

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
INFORMATION EXCHANGE FOR MARINE EDUCATORS

APRIL 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

Managing for Resilience

The Marine Ecosystems and Management, Volume 7, Number 4, offers an overview of managing for resilient ecosystems. There are different viewpoints discussed, along with links for additional information. While on the website, check out previous topics, including citizen science, food production vs marine conservation, and more.

<http://depts.washington.edu/meam/issues.html>

WEBSITES OF THE MONTH

Great American Adaptation Road Trip

Two post-grads spent three months in the summer of 2013 traveling around the United States with a goal to document on-the-ground examples of climate resilience, setting out

to answer the question, What does climate change adaptation look like? Follow along with these stories of people and places adapting to the impacts of climate change.

<http://adaptationstories.com>

What We Know (About Climate Change)

The What We Know initiative is dedicated to ensuring that the three “R’s” of climate change are communicated to the public: Reality, Risk, and Response. The website offers background information, videos, and a downloadable scientific report.

<http://whatweknow.aaas.org/>

REQUESTS

Bridge Survey

The Bridge will be launching a major re-design of their marine education website, with updated resources and DATA activities, tools for finding lesson plans, and more. They have a survey posted for teachers to help them identify what they, the teachers, need.

<http://web.vims.edu/bridge/?svr=www>

Looking for Photos

A new edition of the Ecology of fishes on coral reefs is currently being developed. They seek photographs related to this very diverse taxa, their threats and conservation.

Topics include general ecology, threats, and conservation as they relate to reef fishes.

Contact Camilo Moro at cmora@hawaii.edu

Ten Thousand Microscopes Signup

With support from the Moore Foundation, the folks at Foldscope are starting a large scale experiment in hands-on science education. They want to enlist 10,000 individuals who would be willing to beta-test Foldscope, an origami-like inexpensive microscope, over the summer and develop single page science experiments, protocols, queries, questions, and applications based on using the Foldscope in different communities.

<http://www.foldscope.com/#/10ksignup/>

GRANTS AND OPPORTUNITIES

Beneath the Waves Youth Making Ripples Film Competition

The aim of the Beneath the Waves Youth Making Ripples film festival and competition for K-12 students is to engage students in marine science education and to highlight the importance of scientific research related to ocean and coastal communities. Educators and students are challenged to incorporate film into their curriculum by adopting a hands-on approach to marine science education using 21st century technology.

Students should submit short films (< 5 minutes) on any marine science topic of their choice. The deadline for submission is December 5, 2014.

<http://www.beneaththewavesfilmfest.org/youth-making-ripples/>

Brimstone Award for Applied Storytelling

The National Storytelling Network’s annual Brimstone Award for Applied Storytelling is awarded for a project that focuses on the transformational properties of storytelling, to increase understanding of the ways storytelling can promote change in individuals and communities. Educators are invited to submit a storytelling project that is service-

oriented, based in a community or organization, and replicable in other places and situations. The preliminary proposal deadline is April 30, 2014.

<http://www.storynet.org/grants/brimstone.html>

Butler-Cooley Excellence in Teaching Award

The Turnaround Management Association and the John William Butler Foundation honor exceptional teachers who have changed the outcome of students' lives and the communities in which they live with the Butler-Cooley Excellence in Teaching Awards. The deadline for applications is May 1, 2014.

http://turnaround.org/cmaextras/2014TMA-ButlerCooley_AwardAppACTIVE.pdf

Brower Youth Awards

The Earth Island Institute's New Leaders Initiative offers the Brower Youth Awards, recognizing young people (ages 13-22) for their outstanding youth leadership and project impact. The deadline for application is May 12, 2014.

<http://broweryouthawards.org/>

Core Fulbright U.S. Scholar Program

The Core Fulbright U.S. Scholar Program offers teaching, research, or combined teaching/research awards in environmental studies and other disciplines. Opportunities are available for college and university faculty and administrators as well as for artists, journalists, scientists, lawyers, and others. The deadline for application is August 1, 2014. For more details, check out the Catalog of Awards.

<http://www.cies.org/program/core-fulbright-us-scholar-program>

<http://catalog.cies.org/searchResults.aspx?wa=&dc=ALL&ac=ALL&di=Biological+Sciences&dr=&pr=ALL&kw=>

Discovery Education 3M Young Scientist Challenge

Discovery Education 3M challenges students in grades 5-8 to make a short video describing a new innovation or solution that could solve or impact an everyday problem. The deadline for entry is April 22, 2014.

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

Dorothy Stout Professional Development Grants

The National Association of Geoscience Teachers awards grants to faculty and students at two-year colleges and K-12 teachers. The grants support professional growth in, or classroom teaching of, Earth science. The deadline for application is April 15, 2014.

<http://www.nagt.org/nagt/programs/stout.html>

Every Day Capacity Building Grants

Every Day Grants from the National Environmental Education Foundation, with support from Toyota Motor Sales USA, Inc., help strengthen nonprofit public lands support groups, enabling them to do more to connect their communities to the land. Capacity Building Grants will be awarded to groups who make the best case for how the funds will build their capacity to better serve the lands they love. The next deadline for application is April 30, 2014.

<http://publiclandseveryday.org/grants/capacity-building-grants>

From the Bow Seat Ocean Awareness Student Contest

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

Ocean. The website offers links to scientific literature, pollution websites, resources on artists and writing, and much more. The deadline for entry is June 15, 2014.

<http://www.fromthebowseat.org/contest.php>

Google Science Fair

Google, in partnership with CERN, National Geographic, LEGO, and Scientific American, offers the annual Google Science Fair, an international competition which encourages students between the ages of 13-18 to ask questions and perform science experiments to answer those questions. The deadline for submission is May 12, 2014.

<https://www.google-sciencefair.com/en/competition>

Green Schools Fellow Leadership Program

The Green Schools Alliance, in partnership with the U.S. Fish and Wildlife Service, is currently accepting applications for the 2014 Student Climate and Conservation Congress (Sc3) U.S. Green Schools Fellow Leadership Program. The conference will be held June 22-28, 2014 in Shepherdstown, West Virginia. Rising students in grades 9-12, school faculty, and staff who have demonstrated outstanding leadership in their schools or communities, are invited to apply. Nominees are encouraged to apply early to have the best chance of acceptance, as admission is on a rolling basis.

<http://www.greenschoolsalliance.org/students/student-climate-conservation-congress-sc3>

ING Unsung Heroes Awards

The ING Unsung Heroes program helps K-12 educators and their schools fund innovative classroom projects. The deadline for application is April 30, 2014.

<https://unsungheroes.scholarshipamerica.org/>

Katherine M. Swanson Young Innovator Award

The Tech Museum of Innovation supports the Tech Awards, an international awards program that honors innovators from around the world who are applying technology to benefit humanity. The Katherine M. Swanson Young Innovator Award category is for applicants age 27 and younger. The deadline for submission is May 6, 2014.

<http://thetechawards.thetech.org/applications/criteria>

MIDORI Prize for Biodiversity

The MIDORI Prize is a biennial international prize to honor individuals who have made outstanding contributions to the conservation and sustainable use of biodiversity at global, regional, or local levels. The deadline for nomination is May 31, 2014.

<https://www.midori-press-aeon.net/prize/index.html>

NAAEE Conference Scholarships

NAAEE is accepting applications for a variety of scholarships to attend NAAEE's 43rd Annual Conference and 11th Annual Research Symposium, October 8-11, 2014 in Ottawa, Canada. The deadline for application is April 21, 2014.

<http://www.naaee.net/conference/scholarships>

NAI Awards Programs

The National Association for Interpretation offers Professional Awards and an Interpretive Media Award Competition. The deadlines for application and submission are May 31 and May 30, 2014, respectively.

http://www.interpnet.com/nai/Resources/Awards_Programs/nai/resources/Awards_Programs.aspx?hkey=a2fac3b1-e65f-4932-a2a7-6fc3425760a1

National EE Week Photo Contest

The EE Week Photo Contest is designed to allow educators to upload their photos and stories of engaging students in environmental education. The deadline for submission is May 31, 2014.

<http://eeweek.org/photo-contest>

NMEA Scholarships

NMEA is seeking nominations for the Expanding Audience Stipend Awards, which aim to recruit and assist individuals from groups underrepresented in science or those who serve underrepresented or underserved audiences, to become a part of the NMEA family. NMEA also offers additional conference scholarships. The deadline for application is April 30, 2014.

<http://www.marine-ed.org/?page=scholarships>

Ocean Guardian School Grants - California

Ocean Guardian School Grant funds are available for area California schools to create a school- or community-based conservation project that focuses on current issues affecting local watersheds and the ocean while promoting best environmental practices. Check the website for eligible counties. The deadline for application is May 1, 2014.

http://sanctuaries.noaa.gov/education/ocean_guardian/

Paddle Nation Project Grant

Outdoor Nation is accepting applications from non-profit organizations who are interested in connecting youth with their waterways through recreational paddling. This funding opportunity supports projects and initiatives that are youth-developed and that result in increased paddling participation. The deadline for application is April 18, 2014.

http://www.cybergrants.com/pls/cybergrants/quiz.display_question?x_gm_id=4494&x_quiz_id=5170&x_order_by=1

Patagonia Environmental Grants

Patagonia offers grants to organizations that work on root causes of problems and approach issues with a commitment to long-term change, with a focus on organizations that build a strong base of citizen support. Applications are accepted year round at retail stores and twice yearly at the headquarters, with the next deadline for application at headquarters of April 30, 2014.

<http://www.patagonia.com/us/patagonia.go?assetid=2927>

State Farm Youth Advisory Board Service-Learning Grants

The State Farm Youth Advisory Board Grant Program funds student-led service-learning projects throughout the U.S. and Canada. Specific areas of interest include natural and societal disasters, environmental responsibility, and more. Educators interacting with students in public K-12 schools are eligible to apply. The deadline for application is May 2, 2014.

<http://www.statefarmyab.com/apply/national-grants/>

Thacher Environmental Research Contest

The Thacher Environmental Research Contest, held by the Institute for Global Environmental Strategies, challenges students in grades 9-12 to conduct innovative

research designing and conducting projects using satellite remote sensing of the Earth. The deadline for entry is May 5, 2014.

<http://strategies.org/education/student-contests/thacher-contest/>

Tour de Turtles Logo Contest

The upcoming 2014 Tour de Turtles is looking for artists to submit artwork for their logo contest. The artwork will be featured on event t-shirts and invitations. The deadline for submission is April 15, 2014. Check out the education materials while on the website.

Email submissions to conserveturtles@gmail.com

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

World Ocean's Day Video Contest

One World One Ocean sponsors an annual World Ocean's Day Video Contest.

Students in grades 7-12 should send in one-minute videos telling why the ocean is important to them. Videos can be serious, comedic, musical, and more. The deadline for submission is May 23, 2014.

http://www.oneworldoneocean.com/get-involved/wod_vc_signup

INTERNSHIPS AND TEMPORARY OPPORTUNITIES

Geoscience Summer Program - Maryland

The University of Maryland Eastern Shore will be holding its Collaborative Summer Program for recent high school graduates enrolled to begin their higher education career in geosciences in Fall 2014. This is a paid student internship, July 1-August 8, 2014 in Princess Anne, Maryland. Check the website for details. The deadline for application is April 25, 2014.

<https://www.umes.edu/cscgeosciences/Default.aspx?id=39798>

CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT

Capitol Hill Ocean Week 2014

Capitol Hill Ocean Week will take place June 10-12, 2014 in Washington, D.C. Hosted by the National Marine Sanctuary Foundation, CHOW brings together Members of Congress, representatives of state and local governments, academics, business experts, scientists, and ocean explorers.

<http://nmsfocean.org/CHOW-2014>

Creeks to Coast Educator Workshop - Georgia

During this workshop, July 9-16, 2014, teachers will be immersed in the Chattahoochee watershed as they discover the journey the river takes from North Georgia to the Gulf of Mexico. Participants will examine the various uses of the river while exploring how humans impact the river's journey. This workshop is funded by the Georgia Aquarium and Georgia Pacific; educators from the southeast region are eligible to apply. The deadline for application is April 21, 2014.

<http://www.georgiaaquarium.org/education/teachers/professional-development.aspx>

GEMS Curriculum Sequence Workshop - California

University of California, Berkeley's Lawrence Hall of Science presents a workshop sequence for elementary and middle school teachers: "A Medley of Summer 2014"

GEMS Space and Ocean Sciences Curriculum Sequences Workshops, With a Special Emphasis on Argumentation.” The workshop, August 4-8 in Berkeley, California, offers flexible scheduling, with 1-, 2-, 3-, or 5-day summer programming.

<https://www.regonline.com/builder/site/Default.aspx?EventID=1381704>

Rivers to Reef Teacher Workshop - Georgia

This free teacher workshop, June 22-27, 2014 from Atlanta, Georgia, is led by staff from the Georgia Aquarium and NOAA’s Grays Reef National Marine Sanctuary. Teachers will learn about watersheds, water quality, current aquatic issues, and river, marsh, and reef ecosystems. Space is limited; the deadline for application is April 21, 2014.

<http://www.georgiaaquarium.org/education/teachers/professional-development.aspx>

School of Rock– Delaware and Pennsylvania

The School of Rock Expedition for Earth and Ocean Science Educators is for middle and high school educators interested in experiencing scientific ocean drilling research with experts. During the workshop, August 10-16, 2014 in Lewes, Delaware, educators work with core material and lab technology to learn how science reveals clues about Earth’s history. Students and faculty at minority serving institutions can join the workshop, Understanding Earth Through Ocean Cores School of Rock 2014, June 8-14, 2015 in Indiana, Pennsylvania. Hurry – the deadlines for application are April 4 and 7, 2014, respectively.

<http://joidesresolution.org/node/3298>

Summer Programs – Alabama

Dauphin Island Sea Lab Discovery Hall Programs promote conservation through education, research, and outreach. Through hands-on activities in marine habitats, people can see the impact of science on their daily lives. Many programs are available for both students and teachers. Check out the website soon; the deadlines for registration are coming up.

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

EDUCATIONAL RESOURCES

Climate and Fisheries

NOAA Fisheries scientists are working to understand and respond to challenges presented by climate change and ocean acidification and have launched a portal site featuring articles, videos, and other resources to share information about current work on these topics.

http://www.fisheries.noaa.gov/stories/2014/03/climate_portal.html

Climate Change: Evidence & Causes

The U.S. National Academy of Sciences and the Royal Society, the national science academy of the U.K., released Climate Change: Evidence & Causes, a joint publication that explains the clear evidence that humans are causing the climate to change, and which addresses a variety of other key questions commonly asked about climate change science. The publication is available for free download from this website.

http://www.nap.edu/catalog.php?record_id=18730

Disaster Declaration History

This interactive map tracks presidential disaster declarations across the United States by county, stretching back to 1964. Color-coded by the number of declarations made, the map overview makes it easy to note the most disaster prone areas. Click on a county and get a listing of hazards, including how many declarations made at a county level and into which category they fall. Select "Open" to launch the map.

<http://www.arcgis.com/home/item.html?id=6f2c5dcab2f04857b73533fc82456f1d>

Exploration of the Gulf of Mexico 2014

NOAA's Office of Ocean Exploration and Research launched the NOAA Ship *Okeanos Explorer*: Exploration of the Gulf of Mexico 2014: Leg 1 and Leg 2 during February and March, 2014. Check out the archived information, including mission overviews, an education module, and more.

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

Gulf Finfo

This website offers information about the management of individual fisheries in the Gulf of Mexico. Visitors can search by state or individual fishery.

<http://gulffishinfo.org/>

iNaturalist

iNaturalist is a free app for iPad and iPhone. The app allows users to record and share online what they see in nature, meet other nature lovers, and learn about the natural world. Check out the guides, projects, and more.

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

JASON Live STEM Role Model Series

JASON Learning's free, live, interactive events can help inspire kids to pursue STEM careers. All webcasts are held on Thursdays at 1:30 pm Eastern, but one upcoming webcast will also be offered during out-of-school hours; check out the talk with Oceanographer Mone Behl. 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.

<http://www.jason.org/live/stem-career-qa-mona-behl-oceanographer>

National High School Policy Debate Topic

The high school policy debate topic is selected annually under the auspices of the National Federation of State High School Association's Speech, Debate, and Theater Association. The 2014-15 Policy Debate topic will be: Resolved: The United States federal government should substantially increase its non-military exploration and/or development of the Earth's oceans. NOAA offers this website with useful links to use as a starting point for debate.

http://www.education.noaa.gov/Special_Topics/Ocean_Debate.html

National Marine Sanctuaries of the West Coast

The five West Coast national marine sanctuaries encompass nearly 12,000 square miles of ocean. Explore the habitats, wildlife and culture of the five sanctuaries in California and Washington State, and how they are interconnected by ocean currents. This downloadable guide also shows readers how they can practice daily conservation and get involved.

http://sanctuaries.noaa.gov/education/teachers/awareness_outreach.html

Ocean Acidification

KQED's QUEST Science blog offers this primer on ocean acidification with pre- and post-discussion questions, vocabulary flash-cards, and links to more information and activities. Check out the links to additional topics, including biodiversity, water, and more.

<http://science.kqed.org/quest/ed-collection/ocean-acidification-2/>

Ocean Acidification Webinar Series – Online

Note that this is a new link. This series of free webinars jointly sponsored by NOAA's National Marine Sanctuaries and the Ocean Acidification Program is entitled Sharing Ocean Acidification Resources for Communicators and Educators (SOARCE). The webinars provide ocean acidification communication tools to formal and informal educators and stakeholders across the country.

<http://oceanacidification.noaa.gov/AreasOfFocus/EducationOutreach/SOARCEWebinarSeries.aspx>

Seasons Simulator

This website offers an easily understood seasons and ecliptic simulator.

http://astro.unl.edu/naap/motion1/animations/seasons_ecliptic.swf

Slow Life

Slow Life shows follows marine animals under high magnification, at a speed that we can enjoy. The time lapse cinematography reveals a world of motion. Be sure to read the blog about what you've viewed. (If the dark print on dark background is too hard to read, go under "View-->Style-->No style" for a black and white version.)

<http://notes-from-dreamworlds.blogspot.com.au/2014/03/slow-life.html>

Tools for Engagement

This planning guide features ideas and resources about how to best engage people in conservation efforts. The downloadable toolkit is divided into sections including core planning steps, resources, and more.

<http://web4.audubon.org/educate/toolkit/toolkit.php>

INITIATIVES, JOURNALS, and MORE

Discovery Day at the Dauphin Island Sea Lab

This family event, April 12, 2014 on Dauphin Island, Alabama, includes a variety of environmentally-themed children's activities; an open house at the research facilities of the lab where the public can interact with scientists and graduate students to explore their ongoing research projects; and free children's admission to the Estuarium, the aquarium at the Sea Lab.

<http://press.disl.org/3-3-14dday.html>

Earth Day

Earth Day Network, the global organizer behind Earth Day, has created tools, resources and opportunities for teachers and students to get involved. Earth Day 2014's focus is on Green Cities. Celebrate on and around April 22, 2014. Check out the resources, including toolkits, local campaigns, and more.

<http://www.earthday.org/greencities/>

EE Week

National Environmental Education Week (EE Week), April 13-19, 2014, is a celebration of environmental education, aimed at inspiring environmental learning and stewardship among K-12 students. This year's theme is Engineering a Sustainable World. Register your events, check out the blogs and news feeds, and more.

<http://eeweek.org/>

World Ocean Day

World Ocean Day is June 8, 2014, when organizations and individuals from around the world come together to celebrate our world ocean; reflect on the ocean's importance in our lives; and take time to do something good for our blue planet. The theme for 2014 is *Together we have the power to protect the ocean*. The Ocean Project sponsors this website, in English and Spanish, to coordinate World Ocean Day events with resources, tools, and activities.

<http://worldoceansday.org/>