

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

**SEPTEMBER 2014**

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 or unsubscribe to this list, send information to include in the newsletter, or discuss further enhancements, please contact the editor directly at [phyllis.dermer@noaa.gov](mailto:phyllis.dermer@noaa.gov), or by phone at (865) 932-5074

Collected archives and issues of the newsletter, past and present, are available at <http://marineprotectedareas.noaa.gov/resources/education/>.

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## **PROGRAM OF THE MONTH**

### **NOAA Fisheries West Coast Region Education & Outreach**

These resources and lesson plans help teachers and students understand the role of the oceans, coasts, and atmosphere in the global. Explore them by grade level or by species. Units explore salmon, pinnipeds, cetaceans, and much more. Be sure to check out the links to additional resources.

<http://www.westcoast.fisheries.noaa.gov/education/index.html>

## **WEBSITES OF THE MONTH**

### **Coral Ecosystems**

The NOAA Education Resources portal has added a new resource collection, Coral Ecosystems. The materials include information about both shallow-water and deep-sea

coral ecosystems, the biology that sustains them, the food web, and threats to their survival such as climate change, ocean acidification, and pollution.

[http://www.education.noaa.gov/Marine\\_Life/Coral\\_Ecosystems.html](http://www.education.noaa.gov/Marine_Life/Coral_Ecosystems.html)

### **Northwest Invention Center**

The Northwest Invention Center helps educators by empowering creativity and innovation in the classroom. They offer workshops in innovation and inventive learning; traveling exhibits for museums, and more. The blog highlights hands-on activities, including balloon powered boats, puff cars, and much more. The newsletter features open-ended, hands-on STEM activities. Follow the blog, sign up for the newsletter, and more.

<http://www.invention-center.com/>

### **Real Climate: Data Sources**

Part of the Guardian Environment Network, this website hosts articles, links to data sources, and more about global climate. Links include raw or processed climate data, paleo reconstructions, models, and more. The "Start Here" button takes users to articles divided by level of expertise, from beginners to informed but in need of more detail.

<http://www.realclimate.org/index.php/data-sources/>

## **REQUESTS**

### **NOAA Coral Reef Watch Survey**

This survey requests feedback on the new suite of high-resolution Coral Reef Watch products which support monitoring and forecasting of coral bleaching due to high temperatures. The products, available on the websites below, provide finer spatial resolution with more data per pixel than the original products. The project evaluators are interested in feedback from the diving community, environmental organizations, educators, and others as to whether the materials will be useful and how the products might be improved. The first 200 respondents who provide their contact information will receive a \$5 Amazon certificate in appreciation. Hurry – the deadline for feedback is September 7, 2014.

[http://www.coralreefwatch.noaa.gov/satellite/product\\_exp.php](http://www.coralreefwatch.noaa.gov/satellite/product_exp.php)

<http://imars.marine.usf.edu/crw-dss/>

<https://www.surveymonkey.com/s/HighResolutionCRWFeedback>

## **GRANTS AND OPPORTUNITIES**

### **Charlotte Martin Foundation**

The Charlotte Martin Foundation supports wildlife and habitat through grants to protect and conserve ecosystems and their resident wildlife for the long term, with the aim of preserving biodiversity in the region of Washington, Oregon, Idaho, Montana, and Alaska. Additional areas of support include education and culture. The next deadline for application is September 30, 2014.

<http://www.charlottesmartin.org/programs.htm>

### **Climate Funding Opportunities**

NOAA has compiled a downloadable document listing Climate Funding Opportunities. It offers a snapshot of climate-related funding opportunities (as of July 2014). The next

version of this document will likely be available in Winter 2015; sign up to receive updates.

<https://adapt.nd.edu/resources/1366>

### **Domestic Coral Reef Conservation Grants**

The NOAA Coral Reef Conservation Program announces the Domestic (U.S.) Coral Reef Conservation Grants competition for FY15. The awards are intended to support coral reef conservation projects in shallow water coral reef ecosystems, including reefs at mesophotic depths, in American Samoa, the Commonwealth of the Northern Mariana Islands, Florida, Guam, Hawaii, Puerto Rico, the U.S. Virgin Islands, and coral-dominated banks in U.S. portions of the Gulf of Mexico. The deadline for submission is January 7, 2015. Search for CFDA number 11.482. Check out the other grants that might be available under this CFDA number.

<http://www.grants.gov/web/grants/search-grants.html>

### **Early Career Award for Public Engagement with Science**

The American Association for the Advancement of Science's Early Career Award for Public Engagement with Science recognizes early-career scientists and engineers who demonstrate excellence in their contribution to public engagement with science activities. The deadline for nomination is October 15, 2014.

<http://www.aaas.org/page/aaas-early-career-award-public-engagement-science>

### **Earth Science Week Contests**

The goal of Earth Science Week, October 12-18, 2014 - 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. With this year's theme, Earth's Connected Systems, contests include a photography contest – Connections in My Community; a visual arts contest – Earth's Connected Systems and Me; and an essay contest – Earth System Science in Today's World. The deadline for entry is October 17, 2014. Check out the NASA resources.

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

<http://nasaesw.strategies.org/>

### **EcoChallenge**

The EcoChallenge is a Northwest Earth Institute event that demonstrates the collective impact of many people making sustainable changes in their everyday lives. For two weeks every October, participants are challenged to change one habit for the Earth. Choose your challenge and connect with other EcoChallengers, and collectively, prove that small actions create real change. This year's EcoChallenge runs October 15-30, 2014.

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

### **Ecybermission Competition**

Ecybermission is a web-based math, science, and technology competition for students in grades 6-9. Students compete for regional and national awards while working to solve problems in their community. The challenges this year include the environment, alternative sources of energy, robotics, and more. The deadline for team registration is December 17, 2014.

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

### **Faces of Biology Photo Contest**

The American Institute of Biological Sciences is hosting the Faces of Biology Photo Contest for those 18 years old or older. Photographs must depict a person engaging in biological research – in any setting. The deadline for entry is September 30, 2014.

<http://www.aibs.org/public-programs/photocontest.html>

### **FameLab: Exploring Earth and Beyond**

FameLab: Exploring Earth and Beyond is a science communications competition allowing early career scientists from numerous disciplines the opportunity to show off their skills. Each contestant has three minutes to convey their research without the aid of slides and charts; hand-held props are acceptable. A panel of experts in both science and science communication will judge. See the website for complete details.

<http://famelab-eeb.arc.nasa.gov/>

### **Gulf of Mexico B-WET Funding Opportunity**

NOAA's Gulf of Mexico B-WET Program is now accepting applications for funding. The Gulf of Mexico B-WET program is an environmental education program that promotes locally relevant, experiential learning in the K-12 environment. Funded projects provide meaningful watershed educational experiences for students and 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 24, 2014.

[http://sero.nmfs.noaa.gov/outreach\\_education/gulf\\_b\\_wet/index.html](http://sero.nmfs.noaa.gov/outreach_education/gulf_b_wet/index.html)

### **International Student Carbon Footprint Challenge**

Teachers and others who work with high school students can participate in the International Student Carbon Footprint Challenge. The program helps students measure their own carbon footprint using a calculator designed specifically for students. The challenge runs September through October 2014. The deadline for enrollment is September 22, 2014.

<http://footprint.stanford.edu/>

### **Kids in Need Teacher Grants**

Kids In Need Teacher Grants provide K-12 educators with funding to provide learning opportunities for their students through innovative projects. Projects qualify for funding if they make creative use of common teaching aids, approach the curriculum from an imaginative angle, or tie nontraditional concepts together for the purpose of illustrating commonalities. The deadline for application is September 30, 2014.

<http://www.kinf.org/grants/>

### **Laura W. Bush Traveling Fellowship**

The State Department offers this award for travel around the world by young people who use education, natural sciences, social and human sciences, culture, and/or communication and information to build strong ties among nations. The fellowship is intended for American college students who have not been afforded many opportunities to travel abroad. See the website for eligibility requirements and additional details. The deadline for application is September 22, 2014.

<http://www.state.gov/p/io/unesco/programs/143138.htm>

### **Lowe's Toolbox for Education Grants**

The Lowe's Toolbox for Education offers grants to schools and parent/teacher groups. School projects should encourage parent involvement and build stronger community

ties; this grant cycle will focus on basic necessities. The next deadline for application is October 15, 2014.

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

### **National & International Trails Award**

The National & International Trails Awards recognize the contributions of volunteers, professionals, and others who are working for the betterment of trails. The deadline for nomination is September 15, 2014. Note that the American Trails International Trails Symposium will be held May 17-20, 2015 in Portland, Oregon.

[http://americantrails.org/ee/index.php/symposium/awards\\_2015](http://americantrails.org/ee/index.php/symposium/awards_2015)

### **NNOCCI Study Circle**

The National Network for Ocean Climate Change Interpretation is a collaborative effort to establish a national network of professionals skilled in communicating climate science to the American public. The study circle is a cross-disciplinary learning group made up of peers with expertise from fields of professional interpretation, climate and ocean sciences and communications, and cultural sciences. It is intended for pairs of staff members from informal learning centers such as zoos, aquariums, science centers, National Parks, natural preserves, and other institutions that have a focus on coastal or ocean issues. The deadline for application is September 19, 2014. See the website for complete details.

[http://support.neaq.org/site/PageNavigator/prof\\_devel\\_study\\_circle.html](http://support.neaq.org/site/PageNavigator/prof_devel_study_circle.html)

### **Service Learning Awards**

The National Youth Leadership Council and its partners present a number of awards honoring youth and adults for their commitment to education, service, community, and service-learning. The deadline for application is November 7, 2014.

[http://servicelearningconference.org/2015/get\\_involved/awards.php](http://servicelearningconference.org/2015/get_involved/awards.php)

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

NSF is now accepting nominations for the Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST). The award recognizes citizens and organizations that have demonstrated excellence in mentoring individuals from underrepresented groups in STEM (science, technology, engineering, and math) education and career paths. The deadline for nomination is October 3, 2014.

[http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=5473](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5473)

### **Pushing Boundaries Challenge**

The Pushing Boundaries Challenge highlights how young people, under 35 years of age, are using inspiring and innovative solutions to keep the world wild and protected. Entries can range from local to global in scope, encompassing diverse forms of protected areas, and will be evaluated by an international team of judges on impact, creativity, innovation, and the ability to be replicated. The deadline for submission is September 21, 2014.

<http://pushingboundaries.coalitionwild.org/challenge>

### **Save the Frogs Art and Poetry Contests**

The Save the Frogs Contest invites participants to create cool frog artwork or poetry. The contests raise awareness of the amphibian extinction problem. The deadlines for entry are October 15 and 17, 2014, respectively.

<http://www.savethefrogs.com/art/index.html>

<http://www.savethefrogs.com/poetry/index.html>

### **Shell Science Lab Challenge**

NSTA and Shell support NSTA's Shell Science Lab Challenge, a competition for middle and high school teachers that awards laboratory resources and other prizes to school districts nationwide. Entries will be judged on the basis of several criteria, including uniqueness, creativity, and a replicable approach. The deadline for submission is December 19, 2014.

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

### **Siemens Competition in Math, Science and Technology**

This competition encourages students to undertake individual or team research projects that foster intensive research and improve their understanding of the value of scientific study and informs their consideration of future careers in these disciplines. The deadline for submission is September 30, 2014.

<https://siemenscompetition.discoveryeducation.com/>

### **Spirit of Innovation Challenge**

The Conrad Foundation challenges youth ages 13-25 from around the globe to develop innovative products to help solve global and local problems while supporting global sustainability. The challenge matches participants with scientists, engineers, and entrepreneurs as mentors to assist with advanced academic and business principles. The deadline for entry is October 16, 2014.

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

### **Target Field Trip Grants**

The Target Field Trip Grants Program allows teachers to offer valuable experiential learning gained from field trips to enhance students' classroom studies. Funds may be used to cover cost of transportation, entry fees, supplies and equipment, and resource materials. The deadline for application is September 30, 2014.

<https://corporate.target.com/corporate-responsibility/grants/field-trip-grants>

### **Teens Teach Tech Grant**

The goal of this program is to help senior citizens feel comfortable with ever-evolving technology. The grants are provided to high school clubs including community service, National Honors Society, and computer clubs. The deadline for application is September 15, 2014.

<http://bit.ly/TeenTechGrant>

### **Water is Life Mural and Art Challenge**

The theme of the 2014 Wyland National Mural and Art Challenge is Ocean. Wyland Foundation and partners will provide grants of art supplies to K-12 schools in 100 cities for the challenge, so register early. The deadline for entry is November 25, 2014.

<http://www.wylandfoundation.org/artchallenge/>

### **Whitley Awards**

The Whitley Fund for Nature offers Whitley Awards to biodiversity conservation leaders working in countries or regions of which they are nationals and that are not defined as a high-income economy by the World Bank. The deadline for application is October 31, 2014.

<http://whitleyaward.org/2014/08/apply-now-for-the-whitley-awards-2015/>

## **FELLOWSHIPS, INTERNSHIPS, AND TEMPORARY OPPORTUNITIES**

### **California Sea Grant State Fellowship Program**

The State Fellows Program provides a unique educational opportunity for graduate students at California higher education institutions who are interested both in marine resources and in the policy decisions affecting those resources in California. The deadline for application is September 17, 2014.

<http://csgc.ucsd.edu/EDUCATION/STATEFELLOW/StateFellowRFA2014-15.html>

### **Einstein Fellowship**

The Albert Einstein Distinguished Educator Fellowship is a paid fellowship for K-12 math, science, and technology teachers. Einstein Fellows spend a school year in Washington, D.C. serving in a federal agency or on Capitol Hill. The deadline for application is November 20, 2014.

<http://science.energy.gov/wdts/einstein/>

### **Enabling the Next Generation of Hazards and Disasters Researchers Fellowship**

The NSF supports up to 20 fellows, early career tenure-track faculty who have not yet received tenure and promotion at a U.S. institution and who are interested in developing research in natural and man made hazards, risk, and disasters. The deadline for application is September 24, 2014.

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

### **Knowles Science Teaching Foundation Fellowships**

Knowles Science Teaching Foundation Fellowships are available in the areas of biology, mathematics, and physical sciences to individuals who demonstrate exceptional content knowledge in the area they intend to teach, a commitment to teaching high school in U.S. schools, professional ability, and the potential for leadership. The deadline for application is October 29, 2014.

<http://www.kstf.org/fellowships/>

### **Smith Postdoctoral Fellowship in Conservation Research**

The Society for Conservation Biology offers the two year post-doctoral David H. Smith Conservation Research Fellowship Program to enable early-career scientists to improve and expand their research skills while directing their efforts towards problems of pressing conservation concern for the United States. The deadline for application is September 12, 2014.

<http://www.conbio.org/mini-sites/smith-fellows/apply/proposal-guidelines#deadline>

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

### **Biodiversity and Climate Change**

The International Conference on Biodiversity and Climate Change will take place October 22-25, 2014 in Guadeloupe.

<http://guadeloupe2014.com/home/>

### **Climate Change Interpretation Study Circles**

The National Network for Ocean and Climate Change Interpretation is implementing a study circle for interpreters or communicators who focus on ocean or coastal issues. The deadline for application is September 19, 2014. See the website for complete details.

[http://support.neaq.org/site/PageNavigator/prof\\_devel\\_study\\_circle.html](http://support.neaq.org/site/PageNavigator/prof_devel_study_circle.html)

### **EETAP Courses - Online**

The University of Wisconsin-Stevens Point and the Environmental Education and Training Partnership (EETAP) offer the following online courses, October 6-November 19, 2014. Scholarships may be available. The deadline for registration is September 15, 2014.

- Needs Assessment in Environmental Education and Interpretation
- Environmental Education Teaching Strategies

Check the website for additional programs. Be sure to bookmark the website for future courses.

<http://www.uwsp.edu/natres/eetap/index.aspx>

### **Environmental Communications Planning - Online**

Check out the Duke Environmental Leadership Program's Environmental Communications Planning professional short course, September 22-October 31, 2014. Scholarship funding for the course may be available for teachers and educators who reach a K-12 audience through the Coca-Cola Advancement in Teaching in the Environment Scholarship (CATES).

<http://nicholas.duke.edu/del/environmental-communications-planning>

<http://nicholas.duke.edu/del/cates-program>

### **George Wright Society Conference Call for Proposals**

The 2015 George Wright Society Conference, March 29–April 2, 2014 in Oakland, California, is now accepting proposals for sessions, papers, posters, and exhibits. The theme for 2015 is Engagement, Education, and Expectations: The Future of Parks and Protected Areas. The deadline for submission is October 1, 2014.

<http://www.georgewright.org/gws2015>

### **Gulf of Mexico Oil Spill and Ecosystem Science Conference**

The 2015 Gulf of Mexico Oil Spill and Ecosystem Science Conference, February 16-19, 2015 in Houston, Texas, announces the Call for Abstracts. The goal of the conference is to highlight oil spill and ecosystem science research results with a focus on the five years since the Deepwater Horizon oil spill. This year's conference will seek to answer the questions "What have we learned, what does it mean and how can it be used?" with an emphasis on the impact of the research and application of published research findings. The deadline for abstract submission is October 3, 2014.

<http://www.cvent.com/events/2015-oil-spill-and-ecosystem-science-conference/event-summary-f8e7997d3673455e8ae8ebd03a854af1.aspx>

### **NASA Educator Professional Development Webinars - Online**

NASA Educator Professional Development presents a series of free webinars open to all educators. Upcoming webinars include Earth System Science Series: Part 1-Weather Vs. Climate, Earth System Science Series: Part 2-Remote Sensing, and more.

<https://events->

[na11.adobeconnect.com/content/connect/c1/1088539485/en/events/catalog.html](https://events-na11.adobeconnect.com/content/connect/c1/1088539485/en/events/catalog.html)

### **Ocean Exploration Workshops – Various**

NOAA's Ocean Exploration Program and partners offer the Okeanos Explorer Education Materials Collection Why Do We Explore? Professional Development Workshops 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.

- October 25, 2014 with New England Aquarium in Boston, Massachusetts. The deadline for registration is October 3, 2014. Contact Tania Slywinskyj at [tslywinskyj@neaq.org](mailto:tslywinskyj@neaq.org)
- November 1, 2014 with Aquarium of the Pacific in Long Beach, California. The deadline for registration is October 10, 2014. Contact Staci Wong at [swong@lbaop.org](mailto:swong@lbaop.org)
- November 8, 2014 with South Carolina Aquarium, Charleston in South Carolina. The deadline for registration is October 17, 2014. Contact Jaime Thom at [jthom@scaquarium.org](mailto:jthom@scaquarium.org)
- November 15, 2014 with John G. Shedd Aquarium in Chicago, Illinois. The deadline for registration is October 24, 2014. Contact Jackie Formoso at [jformoso@sheddaquarium.org](mailto:jformoso@sheddaquarium.org)
- November 15, 2014 with the National Aquarium in Baltimore, Maryland. The deadline for registration is October 24, 2014. Contact David Christopher at [dchristopher@aqua.org](mailto:dchristopher@aqua.org)
- November 15, 2014 with the North Carolina Aquarium at Pine Knoll Shores in Pine Knoll Shores, North Carolina. The deadline for registration is October 24, 2014. Contact Pam Pittman at [pamela.pittman@ncaquariums.com](mailto:pamela.pittman@ncaquariums.com)

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

### **SCUTES Educator Workshop - Virginia**

Participants in the SCUTES (Students Collaborating to Undertake Tracking Efforts for Sturgeon) educator workshop, September 13, 2014 in Chester, Virginia, will learn about the sturgeon species in the area and the educational kits that are available to use in classrooms. Registration fees include a one year membership with the Mid-Atlantic Marine Educators Association (MAMEA). Hurry – the deadline for registration is September 5, 2014. The website has a link to the lesson plans and activities.

<http://www.mamea.org/vamini2014.html>

### **Texas Estuarine Resource Network - Texas**

The Coastal Program is launching a new citizen science program called Texas Estuarine Resource Network (T.E.R.N.) to collect data on colonial waterbird species. A free workshop will introduce the program, discuss the value of data collection to scientists, provide an overview of the waterbird species and feeding behaviors, and teach participants how to conduct monitoring and fill out survey sheets.

Contact Kari Howard at [khoward@audubon.org](mailto:khoward@audubon.org)

## **EDUCATIONAL RESOURCES**

### **Balance in the Bay**

This activity from the Voices of the Bay module from NOAA's National Marine Sanctuaries explores how population dynamics, environmental variability, and fishing regulations relate. Students take part in a simulated fishery, harvesting California

Market Squid. Student groups take on various roles in a simulated fishing community, making decisions while also facing a range of natural and man-made challenges. The online materials include standards, resources, evaluation materials, and more.  
<http://sanctuaries.noaa.gov/education/voicesofthebay/teachingmaterials/balance.html>

### **Blue Ocean Film Festival Finalists**

The BLUE Ocean film competition finalists have been selected. Check out the trailers in categories such as animation, cinematography, conservation innovation and solutions, and much more. All finalists will be screened during the Blue Ocean Film Festival, November 3-9, 2014 in Saint Petersburg, Florida.  
[http://www.blueoceanfilmfestival.org/2014\\_film\\_finalist\\_3.htm](http://www.blueoceanfilmfestival.org/2014_film_finalist_3.htm)

### **Blue Planet: Introduction to Oceanography**

In this course, Professor Edwin Schauble offers 27 free video lectures on Introduction to Oceanography. The class provides a general introduction to geological, physical, chemical, and biological processes and history of Earth's global oceanic system.  
<http://www.cosmolearning.com/courses/blue-planet-introduction-to-oceanography-290/>

### **California Academy of Sciences**

The California Academy of Sciences offers resources for the classroom, including lesson plans and activities, classroom kits to borrow, and more. The website has links to the free iTunes University Earthquake course; downloadable educator guides on topics including the Water Planet and California Coast; and more.  
<http://www.calacademy.org/teachers/>

### **Cetacean/Right Whale Curriculum**

The University of Florida hosts a fourth grade cetacean/right whale curriculum, developed in cooperation with NOAA Fisheries and Sea Grant. Be sure to check out the rest of the education resource links, including a manatee curriculum and more.  
<http://stjohns.ifas.ufl.edu/sea/rightwhalecurriculum.html>

### **Climate Newsletter**

The Climate.gov newsletter is a weekly recap of what's been added to or featured on Climate.gov in each of the major sections: News & Features, Teaching Climate, Maps & Data, and Supporting Decisions.  
<http://bit.ly/1uPyfZ2>

### **Coral Ecosystem Connectivity Expedition 2014: Pulley Ridge to the Florida Keys**

From August 14-28, 2014, ocean explorers investigated relationships between shallow water coral reefs and deeper, twilight zone (mesophotic) coral reef ecosystems of the southwest coast of Florida. Follow along with this continuing, multi-year exploration through the mission logs, educational resources, and more.  
<http://oceanexplorer.noaa.gov/explorations/14pulleyridge/welcome.html>

### **CosmoLearning**

CosmoLearning is an educational website committed to improving the quality of homeschooling, teaching, and student excellence. Designed for educators and self-learners and organized according to traditional curriculum standards, CosmoLearning provides courses, video lectures, documentaries, images, books, and other multimedia. Subjects include Environmental Science, Geology, and much more.  
<http://www.cosmolearning.com/>

### **Education.com**

This website offers a variety of resources for school children, including worksheets, activities, games, and much more.

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

### **Exploring Atlantic Canyons and Seamounts 2014**

From August 9-August 30, 2014, NOAA Ship Okeanos Explorer conducted a mapping expedition in the North Atlantic in Veatch Canyon and along the New England Seamount chain. From September 4-October 7, 2014, scientists aboard the NOAA Ship Okeanos Explorer will explore the diversity of benthic habitats and features in this region. Read about the August mission and check back for upcoming details about the upcoming expedition.

<http://oceanexplorer.noaa.gov/okeanos/explorations/explorations.html>

### **FIRST LEGO League Challenge**

The FIRST LEGO League is a robotics program for 9-14 year olds designed to get children excited about science and technology and teach them employment and life skills. Each yearly challenge has three parts: the Robot Game, the Project, and the FLL Core Values. The 2014 Challenge Project mission is to find a better or more innovative way to help someone learn.

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

### **Future of Reefs in a Changing Environment**

The Future of Reefs in a Changing Environment (FORCE) research project takes an ecosystem approach, linking social and ecological aspects towards managing Caribbean coral reefs in the face of climate change. Much of the website is available in English or Spanish. Materials include Towards Reef Resilience and Sustainable Livelihoods: a handbook for Caribbean reef managers, Compendium of Management Measures, and more.

<http://www.force-project.eu/>

### **Galleries of Change**

NASA's Climate Kids presents eight galleries that show rapidly changing climate conditions on our planet. This visual tool offers the chance to explore climate change by highlighting key areas such as weather and climate, oceans, and more.

<http://climatekids.nasa.gov/search/gallery/>

### **G-WOW Changing Climate, Changing Culture**

The "Gikinoo'wizhiwe Onji Waaban" (Guiding for Tomorrow) or G-WOW Initiative is an approach to increasing awareness of how climate change is affecting Lake Superior's coastal environment, people, cultures, and economies. It integrates scientific climate change research with place-based evidence of how climate change is affecting traditional Ojibwe lifeways; brings Native perspectives and involvement to addressing issues of climate change by directly engaging Native communities, educators, and students; and provides learners with knowledge about what they can do to mitigate or adapt to a changing climate. Check this out.

<http://www.g-wow.org/en-us/default.aspx>

### **International Marine Conservation Congress**

Follow the OpenChannels blog from the International Marine Conservation Congress, held August 14-18, 2014 in Glasgow, Scotland. The blog combines notes from various IMCC sessions, comments from audience members, and more.

<http://openchannels.org/chat/imcc-2014>

### **Kids.gov**

Kids.gov is the official kids' portal for the U.S. government. The website links visitors to U.S. government information and services from government agencies, schools, and educational organizations, geared to the learning level and interest of kids. The mission is to provide a safe place online where kids can create, play, and learn. The website is organized into four audiences: Grades K-5, Grades 6-8, Teachers, and Parents, and is further divided by Learn Stuff, Play Games, and Watch Videos.

<http://kids.usa.gov/index.shtml>

### **Merlin Bird ID App**

The Merlin Bird ID app for iOS7 and Android OS4 devices is available for free from the Cornell Lab. It asks five simple questions about the bird seen and then gives a short list of the most likely possibilities. The app currently covers 400 species, and has 2,000 photos and 1,000 songs and calls to help you confirm your ID.

<http://merlin.allaboutbirds.org/download/>

### **MPA Campaign Tracker**

The Marine Conservation Institute has developed a new online tool called MPA Campaign Tracker, allowing viewers to explore and track the progress of MPA campaigns and initiatives worldwide. The tool is available on the MPAtlas website.

<http://www.mpatlas.org/campaign/>

### **Oregon's Institute of Marine Biology Curricula**

The University of Oregon's Institute of Marine Biology offers online marine science lessons, sorted by habitat and age group. While the K-12 lessons are posted by grade, the lessons are appropriate for a range of ages and can be adjusted for older or younger students. Be sure to check out the additional resources found here.

<http://oimb.uoregon.edu/k-6/curricula/>

### **Population, Health, and Environment Resources**

Check out these resources on the intersection of population, health, and the environment.

- Population, Health, and Environment Toolkit  
<https://www.k4health.org/toolkits/phe>
- Lessons From the First Generation of Integrated Population, Health, and Environment Projects  
[http://www.wilsoncenter.org/sites/default/files/Focus\\_12.pdf](http://www.wilsoncenter.org/sites/default/files/Focus_12.pdf)
- Environment, Population, and Health research programs  
<http://www.eastwestcenter.org/research/research-program-overview/environment-population-and-health>
- Marine Ecosystems and Management Vol 7, No. 6  
<http://depts.washington.edu/meam/issues.html>

### **Salmon Resources**

The Atlantic Salmon Trust offers downloadable resources about Atlantic Salmon, including its life cycle, habitats, and more.

<http://www.atlanticsalmontrust.org/learning-zone/index.html>

### **SciJinks Web Comic**

SciJinks offers this web comic series highlighting the scientific adventures of a revolving cast of intrepid weather explorers. Theo is a curious kid with a taste for science hijinks, and is guided by Bill, a serious-minded groundhog and mentor.

<http://scijinks.jpl.nasa.gov/comic1/>

### **Sea Change**

Sea Change is the Seattle Times's long-running series on ocean acidification's impact on the Pacific Ocean. Read the stories, check out the photos, and more on this website.

<http://apps.seattletimes.com/reports/sea-change/2013/sep/11/pacific-ocean-perilous-turn-overview/>

### **Search for the Lost French Fleet of 1565**

From July 14-August 18, 2014, a team of maritime archaeologists and partners embarked on a mission to discover the lost French Fleet of 1565. Using geophysical instruments to identify potential shipwreck targets, they conducted surveys of a five-mile long stretch of the Atlantic Ocean off the coast of Florida. Following analysis of the survey data, the archaeologists returned to the survey area to conduct diving operations in order to physically inspect identified targets, in hopes of locating and identifying the remains of one or more vessels from the French Fleet. Check out the mission logs, educational materials, and more.

<http://oceanexplorer.noaa.gov/explorations/14lostfleet/welcome.html>

### **STEM Smart Workshop Resources**

The National Science Foundation sponsored a series of STEM Smart Workshops showcasing practices and resources supporting effective K–12 STEM education.

[http://www.successfulstemeducation.org/resources?term\\_node\\_tid\\_depth=All&term\\_node\\_tid\\_depth\\_1=All](http://www.successfulstemeducation.org/resources?term_node_tid_depth=All&term_node_tid_depth_1=All)

### **Technology Integration**

This site from Edutopia reviews different technology tools for the classroom, how to integrate them, and more..

<http://www.edutopia.org/technology-integration>

### **Tour de Turtles**

Tour de Turtles is an educational journey through the science, research, and geography of sea turtle migration using satellite telemetry. This event follows the migration of 11 sea turtles from their nesting beaches to their foraging grounds. The website hosts links to educational resources, games, and more.

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

### **Updated FEMA Flood Map Service Center**

The updated Federal Emergency Management Map Service Center offers free enhanced searches, multi-file downloads, and more.

<https://msc.fema.gov/portal>

### **Wayside Guide**

The National Park Service's Wayside Exhibits – A guide to developing outdoor interpretive exhibits contains three main sections: The Wayside Medium: An Overview, Wayside Development, and Wayside Production. The online guide offers links to additional websites for more in-depth tools and information.

<http://www.nps.gov/hfc/pdf/waysides/wayside-guide-first-edition.pdf>

### **Women in STEM**

Check out these websites for focus pages on women in the sciences.

<http://energy.gov/articles/new-energygov-video-series-highlights-women-stem-fields>

<http://free.ed.gov/?p=160>

<http://forgirlsinscience.org/women-in-stem/>

<http://www.whitehouse.gov/administration/eop/ostp/women>

<http://stemminist.com/>

### **World Water Monitoring Day**

World Water Monitoring Day is September 18, 2014. Join Philippe Cousteau Jr. and EarthEcho as they kick off the World Water Monitoring Challenge. Students can interact with Philippe and youth from South America as they demonstrate how to conduct water testing and discuss the importance of water around the globe through a World Water Monitoring Day Hangout. Order low-cost monitoring kits, check out the educator resources, sign up for the hangout, and more.

<http://earthecho.org/news/HOA-091814>

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

### **5 Things More Deadly Than Sharks**

There were plenty of great resources posted in conjunction with Discovery Channel's annual Shark Week. Check out this short video from One World One Ocean. Fear the vending machine! A quick search engine inquiry will bring you to additional items.

[http://www.oneworldocean.com/video/entry/5\\_things\\_more\\_deadly\\_than\\_sharks](http://www.oneworldocean.com/video/entry/5_things_more_deadly_than_sharks)

### **Baltimore Harbor Celebration – Maryland**

The Star-Spangled Spectacular festival celebrates the 200th birthday of the national anthem, September 10-16, 2014 in Baltimore, Maryland. NOAA vessels, including the Okeanos Explorer, will be in Baltimore Harbor along with tall ships, Navy gray hulls, and more. Check the website for more information. The Okeanos Explorer will be open to the public.

<http://oceanexplorer.noaa.gov/okeanos/welcome.html>

### **Coast Day 2014**

The University of Delaware's Coast Day returns October 5, 2014 in Lewes, Delaware. The theme is Weather & Climate: On Our Radar. The day will include interactions with scientists and educators, hands-on activities, a crab cake cook-off, and much more.

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

### **International Coastal Cleanup**

The annual International Coastal Cleanup is September 20, 2014, but events are scheduled at different times in many locations. It is the largest volunteer effort for the

ocean and waterways. Sign up, search for a cleanup near you, download debris reports, and more.

<http://www.oceanconservancy.org/our-work/international-coastal-cleanup/>

### **International Review of Research in Open and Distance Learning**

The International Review of Research in Open and Distance learning is a free, refereed e-journal designed to advance research, theory, and practice in open and distance learning worldwide. Special issues have covered Open Education Resources: Opening Access to Knowledge; Mobile Learning; and more.

<http://www.irrodl.org/index.php/irrodl/index>

### **Ocean + Web TV Call for Films**

Ocean + Web TV seeks films to be shown at the World Parks Congress, November 12-19, 2014 in Sydney, Australia. Upload your video on the protection of the oceans.

<http://www.impact3.org/en/news/all/394-ocean-tv-launches-a-second-call-for-films1>

### **Submerge – New York**

The New York Hall of Science, Hudson River Park, and partners will host the free Submerge! - NYC's Marine Science Festival, October 5, 2014 in New York City, New York - a day devoted to bringing awareness to New York City's coastal waterways. The festival focuses on ocean science while raising awareness of how people influence our local waterways. Contact Catherine as soon as possible if you are interested in participating with a hands-on activity, demonstration, or presentation.

Catherine Cramer at [ccramer@nysci.org](mailto:ccramer@nysci.org)

<http://www.hudsonriverpark.org/events/submerge-2014>

### **Washed Ashore**

Washed Ashore is a project of The Artula Institute for Arts & Environmental Education, whose mission is to provide opportunities to express and teach environmental issues through the arts. The Washed Ashore Project creates awareness about marine debris and plastic pollution through large art sculptures and other materials. Upcoming exhibits will be at the Virginia Aquarium, SeaWorld Parks, and elsewhere.

<http://washedashore.org/>

### **World Rivers Day**

World Rivers Day, the last Sunday in September, highlights the values of rivers, strives to increase public awareness, and encourages the improved stewardship of rivers around the world. This year, it falls on September 28, 2014. Check out events near you, register your event, and more.

<http://worldriversday.com/>