

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
INFORMATION EXCHANGE FOR MARINE EDUCATORS

JANUARY 2015

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

White House Climate Education and Literacy Initiative

The White House Office of Science & Technology Policy launched a new Climate Education and Literacy Initiative that will help connect American students and citizens with science-based information about climate change. Read the fact sheet about the initiative and check back for progress on the initiative.

<http://www.whitehouse.gov/sites/default/files/microsites/ostp/climateed-dec-3-2014.pdf>

WEBSITE OF THE MONTH

Cultural Resources Toolkit

The MPA Center has launched an online draft Cultural Resources Toolkit. It provides background information on cultural resources such as shipwrecks, archaeological sites, and sites important to indigenous people. Topics include a Cultural Landscape

approach; Community and stakeholder engagement, outreach and communication; Research, data, monitoring and evaluation, and more.

<http://marineprotectedareas.noaa.gov/toolkit/>

REQUESTS

Request for Public Comment

A White House task force has issued recommendations to combat the problem of illegal fishing and seafood fraud. The report is open for comments until January 20, 2015.

<https://www.federalregister.gov/articles/2014/12/18/2014-29628/recommendations-of-the-presidential-task-force-on-combating-illegal-unreported-and-unregulated>

GRANTS AND OPPORTUNITIES

Action for Nature Young Eco-Hero Awards

Action for Nature seeks applications from students ages 8-16 for its International Young Eco-Hero Awards Program. The awards program recognizes the individual accomplishments of young people whose personal actions have significantly improved the environment. Projects must concern advocacy, environmental health, research, or protection of the natural world. The deadline for application is February 28, 2015.

http://www.actionfornature.org/award_guidelines.aspx

Beneath the Waves Film Festival

This film festival and communication platform aims to give ocean science a voice through digital media and storytelling. Films must be less than 10 minutes in length and relate to a marine science or conservation topic. The deadline for submission is January 15, 2015.

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

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, 2015.

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

Celebrate Urban Birds Mini-grants

Celebrate Urban Birds Mini-grants help fund creative bird-related neighborhood events. All mini-grant applicants are offered materials and training to support their events, even if their proposals are not funded. The deadline for application is January 15, 2015.

<http://celebrateurbanbirds.org/community/minigrants/articles-tab/>

Climate Change Academy Scholarship

No Barriers Youth, in partnership with the National Park Service Climate Change Response Program, is offering a partial group scholarship for an Alaskan wilderness adventure focused on gaining an in-depth understanding of climate change. The deadline for application is January 14, 2015.

http://nobarriersyouth.org/programs/climate_change_academy

Climate Resilience Data Challenge

NASA and the U.S. Geological Survey are looking for people to generate innovative ideas to unlock the potential for using big data to address critical climate vulnerabilities. The phase-one challenge is designed to identify what data infrastructure are needed and how they would be used to create new applications to support climate resilience efforts products. The deadline for submission is January 15, 2015.

<http://www.topcoder.com/earthscience/crdc/>

Coral Reef Conservation Fund

The National Fish and Wildlife Foundation in partnership with NOAA announce the Coral Reef Conservation Fund 2015 Request for Proposals. An applicant webinar will be held January 13, 2015. The deadline for pre-proposals is February 3, 2015.

<http://www.nfwf.org/coralreef/Pages/crcf-2015-rfp.aspx#.VKHv9v984>

Coral Reef Conservation Grants

Through Domestic (United States) Coral Reef Conservation Grants, NOAA's Sea Grant program is offering fellowships in both Marine Resource Economics and Population Dynamics. The deadline for application is January 29, 2015.

<http://www.regions.noaa.gov/secar/index.php/noaa-in-the-caribbean/#1>

Craig Tufts Environmental Education Fund

Family Summits, Inc. and partners offer the annual Craig Tufts Educational Scholarship Award, given to a young person 8-18 years old to attend a week-long, summer outdoor educational adventure camp with a parent or guardian. The deadline for application is March 20, 2015.

<http://www.nwf.org/What-We-Do/Kids-and-Nature/Programs/Craig-Tufts-Scholarship.aspx>

Delaware Sea Grant 2016–2018 Request for Proposals

Delaware Sea Grant is soliciting pre-proposals for research that addresses marine and coastal problems and opportunities important to Delaware, the Mid-Atlantic region, and the nation. The deadline for pre-proposals is February 4, 2015.

<http://www.deseagrant.org/research/delaware-sea-grant-2016%E2%80%932018-request-proposals>

Disney Friends for Change Grants

Disney's Friends for Change Grants offer young change-makers, ages 5-18, an opportunity to help make a lasting, positive change in the world. Projects should highlight the creativity and commitment of young people working to meet the needs of others and show how even small actions can add up to big changes. Projects should take place on or around Global Youth Service Day, April 17-19, 2015. The deadline for application is February 18, 2015.

http://www.ysa.org/disney_friends_for_change_us_grants

Environmental Education Grants Program

The EPA's Environmental Education Grants Program supports environmental education projects that promote environmental awareness and stewardship and help provide people with the skills to take responsible actions to protect the environment. There are two grant RPFs, with deadlines for application of February 2, 2015 and March 6, 2015. See the website for details.

<http://www2.epa.gov/education/environmental-education-ee-grants>

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, 2015.

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

Gulf Research Program Exploratory Grants and Fellowships

Exploratory Grant topics explore approaches for effective education and training of workers in the offshore oil and gas industry and health professions, and linking ecosystem services related to and influenced by oil and gas production to human health and well-being. Fellowships are available for early-career research fellows and science policy fellows. Check the deadlines for application and letter of intent.

<http://www.nas.edu/gulf/grants/index.html>

<http://www.nas.edu/gulf/fellowships/index.html>

Imagine Your Parks

This grant initiative is a partnership between the National Endowment for the Arts and the National Park Service to celebrate the intersections between the two agencies. Grants will support art projects that encourage the creation of and greater public engagement with art around the National Park System. See the website for complete details. The next deadlines for application is February 19, 2015.

<http://arts.gov/grants-organizations/art-works/nea-nps-funding-collaboration>

Knauss Marine Policy Fellowship

The Knauss Marine Policy Fellowship provides experience to students who have an interest in ocean, coastal, and Great Lakes resources and in the national policy decisions affecting those resources. The program matches highly qualified graduate students with hosts in the legislative and executive branches of government located in the Washington, D.C. area, for a one year paid fellowship. The deadline for application is February 13, 2015. Contact your state Sea Grant program director.

<http://seagrant.noaa.gov/FundingFellowships/KnaussFellowship/ProspectiveFellows.asp>
[x](#)

Marine Art Contest

The annual Massachusetts Marine Educators Marine Art Contest for students in grades K-12 is open to all students anywhere. The theme of the contest is Amazing Ocean Creatures of Stellwagen Bank National Marine Sanctuary: Celebrating the marine biodiversity of New England's national marine sanctuary. The deadline for entry is May 1, 2015.

http://stellwagen.noaa.gov/news/pdfs/mme_artcontest_rules_2015.pdf

Marine Debris Prevention through Education and Outreach

NOAA's Marine Debris Program funds projects that will lead to the prevention of marine debris in marine and coastal environments through the implementation of dedicated education and outreach activities. The deadline for application is January 15, 2015.

<http://marinedebris.noaa.gov/about-our-program/applicant-resources>

Marisla Environmental Program

The Marisla Foundation offers Environmental Program grants for activities including promoting 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 next deadline for application is January 15, 2015.

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

Media Projects Grants

The National Endowment for the Humanities Media Project Grants offer two categories of grants for media projects, development grants and production grants. The deadline for application is January 14, 2015.

<http://www.neh.gov/grants/mp>

Nature's Voices Student Stories Contest

Students in grades 6-12 are invited to submit their environmental education experiences to the Nature's Voices Student Stories Contest. The deadline for entry is January 15, 2015.

<http://www.naturesvoices.org/gsnn-stories-contest/>

North American Native Fishes Association Grant

The North American Native Fishes Association's Gerald C. Corcoran Education Grant funds projects to educate the general public about native North American fishes and their environments. The deadline for proposals is January 15, 2015.

<http://www.nanfa.org/corcoran.shtml>

Ocean Classrooms Grants

These grants support early career scientists who are currently enrolled in undergraduate, post-graduate, or doctoral degrees, or within five years of completing these degrees. The grants support marine-based research projects in research, conservation, or education. The deadline for application is January 14, 2015.

<http://oceanclassrooms.com/research/foundation>

Purpose Prize

The Purpose Prize awards people over 60 who are taking on society's challenges, including education, the environment, and more. The deadline for nomination is January 15, 2015.

<http://encore.org/prize/>

Student Grants-in-Aid of Caribbean Marine Research

The AMLC Student Grants-in-Aid of Caribbean Marine Research Program supports student research and increased collaboration and diffusion of knowledge among the member institutions of the Association of Marine Laboratories in the Caribbean. Preference will be given to proposals that involve comparisons or collaboration among AMLC institutions. The deadline for application is April 15, 2015.

<http://www.amlc-carib.org/awards/grants.html>

Treasures of the Texas Coast Children's Art Contest

The Treasures of the Texas Coast Children's Art Contest is designed to draw attention to the negative effects of trashing Texas beaches. The contest is open to Texas K-6 students. The deadline for entry is March 3, 2015.

<http://www.glo.texas.gov/adopt-a-beach/get-involved/art-contest.html>

World of 7 Billion Video Contest

The World of 7 Billion video contest challenges students to create a short (60 seconds or less) video illustrating the connection between a world population of seven billion and one of the global challenges of the contest. The deadline for submission is February 19, 2015. Check the website for activities for middle and high school classrooms.

<http://www.worldof7billion.org/student-video-contest/>

Youth Learning As Citizen Environmental Scientists Implementation Grant

This program funds youth to do environmental citizen science or student research projects. The deadline for application is January 15, 2015.

http://ylaces.org/?page_id=94

FELLOWSHIPS, INTERNSHIPS, AND TEMPORARY OPPORTUNITIES

Environmental Science Field School on Tall Ship Niagara - Pennsylvania

The Flagship Niagara League and university partners are accepting applicants for its 2015 Environmental Science Field School, June 10-July 3, 2015 on the tall ship U.S. Brig *Niagara*. Students live and study aboard the ship during this course covering Great Lakes earth and marine science and environmental policy. The program is open to students of all ages and all majors; space is limited, and is offered on a first-come, first-served basis.

<https://brigniagara.wordpress.com/about/>

Graduate Fellowship

The California Sea Grant College Program is now accepting applications for the National Marine Fisheries Service - Sea Grant Joint Graduate Fellowship Programs in Population and Ecosystem Dynamics and Marine Resource Economics. The deadline for application to your local Sea Grant Program is January 29, 2015.

<http://seagrants.noaa.gov/FundingFellowships/NMFSSGFellowship/Application.aspx>

Graduate Fellowships in Sustainable Ecological Aquaculture

The Universities of Maine and New England have launched the Sustainable Ecological Aquaculture Network (SEANET), supported by a major National Science Foundation grant. Graduate students will investigate marine social ecological systems while developing sustainable ecological aquaculture in Maine. The program seeks highly motivated students from a wide range of discipline, including Anthropology, Biology, Biotechnology, and more. Twenty Ph.D. and Masters fellowships will be awarded.

<http://www.umaine.edu/epscor/maine-epscor-programs/seanet/>

Hurricane Island Internships - Maine

The Hurricane Island Center for Science and Leadership is a science and education community in Penobscot Bay, Maine. They offer compensated science education, research, and sustainability internships. The deadline for application is February 16, 2015.

<http://www.hurricaneisland.net/employment/>

Research Experience for Undergraduates - Alabama

Alabama's Dauphin Island Sea Lab will offer seven undergraduate marine science fellowships, June 1-August 7, 2015, as part of the National Science Foundation's Research Experience for Undergraduates program. The deadline for application is February 13, 2015.

<http://www.disl.org/reu>

CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT

Environmental Communication for Behavior Change - Online

Check out the Duke Environmental Leadership Program's Environmental Communication for Behavior Change, February 2-March 20, 2015. Scholarship funding for the course may be available for teachers and educators who reach a K-12 audience through the Coca-Cola Advancement in Teaching in the Environment Scholarship (CATES). Check the website for complete details, including the early registration deadline, along with additional courses.

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

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

Mangrove Ecosystems Course - Online

The UN University Institute for Water, Environment and Health and The Nature Conservancy have launched the first unit of a 10-unit, open access, self-paced online course about mangrove ecosystems and their management. Unit 1 consists of five lessons which introduce students to mangroves and provide a brief description of their basic characteristics, evolution, distribution, importance, and status. The remaining units will be launched over the coming months and will cover mangrove ecology, climate change, and more. Free registration is required.

<http://inweh.unu.edu/open-access-mangroves-unit-launched/>

Natural Disasters - Online

This course from edX examines the science behind different types of natural disasters and our ability or inability to control and predict such events. The twelve-week course, starting January 14, 2015, is free to audit.

<https://www.edx.org/course/natural-disasters-mcgillx-atoc185x#.VKG5Nv984>

NMEA Conference Call for Proposals

The National Marine Educator's Association 2015 Conference's Call for Presenters is open. The theme of this year's conference, June 29-July 2, 2015 in Newport, Rhode Island, is Ocean State, Ocean Planet: Exploring Our World of Water. This year there will be five conference tracks: in the classroom; out of the classroom; next generation science standards; today's scientific research; and partnerships with industry and government. The deadline for submission is January 30, 2015.

http://www.marine-ed.org/general/custom.asp?NMEA_2015_Call

Ocean Exploration Workshops – Various

NOAA's Ocean Exploration Program and partners offer the Okeanos Explorer Education Materials Collection How or 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.

- March 7, 2015 with the Seattle Aquarium in Seattle, Washington; Why Do We Explore? The deadline for registration is February 13, 2015. Contact Dan Newburn at d.newburn@seattleaquarium.org
- March 14, 2015 with the South Carolina Aquarium in Charleston, South Carolina; How Do We Explore? The deadline for registration is February 20, 2015. Contact Jaime Thom at jthom@scaquarium.org
- March 14, 2015 with the Georgia Aquarium in Atlanta, Georgia; How Do We Explore? The deadline for registration is February 20, 2015. Contact Kim Morris-Zarneke at kzarneke@georgiaaquarium.org
- March 21, 2015 with the Aquarium of the Pacific in Long Beach, California; How Do We Explore? The deadline for registration is February 27, 2015. Contact Staci Wong at swong@lbaop.org
- March 28, 2015 with the National Aquarium in Baltimore, Maryland; How Do We Explore? The deadline for registration is March 6, 2015. Contact David Christopher at dchristopher@aqua.org

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

Sea Turtle Exploration – North Carolina

The North Carolina Aquarium at Fort Fisher presents Sea Turtle Exploration: a curriculum to help educators engage students in the fundamentals of STEAM through ready-to-use, standards based lesson plans and sea turtles. Sign up for the workshop, February 7, 2015 at Fort Fisher, North Carolina, which will guide you through the new curriculum and website. Note: do not explore the online curriculum yet, as the host website may have a malware problem.

<https://reservations.ncaquariums.com/fortfisher/Info.aspx?EventID=20>

EDUCATIONAL RESOURCES

Animal Diversity Web

Created at the University of Michigan, the Animal Diversity Web is a database of animal natural history, distribution, and classification. A typical entry may include names, photos, distribution, and much more.

<http://animaldiversity.org/>

Climate Impacts in the Great Lakes

Ohio Sea Grant's climate webinar series is available for free on iTunes. The course, Climate Impacts in the Great Lakes, features more than 40 presentations on climate research, adaptation, and education. The course provides an overview of research about how a changing climate may affect different aspects of daily life.

<https://itunes.apple.com/us/course/climate-impacts-in-great-lakes/id938743188>

Digital Learning Network

NASA's Digital Learning Network (DLN) provides free, interactive video- and web-conferencing events for educators interested in enhancing their STEM classes by connecting directly with NASA education specialists and subject matter experts. They also feature live webcasts on the DLiNfo Channel from ten DLN studios. Be sure to submit your request for DLN modules two weeks before the desired event date. Events include Sea Level Rise, Introduction to Robotics in the Classroom, and more.

<http://www.nasa.gov/offices/education/programs/national/dln/index.html#.VKIBdf984>

Earth: The Operators' Manual

The mission of this PBS series is to use Earth science to explain our planet's climate history and to describe sustainable energy options. The downloadable episodes, clips, and more, are accompanied by educational materials. Check this out.

http://earththeoperatorsmanual.com/for_educators

Earth Reference Data and Models

EarthRef.org is a website for Earth Science reference data and models. It offers links to databases, tools, publications, and more, including ERESE: Enduring Resources for Earth Science Education. Check out the expeditions, Scripps Classroom Connection project, seamount biogeosciences network, and much more. It appears to host information that hasn't been updated lately, but retains good links.

<http://earthref.org/>

EPA EE Materials

The EPA has streamlined the ordering of environmental education materials for classrooms. The order forms list materials grouped by grade range and offers a picture of the item, title, brief description, and the quantity limit that can be ordered.

http://www.epa.gov/nscep/teaching_aids.html

Ice as Art

Ice can be damaging or deadly, but it can also inadvertently create beautiful and fascinating winter sights. The formation of ice is subject to many different variables, and the tiniest change in humidity, temperature, or wind speed can create wildly different results. Check these out when you have a few minutes to spare, or want to introduce students to the intersection of art and science.

<http://www.boredpanda.com/natural-winter-snow-ice-art/>

Invasive Species Lesson Plan

This lesson plan on invasive species in the Gulf of Mexico and Florida is aimed at students in Grades 1-4. It highlights an animation of lionfish distribution the Gulf.

<http://gcoos.tamu.edu/documents/Lesson-Plans/Invasive-Species-March2014-Simoniello.pdf>

Ocean Acidification Curriculum Collection

This website is funded or supported by the EPA, US Fish & Wildlife, Washington Sea Grant, Suquamish Tribe, and the Northwest Indian Fisheries Commission. It offers a curated collection of free K-12 resources on ocean acidification for educators and communicators. Browse the collection, ask an expert, and more.

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

Ocean Blogs

Check out this list of ocean blogs, compiled by Andrew Thaler through Southern Fried Science.

<http://www.southernfriedscience.com/?p=17988>

Ocean Frontiers Film Series

Green Fire Productions produces films on conservation and sustainability issues and makes them available for viewing on YouTube and through other means. The films tell

the stories of people finding solutions to environmental challenges they face on land and at sea. Topics include ocean stewardship, river restoration, and more.

<https://www.youtube.com/user/GreenFireMedia>

<http://ocean-frontiers.org/host-a-screening/>

PEER Teacher Requested Resources

The Partnership for Environmental Education and Rural Health (PEER) at Texas A&M University offers this website with a searchable and browseable database of lesson plans, activities, and more that have been developed at the request of teachers. Be sure to check out the other resources linked to from this site.

http://peer.tamu.edu/DLC/NSF_Resources.asp

Salt of the Earth

This video from NASA features scientists who describe the role of salt in the oceans and global oceanic circulation with reference to global climate change. Be sure to check out the other videos and materials on this website. Note that the Climate Reel website address has changed and now sports a hyphen.

<http://climate.nasa.gov/climate-reel/>

http://climate.nasa.gov/ClimateReel/video/Salt_of_the_Earth_640x360.cfm

Smartphone Apps

The University of Florida offers this list of apps that may be useful for ecological fieldwork. Categories include data entry, field guides, citizen science, and more.

<http://brunalab.org/apps/>

Sponge Guide

The third edition of The Sponge Guide, a web-based, image-intensive key to the sponges of the Caribbean, has over 230 species-morphs represented in the guide, with over 2,100 images. It has been enhanced with composite images of sponge skeletal elements (spicules and collagen fibers),

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

WebRanger

The National Park Service's interactive Web Ranger program helps people learn about the national parks. Explore more than 220 national parks through fossils, check out the games and activities, and more.

<http://www.nps.gov/webrangers/>

INITIATIVES, JOURNALS, and MORE

Park Science

Park Science is a research and resource management journal of the U.S. National Park Service. It reports the implications of recent and ongoing natural and social science and related cultural research for park planning, management, and policy. The most recent publication focuses on biological diversity discovery, science, and management. You can download individual articles or the entire journal.

<http://www.nature.nps.gov/ParkScience/>