

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

INFORMATION EXCHANGE FOR MARINE EDUCATORS

JULY/AUGUST 2012

This update is funded by the National Marine Sanctuary Foundation in partnership with NOAA's Ocean Exploration and Research Program, with additional support from the National Marine Protected Areas Center, to share information pertinent to the marine educator community. It is intended to encourage exchange of information and programs. We hope that it will also promote collaboration among the different educators addressing similar issues in their programs.

Please share this email with your colleagues and constituents. 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, 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 and issues of the newsletter, past and present, 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

Reef Reminiscences

The United Nations University Institute for Water, Environment & Health has released a 35-page brochure, *Reef Reminiscences: Ratcheting back the shifted baselines*, with a series of reminiscences by the older generation of coral reef scientists, about particular times and places, reminding readers what reefs used to be.

<http://www.inweh.unu.edu/Coastal/Publications.htm>

Wilderness Stewardship and Science

The National Park Service's *Park Science* offers a special issue on Cultural Resources Management in Wilderness Areas in the Winter 2011-2012. Articles examine cultural

resources stewardship and contributions to the monitoring and assessment framework for wilderness character.

<http://nature.nps.gov/parkscience/>

OPPORTUNITY OF THE MONTH

Marine Education Fellowship - Mexico

This Ecology Project International is accepting applications from classroom teachers and school administrators interested in attending an eight-day pilot program at their field site in La Paz, Baja California Sur, Mexico. Fifteen participants will be selected for an educator-focused Baja Island Ecology Program on Espiritu Santo Island, an UNESCO-protected biosphere reserve. The only participant expenses are airfare and a minimal program fee; dates will be determined by applicant availability. The deadline for application is September 1, 2012.

http://www.ecologyproject.org/promo/marine_education_fellowship

WEBSITE OF THE MONTH

Nautilus Expedition

Dr. Robert Ballard and the international Corps of Exploration aboard Exploration Vessel (E/V) *Nautilus* will be at sea in the Black, Mediterranean, and Aegean Seas off the coasts of Turkey and Cyprus from early July through September, 2012. Watch live video and audio feeds transmitted from the ship 24/7 throughout the expedition. Send a question to the Corps of Exploration during operations, and browse highlight videos, blogs, and photos. Twelve educators and 27 students have been selected to sail aboard the expedition.

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

REQUESTS

Seeking Case Studies

The Ocean Awareness and Literacy Action Coordination Team of the West Coast Governors' Alliance on Ocean Health is looking for Best Practices/Case Studies/Success Stories for instituting ocean literacy into K-12 classrooms to add to the website, to serve as examples to other schools who wish to add or expand ocean content in their classrooms. Examples can be at the classroom, school, district, or state levels. In addition, they'd appreciate informal education examples as well (training and techniques that can be helpful to educators, social networking, informal education programs, etc).

Contact Nancy Reichley at reichn@u.washington.edu

Seeking Reviewers

Science and Children, NSTA's peer-reviewed journal for elementary teachers, is seeking manuscript reviewers. Include your CV in your inquiry.

Contact Linda Froschauer at fro2@mac.com

GRANTS AND OPPORTUNITIES

Advancing Marine Stewardship in Federal Agencies

The Nature Conservancy is seeking proposals to research implementation of marine stewardship principles in federal agencies. The report would identify how marine stewardship principles can be utilized and leveraged via federal agency mechanisms (e.g. NEPA review, Secretarial Orders, agency rules, legal interpretation, guidance, directives, agency legal opinions, etc.) to advance better and more integrated ocean management. The deadline for application is July 31, 2012.

<http://openchannels.org/news/news/nature-conservancy-seeks-proposals-implementation-marine-stewardship-principles-federal>

American Honda Foundation Grants

The American Honda Foundation makes grants to K–12 schools, colleges, universities, trade schools, and others for programs that benefit youth and scientific education, and programs pertaining to academic or curriculum development that emphasize innovative educational methods and techniques. Grants are awarded on a quarterly basis, with the next deadline for application August 1, 2012.

<http://corporate.honda.com/america/philanthropy.aspx?id=ahf>

Angel Oak Fund Prize

The Angel Oak Fund offers startups seed stage funding in a variety of forms, including grants, equity investments, and more. Students who completed a degree in the past two years are eligible. An emphasis is placed on profitable startups that have a measurable social or environmental impact. The deadline for application is August 9, 2012.

<http://www.changemakers.com/partners/angeloak>

Audubon Magazine Photography Awards

Submit your photos to the annual Audubon Magazine Photography Awards. Note that there may be a cost for entry. The deadline for entry is September 5, 2012.

<http://audubonmagazinephotoawards.org/>

CNN Heroes

Nominate a CNN Hero – an everyday person changing the world. Categories include Defending the Planet, Community Crusader, and more. The deadline for nomination is August 31, 2012.

<http://www.cnn.com/SPECIALS/cnn.heroes/2012.nom/>

Preparedness Awards

The Federal Emergency Management Agency offers Individual and Community Preparedness Awards to recognize outstanding individuals, organizations, Citizen Corps Councils, and programs working to make communities safer, stronger, and better prepared for any disaster or emergency event. Categories include Promising Partnerships, Innovative Use of Technology, and more. The deadline for submission is July 31, 2012.

<http://www.citizencorps.gov/newsevents/awards/2012/2012app.shtm>

Conservation, Management and Sustainable Use of Coastal and Marine Protected Areas in the Mesoamerican Reef

The overall objective of this initiative is to support conservation, effective management, and sustainable use of coastal and marine protected areas within the Mesoamerican

Reef system, through grants to eligible managers and stakeholders operating in the region. The deadline for submission is September 10, 2012.

http://www.marfund.org/en/new_projects/requestforproposals2a.html

Earth Science Week Contests

The goal of Earth Science Week, October 14-20, 2012, conducted annually by the American Geological Institute in partnership with other sponsors, is to encourage students, educators, and the public to explore the natural world and learn about geosciences. Contests include a photography contest – Earth Science is a Big Job; a visual arts contest – Imagine Me, an Earth Scientist; and an essay contest – Geoscientists Working Together. The deadlines for entry are October 19, 2012.

<http://www.earthsciweek.org/contests/>

EECapacity State Consortia Grants

The EECapacity Project announces a Call for Applications for Year 2 of the State Consortia grants. Up to five states can receive funding to develop capacity building and networking for EE and related practitioners within their state. Each state consortium must include at least 20 educators representing a diversity of organizations such as community based groups, government nature preserves, and others that are committed to learning from each other, exchanging perspectives, and participating in a series of workshops and online learning opportunities for a period of one year or longer. A webinar will be held July 27, 2012. The deadline for application is August 12, 2012.

<http://www.eecapacity.net/call-for-applications-for-eecapacity-state-consortia-grants.html>

Fulbright U.S. Scholar Core Program

The Fulbright U.S. Scholar Core Program offers teaching, research, or combined teaching/research awards in environmental studies and other disciplines. The deadline for application is August 1, 2012.

http://www.cies.org/us_scholars/us_awards/

GenerationOn Community Action Heroes Grants

GenerationOn's Action Heroes who pledge to be a hero for the environment, community preparedness, or other causes, and report back on the project are eligible to receive a grant to continue their project. The deadline for entry is August 20, 2012.

<http://communityactionheroes.generationon.org/>

Gulf B-WET Funding

The National Marine Fisheries Service Southeast Region is now seeking proposals under the Gulf of Mexico NOAA Bay-Watershed Education and Training (Gulf B-WET) Program. The program promotes locally relevant, experiential learning in the K-12 environment. Funded projects provide meaningful watershed educational experiences for students, related professional development for teachers, and help to support regional education and environmental priorities in the Gulf of Mexico. The deadline for application is October 19, 2012.

<http://sero.nmfs.noaa.gov/outreach/pdfs/NOAA-NMFS-SE-2013-2003461%20FFO%20Report.pdf>

Harris Wofford Awards

The Harris Wofford Youth Award is given to a young person (ages 5 -25) who demonstrates exemplary commitment and action to involve his or her peers in service, youth voice, service-learning, or civic engagement activities. The Harris Wofford Young

Educator Award recognizes an extraordinary young teacher (ages 25 or younger) and his/her achievements and contributions towards enhancing the practice of high-quality service-learning. Hurry - the deadline for nominations is July 22, 2012.

<http://www.ysa.org/grants/harris-wofford-award-youth>

John Muir Conservation Award

The John Muir Association is accepting applications for the John Muir Conservation Award in four categories: Conservationist of the Year, Environmental Education Conservation Award, Nonprofit or Public Agency Conservation Award, and the Business Conservation Award. The deadline for nominations is August 1, 2012.

<http://www.johnmuirassociation.org/php/conserv-award-submitnom.php>

Melinda Gray Ardia Environmental Foundation Grants

K-12 teachers are invited to apply for grants to develop or implement environmental curricula that integrate hands-on ecology exercises into the classroom. To facilitate learning and student empowerment, environmental curricula should be holistic and strive to synthesize multiple levels of learning (facts, concepts, and principles), often including experiential integrated learning and problem solving. The deadline for pre-proposals is September 23, 2012.

<http://www.mgaef.org/grants.html>

NAAEE Awards

The North American Association for Environmental Education (NAAEE) Awards Committee announces the call for nominations for the 2012 NAAEE Awards. NAAEE members recognize individuals and organizations that excel in environmental education by presenting annual awards in different categories, including the following.

- The Walter E. Jeske Award for service to NAAEE and leadership within the field of environmental education
- Outstanding Service to Environmental Education by an Organization
- K-12 Educator of the Year Award

See the website for full details of these and other awards. The deadline for application is July 31, 2012.

<http://www.naaee.net/programs/awards>

NAAEE EE Career Video Contest

NAAEE video contest entries should show the diversity of people working every day as environmental education professionals committed to protecting the Earth. Video stories are needed to tell students about the infinite careers that make up the environmental education profession and the many career paths that bring them into the EE family. The deadline for submission is July 31, 2012.

<http://www.naaee.net/careervideocontest>

National Marine Sanctuaries Classic Contest

The Classic is a free summer-long fishing and photo contest featuring photos taken in National Marine Sanctuaries. Weekly prizes and four scholarships will be awarded based on how well photos show all or a combination of: Kids Fishing, Kids and Family Values, Kids in the Outdoors, Kids in the Sanctuaries and Kids' Conservation. The deadline for entry each week is noon on Monday. The contest ends September 3, 2012.

<http://sanctuaryclassic.org/>

National Trails Award

The National Trails Awards recognize the contributions of volunteers, professionals, and other leaders who are working to create a national system of trails. The awards are for actions that took place during the period between June 1, 2010-September 30, 2012.

The deadline for nomination is October 31, 2012.

<http://www.americantrails.org/2013/awards.html>

Nature Conservancy Photo Contest

The Nature Conservancy seeks photos for its annual digital photography contest celebrating the diversity of life on Earth. The deadline for submission is September 16, 2012.

<http://my.nature.org/photography/>

NSTA New Science Teacher Academy Fellowships

NSTA fellowships offer grades 6-12 teachers in their second or third years of teaching a year-long immersion in a host of science-related activities and professional development opportunities. The deadline for application has been extended, and is now August 24, 2012.

<http://www.nsta.org/academy/>

Professional Science Master's Fellowship

The University of Maryland Eastern Shore offers an online Professional Science Master's Degree Programs in either Quantitative Fisheries or Resource Economics with a concentration in Fisheries. Full scholarships are available with a paid stipend to qualifying students. This two-year program is sponsored by the National Science Foundation.

<http://www.umes.edu/psm/Default.aspx?id=30892>

Project Learning Tree GreenWorks! Grants

These student-driven projects enable students to take what they learn in the classroom and apply it to the real world. The GreenWorks! program is open to any Project Learning Tree-trained educator in the U.S. The deadline for application is September 30, 2012.

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

Rivers, Trails, and Conservation Assistance Program

The National Park Service provides up to two years of staff assistance to locally-led natural resource conservation and outdoor recreation projects through the Rivers, Trails, and Conservation Assistance (RTCA) Program. RTCA staff work in communities to help applicants conserve rivers; preserve natural areas; and develop trails, greenways, and blueways. Staff help with partnership-building to achieve community-set goals, organizational development, and more. Applicants are encouraged to discuss their project with RTCA staff before sending in an application; check the website for local contact information. The next deadline for application is August 1, 2012.

http://www.nps.gov/ncrc/programs/rtca/contactus/cu_apply.html

Science Project Ideas Competition

This contest, sponsored by the Entomological Foundation, seeks K-12 entomology science project ideas. The goal is to develop an interest and understanding of scientific laws and principles that underlie the natural world. Any project ideas that relate to insects, spiders, or related arthropods are welcome. Entries from K-12 educators and

student entomology clubs are especially welcome. The deadline for entry is August 31, 2012.

<http://www.entfdn.org/projectcontest.php>

Siemens Competition in Math, Science and Technology

This competition, a partnership between the College Board and the Siemens Foundation, encourages students to undertake individual or team research projects that foster intensive research and improves their understanding of the value of scientific study, and informs their consideration of future careers in these disciplines. The deadline for entry is October 1, 2012.

<http://siemens.collegeboard.org/>

State Farm Good Neighbor Student Achievement Grants

The State Farm Companies Foundation, through Youth Service America, offers grants to enhance student achievement through service-learning in K-12 public schools. The grant engages participating teachers and students in a service and learning program that promotes academic achievement, workplace readiness, and stronger communities.

Note: the grant requires a 12-14 week Semester of Service™. The deadline for application is July 31, 2012.

<http://www.ysa.org/goodneighbor>

The Ocean Project's Small Grant Program

The third round of The Ocean Project's Small Grant Program RFP is now open. Grants are available to zoos, aquariums, and museums for demonstration projects that best integrate and test The Ocean Project's market research findings. Successful projects would clearly enhance meaningful participation in conservation action by youth and/or minorities. The deadline for application is September 1, 2012.

<http://theoceanproject.org/communication-resources/market-research/request-for-proposals/>

Toshiba America Foundation Grants

Toshiba America Foundation Grants support innovative projects designed by math and science teachers to make their own classrooms more exciting and successful for students. The deadline for application Grade 6-12 large grant requests is August 1, 2012; for Grades K-5, October 1, 2012.

<http://www.toshiba.com/taf/>

Why “Water Is Worth It” Video Project

The U.S. Environmental Protection Agency seeks 15-second video clips about the important role that water plays in life, to help commemorate the 40th anniversary of the Clean Water Act. Each video should include the phrase “Water Is Worth It.” The deadline for entry is September 14, 2012.

<http://water.epa.gov/action/cleanwater40c/video-project.cfm>

CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT

Advanced Invasive Field Course – Great Lakes

The Inland Seas Education Association will host a free Advanced Invasive Field Course, August 5-9, 2012 on northern Lake Michigan. Applicants will live aboard the 77'

schooner *Inland Seas* as they sail between Sault Ste. Marie, and Petoskey, Michigan while conducting hands-on research, crewing the vessel, discussing relevant scientific literature, and participating in evening shore-side activities. The course is limited to ten individuals. The deadline for application is July 23, 2012.

Contact Dr. Timothy Davis at tdavis@schoolship.org

American Trails International Trails Symposium – Call for Presentations

The Call for Presentations is now open for the 2013 American Trails International Trails Symposium, April 14-17, 2013 near Phoenix, Arizona. The Symposium's theme is *Trails Lead Everywhere*. The deadline for submission is September 1, 2012.

<http://archive.constantcontact.com/fs044/1105067396951/archive/1110385414324.html>

Bays and Bayous Symposium – Call for Presentations

The 2012 Mississippi-Alabama Bays and Bayous Symposium, November 14-15, 2012 in Biloxi, Mississippi seeks presentations on climate and hazard resilience, Deepwater Horizon Oil Spill science, habitat management and restoration, living estuarine resources, and water quality and quantity. The deadline for submission is September 1, 2012.

<http://masgc.org/page.asp?id=776>

Chesapeake Classrooms Summer Courses – Chesapeake Bay

Join the Chesapeake Bay Foundation for a five-day adventure on the Bay or one of its tributaries in July or August, 2012. Teachers can earn recertification or graduate credit while they learn how to integrate the environment into their classroom and help students achieve success as environmentally literate leaders. There are courses in Maryland, Pennsylvania, Virginia, and Washington, D.C. See the website for complete details.

<http://www.cbf.org/page.aspx?pid=318>

EARTH Satellite Workshop – North Carolina

EARTH (Education and Research: Testing Hypotheses) provides teachers with means for accessing real-time data and integrating it with existing educational standards and tested curriculum through interactive and engaging activities. EARTH uses near-real-time data from ocean observatories to design and test outreach with the Internet as an interface to scientists, teachers, students, and the public. Sign up for a free workshop with the North Carolina Aquarium, August 15, 2012 in Pine Knoll Shores.

Contact Miriam Sutton at miriam.sutton@carteretk12.org

<http://www.mbari.org/earth/>

Earth Science in the Polar Regions - Online

This class from PolarTREC, July 30-August 15, 2012, will address earth sciences and climate change in the polar regions with a focus on geology, glaciology, limnology and the use of technology in polar science. Participants will utilize journals, live events, and other resources through PolarTREC. The deadline for registration is July 25, 2012.

<http://www.polartrec.com/teachers/online-course>

ESRI User Conference - California

The ESRI User Conference, July 23-27, 2012 in San Diego, California, will host a multitude of presentations on different subjects. Check out the Industry-Specific Agendas, including Oceans; Environmental management; Parks, natural reserves, fisheries, and wildlife; and more.

<http://www.esri.com/events/user-conference/agenda/industry-specific-agendas.html>

George Wright Society Conference Call for Proposals

The 2013 George Wright Society Conference on Parks, Protected Areas, and Cultural Sites, March 11-15, 2013 in Denver, Colorado, is now accepting abstracts on the theme, *Protected areas in a changing world*. The deadline for submission is October 1, 2012. <http://www.georgewright.org/gws2013>

Giovanni Workshop - Online

In September 2012, the NASA Goddard Earth Science Data and Information Services Center will host an online workshop focused on the use of the data visualization and analysis tool, Giovanni. The workshop will be organized around four main themes: Earth system research utilizing Giovanni; Giovanni applications (air quality, disaster management, environmental monitoring, etc.); planned and desired augmentation of Giovanni; and educational use of Giovanni. The workshop will primarily consist of online author-led presentations coupled with real-time discussions about these presentations. Presentations and chat logs will be available online for review, for those not able to participate in live sessions.

<http://www.smdeponews.org/programs-events/2012-gregory-g-leptoukh-online-giovanni-workshop-for-scientists-high-school-and-undergrad-educators-sept-2012/>

IPMEN 2012

The International Pacific Marine Educators Network (IPMEN) will hold its fourth biennial conference November 26–December 3, 2012 in Santiago, Chile. The theme for IPMEN 2012 is “Un Gran Océano, Muchos Sueños” (One Big Ocean, Many Dreams), with a focus on achieving sustainability in the Pacific via education centered on the ocean and Ocean Literacy. The motivation is the establishment of marine education in Chile as a case study for other Latin American nations. Check the website late July for the call for papers. A limited number of travel scholarships will be available for NMEA members. The conference will also include the opportunity for virtual participation via real-time web delivered presentations. Check out the webcast archives from previous conferences.

<http://www.coexploration.com/ipmen/>
<http://ipmenchile.wp2.coexploration.org/>

NAAEE Conference

The NAAEE 41st Annual Conference, October 10-13, 2012 will take place along with the 9th Annual Research Symposium, October 9-10, 2012, in Oakland California. The conference offers hundreds of presentations that explore the practice and profession of environmental education. The earlybird deadline for registration is August 15, 2012.

<http://www.naaee.net/conference/registration>

Ocean Exploration Workshops – California and Virginia

NOAA's Ocean Exploration Program and partners offer the Okeanos Explorer Education Materials Collection, Volume 1: Why Do We Explore? Professional Development Workshop for Educators. Participants will receive curriculum with CD-ROM's, certificates of participation, and more. Contact the noted educator or check out the website for registration and more information.

- August 11, 2012 with Birch Aquarium at Scripps in San Diego, California. The deadline for registration is July 27, 2012. Contact Adrienne Marriott at Creec9a@hotmail.com

- August 11, 2012 with Nauticus, The National Maritime Center in Norfolk, Virginia. The deadline for registration is July 27, 2012. Contact Jennifer Kodolitsch at jennifer.tabor@norfolk.gov
<http://oceanexplorer.noaa.gov/edu/development/development.html>

Rutgers Ocean Days – New Jersey

Bring your students (grades 3-12) to Rutgers University to celebrate their knowledge of ocean science, learn from other New Jersey students, and experience ocean science research. The free events, April 9-11, 2013, asks students to investigate a component of the ocean and think about how it relates to their lives. Participating teachers should attend the professional development workshop on October 13, 2012 in New Brunswick, New Jersey. The deadline for registration is September 28, 2012.

<http://coseenow.net/mare/opportunities-resources/ocean-day/>

STREAM Citizen Journalism Institute – South Carolina

EarthEcho International will host a STREAM Citizen Journalism Institute for middle and high school educators, from July 23-25, 2012 in Charleston, South Carolina. The institute kicks off a year-long program which gets students involved in environmental journalism, service learning, and more.

<http://earthecho.org/programs/stream/stream-citizen-journalism-institute/>

Using Social Media to Promote Programs and Ideas - Online

NAAEE is hosting this Social Media 101 Webinar for those starting out or needing new tips on how to use Facebook and Twitter, July 23, 2012. Social media can help increase your organization's effectiveness and help meet your goals of engaging your members, supporters, and target audiences.

<https://naaee.webex.com/naaee/onstage/q.php?t=a&d=668985869>

EDUCATIONAL RESOURCES

Aquarius Reef Base Mission

Follow along July 16-21, 2012 as a dedicated IMAX and digital media team from One World One Ocean produces live programming direct from the undersea habitat. Scientists will investigate the biology of corals and sponges on the reef, while one of the behind-the-scenes stories will explore what it's like to spend a week 60 ft below the surface. This marks the last scheduled mission to Aquarius, located in the Florida Keys National Marine Sanctuary; Aquarius is scheduled for closure due to budget cuts.

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

Battle of Midway

The U.S. Fish & Wildlife Service and Papahānaumokuākea Marine National Monument support this website as part of the memorial activities on Midway Atoll observing the 70th anniversary of the Battle of Midway. The website was unveiled alongside the new Battle of Midway exhibit in Midway Atoll's Visitor Center, providing an innovative interface for exploring history and images from the battle, as well as an overview of current research in the archaeology of World War II-era sites in the national monument. The website shares the story of the battle through a timeline, images, stories, and maps, and hopes to inspire visitors to write and share their own stories and experiences of the event.

<http://www.pmnmims.org/battlemidway>

Benthic Ecology Webinars

COSEE Ocean Systems offers this new series of free, archived, online webinars, *Beneath the Surface – Explorations in Benthic Ecology*. The three-part series focuses on the ecological role and behaviors of benthic organisms; the impact from human activities on benthic systems; and the role of injury on feeding, sediment reworking, and the ecosystem as a whole. The archives include the webinar video, resources, and activities.

<http://cosee.umaine.edu/programs/webinars/benthic/>

Biomes and Ecosystems

The National Earth Science Teachers Association's *Windows to the Universe* biomes and ecosystems, offers an interactive map to explore various biomes and learn about the natural history and current conditions in the dry steppes, alpine tundra, and other biomes. Each section contains photographs and a narrative essay that describes key features of each biome.

<http://www.windows2universe.org/earth/ecosystems.html>

British Ecological Society Teaching Resources

This website from the British Ecological Society offers a variety of teaching resources, including downloadable wall charts, lessons, links to virtual field trips, and more. Check out the Pond Resources, including *Using Keys*, a *Beginner's Guide to Pond Dipping*, and more. Fieldwork offers the downloadable *A Guide to Fieldwork for Youth Expeditions*, *Top Tips* for schools to engage with biodiversity, *Virtual Tours to Rocky Shores and Sand Dunes*, and more.

<http://www.britishecologicalsociety.org/educational/index.php>

Cape Cod National Seashore

The Cape Cod National Seashore website includes sections on *History & Culture*, *Photos & Multimedia*, and *For Teachers*. Check out the lesson plans on whaling, *History Keepers*, and more.

<http://www.nps.gov/caco/index.htm>

Climate Change Education eBook

Climate Change Education: A Primer for Zoos and Aquariums, explores the links between climate change science, electronic media, psychology, learning sciences, communication, and interpretation, and provides insights to zoos and aquariums and other cultural institutions. The book may be downloaded from the website for free.

<http://clizen.org/e-book.html>

Climate Change: Lines of Evidence

The National Research Council has released a video series to make current climate knowledge easier to understand. The videos discuss solar influence, natural cycles, increased emissions, and greenhouse gases. The website also offers a downloadable booklet to accompany the series.

<http://nas-sites.org/americasclimatechoices/summaries-and-videos-from-the-acc-series/climate-change-lines-of-evidence-videos>

Climate Communication

Climate Communication is a project of the Aspen Global Change Institute, a nonprofit organization dedicated to furthering the scientific understanding of Earth systems and global environmental change. The *Climate Communication* website aims to simplify

climate questions with plain-language answers to what's happening to the climate, how it will affect us, and what people can do about it.

<http://climatecommunication.org/>

Coastal and Marine Ecological Classification Standard

The Coastal and Marine Ecological Classification Standard provides a comprehensive national framework for organizing information about coasts and oceans and their living systems. This information includes the physical, biological, and chemical data that are collectively used to define coastal and marine ecosystems. This allows local, state, federal, and international entities to make comparisons among data collected from different sources and in different locations.

<http://www.csc.noaa.gov/digitalcoast/publications/cmecs>

Coral Bleaching Predictions

NOAA's Coral Reef Watch offers predictions of mass coral bleaching, providing the probability of bleaching up to four months into the future, with a global seasonal outlook system using sea surface temperature forecasts from NOAA's operational climate forecast system. The high-resolution 5 km suite includes sea surface temperature (SST), SST Anomaly, Coral Bleaching HotSpots, Degree Heating Weeks, and Bleaching Alert Area products.

<http://coralreefwatch.noaa.gov/satellite/bleaching5km/index.html>

Coral Reef Studies

The Australian Research Council's ARC Centre of Excellence for Coral Reef Studies is a partnership of James Cook University, the Australian Institute of Marine Science, The Australian National University, the Great Barrier Reef Marine Park Authority, and The University of Queensland. The website includes links to hundreds of coral-related publications, many with full text available. The educational resources include webinars, videos, educational booklets, and much more. Other resources include additional links to materials for primary and high school students, coral reef resources, image collections, and more. If you haven't visited the website recently, stop by, as new materials are added often.

<http://www.coralcoe.org.au/index.html>

Earth Science Week

Earth Science Week, October 14-20, 2012, encourages people to explore the natural world and learn about the geosciences. The theme for 2012 is *Discovering Careers in the Earth Science*. Check out the online resources, contests, and more.

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

Education on Energy and the Environment

The Newton Marasco Foundation offers the downloadable kit, Education on Energy and the Environment with quiz-show format games that focus on the environment and stewardship. The materials include instructions, tips, and evaluation forms for ecoSense and ecoLogic games; PowerPoint game with notes (includes the questions and answers with additional information, discussion questions, and references); a scorecard; and a spreadsheet with a list and links to additional environmental education resources. Materials are available for different grade levels.

<http://www.newtonmarascofoundation.org/teach/classroom-games-toolkit/>

Educationalist.net

Educationalist.net is billed as a catalog of environmental and conservation education organizations, programs, and events. It offers links to environmental education, conservation education, nature interpretation, and other programs that offer resources to the K-12 audience relating to the environment or natural systems. Check it out and add your resources to the list.

<http://educationalist.net/>

Endangered Species Interactive Map

The U. S. Fish and Wildlife Service Endangered Species Program has launched a web-based interactive map with information about endangered species success in every state: stories of species making strides towards recovery, audio interviews and podcasts with biologists about on-the-ground endangered species conservation, and more. Check out the audio interviews; they offer more depth than a simple sound bite.

<http://www.fws.gov/endangered/map/index.html>

Free VHS Tapes

Flower Garden Banks National Marine Sanctuary has VHS copies of Reef Rendezvous (unnarrated highlights from the sanctuary), along with several other titles. The tapes will be given away on a first come, first served basis.

Contact Shelley.DuPuy at Shelley.DuPuy@noaa.gov

GCCA Workshops

The Global Climate Change Alliance (GCCA) website hosts training materials and presentations from its workshops, held in the Caribbean, Pacific, and elsewhere. The workshops offer training on mainstreaming climate change into national development planning and budgeting.

http://www.gcca.eu/pages/40_2-The-Workshops.html

Historical Shoreline Survey Viewer

NOAA's Historical Shoreline Survey Viewer offers visitors access to a large number of historical shoreline surveys conducted by NOAA and its predecessor organizations. About 7,800 surveys—the earliest dating back to 1841—are available for viewing in Google Earth. In addition to overlaying a scanned image of the survey in Google Earth, the viewer provides links to download the original scan and metadata, a descriptive report compiled by the survey team, and more.

<http://specialprojects.nos.noaa.gov/tools/shorelinesurvey.html>

ICRS 2012

The 12th International Coral Reef Symposium was held July 9-13, 2012 in Cairns, Queensland, Australia. The proceedings, plenary talks, and more are available for downloading or viewing on the website.

<http://www.icrs2012.com/>

Marine World Heritage App

This new free itunes app allows users to learn about marine world heritage sites, view videos, and follow the work of UNESCO's World Heritage Marine Programme.

<http://itunes.apple.com/us/app/marine-world-heritage/id530961776?ls=1&mt=8>

Lophelia II 2012: Deepwater Platform Corals Expedition

NOAA's Office of Ocean Exploration and Research has launched Lophelia II 2012: Deepwater Platform Corals Expedition with daily logs, videos and images, lesson plans, an Ask an Explorer feature, and more. The expedition, July 12-23, 2012, is the final cruise in a four-year research mission to explore and study deepwater coral communities in the Gulf of Mexico. This cruise is the first dedicated scientific study of deep-sea corals on actively producing oil and gas platforms.

<http://oceanexplorer.noaa.gov/explorations/12lophelia/welcome.html>

MPAAtlas.org

Marine Conservation Institute and the Waitt Foundation provide this interactive tool to help users visualize the locations and coverage of over 8000 MPAs, drawing on datasets from the World Database on Protected Areas, NOAA's MPA Center, and other country- and regional-level data authorities, as well as research conducted by the Marine Conservation Institute. In addition to MPA boundaries and site management information, this dataset contains information on conservation measures.

<http://mpatlas.org/>

National Preservation Institute

The National Preservation Institute offers continuing education and professional training for those involved in the management, preservation, and stewardship of cultural heritage. The website offers information about scholarships, online resources, and professional development.

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

National Public Lands Day Manual

National Public Lands Day is September 29, 2012. This website offers a downloadable Manual for Site Managers with suggestions for choosing volunteer projects, resources needed by site managers, and more.

<http://www.publiclandsday.org/resources/site-manager-resources/manual-site-managers>

Ocean Community

Ocean Community is the National Ocean Council's portal for data, information, and tools to support people engaged in planning for the future of the ocean, our coasts, and the Great Lakes. The goal is to be a one-stop hub to support planners and to provide useful information to the public. Check out the federal data currently available, and join the forum to offer advice about additional resources needed.

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

Ocean Topics from WHOI

The Woods Hole Oceanographic Institution is dedicated to research and education to advance understanding of the ocean and its interaction with the Earth system, and to communicating this understanding for the benefit of society. This website offers information about a great number of ocean topics, including climate and ocean, coastal science, hazards, ocean life, and much more. Follow the interactive life cycle of a scallop, check out the ocean conveyor, and more. Make sure to check out the resources students and pdf archives of the Ocean Explorer Magazine.

<http://www.whoi.edu/main/ocean-topics>

Online Ocean Sciences Quiz

The NOSB (National Ocean Sciences Bowl), in partnership with MIT Sea Grant and with support from National Science Foundation, has created a free education tool to promote ocean literacy and engage students, teachers, and teams involved with the NOSB. Now everyone can compete from school or home with this online game which simulates the NOSB competition. In addition, players can comment on the questions or submit their own ocean science questions.

<http://osq.mit.edu/>

PBLU

PBLU is an online social network of educators learning and sharing how to do Project Based Learning. PBLU provides five free online two-week classes featuring Common Core aligned projects that teachers may customize and implement. Participants receive tips from an experienced PBL facilitator and feedback from the online community.

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

PolarTREC Season

The PolarTREC expedition season is in full swing. Teachers can be found in Alaska, Siberia, and Norway with scientists studying spiders, permafrost, tundra, climate change, and archaeology. Check out the learning resources, follow an expedition, connect with teachers in the field, and much more.

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

Rise and Shine: A Practical Guide for the Beginning Science Teacher

Rise and Shine provides a friendly support system that new science teachers can turn to. The book offers techniques for managing the classroom, maintaining discipline, and dealing with parents. It also covers topics unique to science teaching, such as setting up a laboratory, keeping the classroom safe, and initiating inquiry from the first day. The website offers additional useful resources that relate to the chapters including a shopping list, report card comments, and more.

<http://www.nsta.org/publications/press/extras/riseandshine10.aspx>

Spatial Thinking in the Geosciences

The Science Education Resource Center at Carleton College provides teaching activities, visualizations, and print and online references for educators who wish to incorporate spatial thinking into their classrooms. There are over 30 activities, including Earthquakes, Calculation of Stream Discharge, and more. Visualizations include seafloor topography, satellite images, and more.

<http://serc.carleton.edu/NAGTWorkshops/spatial/index.html>

STEM Blogs

NSTA's The STEM Classroom newsletter for June offers a short selection of blogs about STEM topics.

http://www.magnetmail.net/Actions/email_web_version.cfm?publish=newsletter&user_id=NSTA&message_id=2057575

Stormstruck

Stormstruck is a free game that lets players ratchet up home preparedness before they loose a storm of their own making. Users have the chance to see just what mitigation efforts worked and what didn't in storms of varying degree. It is available to play online or download as an app for the iPhone or iPad.

<http://itunes.apple.com/us/app/stormstruck-tale-two-homes/id497824475?mt=8>
<http://www.stormstruck.org/>

Sylvan Dell Books

Sylvan Dell creates books with math, science, or nature themes which are brought to life by art. Each book (in hardcover, paperback, and e-book format) includes a 3-6 page "For Creative Minds" section that includes fun facts, crafts, vocabulary, and games to reinforce the educational value. All books are aligned to State Science and Core Language Arts and Math Standards. They are further enhanced with online, supplemental resources including 40-60 page, cross-curricular Teaching Activities, Interactive Quizzes, and Related Websites pages for each title. You can preview each book, download the supplemental materials, and much more. Check out Ready, Set, Wait! What Animals Do Before a Hurricane; Turtles in My Sandbox; and many more. Materials are available in English and Spanish.

<http://www.sylvandellpublishing.com/index.php>

Teachers' Domain: Earth System, Structure, and Processes

The Teachers' Domain website brings together free media resources from a range of public television programs, including videos, lesson plans, and more. Categories include Natural Resources, Changes in the Earth, and more. Check out Drought and Air Quality, Anatomy of a Tsunami, Diatoms Measure Climate Change, and more.

http://www.teachersdomain.org/browse/?fq_hierarchy=k12.sci.ess.earthsys

Toolkit for Working with Rural Volunteers

The Toolkit for Working with Rural Volunteers shares approaches to volunteer recruitment, management, and retention that are successful in rural settings--places that don't have a Volunteer Coordinator or even a full-time Director. It also contains tools needed by rural organizations to build sustainable volunteer management infrastructure. The document can be downloaded from the website, or a printed copy can be ordered.

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

Two Minutes on Oceans

The United Nations Environment Programme (UNEP) is partnering with cartoonist Jim Toomey (of Sherman's Lagoon fame) in developing a series of six two-minute videos intended to raise awareness of the importance of oceans and the coastal environment. The videos use animation and humor to explain in clear and simple language the role oceans play in our lives and our very survival. The first video can be viewed on the website now, while others will be launched over the next six months.

<http://www.rona.unep.org/toomey/>

Using Games to Advance Coastal and Marine Management

The latest issue of *Marine Ecosystems and Management* Vol. 5, No. 6 offers an article on using games to advance coastal and marine management. Examples include SimIsle; Go Fish, No Fish; Trade-Off!; and more. Check these out.

www.meam.net

Using Photorealistic Visualizations

NOAA's Coastal Services Center offers the publication, *Using Photorealistic Visualizations*. The document introduces various types of visualizations, or simulated images, with a focus on photorealistic visualization. Topics include types of

visualizations, examples, things to consider when creating your own visualizations, and sharing visualizations with stakeholders.

<http://www.csc.noaa.gov/digitalcoast/publications/visualizations>

Utubersity Educational Videos

Utubersity organizes and displays educational videos from YouTube and other sites. Videos feature full-length lectures, documentaries, and conferences on subjects including biology, education, geology, oceanography, and more.

<http://utubersity.com/>

Virtual Vacationland

This website from Bigelow Labs helps you find and use web-based earth science data and information. Content is arranged by topic with land topography; bathymetry; coastal tides; ocean buoy data; ocean temperature; weather and climate; and watersheds and rivers. In addition to information about how to access the on-line data, each topic has background information, terminology, key questions, web links, images, and animations. There are also links to hands-on activities.

<http://www.bigelow.org/virtual/>

Writing at Colorado State University

The Colorado State University has a set of online resources designed to help people become better writers, organized within ten thematic guides. Though the guides deal primarily with writing in engineering, they include Communicating as an Engineer, Project Notebooks, Environmental Policy Statements, and others that would be appropriate for readers of this newsletter.

http://writing.colostate.edu/guides/index.cfm?guides_active=engineer&category1=41

INITIATIVES, JOURNALS, and MORE

Capacité

The Caribbean Natural Resources Institute (CANARI) now offers an English-language, online, quarterly newsletter, *Capacité*. The newsletter will highlight work in the region, share lessons learned and best practices, and more. Read about the Critical Ecosystem Partnership Fund, regional mentors, and more.

<http://canari.org/>

Management of Biological Invasions

Management of Biological Invasions is an open access, peer-reviewed, online journal focusing on experiences in the field of biological invasion management. It admits worldwide contributions on management of bio-invasions provided they may contribute to a better diffusion of technical and scientific ideas, approaches, and results throughout the world.

http://www.managementofbiologicalinvasions.net/index_archivos/Page298.htm

Sanctuary Exploration Center - California

The city of Santa Cruz and NOAA will host an opening ceremony, July 23, 2012 in Santa Cruz, California for the Monterey Bay National Marine Sanctuary Exploration Center. The hands-on center celebrates and educates about the Monterey Bay and its marine life with interactive exhibits, daily activities, and more.

<http://montereybay.noaa.gov/vc/sec/welcome.html>

Social NMEA

NMEA is charging ahead into social media with a facebook page and a Twitter account. Like them, check them out, join the conversation.

@NatlMarineEd

<https://www.facebook.com/NatlMarineEd>

The Ocean Project Market Research

The Ocean Project offers an update on their market research and outreach initiative. The latest round of market research, New Insights: Public Awareness and Opinion on Ocean Acidification, reveals the extent to which the issue of ocean acidification has yet to show up on the public radar. On a possibly brighter note, new data suggests online advertising could be the key to shifting conservation attitudes.

<http://theoceanproject.org/>