

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
INFORMATION EXCHANGE FOR MARINE EDUCATORS

OCTOBER 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.

The information included here has been compiled from many different sources, including EE-NEWS@NAAEE, EEinGEORGIA, CREEC, 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.

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Collected archives of the information presented in past newsletters are available at http://mpa.gov/helpful_resources/education_training.html. 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

Climate Change: Agencies Should Develop Guidance for Addressing the Effects on Federal Land and Water Resources

The U.S. Government Accountability Office (GAO) obtained experts' views on the effects of climate change on federal resources and the challenges managers face in addressing climate change effects on these resources. GAO recommends that the Secretaries of Agriculture, Commerce, and the Interior develop guidance incorporating agencies' best practices, which advises managers on how to address climate change effects on the resources they manage and gather the information needed to do so. Links are provided to the report, report summary, and the full, 179-page, downloadable report.

<http://www.gao.gov/docsearch/abstract.php?rptno=GAO-07-863>

Preparing for Climate Change: A Guidebook for Local, Regional, and State Governments

The Climate Impacts Group offers the on-line Preparing for Climate Change: A Guidebook for Local, Regional, and State Governments, designed to help local, regional, and state governments prepare for climate change by recommending a detailed, easy-to-understand process for climate change preparedness based on familiar resources and tools. These steps include creating a climate change preparedness team; identifying community vulnerabilities to climate change; and identifying, selecting, and implementing adaptation options.

<http://www.cses.washington.edu/cig/fpt/guidebook.shtml>

MESSAGE FROM THE BRIDGE

Project SeaCAMEL

On November 12-14, 2007, a special coral-reef research and education project will be taking place 20 meters below the sea surface in the underwater laboratory, Aquarius. Virginia Institute of Marine Science researcher, Dr. Mark Patterson, will lead a team of aquanauts on a three-day mission to study corals and sponges on Conch Reef in the Florida Keys National Marine Sanctuary. The research will be broadcast live from Aquarius via the Internet, along with six classroom modules, each covering a different topic of coral reef sciences to classrooms of all levels all over the world. Project SeaCAMEL is funded by the Living Oceans Foundation, and the Bridge is proud to be the educational outreach portal for the project.

http://www.marine-ed.org/bridge/index_seacamel.html

REQUESTS

In Search of Exemplary Science Programs That Illustrate Inquiry

The NSTA National Advisory Board invites your help in identifying 15 programs for the 2008 Exemplary Science Program Monograph. The monograph will focus on teachers and programs that illustrate full, or open, inquiry: inquiry that starts with student curiosities and questions, followed by student attempts to deal with their own curriculum and attempt to provide answers. The goal calls for producing students who experience the richness and excitement of knowing about and understanding the natural world.

Contact Robert Yager at robert-yager@uiowa.edu

Information Needed about Student Environmental Monitoring Programs

Lynna wishes to update a comprehensive guide of environmental monitoring programs for K-16 students in the United States. This includes monitoring programs specifically designed for K-16 students as well as those that allowed their participation. Her criteria includes: the monitoring program must be specifically designed for K-16 students, or a program that allows or encourages K-16 participation; the program needs to be available to students/teachers at least at a state level; and the program must focus on one of the following taxonomic groups: fish, avians, amphibians, mammals, insects, reptiles, or any program that monitors plants.

Contact Lynna Kauchek at lynnakauchek@yahoo.com

GRANTS AND OPPORTUNITIES

Aquatic Invasive Species Research and Outreach

The National Sea Grant College Program invites research and outreach proposals that address the introduction and spread of aquatic invasive species. The goal of this program is to discover and develop information and tools that can lead to the prevention, monitoring and control of aquatic invasive species threatening United States coastal, oceanic, and Great Lakes communities, resources, and ecosystems. Proposals must be for research, outreach, or both that is relevant to the National Sea Grant College Program's mission. The deadline for preliminary proposal submission is October 11, 2007.

http://www.csgc.ucsd.edu/PROPOSAL/SPEC_COMPET/SpecCompetIndx.html

Awards for Everyday Heroes

The Volvo for Life Awards is an annual search for and celebration of everyday heroes - ordinary people who are making a positive difference in the lives of others. The award recognizes people whose selfless actions most exemplify Volvo's core values of safety, quality of life, and the environment. The deadline for nomination is October 15, 2007.

<http://www.volvoforlifeawards.com/cgi-bin/iowa/english/home/index.html>

Breakthrough Schools Project

The MetLife Foundation and the National Association of Secondary School Principals are seeking high-achieving middle level and high schools whose best practices and outstanding results can inform other schools in their school improvement efforts. Selected schools must have 40% or more students eligible for free and reduced-price meals. The deadline for nomination is October 12, 2007.

http://www.principals.org/s_nassp/sec.asp?CID=66&DID=66

Cable's Leaders in Learning Awards

The Cable's Leaders in Learning Awards is Cable in the Classroom's annual awards program to recognize administrators, educators, community leaders, and policymakers who demonstrate vision, innovation, action, and transformation in education. The awards promote and encourage innovative learning practices by honoring individuals who have transformed an aspect of education on a large or small scale. The deadline for entry is January 16, 2008.

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

Classroom Energy Grants – North and South Carolina

Progress Energy has joined forces with DonorsChoose to support hands-on energy education projects in Carolina classrooms. These projects will help your students understand where the energy they use every day comes from, and how to use it wisely. Possible projects include energy conservation, alternative energy, sustainability, and energy education. Submit ideas through DonorsChoose.org and Progress Energy will fund creative projects that match its criteria. The next two submission deadlines for eligibility for the grant are November 19, 2007 and February 11, 2008.

<http://www.donorschoose.org/docs/DonorsChoose-Energy-Flyer.pdf>

ExploraVision Contest

Funded by Toshiba, ExploraVision challenges students to use their imaginations and the tools of science to propose scientifically feasible technologies that could exist 20 years into the future. By combining their imagination with science, students have

conceptualized creative solutions for current world and societal problems as well as quality-of-life issues. The deadline for submission is January 29, 2008.

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

General Coral Reef Conservation Grants

The NOAA Coral Reef Conservation Program announces FY08 General Coral Reef Conservation Grants. Projects support on-the ground efforts that help preserve, sustain, and restore the condition of coral reef ecosystems; promote the wise management and sustainable use of coral reef resources; increase public knowledge and awareness of coral reef ecosystems and issues regarding their conservation; and develop sound scientific information on the condition of coral reef ecosystems and the threats to such ecosystems. The deadline for application is November 1, 2007.

http://www.nmfs.noaa.gov/habitat/ead/fundingopps.htm#General_Grants

Green Earth Book Award

The Newton Marasco Foundation Green Earth Book Awards will be presented in three categories: Children's Fiction, Young Adult Fiction, and Nonfiction. Awards are given in each of the three categories to the author and to the illustrator. The awards were created to promote books that inspire a child to grow a deeper appreciation, respect and responsibility for his or her natural environment. The award focuses on books that best raise awareness of the beauty of our natural world and the responsibility that we have to protect it. It intended to teach the ethos of environmental stewardship and to make our children more aware of the fragile nature of their local ecosystems and the role each of us can play in nurturing, protecting and defending it. The deadline for nomination is November 1, 2007.

http://www.newtonmarascofoundation.org/programs/a_ge_cc.cfm

Harris Wofford Award

Youth Service America announces the 2008 Harris Wofford Awards, sponsored by State Farm Companies Foundation. The awards recognize extraordinary achievements in three categories: Youth (ages 12-25), Organization (nonprofit, corporate, foundation), and Media (organization or individual) for actively contributing towards, making service and service-learning the common expectation and common experience of every young person.

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

Hollings Undergraduate Scholarship Program

NOAA's Ernest F. Hollings scholarship program provides selected undergraduate applicants with awards that include academic assistance for full-time study; a 10-week, full-time internship position during the summer at a NOAA or partner facility; and, if reappointed, academic assistance during a second academic year. The internship provides hands-on, multi-disciplinary educational training experience involving students in NOAA-related scientific, research, technological, policy, management, and education activities. The deadline for application is February 9, 2008.

http://www.oesd.noaa.gov/Hollings_info.html

Innovator Awards – Southern States

The Southern Growth Policies Board honors southern initiatives that are improving the quality of life in the region. The 2008 Innovator Awards will be chosen from initiatives that promote youth (ages 14-24) engagement and leadership in the region. Awards are presented annually to one organization in each of Southern Growth's member states —

Alabama, Arkansas, Georgia, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Virginia, and West Virginia. The deadline for application is October 22, 2007.

<http://www.southern.org/innovators/innovators.shtml>

Javits Fellowship Program

The purpose of the Jacob K. Javits Fellowship Program is to award fellowships to eligible students of superior ability, selected on the basis of demonstrated achievement, financial need, and exceptional promise, to undertake graduate study in specific fields in the arts, humanities, and social sciences leading to a doctoral degree or a master's degree. Fields include communications and media, public policy and public administration, and more. The deadline for application is October 15, 2007.

<http://www.ed.gov/legislation/FedRegister/announcements/2007-3/082907b.html>

Marine Aquaculture Program

NOAA is seeking preliminary and full proposals for demonstration projects and innovative research for the development of environmentally and economically sustainable marine aquaculture in nearshore, open water, and terrestrial environments. Projects funded under this competition should support NOAA's overall goals for its marine aquaculture program, which include education and outreach. The deadline for preproposal submission is October 18, 2007.

http://www.csgc.ucsd.edu/PROPOSAL/SPEC_COMPET/SpecCompetIndx.html

Multicultural Initiative in the Marine Sciences: Undergraduate Participation

The Shannon Point Marine Center invites applications for Multicultural Initiative in the Marine Sciences: Undergraduate Participation (MIMSUP), a program designed to increase diversity within the next generation of marine scientists. Students spend two quarters (January 8-June 13, 2008) at the center taking introductory and specialized courses in the marine sciences, attending seminars and workshops, exploring career opportunities, and engaging in supervised research. Applicants must be in an academic program leading to a bachelor's degree. Funding is available from the National Science Foundation. The deadline for application is November 13, 2007.

<http://www.wvu.edu/mimsup/>

NASA Exploring Space Challenge – International Polar Year

The NASA Exploring Space Challenges encourages students to be creative, apply design skills, conduct scientific research, and utilize technology. The teacher competition invites teachers, working alone or in groups, to design a challenge around a polar theme. Judges will select the best challenge(s) per each grade category (K-2, 3-5, 6-8, and 9-12). The deadline for registration is December 30, 2007.

http://esc.nasa.gov/html_files/TeacherChallenge.html

National Marine Fisheries Service - Sea Grant Joint Graduate Fellowship Program

The California Sea Grant College Program is seeking applications for the 2008 National Marine Fisheries Service-Sea Grant Joint Graduate Fellowship Programs in Population Dynamics and Marine Resource Economics. The deadline for application is January 25, 2008.

<http://www.csgc.ucsd.edu/EDUCATION/SgEducationIndx.html>

National Wetlands Awards

The National Wetlands Awards Program celebrates individuals who have demonstrated extraordinary dedication, innovation, or excellence in wetlands conservation. National Wetlands Awards nominees and recipients educate their communities about the value of wetlands, lead programs to protect and restore wetlands, and demonstrate the value of cooperation among grassroots organizations, educational organizations, private landowners, and government agencies to enable the successful protection of wetland resources. National Wetlands Awardees show how individuals can and do make a difference. The deadline for application is January 15, 2008.

<http://www.nationalwetlandsawards.org/index.htm>

One Tree Island Research Station Doctoral Scholarships

The University of Sydney announces two scholarships for outstanding PhD students undertaking coral reef research at One Tree Island Research Station on the Great Barrier Reef through the generous support of G. and J. Beirne. The scholarships will support field-intensive coral reef research at One Tree Reef for up to three years. PhD students from any university can apply. The deadline for application is November 2, 2007.

<http://coral.aoml.noaa.gov/pipermail/coral-list/2007-September/004799.html>

QuikScience Challenge

The USC Wrigley Institute for Environmental Studies and Quiksilver, Inc. offer the QuickScience Challenge. The multi-faceted competition for student teams is designed to spark their interest in science and the oceans and seeks to foster leadership qualities in young people through environmental awareness and stewardship. There are two competitions, one for middle school teams (grades 7-8) and one for high school teams. Projects will include the creation of a new ocean science lesson plan for younger students, a community service project that is linked to the new lesson plan, a proposal for a research project (high school only), a written report/portfolio of the project, and a creative presentation. Projects are due in February, 2008.

<http://www.usc.edu/org/cosee-west/quikscience/>

Student Achievement Grants

The National Education Association Foundation provides grants to improve the academic achievement of students in U.S. public schools and public higher education institutions in any subject area. The proposed work should engage students in critical thinking and problem solving that deepen their knowledge of standards-based subject matter. The work should also improve students' habits of inquiry, self-directed learning, and critical reflection. Proposals for work resulting in low-income and minority student success with honors, advanced placement, or other challenging curricula are particularly encouraged. Applications are reviewed three times each year, with the next application due October 15, 2007.

http://www.neafoundation.org/programs/StudentAchievement_Guidelines.htm

Volvo Adventure Awards

In collaboration with the United Nations Environmental Programme, the Volvo Adventure Award rewards environmental activities among the decision makers of the future. Environmental projects are undertaken by young people to improve their local environment. There are two competitions for the 2008 awards: the *Adventure Award* is for youth, ages 13-16, working in groups of two to five, and the *Great Big Bob the Bunny*

Cartoon Contest for youth under the age of 13. The deadline for entry is January 31, 2008.

<http://www.volvoadventure.org/home.aspx>

Whale Tail Grants Program - California

The California Coastal Commission's Whale Tail Grants Program is now accepting applications for coastal and marine education projects. This program funds projects that encourage people to value and take action to improve the health of California's coast, marine life, or watersheds that connect with the coast. Educational coastal habitat restoration and beach maintenance projects are also eligible. Emphasis is on reaching underserved students and members of the public. The deadline for application is December 7, 2007.

<http://www.coastal.ca.gov/publiced/plate/plgrant.html>

INTERNSHIPS AND TEMPORARY OPPORTUNITIES

Alaska SeaLife Center Education Internships

The Alaska SeaLife Center is currently recruiting for interns for the Education Department. These internships are for February 25-June 13 and May 12-August 29, 2008. The Alaska SeaLife Center offers complimentary housing and a small food stipend to all interns participating in the program. The deadline for application is December 1, 2007.

<http://www.alaskasealife.org/New/about-ASLC/internship-program.php>

International Fisheries Internship

The Nature Conservancy's South America Marine Program is seeking applicants with an undergraduate degree for an International Fisheries Internship. The selected candidate will be expected to do research on the demand for fishmeal from the anchovy fishing industry in Peru and Chile, as well as on other international fisheries issues. Ability to read documents in Spanish is a plus. The internship will be based in Arlington, Virginia. Contact Anthony Chatwin, Ph.D. at achatwin@tnc.org

Tropical Marine Ecology Internship

The Council on International Educational Exchange Tropical Marine Ecology and Conservation Program in Bonaire is a study abroad program for undergraduate students. The internship dates are January 13-May 10, 2008. The deadline for application is November 1, 2007.

http://ciee.org/program_search/program_detail.aspx?program_id=1739

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

CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT

California Science Education Conference

The California Science Education Conference, October 25-29, 2007 in Long Beach, California, will address all areas of science education, including life science, earth/space science, physical science, environmental science, assessment, and more. The program includes field trips, short courses, and workshops. Included is a four-day marine science strand and *Water Connects Us All*, a mini-university course for K-6 teachers, held in three parts over three days.

<http://www.cascience.org/conference.html>

Learning Ocean Science through Ocean Exploration - Oregon

The Oregon Museum of Science and Industry will host a Learning Ocean Science through Ocean Exploration professional development workshop for grade 6-12 science teachers, October 27, 2007 in Portland, Oregon, with a follow-up workshop in 2008. Registration is required and space is limited. Participants will receive the curriculum with CD-ROM's, certificates of participation, and more. The deadline for registration is October 12, 2007.

Contact Melissa Feldberg at melissa.feldberg@oregonstate.edu

Marine Activities Resources and Education Workshops - California

Birch Aquarium is pleased to offer an upcoming series of Marine Activities Resources and Education (MARE) Habitat Workshops for Southern California teachers, from October through December, 2007. Each of the Habitat Workshops will offer new and experienced K-8 teachers, opportunities to explore ocean science content and hands-on teaching strategies, specific to your own grade level and habitat focus. Teachers new to the MARE Program will learn about the whole-school Ocean Week or month-long Immersion Model. Each workshop will include a field trip segment, guest researchers or graduate students from the Scripps Institution of Oceanography, hands-on work with MARE's inquiry-based science curriculum and kits, and instruction in current science teaching strategies.

http://aquarium.ucsd.edu/Education/For_Schools/For_Teachers/Professional_Development/MARE/

National Science Teachers Association's 2008–2009 Conference Season

Submit a session proposal for NSTA's 2008–2009 conferences. The 2008 area conferences include Charlotte, North Carolina (October 30–November 1, 2008); Portland, Oregon (November 20–22, 2008); and Cincinnati, Ohio (December 4–6, 2008). In 2009, NSTA will hold its national conference in New Orleans, Louisiana (March 19–22, 2009). Deadlines for submissions are January 15, 2008, for the 2008 area conferences, and April 15, 2008, for the New Orleans National Conference

<http://www.nsta.org/conferences/sessions.aspx>

ROV Teacher Workshop – North Carolina

This workshop, hosted by the Monitor National Marine Sanctuary and partners, November 17, 2007 in Manteo, North Carolina, teaches educators about Remotely Operated Vehicle (ROV) technology and its application in ocean studies. Participants learn how to build a ROV with students, sponsor a student team to participate in a regional ROV competition, and more.

http://monitor.noaa.gov/news/features/0507_rov.html

Shedd Aquarium Fall Teacher Workshops - Illinois

The Shedd Aquarium offers a variety of professional development for classroom teachers throughout the year. Upcoming workshops include:

- *Classroom Habitats* - From aquariums to worm bins, teachers gain hands-on experience in how to create their own classroom habitat along with complementary Illinois State Standard-specific lesson plans to take back to the classroom - October 13, 2007
- *Learning Ocean Science through Ocean Exploration* - Do inquiry- and standards-based activities tied directly to ocean expeditions. Activities written and tested by

scientists and educators enable your students to model ocean science exploration in your classroom – November 3, 2007 (Part 1) and April 12, 2008 (Part 2).

Register by October 19, 2007.

Check the website for more offerings, along with lesson plans, multimedia interactives, and more.

http://www.sheddaquarium.org/teacherprogram_listings.html

Virtual School Symposium

The Virtual School Symposium, Changing the Course of Education, November 4-6, 2007 in Louisville, Kentucky, will bring together representatives from national, state, private, and other virtual school programs. Experts in K-12 virtual education will have networking opportunities; learn about the latest trends, challenges and opportunities in e-learning; interact in session presentations; and gain access to the latest research and best practices reports.

<http://www.nacol.org/events/vss/index.php>

EDUCATIONAL RESOURCES

2007 IUCN Red List of Threatened Species

The 2007 IUCN Red List of Threatened Species has been released. There are now 41,415 species on the IUCN Red List and 16,306 of them are threatened with extinction. The website includes species case studies by region, background information about the list, links to video and photos, fact sheets about threatened species, and much more.

http://www.iucn.org/themes/ssc/redlist2007/index_redlist2007.htm

Antarctica: Signs of the Great Thaw

The Chicago Tribune offers this portrait of the effects of global warming on and around Antarctica. Visitors can view the ways in which the thawing sea ice is taking its toll on the Adelie penguins, learn about how scientists are attempting to reconstruct the history of various global climate changes, take a 360-degree look around the South Pole, and listen to the voices of people who live and work on Antarctica.

<http://www.chicagotribune.com/news/nationworld/chi-antarcticamain-html,1,567386.htmlstory>

Artist Boat

Artist Boat is dedicated to promoting awareness and preservation of coastal margins and the marine environment through the disciplines of the sciences and the arts. Artist Boat promotes collaborations between marine scientists and artists in order to develop the environmental literacy. They utilize traditional tools of the sciences and the arts to bring people to places of awareness and reflection while visiting these habitats. While sections of their website are under development, it includes links to educational materials, a downloadable pdf of upcoming events, and youth program descriptions.

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

Biodiversity Heritage Library

Ten major natural history museum libraries, botanical libraries, and research institutions have joined to form the Biodiversity Heritage Library Project. The group is developing a strategy and operational plan to digitize the published literature of biodiversity held in their respective collections and make it available through a global “biodiversity commons.” The participating libraries have over two million volumes of biodiversity

literature collected over 200 years to support the work of scientists, researchers, and students in their home institutions and throughout the world. Over 1.124 million pages of key taxonomic literature are already available on the web.

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

Biological ESTEEM

The Biological ESTEEM (Excel Simulations and Tools for Exploratory, Experiential Mathematics) Collection is a project of the BioQUEST Curriculum Consortium. A primary intention of the Biological ESTEEM project is to sample elementary applications of mathematics across the spectrum of activity-based general biology curricula. Particular attention is paid to equations that have significantly transformed contemporary biological practice and that are widely used in classroom, laboratory, and field activities in the context of measurement, analysis, modeling, and hypothesis testing. Through use of simulations, tools, and databases, students will have an opportunity to develop an intuitive sense of the power, utility, and beauty of applying mathematics to biology. Modules include an introduction to Bayesian probabilities, biostatistical tools, biodiversity, island biogeography, food web analysis, and more.

<http://mathdl.maa.org/mathDL/3/?pa=content&sa=viewDocument&nodeId=623>

California Climate Change Portal

This website combines information on the impacts of climate change on California and the state's policies relating to global warming. The website includes background information, news, and information about policies and initiatives.

<http://www.climatechange.ca.gov/index.html>

ClimateClassroom

The National Wildlife Federation's Climate Classroom is designed to help parents and teachers talk to students of differing ages about global warming. Its features include information for parents, proposed educator guidelines, age-adapted sources of useful curricula, a downloadable slide presentation with presenter's guide, and more.

<http://www.ClimateClassroom.org>

Coastal Ocean Observing Center

The Coastal Ocean Observing Center at the University of New Hampshire has developed and implemented a system for monitoring the linked oceanic and estuarine ecosystem in their region. This monitoring system has the capability to detect changes in the ecosystem across multiple physical and trophic levels. The website includes data, educational materials, publications, news, and more. A variety of lesson plans and activities can help you integrate ocean observing data and tools into your classroom, and includes an image viewer and analysis tool for satellite images. Information on teacher workshops and resources are also included and may provide you with ideas and inspiration on how to incorporate real time and near real time data in your classroom.

<http://www.cooa.unh.edu/index.jsp>

Consumers Guide to Afterschool Science Resources

The Consumers Guide to Afterschool Science Resources contains reviews of high-quality, hands-on science content for afterschool programs. It provides a wide range of after school activities, curricula, and more. Reviewed materials include semester- and year-long curricula, activity kits, instructor guides consisting of many related activities, and websites that offer content appropriate for afterschool programs. Users are able to search and sort entries by title, subject, grade level, audience, and cost. A brief

description of each resource is accompanied by two expert reviewers' detailed commentary.

<http://www.sedl.org/afterschool/guide/science/index.html>

CoralSee

CoralSee offers an on-line Acropora coral identification program and an introductory guide to these corals. The interactive website includes the sections Explore the Reef, the Acropora key, and links to more information.

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

Earth Matters: Studies for Our Global Future

The Population Connection is updating the secondary curriculum, Earth Matters: Studies for Our Global Future, and offers the second edition free for downloading on its website, including all readings and activities. Units include Population Dynamics, Climate Change, Water Resources, and more.

http://www.populationeducation.org/index.php?option=com_content&view=article&id=443&Itemid=2

Earth Science Week International Polar Year (IPY) Videoconference

Middle and high school students and teachers are invited to participate in *The Science of IPY*, an interactive one-hour videoconference hosted by local science centers on October 19, 2007. Scientists from the International Polar Year Programme Office and NASA's Cryospheric Sciences Branch will take participants on a virtual tour of Earth's polar regions and explore some of the key questions that scientists are trying to answer about how the poles are changing. The conference will include a question-and-answer period with featured scientists. Participants will convene at select science centers in the eastern U.S., the United Kingdom, and France.

<http://www.earthsciweek.org/newsletter/July2007.html>

Exploring the Inner Space of the Celebes Sea

Join NOAA's Ocean Explorer to the Inner Space of the Celebes Sea, traveling to unexplored waters south of the Philippine Islands from September 27-October 16, 2007 in search of the strange, and possibly unknown, fishes, jellyfish, squids, and shrimp that live in the dark deep waters of the Celebes Sea. Lying just north of the equator, the Celebes Sea is the center of the most biologically diverse area of the world's ocean. Internet coverage includes Speciation, Midwater Technology, Bluewater Diving, Marine Conservation, and Sea Surface Temperature content essays written especially for this mission. Web logs, including video and images, authored by scientists and other explorers at sea will be submitted via satellite phone to allow others to share in daily activities and discoveries at sea. An "Ask an Explorer" feature is available to submit questions to and receive answers from the explorers while they are engaged in the mission.

<http://oceanexplorer.noaa.gov/explorations/07philippines/welcome.html>

In Search of the Bottom Dwellers

The Flower Garden Banks National Marine Sanctuary and the National Center for Coastal Ocean Science conducted fish surveys and mapping operations on board NOAA Ship *Nancy Foster* in the sanctuary. You can follow the mission with logs, background information, and more.

http://sanctuaries.noaa.gov/missions/2007nancy_foster/welcome.html

Journey to Planet Earth for Grades 6-12

The Journey to Planet Earth video series has been re-edited for grades 6-12 to help teachers explain to students the science behind some of today's headlines. Teachers can receive a 30-day free preview of the entire 10-episode series or individual episodes, by emailing your name, institutional mailing address, and phone number to screenscope@screenscope.com. The website includes ecosystem profiles, teacher guides, action kit, and more.

<http://www.pbs.org/journeytoplanetearth>

Journey South

Following the ever-continuing cycle of seasons, K-12 teachers and students can participate in the Journey North project's free online global studies of wildlife migration and seasonal change. The fall Journey South activities prepare students for spring and help them grasp the cyclical nature of the seasons. Participating classrooms follow the migration patterns of monarch butterflies, gray whales, and other animals and study plants, changing sunlight, and other natural events. Students share field observations with classmates across North America and analyze real-time maps and data from other classroom and professional scientists. Each Journey South study features many entry points to meet your teaching needs: standards-based lessons and challenges, reading and writing connections, photos and video clips, weekly migration updates, interactive maps, connections with field scientists and migration stories. The studies help students conduct local observations and relate them to a global context.

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

NASA Hurricane Education

NASA has developed several educational tools including posters, visualizations and graphics, and classroom activities on hurricanes. The website offers links to news, research, and educational materials.

http://www.nasa.gov/mission_pages/hurricanes/main/index.html

The Science of Fire

QUEST is a TV, radio, web, and education series by KQED that explores science, environment, and nature in Northern California. This website with *Into the Inferno*, *The Science of Fire* offers great fire footage, information about fuel treatments, Smokey the Bear cartoons, and fire ecology. It goes inside the fire season, looking at how the history of forest management could be feeding today's flames. The website also offers links to additional fire resources.

<http://www.kqed.org/quest/television/view/609>

USGS Learning Web

As the Nation's largest water, earth, biological science, and civilian mapping agency, the U.S. Geological Survey (USGS) provides some of this science information as educational material. The product line includes a variety of teaching packets, booklets, posters, fact sheets, and CD-ROMs. There are also materials for students, including trivia games, clip art, homework help, and much more. Lesson plan and activity topics currently include mud fossils, global change, geological age, and more, with additional topics planned for the future including coastal storm, ecosystems, and more.

<http://interactive2.usgs.gov/learningweb/textonly/index.htm>

JOURNALS, SPECIAL EVENTS, and MORE

Greedy Goblins' Global Warming

Join the folks at Dauphin Island Sea Lab for a spooky evening of kid-friendly games, activities and education as you learn how to battle the warming forces of the Greedy Goblins, October 26, 2007 in Dauphin Island, Alabama. Games for children of all ages will be held and admission to the event is free. Exhibits, games, and contests will be designed to teach visitors about the causes and effects of global warming, and what we can do to combat those effects to be good stewards of our environment.

For more information on Spooktacular, call 251-861-8710

Gulf of Maine Monitor

Access cutting edge research and issues about coastal ocean observing in the Gulf of Maine by subscribing to the *Gulf of Maine Monitor*. Each issue explores timely issues surrounding the western Gulf of Maine, such as the effects of spring storms on the spring bloom. The Monitor is published quarterly and is free of charge.

<http://www.ccoa.unh.edu/publications.jsp>

Life on the Edge

The inaugural issue of *Life on the Edge*, a quarterly newsletter of the Jacques Cousteau National Estuarine Research Reserve, was recently published and is posted on the reserve website. This publication highlights the current research, education, and stewardship being performed by the reserve.

<http://www.jcnerr.org/index.htm>

Marine Ecosystems and Management

The first issue of *Marine Ecosystems and Management*, a new quarterly newsletter on marine ecosystem-based management worldwide, has been produced by the same team as *MPA News*, and is funded in part by the David and Lucile Packard Foundation. To subscribe, send an email to meam@u.washington.edu. Type "subscribe" on the subject line and include your name, mailing address, and daytime phone in the text of the message. Please note whether you would like your subscription to be delivered electronically or in paper form.

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

Sharkwater at the International Fishing Hall of Fame

The full-length, award-winning, 90-minute documentary *Sharkwater* will be shown daily courtesy of the International Game Fish Association starting October 21, 2007, beginning with a special kick-off event. There will be presentations by shark experts, scavenger hunts, and hands-on activities throughout the museum. From October 2007 through March, 2008, an interactive and educational exhibition based around shark conservation will be featured in the museum's changing gallery; a shark adaptations lab will be available for students in kindergarten through high school; and a monthly lecture series will feature local and national shark experts.

<http://www.igfa.org/sharkwater.asp>