NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION INFORMATION EXCHANGE FOR MARINE EDUCATORS JULY 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, 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/.

NOTABLE REFERENCE

Aquaculture Report

The World Resources Institute and partners released Improving Productivity and Environmental Performance of Aquaculture, the latest installment of the World Resources Report: Creating a Sustainable Food Future. It examines aquaculture's environmental footprint, profiles case studies of improvements in productivity and environmental performance, and more.

http://www.wri.org/publication/improving-aquaculture

CONFERENCE OF THE MONTH

National Marine Educators Association's 2014 Annual Conference

The 2014 NMEA conference, July 21-25. 2014 in Annapolis, Maryland, is dedicated to those who educate others on marine and aquatic environments. The website hosts the

full schedule with concurrent schedules, special events, speakers, and more. The concurrent Youth Ocean Conservation Summit will take place July 22, 2014. Check out the Friday Edcamp, Climate Education for a Changing Bay, Fish Bits and Tidbits, and much, much more.

http://www.nmea2014.com/

WEBSITE OF THE MONTH

Colossal

Not marine education, but perfect for a stormy summer day when you can't get outside: Colossal is a blog that explores art and other aspects of visual culture. Many features explore the intersection of art and science as well as the beauty of the natural world. Every week the blog provides 15-25 new posts, videos, photographs, and art installations. You can look through the archives at random, or by topics including animals, nature, stop motion, and more. Check this out when you have lots of free time to spend here.

http://www.thisiscolossal.com/

REQUESTS

Eco-Schools Survey

The Eco-Schools USA team supports the green schools movement. They would like your feedback through their 2013-2014 Eco-Schools USA survey.

https://www.surveymonkey.com/s/2014Eco-

SchoolsUSAsurvey?s_email_id=20140624_ECO_ENG_Survey

Invitation for Submissions to Green Teacher

Classroom teachers are invited to submit to a new book on teaching children (ages 5-12) about climate change with descriptions of teaching practices around climate change, sustainability practices, and/or climate activism. The writing style of articles in Green Teacher is preferable.

Contact winograk@oregonstate.edu

GRANTS AND OPPORTUNITIES

Aquatic Resources Conference Scholarship - Michigan

The purpose of this Student Scholarship Program is to encourage full-time college students with a strong interest in aquatic resources education to attend the Aquatic Resources Education Association's Biennial conference, October 26-30, 2014 in Traverse City, Michigan. The deadline for application deadline is August 30, 2014 https://sites.google.com/a/tipiper.com/kidfish-allfish-wefish/schedule-of-fishing-clinic-events

Climate Impacts on Fish Stocks and Fisheries

The NOAA Climate Program Office has released a FY14 federal funding opportunity, Understanding Climate Impacts on Fish Stocks and Fisheries to Inform Sustainable Management, to support collaborative research projects to improve understanding, projection, and management of the impacts of climate variability and change on fish stocks and fisheries in the U.S. Northeast Shelf Large Marine Ecosystems. The deadline for letters of intent is July 14, 2014.

http://cpo.noaa.gov/GrantsandProjects/COCAFFO.aspx

CNN Heroes

Nominate a CNN Hero – an everyday person changing the world. Categories include Defending the Planet, Community Crusader, and more. The deadline for nomination is August 31, 2014.

http://www.cnn.com/2012/01/05/living/cnnheroes-how-to-nominate/index.html

Co-Author an InTeGrate Module

The Interidsciplinary Teaching about Earth for a Sustainable Futures offers the call for InTeGrate 2014 for course and module development teams. InTeGrate is seeking proposals from faculty and instructors to author new undergraduate-level teaching materials and model courses. All materials will be developed, tested, and published by collaborative teams drawn from a minimum of three institutions and must support at least 2 weeks of instruction. The deadline for proposal is July 15, 2014. See the website for details.

http://serc.carleton.edu/integrate/participate/2014call.html

Global Youth Service Day Lead Agency Grants

Lead Agencies are local, regional, or statewide organizations that increase the scale, visibility, and impact of Global Youth Service Day in their city, region, or state. Lead Agencies convene a planning coalition of partner organizations that collectively engage a minimum number of youth volunteers in service, engage local media and elected officials, and plan a high profile signature project or celebration of service. The deadline for application is July 31, 2014.

http://www.ysa.org/gysdleads2015

Just-in-Time Teaching

The Science Education Resource Center (SERC) at Carleton College hosts References and Resources for Just-in-Time Teaching (JiTT) Teaching. Resources include JiTT background information, Internet resources, and more. Topics include Geoscience, Biology, and more.

http://serc.carleton.edu/introgeo/justintime/references.html

Marisla Environmental Program

The Marisla Foundation offers Environmental Program grants for activities that promote the conservation of biological diversity and advance sustainable ecosystem management. Primary emphasis is on marine resources conservation with a geographic focus on western North America, Chile, and the western Pacific. The program also supports the search for solutions to health threats caused by toxic chemicals. The next deadlines for application are July and October 15, 2014..

https://online.foundationsource.com/public/home/marisla

Melinda Gray Ardia Environmental Foundation Grants

K-12 teachers are invited to apply for grants to develop or implement environmental curricula that integrate hands-on ecology exercises into the classroom. To facilitate learning and student empowerment, environmental curricula should be holistic and strive to synthesize multiple levels of learning (facts, concepts, and principles), often including experiential integrated learning and problem solving. The deadline for pre-proposals is September 14, 2014.

http://www.mgaef.org/application.htm

North American Wetlands Conservation Act Grants

The North American Wetlands Conservation Act provides matching grants to organizations and individuals who have developed partnerships to carry out wetlands conservation projects in the United States, Canada, and Mexico for the benefit of wetlands-associated migratory birds and other wildlife. There are both Standard and Small grants programs. Both are competitive programs and require that grant requests be matched by partner contributions at no less than a 1-to-1 ratio. Funds from U.S. Federal sources may contribute towards a project, but are not eligible as match. The deadlines for application are July 8 and November 7, 2014. http://www.fws.gov/birdhabitat/Grants/NAWCA/index.shtm

Ocean 180 Video Challenge

The Florida Center for Ocean Science Education Excellence (COSEE Florida) invites ocean scientists to share 3-minute video abstracts detailing their research and its importance. Videos must be based on a recent peer-reviewed publication in ocean science fields. The deadline for submission is December 1, 2014; check the website for additional timelines.

http://www.ocean180.org/

Ornithological Council Small Grants:

The Ornithological Council is currently accepting applications for its Small Grants Program for projects that integrate ornithological research and conservation. Projects taking place in Mexico, Central America, the Caribbean, and/or South America are eligible. The deadline for application is 31 July 2014.

http://ornithologyexchange.org/articles/_/community/oc-2014-small-grants-call-for-proposals-solicitud-de-propuestas-r128

Rivers, Trails and Conservation Assistance Program

The Rivers, Trails and Conservation Assistance (RTCA) program assists with community-led natural resource conservation and outdoor recreation initiatives. RTCA staff provide guidance to communities so they can conserve waterways, preserve open space, and develop trails and greenways. The deadline for application is August 1, 2014, but contact them as early as possible before application deadline to discuss your proposed project and inform them of your intent to apply. See the website for complete details.

http://www.nps.gov/orgs/rtca/apply.htm

Sanctuary Classic

The 2014 Sanctuary Classic is a free fishing photograph contest that celebrates recreational fishing opportunities in America's national marine sanctuaries and promotes conservation-focused fishing practices. The deadline for entry is September 1, 2014. http://sanctuaryclassic.org/

Science Project Contest

This contest, open to student members of the Entomological Society of America, seeks to identify top science project ideas for elementary, middle, and high school teachers, students, and parents. Projects should relate to insects, spiders, or related arthropods. The deadline for submission is August 31, 2014.

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

SeaKeepers DISCOVERY Yacht Program

The International SeaKeepers Society is currently accepting research proposals for DISCOVERY Yacht expeditions. The SeaKeepers DISCOVERY Yacht program provides marine scientists with a cost effective platform for at sea research by placing researchers on privately owned vessels to conduct oceanographic research. SeaKeepers is committed to promoting ocean research, education, and conservation. http://www.seakeepers.org/ProgramsPolicies/DiscoveryYachts

Summer of Service Awards

The Summer of Service Awards recognize young people, ages 5-18, who are creating positive change through volunteering and service. The deadline for application is July 31, 2014.

http://www.ysa.org/beinspired

Toshiba America Foundation Grants

Toshiba America Foundation accepts applications from teachers who are passionate about making science and mathematics more engaging for their students. Grades 6-12 Grant requests for \$5,000 or less are accepted on a rolling basis. Larger grant requests are accepted and reviewed August 1 and February 1 each year. See the website for complete details.

http://www.toshiba.com/taf/index.jsp

U.S. Fish and Wildlife Service Recovery Implementation Fund

The FWS Ecological Services Program provides Federal financial assistance on a competitive basis to states, other Federal agencies, landowners, educators, non-profit organizations, researchers, and other potential partners to secure information about endangered, threatened, or candidate species; to aid in the recovery of these species; to avert listing of species pursuant to the Endangered Species Act; and to help conserve the ecosystems upon which these species depend. The deadline for application is July 31, 2014.

http://www.grants.gov/web/grants/view-opportunity.html?oppId=253309

INTERNSHIPS AND TEMPORARY OPPORTUNITIES

Husbandry Intern - Florida

The Smithsonian Marine Ecosystems Exhibit Husbandry Intern, September-December, 2014 in Fort Pierce, Florida, will assist with the daily maintenance of the fishes, invertebrates, and systems associated with the ecosystem aquariums. The deadline for application for this paid, part-time position is July 18, 2014. http://www.sms.si.edu/Spring%202014_SMEE_Husbandry_Internship.pdf

Marine Education Fellowship

Ecology Project International offers Marine Education Fellowships, 8-day ecology-focused fellowships in Baja, Mexico and Costa Rica, in March 2015. All expenses for the fellowship are covered except airfare and a program fee. The deadline for application is September 15, 2014.

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

CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT

CERF Conference

The Scientific Program Committee for the Coastal and Estuarine Research Federation's (CERF) 2015 conference, November 8-12, 2015 in Portland, Oregon, invites proposals for scientific sessions and workshops, with a special focus on the Grand Challenges in Coastal and Estuarine Science. The deadline for session and workshop proposals is September 12, 2014.

http://www.erf.org/call-for-proposals

Introduction to Ocean Science - Massachusetts

The New England Aquarium will host this three-part educator workshop, July 29–31, 2014 in Boston, Massachusetts, for educators in grades 3-8 (others also welcome). Participants will explore essential scientific concepts in the context of ocean science through investigations. The daily topics are Physical Properties of the Ocean, Life in the Ocean, and Human and Ocean Interaction.

http://www.neaq.org/education_and_activities/teacher_resources/professional_development/workshops/index.php

National Congress on Science Education

NSTA will host the 2014 National Congress on Science Education meeting, July 16–19, 2014 in Washington, D.C. This year's theme, *Breaking Down the Walls: Take Scientific Literacy to Everyone, Everywhere*, highlights topics such as informal science and environmental science, as well as scientific and engineering practices. Southwest Airlines is offering discount travel vouchers to meeting attendees when booking reservations to the meeting through the airline.

http://www.nsta.org/about/collaboration/congress.aspx https://www.surveymonkey.com/s/NCSESouthwest

New Journeys Workshop – New York

Join NOAA's National Ocean Service, the Hudson River National Estuarine Research Reserve, and Project Indigenous for the free New Journeys Traditional Environmental Education and Climate Change Workshop, August 3-4, 2014 in Staatsburg New York. Educators will learn about the role of culture, tradition, ceremony, and respect in Native American communities and the importance of including the Indigenous community when discussing issues impacting the local environment. In addition, participants will actively learn about the local estuarine ecosystem, climate change impacts on it, and resources to teach about the impacts on estuarine ecosystems and northern Native communities. Hurry – space is limited.

https://docs.google.com/a/noaa.gov/spreadsheet/viewform?usp=drive_web&formkey=dH V4SFduQXR5dEctRXhRa2pWUkFGa3c6MA#gid=0

Oregon Coast Education Program Summer Workshop - Oregon

Science Educators in grades 6-12 can join the educators at the Oregon Coast Education Program, August 13-15, 2014 in Charleston, Oregon. Topics include coastal ecology and habitats, impacts and solutions including climate connections, working with data sets, and making connections to your schools. Participants will receive continued support during the school year. A stipend may be available. http://www.pacname.org/news.shtml

Summer Teacher Workshops – Florida

Join MarineLab's biologist/instructors in an exploration of the marine communities in the Upper Florida Keys, July 25-27 and July 28-August 2, 2014. Days are spent snorkeling or diving the seagrasses, mangroves, and coral reefs protected by the Florida Keys National Marine Sanctuary, Everglades National Park and John Pennekamp Coral Reef State Park. All workshops are content oriented and are designed for the middle and high school science teacher. Topics include Project WILD/Aquatic WILD, coastal marine ecology, research techniques, and more.

http://www.marinelab.org/Teacher_Workshops.html

EDUCATIONAL RESOURCES

Biodiversity Heritage Library

The Biodiversity Heritage Library is a consortium of natural history and botanical libraries that cooperate to digitize and make accessible the literature of biodiversity held in their collections. Check out the tag cloud for topics, including fisheries, oceanography, and much more.

https://archive.org/details/biodiversity

Biomimicry Education Network

The Biomimicry Education Network (BEN) is a global community of teachers who are integrating biomimicry into K-12 classrooms, university courses, and informal learning environments. The website and blog support members by providing curriculum and resource downloads, a platform to connect with colleagues, and news and information. Check out the on-line flip-book, Biomimicry in Youth Education. Note: free registration is required.

http://ben.biomimicry.net/

Bird Song Hero

The All About Bird Biology team from Cornell has developed the game, Bird Song Hero, asking players to match the song they're hearing to one of three visual representations of the sound. The game puts the visual side of the brain to work. http://biology.allaboutbirds.org/bird-song-hero/

Citizen Science in Space

Scientists need your help with real-world space research. Zooniverse features a number of space science projects that need keen observational skills to find information. Current citizen science projects include How do Galaxies Form? Study explosions on the Sun, and more.

https://www.zooniverse.org/projects#space

Climate Bingo

Climate Kids offers the trip game, Climate Bingo. Players in a car or on a bus look for things that are good for the climate and environment. The bingo generator creates a unique card for each player

http://climatekids.nasa.gov/bingo/

Climate Change Indicators

The third edition of EPA's Climate Change Indicators in the United States presents 30 indicators, each describing trends related to the causes and effects of climate change. It

focuses primarily on the United States, but in some cases global trends are presented to provide context or a basis for comparison. Sections include Understanding Greenhouse Gases, Snow and Ice, Ecosystems, and more.

http://www.epa.gov/climatechange/science/indicators/download.html

Coralis

This website is intended to provide general information about coral and coral reefs. Included is background information, stressors, immunity, and more. It is available in English and Spanish.

http://coralises.org/

Cyberlearning Educators' Corner

The Cyberlearning Educators' Blog aims to bridge cyberlearning research with classroom practice. The blog is meant to be a resource for people interested in the design and development of innovative learning technologies that are informed by and inform the understanding of the processes of learning. Examples include augmented reality, animated storytelling, educational gaming, and more. http://www.circleducators.org/

FlipQuiz

FlipQuiz is designed to help educators create gameshow-style boards to complement traditional flash cards. The features several templates, along with the ability to save the boards to the cloud. Free registration is required. http://flipquiz.me/

Food Chain

Check out the Food Chain song by the Banana Slug Band. Be sure to check out the Slugs' other great educational songs (including the Only One Ocean CD) while on the website.

http://bananaslugs.bandcamp.com/track/food-chain

Global Forest Watch

The World Resources Institute hosts this dynamic forest monitoring and alert system. Global Forest Watch unites satellite technology, open data, and crowdsourcing to offer access to timely and reliable information about forests. The interactive map of the world includes features that allow users to learn about tree cover loss over time, success stories from around the world, and more. Visitors must agree to terms of use before accessing the website.

http://www.globalforestwatch.org/

Lesson Collaborations

The Encyclopedia of Life is partnering with The Encyclopedia of Earth and Listen Edition, a company that creates teaching materials around public radio stories. Together, they are giving educators free access to relevant lesson plans and teaching resources that support using of EOL's One Species at a Time podcasts in classrooms. The first three lesson plans in the collaboration are now available for teachers to use for free with their middle and high school students. Check out the rest of the website for additional materials and a free trial.

http://www.listenedition.com/2014/05/15/killer-whales/

http://www.listenedition.com/2014/05/19/spotted-dolphins-and-spinner-dolphins/

http://www.listenedition.com/2014/05/15/right-whales/

Marine CSI

Marine CSI: Coastal Science Investigations is offering free sample lessons from their two books. Each book contains over 50 lessons divided into eight units correlated to the Next Generation Science Standards. Amazon offers a preview of the books on their website. Kimberly Belfer is offering a sample lesson; contact her with your grade level of preference and your location.

http://www.amazon.com/Marine-CSI-Coastal-Science-Investigations/dp/1492840718 http://www.amazon.co.uk/Marine-CSI-Coastal-Science-Investigations/dp/1497427223 Contact Kimberly Belfer at kimberly.belfer@gmail.com

MATE International ROV Competition

Follow along with the annual MATE competition, Exploring the Great Lakes: Shipwrecks, Sinkholes, and Conservation in Thunder Bay National Marine Sanctuary, June 26-28, 2014. Students will pilot their ROVs to explore and document an unknown shipwreck, collect scientific samples, inventory invasive species, and remove trash and debris, and more.

http://www.marinetech.org/

Mission Ocean

The Mission Ocean website is an interactive view of the Global Ocean Commission's final report, an 18-month study into the state of the high seas. The commission developed a rescue package of eight proposals to restore and protect its natural capital and services, with a five-year timeline. Visitors can download the report or view a series of interactives.

http://missionocean.me/

MIT+K12 Videos

MIT+K12 Videos are made for students by students. Current MIT students write and host free webisodes about their favorite science, technology, engineering, and math (STEM) topics for kids and kids-at-heart. Their mission is to use MIT's unique resources to inspire the inner scientist in all learners. Pilot videos include the Earth's tilt, chemiluminescence, and more.

http://k12videos.mit.edu/

Nautilus Expedition

This cruise is part of a larger research program focused on examining the ecosystem-level response to oil and gas in the Gulf of Mexico. The team is studying both natural oil and gas seepage into the Gulf of Mexico and ecosystem responses and effects directly attributable to the 2010 Deepwater Horizon oil spill. The focus is on deep-sea corals, animals that live on and around them, and their response to the oil spill. Follow the expedition, send a question, and more.

http://www.nautiluslive.org/

Ocean Acidification

This new website on ocean acidification is aimed at researchers, policymakers, and the public and offers infographics, news, publications, and more. Be sure to check out the multmedia page.

http://ocean-acidification.net

Partners Outdoors Conference Videos

The American Recreation Coalition offers videos of the general sessions of the 2014 Partners Outdoors conference.

http://www.funoutdoors.com/node/view/3152

Pubpeer

This website provides scientists with an ability to submit objective review/comments on a published paper. The authors of the paper will be contacted along with up to 100 scientists within the field and whomever reads it to make comments. The comments are permanently linked to the paper when found on the web, and therefore pressure to address problems with the paper and/or journal/editor will always be there. Personal attacks or those that do not address the major findings of the study are flagged and possibly removed.

https://pubpeer.com/

Q?rius

Q?rius is an interactive space in a learning lab located on the first floor of Smithsonian's National Museum of Natural History. Visitors are invited to be an active and contributing part of the lab. The website offers access to current and archived webcasts, teachers guide, activities, and more.

http://grius.si.edu/

Recreational Trails Program Database

The goal of the Recreational Trails Program Database project is to provide a central repository for national trail project data. The database hosts information about more than 20,000 trails.

http://recreationaltrailsinfo.org/

Resources for STEM Education

The NSF hosts this K-12 Resources for STEM Education website with links to resources and findings generated through educational research and development projects funded in part by the National Science Foundation. Materials include professional development, instructional materials, assessment, and research syntheses. http://www.nsfresources.org/home.cfm

Smithsonian Science How?

Smithsonian Science How? delivers real-world science through free, interactive, live webcasts and supporting resources. The 25-minute programs feature the research and personalities of the Smithsonian's National Museum of Natural History, providing students with positive STEM role models, information about science careers and pathways, and connections to current research. All webcasts are archived for use at a convenient time. Resources include a teacher guide, assessment, and more. https://grius.si.edu/jump/live-grius-science-webcasts#.U5Bt-igUrpU

State of the Science Fact Sheets

NOAA focuses on research with a high relevance to society. The State of the Science Fact Sheets reviews key research areas which may be of great interest to the public, and where there may be a diversity of science views within NOAA, and posts the most recent documents online. Current postings include Interpreting How Climate Change Affects Extreme Events, Ocean Acidification, Weather Forecast Uncertainty, and more. http://nrc.noaa.gov/CouncilProducts/ScienceFactSheets.aspx

Tropics of Sand

This sand gallery offers images of sand from different areas of the globe. http://www.tropicsofsand.com/#!

Urban Environmental Education Lesson Plans

These 26 lesson plans are an outcome of the 2011 online professional development course through the EECapacity project at Cornell University. Plans include Ecological Identity; Restoring Earth, Reflecting on Stories; Marine Ecosystem Invention; and more. http://urbanee.files.wordpress.com/2011/11/26-lesson-plans.pdf

World Network of Indigenous and Local Community Land and Sea Managers

The WIN (World Network of Indigenous and Local Community Land and Sea Managers) is a network that brings together indigenous and local community land and sea managers to share their knowledge and practices in managing ecosystems, protecting the environment, and supporting sustainable livelihoods. Check out the resources, read the stories, and more.

http://96.127.160.146/~worldind/

INITIATIVES, JOURNALS, and MORE

Conservation Service Corps

The 21st Century Conservation Service Corps is the modern day equivalent of the Civilian Conservation Corps. The partnerships engage young Americans in public lands, community green spaces, and water restoration. Check the website for participating programs and complete details. http://21csc.org/

International Wildlife Film Festival

The 37th Annual International Wildlife Film Festival is now available for touring. Read how to bring the films to your school or organization. http://wildlifefilms.org/

Legacy Magazine

Legacy, the National Association for Interpretation's periodical, offers a forum for professionals in the field to exchange ideas and information. Articles, columns, and commentaries deal with practical issues relevant to frontline interpreters, planners, and managers. It is published six times a year. Upcoming themes include Interpreting the Sea, Interpretation for Diverse Audiences, and more. Check out the website for submission and subscription information.

http://www.interpnet.com/nai/Resources/Publications/Legacy_Magazine/nai/_publications/Legacy_Magazine.aspx

Ocean Summer Soundtrack

The National Marine Sanctuary Foundation has put together a soundtrack for your "Ocean Summer of 2014" with national marine sanctuary-themed music to enjoy and share. Free registration is required.

http://nmsfocean.org/OceanSummer14

World Ocean Radio Goes Global

To introduce World Ocean Radio to new audiences in Europe, Africa, South America, and Latin America, World Ocean Radio will broadcast in Swahili, French, Portuguese, and Spanish, providing the opportunity for organizations and stations to advance their own missions through collaboration and sponsorship.

http://www.worldoceanobservatory.org/world-ocean-radio