduled to coincide with the time of year when you can see or hear the featured bird, to help you be able to exclaim, “Oh, that’s what that is!” BirdNote shows are two-minute vignettes that incorporate sounds of birds with stories that illustrate their interesting or intriguing abilities. The radio shows are archived on the website for downloading. Links are also provided to BirdWeb for more information.

<http://www.birdnote.org/kplu-archive.cfm>

### **Center for Environmental Education Online**

The Center for Environmental Education Online is a dynamic resource for educators and students. The Curriculum Library includes reviewed curriculum and lesson plans on topics ranging from the water cycle to sustainable economics. Additional resources include Educating for Sustainability and an easy-to-read online newsletter which includes environmental education information, upcoming events, and grant opportunities.

<http://www.ceeonline.org/default.cfm>

### **CoralWatch**

CoralWatch, developed from a research project at the University of Queensland, offers an inexpensive, simple, non-invasive method for the monitoring of coral bleaching and assessment of coral health. The Coral Health Chart is basically a series of sample

colors, with variation in brightness representing different stages of bleaching/recovery, based on controlled experiments. In the field, users simply compare colors of corals with colors on the chart and record matching codes. The charts can be used by scientists, students, tourists, and others. Data can be submitted on-line. The website also includes a description of an education package, educators' workshop registration, and more.

<http://www.coralwatch.org/default.aspx>

### **Deep Sea 3D**

Deep Sea 3D is the new underwater adventure from IMAX, transporting audiences deep below the ocean surface in different locations around the globe and offering never-before-seen, up-close encounters with a wide range of undersea life. Moviegoers, with only their 3D glasses for a diving mask, will be able to swim alongside some of the most exotic creatures on the planet, from the bizarre Rainbow Nudibranch to the Giant Pacific Octopus. The website includes a QuickTime film trailer along with an educator's guide to the film.

<http://www.californiasciencecenter.org/Imax/Features/DeepSea3D/DeepSea3D.php>

### **Deep Water Macroalgal Meadows**

The 2004 Deep Water Macroalgal Meadows expedition is now online on NOAA's Ocean Explorer website. This expedition studied deepwater meadows of the calcified green alga *Udotea* sp. in the waters surrounding the Hawaiian Islands. Over 30% of macroalgal species collected during this mission were new records for Hawaii or new to science. The website includes an essay about the Teacher at Sea experience, a mission summary, an essay on algal meadows in Hawaii, and three major slideshows filled with photos from the expedition.

<http://oceanexplorer.noaa.gov/explorations/04algae/welcome.html>

### **Global, Environmental, and Outdoor Education Council Lesson Plans**

The Global, Environmental, and Outdoor Education Council is one of 23 specialist councils of the Alberta, Canada Teachers' Association. They promote quality professional development for teachers. The website offers lesson plans covering a variety of subjects, for grades 1-9. Some of the topics include stewardship, endangered species, water, and more.

<http://www.geoec.org/lessons/>

### **Green TV**

Green TV, developed with support from the United Nations Environment Programme, is the world's first broadband TV channel dedicated to environmental issues. Covering everything from climate change to children's stories on wildlife, it will carry films from around the world produced by non-governmental organizations, community filmmakers, public sector bodies and companies with a firm interest in protecting the environment. It will have seven channels covering: air, land, water, climate change, people, species and technologies. Each channel will include a feature, a news item, and a children's story.

<http://www.green.tv/>

### **Hurricane Digital Memory Bank**

Hurricane Digital Memory Bank: Preserving the Stories of Katrina, Rita, and Wilma  
The web has facilitated the creation of a number of historical archives, including the Hurricane Digital Memory Bank, developed and maintained by George Mason University's Center for History and New Media and the University of New Orleans. The project has collected first-hand accounts of these hurricanes, along with archives of blog

postings, podcasts, and on-the scene visual documentation. From the homepage, visitors can browse an interactive map of images submitted to the archive and also add their own materials to the existing archive. The site includes personal stories submitted by those who experienced the effects of the hurricanes.

<http://hurricanearchive.org/>

### **International Polar Year Integrated Collaborative Education Planning Workshop and Website**

The Integrated Communication Effort strategic planning online workshop was held from March 17 to 31, 2006, in order to identify key science concepts and messages for the International Polar Year and to support broad, diverse and international collaboration and participation in this event. The website will offer update information on education communication messages and actions, including documentation of the workshop, a resource list for implementing educational programs, key concepts, and more.

<http://coexploration.org/ipy/ice/>

### **IUCN Publications Available in Two Formats**

An IUCN online publishing pilot project offers publications in both HTML and PDF format. Two main advantages to this new system include easy capture by search engines and on-line access to cross references, both within the publication and also to outside sources. Two of many such publications include *Protected Landscape Approach: Linking Nature, Culture and Community*, and *The Urban Imperative: Urban Outreach Strategies for Protected Area Agencies*.

[www.iucn.org/wcpa/pubs/taskforce.htm#cities](http://www.iucn.org/wcpa/pubs/taskforce.htm#cities)

<http://www.iucn.org/bookstore/booksonline.htm>

### **Marine Education Interactive Lessons**

Maryland Sea Grant offers interactive, downloadable lessons and references on their website. Lessons include Biofilms and Biodiversity, What is the Key to Classification, and Oysters in the Classroom. The website also includes a link to their quarterly newsletter, workshops, and more.

<http://www.mdsg.umd.edu/Education/lessons.html>

### **Perfect Disaster**

The Discovery Channel offers this website to complement *Perfect Disaster*, a series of programs on severe weather and other natural disasters. The site includes a number of historic disaster puzzles, where visitors can piece together the post-eruption locale of Pompeii and the mighty tornado that swept through Kirksville, Maryland in 1899. Other sections include information about tornados, solar storms and a hazard quiz.

<http://dsc.discovery.com/convergence/perfectdisaster/perfectdisaster.html>

### **Remote Sensing and Coral Reefs**

NOAA's Coral Reef Watch offers *Remote Sensing and Coral Reefs*, a free, downloadable curriculum unit for 4<sup>th</sup> – 6<sup>th</sup> grade students on remote sensing and its application to monitoring coral reefs. This set of 7 lesson plans is also appropriate for many middle school classrooms, and many of the lessons can stand alone as individual classroom activities. Topics include Remote Sensing and the Electromagnetic Spectrum, Altimetry, Phytoplankton and Ocean Color, Introduction to Coral Reefs, Symbiosis and Coral Anatomy, Sea Surface Temperature and Coral Bleaching, and Coral Reef Conservation.

[http://coralreefwatch.noaa.gov/satellite/education/reef\\_remote\\_sensing.html](http://coralreefwatch.noaa.gov/satellite/education/reef_remote_sensing.html)

### **Scientific Committee on Antarctic Research**

Organized by the International Council for Science, the Scientific Committee on Antarctic Research (SCAR) is charged with initiating, developing and coordinating high quality international scientific research in the Antarctic region. For those with an interest in the upcoming International Polar Year, this website will be a useful research site. The Publications section of the website includes many downloadable resources, including topical articles addressing sea-level changes and climate transformation and a link to the Antarctic Digital Database for GIS users. For political background, a separate section is dedicated to the Antarctic Treaty. The Antarctic Information section provides maps of the region and some basic information.

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

### **Sloan Career Cornerstone Center**

For students wanting a wider view of science careers, the Sloan Career Cornerstone Center can help students explore the fields of science, technology, engineering, mathematics, and computing. This site provides many resources, including an interview database of professionals working in these areas. Some of the career profiles include hydrogeologist, micropaleontologist, weather service administrator, environmental engineers and more.

<http://www.careercornerstone.org/forstudents.htm>

### **Teachers Network**

The Teachers Network is an alliance of education professionals dedicated to disseminating best-practices throughout the world of public school education. From the homepage, visitors can select lesson plans, essays by current teachers on their own experiences, and also search a list of grants available to those working in a number of disciplines, including social studies, language arts, and the sciences. The lesson plans are searchable by subject, grade level, and through key word searches. A number of ocean- and water-related lessons are available.

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

### **Timeless Totems: The Carved History of the Alaskan Coast eField Trip**

Why did people carve totem poles? How were the totem poles made? What do the designs on the totem poles mean? Take your students on an electronic field trip to Sitka National Historical Park in Alaska to find the answers to these questions.

Premiering March 27, 2006, the eFieldTrip has three major components, a virtual visit, a trip journal, and, on April 11-13, 2006, *Ask the Experts*, when students may ask questions via the eFieldTrips web site. Within 1-2 days, the experts at Sitka National Historic Park will post the answers to their questions.

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

## **INITIATIVES and JOURNALS**

### **Dive In To Earth Day**

Volunteers from across the world will take action this Earth Day, April 22, 2006, to protect their local aquatic environment by taking part in Dive In To Earth Day celebrations and remind Earth Day celebrants that the 72 percent of the planet covered by water requires urgent attention. Become a part of this global movement by organizing Dive In activities that make conservation fun and accessible while having a

real impact: beach and underwater clean-ups, educational workshops, fish and reef surveys, mooring buoy installations, among many others. To find out how to become a Dive In To Earth Day organizer, visit the Dive In website and browse through the "Tools for Organizers" section.

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

### **Earth Day**

April 22, 2006 is Earth Day. Check out the following websites for events in your area.

- Earth Day Network, <http://www.earthday.net/default.aspx>, with links to the Educators Network and Environmental Jeopardy
- International Earth Day, <http://www.earthsite.org/>
- U.S. Government Earth Day Events and Information, <http://www.earthday.gov/> (with links to taking action in your classroom)
- National Environmental Education Week, <http://www.eeweek.org>

### **Great Annual Fish Count**

The event registration and planning for the upcoming Great Annual Fish Count has begun. 2006 marks the 15<sup>th</sup> year for this annual marine conservation citizen science event. All events must be registered online and received no later than June 15, 2006 in order to guarantee inclusion on the website calendar, media releases, and other publicity. All diving/surveying aspect of any activities must take place during the month of July. Other related events – Fish ID classes, Kick-off parties, BBQs, etc. – can take place any time leading up to or during July. All Fish ID classes must be offered free. The website includes inclusive information for organizers, links to learning resources, a fundraising challenge, and more.

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

### **International Migratory Bird Day**

International Migratory Bird Day, May 13, 2006, celebrates the incredible journeys of migratory birds between their breeding grounds in North America and their wintering grounds in Mexico, Central, and South America. The event encourages bird conservation and increases awareness of birds through hikes, bird watching, information about birds and migration, public events, and a variety of other education programs. This year's theme celebrates the *Boreal Forest: Bird Nursery of the Americas*. The website includes press kit fact sheets covering different facets of the theme, including the importance of the boreal forest to breeding birds, and threats to the forests, including habitat loss and climate change. Additional links to in-depth information are available.

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

### **Marine Technology Society Journal: Promoting Lifelong Ocean Education**

In keeping with the Marine Technology Society's (MTS) mission of fostering education, the latest MTS Journal is the first peer-reviewed publication from the technical and engineering community to focus solely on this vital issue. This publication details how the ocean community can promote ocean literacy and safeguard the oceans for our future generations. To facilitate partnerships and contributions, contact information is provided for all of the authors in this issue. To order this special edition, scroll down to Journals on the pub\_list website; to view the contents of the journal, check out the journal\_form webpage.

[http://www.mtsociety.org/publications/pub\\_list\\_1.cfm](http://www.mtsociety.org/publications/pub_list_1.cfm)

[http://www.mtsociety.org/publications/journal\\_form.cfm](http://www.mtsociety.org/publications/journal_form.cfm)

**National Wildlife Week**

National Wildlife Week is April 22-30, 2006 and the National Wildlife Federation is encouraging everyone to *Get outside and explore your community*. The website includes a marketing toolkit. Activities to get involved in include:

- Rebuild places for wildlife; wildlife-related volunteer work on April 22-23, 2006
- Read with Ranger Rick; week-long literacy and reading program
- Monitor and record spring wildlife species during National Wildlife Watch on April 29-30, 2006

<http://www.nwf.org/nationalwildlifeweek>

**Tapping America's Potential**

Leading business groups have launched a website to promote a math and science education initiative which seeks to make improvements to math and science education a national priority and a key component of U.S. competitiveness. The website is based on a report by the business groups, which calls for doubling the number of U.S. science, technology, engineering, and mathematics (STEM) graduates by 2015. The website provides state-specific information on STEM education, links to key reports, results of public opinion research on competitiveness and innovation, and more.

<http://www.tap2015.org>