

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

**DECEMBER 2007**

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.

Please share this email with your colleagues and constituents. If you request materials or respond to a request for information, please mention that you learned about it from NOAA's Information Exchange.

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Collected archives of the information presented in past newsletters are available at [http://mpa.gov/helpful\\_resources/education\\_training.html](http://mpa.gov/helpful_resources/education_training.html). Contact the editor directly at [phyllis.dermer@noaa.gov](mailto:phyllis.dermer@noaa.gov), or by phone at (865) 932-5074, to discuss further enhancements or to contribute information for future issues.

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## **Notable References**

### **Marine Ecosystems and Management**

Marine Ecosystems and Management is a quarterly publication on marine ecosystem-based management published by Marine Affairs Research and Education in association with the University of Washington, School of Marine Affairs. The online publication serves the global resource management community with news, views, analysis, and tips gathered from experts around the world. The first edition is now available, and subscriptions can be requested on the website.

<http://depts.washington.edu/meam/>

## **Water Neutrality**

This concept paper on "Water Neutrality" was produced by a small group from NGO, academic, and business backgrounds. It was conceived through a common interest in investigating whether neutrality can be (or become) a meaningful tool that helps water stakeholders in their efforts to achieve and promote good stewardship of this critical resource.

[http://www.ramsar.org/forum/forum\\_wwf\\_water\\_neutrality2007.pdf](http://www.ramsar.org/forum/forum_wwf_water_neutrality2007.pdf)

## **PROGRAM OF THE MONTH**

### **Treasures in the Sea**

*Treasures in the Sea: Our Bahamian Marine Resources* is a new resource book that provides educators with scientific information and hands-on activities that encourage students to discover, cherish, and protect the sea and all of its treasures. Designed especially for educators in The Bahamas, the book complements curriculum guidelines for grades three to six, though many of the activities may be adapted for younger or older students in formal and nonformal settings. *Treasures in the Sea* introduces marine conservation concepts by focusing on some of The Bahamas' most important marine species, and helps students understand life cycles, critical habitats, cultural, and economic connections, and also the urgency of conservation and management. The website includes the downloadable publication, links to resources related to the activities, and more.

<http://treasures.amnh.org/index.html>

## **WEBSITE OF THE MONTH**

### **Drought Portal**

The U.S. Drought Portal is an interagency portal providing critical and updated information on drought to stakeholders. It was created to provide comprehensive information on emerging and ongoing droughts, and to enhance the nation's drought preparedness. The portal is an integral element of the National Integrated Drought Information System (NIDIS). Initiated by the Western Governors' Association, NIDIS is a dynamic drought risk information system that provides users with the ability to determine the potential impacts of drought, and the decision support tools needed to better prepare for and mitigate the effects of drought.

The website offers information about current drought conditions along with forecasting information. Additional sections track different drought impacts, offer planning assistance, and will provide links to research. The education section links to selected resources, including lesson plans in English and Spanish, along with information for the general public.

<http://drought.gov/>

## **MESSAGE FROM THE BRIDGE**

### **Bridge Data Analysis Teaching Activities**

Bridge-authored Data Analysis Teaching Activities (DATAs) utilize real online scientific data from research projects all over the country. They present data in an organized, controlled format, which allows for easier analysis and comprehension. By working with real data, students better understand basic scientific concepts and learn about the

issues most prevalent in today's lakes, rivers, and oceans. All DATAs are aligned with National Science Education Standards and include an introduction that sets up the purpose of the research/data followed by an online data set and directions on how to analyze them. Most DATAs incorporate graphing by hand or Excel, basic math and statistics, and critical thinking skills via discussion questions. DATAs have been used by educators all over the globe, either in their original form or adapted to meet the educator's specific curricular needs. Currently, the DATA series contains over 65 activities in the following disciplines: biology; human activities; ecology; physics; chemistry; climate; and geology. Educators are welcome to submit ideas for new DATAs or submit their own data-based activities to the Bridge for inclusion in the series. [http://www.marine-ed.org/bridge/index\\_archives.html](http://www.marine-ed.org/bridge/index_archives.html)

## **REQUESTS**

### **Volunteer Needed Immediately**

The ANAI Stream Biomonitoring Program in Costa Rica has had a volunteer cancellation at a critical moment, and they are seeking someone immediately that could help out. Someone with interest in field biology and conservation education would make a huge difference not only in advancing the office work, but in facilitating visits to schools and communities and helping with occasional field work in streams. Principal qualifications are interest in conservation at the community level and at least modest capability in Spanish. Beyond that, they can adapt to any special interests or skills. Free lodging and in-country transportation are available.

[http://www.anaicr.org/index.php?option=com\\_content&task=view&id=87&Itemid=164](http://www.anaicr.org/index.php?option=com_content&task=view&id=87&Itemid=164)

Contact Bill McLarney at [anainc@dnet.net](mailto:anainc@dnet.net) or 828-524-8369 **AND** Maribel Mafla at [mmafla@anaicr.org](mailto:mmafla@anaicr.org)

## **GRANTS AND OPPORTUNITIES**

### **Action for Nature Young Eco-Hero Awards**

Action for Nature seeks applications from students 8-16 for its Young Eco-Hero Awards program. The awards program recognizes the individual accomplishments of young people whose personal actions have significantly improved the environment. Projects must concern advocacy, environmental health, research, or protection of the natural world. The deadline for application is February 28, 2008.

<http://www.actionfornature.org/eco-hero/ecoheroawards.html>

### **Alliance for Science Essay Contest**

The Alliance for Science invites interested high school students to submit essays on one of two topics: Climate and Evolution or Agriculture and Evolution. The Alliance for Science website offers possible ideas to explore in the essay. The deadline for submission is February 29, 2008.

<http://www.allianceforscience.org/essay>

### **Armada Project**

The Armada Project offers the opportunity for K-12 teachers to actively participate in ocean, environmental, and polar research and peer mentoring. Chosen Master Teachers (with five or more years of teaching experience) will spend one to three weeks during the summer participating in research around the globe. The deadline for application is February 4, 2008.

<http://www.armadaproject.org/application.htm>

### **Be the Change, Share the Story Contest**

The North American Association for Environmental Education has teamed up with QuantumShift.tv with the *Be the Change, Share the Story!* School Video Contest. The contest challenges teams of students at schools across the U.S. and Canada to make a difference and tell the world. Teams pick a social or environmental project and create two short videos about their project. The first video tells how the team plans to make a difference, and the follow-up video shows the team in action, making a difference. The deadline for initial entry is January 31, 2008.

<http://www.quantumshift.tv/schools/>

### **Davidson Fellows Scholarship Program**

The Davidson Fellows scholarship program recognizes exceptional students (under age 18) and supports them in the fulfillment of their potential. Scholarships will be awarded to recognize a significant piece of work in the categories of Science, Technology, Mathematics, Music, Literature, Philosophy, or Outside the Box. The deadline for application is March 26, 2008

[http://www.ditdservices.org/Articles.aspx?ArticleID=36&NavID=1\\_0](http://www.ditdservices.org/Articles.aspx?ArticleID=36&NavID=1_0)

### **Disney Minnie Grants**

The next round of Disney Minnie grants will soon be available to support youth-led projects (led by younger youth, ages 5-14). Individual youth as well as organizations that engage youth are eligible to apply. The deadline for application will be in January 2008.

<http://ysa.org/AwardsGrants/tabid/58/Default.aspx>

### **International Children's Painting Competition on the Environment**

The International Children's Painting Competition on the Environment is organized annually by the United Nations Environment Programme (UNEP) and others. This year's competition focuses on climate change - actions we can take now to reduce our negative impact. The children's paintings can focus on concrete actions such as using renewable energy, introducing energy saving light bulbs at home, sharing vehicles and using public transport, planting trees, and more. The deadline for application is January 15, 2008.

<http://www.unep.org/Tunza/paintcomp/>

### **National Teachers Hall of Fame Induction Program**

The National Teachers Hall of Fame was founded in 1989 by Emporia State University, as a tribute to teaching. The Hall of Fame is committed to drawing the public's attention to exceptional PreK-12 teachers through a museum, teacher resource center, and recognition program which honors five of the nation's most outstanding PreK-12 educators each year. The deadline for nominations is January 2, 2008.

<http://www.nthf.org/nominate.htm>

### **NOAA Preserve America Grants**

The NOAA Preserve America Initiative Grant Program announces its FY08 request for proposals. This mini-grant program is designed to stimulate efforts within NOAA to preserve, protect, and promote the agency's heritage assets. Funded projects have varied in scope from interpreting historic and cultural resources in NOAA's care, to capturing oral histories of NOAA stakeholder groups. Grants will be awarded only to

NOAA offices, although other federal, state, tribal, Native Hawaiian, academic, and non-profit organizations can act as partners. Hurry - a one page pre-proposal is due by December 28, 2008.

<http://preserveamerica.noaa.gov/>

### **Pacific Crossing Education and Contest**

Erden Eruç is a Turkish-American scientist and environmentalist seeking to circle the Earth using only his own power. He is currently rowing across the Pacific Ocean. WhaleNet and The National Museum of Education are sponsoring Erden's educational outreach. The website offers tracking maps, educational resources, rules for a contest, and more.

<http://whale.wheelock.edu/whalenet-stuff/Erden/>

### **Programs for Sustainable Fisheries and Alternative Livelihoods for Fishers**

The Specially Protected Areas and Wildlife Programme has made available two programs through the Gulf and Caribbean Fisheries Institute: Small Grants Fund and an Exchange Program for Sustainable Fisheries and Alternative Livelihoods. The details for each program, along with applications, are available on the website. **Hurry** - both deadlines for application are December 10, 2007.

<http://gcfi.org/SGF/SGFEng.php>

## **INTERNSHIPS AND TEMPORARY OPPORTUNITIES**

### **Earth Explore**

Summer 2008 Environmental Education Adventures are still available through the Earth Explore Foundation. Travel to Belize, Alaska, Hawaii, and Italy with students, and explore issues of the environment and the planet with experts in each location. Earth Explore's Adventures to Planet Earth are multidisciplinary and inquiry driven, and are based upon the mission of the Earth Explore Foundation to explore the world, understand it, enjoy it, and protect it.

<http://www.earthexplore.com/>

### **Marine Conservation Fellowship**

The Nature Conservancy Hawaii announces the launch of the Marine Conservation Fellowship Program. The program will provide two years of on-the-job training to build a strong pool of well-qualified, experienced marine resource managers. Trainers will include Conservancy staff, marine resource experts, Kupuna, and other conservation leaders throughout Hawaii. During the program, the fellows will complete formal training in core skills such as biological monitoring, strategic planning, and data analysis while working alongside senior staff and partner agency staff on marine projects. Hurry - the deadline for application is December 17, 2007.

<http://www.hear.org/ANnouNcEmEnts/pdfs/20071120tncfellow.pdf>

### **Young Scientists Summer Program**

The International Institute for Applied Systems Analysis (IIASA) is an international research organization, based in Austria, conducting inter-disciplinary scientific studies on environmental, economic, technological, and social issues in the context of human dimensions of global change. IIASA's annual Young Scientists Summer Program is a three-month (June–August) research program for around fifty advanced students whose

interests correspond with IIASA's ongoing research. The deadline for application is January 15, 2008.

<http://www.iiasa.ac.at/yssp/register/>

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

### **Applied Environmental Education Program Evaluation - Online**

The Environmental Education and Training Partnership (EETAP) and the University of Wisconsin, Stevens Point offer this online course, February 18-May 9, 2008, for students and professionals in the field of environmental education. Learn to evaluate environmental education and outreach programs by designing evaluation tools such as questionnaires, observation forms, and interview and focus group guides. This course is designed for environmental educators, natural resource professionals, and graduate students who can apply the tools they develop to a specific education program or research study.

<http://www.uwsp.edu/natres/rwilke/eetap/Website2006/AEEPE.htm>

### **Archeological Resources Protection Training Program**

The Archeological Resources Protection Act (ARPA) training was developed by the Federal Law Enforcement Training Center together with the U.S. Forest Service, Bureau of Land Management, and the National Park Service. This class provides training in archeological investigation and the subsequent prosecution of the crimes. During the program, students participate in integrated lectures and discussions. Advanced and specialized training is offered to both law enforcement officers and the archeologists in the same classroom setting. The participants are separated in order to provide law enforcement training to the archeologists and archeological training to the law enforcement officers. The class cumulates in a 12 hour practical exercise where law enforcement officers and archeologist work as a team to investigate and document a crime scene. Attendees will gather physical evidence, write search warrants, prepare damage assessments and provide testimony in a court room scenario.

- Columbus, Ohio, March 10-14, 2008
- Bar Harbor, Maine, April 7-11, 2008
- Panama City, Florida, April 21-25, 2008

<http://www.fletc.gov/training/programs/forensics-and-investigative/archeological-resources-protection-training-program-arptp>

### **DataStreme Atmosphere - Online**

An online weather course by the American Meteorological Society is offered free for K-12 teachers. DataStreme Atmosphere is a precollege teacher enhancement program. Applications are sought from persons who can demonstrate potential for leadership as resource teachers. They must be willing to act as resource persons for other teachers and as advocates for promoting the use of electronically-delivered environmental data in schools.

<http://www.ametsoc.org/amsedu/DataStremeMiddle.html>

### **Fundamentals of Environmental Education - Online**

The Environmental Education and Training Partnership and the University of Wisconsin, Stevens Point offer this online course, February 4-April 18, 2008, for students and professionals in the field of environmental education (EE). This course provides

classroom teachers and non-formal educators with the knowledge and skills necessary to incorporate quality EE into their instruction. Participants discuss the history and goals of EE, develop an understanding of the professional roles and instructional methods of environmental educators, and interact with other educators from across the country.

<http://www.uwsp.edu/natres/rwilke/eetap/Website2006/FEE.htm>

### **LiMPETS Introduction to Rocky Intertidal Monitoring - California**

This workshop, December 8, 2007 in San Mateo County, California, is for teachers who are interested in participating in the Gulf of the Farallones National Marine Sanctuary's Long-term Monitoring Program and Experiential Training for Students (LiMPETS). Participants will learn to survey key invertebrate and algae species at an established monitoring site along the coast of California.

[http://farallones.org/education/teacher\\_workshops.php](http://farallones.org/education/teacher_workshops.php)

### **Mangrove Forest Ecology, Management and Restoration Training Workshop - Florida**

The sixth Mangrove Forest Ecology, Management and Restoration training workshop will be held March 3-6, 2008 in Hollywood, Florida. The training site is within a 500 hectare mangrove restoration project at West Lake Park operated by Broward County. The deadline for registration is December 31, 2007.

<http://www.mangroverestoration.com/>

### **Ocean Explorer Professional Development**

The Ocean Explorer professional development webpage has been updated for 2008. Workshops introduce educators to ocean scientists/explorers and their research and explorations, and at the same time, provide tools and resources to engage students in ocean exploration by bringing the classroom closer to the ocean than it has ever been before. Workshops are offered in many locations, including Georgia, California, Alabama, Illinois, Oregon, and elsewhere.

<http://oceanexplorer.noaa.gov/edu/development/development.html>

### **Professional Development from the National Marine Sanctuary Program**

The NOAA National Marine Sanctuary Program aims to provide teachers with resources and training to support ocean literacy in America's classrooms. Check out the workshop and professional development opportunities for educators, from short courses in California to Georgia's Rivers to Reefs, from shipwreck archaeology to marine technology, and much more.

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

### **Sea Turtle Saturday - Texas**

Join the Houston Zoo, February 23, 2008 in Houston, Texas, for a sea turtle restoration symposium with a line-up of lectures by sea turtle experts aimed to educate the public on conservation efforts. This is an opportunity for students, teachers, and the public to learn more about sea turtles and how to get involved locally in sea turtle conservation.

<http://www.houstonzoo.org/seaturtle/>

## **EDUCATIONAL RESOURCES**

### **Alabama Learning Exchange**

The Alabama Learning Exchange is a project of the Alabama Department of Education, designed to index and share many types of educational materials and information through a one-stop resource for educators, parents, and students. The resources include lesson plans, web links, and interactive activities. They are easy to access and searchable by different criteria, including electives in environmental science, marine biology, and much more. Be sure to check out the distance education and professional learning sections.

<http://alex.state.al.us/index.php>

### **Annenberg Media Interactives**

Annenberg Media uses media and telecommunications to advance excellent teaching in American schools. This mandate is carried out chiefly by the funding and broad distribution of educational video programs with coordinated Internet and print materials for the professional development of K-12 teachers, encouraging more effective ways to share ideas and knowledge. Multimedia resources help teachers increase their expertise in their fields and assist them in improving their teaching methods. The website includes a variety of Interactives, including Dynamic Earth, Garbage, Weather, and more.

<http://www.learner.org/interactives/>

### **Blue World**

Segments to the Blue World underwater adventure television series can now be viewed online. Each 8-10 minute segment also has a downloadable teacher's guide.

<http://www.blueworldtv.com/>

### **Center for International Environmental Law**

The Center for International Environmental Law works to solve environmental problems through a variety of advocacy and education programs. The sections, including Biodiversity, Human Rights & Environment, Climate Change, and more, contain links to calendar events, full-text publications, and information about their goals for each topical area. The website also includes information about available fellowships, internships, and potential job opportunities

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

### **Coralpedia**

Coralpedia is an identification guide to corals, octocorals, and sponges of Caribbean Reefs, developed through the Overseas Territories Environment Programme fund of the UK government, to assist conservation work in the UK Overseas Territories. Version 1 contains images and descriptions of about 64 Caribbean stony corals, 74 reef sponges and 41 octocorals, along with a few other groups; altogether over 1000 images are included. The information is available on the website and on CD.

<http://coralpedia.bio.warwick.ac.uk>

### **Earth Science Visualizations**

Created by staff members at the department of earth science at the University of California, Santa Barbara, the Educational Multimedia Visualization Center website contains interactive animations and visualization tools that can be used in the classroom

to demonstrate various geological processes. Contents include global tectonics, regional plate tectonics, Ice Age earth, and more.

<http://emvc.geol.ucsb.edu/downloads.php>

### **EcoGarbage Board Game**

ECOBASURA is a board game to help teach recycling, raw material recovery, profitable reduction of wastes, and the environmental renovation. Created in Colombia and endorsed by its Educational Ministry, it is adaptable to all languages and cultures. The website, along with pricing and ordering information, is available in English or Spanish.

<http://www.ecobasura.com/>

### **EPA Kids**

The EPA sponsors the Environmental Kids Club to get young children interested in learning more about the environment and to encourage their involvement in environmental projects. The website offers links to many categories, including Air, Water, You & Your Environments, a Game Room, Art Room, and more.

<http://www.epa.gov/kids/>

### **Harmful Algal Blooms**

The Education and Outreach Office at NOAA Fisheries/Northwest Fisheries Science Center offers a film and curriculum booklet about the study of harmful algal blooms. The 20-minute film, *Science at Sea: The Hunt for Killer Algae*, documents the work of a team of scientists studying the problem of harmful algal blooms on the coast of Washington. Accompanying the film is a curriculum booklet, *The Harmful Algal Bloom Hunter's Handbook*, with activities and experiments, a cruise journal, phytoplankton identification chart, and more. These materials are free and available for viewing and download. Also, check out the newsletters and research links on the website.

<http://www.nwfsc.noaa.gov/hab/outreach/education.html>

### **LiMPETS Website Redesign**

The Long-term Monitoring Program and Experiential Training for Students, known as LiMPETS, is an environmental monitoring and education program for students, educators, and volunteer groups throughout California. Approximately 3,500 teachers and students along the coast of California are collecting rocky intertidal and sandy beach data as part of the LiMPETS network. The redesigned website makes it easy to find teacher and student resources, enter data, and more.

<http://limpetsmonitoring.org/>

### **Marine Debris 101**

NOAA's Marine Debris Program is a national and international effort focused on identifying, reducing, and preventing debris in the marine environment. This educational website seeks to inform people about the sources, impacts, and solutions of the marine debris issue. The website offers downloadable brochures, posters, fact sheets, guidebooks, and activity books tailored to specific audiences, including beachgoers, fishermen, boaters, students, and educators.

<http://marinedebris.noaa.gov/marinedebris101/welcome.html>

### **Operation: Monster Storms**

From The JASON Project, this free online curriculum is designed to teach students in grades 5-8 how powerful storms form and how advanced technology is used to better understand and forecast weather. Developed in partnership with NOAA, NASA, and the

National Geographic Society, *Operation: Monster Storms* examines current research to improve forecasting, allowing communities to better prepare for storms and avoid their destructive potential.

<http://www.jason.org/public/Curriculum/Curriculum.aspx?pos=1>

### **Pelagic Realm Poster**

This Pelagic Realm wall poster (25x36 inch) can be a useful classroom resource. It includes 109 pen-and-ink illustrations of pelagic marine life from bacteria to whales and from the surface to the deep sea. The illustrations are clustered by trophic group and depth and are accompanied by the name, taxonomic group, and maximum known size of each species. The poster is available through EBay - search Pelagic Realm poster.

<http://www.ebay.com/>

### **Reef Fish Identification**

REEF now offers their popular reef fish identification classroom course into a home study DVD course package for beginning fishwatchers in the Caribbean, Florida, and Bahamas. *Reef Fish Identification – A Beginning Course* teaches the basics of fishwatching, including identification of 50 commonly sighted species found in Florida and the Caribbean. A waterproof fish identification booklet, underwater REEF survey slate, and REEF survey materials are included.

<http://www.reef.org/node/3106>

### **Reef Survey Report with Links in Google Earth**

The Australian Institute of Marine Science long term monitoring survey updates can now be viewed in Google Earth (Version 4), allowing you to zoom to each surveyed reef and view geo-referenced underwater photos and information from previous surveys. Using links to the reef pages, you can also view enlarged photos and a description of the reef habitat.

<http://www.aims.gov.au/pages/research/reef-monitoring/lrm/lrm200708-09.html>

### **VentureDeepOcean**

VentureDeepOcean supports, and is supported by, the National Science Foundation's Ridge 2000 research program. The website shares mid-ocean ridge and hydrothermal vent exploration with audiences around the world. Designed as an information portal, the site features current scientific research and cruises, deep-sea news, background information, images, and more. Ridge 2000 is an interdisciplinary program focused on integrated studies of Earth's oceanic spreading centers. The program provides national coordination for studies of deep-sea hydrothermal vents and rifting of volcanic crust.

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

## **INITIATIVES, JOURNALS, and MORE**

### **Bentham Open**

Bentham Publishers is launching more than 200 peer-reviewed open access journals during this year, under the banner of Bentham OPEN. The journals will cover all major disciplines and are exclusively open access publications. Browse the subject list for Earth Science, Environmental Science, Geology, and more.

<http://www.bentham.org/open/>

### **Dive Into Your Sanctuaries**

The National Marine Sanctuaries website now includes a section covering diving in the sanctuaries. It features a map with mouseover pop-ups providing sanctuary specific details, information on shipwreck diving, and details covering different sanctuary habitats.

<http://sanctuaries.noaa.gov/visit/diving.html>

### **Doing What Works**

Doing What Works is a new website from the Department of Education dedicated to helping educators identify and make use of effective teaching practices. Doing What Works contains practice guides developed by the Department's Institute for Education Sciences that evaluate research on the effectiveness of teaching practices described in the guides. The website also contains examples of possible ways this research may be used. Though the website currently only hosts information about English Language Learners, Math and Science will be included at a later date.

<http://dww.ed.gov/index.cfm?>

### **Explorations Magazine**

The Scripps Institution of Oceanography has created a new monthly online magazine, Explorations, that covers ocean and earth science news. Its intent is to inform and educate the public, alumni, the scientific community, and Scripps' friends and supporters about ongoing research and events.

<http://explorations.ucsd.eduexplorations>

### **National Ocean Sciences Bowl**

The upcoming National Ocean Sciences Bowl regional competitions will be held on February 9, and February 23, 2008. The national competition will be held in Seward, Alaska, April 25-27, 2008. This year, the materials distributed for the national competition will highlight the International Polar Year. More than 200 research projects are planned, involving more than 50,000 people and 60 nations.

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

### **Rating Islands**

The National Geographic Center for Sustainable Destinations, in collaboration with George Washington University, conducted a Destination Scorecard survey. A panel of 522 experts in sustainable tourism and destination stewardship review conditions in 111 selected islands and archipelagos. The scores reflect the experts' opinions and the website offers quoted phrases from their remarks which suggest the thinking behind the scores.

<http://www.nationalgeographic.com/traveler/features/islandsrated0711/islands.html>

### **RealClimate**

RealClimate is a commentary site on climate science by working climate scientists for the interested public and journalists. Their aim is to provide a quick response to developing stories and provide the context sometimes missing in mainstream commentary. The discussion on the website is restricted to scientific topics and will not involve political or economic implications of the science.

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

### **RealOceans**

The Nicholas Institute for Environmental Policy Solutions' Ocean Program offers the website, RealOceans.org, to provide straightforward and concise information on ocean issues that can be used by policy makers, activists, researchers, and educators. The first project is the Ocean Ecosystem Based Management Knowledge Base. In addition, the website hosts the "First Person" section, in which marine researchers share their thoughts on current ocean issues, and "On the Waterfront," where people working directly in the field can talk about the challenges of ocean management in the real world.  
<http://realoceans.org/>

### **Sanctuary Advisory Council Meeting - Texas**

The public is invited to attend the Flower Garden Banks National Marine Sanctuary Advisory Council Meeting, December 6, 2007 in Galveston, Texas, and provide comment during a public forum period. The agenda will focus on the following priority issues for management plan review: enforcement, education and outreach, and impacts from visitor use.

[http://flowergarden.noaa.gov/advisory\\_council/council.html](http://flowergarden.noaa.gov/advisory_council/council.html)

### **Sanctuary Sam**

The NOAA National Marine Sanctuary Program has announced the launch of a new national ocean literacy, education, and public awareness campaign featuring Sanctuary Sam, a California sea lion who will be the program's "spokes-sea lion." Appearing in a variety of communications and educational vehicles, Sanctuary Sam will help convey messages to the American public, particularly children, about the marine environment, highlighting the current problems facing the oceans, including pollution, marine debris, and habitat destruction. As part of this ocean awareness campaign, two public service announcements for television and Internet are being released, featuring the messages "don't trash where you splash" and "be wildlife wise." Learn more by visiting his MySpace page.

<http://myspace.com/sanctuarysam>