

**NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION**  
**INFORMATION EXCHANGE FOR MARINE EDUCATORS**

**FEBRUARY 2017**

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 eeNEWS@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](mailto: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/welcome.html#exchange>.

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**NOTABLE REFERENCES**

**Climate Change: The Fiscal Risks Facing the Federal Government**

This downloadable initial assessment by the Office of Management and Budget looked at risks related to agriculture, fire, flood, air quality, and coastal storms and came to the conclusion that, while we might not be able to quantify future costs with extreme accuracy, they are likely to be significant.

[https://obamawhitehouse.archives.gov/sites/default/files/omb/reports/omb\\_climate\\_change\\_fiscal\\_risk\\_report.pdf](https://obamawhitehouse.archives.gov/sites/default/files/omb/reports/omb_climate_change_fiscal_risk_report.pdf)

**Inoculating the Public Against Misinformation About Climate Change**

This report looks at what actions can be taken to help protect the public from targeted campaigns that undermine the veracity of scientific findings on human-caused climate change.

<http://climatecommunication.yale.edu/wp-content/uploads/2017/01/Inoculation-article-Global-Challenges.pdf>

### **Sustainable Financing Options for U.S. Marine Protected Areas**

This report focuses on a wide range of approaches to obtain external funding for MPAs. Chapters include Elements of Success, Funding Vehicles, and more.

<http://marineprotectedareas.noaa.gov/fac/products/mpa-fac-external-finance-report-jan-2017.pdf>

## **OPPORTUNITY OF THE MONTH**

### **Catalina Summer Science Camp - California**

The University of Southern California's Sea Grant Program, the Center for Dark Energy Biosphere Investigations, and USC Wrigley Institute seek high school students wanting to explore the Earth's ocean, the deep ocean, and life below the ocean floor, July 6-12, 2017 on Catalina Island. Underrepresented students are encouraged to apply, with preference to first in family to go to college. The program is free, but limited to 20 applicants. The deadline for application is March 10, 2017.

<https://dornsife.usc.edu/uscseagrant/summer-science-programs/>

## **GRANTS AND OPPORTUNITIES**

### **Aim High Grants**

On behalf of the New York Life Foundation, the Afterschool Alliance invites out-of-school time programs to apply for this competitive grant to support the ability of afterschool and summer learning programs help their middle school students make a successful transition from 8th to 9th grade. The deadline for application is February 17, 2017. See the website for complete details.

[http://afterschoolalliance.org/documents/NYLF-Aim\\_High-Request\\_for\\_Proposals.pdf](http://afterschoolalliance.org/documents/NYLF-Aim_High-Request_for_Proposals.pdf)

### **Audubon Photography Contest**

The annual Audubon Magazine Photography Awards encourages participants to submit photographs that depict birdlife in any form. The deadline for entry is February 20, 2017.

<https://netapp.audubon.org/photoawards/>

### **Better World Challenge**

Ohio's WKCD invites students and teachers, grades 7-12, to create their own list of small steps for a better world and a visual that captures elements or the essence of the list.

This is intended to be a class project, with every student contributing. The deadline for submission is 17, 2017.

<http://whatkidscando.org/index.html>

### **Biennial Research Funding - Florida**

Florida Sea Grant is accepting statements of interest for two-year coastal and ocean applied research grants in Healthy Coastal Environments; Sustainable Fisheries and Aquaculture; Resilient Communities and Economies; and Environmental Literacy and Workforce Development. The competition is open to any principal investigator at universities or colleges in Florida; see the website for complete detail. The deadline for submission of statements of interest is February 13, 2017.

[https://www.flseagrant.org/funding/open/biennial\\_call\\_for\\_proposals/](https://www.flseagrant.org/funding/open/biennial_call_for_proposals/)

### **Braitmayer Foundation Grants**

The Braitmayer Foundation offers grants to fund a broad range of K-12 education programs with curricular reform initiatives and professional development opportunities for teachers, particularly those which encourage people of high ability and diverse background to enter and remain in K-12 teaching. The deadline for Letters of Inquiry is March 15, 2017.

<http://www.braitmayerfoundation.org/how-to-apply/>

### **Bycatch Reduction Engineering Program**

NOAA Fisheries seeks proposals for project funding under the Bycatch Reduction Engineering Program, which supports the development of new technologies and strategies to minimize bycatch, seabird interactions, and post-release mortality in federal fisheries. The deadline for pre-proposals is February 10, 2017.

[http://www.nmfs.noaa.gov/sfa/fisheries\\_eco/bycatch/brep.html](http://www.nmfs.noaa.gov/sfa/fisheries_eco/bycatch/brep.html)

### **Coastal Resilience Grant Program**

The NOAA 2017 Coastal Resilience Grant Program will support two categories of activities: strengthening coastal communities and habitat restoration. The deadline for application is March 15, 2017.

<https://www.coast.noaa.gov/resilience-grant/>

### **Cornerstone OnDemand Foundation Impact Grant**

The Cornerstone OnDemand Foundation Impact Grant enables nonprofits to expand the reach and impact of an existing education program through online training of their volunteers, beneficiaries, and community partners. The deadline for application is March 17, 2017.

<https://www.cornerstoneondemand.org/impact-grant>

### **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 24, 2017.

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

### **EE Guidelines Workshop Grants**

The National Project for Excellence in Environmental Education created a series of publications that provide guidance for the development of high-quality environmental education. Four grants will be awarded to help defray the cost of conducting an Environmental Education Guidelines for Excellence workshop. The deadline for application is March 1, 2017.

<http://eeingorgia.org/resource/about.aspx?s=105621.0.0.4863>

### **Junior Duck Stamp Art Contest**

The U.S. Fish and Wildlife Service oversees the Federal Junior Duck Stamp Program. Students are invited to create duck stamp drawings to show what they have learned about wetlands habitat and waterfowl conservation. The deadline for most submissions is March 15, 2017.

<http://www.fws.gov/birds/education/junior-duck-stamp-conservation-program/junior-duck-stamp-contest-information.php>

### **LEEC Grants**

The Louisiana Environmental Education Commission is accepting proposals for their 2017-2018 Grants Program. Grants are for educators, professional development, university research, and green schools. The deadline for submission is March 17, 2017.

<http://www.wlf.louisiana.gov/grant-opportunities>

### **Lemelson-MIT InvenTeam Grants**

Lemelson-MIT InvenTeams Grants foster inventiveness among high school students. Teams composed of high school students, teachers, and mentors are asked to collaboratively identify a problem that they want to solve, research the problem, and then develop a prototype invention as an in-class or extracurricular project. The deadline for early feedback is April 10, 2017.

<http://lemelson.mit.edu/inventeams>

### **Mary Fran Myers Scholarship**

Recipients of the Mary Fran Myers Scholarship receive financial support allowing them to attend the 2017 Natural Hazards Center Research and Applications Workshop in Broomfield, Colorado, July 9-12, 2017. Hazards practitioners, students, and researchers with a strong commitment to disaster management and mitigation and who reside *outside* North America or the Caribbean are eligible to enter this year. The deadline for application is April 17, 2017.

<https://hazards.colorado.edu/article/apply-now-for-the-mary-fran-myers-scholarship-9>

### **Middle School WEBChallenge**

In collaboration with the Atlanta Science Festival and HowStuffWorks, TAG-Ed challenges teams of middle school students to tackle an environmental challenge affecting the planet today. The 2017 theme is EnviroTech: Solutions for Tomorrow's Environmental Challenges. The deadline for submission is February 27, 2017.

<https://www.tagedonline.org/programs/middle-school-webchallenge/>

### **National Adaptation Forum Travel Support**

Travel support to attend the National Adaptation Forum, May 9-11, 2017 in Saint Paul, Minnesota, will be awarded through a competitive review process. The deadline for application is February 17, 2017.

<https://www.nationaladaptationforum.org/registration/travel-support-open>

### **National Association of Biology Teachers Awards**

The National Association of Biology Teachers recognizes excellence in teaching with a variety of awards, including the Ecology/Environmental Science Teaching Award for secondary school teachers. The deadline for most nominations is March 15, 2017 but some are later.

<http://www.nabt.org/websites/institution/index.php?p=132>

### **Norm Strung Youth Writing Award**

The Outdoor Writers Association of America offers the annual Norm Strung Youth Writing Contest to students in grades 6-12 for published poetry and prose with an outdoor focus. The deadline for submission is March 15, 2017.

<http://owaa.org/programs/contests/norm-strung-youth-writing-awards/>

### **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. See the website for complete details and deadlines. The next deadline for application is February 24, 2017 but check the website for additional opportunities.

<https://www.fws.gov/birds/grants/north-american-wetland-conservation-act.php>

### **Northwest Fund for the Environment - Washington**

Grants by the Northwest Fund for the Environment are designated to be spent promoting change in the uses of natural resources which will increase their protection and preservation in Washington. Projects may address aquatic ecosystems, community response, and more. Check the website for details; the deadline for standard grants is February 9, 2017.

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

### **NSF Funding**

The National Science Foundation has released a Dear Colleague Letter to announce their intention to support proposals aimed at capacity-building, community-building, and more. The deadline for proposals is April 11, 2017.

<https://www.nsf.gov/pubs/2017/nsf17047/nsf17047.pdf>

### **Through Young Eyes Photo Competition**

The CITES Secretariat, supported by the U.S. Fish & Wildlife Service, has launched a photo competition for youth, ages 10-24, to celebrate World Wildlife Day 2017, titled Through young eyes. The deadline for submission is February 13, 2017.

[https://cites.org/eng/WWD2017\\_photo\\_competition\\_call\\_for\\_entries\\_14012016](https://cites.org/eng/WWD2017_photo_competition_call_for_entries_14012016)

### **Science Everywhere Innovation Challenge**

The Overdeck Family Foundation and Simons Foundation invite teachers to apply for these matching funds, to participate in an Innovation Challenge for hands-on math and science materials to be used outside of class time. The deadline for application is March 24, 2017.

<https://help.donorschoose.org/hc/en-us/articles/115000854567>

### **Sciku Contest**

Submit an original haiku featuring your favorite science topic to the Atlanta Science Festival's Sciku science haiku contest. Be sure to check out last years winners. The deadline for entry is February 23, 2017.

<http://www.atlantasciencefestival.org/sciku>

### **SOS Student Contest**

Students are invited to create new maps, visualizations, and stories that help share NOAA's mission in creative and innovative ways, as content for Science on a Sphere. The deadline for submission is March 17, 2017.

[http://www.noaa.gov/sosnetwork/workshops/2017/student\\_contest](http://www.noaa.gov/sosnetwork/workshops/2017/student_contest)

### **Young Birders Scholarships**

The American Birding Association provides scholarships to help young people who are interested in birds to attend summer camps, workshops, training programs, conventions and other bird-related activities. The deadline for application is March 1, 2017.

<http://youngbirders.aba.org/scholarships>

### **Young Reporters for the Environment Competition**

The Young Reporters for the Environment Competition is hosted by the National Wildlife Federation. Students aged 13-21 investigate an environmental issue in their community and report on it in writing, photos, or video. The deadline for U.S. submissions is March 15, 2017.

<http://www.nwf.org/Young-Reporters-for-the-Environment/About-Young-Reporters/Join-the-Competition.aspx>

## **FELLOWSHIPS, INTERNSHIPS, AND TEMPORARY OPPORTUNITIES**

### **Batten Fellowship – Virginia**

The Virginia Aquarium offers Summer Batten Fellowship positions for Sea Turtle and Marine Mammal Stranding Response and Research & Conservation. The deadline for application is May 17, 2017. Other, non-paid internships are also available.

<http://sfrc.ufl.edu/virginia-aquarium-summer-batten-fellowship-positions/>  
<https://www.virginiaaquarium.com/join/internships>

### **Earth Science Internship**

STEM Enhancement in Earth and Space Science (SEES), from NASA and partners, is a nationally competitive summer intern program offering an opportunity for high school students to increase their understanding of and interest in STEM careers. Interns work with those researching astronomy, remote sensing, and space geodetic techniques to help understand Earth systems, natural hazards, and climate science. The deadline for application is April 4, 2017.

<http://www.csr.utexas.edu/internship/>

### **Exploration of Marine Biology on the Oregon Coast**

Ten Research Experience for Undergraduates (REU) positions are available at the Oregon Institute of Marine Biology, June 19-August 18, 2017. The students will design and conduct studies that contribute to the larger Coastal Waters Consortium collaborative effort studying the effects of the Deepwater Horizon oil spill on Louisiana salt marshes and coastal environments. The deadline for application is March 15, 2017, but early submission is encouraged.

<http://oimb.uoregon.edu/oimb-reu/>

### **Explorer in Training**

The Okeanos Explorer-in-Training program has several at-sea opportunities to sail aboard the NOAA Ship *Okeanos Explorer* as mapping watchstanders, and to actively participate in cruises from shore at the University of New Hampshire's Center for Coastal and Ocean Mapping. The deadline for application is February 17, 2017.

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

### **Fisheries Research and Policy Intern – Massachusetts**

The Cape Cod Commercial Fishermen's Alliance, in partnership with The Nature Conservancy, seek a summer intern to assist with halibut research and other fisheries projects beginning mid-May through late August, 2017. Application review will begin February 20, 2017.

[http://www.capecodfishermen.org/images/documents/position\\_descriptions/2017\\_Halibut\\_Intern.pdf](http://www.capecodfishermen.org/images/documents/position_descriptions/2017_Halibut_Intern.pdf)

### **National Weather Service Internships**

The National Weather Service's National Centers for Environmental Prediction is accepting applications for its paid summer student internship program, with up to ten internships targeted towards current undergraduate and graduate students to work in areas that will meet the future needs of the ever-broadening weather-climate-water user community. Hurry – the deadline for application is February 6, 2017.

<http://www.ncep.noaa.gov/student-internships/>

### **NOAA CCME Fellowship**

Through the Center for Coastal and Marine Ecosystems, the Harte Research Institute provides support for a limited number of graduate students pursuing applied research in NOAA mission-related scientific focal areas. Preference is given to under-represented minorities. The deadline for application is February 17, 2017.

<https://www.hartheresearchinstitute.org/ccme>

### **Ocean Matters High School Summer Program – Hawai'i**

Check out the Ocean Matters summer program for high-school aged students in Hawai'i. Funding may be available; the deadline for application is March 1, 2017.

<http://www.oceanmatters.org/?p=2322>

### **Summer Internship Program**

The Internship Program at the Patuxent Environmental & Aquatic Research Laboratory (PEARL) offers college students hands-on experiences in an environmental research setting. Interns gain first-hand experience and knowledge of field and laboratory research and project design. A stipend may be available. The deadline for application is March 1, 2017.

[http://www.morgan.edu/research\\_and\\_economic\\_development/patuxent\\_environmental\\_and\\_aquatic\\_research\\_laboratory/education/summer\\_internship\\_program.html](http://www.morgan.edu/research_and_economic_development/patuxent_environmental_and_aquatic_research_laboratory/education/summer_internship_program.html)

### **Summer Institute for Middle School Teachers - Maryland**

The National Institute for Standards and Technology's (NIST) Summer Institute, July 10-21, 2017 in Gaithersburg, Maryland, brings together teachers and NIST scientists and engineers for hands-on science based on the cutting edge measurement science research at NIST, designed to match the middle school curricula. The deadline for application is March 3, 2017; see the website for application details.

<https://www.nist.gov/iaao/about-summer-institute>

## **CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT**

### **American Fisheries Society Annual Meeting – Florida**

The theme of the American Fisheries Society Annual Meeting, August 20-24, 2017 in Tampa, Florida, is Fisheries Ecosystems: Uplands to Oceans. The deadline for symposium, paper, and poster abstracts is March 17, 2017.

<https://afsannualmeeting.fisheries.org/>

### **Beyond Doom and Gloom - Online**

The Disciplinary Associations Network for Sustainability and partners will host the webinar, Beyond Doom and Gloom: Include Solutions to Climate Change, March 1, 2017. The webinar will focus on curricular materials to engage students in current and future solutions that can be used in any course and in any discipline.

<https://attendee.gotowebinar.com/register/2860146782187308801>

### **Building Urban Wildlife Habitats with Youth - Minnesota**

This blended learning course, in Bloomington, Minnesota along with two webinars, is designed to empower conservation professionals to assess, develop, and work with local youth service corps that engage 14-25 year olds in job training, conservation skills, and leadership opportunities through community habitat enhancement, restoration, or monitoring projects. The deadline for registration is March 31, 2017.

<https://naaee.org/eepro/learning/webinars-workshops-training/building-urban-wildlife-habitats-youth>

### **Coral Restoration Webinar Series - Online**

NOAA and The Nature Conservancy are sponsoring a Coral Restoration Webinar Series, starting February 8, 2017 on Coral Spawning Research and Larval Propagation.

<http://www.agrra.org/front-page-news/nature-conservancy-announces-new-webinar-series-caribbean-coral-restoration/>

### **Educators Workshops -Texas**

The Houston Zoo offers a variety of spring workshops and events for educators, including Teachers as Field Workers, Zoo Science, Educators Night Out, and more.

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

### **Financing for Marine Conservation - Online**

Open Channels and partners will host three free webinars in February on financing for marine conservation and management. Check these out, along with archived presentations of past events.

<https://www.openchannels.org/upcoming-events-list>

### **Georgia Shorebirds Conservation Teacher Workshop - Georgia**

The Sapelo Island National Estuarine Research Reserve is hosting this teacher workshop June 12-14, 2017 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 May 15, 2017.

Contact Georgia Graves at [georgiabeachwalk@bellsouth.net](mailto:georgiabeachwalk@bellsouth.net)

### **Ocean Exploration Workshops – Various**

NOAA's Ocean Exploration Program and partners offer Exploring the Deep Ocean with NOAA Professional Development Workshops for Educators. Participants will receive classroom-ready lessons, certificates of participation, and other resources. Contact the noted educator or check out the website for registration and more information.

- April 22, 2017 with the Aquarium of the Pacific in Long Beach, California. The deadline for registration is March 31, 2017. Contact Staci Wong at [swong@lbaop.org](mailto:swong@lbaop.org)
- April 22, 2017 with the South Carolina Aquarium in Charleston, South Carolina. The deadline for registration is March 31, 2017. Contact Jaime Thom at [jthom@scaquarium.org](mailto:jthom@scaquarium.org)
- April 29, 2017 with the National Aquarium in Baltimore, Maryland. The deadline for registration is April 7, 2017. Contact David Christopher at [dchristopher@aqua.org](mailto:dchristopher@aqua.org)
- May 6, 2017 with the Birch Aquarium at Scripps Institution of Oceanography in San Diego, California. The deadline for registration is April 14, 2017. Contact Cari Paulenich at [cpaulenich@ucsd.edu](mailto:cpaulenich@ucsd.edu)
- May 6, 2017 with the John G. Shedd Aquarium in Chicago, Illinois. The deadline for registration is April 14, 2017. Contact Laura Lytle at [lytle@sheddaquarium.org](mailto:lytle@sheddaquarium.org)

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

### **Pathways to Parks – California**

Channel Islands National Park and partners will host two Pathways to Parks: Get Outdoors with NGSS workshops, February 4 and March 4, 2017 in Ventura, California. See the website for complete details.

<http://tinyurl.com/Pathways-to-Parks>

### **Question Everything - Online**

This free 8-week MOOC (Massive Open On-line Course) from the University of Queensland, Query 101x: Question Everything: Scientific Thinking in Real Life, is self-paced. Participants learn how to use math and science to solve everyday problems and better prepare to continue studying science in high school and beyond.

<https://www.edx.org/course/question-everything-scientific-thinking-uxq-query101x>

### **Seaside Chats – Texas and Online**

Flower Garden Banks National Marine Sanctuaries will host a series of free Seaside Chats. The presentations will take place at Sea Scout Base in Galveston, Texas, and those outside of the area can attend via webinar.

<http://flowergarden.noaa.gov/education/seasidechats.html>

### **Sharing the Climate Story with Young Learners Through Elementary GLOBE - Online**

NOAA's Climate Stewards Webinar Series offers this free webinar February 6, 2017. The webinar introduces a new GLOBE elementary school level storybook and set of classroom activities that showcase the science of climate change. The book, What in the World is Happening to Our Climate?, builds K-4 student understanding of climate science through storytelling.

<https://www.climate.gov/teaching/professional-development/sharing-climate-story-young-learners-through-elementary-globe>

### **Shorecombers Trash Blast Leaders Workshop - Online**

Participants in the seven-week online Shorecombers Trash Blast Leaders Workshop, starting March 6, 2017, learn how to design a cleanup and protection plan tailored to the water, land, and community in which they live. Up to 25 full scholarships may be available.

<http://www.shorecombers.org/apply-for-a-scholarship.html>

### **Social-Ecological Resilience and Changing Landscapes Webinar Series**

The U.S. Forest Service's Rocky Mountain Research Station and partners are hosting a free Spring Webinar Series that will explore activities and tools that facilitate effective adaptation and build social-ecological resilience in the context of changing landscapes. Topics include Understanding the Views of Decision-Makers, interdisciplinary teams, and more. Webinars will be archived for future viewing for those unable to attend.

<https://www.fs.fed.us/rmrs/social-ecological-resilience-and-changing-landscapes-webinar-series>

### **Statistics: Unlocking the World of Data**

This six-week MOOC from the University of Edinburgh introduces key ideas and concepts of statistics. Participants will explore statistics using interactive applets, and learn to interpret and evaluate data encountered in everyday life. No previous knowledge of statistics is required, although familiarity with secondary school mathematics is advisable. While the course started January 11, 2017, you can still enroll and catch up.

<https://www.edx.org/course/statistics-unlocking-world-data-edinburghx-statsx>

### **Teacher Professional Development Institutes - California**

The Monterey Bay Aquarium hosts free teacher professional development institutes for teams of full-time classroom teachers. A stipend may be available; check out the details for each program. The deadline for application is March 13, 2017.

<https://www.montereybayaquarium.org/education/teacher-professional-development>

### **Tropical Coastal Ecosystems - Online**

This self-paced nine-week MOOC from the University of Queensland helps students develop the skills and knowledge needed to preserve tropical coastal ecosystems. The seven-week course is now self-paced.

<https://www.edx.org/course/tropical-coastal-ecosystems-ugx-tropic101x-3>

## **EDUCATIONAL RESOURCES**

### **Animals of the Ice**

NOAA's Ocean Today Every Full Moon is a multimedia kiosk that features videos about all aspects of the ocean and was originally designed for the National Museum of Natural History's Sant Ocean Hall. Every month during the full moon, a new collection of videos is released which are broken down into short segments for easy viewing. The videos are available on the website along with additional resources. This month's release features animals living in the polar regions. Be sure to check out previous offerings.

<http://oceantoday.noaa.gov/every-full-moon/>

### **Biology Corner: Ecology**

From biology teacher Shannon Muskopf's website for biology teachers and students, Biology Corner, comes this collection of lesson plans, classroom activities, and PowerPoint presentations related to Ecology and Environmental Issues. Many of these lessons include in-class simulations or online virtual labs. Be sure to check out the rest of the Biology Corner website.

<https://www.biologycorner.com/lesson-plans/ecology>

### **Blue Energy Webinar Series - Online**

The National Ocean Sciences Bowl's yearly Professional Development Webinar Series is related to the 2017 theme of marine renewable energy, Blue Energy - Powering the Planet with our Ocean. The webinars will be archived on the NOSB YouTube channel.

<http://nosb.org/learn/professional-development/>

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

### **Climate 101**

The Climate Reality Project offers a multimedia Climate 101 website with videos and links to additional resources.

<https://www.climateRealityProject.org/climate-101>

### **Elephant Seals - Online**

The next webinar from the National Marine Sanctuaries, February 23, 2017, is Males vs. Females: Feeding Behavior of Northern Elephant Seals. The research compares the feeding behavior of male and female seals to understand how the sexes use different marine resources throughout the North Pacific Ocean.

<http://sanctuaries.noaa.gov/education/teachers/webinar-series.html>

### **Expeditionary Skills for Life**

NASA expeditionary skills include cultural competency, self-care/team care, teamwork, leadership/followership, and communication and can help you succeed in any aspect of life. Expeditionary Skills for Life, developed through a partnership between NASA and 4-H, features lessons and content built around these skills and the training astronauts receive in preparation for long-duration expeditions in space. New content will be released monthly, so be sure to check back.

<https://www.nasa.gov/audience/foreducators/stem-on-station/expeditionary-skills-for-life.html>

### **Guidelines for Excellence Workshop Resources**

NAAEE offers this website hosting resources for Guidelines for Excellence Workshops. It includes a series of workshop outlines designed to help plan and lead professional learning experiences focusing on each of the five Guidelines for Excellence publications produced through the National Project for Excellence in Environmental Education.

<https://naaee.org/our-work/programs/guidelines-excellence/workshop-resources>

### **History of Earth's Surface Temperature**

This short animation shows annual temperatures each year since 1880 compared to the twentieth-century average.

<https://www.climate.gov/news-features/videos/history-earths-surface-temperature-1880-2016>

### **How to Do a Science Fair Project**

In this video series from NASA's Jet Propulsion Laboratory, a scientist, engineer, and educator team up to help students learn how to come up with an idea for a science fair project and see it through to completion.

<http://www.jpl.nasa.gov/edu/learn/activities/science-fair-project/>

### **Infinite Monkey Cage**

BBC Radio 4 offers the Infinite Monkey Cage, an irreverent look at the world through scientists' eyes. The podcast features discussions with guests scientists about a variety of ways that our everyday lives are shaped by scientific phenomena. A recent podcast discusses science's "epic fails."

<http://www.bbc.co.uk/programmes/b00snr0w>

### **MPA News on Financing – Part 2**

MPA News has published the second part of their series on MPA financing. The newsletter highlights possible financing streams, interviews, and more.

<https://mpanews.openchannels.org/mpanews/issue/january-2017-184>

### **National Biodiversity Teach In**

Organized by the students of Elgin High School in Illinois, the National Biodiversity Teach In is a series of free biodiversity webinars provided by scientists, authors, filmmakers, and others. The dates of the teach in are February 3, 10, 14, 17 and 24, 2017. Scroll over the drop-down links near the top of the page for registration and speakers.

<http://nationalbiodiversityteachin.com/>

### **NSTA Listserv on Education Policy**

NSTA members can join a listserv devoted to education policy. Subscribers can ask questions, read about federal and state education policies that affect the science/STEM classroom, and more. Check out the many different listservs available to members.

<http://www.nsta.org/membership/listserver.aspx>

### **Ocean Energy Webinar Series – Online**

This free, three-part webinar series introduces the basics of ocean energy and discusses how energy project sites are selected and assessed for their environmental impacts. While the last of the series will take place February 7, 2017, registration will provide access to connection information along with links to presented materials and archived webinar video.

<https://www.surveymonkey.com/r/oceanenergywebinar>

### **Ocean Frontiers Film Series**

Green Fire Productions produces films on conservation and sustainability issues and makes them available for viewing through video clips or 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. Host a screening or find one near you. Check out upcoming screenings in Virginia, Connecticut, and New Hampshire.

<http://ocean-frontiers.org/>

### **Schmidt Ocean Institute Cruises**

Follow along with Schmidt Ocean Institute's R/V *Falkor* on its expeditions throughout 2017. Sea to Space Particle Investigation is scheduled for January 24-February 20, 2017. Watch for EarthEcho International virtual field trips and more.

<https://schmidtocean.org/cruises/>

<http://earthecho.org/>

### **Science Activities**

Taylor and Francis's Science Activities publishes manuscripts that provide educators with classroom-tested projects, experiments, and curriculum ideas that promote science and inquiry through active learning experiences. Be sure to check out the special issues, including Activities for Marine and Aquatic Education, Earth Science Issue, and much more. Consider submitting your manuscript for publication.

<http://www.tandfonline.com/toc/vsca20/current>

### **Smithsonian Science How Webcasts and Chats**

These free, interactive, webcast programs introduces middle school students to core science concepts through the lens of Smithsonian research and experts. Explore the topics in the schedule by watching a webcast and using the classroom activities, lessons, readings, and other resources that support each webcast program. A new feature is live, text-based career chats with scientists previously featured on the shows. Check out the schedule and resources, and register.

<http://qrius.si.edu/explore-science/webcast/schedule>

### **Space Place Musings**

NASA's Space Place Musings offers a series of podcasts aimed at elementary students, answering questions about space, Earth, and science in general. Current topics include why does the earth rotate, why is the core so hot, and more. Students can send in questions. Be sure to check out the rest of the Space Place resources.

<http://spaceplace.nasa.gov/podcasts/en/>

### **STEM Field Study Kits for All**

Clearing Magazine has a short article about creating very low cost kits for student field studies.

<http://clearingmagazine.org/archives/13212>

## **INITIATIVES, JOURNALS, and MORE**

### **Boston Sea Rovers Clinic - Massachusetts**

The Boston Sea Rovers Show, March 11-12, 2017 in Danvers, Massachusetts, is dedicated to education, conservation, and exploration of the underwater world. The show features seminars, a Saturday Evening Film Festival, free Sunday programs for kids, and more.

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

### **Climate Change Education Program Map**

Join this ESRI crowd-sourced map to show where climate change education is happening.

<https://mde1.maps.arcgis.com/apps/StoryMapCrowdsource/index.html?appid=14233818f37c4886a6b2e98c2407cde3>

**Lateral Magazine**

Lateral Magazine is a new, online publication that explores the intersections of science and society. Each month, the magazine publishes feature articles on a shared monthly theme along with additional articles, editorials, and regular columns. While an issue hasn't focused on earth or marine science, check for articles of interest, such as Living in denial; Preparing students for a STEM-intensive future, today; and more.

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

**NOAA Heritage Week Open House – Maryland**

Learn how NOAA takes the pulse of the planet every day and protects and manages ocean and coastal resources. Visit NOAA's Silver Spring, Maryland, campus for a series of free activities, February 11, 2017, including talks by NOAA experts, interactive exhibits, special tours, and hands-on activities. Meet and talk with scientists, weather forecasters, hurricane hunters, and others.

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