

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
INFORMATION EXCHANGE FOR MARINE EDUCATORS

FEBRUARY 2011

This update receives technical support through NOAA's Ocean Exploration and Research Program and 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.

The information included here has been compiled from many different sources, including EE-NEWS@NAAEE, EEinGEORGIA, the Scout Report, edinfo at FREE, scuttlebutt, NSTA Express, and others. We have verified web addresses, but make no guarantee that they will remain active. The Department of Commerce/NOAA does not necessarily endorse or promote the views or facts presented on these sites.

To subscribe to this distribution list, send a blank message to requests@willamette.nos.noaa.gov with "subscribe infoexchange" in the subject field. Similarly, to remove yourself from the list, send the subject "unsubscribe infoexchange".

Collected archives of the information presented in past newsletters are available at <http://mpa.gov/resources/education/#exchange>. Contact the editor directly at phyllis.dermer@noaa.gov, or by phone at (865) 932-5074, to discuss further enhancements or to contribute information for future issues.

Notable References

Protected Areas Financing Publications

The following two publications can be resources for protected areas financing: *Rapid Review of Conservation Trust Funds*, prepared for the CFA Working Group on Environmental Funds by Barry Spergel and Philippe Taïeb; and *Raising Revenues for Protected Areas: A Menu of Options*, World Wildlife Fund, Barry Spergel, <http://www.fmcn.org/documentos/RapidReviewCTFsMay08Final.pdf>
http://www.conservation.org/sites/gcf/Documents/raising_revenues_pa.pdf

DOWNLOAD OF THE MONTH

Conservation Biology for All

In support of the International Year for Biodiversity, Oxford University Press has made the following Conservation Biology textbook freely available. Chapters include biodiversity, ecosystem functions and services, invasive species, climate change, and much more. Chapters include additional suggested readings, relevant websites, and more. The file of the 358 page book is 6.4MB and downloads fairly quickly, however, for those with slower download speeds, you can download individual chapters.

Sodhi, N. S. and P. R. Ehrlich (Eds.) Conservation Biology for All.
Oxford University Press (2010)

<http://www.mongabay.com/conservation-biology-for-all.html>

WEBSITES OF THE MONTH

Loop Scoops

Loop Scoops Sustainability Videos and Lessons from WGBH Boston are two-minute segments that aim to help six to nine-year-old children think about product life cycles in ways they can understand. This series of child-friendly videos can help kids think about where their stuff comes from, what's in it, and what happens to it when it's thrown out. Besides the additional information on the website, the Teacher Resources links to appropriate materials on the Teachers Domain website. This could be a good place to start young students thinking about life cycle issues.

<http://pbskids.org/loopscoops/>

Ocean for Life: One World, One Ocean

The Ocean for Life: One World, One Ocean program from the NOAA Office of National Marine Sanctuaries, increases cultural understanding through ocean science by providing immersive ocean field studies and follow-on education programs. The programs encourage students to discover common ground in marine science, conservation, and how the ocean connects us all. Check out these powerful youth media projects put together by the Ocean for Life students in 2009 (captioned video is available). Keep an eye open for student applications, which will be hitting the streets very soon.

<http://sanctuaries.noaa.gov/education/ofl/videos.html>

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

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

MESSAGE FROM THE BRIDGE

What's the Scuttlebutt?

With over 2200 subscribers in 20 countries, the Bridge's free email discussion list, Scuttlebutt, serves as the most direct route for sending and receiving the latest ocean science education information. Scuttlebutt provides a forum for educators and scientists to informally discuss marine education ideas, issues, and questions; highlights new classroom resources; and allows ocean science programs from across the globe to advertise summer and year-round opportunities for educators and students. In addition to monitoring the list, Bridge staff also assists in locating experts to answer posted questions when needed. All educators and scientists interested in learning about marine science education opportunities and resources when they are first announced, are encouraged to subscribe.

<http://www2.vims.edu/bridge/search/scuttle.cfm>
<http://www.marine-ed.org/bridge>

REQUESTS

Green Teacher Webinar Survey

Green Teacher magazine will be hosting up to 30 one-hour, free webinars from February through November, 2011. The webinars will address a particular environmental education topic and feature one or more guest presenters. To ensure that the webinar topics meet the greatest needs of environmental educators, Green Teacher is conducting a short survey. The deadline for submission is February 9, 2011.

<http://www.surveymonkey.com/s/76KDMXX>

Project WET Survey

The Project WET program recognizes the need for educational resources for children ages 3-7 and is requesting educators to take a brief survey where you can offer your opinions and comments about water education for this age group.

<http://survey.constantcontact.com/survey/a07e36b53r0qh6e5h1a/a01ssqjn69ekr/questions>

Seeking Collaborators

Michael Lombardi is seeking educators to collaborate in developing lesson plans or other classroom or web driven activities to complement fieldwork exploring the deep reefs of the Bahamas.

<http://ocean.nationalgeographic.com/ocean/explore/deep-fore-reef-in-toto/>

GRANTS AND OPPORTUNITIES

ACE Scholarships

The Alliance for Climate Education (ACE) Action Scholarship encourages students to take action to reduce greenhouse gas emissions and raise climate awareness in their schools and communities. Up to ten scholarships will be awarded graduating high school seniors, to be applied toward higher education expenses. The deadline for application is February 17, 2011.

<http://www.acespace.org/act-now/grants-scholarships/scholarships>

American Sociological Association Awards

The Environment and Technology Section of the American Sociological Association recognizes students, researchers, and ASA members each year through a variety of awards and recognitions. See the website for details, including deadlines for submission.

<http://envirosoc.org/awards.php>

BoatU.S. Grassroots Grants

The goal of the BoatU.S. Foundation is to be the leader in boating safety and environmental education and outreach. The new Grassroots Grants program encompasses both boating safety and clean water projects in a single application, and both will be awarded at the same time. The deadline for application is April 1, 2011.

<http://www.boatus.com/foundation/Grants/>

Boyd Lyon Sea Turtle Fund

The Ocean Foundation and The Boyd Lyon Sea Turtle Fund seek applicants from Masters and PhD. level students for the Boyd N. Lyon Scholarship for the academic year 2011-2012. The scholarship supports projects that enhance the understanding of sea turtle behavior, spatial and temporal distribution, research diving safety, and more. The deadline for application is February 15, 2011.

<http://boydlyonseaturtlefund.org/>

Branco Weiss Fellowship

The fellowship provides young postdoctoral researchers with a personal grant to work on a topic of their choice for up to five years. The Society in Science fellowship is designed to promote outstanding young scholars and to support promising new areas of research, in particular in science and engineering. Fellows are expected to break across boundaries between different disciplines, to establish stimulating links, and to develop new approaches. Ideally, fellows pursue an unconventional project involving societal aspects. The deadline for application is March 1, 2011.

<http://www.society-in-science.org/?CFID=10560470&CFTOKEN=18475161>

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. The preliminary proposal deadline is April 20, 2011.

<http://www.storynet.org/programs/grants/brimstone.html>

Brower Youth Awards

The Earth Island Institute's New Leaders Initiative offers the Brower Youth Awards, recognizing six young people (ages 13-22) for their outstanding activism and achievements in the fields of environmental and environmental justice advocacy. The deadline for application is May 16, 2011.

<http://www.broweryouthawards.org/article.php?list=type&type=54>

Citizen Science Paper Competition

Young people ages 13-26 are invited to submit original scientific research or position papers to the Citizen Science Technical Board for the 2011 CitizenScience paper competition, sponsored by U.S. Youth for Sustainable Development. Papers should be written for a non-scientific audience on natural or social science topics related to the economic, social, technological, or environmental dimensions of sustainable development addressed by the current session of the UN Commission on Sustainable Development. The deadline for submission is March 1, 2011.

<http://sustainus.org/citizen-science>

Climate Change Professional Fellows Program

The Climate Change Professional Fellows Program grant supported by the U.S. Department of State aims to strengthen the professional capabilities of Central American fellows through U.S. based internships that focus developing educational programs on issues related to climate change. Participants will return to their home countries to make a positive contribution to communities and ecosystems impacted by climate change. The deadline for application is February 15, 2011.

<http://laspau.org/climatechange/>

Coastal and Estuarine Land Conservation Program Funding

The Coastal and Estuarine Land Conservation Program was authorized for the purposes of protecting important coastal and estuarine areas that have significant conservation, recreation, ecological, historical, or aesthetic values, or that are threatened by conversion from their natural, undeveloped, or recreational state to other uses. See the website for a prioritized list for eligible projects. The deadline for submission is April 15, 2011.

http://coastalmanagement.noaa.gov/land/celcp_fundingop.html

Community Action for a Renewed Environment Grants

The EPA's Community Action for a Renewed Environment (CARE) is a competitive grant program that offers an innovative way for a community to organize and take action to reduce toxic pollution in its local environment. Through CARE, a community creates a partnership that implements solutions to reduce releases of toxic pollutants and minimize people's exposure to them. The deadline for application is March 22, 2011. There will be information session webcasts in February and March to answer questions about the proposal process.

<http://www.epa.gov/care/agreements.htm>

Disney Friends for Change Grants

Disney's Friends for Change Grants fund youth-led service projects that focus on making environmentally friendly changes and engage youth (ages of 5-25) on Global Youth Service Day (April 15-17, 2011). The program will award grants to projects around the world that demonstrate youth leadership, creativity, and the commitment to making a positive impact on the environment, encouraging projects that address issues of waste, habitat, climate, and water. The deadline for application is March 10, 2011.

<http://www.ysa.org/grants/disney-friends-change-grants>

Dorothy Stout Professional Development Grants

The National Association of Geoscience Teachers awards grants to faculty and students at two-year colleges and K-12 teachers. The grant supports professional growth in, or classroom teaching of, Earth science. The deadline for application is April 15, 2011.

<http://www.nagt.org/nagt/programs/stout.html>

Earthwatch Requests for Proposals

Earthwatch is currently requesting proposals for eight research projects, including one for marine research in the Galapagos. The deadline for submission of a concept note is February 28, 2011.

http://www.earthwatch.org/europe/get_involved/research_grants/

Eco-Comedy Video Competition

Sponsored by American University's Center for Environmental Filmmaking and partners, the Eco-Comedy Video Competition is open to anyone who prepares a short, funny video for YouTube, which communicates a clear message that strongly motivates a specific behavior change addressing a critical environmental issue. The deadline for submission is March 1, 2011.

<http://www.american.edu/soc/cef/eco-comedy-film-competition.cfm>

Environmental Education Grant - California

The California Department of Education 2011-12 Environmental Education Grant Program Request for Application is now available. The deadline for application is March 25, 2011.

<http://www.cde.ca.gov/fg/fo/profile.asp?id=1962>

Extreme Event Impacts on Air Quality and Water Quality with a Changing Global Climate

The U.S. EPA, as part of its Science to Achieve Results (STAR) program, is seeking applications proposing the development of assessments, tools, and techniques, and demonstration of innovative technologies for providing information and capacity to adequately prepare for climate-induced changes in extreme events in the context of air and water quality management. In addition to regular awards, this solicitation includes the opportunity for early career projects. The deadline for submission is April 18, 2011.

<http://www07.grants.gov/search/search.do?&mode=VIEW&opId=66093>

Gloria Barron Prize for Young Heroes

The Gloria Barron Prize recognizes young people, ages 8 to 18, who have shown leadership and courage in public service to people and our planet. The deadline for nomination is April 30, 2010.

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

Google Global Science Fair

Google Global Science Fair Google has partnered with NASA, CERN, National Geographic, Scientific American, and LEGO to create a STEM competition that is open to students age 13–18 around the world. The deadline for entry is April 4, 2011. See the website for competition details.

<http://www.google.com/events/sciencefair/>

Green Your School Challenge

The Green Your School Challenge is a national campaign, launched by HP and DoSomething.org, empowering youth to green their school. The deadline for submission is April 1, 2011.

http://www.dosomething.org/increase_your_green

Gulf Coast Fund for Community Renewal and Ecological Health

The Gulf Coast Fund for Community Renewal and Ecological Health is accepting applications for the Spring 2011 Grant Cycle. The deadline for application is March 1, 2011.

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

Horace Mann Educator Scholarships

The Horace Mann Companies offers scholarships for K-12 grade teachers, librarians, or teacher's aides to take college courses. The deadline for application is March 1, 2011.

<http://www.horacemann.com/teacher-lounge/educator-scholarship-opportunities>

Human Dimensions of Coastal and Marine Ecosystems Call for Proposals

The Sea Grant Programs in the Northeast have issued a call for social science research relevant to regional coastal and ocean management of the Gulf of Maine and Greater New York Bight regions. Pre-proposals are welcome from any social science discipline, but only projects that are regional in nature or encompass more than one state in the

Northeast will be considered for funding. The deadline for pre-proposals is February 22, 2011.

<http://www.seagrant.uconn.edu/documents/regionalRFP.pdf>

ING Unsung Heroes Awards

The ING Unsung Heroes program helps K-12 educators and their schools fund innovative classroom projects. At least one award will be granted in each of the fifty states, provided one or more qualified applications are received from each state. The deadline for applications is April 30, 2010.

<http://ing.us/about-ing/citizenship/childrens-education/ing-unsung-heroes>

International Children's Painting Competition on the Environment

Children ages 6-14 are invited to submit paintings with the theme of *Life in the Forests: Biodiversity* for the 20th Annual International Children's Painting Competition on the Environment. The deadline for entry is April 15, 2011.

http://www.unep.org/tunza/children/inner.asp?ct=competitions&comp=int_comp&int_comp=20th

Junior Duck Stamp Art Contest

The U.S. Fish and Wildlife Service oversees the Federal Junior Duck Stamp Program. Each year, students are invited to create duck stamp drawings to show what they have learned about wetlands habitat and waterfowl conservation. Check the website for details. Most state deadlines for submission are March 15, 2011.

<http://www.fws.gov/juniorduck/>

Live Deliberately Essay Contest

This essay contest from the Thoreau Institute of the Walden Woods Project asks students, age 13-21, to respond to Thoreau's call to "live deliberately." In 500 words or fewer, students are prompted to consider what their own deliberate lives look and feel like. The deadline for submission is March 31, 2011.

<http://www.worldwidewaldens.org/Activity-Guide/Essay-Contest.aspx>

MASGC Bi-State Research Program

The Mississippi-Alabama Sea Grant Consortium is accepting one- or two-year pre-proposals to participate in innovative research addressing coastal issues with the following focus areas: Healthy Coastal Ecosystems, Sustainable Coastal Development, Safe and Sustainable Seafood, Hazard Resilience, and Education and Outreach. A non-federal match is required. The deadline for pre-proposals is February 25, 2011.

<http://www.masgc.org/page.asp?id=364>

Marine Wildlife Photo Contest

The Ocean Conservancy invites entries in the annual Marine Wildlife and Seascape Photo Contest. Enter your best ocean seascape and marine wildlife images. The deadline for entry is February 28, 2011.

<http://www.oceanconservancy.org/photo-contest/2011-photo-contest.html>

Muddy Feet Award

The 2011 Muddy Feet Award, sponsored by the National Aquarium, will recognize outstanding Maryland and D.C. youth who have taken action to help conserve our watery world through a special project or initiative. The deadline for application is May 1, 2011.

<http://www.aqua.org/muddyfeet/index.html>

National Association of Biology Teachers Awards

The National Association of Biology Teachers recognizes excellence in teaching with a variety of awards, including the Ecology/Environmental Science Teaching Award. Check the website for information about the different awards. The deadline for nomination is March 15, 2011.

<http://www.nabt.org/websites/institution/index.php?p=20>

Northrop Grumman Contributions Program

The Northrop Grumman Corporation supports communities throughout the United States, particularly where its employees live and work, with financial, in-kind, and volunteer resources. The company contributes to programs which address education, the environment, and more. Grant requests are reviewed in May and October. The next deadline for application is April 30, 2011.

<http://www.northropgrumman.com/corporate-responsibility/corporate-citizenship/contribution-guidelines.html>

Ocean Project Small Grants Program

The Ocean Project advances ocean conservation in partnership with zoos, aquariums, and museums around the world. They provide market research and a variety of related resources and strategies to enhance conservation communication and outreach efforts between visitors and the public. The Ocean Project, with funding from NOAA, has created a national competitive small grants program to help maximize the application of the research. See the website for details. The deadline for submission is March 15, 2011.

<http://theoceanproject.org/resources/sga.php>

Presidential Award for Excellence in Mathematics and Science Teaching

NSF is now accepting nominations for the 2011 Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST). This year, the award will recognize outstanding mathematics and science teachers in grades 7-12 for their contributions to improving teaching and learning. The deadline for nomination is April 1, 2011.

<http://www.paemst.org/controllers/home.cfc?method=view>

Projects of Special Merit Competition

NOAA is soliciting proposals for competitive funding under Coastal Zone Management Program Enhancement Projects of Special Merit. The objective is to encourage each State or Territory with a federally-approved coastal management program to continually improve its program in Wetlands, Hazards, Cumulative and Secondary Impacts, and Ocean and Great Lakes Resources. Note the long deadline for application: September 2, 2011.

<http://www.grants.gov/search/search.do?mode=VIEW&oppld=62714>

Purpose Prize

The Purpose Prize awards people over 60 who are taking on society's challenges, including education, the environment, and more. The deadline for nomination is March 10, 2011.

<http://www.encore.org/prize>

Richard C. Bartlett Environmental Education Award

The 2011 prize will be given to a middle school teacher who serves as an inspiration and model for both students and colleagues. The deadline for nomination is March 14, 2011.
<http://www.neefusa.org/bartlettaward.htm>

Royal Bank of Canada Blue Water Project Grants

The Royal Bank of Canada Blue Water Project Grants focus on watershed protection and/or access to safe drinking water. Grants are available to local, regional, national or trans-border organizations for projects in any of the countries in which the bank is located, including Canada, the United States, the Caribbean, and the UK. The deadline for application is March 4, 2011.
<http://bluewater.rbc.com/grants.php>

Sea Turtle Conservation Funding

The National Fish and Wildlife Foundation offers matching grant funding for sea turtle conservation projects in the Western Hemisphere. Projects of interest will focus on research, assessment, and bycatch reduction projects. The deadline for pre-proposals is April 1, 2011. Check the website for details of the proposal requirements along with an application webinar.
http://www.nfwf.org/AM/Template.cfm?Section=Charter_Programs_List&Template=/TaggedPage/TaggedPageDisplay.cfm&TPLID=60&ContentID=18469

Student Art and Language Arts Contest - Louisiana

The Louisiana Environmental Education Commission and the Louisiana Department of Wildlife & Fisheries, along with contest sponsor, Alcoa Foundation, offer Louisiana's Ninth Environmental Awareness Student Art and Language Arts Contest. The theme for 2011 is *Louisiana Outdoors: A Beautiful Experience!* The deadline for submission is April 21, 2011.
<http://www.wlf.louisiana.gov/environmental-awareness-art-language-arts-contest>

Students Give Water a Voice Competition

Give Water a Voice is aimed at increasing students' awareness of their community water resource problems and empowering them to find solutions. This year's international art competition celebrates World Water Day with the theme, *Water Change in your Community*. The deadline for submission is March 22, 2011.
<http://www.naturesvoice-ourchoice.org/students-give-water-a-voice.html>

Students' Igniting Creative Energy Competition

This competition, developed by Johnson Controls and the National Energy Foundation, encourages students to learn more about energy and the environment. Students are encouraged to submit projects highlighting what people can do in their home, school, or community to be more energy efficient and become better stewards of the environment. The deadline for submission is March 4, 2011, with an early bird deadline of February 18, 2011.
<http://www.ignitingcreativeenergy.org/>

ThinkQuest International Competition.

This competition challenges students to apply their critical thinking, communication, and technology skills to solve a real-world problem. Participants may enroll in one or more of the following Competition events: Projects, Digital Media, and Application Development. The deadline for entry is April 27, 2011.

<http://www.thinkquest.org/competition/>

West Coast Regional Social Science Research Proposals

The California, University of Southern California, Oregon, and Washington Sea Grant Programs are jointly interested in coordinated research efforts that bring together researchers from across the region to address specific social science issues of regional priority. The deadline for submission of Letters of Intent is February 22, 2011.

<http://www.csgc.ucsd.edu/FUNDING/APPLYING/RegionalSocialScience2011.html>

Western Pacific Coral Reef Institute Request for Proposal

The Western Pacific Coral Reef Institute, a cooperative agreement between NOAA's Center for Sponsored Coastal Ocean Research and the University of Guam., announces a Request for Proposal for projects which protect and preserve the region's coral reefs through multidisciplinary basic and applied scientific research that is directly applicable to management. The deadline for submission is March 4, 2011.

http://www.uog.edu/admin/assetmanager/images/2011%20rfp_wpcri_final.pdf

Wildlife Forever State-Fish Art Project

The Wildlife Forever State-Fish Art Project challenges young artists to create an illustration of their state fish and a written composition on its behavior, habitat, and efforts to conserve it. The deadline for entry is March 31, 2011.

<http://www.wildlifeforever.org/contest>

Young Birder Scholarships

The American Birding Association offers scholarships to help young people attend bird-related summer camps, workshops, training programs, conventions, and other activities. The deadline for submission is April 1, 2011.

<http://www.aba.org/yb/schol/index.html>

Young Naturalist Awards Competition

The American Museum of Natural History and Alcoa Foundation offer the Young Naturalist Awards, an inquiry-based research competition, inviting students in grades 7-12 to conduct research in the natural world. Students investigate questions they have in the areas of ecology, biology, Earth science, and astronomy and present their findings in an essay. The deadline for entry is March 1, 2011.

<http://www.amnh.org/nationalcenter/youngnaturalistawards/>

INTERNSHIPS AND TEMPORARY OPPORTUNITIES

Great Lakes Summer Student Fellowship Program

University of Michigan's Cooperative Institute for Limnology and Ecosystems Research and partners offer the 2011 Great Lakes Summer Student Fellowship Program. They seek to fill 15 full-time, twelve-week positions. The program provides students with a broad range of fields and an opportunity to conduct research in the Great Lakes Region under the mentorship of an individual scientist or professional. The deadline for application is February 28, 2011.

<http://ciler.snre.umich.edu/education/great-lakes-summer-student-fellowships>

Hudson River Foundation Fellowships

The Hudson River Foundation offers funding for several fellowships. See the website for details.

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

JASON National Argonaut Team

Apply to join the JASON National Argonaut Team to explore oceanography. The JASON Project is seeking a diverse, creative, and adventurous group of students and teachers to venture into the field with JASON scientists to perform cutting edge science explorations. The deadline for application is February 28, 2011. Free registration is required for the JASON website.

<http://www.jason.org/public/feature/FeatureDetail.aspx?fid=201>

Khaled bin Sultan Living Oceans Foundation Fellowships

The Khaled bin Sultan Living Oceans Foundation sponsors graduate fellowships for doctoral students and post-doctoral researchers whose research focuses on activities that contribute to a better understanding of the health and resilience of coral reefs in countries surveyed throughout the Global Reef Expedition: Science Without Borders Program (2011-2014). Fellows may receive up to three continuous years of financial support based upon annual competitive reapplication. The deadline for application is March 31, 2011.

http://www.livingoceansfoundation.org/index.php?option=com_content&view=article&id=56&Itemid=115

Research Experience for Undergraduates - Maine

Bigelow Laboratory for Ocean Sciences invites undergraduates to apply for the 2011 Research Experience for Undergraduates summer research program, *Gulf of Maine and the World Ocean*. Areas of research include the marine microbial food web, ocean biogeochemistry, optical oceanography, remote sensing, sensory biology, climate change, fisheries oceanography, and more. Undergraduates in their sophomore year or later may apply; the deadline for application is March 15, 2011.

<http://www.bigelow.org/education/reu/>

Teacher Research Fellows - Maryland

COSEE Coastal Trends has two positions available this summer for Teacher Research Fellows to participate in their Scientist-Educator Partnership program. Successful candidates will join a team of scientists, science communicators, and university students to conduct research and develop educational resources that will communicate science to broader audiences. The deadline for application is March 31, 2011.

<http://www.coseecoastaltrends.net/programs/scientisteducatorpartnership/teacherresearchexperience/>

CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT

Climate Change Teacher Training - California

The San Luis Obispo County Air Pollution Control District and partners are recruiting school teachers to implement a science based climate change curriculum in their 2011 lesson plans, and offer a free Climate Change Teacher Training, February 15, 2011 in San Luis Obispo, California.

Contact Gary Arcemont at garcemont@co.slo.ca.us

Connecting with Climate Change - California

The Sally Ride Educator Institute on Climate Change for Middle and High School Educators will hold this workshop February 26-27, 2011 in Pasadena, California, with a follow-up online webinar. Connecting with Climate Change is targeted for middle and high school teachers.

http://www.sallyridescience.com/for_educators/institutes/11climate

Curriculum Programs Webinar - Online

In this free webinar, February 23, 2011, ITEST (Innovative Technology Experiences for Students and Teachers) Learning Resource Center and COSEE will showcase curriculum materials on topics ranging from computer game development to ocean sciences and more. These curricula, designed for middle/high school teachers and students and available online at no charge, encourage and support innovative STEM learning and teaching and have been adapted through collaboration with partners, educators, and students.

<http://www.youthlearn.org/news/webinar-curriculum-developed-nsf-funded-itest-and-cosee-programs>

Discovering Wetlands in the Classroom - Online

The Swamp School and NC State University offer this online continuing education class designed for middle and high school teachers. The class includes hands-on activities that can be taught in the classroom as well as outdoor curricula that can be incorporated into schoolyard habitat programs.

<http://swampschool.org/>

Down Under, Out Yonder Teacher Training Expedition - Texas

The Down Under, Out Yonder coral reef workshop and scuba trip, sponsored annually by the Gulf of Mexico Foundation for K-12 and college entry educators nationwide, will take place July 9-13, 2011, starting in Galveston, Texas. The five-day workshop includes a two-day land-based workshop featuring instruction from Flower Garden Banks National Marine Sanctuary staff and guest speakers, as well as educational materials to bring back to the classroom. Afterwards, participants travel to Freeport, Texas, for three days of scuba diving aboard the *M/V Fling*, a 100-foot live-aboard dive boat. Educators must be previously SCUBA certified to participate in the diving field experience. Workshop space is limited and spaces are filled quickly via a competitive application process; the deadline for application is February 25, 2011.

<http://www.gulfmex.org/duoy.htm>

Fishing People of the North Symposium - Alaska

Alaska Sea Grant is hosting Fishing People of the North: Cultures, Economies, and Management Responding to Change, September 14-17, 2011 in Anchorage, Alaska. This international symposium is a forum for fishery managers, fishing families, and others to explore the human dimensions of fishery systems and the growing need to include social science research in policy processes. Themes include Indigenous and Rural Knowledge and Communities, Human-Environment Relationships, and more. The deadline for abstract submission is April 4, 2011.

<http://seagrant.uaf.edu/conferences/2011/wakefield-people/index.php>

How Do We Explore? - Online

NOAA's Office of Ocean Exploration and Research, in partnership with The College of Exploration, offers this online teacher professional development workshop, January 24-February 11, 2011. Topics include searching for anomalies, selecting sites for exploration, communication tools including telepresence technology, mapping techniques, water column study, and operating remotely operated vehicles. The free workshop will be available 24/7, and archives will remain posted after the workshop.

<http://coexploration.org/oe/>

http://oceanexplorer.noaa.gov/edu/development/online_development.html

Intracoastal Waterway Wetlands Expedition - Texas

The Gulf of Mexico Foundation's Intracoastal Waterway Wetlands Expedition, sponsored by ConocoPhillips, is a teacher training workshop for K-12 and college entry educators which takes place aboard a 100-foot vessel, the *M/V Fling*. The workshop educates participants on the importance of coastal habitats and issues facing the Gulf Coast and its communities. Both the spring break, March 13-18, 2011, and summer, June 19-24, 2011, cruises begin in Freeport, Texas and travel along the Intracoastal Waterway to Louisiana. The deadlines for application are February 7 and April 18, 2011.

<http://www.gulfmex.org/iwwe.htm>

Marine Mammal Institute – North Carolina

The North Carolina Aquarium at Fort Fisher and the North Carolina Museum of Natural Sciences will host a Marine Mammal Institute, a free professional development opportunity, August 10-19, 2011 starting at Roanoke Island, North Carolina. Participation is limited to 16 educators, with a preference given to informal educators with a proven ability to reach a 12- to 17-year-old audience. Participants will travel from North Carolina to New England learning about, and interacting with, marine mammals. Following the institute, participants will develop activities to communicate climate change impacts on marine mammals in conjunction with an event incorporating a GeoDome theater on loan from the Aquarium or Museum. The deadline for application is February 15, 2011.

<http://www.ncaquariums.com/fort-fisher/teachersstudents/conservation-education-through-marine-mammals>

Mountains to the Gulf Workshop - Alabama

The workshop, Mountains to the Gulf: Helping Teachers Make Connections, June 25 - July 2, 2011 from Nauvoo, Alabama, is funded by the Gulf of Mexico Alliance and sponsored by The Environmental Education Association of Alabama. Registration is limited; the deadline for application is April 29, 2011.

http://www.campmcdowell.com/cmec/Teacher_Workshops.htm#MTG

Ocean Exploration Workshops - Various

NOAA's Ocean Exploration Program and partners offer professional development workshops for science teachers. Participants will receive the curriculum with CD-ROM's, certificates of participation, and more. Contact the noted educator or check out the website for registration and more information.

- February 26, 2011 with Adventure Science Center in Nashville, Tennessee, a Learning Ocean Science through Ocean Exploration professional development workshop. Hurry – the deadline for registration is February 4, 2011. Contact Sharon Mendonsa at smendonsa@adventuresci.com

- February 26, 2011 with Jacques Cousteau National Estuarine Research Reserve in Tuckerton, New Jersey, a Learning Ocean Science through Ocean Exploration professional development workshop. Hurry – the deadline for registration is February 4, 2011. Contact Melanie Reding at reding@marine.rutgers.edu
- March 11, 2011 at NSTA in San Francisco, a Short Course, NOAA Ship Okeanos Explorer: Why Do We Explore? and How Do We Explore? This new course will delve into the benefits of ocean exploration targeting climate change, energy, human health, and ocean health. Participants will also explore the philosophy behind selecting sites for exploration and searching for anomalies, communication tools, mapping techniques, water column study, and remotely operated vehicles. <http://nsta.org/conferences/schedule.aspx?id=2011san&action=search&format=Workshop>
- **NOTE THIS DATE CHANGE:** April 2, 2011 with Audubon Aquarium of the Americas in New Orleans, Louisiana, a follow-up Learning Ocean Science through Ocean Exploration workshop. The deadline for registration is March 18, 2011. Contact Tricia LeBlanc at tleblanc@AudubonInstitute.org
- April 9, 2011 with University of South Florida College of Marine Science in St. Petersburg, Florida, a follow-up Learning Ocean Science Through Ocean Exploration workshop. The deadline for registration is March 25, 2011. Contact Teresa Greely at greely@marine.usf.edu
- April 9, 2011 with John G. Shedd Aquarium in Chicago, Illinois, a follow-up Learning Ocean Science Through Ocean Exploration workshop. The deadline for registration is March 25, 2011. Contact Jackie Formoso at jformoso@sheddaquarium.org
- April 16, 2011 with Hatfield Marine Science Center in Oregon, a follow-up Learning Ocean Science Through Ocean Exploration workshop. The deadline for registration is April 1, 2011. Contact Tracy Crews at tracy.crews@oregonstate.edu
<http://oceanexplorer.noaa.gov/edu/development/development.html>

Research-Based Online Learning Event (ROLE) Webinars - Online

The next round of COSEE Ocean Systems ROLE webinars start February 16, 2011. These free events will feature presentations and live Q&A with leading scientists in ocean and climate science. Previous webinars are also archived. <http://cosee.umaine.edu/programs/webinars/upcomingwebinars/>

Sea Turtle Professional Development - California

The International Sea Turtle Society will convene the International Sea Turtle Symposium, April 12-15, 2011 in San Diego, California; the theme is *The Next Generation of Research and Conservation*. In support of the symposium, there will be a free workshop for teachers of grades 5-8, Bringing the Ocean and Sea Turtle Science into the Classroom, April 14, 2011, which will focus on ocean conservation through the biology of sea turtles, while meeting state learning standards. Contact Frances Kinney at frances@propeninsula.org
<http://www.seaturtlesociety.org/>

Seagrass, Mangroves, and Corals Workshop - Florida

Learn about the seagrass, mangrove, and coral reef communities of the Upper Florida Keys at this weekend workshop, February 18-20, 2011 in Key Largo, Florida. The workshop includes snorkeling field trips, evening activities, and more. Space is limited.

http://www.marinelab.org/Teacher_Workshops.html

Seminars on Science - Online

Registration is open for the new May sessions of Seminars on Science from the American Museum of Natural History. Courses are co-taught by an experienced classroom teacher and a research scientist. Upcoming courses Water, Earth: Inside and Out, and Evolution. This session runs May 9-June 19, 2011, with a deadline for registration of April 25, 2011.

<http://www.amnh.org/learn/>

Sustainable Trails Conference

The Professional Trailbuilders Association's Sustainable Trails Conference, March 13-20, 2011 in Asheville, North Carolina, offers participants networking opportunities, the chance to learn new trail building techniques and try out the latest equipment, and more.

http://www.trailbuilders.org/conference/ptba_conf.html

Teaching about the Gulf Oil Spill - Online

Registered EE Week 2011 participants are invited to participate in Teaching about the Gulf Oil Spill, an interactive educator webinar, February 23, 2011. The webinar will provide information on the timeline and effects of the spill and address questions about the spill and its long-term consequences. Participants will also learn about the National Wildlife Federation's Oil Spill educational materials, service projects, and how teachers and students can get involved.

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

U.S. Coral Reef Task Force Meeting – Washington, D.C.

The 25th bi-annual meeting of the U.S. Coral Reef Task Force will be held February 24, 2011 in Washington, DC. This meeting has time allotted for public comment. Advance registration is required.

To sign-up for public comment, contact Liza Johnson at Liza_M_Johnson@ios.doi.gov
<http://www.coralreef.gov/meeting25/welcome.html>

Water as Habitat Educator Workshop - Florida

The newly-formed COSEE Florida is offering this free Water as Habitat Educator Workshop, February 26, 2011 in Fort Pierce, Florida. Workshop registration includes activity guide and materials, lesson plans, and more. The workshop is open to formal and informal educators but registration is limited; the deadline for registration is February 14, 2011.

<http://www.coseeflorida.org/events/index.cfm?FuseAction=Showevent&EventID=249>

Wetlands Mitigation and Management Institute - Oregon

The Northwest Center for Sustainable Resources will offer a professional development opportunity for college faculty that examines the science and issues related to wetlands mitigation. The Wetlands Mitigation and Management Institute will be held July 10-15, 2011 in Silverton, Oregon. The deadline for application is April 1, 2011. A stipend may be available.

<http://www.ncsr.org/faculty.html>

Wildlife Conservation Society Courses and Webinars - Online

Wildlife Conservation Society webinars are an opportunity to learn more about animals and the science of studying wildlife. The six-week courses provide opportunities to

examine zoology, ecology, and conservation, through topics including predators, marine biology, habitat ecology, and climate. Upcoming courses include Nature's Thread: Weaving Environmental Education into Your Classroom, Marine Biology for Elementary Educators, and more.

<http://www.wcs.org/teachers/online-teacher-academy.aspx>

EDUCATIONAL RESOURCES

Americans' Knowledge of Climate Change

Americans' Knowledge of Climate Change was conducted by the Yale Project on Climate Change Communication and funded by the National Science Foundation as part of the Communicating Climate Change Initiative. The report results from a national study of what Americans understand about how the climate system works, and the causes, impacts, and potential solutions to global warming.

<http://environment.yale.edu/climate/>

Bobs & LoLo

Bobs and LoLo are dedicated to connecting kids to the natural world with music, movement, and make-believe. Sharing musical stories that engage, inspire, and educate, they teach kids to care about themselves, their neighbors, and the planet. Listen to Sea Notes and check out the rest of the website.

<http://www.bobsandlolo.com/music.html>

California and the World Ocean Conference Online Library

The California and the World Ocean '10 Conference website offers a presentation library of complete video recordings of concurrent and plenary sessions, along with PowerPoint presentations and photographs taken throughout conference events.

<http://www.cal-span.org/events/CWO/2010/>

Children & Nature Network Connect

C&NN Connect was created to support people and organizations working worldwide to reconnect children and nature. The website offers a peer-to-peer online network as a place to participate, contribute, promote, and share what participants are doing to connect children with nature. The Let's G.O.! Tool Kit is scheduled for publication online February 5, 2011.

<http://childrenandnature.ning.com/>

Climate Literacy

The Teachers' Domain website offers climate change teaching resources for the classroom, grades 3-12, based upon the Essential Principles of Climate Literacy. Note that the website has been updated with a new address.

<http://www.teachersdomain.org/special/climlit/>

Community Based Adaptation Field Activities

The Center for Sustainable Development offers this website with a compilation of Community Based Adaptation Field Activities, complete with links to source materials and technical information, compiled from case studies and from projects developed by field partners and online students. Topics include energy, climate change, emergency preparedness and disaster risk reduction, and more. There are extensive links to additional websites.

<http://www.csd-i.org/101-hands-on-cba-field-activit>

Connect a Million Minds

Time Warner Cable's Connect a Million Minds is a five-year program designed to inspire students to pursue learning opportunities and careers in science, technology, engineering, and math. The program introduces youth to opportunities and resources that inspire them to develop the important skills they need to solve economic, environmental, and community challenges of the future. Check out the partnership with NC Aquarium at Fort Fisher.

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

<http://www.ncaquariums.com/wilmington-students-get-hands-on-aquarium-operations-experience>

Conservation Connection

The Field Museum in Chicago, Illinois will offer the Conservation Connection, a winter-spring 2011 digital coral reef conservation experience for middle and high school students from across the country to promote the stewardship of both Fijian coral reefs and local ecosystems, through direct involvement in the scientific process. High school teens from Fiji and Chicago's west side will form the core of this program and act as peer mentors to all participants, as will coral reef experts from the museum and Fiji. The program is free to join and you can sign up with the program at any time before April 18, 2011. You and your students can participate in as many activities and challenges on FijiReef as schedules or curricula allow. For more information on the program, activities, and schedules, see the activity guide.

http://www.fieldmuseum.org/calendarsystem/exhibit_item.asp?ID=72

http://synthesis.eol.org/sites/default/files/EOL_Conservation_Connection_Activity_Guide.pdf

Data.gov

Educators and others can access over 300,000 datasets generated by the federal government. The Data.gov website includes searchable catalogs providing access to raw datasets from many federal agencies, along with tools enabling users to examine this data in different ways. Click on the FAQ link at the bottom of the page for an overview and tutorial.

<http://www.data.gov/>

Education and the Environment Initiative Curriculum Units

The final Education and the Environment Initiative curriculum units are now available online. The K-12 curriculum is comprised of 85 units teaching select science and history-social science academic standards.

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

Eutrophication and Hypoxia Website

World Resources Institute in collaboration with the Virginia Institute of Marine Science support the website, Eutrophication & Hypoxia: Nutrient Pollution in Coastal Waters. The website offers an interactive map of eutrophic and hypoxic areas worldwide, along with photos and videos linked to the site, news, a resource library, and more.

<http://www.wri.org/project/eutrophication>

Giovanni

Giovanni is a web-based application developed by the NASA's Goddard Earth Sciences Data and Information Services Center. The website provides a simple and intuitive way to visualize, analyze, and access Earth science remote sensing data without having to download the data. Interfaces include Atmosphere, Environment, Ocean, and Hydrology. Check out the users' manual, informational brochure, and other useful references available to help newcomers make the best use of this website.

<http://disc.sci.gsfc.nasa.gov/giovanni>

Great Belt Research Cruise

Join scientists from seven marine labs and universities as they study phytoplankton in the South Atlantic from January 11-February 16, 2011 aboard the *R/V Melville*.

Researchers will investigate the effects of ocean acidification on the Southern Hemisphere's largest recurring phytoplankton bloom, known as the Great Southern Coccolithophore Belt. Teachers and students following the cruise will learn about current ocean science research, ocean acidification, tools oceanographers use, life at sea and, and more. The website includes information about the cruise, ship data, photos, educational materials, and more.

<http://greatbeltresearchcruise.com/>

Gulf of Maine Research Institute

The Gulf of Maine Research Institute website offers materials to teach and learn about aquatic environments. Topics range from how satellites image the Earth to detailed examinations of species and habitats including lobsters, turtles, herring, marine mammals, and aquatic environments from Katahdin to the sea. They currently focus on developing science learning opportunities for middle school students complemented by professional development programs for teachers.

<http://www.gmri.org/education/index.asp>

Gulf of Mexico Minute

The Florida Department of Environmental Protection's Office of Coastal and Aquatic Managed Areas offers the *Gulf of Mexico Minute* radio public service announcements. In addition to audio of the 90-second messages, the website offers downloadable scripts for all the podcasts.

<http://www.supportthegulf.org/media-section/podcasts>

Human Use Mapping

This report compiled for NOAA's Coastal Services Center, *A Review and Summary of Human Use Mapping in the Marine and Coastal Zone*, provides a review and summary of the relevant literature, methods, and approaches for mapping human uses.

http://www.csc.noaa.gov/publications/Human_Use_Mapping_Final_Report.pdf

Journey North

Journey North has begun again, a free online program engaging students in a study of wildlife migration and seasonal change (good news for the snow-bound: Spring is starting to return!). Track the arrival of spring and the migrations of numerous wildlife species, study photoperiods, check out the sunlight mystery challenge, and more. The Annenberg Channel also offers free Journey North video programs, downloadable teaching tools and classroom lessons, and more.

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

National Center for Case Study Teaching in Science

The mission of the National Center for Case Study Teaching in Science is to promote the development and dissemination of innovative materials and sound educational practices for case teaching in the sciences. The website provides access to a collection of peer-reviewed case materials. Topics include marine science/oceanography, ecology, climatology/meteorology, and more.

<http://sciencecases.lib.buffalo.edu/cs/>

Marine Geological Discoveries

This site by Norwegian researcher Martin Hovland features descriptions of marine geological formations: pockmarks, mud volcanoes, deep-water coral reefs, and gas hydrates. The website displays photos of these deep seafloor features, and compares them to geological structures seen on land and elsewhere, including the moon.

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

National Oceanographic Data Center

NOAA's National Oceanographic Data Center (NODC) provides scientific and public stewardship for national and international marine environmental and ecosystem data and information. NODC maintains a national ocean archive with environmental data including physical, biological, and chemical measurements derived from in situ oceanographic observations, satellite remote sensing of the oceans, and ocean model simulations. Data sets include water temperatures, coastal buoy data, the World Ocean Atlas database, and much more. Check out the flyers for quick overviews of some of the products available.

<http://www.nodc.noaa.gov/>

National Wetland Plant List Update

The National Wetland Plant List is used to delineate wetlands for purposes of the Clean Water Act and the Wetland Conservation Provisions of the Food Security Act. Other applications of the list include wetland restoration, establishment, and enhancement projects. The website provides details about providing comments on the proposed updated list. The deadline for submission of comments is March 7, 2011.

<https://rsgis.crrel.usace.army.mil/apex/f?p=703:1:3818319567236099>

NOAA Deepwater Horizon Library

NOAA offers this web archive of the maps, wildlife reports, scientific reports and other previously released public information used by emergency responders, fishermen, mariners, and local officials during the Deepwater Horizon oil spill. The archive also contains image and video galleries, fact sheets and publications, press releases and transcripts, educational resources, and more.

<http://www.noaa.gov/deepwaterhorizon/>

Organization Assessment Tool

The Organization Assessment Tool is a self-assessment tool that can be used by the leaders of EE organizations to increase the effectiveness of their organizations. It was written to promote learning and growth within environmental education organizations. The website offers the tool along with an introductory PowerPoint presentation.

http://www.eetap.org/pages/dynamic/web.page.php?page_id=35&topology_id=31&eod=

[1](#)

Out2See

Journey with your students to Palmer Station, Antarctica with the Palmer LTER Education and Outreach Program and Out2See: Sights, Sounds and Science at Palmer Station. Through the blog, you can track the ship, explore the environment, view photographs, and learn about what research is taking place. Educators can download newly designed instructional materials that parallel the scientific research.

<http://pal.lternet.edu/outreach/>

Project Earth

Created by Ecology and Environment, Inc. as an environmental education resource for U.S. and international K-12 schools, Project Earth is a networking site that encourages the exchange of ideas between students across the world on a variety of sustainability and environmental topics and solutions. Participants can post projects on the website and projects can be searched by category, grade level, key word, location, and user type. Check out the contest section, sign up for project news, and more.

<http://www.projectearth.net>

Reef Scenarios

Reef Scenarios is an online portal that enables users to access and use the simulation model Coral Reef Scenario Evaluation Tool (CORSET) to explore coral reef futures at regional scales. CORSET is a generic, biophysical model for coral reef systems which couples dynamics from local to regional scales. Interactions between benthic and consumer functional groups at local scales are linked across regional scales by larval dispersal.

<https://reefscenarios.org/About>

Ross Sea Connection

Follow along with scientists and crew on a month-long cruise in the Ross Sea. The scientists will study the phytoplankton at the base of the Ross Sea's food web and the special combination of currents, nutrients, and trace metals that allow it to thrive. The ship's research crew includes a professional science writer and a photo journalist who will document the science stories as they happen, as well as answer questions submitted by students throughout the cruise. A collection of related lesson plans and activities is available on the website.

<http://coseenow.net/ross-sea/>

Safeguarding Sea Turtle Nesting Beaches

WIDECAST (Wider Caribbean Sea Turtle Conservation Network) offers the following publication for downloading from its website in both English and Spanish: Manual of Best Practices for Safeguarding Sea Turtle Nesting Beaches, by Choi and Eckert. While on the website, check out the resources for educators, sea turtle biology, and more.

<http://www.widecast.org/Resources/Pubs.html>

Sandwatch Manual

Sandwatch is a volunteer network of schools: students, teachers and principals; youth groups; non-governmental; and community-based organizations; working together to monitor and enhance their beach environments. The new *Sandwatch Manual: Adapting to Climate Change and Educating for Sustainable Development*, is available for downloading from the website in English, Spanish, and French. The manual includes activities on beach debris, water quality, currents, and more.

http://www.sandwatch.ca/index.php?option=com_content&view=category&layout=blog&id=9&Itemid=4

Science 2.0 Blog

This NSTA blog discusses digital tools for the classroom. As an online companion to NSTA's The Science Teacher's Science 2.0 column, it aims to help readers find resources, connect with colleagues, and share ideas.

<http://nstacommunities.org/blog/category/science20/>

Sea Level Rise Impacts Viewer

NOAA's Coastal Services Center has released the Sea Level Rise Impacts Viewer, a tool for visualizing sea level rise and coastal flooding. While it is currently available for coastal Mississippi and Texas' Houston and Galveston metro areas, the tool will be expanded for use in other geographic areas in the near future. Features include coastal flooding scenarios, uncertainty maps, social and economic vulnerability information, and more.

<http://csc.noaa.gov/digitalcoast/tools/slviewer/>

State of the Gulf

This one-hour documentary on the complex ecosystem of the Gulf of Mexico will be shown on Texas PBS television stations in late February. Check the website later in the month for the trailer, air times and dates, and links to YouTube postings.

<http://texasthestateofwater.org/>

Sun, Sand and Sea Turtles

The Georgia Sea Turtle Center offers the curriculum guide, *Sun, Sand and Sea Turtles: Inspiring Caribbean Youth through Nonformal Education*. Those interested can preview the basic materials by viewing the Master's project of Alicia Marin on the Duke University website.

<http://dukespace.lib.duke.edu/dspace/handle/10161/368>

Voyage to Discovery

Voyage to Discovery, from NOAA's Office of National Marine Sanctuaries and partners, is a multimedia educational initiative highlighting African-American contributions to the country's maritime heritage, while fostering increased participation in marine careers and ocean conservation. Journey through time to discover stories of African-Americans and the sea through education, archaeology, science, and underwater exploration.

<http://voyagetodiscovery.org/>

Waves, Wetlands, and Watersheds

Waves, Wetlands, and Watersheds is a classroom and community activity guide for teachers that addresses endangered species, marine debris, coastal geology, water use, and more. It is aligned to the California State Science Content Standards for grades 3-8, and includes Community Action lessons adaptable for all ages up to and beyond grade 12. The guide is available to California educators for free from the California Coastal Commission, or it can be downloaded as a PDF.

<http://www.coastal.ca.gov/publiced/waves/waves1.html>

WhyReef

WhyReef is a virtual coral reef, and participants can gain knowledge in reef biology and ecology. Students become coral reef scientists and keep track of fish, coral, turtles, and other reef creatures.

<http://www.whyville.net/smmk/top/gates?source=reef>

INITIATIVES, JOURNALS, and MORE

Caribbean Hub

Caribbean Hub is a new website under construction to facilitate professional communities with an interest in combating invasive species, climate change, and preserving biodiversity in the Caribbean. Though it is currently in start-up, the long term objective of the Hub is to bring together ideas, people, projects, experience, expertise, funds, and common resources.

<http://www.caribbeanhub.net/>

Coastal America Student Summit – Washington, D.C.

Coastal America is holding the 3rd Student Summit on the Ocean and Climate, February 14-17, 2011 in Washington, D.C. The Summit is designed to teach high school students about the interconnectedness between the ocean, Great Lakes, inland seas, and climate with particular focus on climate change, and help prepare them for future careers in ocean and climate science and policy. You can participate live (deadline for RSVP is February 8, 2011) or view the broadcast.

<http://studentsummit.wikispaces.com/>

Contact Margaret Hunter at MargaretE.Hunter@dm.usda.gov

Marine Mammal / Geodome Outreach Events – North and South Carolina

Fort Fisher staff, along with the NC Museum of Natural Sciences and partners, offer a variety of marine mammal outreach events for 2011. These events use programs, activities, and a presentation in an inflatable GeoDome theater to reach teen audiences with messages about ocean health and marine mammals. Check these spring events out if you're in the area.

<http://www.ncaquariums.com/fort-fisher/teachersstudents/conservation-education-through-marine-mammals>

Ocean Discovery Day - Texas

Flower Garden Banks National Marine Sanctuary and the NOAA Fisheries Service Galveston Laboratory sponsor NOAA Ocean Discovery Day, March 26, 2011. The free event is designed to engage residents and visitors in fun, creative, and educational hands-on activities that illustrate how NOAA programs are relevant to the community.

<http://flowergarden.noaa.gov/newsevents/odd2011article.html>