

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
INFORMATION EXCHANGE FOR MARINE EDUCATORS

SEPTEMBER 2013

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, or by phone at (865) 932-5074

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

Notable References

Oceans and Marine Resources in a Changing Climate

The report, Oceans and Marine Resources in a Changing Climate, is designed to help marine resource managers, communities, and businesses understand, prepare for, and respond to climate impacts on U.S. ocean ecosystems. It details the impacts of climate change and ocean acidification, and then summarizes what is known about how those changes will affect human uses of marine ecosystems. The report also examines some of the key international implications of climate impacts on ocean ecosystems for the United States, and gives examples on how to prepare for and adapt to these impacts.

http://www.nmfs.noaa.gov/stories/2013/08/8_27_13climate_change_us_ecosystems.htm

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Saving Species by Translocation

A new publication by IUCN offers guidelines for deliberately moving plants and animals for conservation purposes around the world. Published by the Reintroduction Specialist Group and Invasive Species Specialist Group of the IUCN Species Survival Commission; *Guidelines for Reintroductions and Other Conservation Translocations* explores the biological, social, and political aspects of translocating species, and provides a starting point for risk assessment and feasibility studies.

<http://www.iucn.org/?uNewsID=13519>

PROGRAM OF THE MONTH

Teens4Oceans

Teens4Oceans' mission is to empower our next generation to become stewards for their ocean through education, experiential learning, scientific research, and innovative technologies. The programs offer the opportunity to get involved through technology, conservation, and research. Check out the webcams and current projects, join the mailing list, and more. They are featuring the first live webcam viewing of a coral spawning event. Updates will be available on Wild Goose Imaging's blog. Check this out.

<http://teens4oceans.org/>

<http://www.wildgooseimaging.com/blog/wordpress/>

REQUESTS

Input Needed on Story of Stuff for Young Audience

The *Story of Stuff* author, Annie Leonard, is starting to work on a non-fiction book covering these issues for a grades 3-8 audience. If you are an educator and have experience with this age group, complete the survey linked below.

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

Panel Picking for SXSW

Vote to include science education in the next SXSW (South by Southwest) Education Conference and Festival, March 3-6 2014 in Austin, Texas. Choosing speakers for SXSWedu is a joint effort among their advisory board, staff, and the public. NSTA has submitted a panel discussion, New Standards for Citizen Scientists, and would like to use it to begin conversations with people who would not normally consider themselves science educators. Free registration is required; hurry - the deadline for voting is September 6, 2013.

<http://sxswedu.com/>

Water-Based Service Learning Stories Wanted

EarthEcho International is seeking stories about middle and high school students participating in service-learning for a new Water Planet Challenge Action Guide. The focus is stormwater, land use, and how our actions impact the water cycle.

Contact Allie at allie@earthecho.org

GRANTS AND OPPORTUNITIES

The Big List of Educational Grants and Resources

Edutopia offers a roundup of educational grants, contests, awards, free toolkits, and classroom guides aimed at helping students, classrooms, schools, and communities. Check the website for weekly updates.

<http://www.edutopia.org/grants-and-resources>

Caribbean Islands Biodiversity Hotspot Call for Proposals

The Caribbean Natural Resources Institute (CANARI), in its role as the Regional Implementation Team for the Critical Ecosystem Partnership Fund (CEPF) in the Caribbean Islands Biodiversity Hotspot, announces the 2013 call for small and large grant proposals under the CEPF Caribbean Islands initiative. The deadline for proposals is September 30, 2013.

<http://www.cepf.net/grants/Pages/default.aspx>

Community-based Marine Debris Removal Grant

The FY2014 Community-based Marine Debris Removal grant opportunity provides federal assistance to grass-roots, community-based activities that improve living marine resource habitats through the removal of marine debris and promote stewardship and a conservation ethic for NOAA trust resources. The deadline for application is November 1, 2013.

<http://www.grants.gov/web/grants/view-opportunity.html?oppld=240334>

Connecting Math to Other Subjects Grants for High School Teachers

This grant funds the creation of high school classroom materials or lessons connecting mathematics to other fields. See the website for eligibility and details. The deadline for application is November 8, 2013.

<http://www.nctm.org/resources/content.aspx?id=1328>

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 – Mapping My Community; a visual arts contest – Making Maps Through the Ages; and an essay contest – How Geoscientists Use Maps. The deadlines for entry are October 18, 2013.

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

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, 2013.

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

From the Bow Seat Ocean Awareness Student Contest

The goal of this contest is to challenge high school students to think critically about challenges facing the ocean. This year's contest theme is Plastics Pollution in the

Ocean. The website offers links to scientific literature, pollution websites, resources on artists and writing, and much more. The deadline for entry isn't until next June, but teachers can use the contest as a good focal point for many different lessons.
<http://www.fromthebowseat.org/contest.php>

Georgia Pacific Foundation Grants

The Georgia-Pacific Foundation supports a wide range of organizations that improve the quality of life in communities where Georgia-Pacific operates. The foundation invests in education, community enrichment, environmental programs, and entrepreneurship initiatives. The deadline for application is October 31, 2013. Check the website for eligibility.
<http://www.gp.com/gpfoundation/grantprocess.html>

Google RISE Awards

Google's Roots in Science and Engineering program offers grants for nonprofits working in K-12/pre-university level science and engineering education that promote access to Computer Science education, with preference to groups working with underserved students and girls. The deadline for application is September 30, 2013.
<http://www.google.com/edu/programs/google-rise-awards/#!overview>

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 18, 2013.
<http://www.oesd.noaa.gov/grants/funding.html>

Harris Wofford Youth Award

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. Hurry - the deadline for nomination is September 8, 2013.
<http://www.ysa.org/grants/harris-wofford-award-youth>

NOAA Research Photo Contest

NOAA's Office of Oceanic & Atmospheric Research is sponsoring a photography contest for the public, along with employees NOAA-wide, to explore their scientific and natural world through their camera lens. Categories include Science in Action, Enviro-scapes, In the I-Moment, and more. Judging will be based upon public popular vote. Hurry - the deadline for submission is September 13, 2013. Note that free registration is required to read the contest details.
<https://research.noaa.gov/photocontest2013/PhotoContest2013/ContentAdditions.aspx>

SeaTrek Scholarships - Florida

Mote Marine Laboratory received funding from the Mosaic Company Foundation for the enhancement and delivery of SeaTrek Interactive Programs to regional K-12 classrooms. The funds will provide 100 SeaTrek program scholarships to be offered to schools in Manatee, Sarasota, Hardee, DeSoto, Charlotte, Lee, Polk, and Hillsborough counties in Florida.

<http://seatrek.org/scholarships/>

SEES Fellowship

The National Science Foundation Science, Engineering, and Education for Sustainability (SEES) Program is offering a one to three year SEES Fellowship in which scientists partner with, and are based at, a government agency. The fellowship, which targets interdisciplinary research and education, enables scientists to apply their research to management and policy priorities by working directly with Federal program managers and decision makers. The deadline for proposals is November 26, 2013.

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=504673

Student Film Competition

The San Francisco International Ocean Film Festival's student film competition, sponsored by NOAA's Cordell Bank National Marine Sanctuary, is designed to give middle and high school students the opportunity to showcase their creativity and knowledge of the ocean through their filmmaking skills to an elite jury of professional filmmakers, ocean conservationists, and educators. Creativity and ingenuity are encouraged. The film length is 5 minutes or less. The deadline for entry is January 5, 2014.

<http://www.oceanfilmfest.org/education/>

Texas State Aquarium Wildlife Care, Conservation, and Research Fund

The Texas State Aquarium is accepting applications for grants for research/conservation projects that focus on conservation issues of species and/or habitats interpreted at the Aquarium. Projects must fall under one of five categories; Conservation Management, Fisheries Management, Habitat Restoration, Species Culturing/Culturing Techniques, or Wildlife Management. The funding is intended as seed money, and applicants should include a summary of additional funds anticipated in the application. Hurry – the deadline for application is September 13, 2013.

<http://www.texasstateaquarium.org/index.php/wildlife-care-conservation-and-research-fund>

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, 2013.

<https://targetfieldtripgrants.target.com/register.php>

Toshiba/NSTA ExploraVision Competition

The Toshiba/NSTA ExploraVision science competition encourages K-12 students to imagine what technology might be like in the future. The competition also helps teacher sponsors meet many of the National Science Education Standards while letting students experience scientific process and discovery. The project deadline is January 30, 2014.

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

Youth Making Ripples Competition

The Beneath the Waves - Youth Making Ripples Film Competition accepts submissions from students throughout the United States. Films should be less than 5 minutes on a marine topic of their interest. Student films will debut at the Beneath the Waves Festival on January 18, 2013. The deadline for submission is December 1, 2013.

<http://www.beneaththewavesfilmfest.org/how-to-submit/>

Youth Ocean Conservation Film Competition

The Youth Ocean Conservation Film competition provides students in grades K-12 with the opportunity to create short films designed to raise awareness about ocean conservation issues. The deadline for submission is October 1, 2013.

<http://www.scribd.com/doc/150911066/2013-Youth-Ocean-Conservation-Film-Competition-Rules-and-Submission-Details#page=1>

INTERNSHIPS AND TEMPORARY OPPORTUNITIES

REEF Marine Conservation Internship

REEF's Marine Conservation Internship provides an in-depth look into non-profit operations and marine conservation programs, geared to college-age individuals. The internship provides diverse experiences through REEF's marine conservation programs and opportunities to participate in the programs of REEF's partners. The deadline for application is October 15, 2013.

<http://www.reef.org/about/internships/application>

Sea Grant State Fellowship Program - California

The California State Fellows Program is soliciting applications for the 2014 Sea Grant State Fellowship, an 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 26, 2013.

<http://www-csgc.ucsd.edu/EDUCATION/STATEFELLOW/StateFellowRFA2013-14.html>

CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT

Building Urban and Community Habitats with Youth: OUT8064 - Colorado

This blended learning course, April 8-10, 2014 in Denver, Colorado along with two webinars, is designed to empower conservation professionals to assess, develop, and work with local youth service corps that engage 14-25 year olds in job training, conservation skills, and leadership opportunities through community habitat enhancement, restoration, or monitoring projects. The course will introduce effective ways to work with youth, promote conservation career awareness, develop diverse partnerships, and create urban habitats. The deadline for registration is January 28, 2014.

Contact [Scott T. Owen@fws.gov](mailto:Scott.T.Owen@fws.gov)

EETAP Courses - Online

The University of Wisconsin-Stevens Point and the Environmental Education and Training Partnership (EETAP) offers a variety of online courses. Check out the courses offered for Fall, and watch the website for Spring courses. The deadline for registration is up to three weeks before the course start date.

<http://www.uwsp.edu/cnr/AMP/Documents/FlyerOnlineFall2013.pdf>

Environmental Education Methods: OUT8160 – California

Discover effective education strategies to target specific resource management issues to the correct audiences. This course helps participants incorporate evaluation strategies into program planning and implementation. Participants also learn how to work with students, teachers, youth groups and their leaders, both on public land and private lands. The course will include two webinars along with a two-day in-person workshop, February 25-27, 2014 in San Jose, California. The deadline for registration is December 17, 2013.

Contact Scott Owen at Scott.T.Owen@fws.gov

Environmental Education Professional Development - California

Join a statewide community of educators for free online professional development that will include Annenberg Learner and National Geographic resources, live interactions with National Geographic Explorers and scientists, and Google tools. Framed around California's Education and the Environment Initiative curriculum for educators, *Water: The Essential Resource* will focus on ocean and freshwater systems and incorporate strategies for teaching environmental topics in grades 4-8. Register soon – the course starts in October, 2013.

<http://www.learner.org/about/signup.html>

Environmental Communications Planning - Online

The Duke Environmental Leadership Program at the Nicholas School of the Environment at Duke University offers the online interactive course, Environmental Communications Planning, September 23-November 1, 2013. The course provides participants with the necessary tools for developing a successful communications plan.

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

Houston Zoo Educator Programs - Texas

Check out the Houston Zoo's programs for educators, including the upcoming Educator Day and workshops, along with the downloadable Houston Toad Educator's Guide.

<http://www.houstonzoo.org/education/educators/>

MTS-IEEE/OES Educators Workshop - California

This free session on Marine Technology in the Classroom for grades 6-12 teachers and informal educators will be held at the Oceans2013 Conference, September 21, 2013 in San Diego, California. The session is limited to 30 educators; the deadline for application is September 13, 2013.

Contact Erica Moulton at emoulton@marinetech.org

NTEN Courses - Online

The National Teachers Enhancement Network (NTEN) provides online science courses developed for teachers, created by a collaborative team of scientists and in-service teachers. The courses contain rich science content and emphasize discussion and collaboration among participants. Courses include Ecological Field Studies, Earth System Science, and more. Hurry – courses start soon; registration remains open while seats last.

<http://btc.montana.edu/courses/asp/ntenhome.aspx>

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 26, 2013 with University of South Florida College of Marine Science in St. Pete Beach, Florida. The deadline for application is October 4, 2013. Contact Teresa Greely at greely@marine.usf.edu
- November 2, 2013 with the Seattle Aquarium in Seattle, Washington. The deadline for application is October 11, 2013. Contact Dan Newburn for information at d.newburn@seattleaquarium.org
- November 9, 2013 with John G. Shedd Aquarium in Chicago, Illinois. The deadline for application is October 18, 2013. Contact Jackie Formoso at jformoso@shedd Aquarium.org
- November 16, 2013 with South Carolina Aquarium in Charleston, South Carolina. The deadline for application is October 25, 2013. Contact Jaime Thom at jthom@scaquarium.org
- November 23 with 2013 with Aquarium of the Pacific in Long Beach, California. The deadline for application is November 1, 2013. Contact Alie Lebeau at alebeau@lbaop.org

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

Ocean Sciences Meeting

The 2014 Ocean Sciences Meeting is a joint international gathering sponsored by The Oceanography Society, the American Society of Limnology and Oceanography, and the American Geophysical Union, February 23-28, 2014 in Honolulu, Hawai'i. The deadline for submission is October 4, 2013.

<http://www.sgmeet.com/osm2014/default.asp>

Science Education at Sea – New Jersey

This professional development workshop for teachers and environmental educators is presented by The Wetlands Institute and the New Jersey Marine Education Association, October 3, 2013 from Keyport, New Jersey. The workshop includes a boat trip and hands-on land activities. The deadline for registration is September 26, 2013.

http://njmarineed.weebly.com/uploads/1/1/5/0/11502005/njmea_fall_workshop_registration_2013.pdf

SCUTES Educator Workshop - Virginia

Formal and non-formal educators can participate in this SCUTES (Students Collaborating to Undertake Tracking Efforts for Sturgeon) Educator Workshop, September 21, 2013 from Chester, Virginia. Hurry – space is limited to 25 participants. Check out the lessons for grades 3-12 on the Teacher Page.

http://www.nero.noaa.gov/prot_res/scutes/teachers.htm
<https://www.facebook.com/events/1408762506004195/?ref=22>

Youth Ocean Conservation Summit

The third annual Youth Ocean Conservation Summit will be held November 16, 2013 in Sarasota, Florida. Youth participants will learn from marine scientists and conservationists about current threats facing marine ecosystems, will work with mentors

to develop action plans for their own ocean conservation projects, and will take part in workshops designed to give them the skills necessary to successfully implement these projects. In conjunction with the Youth Ocean Conservation Summit, Mote Marine Laboratory will host the second annual Community Ocean Conservation Film Festival, November 15, 2013. Registration for the summit is only \$13; the deadline for registration is October 19, 2013.

http://www.stowitdontthrowitproject.org/pb/wp_a9baf081/wp_a9baf081.html

EDUCATIONAL RESOURCES

10 Tips to Make the Most of Conferences

Southern Fried Science offers 10 Tips for graduate students to make the most of scientific conferences. These tips can be useful for everyone, not just grad students.

<http://www.southernfriedscience.com/?p=15246>

Battle of Hampton Roads

Sail the Book offers a new Google Earth tour of the Civil War Battle of Hampton Roads. There are links to NOAA and Mariners' Museum activities, map overlays with bathymetry and imagery interpretation, primary sources of letters from the sailors, and more.

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

Biomimicry Institute Curricula

The goal of this curriculum is to introduce students to biomimicry, the science and art of emulating nature's biological ideas to solve human problems. Examples include carbon-sequestering cement inspired by corals and energy efficient wind turbines inspired by schooling fish. Teaching materials include curricula for elementary, middle, and high school students and links to additional resources.

<http://www.biomimicryinstitute.org/education/k-12/curricula.html>

Boy Scout Oceanography Merit Badge

Boy Scouts of America can earn a merit badge in Oceanography. The curriculum of the course is a combination of content and hands-on activities. Scouts in the Delaware area can contact Chris Petrone at petrone@udel.edu.

<http://www.udel.edu/udaily/2014/jul/scouts-oceanography-070813.html>

<http://www.scouting.org/scoutsource/boyscouts/advancementandawards/meritbadges/m-b-OCEN.aspx>

<http://usscouts.org/mb/worksheets/Oceanography.pdf>

Citizen Science in Coastal and Marine Management

The *Marine Ecosystems and Management* (MEAM) newsletter, Vol. 7, No. 1, features a discussion of citizen science in coastal and marine management.

<http://depts.washington.edu/meam/MEAM32.pdf>

Clouds, Precipitation, and Our Earth System - Online

Join presenters from NOVA and the National Earth Science Teachers Association, September 11, 2013 for the first of a series of free webinars about Earth system science resources for middle school and high school educators. The webinar will include an overview of global patterns of clouds and precipitation and what causes them; will describe how scientists measure rain and snow on the ground, in the clouds, and from

satellites; and include how you can bring weather data into your classroom using NOVA's new Cloud Lab and NESTA's "Windows to the Universe" website.

<https://www.surveymonkey.com/s/H96TNBS>

Deep Sea ID

Deep Sea ID is a field guide interface to the World Register of Deep-Sea Species (WoRDSS) that offers access to taxonomic information for over 20,000 deep-sea species, over 350 high-resolution photographs of deep-sea specimens, and links to online taxonomic tools, references, and more. The app is designed for the scientific community but also offers a visual tour of the biodiversity of deep sea life to educators and the general public. The app is free for iPhones and iPads.

<https://itunes.apple.com/gb/app/deep-sea-id/id615240268?mt=8>

Dictionary of Numbers

The Dictionary of Numbers is a Google Chrome extension that gives context to the numbers we deal with every day. Dictionary of Numbers puts unfamiliar quantities into equivalents one can recognize.

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

EarthEcho Expedition: Into the Dead Zone

From September 3-13, 2013, Philippe Cousteau will lead a team of students, scientists, and community leaders on an expedition through the District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia, and New York. Along the way they will profile young people who are tackling the causes of dead zones and creating solutions in communities throughout the watershed. Classroom materials will be posted in October. Sign up to follow along with the expedition.

<http://www.earthecho.org/programs/earthecho-expeditions/>

Expedition 346: Asian Monsoon

Join the crew of the JOIDES Resolution on Expedition 346: Asian Monsoon as they explore the development and evolution of monsoon patterns and their relationship to past changes in the Japan sea, July 29-September 28, 2013. Teachers can sign up for 30-45 minute live interactions through Skype or Zoom, where your students can get a tour of the labs, see what the latest discoveries are, and ask questions of scientists.

<http://joidesresolution.org/node/2737>

<https://docs.google.com/spreadsheet/viewform?formkey=dEJ1S19ldF9LTNuR1dRN3l3ekVnUWc6MA#gid=0>

The First Sue Nami

The USGS SAFRR team (Science Application for Risk Reduction) worked with the Pasadena Art Center College of Design to develop a short movie to communicate tsunami safety information to an 18-34 year old audience. Sue Nami, the force of nature herself, travels through different beach environments to warn people about the dangers of a tsunami and how to be prepared if one were to strike.

http://www.usgs.gov/natural_hazards/safrr/projects/suenami.asp

Flower Garden Banks National Marine Sanctuary Education Documents

A listing of free downloadable resources from the Flower Garden Banks National Marine Sanctuary is available. Check out the Sanctuary Alphabet, Critter Collages, and more.

http://flowergarden.noaa.gov/document_library/edddocuments.html

FWS Northeast Region Youth Blog

The Northeast Region recently launched a youth blog series that focuses on youth in the Fish & Wildlife Service and their experiences. This blog highlights some of the activities young employees and interns engage in during the busy field season and at the same time shares information about different programs, all from the perspective of those involved. It also highlights some of the ways youth can get involved with FWS.

<http://usfwsnortheast.wordpress.com/2013/07/10/young-n-wild/>

Geologic Heritage in the National Parks

Geologic Heritage encompasses the significant geologic features, landforms, and landscapes which are preserved for the full range of values that society places on them, including scientific, aesthetic, cultural, ecosystem, educational, recreational, tourism, and other values. Check out the featured programs for park geology tours, fossil resources, and more.

<http://www.nature.nps.gov/geology/geoheritage/index.cfm>

How Climate Change May Affect You

Grist offers an interesting list of things that will be negatively influenced by climate change that may not immediately come to mind. It can be used as a jumping off point for students to consider additional effects.

<http://grist.org/climate-energy/16-of-your-favorite-things-that-climate-change-is-totally-screwing-up/#.UhOPHYv78TM.twitter>

Mystery Class and Fall Planting – Exploring Sunlight and the Seasons

Teachers and students are invited to participate in Journey North's Mystery Class project. Starting January 31, 2014 students try to find ten secret classes hiding around the globe using the changing sunlight at each site as the clue. Through the Tulip Test Garden Experiment, students across the northern hemisphere can track change in seasons and global climate.

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

Ocean Literacy

The World Ocean Observatory website offers a new section devoted to the Ocean Literacy Curriculum, providing an at-a-glance overview of the materials available at Ocean Literacy. The website offers the curriculum, broken it down into its fundamental concepts. Each principle has its own page, and includes links to the expanded curriculum on the Ocean Literacy website.

<http://worldoceanobservatory.org/content/ocean-literacy>

PBS LearningMedia

Teachers' Domain and NOVA Education resources can now be found through PBS LearningMedia. This educators' website offers more than 14,000 learning objects to supplement classroom curricula. Standards-aligned resources include videos, documents, images, and activities in math, science, social studies, and other core subjects. Use the easy search function to find curricula, specific subjects, and more. Browse subjects, checkout the self-paced professional development, and more.

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

Picture Guide to Common Stony Corals

The Flower Garden Banks National Marine Sanctuary has posted a new Picture Guide to Common Stony Corals of Flower Garden Banks, downloadable from this website

under the Coral Guide link. While on the website, check out the Manta Catalog, Science Posters, and more.

http://flowergarden.noaa.gov/document_library/scidocuments.html

Plastisphere

The episode of World Ocean Radio entitled "234: The Plastisphere" explores recent studies by a collaboration of research scientists, institutions, and vessels which have discovered a new ecological habitat: microbes colonizing and thriving on reefs of plastic that pollute our ocean.

<http://worldoceanobservatory.org/radio-item/234-plastisphere>

Reaching Out to Latino Audiences

Educators are working to find ways to reach youth and adults in the U.S. from diverse backgrounds. Check out this program from Environment for the Americas, using an Outreach Toolkit and multilingual activities for teaching about birds.

www.birdday.org/connectingcultures/connecting-cultures-study

<http://www.birdday.org/component/sitepages/?id=86>

Socioeconomics and Climate Change in the Great Lakes Region

This interactive map includes a variety of data on more than 225 counties in the Great Lake region and can help public officials, policymakers, and others determine how their corner of the region might fare based on historic climate data.

<http://www.graham.umich.edu/glaac/great-lakes-atlas>

Storytelling For Social Change

This article from *Forbes Magazine*, The 5 Secrets Of Storytelling For Social Change, offers five basic tips and examples of each, for making sure our points get across.

<http://www.forbes.com/sites/skollworldforum/2013/08/01/the-5-secrets-of-storytelling-for-social-change/>

Uncovering Earth's Secrets

Uncovering Earth's Secrets: Science and Adventure on the JOIDES Resolution is a free children's picture eBook about the explorations and science of the JOIDES Resolution. It is written for elementary age kids and shows how the JOIDES Resolution offers scientists the opportunity to learn about volcanoes, earthquakes, and more. The book is available as a free download and can be viewed on iPads and other computer and tablet devices, including interactive whiteboards.

<http://joidesresolution.org/node/2998>

Virtual Marine Scientist

The Virtual Marine Scientist resource aims to familiarize high school students with the conditions in which marine scientists work and research is carried out. In this virtual environment, students discover how to design and run experiments in marine environmental science and manipulate real scientific data from their own experiment. Request a login ID and check this out.

<http://www.virtualmarinescientist.com/#>

Virtual Polar Field Trips

The Alaska SeaLife Center and COSEE-Alaska, supported by the National Science Foundation, are developing a series of virtual field trips designed to immerse kids in grades 5-8 in polar research. *Meltdown* is an interactive, online science curriculum

designed to teach students about the Bering Sea ecosystem, specifically the role of sea ice algae in the spring food web. Both Meltdown and Watching Walrus are available for free on CD; a \$5 shipping fee is charged for shipping outside Alaska. The website offers linked curricula, a teacher's guide, and additional materials.

Contact education@alaskasealife.org

http://www.alaskasealife.org/New/education/VFT/SEA_ICE_MELT_DOWN/SealceVFT_Introduction.php

World Water Monitoring Challenge

The World Water Monitoring Challenge™ (WWMC) is an international education and outreach program that builds public awareness and involvement in protecting water resources around the world by engaging citizens to conduct basic monitoring of their local water bodies. Check out the guides and lesson plans. Celebrate World Water Monitoring Day on September 18, 2013. "Like" WWMC on Facebook to enter to win a complimentary water test kit and t-shirt.

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

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

INITIATIVES, JOURNALS, and MORE

Airbnb Disaster Response

Airbnb offers their lodging booking services for free for disaster victims. Those looking to share their space can list it on the site, and disaster victims will be matched with possible hosts.

<https://www.airbnb.com/disaster-response>

Fishing for Energy

Fishing for Energy is a partnership that provides a no-cost solution to fishermen to dispose of old, derelict (gear that is lost in the marine environment) or unusable fishing gear, and works to reduce the amount of derelict fishing gear in and around coastal waterways. Collected gear is transferred to a recycling facility where the metals are removed; the remaining gear is then hauled to an Energy-from-Waste facility and converted into renewable energy. Nominate a port for participation, sign up for emails, and more.

<http://www.nfwf.org/Pages/fishingforenergy/home.aspx>

Florida State Parks Mobile App

The Florida Coastal Access Guide is now available through a free smartphone application. The app features detailed information about each site, including accessibility, fees, and much more.

<http://www.floridastateparks.org/resources/mobileapp.cfm>

Gulf of Mexico Science

The Gulf of Mexico Science, published by the Dauphin Island Sea Lab, is now available online. All issues, dating back to 1977, are available for download.

<http://goms.disl.org/>

International Coastal Cleanup

The annual International Coastal Cleanup is September 21, 2013, but events are scheduled at different times in many locations. The largest volunteer effort for the ocean

and waterways works towards global solutions through the cumulative efforts of volunteers around the world. Sign up, search for a cleanup near you, download debris reports, and more.

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

Ocean Frontiers Movie - Massachusetts

Mass Audubon and the Broadmoor Wildlife Sanctuary are sponsoring a free showing of the movie, Ocean Frontiers, November 7, 2013 in Natick, Massachusetts. Ocean Frontiers features on-the-ground reporting from places across the country that are at the forefront of implementing promising new approaches to ocean and coastal management. The movie features unlikely allies coming together and crafting solutions for the good of ecosystems and industry, while not sugarcoating the conflicts or the sometimes-difficult road to the end result. Stay to join the post-movie discussion.

https://www.massaudubon.org/catalog/listing.php?program_code=BR29016

Travel in Parks and Protected Areas Hangout

Check out the YouTube streamed Travel in Parks and Protected Areas Hangout, an online discussion forum streamed live July 17, 2013. Check out the hangouts on the website. Contact Ron Mader at editor@planeta.com for more information; if you have a gmail account, check out upcoming events.

<http://planeta.wikispaces.com/hangout>

<http://www.youtube.com/watch?v=L2vDPsBKS8A&list=PLGcZwmpqrhGalaGeZRe0STyuF-4nQGslU>

Tropical Fish Rescue

The New England Aquarium Dive Club will hold a family-centered Tropical Fish Rescue in Jamestown, Rhode Island on September 28, 2013 (rain date October 5, 2013). There will be snorkeling, diving, seining, and much more. Additional activities include a kid-friendly touch tank, music, picnic, and silent auction.

<http://www.neadc.org/tropicalfish/>