

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
INFORMATION EXCHANGE FOR MARINE EDUCATORS

DECEMBER 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://marineprotectedareas.noaa.gov/resources/education/#exchange>.

Notable References

Across the Spectrum: Resources for Environmental Educators

This downloadable collection of resources, perspectives, and examples will help nonformal environmental educators learn more about the field of EE, access resources, and gain skills to improve their practice and, over time, build a community of practitioners to advance the field. The document covers the foundations of EE, strategies, trends, and tools.

http://www.naaee.net/sites/default/files/publications/eebook/EEebook_download.pdf

MPAs: Conserving Our Oceans One Place at a Time

The National Marine Protected Areas Center offers the downloadable report on the state of marine protected areas in the United States, Marine Protected Areas of the United States: Conserving Our Oceans, One Place at a Time. The document provides a snapshot of the coverage, level of protection, resources protected, and ecological

representativeness of MPAs in the United States, along with brief case studies in MPA management from around the country.

http://marineprotectedareas.noaa.gov/pdf/fac/mpas_of_united_states_conserving_oceans_1113.pdf

The Social Dimension of Ecosystem-Based Adaptation

The purpose of this document from the UNEP Policy Series on Ecosystem Management is to address and raise awareness of the social dimension of ecosystem-based adaptation to climate change.

http://www.unep.org/ecosystemmanagement/Portals/7/Documents/policy_series_12-small_Nov_2013.pdf

WEBSITES OF THE MONTH

NOAA View Data Imagery Portal

The beta version of NOAA View is an online educational tool that provides interactive access to NOAA environmental data. The website lets users view, animate, and explore global datasets of the world's oceans, land, atmosphere, and cryosphere. NOAA View provides access to maps of data from a variety of satellite, model, and other analysis sources.

<http://www.nnvl.noaa.gov/view/>

Science Information for Teachers

The Science Information for Teachers (SIFT) List is a free e-mail subscription service for science educators to allow them to easily find information about useful internet sites categorized by topic, as well as professional development workshops and grant opportunities. Topics include Earth Science, Environmental Science, Physics, Astronomy, Biology, and Earth Science.

The archive of the SIFT List entries are available in The Sifters Guide to Everything (Science) which currently includes more than 3000 science links.

<http://history.cpet.ufl.edu/sift/SIFTHome.html>

<http://history.cpet.ufl.edu/siftguide/>

REQUESTS

Environmental Literacy Plan for Florida – Call for Public Review and Feedback

The goal of the Florida Environmental Literacy Plan is an environmentally literate population brought about through high quality environmental education. Those interested in offering feedback are invited to use this online form to provide feedback; sections of the plan will be made available throughout the survey. The deadline for response is January 31, 2014.

<http://www.surveymonkey.com/s/flenvironmentalliteracyplanreview>

Gulf of Mexico Research Needs Survey

The four Gulf of Mexico Sea Grant college programs request your response to the 2013 Gulf of Mexico research needs survey. Numerous groups will use the survey results for developing Gulf of Mexico regional science and restoration plans or funding Gulf research. The deadline for response is December 13, 2013.

<https://www.surveymonkey.com/s/2013GMRP>

SeaPerch Survey

MIT Sea Grant seeks assistance of those who are or have been involved with the SeaPerch ROIV education project in guiding its future direction. Please use the survey to provide feedback on the project and the kind of support that you would like to see in the future.

<https://docs.google.com/a/noaa.gov/forms/d/1g6-MaOnpHaZTOcgLnEwLD0O8IWWyKBWK8cCag2fZWnQ/viewform>

GRANTS AND OPPORTUNITIES

Advancing Informal STEM Learning Grants

The National Science Foundation is encouraging proposals that seek to advance new approaches to and evidence based understanding of the design and development of STEM learning in informal environments; provide multiple pathways for broadening access to and engagement in STEM learning experiences; advance innovative research on and assessment of STEM learning in informal environments; and develop understandings of deeper learning by participants. The deadline for application is January 14, 2014.

<http://informalscience.org/nsf-aisl>

Beneath the Waves Film Festival

The mission of the Beneath the Waves Film Festival is to provide new venues of communication to give ocean science a voice through digital media and storytelling. All films must be less than 10 minutes in length and must relate to a marine science or conservation topic. The deadline for entry is February 1, 2014.

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

Birdspotter Photo Contest

Project FeederWatch and Bob's Red Mill Natural Foods are teaming up for the second annual BirdSpotter photo contest. Take photos of the birds that visit your feeders and post them on the contest website. Voting on the web page will decide the weekly winners. The contest runs through February, 2014.

<http://feederwatch.org/birdspotter2013/>

BoatU.S. Grassroots Grants

The BoatU.S. Foundation awards nonprofit organizations for the promotion of safe and clean boating education. The foundation is looking for creative and innovative projects that promote safe and clean boating on local waterways. The deadline for application is January 15, 2014.

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

Brian Keller Memorial Fellowship in Coral Reef Ecosystem Research

Nova Southeastern University Oceanographic Center has established the Brian Keller Memorial Fellowship in Coral Reef Ecosystem Research to provide assistance to Oceanographic Center graduate students for thesis or dissertation expenses. See the website for details.

<http://www.nova.edu/ocean/tools-resources/brian-keller-memorial-fellowship.html>

Christopher Columbus Awards

The Christopher Columbus Awards for Middle School Students is a community-based STEM program. Students work in teams of three to four, with an adult coach, to identify a problem in their community and apply the scientific method to create an innovative solution to that problem. The deadline for submission is February 3, 2014.

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

Coastal Management Fellowship

The Coastal Management Fellowship, sponsored by NOAA's Coastal Services Center, offers on-the-job education and training opportunities in coastal resource management and policy for postgraduate students, while providing project assistance to state coastal zone management programs. The two-year fellowship matches postgraduate students with state coastal zone programs to work on projects proposed by the state and selected by the fellowship sponsor. The deadline for application to your local Sea Grant Program office is January 24, 2014.

<http://www.csc.noaa.gov/cms/fellows.html>

Coral Reef Conservation Fund 2014 RFP

The National Fish and Wildlife Foundation is soliciting proposals for coral reef conservation. An informational webinar will be provided for interested applicants on December 11, 2014. See the full proposal for eligibility, geographic focus, and priorities. The deadline for pre-proposals is February 5, 2014.

http://www.nfwf.org/coralreef/Pages/2014_CRCF_RFP.aspx

C-SPAN StudentCam Competition

C-SPAN's StudentCam is an annual national video documentary competition that encourages students to think about issues that affect our communities and our nation. Students are asked to create a short (5-8 minute) video documentary on a topic related to the theme, *Message to the President: What's the most important issue the Congress should consider in 2014?* The deadline for submission is January 20, 2014.

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

DuPont Challenge

The 2013 DuPont Challenge is a competition for 7–12 grade students to research and write a science essay on one of four categories: Food, Energy, Environment, and Innovation. The deadline for submission is January 31, 2014.

<http://thechallenge.dupont.com/>

Fund for Teachers Professional Development Grants

The Fund for Teachers Grant awards preK-12 teachers with funds to support professional development activities during the summer of 2014. The deadline for application is January 30, 2014.

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

Garden Club of America Wetlands Scholarship

The Garden Club of America offers a one-year scholarship for graduate studies in coastal wetlands and support of field-based research. The goals of the Garden Club are to promote wetlands conservation through the support of young scientists in their fieldwork and research. The deadline for application is January 15, 2014.

http://ccrm.vims.edu/education/garden_club/index.html

Green Living Project Student Film Project

Green Living Project's Student Film Project is a filmmaking competition that encourages students, from middle school through college, to produce a short film telling a compelling story about a local or global sustainability-related project. The deadline for submission is January 17, 2014.

<http://glpfilms.com/education/student-film-project/>

Marine Debris Art Contest

NOAA's Marine Debris Division offers the Marine Debris Art Contest, *Keep the Sea Free of Debris*, for K-8 students in all states and U.S. territories. The deadline for submission is December 19, 2013.

<http://marinedebrisblog.wordpress.com/2013/11/07/2014artcontest/>

Marine Debris Prevention through Education and Outreach

The NOAA Marine Debris Program offers funding for marine debris prevention projects through the grant, Marine Debris Prevention through Outreach and Education. The grant seeks to fund projects that will lead to the prevention of marine debris in the marine and coastal environments through the implementation of dedicated education and outreach activities. The deadline for application is December 20, 2013.

<http://www.grants.gov/web/grants/view-opportunity.html?oppld=247582>

MATE ROV Challenge

The MATE competition requires students to transform their teams into companies that manufacture, market, and sell products. In addition to engineering their ROVs, the students are required to prepare technical reports, poster displays, and engineering presentations that are delivered to working professionals who serve as competition judges. The 2014 MATE competition highlights the role that ROVs play in exploring and documenting shipwrecks, studying sinkholes, and conserving our national maritime heritage sites. Sign up for regional updates, check out the missions, and more.

<http://www.marinetech.org/rov-competition-2/>

Nancy Foster Scholarship Program

NOAA's Office of National Marine Sanctuaries hosts the Nancy Foster Scholarship Program, designed to support students interested in NOAA mission-related sciences of oceanography, marine biology, or maritime archaeology (including all science, engineering, and resource management of ocean and coastal areas), particularly by female and minority students. Hurry - the deadline for application is December 12, 2013.

<http://fosterscholars.noaa.gov/howtoapply.html>

One Ocean Film Festival

The purpose of this film festival is to inspire, encourage, recognize, and promote the work of student filmmakers who are passionate about the ocean and maritime heritage. The themes of this year's competition aim to highlight and showcase our nation's rich maritime resources, heritage, and traditions. Hosted by NOAA's Monitor National Marine Sanctuary, the festival will be held on April 26, 2014 in Wanchese, North Carolina. Festival entries are open to students in grades 6-12. The deadline for submission is March 15, 2014.

<http://monitor.noaa.gov/>

P3 Design Competition for Sustainability

The EPA is seeking applications proposing to research, develop, and design solutions to real world challenges involving the overall sustainability of human society. *P3: People, Prosperity and the Planet Student Design Competition for Sustainability* highlights the use of scientific principles in creating innovative projects focused on sustainability. The deadline for application is December 17, 2013.

<http://www.epa.gov/P3/>

Sea Turtle Scholarship

The Ocean Foundation and The Boyd Lyon Sea Turtle Fund seek applicants for the Boyd N. Lyon Scholarship for the academic year 2014-2015, for sea turtle research and conservation. The deadline for application is February 1, 2014.

<http://www.oceanfdn.org/userfiles/files/Boyd-Lyon-RFP-2014%281%29.pdf>

Seawall Interpretive Trail Request for Proposals

Artist Boat's Seawall Interpretive Trail (Project S.I.T.) public art residency program is a beautification project to transform 63 Galveston Seawall benches into educational works of art that depict the coastal and ocean heritage of Galveston Island and the Gulf of Mexico. Artist Boat is issuing a call for design proposals for the next five benches. See the website for bench topics and details of the project.

<http://www.artistboat.org/uploads/ArtistCallForProposals.pdf>

<http://www.artistboat.org/project-s-i-t.html>

Wisconsin Environmental Education Board Grants - Wisconsin

The Wisconsin Environmental Education Board (WEEB) is seeking proposals for the 2014-2015 grant cycle for general environmental education grants, water education grants, forestry grants, and school forest grants. The deadline for submission is February 15, 2014.

<http://www.uwsp.edu/cnr-ap/weeb/Grant-Program/Pages/default.aspx>

INTERNSHIPS AND TEMPORARY OPPORTUNITIES

Earth Expeditions and Global Field Master's Program

The Cincinnati Zoo and Botanical Garden, in partnership with Miami University's Project Dragonfly, offers Earth Expeditions graduate courses and the Global Field Program master's degree, some with an emphasis on marine science and education. Sites for 2014 include the Australia, Hawai'i, and many more. The deadline for application is January 28, 2014.

<http://www.projectdragonfly.org/gfp/index.php>

CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT

Climate Stewards Education Project - Online

NOAA's Climate Stewards Education Project provides formal and informal educators working with elementary through university students with sustained professional development, collaborative tools, and support to build a climate-literate public that is actively engaged in climate stewardship. Participants are eligible for a variety of funding resources. Hurry – the deadline for application is December 13, 2013.

<http://oceanservice.noaa.gov/education/climate-stewards/>

DataStreme Courses - Various

The American Meteorological Society's DataStreme Project is an expenses-paid professional development program for in-service K-12 educators. Graduate-level courses in meteorology, oceanography, and climate science are offered by Local Implementation Teams across the country. To register, please contact your nearest LIT leader. A new course starts in January 2014..

<http://www.ametsoc.org/amsedu/DS-Ocean/index.html>

EarthEcho Expeditions: Into the Dead Zone Hangout - Online

Join EarthEcho staff and partners to Continue the Journey with EarthEcho Expeditions: Into the Dead Zone, December 10, 2014 via Google+ Hangout on Air. Explore curriculum, resources, and incentive opportunities; learn about progress monitoring for service-learning; and ask questions live on the air. Hurry – free registration is required.

<http://earthecho.org/news/HOA-121013>

Eco-Art Adventures - Texas

Artist Boat recently received a grant from the Coastal Management Program to serve middle and high school students and their teachers in Galveston, Corpus Christi, and Port Aransas schools. Artist Boat is offering Eco-Art Adventures, a WaterIQWet training program, to students living in coastal areas. This program includes a two-hour, on-site Eco-Art Workshop, a four-hour Eco-Art Kayak Adventure, access to a WaterIQWet Blog Site, and the Coastal Waters Institute.

Contact LuAnne Ashley at lashley@artistboat.org

<http://www.artistboat.org/eco-art-adventures.html>

Environmental Communication for Behavior Change - Online

The Duke Environmental Leadership program offers the distance-learning course, Environmental Communication for Behavior Change, February 3-March 21, 2014. This course provides environmental professionals with an introduction to the strategies, methods, and tools of environmental communication that effectively lead to changes in behavior, primarily using social marketing.

<http://www.nicholas.duke.edu/del/executiveeed/courses/environmental-communication-for-behavior-change-1>

Georgia Shorebirds Conservation Teacher Workshop - Georgia

The Sapelo Island National Estuarine Research Reserve is hosting this teacher workshop January 10-12, 2014 on Sapelo Island, Georgia. The workshop is open to formal and informal educators of all grade levels. Participants will receive curriculum and resource materials. The deadline for registration is December 15, 2013.

<http://eeingeorgia.org/net/calendar/details.aspx?s=111892.0.0.4863&dateid=7393>

NGSS Professional Development Workshop - Connecticut

The New England Ocean Sciences Education Collaborative and partners offer formal and informal educators this free workshop, December 11, 2014 in Groton, Connecticut. Participants will examine curricular connections between the Next Generation Science Standards and State Environmental Literacy Plans in order to become familiar and comfortable with both documents as they become guiding standards for secondary science education.

Contact Lauren Rader at lrader@oceanology.org

NMEA 2014 Call for Papers

The Call for Papers for the National Marine Educators Association 2014 conference, *Sailing into Marine Education, from the Ocean to the Bay*, July 21-25, 2014 in Annapolis, Maryland offers tracks for classroom and informal educators, researchers in a changing world, and others, and in Next Generation Science Standards components, implementation and overcoming obstacles, Arts and Culture, and more. The deadline for submission is January 27, 2014.

<http://www.nmea2014.com/>

NSTA Web Seminar: Using the Learning Center as Your e-Textbook

NSTA presents the free webinar, Using the Learning Center as Your e-Textbook with Preservice Teachers, for professor of science preservice teachers, December 10, 2013. Learn how to create an integrated learning experience for your students with a customized interactive e-Textbook leveraging the NSTA Learning Center. Participants will receive a SciPack of their choice along with other materials. Hurry – register today.

http://learningcenter.nsta.org/products/symposia_seminars/NLC/webseminar33.aspx

Ocean Exploration Workshops – Various

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

Why Do We Explore?

- January 25, 2014 with National Aquarium in Baltimore, Maryland. The deadline for application is January 8, 2014. Contact David Christopher at dchristopher@aquaria.org
- February 1, 2014 with Audubon Aquarium of the Americas, New Orleans, Louisiana. The deadline for application is January 10, 2014. Contact Tricia LeBlanc at tleblanc@AudubonInstitute.org
- February 8, 2014 with Oregon Museum of Science and Industry, Portland, Oregon. The deadline for application is January 17, 2014. Contact Tracy Crews at tracy.crews@oregonstate.edu

How Do We Explore?

- March 1, 2014 with Dauphin Island Sea Lab, Dauphin Island, Alabama. The deadline for application is February 7, 2014. Contact Sara Johnson at sejohnson@disl.org

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

Science Institute 2013-2014 – Minnesota

The Great Lakes Aquarium and Wolf Ridge Environmental Learning Center offer the *Science Institute 2013-2014: Real Stories in Research: the Lake Superior Edition*. This free opportunity for educators to access current Lake Superior research and supporting lesson plans focuses on the nature of science and the steps involved in conducting scientific research in the context of research from the Lake Superior watershed. Visit the website for complete details; note that the workshop series has already started.

<http://glaquarium.org/education-programs/teacher-workshops/>

Valuing Ecosystem Services in the Face of Climate Change - Online

The Ecosystem-Based Management Tools Network will host a webinar on Valuing Ecosystem Services in the Face of Climate Change, January 22, 2014. While on the website, check out other upcoming and archived webinars.

<http://www.ebmtools.org/webinar-valuing-ecosystem-services-face-climate-change-north-carolina-and-hawaii-ken-bagstad-usgs.ht>

Wetland Courses for Educators - Maryland

Environmental Concern, Inc. offers a variety of courses designed for formal and non-formal educators who are interested in learning more about wetlands, and who would like to bring the excitement of wetland education into their classroom. Upcoming December workshops include *WOW! The Wonders of Wetlands* and *POW! The Planning of Wetlands* in St. Michaels, Maryland. Check out their upcoming schedule, along with hands-on education materials, programs, and more.

<http://www.wetland.org/educationhome.htm>

EDUCATIONAL RESOURCES

Aquarius Sea Surface Salinity from Space

The Aquarius satellite education pages offer information and activities about the surface salinity of the global ocean. The materials are designed to demonstrate how monitoring changes in salinity patterns can help us better understand connections between the water cycle, ocean circulation, and climate. Check out these activities, webinars, and more.

<http://aquarius.umaine.edu/cgi/education.htm>

Caribbean Climate Wire

The overall goals of the Caribbean Climate Wire are to generate greater awareness about the impacts of climate change in the Caribbean and how communities and policy-makers are addressing it. The Caribbean Climate Wire is aimed at deepening the volume and impacts of reporting about climate change in the Caribbean. By providing a mix of different media the outputs of the work will be accessible to different audiences on different platforms.

<http://www.ipsnews.net/news/projects/caribbean-climate-wire/>

Coastal Resilience

The Nature Conservancy and partners have revamped their Coastal Resilience website with decision-making tools for coastal risk assessment. The website offers an interactive suite of tools, available in the Geographies section, which allows you to examine storm surge, sea level rise, and more; develop risk reduction and restoration solutions; and more.

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

Cool Choices

Cool Choices inspires and assists individuals, communities, and businesses to achieve meaningful reductions in greenhouse gas emissions through voluntary action. The Cool Choices game was developed with serious fun in mind, inspiring individuals to take sustainable actions and record them by making the process fun, social, and easy. Cool Choices game cards identify simple, no- and low-cost sustainable practices that change

daily habits into fun, noticeable, and rewarding opportunities. Check out the Cool Choices game for schools on your way to becoming a Green & Healthy School.

<http://coolchoices.com/>

Coralpedia

Coralpedia is a free, online guide to Caribbean corals, octocorals and sponges supported by the University of Warwick. This updated version offers the ability for records to be easily updated, changed, or corrected. It is available in English and Spanish, and most entries offer more than one photo of the species in question.

<http://coralpedia.bio.warwick.ac.uk/>

Counting Plastic

Deep Sea News has an article on figuring out how much plastic is in the ocean. Check this out for a quick review, then click on the links for more in-depth information, then the home page for other great articles.

<http://deepseanews.com/2013/12/how-do-you-figure-out-how-much-plastic-is-in-the-ocean/>

Dive and Discover Expedition 15: Dark Life at Deep-Sea Vents

Join scientists from the Woods Hole Oceanographic Institution and partners for the *Dive and Discover Expedition 15: Dark Life at Deep-Sea Vents*, January 2-21, 2014. This website follows the action aboard the research vessel *Atlantis* via daily updates, photos, and videos. Students can email questions and get personal responses from researchers and crew members. Check out the classroom activities, video interview, and more.

<http://divediscover.whoi.edu/>

EcoMOBILE

EcoMOBILE (Ecosystems Mobile Outdoor Blended Immersive Learning Environment) is an extension of the EcoMUVE curriculum, developed at the Harvard Graduate School of Education. EcoMOBILE allows students to explore a virtual pond and extend their learning through one or more field trips to a local pond environment. Students can access and collect information and clues about the virtual environment via a mobile device. Then, students can extend their learning to the real world by using environmental probes that allow collection of real-time data.

<http://ecomobile.gse.harvard.edu/>

Exploratorium: Explore Earth

This website from the Exploratorium offers links to a range of Earth science subjects as visitors explore the Antarctic, turbulent landscapes, science and art, and more. Be sure to check out additional topics including Culture, Living Things, and more.

<http://www.exploratorium.edu/explore/earth>

Great Lakes Climate Change Curriculum

Ohio Sea Grant has developed a set of climate change lessons for the Great Lakes region. These activities provide information for teachers and the printable resources needed to use them. The curriculum are meant to help middle and high school students draw connections between global climate change and what's happening in their own neighborhoods. Curriculum topics include Learning with Google Earth, Climate Change and Aquatic Invaders, and more.

<http://climategreatlakes.com/tag/great-lakes-climate-change-curriculum/>

Great Lakes in My World Curriculums

The Great Lakes in My World curriculums were developed to instill a sense of place; provide a positive focus and be inquiry-based; promote problem-solving and learning for understanding; and offer service learning. Two documents are available, for K-8 and 9-12, and include indoor and outdoor activities.

<http://www.greatlakes.org/glimw>

Inquiry-to-Insight

The Inquiry-to-Insight (I2I) project offers free, interactive digital learning tools relating to climate change and ocean acidification and promotes international collaboration among high school students as they learn about, discuss, and envision solutions to shared environmental challenges.

<http://i2i.stanford.edu/>

JASON Live Careers

Tune in to JASON Learning's free, live, interactive events which can help inspire kids to pursue STEM careers. Join engineer Clara Smart (one of the scientists of the Nautilus Corps of Exploration), December 12, 2013 and explorer/author Lorie Karnath (former president of the Explorer's Club), December 19, 2013. Students can pre-submit questions on the submission form or through video, or submit using the form during the webinar. All events are archived and posted soon after the event ends; if you know you'll be watching later, be sure to pre-submit questions -- you'll still have a great chance of having your question answered in the program, especially if you send in a video question.

<http://www.jason.org/live>

Marine Mammal Smart Phone Apps

NOAA Fisheries has unveiled two new smartphone apps, Dolphin & Whale 911 and See & ID Dolphins & Whales, as a way to assist citizens reporting sick, injured or dead marine mammals and identify and view marine mammals responsibly in the wild.

http://sero.nmfs.noaa.gov/protected_resources/outreach_and_education/mm_apps/index.html

Maritime Poetry in Google Earth

Ira Bickoff has posted another Google Earth tour on Sail the Book, this time of maritime poetry linked to marine science topics and geography.

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

My Science Box

K-college teachers will find classroom-tested hands-on science lessons at My Science Box. The website offers individual lessons for various grade levels as well as "curriculum boxes," or units, for middle and high school students. Topics include ecology, measurement and observation, and more. Each box contains lesson plans, assessments, field trip planning materials, resources, and even sub-plans with independent activities such as webquests.

<http://www.mysciencebox.org/node/12>

National Saltwater Angler Survey

This NOAA Fisheries survey aims to identify what matters most to saltwater recreational anglers. The survey provides insights into anglers' motivations, characteristics of

successful trips, and preferred management objectives to help NOAA Fisheries better understand what saltwater recreational anglers care most about.
<http://www.st.nmfs.noaa.gov/economics/fisheries/recreational/attitudes-and-preferences-of-anglers/index>

Ocean Principals Videos

These videos were produced by high school students in Ánimo Leadership Charter High School, in both English and Spanish. Check these out.
https://www.youtube.com/watch?v=-irPPkM6YnY&list=PLBiYiSrGEo8m_CuKliEW0P2NiNkuLWvzR

Ocean Science / Art Collaborations

Lynchpin – the Ocean Project was developed to support research into the significance of the oceans to life on the planet, and to encourage arts/ocean science conversations and collaborations that bring these stories to the wider community in new ways. *Living Data: Connecting to Change* makes and presents visualizations that combine climate science data and personal connections to the environment. *Synergy* is an experimental program that catalyzes partnerships between artists and research scientists. The *Art for Science Ocean Fund* promotes interest on the part of the public in understanding and appreciation of the ocean environment by combining art with science for the purpose of education.

<http://www.lynchpin.org.au/>
<http://www.livingdata.net.au/index.html>
<http://synergyexhibit.org/>
<http://www.oceanfund.org/>

Outstanding Science Trade Books

NSTA and the Children's Book Council have selected an annual list of Outstanding Science Trade Books for Students K–12 for books published in 2013. This year, science teachers and mentors have been challenged to meet the expectations of the Framework for K–12 Science Education and the Next Generation Science Standards.
<http://www.nsta.org/publications/ostb/>

Planning Trails with Wildlife in Mind: A Handbook for Trail Planners

The National Trails Training Partnership website hosts this downloadable manual which discusses how to balance the benefits of creating trails with stewardship of nature and wildlife.
<http://www.americantrails.org/wild/>

Polar Portal

This website reports the results of Danish monitoring of Arctic ice and includes details such as surface conditions, sea ice extent, temperatures, glacier positions, and mass changes. Links to resources, news, and information on monitoring methods are also available.
<http://polarportal.dk/en/home/>

Science of Sand

This site contains sand samples from throughout the world. Visitors can click on a location and find pictures of the beach where the sand came from as well as magnifications and the reflectance spectrum of the sand for some samples. The website

also links to lessons about sand, including Atlantic coast sand, geologic time project, and more.

<http://www.scienceofsand.info/sand/sandintro.htm>

Sparticl

Sparticl is a web and mobile service for teens which offers a collection of science, technology, engineering, and math information, images, videos, games, and hands-on activities. Topics include Living Things, Earth & Space, Explore, and more. Explore topics by category or by keywords.

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

Student Science

Science News for Kids has been renamed Science News for Students. Topics include Earth & Sky, Life, and more.

<https://student.societyforscience.org/sciencenews-students>

Whaling History: Laura Jernegan, Girl on a Whaleship

In October 1868, 6-year old Laura Jernegan from Edgartown, Massachusetts set out on a three-year whaling voyage with her family and the ship's crew to the whaling grounds of the Pacific Ocean. Courtesy of the Martha's Vineyard Museum, her story lives on today through her journal, which has been digitized and placed online. The website's interface includes a "Magic Lens" which allows readers to see typed text superimposed over Laura's handwriting by mousing over the section of interest. The website includes maps, artifacts, background history of whaling, and much more.

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

WHOI Resources/Materials for Teachers

This website from the Woods Hole Oceanographic Institution offers a range of educational materials for teachers. The materials are divided into six areas including Information Packets, Citizen Science Projects, and more.

<http://www.whoi.edu/page.do?pid=9538>

INITIATIVES, JOURNALS, and MORE

Christmas Bird Count

The 114th Annual Audubon Christmas Bird Count will take place December 14, 2013-January 5, 2014. The longest running Citizen Science survey in the world, the Christmas Bird Count provides critical data on population trends.

<http://birds.audubon.org/christmas-bird-count>

Christmas Creatures

Ann McElhatton has set up a Pinterest page with Christmas and winter-themed marine organisms. Enjoy!

<http://www.pinterest.com/beachscientist/christmaswinter-themed-marine-organisms/>

Holiday Lighting Cost Calculator

WE Energies from Wisconsin offers this quick and easy holiday lighting cost calculator to help you figure the approximate electricity cost of your icicle lights, inflatable yard art, and more.

http://www.we-energies.com/home/holiday_calculator.htm

Marine News – Marine Protection Special

The IUCN Global Marine and Polar Programme offers this special edition of its e-newsletter, *Marine News*. As part of its focus on Marine Protection, the October 2013 issue celebrates the choice of 31 new ocean Hope Spots, areas of ocean that merit special protection due to their wildlife and significant underwater habitats. You can also check out back issues of the publication and subscribe to the newsletter from the website.

http://www.iucn.org/about/work/programmes/marine/gmp_newsletter/

Special Days for EE: School Year Planner

Each year there are special days set aside for environmental education. Check out this downloadable planner to incorporate some of these special EE days into your curriculum.

<http://eeingeorgia.org/resource/about.aspx?s=16215.0.0.4863>