

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

**APRIL 2013**

This update is funded by the National Marine Sanctuary Foundation in partnership with NOAA's Ocean Exploration and Research Program, with additional support from the National Marine Protected Areas Center, to share information pertinent to the marine educator community. It is intended to encourage exchange of information and programs. We hope that it will also promote collaboration among the different educators addressing similar issues in their programs.

Please share this email with your colleagues and constituents. If you request materials or respond to a request for information, please mention that you learned about it from NOAA's Information Exchange.

The information included here has been compiled from many different sources, including EE-NEWS@NAAEE, EEinGEORGIA, the Scout Report, scuttlebutt, NSTA Express, and others. We have verified web addresses, but make no guarantee that they will remain active. The Department of Commerce/NOAA does not necessarily endorse or promote the views or facts presented on these sites.

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Collected archives and issues of the newsletter, past and present, are available at <http://mpa.gov/resources/education/#exchange>.

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**Notable References**

**Climate Adaptation Strategy**

The National Fish, Wildlife and Plant Climate Adaptation Strategy is available for downloading. The strategy was developed by more than 15 federal, state, and tribal agencies over a two-year public process and is meant to help decision-makers prepare for and reduce the current and future impacts of climate change on species, habitats, and the people and economies that depend on them.

<http://www.wildlifeadaptationstrategy.gov/>

**NEPA and NHPA Handbook**

The White House Council on Environmental Quality and the Advisory Council on Historic Preservation have released a handbook designed to help coordinate required review processes under the National Historic Preservation Act and the National Environmental Policy Act: NEPA and NHPA – A Handbook for Integrating NEPA and Section 106. The

handbook provides practical advice to practitioners and stakeholders to improve the efficiency and effectiveness of federal agencies' environmental review.

[http://www.whitehouse.gov/sites/default/files/nepa\\_and\\_nhpa\\_handbook.pdf](http://www.whitehouse.gov/sites/default/files/nepa_and_nhpa_handbook.pdf)

### **Tools for Coastal Climate Adaptation Planning**

The Tools for Coastal Climate Adaptation Planning provides information for coastal natural resource managers and community planners to select appropriate tools for their projects. The guide focuses on spatially explicit solutions for climate-related planning and describes the utility and role of tools in relevant planning processes.

<https://connect.natureserve.org/toolkit/ebm-tool-network/climate-adaptation-planning-tools>

### **UNEP Year Book 2013: Emerging Issues in our Global Environment**

The 10th edition of the Year Book series from the United Nations Environment Programme focuses on rapid change in the Arctic which threaten ecosystems while providing new development opportunities, including easier access to oil and gas, minerals, and fisheries. Additional focus includes minimizing chemical risks, poaching in Africa, growing urban environmental challenges, and the accelerating momentum to tackle short-lived climate pollutants.

<http://www.unep.org/yearbook/2013/>

## **REQUESTS**

### **Conservation TV Series Seeks EE Content**

This American Land, a conservation newsmagazine TV series covers stories on America's landscapes, waters, and wildlife. Producers are seeking stories that can be used by educators for classroom studies.

Contact Gary G. Strieker at [strieker@newstrust.org](mailto:strieker@newstrust.org).

### **Global Change Survey**

The University of California Museum of Paleontology and the National Center for Science Education received funding to develop a web-based resource for educators and the general public that will provide scientific information on global change, specifically how the earth's natural systems are changing. They would like to have a better sense of how teachers (at all grade levels, in both formal and informal settings) view global change, the importance of teaching it, and the resources available for doing so.

<https://www.surveymonkey.com/s/UGC2013>

### **Teachers Wanted**

The American Museum of Natural History in New York is seeking teachers to participate in a webinar about a new set of online resources they have developed, to test the curriculum, and give feedback on the resources, April 16, 2013.

Contact Sarah Seiter at [sarah.seiter@gmail.com](mailto:sarah.seiter@gmail.com)

## **GRANTS AND OPPORTUNITIES**

### **American Wilderness Leadership School**

This eight-day course provides educators with an understanding of science-based conservation and land management techniques, and the supplies needed to pass this knowledge on to their students. Teachers should apply for course sponsorship to their

local Safari Club International chapter. Applications are accepted until sessions are filled. See the website for workshop dates.

<http://www.safariclubfoundation.org/education/awls>

### **Awesome Foundation Grants**

The Awesome Foundation awards micro-grants every month for awesome ideas. Projects funded in the past have ranged from mobile applications to scientific experiments. Come up with something brilliant.

<http://www.awesomefoundation.org/en/faq>

### **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, 2013. Scroll down to the teacher award.

<http://www.turnaround.org/about/awards.asp>

### **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 13, 2013.

<http://broweryouthawards.org/section.php?id=54>

### **Delta Science Fellows Program**

The Delta Science Fellows Program brings together young scientists, agency scientists, and senior research mentors in collaborative data analysis and research projects relevant to the Delta Stewardship Council's priority topic areas. Up to 12 pre-doctoral students and postdoctoral researchers will be awarded fellowships. The deadline for application is May 20, 2013.

[http://csgc.ucsd.edu/EDUCATION/DELTA/DeltaFellow\\_RFA2012-13.html](http://csgc.ucsd.edu/EDUCATION/DELTA/DeltaFellow_RFA2012-13.html)

### **Earth Day Photo Contest**

The Institute for Global Environmental Strategies is holding an Earth Day Photo Contest for students in grades 5-8. From April 22-29, 2013 students should take a photograph of something that is changing in their local environment, then submit the photo and explanation. The deadline for entry is May 10, 2013.

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

### **Environmental Education Mini-Grant Program**

The Office of Environmental Education of Florida's Department of Environmental Protection offers Advancing Environmental Education in the Southeast U.S. Capacity and Continuity Mini-grants. There are both Florida and regional grants. See the website for details. The deadline for submission is April 16, 2013 and April 30, 2013, respectively.

<http://www.dep.state.fl.us/secretary/ed/grants.htm>

### **Euan P. McFarlane Environmental Leadership Award**

Island Resources Foundation is accepting nominations for the Euan P. McFarlane Environmental Leadership Award. The award provides recognition for persons demonstrating initiative, resourcefulness, and leadership in promoting conservation and enhancement of the environment in the insular Caribbean, with priority given to the

residents of the smaller islands of the Eastern Caribbean. The deadline for nominations has been extended to April 8, 2013.

[http://www.irf.org/about/mcfarlane\\_award.php](http://www.irf.org/about/mcfarlane_award.php)

### **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, 2013.

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

### **Explore the Coast Grant Program**

The California Coastal Conservancy is soliciting applications for grants for projects that facilitate and enhance the public's opportunities to *Explore the Coast*. Grants can support a wide range of activities including communication and outreach, economic development related to coastal tourism, and development of interpretive information and/or education materials. The deadline for submission is May 10, 2013.

<http://scc.ca.gov/2013/03/15/announcing-the-conservancys-explore-the-coast-grant-program/>

### **GPM Anime Challenge**

The Global Precipitation Measurement Mission (GPM) and partners are holding a design challenge to develop an Anime character for GPM. Participants are expected to learn about science themes - including the water cycle, weather and climate technologies, and societal applications – and incorporate what they've learned into the Anime character design. The deadline for submission is April 20, 2013.

<http://pmm.nasa.gov/education/anime>

### **Green In Action Awards**

Green In Action Awards support sustainability projects. The deadline for entry is April 30, 2013.

<http://www.greeneducationfoundation.org/green-energy-challenge-menu/how-to-participate-gec/contests/green-in-action-awards.html>

### **Judith A. Towle Environmental Studies Fund – Virgin Islands, St. Kitts and Nevis**

Applications are now being accepted by the Community Foundation of the Virgin Islands for the Judith A. Towle Environmental Studies Fund. The fund supports activities that address environmental concerns which transcend the boundaries of a single island or island state, particularly in the U.S. and British Virgin Islands and in the dual-island state of St. Kitts and Nevis. Any individual who is a resident of, or a not-for-profit institution based in, the U.S. or British Virgin Islands or in the Federation of St. Kitts and Nevis may submit a grant application. Graduate students whose research focuses on the Virgin Islands or St. Kitts and Nevis may also submit grant applications. The deadline for application is May 15, 2013.

<http://irf.org/wordpress/?p=175093876>

### **Marine Technology Society Scholarships**

The Marine Technology Society is committed to helping students who are studying in the marine science, marine engineering, and marine technology fields, and offers different scholarship opportunities. The deadline for application is April 15, 2013.

<https://www.mtsociety.org/education/scholarships.aspx>

### **Nature's Best Photography Competition**

The Nature's Best Photography Windland Smith Rice International Awards competition is open. The deadline for submission is May 15, 2013. Note that there may be an entry fee for submission.

[http://www.naturesbestphotography.com/competition\\_overview.php](http://www.naturesbestphotography.com/competition_overview.php)

### **Nautilus Patch Design Contest**

The Ocean Exploration Trust offers the Nautilus Patch Design Contest for youth ages 6-14. Design a patch worn by Dr. Robert Ballard's Corps of Exploration aboard Nautilus as they sail the Gulf of Mexico and Caribbean Sea this summer and fall. The deadline for submission is May 1, 2013.

<http://www.oceanexplorationtrust.com/#!/nautilus-patch-contest/c1m6z>

### **NOAA Sea Grant Aquaculture Extension and Technology Transfer**

NOAA Sea Grant expects to have funds available for FY2013 and FY2014 to fund marine aquaculture extension and technology transfer efforts, as part of the overall plan to support the development of environmentally and economically sustainable ocean, coastal, and Great Lakes aquaculture. The deadline for submission is April 18, 2013.

<http://www.grants.gov/search/search.do?mode=VIEW&oppld=222755>

### **NOAA Sea Grant Community Climate Adaptation Initiative**

NOAA Sea Grant expects to make available grants to fund climate adaptation efforts as part of an overall plan to enhance climate adaptation in coastal communities. Matching funds are required and projects are expected to be conducted in partnership with local community governments, state, and federal agencies. The deadline for submission is April 19, 2013.

<http://www.grants.gov/search/search.do?mode=VIEW&oppld=223153>

### **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, 2013.

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

### **Public Lands Every Day Capacity Building Grants**

Every Day Capacity Building Grants provide funding to strengthen the effectiveness of public lands friends groups. These grants help fund capacity building projects such as staff and board training, fundraising, and technology and website development. The next deadline for proposals is April 30, 2013.

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

### **Samsung Grant Competition**

Samsung asks teachers to design a lesson plan, in 100 words or less, using the Samsung SAMCAM 760 document camera. The deadline for application is May 1, 2013. See the website for details.

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

### **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 3, 2013.

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

### **US vs. Waste Competition**

This contest from the Alliance for Climate Education challenges students to tackle waste reduction. Student teams earn points for each project completed and are eligible to win prizes. The contest ends May 1, 2013.

<http://acespace.org/waste>

### **Win a Wireless Lab Sweepstakes**

In the Win a Wireless Lab Sweepstakes from Discovery Education and partners, two schools will each win a grand prize package. Public and private school employees are eligible to enter the sweepstakes once a day through May 3, 2013.

<http://cdwg.discoveryeducation.com/wawl/>

### **World Environment Day Contest**

Project Earth is hosting the World Environment Day Contest in celebration of the United Nation's World Environment Day, June 5, 2013. Any environmental effort that involves students ages 4-18 is eligible. The deadline for entry is May 10, 2013.

<http://www.projectearth.net/Competition/Details/5b2327cd-36eb-4bfa-9b3c-d0ced3c97f5d>

### **Young Birder Scholarships**

The American Birding Association offers scholarships to help young people attend bird-related summer camps, workshops, training programs, conventions, and other activities. The deadline for submission is April 15, 2013.

<http://www.aba.org/yb/scholarships.html>

## **INTERNSHIPS AND TEMPORARY OPPORTUNITIES**

### **Dive In to Marine Science**

Dive In is a free immersion program, August 12-14, 2013 in Walpole, Maine held to expose students to the University of Maine's Darling Marine Center programs, including marine biology, oceanography, remote ocean sensing, aquaculture, and more. The deadline for application is May 1, 2013.

<http://www.dmc.maine.edu/divein.html>

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

### **Assessment Workshops – Washington, D.C.**

This Project 2061 workshop, Developing and Using Assessments Aligned to Science Learning Goals, in Washington, D.C., will focus exclusively on assessment—from high-stakes testing to classroom diagnostics—and its role in helping all students achieve science learning goals. There are three opportunities to attend: May 15-17, August 7-9, and October 9-11, 2013. Scholarships may be available. See the website for details. <http://www.project2061.org/events/workshops/assessment-overview.htm>

### **Bringing Local Marine Science to our Schools – North Carolina**

This free workshop, April 25, 2013 at Pine Knoll Shores, North Carolina, offers educators the opportunity to learn more about marine research conducted in North Carolina; obtain materials and ideas to take home and implement in the classroom; take part in demonstrations and hands on activities; and more. The deadline for registration is April 15, 2013.

<http://sciren.web.unc.edu/>

### **Broader Impacts Collaboration Workshop – New York**

This workshop from COSEE Ocean Systems and the Seacoast Science Center especially for educators from New Hampshire, Maine, and Massachusetts, April 11, 2013 in Rye, New York, will allow participants to work in small groups with area research scientists that are looking for informal education collaboration opportunities. Learn from other educators about developing programs that are well-organized, high-impact, and have a broad reach. The deadline for application is April 5, 2013.

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

### **Climate Science Research for Educators and Students – New York**

The NASA/NICE Climate Science Research for Educators and Students project (CSRES), in collaboration with Queens College/City University of New York, is offering this workshop for middle and secondary school educators, June 27-29, 2013 in New York City, New York. The deadline for application is May 1, 2013. Organizers are also looking for participants to be part of online webinars and workshops.

<http://www.smdeponews.org/programs-events/nasanice-climate-science-research-for-educators-and-students-workshop-middle-and-high-school-educators-apply-by-may-1/>

### **Coastal Ecology Teacher Workshop - Georgia**

Join educators for an in-depth look at Georgia's coastal systems and discover the abundance and variety of wildlife found along the shores in this Coastal Ecology Teacher Workshop, July 9-11, 2013 on Sapelo Island, Georgia. Emphasis is placed on estuarine and marine ecology, coastal species identification and adaptations, commercial and recreational fisheries, and management.

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

### **Data & the Estuary: Professional Development for Teachers - Maryland**

This five day program provides teachers with the resources, knowledge, and experience necessary to facilitate the integration of estuaries and related topics into the classroom. Through Chesapeake Bay field-based investigations, teachers will gather data on land use, water quality, and more. There will be two sessions, starting June 24 and August 5,

2013. The deadlines for registration are May 28 and July 30, 2013, respectively, but register early for this tuition-free program, as slots fill up quickly.

<http://www.coastaltraining-md.org/Scheduled-Classes/5.aspx>

### **Defend Your Drain - Online**

Join EarthEcho International and Seventh Generation Foundation on April 18, 2013 for an Earth Month webinar that explores the connections between everyday products and the health of our water planet. The discussion will address toxins found in personal and home care products and the impacts these have on marine environments.

<https://attendee.gotowebinar.com/register/3518052729042130688>

### **Earth and Marine Science Seminars - Hawaii**

The Edge of Kauai (TEOK) offers seminar programs designed for educators to investigate the Hawaiian Archipelago and learn about its environmental systems.

- July 7-13 and August 4-10, 2013, Geoscience on the Big Island
- June 22-29 and July 20-27, 2013, Kauai Science of Ecosystems

Reservations are filled on a space available, first come basis as applications are received.

<http://www.teok.com/educationalprograms.html>

### **Education Tour of Historic Lewes - Delaware**

The workshop, A Day in Lewes: Exploring Collaborative Field Trip Opportunities, August 7, 2013 in Lewes, Delaware, tours locations which provide settings for lessons on science, history, and natural resources and offer options for multidisciplinary learning in the seaside city of Lewes.

<http://www.historiclewes.org/catalog/education-tour-historic-lewes/education-tour-historic-lewes>

### **Fish & Wildlife Workshops – West Virginia and Oregon**

The U.S. Fish and Wildlife Service offers professional development courses at the National Conservation Training Center campus in West Virginia and with partners throughout the country.

- OUT8163: Connecting People with Nature through Birds, June 3-6, 2013 in Shepherdstown, West Virginia. Contact Michelle Donlan at [Michelle\\_Donlan@fws.gov](mailto:Michelle_Donlan@fws.gov)
- OUT8164: Creating a Schoolyard Habitat/Outdoor Classroom, September 23-26, 2013 in Portland, Oregon; September 10 & October 29, webinars. Contact Scott Owen at [scott\\_t\\_owen@fws.gov](mailto:scott_t_owen@fws.gov)

[http://training.fws.gov/documents/Section1\\_NCTC\\_Sponsored\\_Courses.pdf](http://training.fws.gov/documents/Section1_NCTC_Sponsored_Courses.pdf)

### **Georgia Shore Program - Georgia**

Georgia educators can immerse themselves in a free coastal Georgia experience, June 15-29, 2013 starting on Skidaway Island, Georgia. Hurry – enrollment is limited to 16 students.

<http://www.marex.uga.edu/aquarium/teacherWorkshops.html>

### **IMPAC 3**

The 3rd International Marine Protected Areas Congress will take place October 21-27, 2013 in Marseille and Corsica, France. The abstract deadline for submission is May 10, 2013.

<http://www.impac3.org/en/>

### **LEARN - Long-term Engagement in Authentic Research at NASA - Virginia**

The NASA LEARN Project provides educators with on-site research and training in Hampton, Virginia in the summer, and guided research projects that continue on throughout the school year. Participants receive training focused on atmospheric science and become GLOBE certified. The educators conduct their own research with help from NASA scientists and share and integrate these projects into the classroom. The deadline for application is April 22, 2013. A stipend is available.

<http://science-edu.larc.nasa.gov/LEARN/>

### **MarineLab Teacher Workshops - Florida**

MarineLab will host three workshops concurrently from July 29-August 3, 2013 in Key Largo, Florida: Introduction to Coastal Marine Ecology, Marine Ecology and Research Techniques, and the Reef Check Eco Diver Certification for Teachers program. The workshops are designed for middle and high school science teachers; all feature on-water field explorations.

[http://www.marinelab.org/Teacher\\_Workshops.html](http://www.marinelab.org/Teacher_Workshops.html)

### **NMEA at NSTA**

As a reminder, Session Proposals for the NSTA 2014 National Conference, April 3-6, 2014 in Boston, Massachusetts, are due April 15, 2013. The NMEA NSTA Liaison Committee will once again be accepting proposals for a marine science track of sessions. If you would like your proposal to be considered for the NMEA track, please submit your proposal to NSTA as required and then send your assigned proposal ID#, session title, and abstract to Lauren Rader.

<http://www.nsta.org/conferences/2014bos/>

Contact Lauren Rader at [lrader@oceanology.org](mailto:lrader@oceanology.org)

### **NSTA New Science Teacher Academy Fellowships**

NSTA fellowships offer middle and high school teachers in their second through fifth years of teaching a year-long immersion in a host of science-related activities and professional development opportunities. See the website for details.

<http://www.nsta.org/academy/>

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

Please note that some of these dates may have changed, so I am reposting them for your convenience. NOAA's Ocean Exploration Program and partners offer the Okeanos Explorer Education Materials Collection, How Do We Explore? Professional Development Workshop 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.

- April 13, 2013 with John G. Shedd Aquarium, Chicago, Illinois. The deadline for registration has passed, but contact Jackie Formoso at [jformoso@shedd Aquarium.org](mailto:jformoso@shedd Aquarium.org)
- April 27, 2013 with Birch Aquarium at Scripps, San Diego, California. The deadline for registration is April 5, 2013. Contact Adrienne Marriott at [Creec9a@hotmail.com](mailto:Creec9a@hotmail.com)
- May 4, 2013 with New England Aquarium, Boston, Massachusetts. The deadline for registration is April 12, 2013. Contact Tania Slywinskyj at [tslywinskyj@neaq.org](mailto:tslywinskyj@neaq.org)

- June 22, 2013 with Audubon Aquarium of the Americas, New Orleans, Louisiana. The deadline for registration is May 31, 2013. Contact Tricia LeBlanc at [tleblanc@AudubonInstitute.org](mailto:tleblanc@AudubonInstitute.org)
- June 22, 2013 with Georgia Aquarium, Atlanta, Georgia. The deadline for registration is May 31, 2013. Contact Kim Morris-Zarneke at [kzarneke@georgiaaquarium.org](mailto:kzarneke@georgiaaquarium.org)

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

### **Sea Turtle Conservation Teacher Workshop - Georgia**

Join educators at the Sapelo Island National Estuarine Research Reserve, June 10-12, 2013 on Sapelo Island, Georgia, for the Georgia Sea Turtle and Conservation Teacher Workshop. The deadline for registration is May 15, 2013.

<http://eeingeorgia.org/net/calendar/details.aspx?s=40374.0.0.4863&dateid=7054>

### **Student Climate & Conservation Congress**

The Green Schools Alliance in partnership with the U.S. Fish and Wildlife Service supports the 2013 Student Climate & Conservation Congress, an environmental leadership training program, June 23-29, 2013 in Shepherdstown, West Virginia. The program is for rising 9-12th grade students who have demonstrated outstanding leadership in their schools or communities.

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

### **Teachers on the Estuary – Rhode Island**

Narragansett Bay National Estuarine Research Reserve's summer professional development workshop, Teachers on the Estuary (TOTE), August 1-4, 2013 on Prudence Island, Rhode Island, is a research and field-based workshop geared towards middle and high school teachers, designed to improve understanding of estuaries using local research examples. The workshop is limited to ten participants; a mini-grant may be available. The deadline for application is May 17, 2013.

<http://www.nbnerr.org/tote.htm>

### **Water Education Conference – Colorado**

Project WET USA Announces the 16th Annual Water Education Conference, August 7-9, 2013 in Boulder, Colorado. The conference will offer five conference strands, a full array of speakers, pre-conference field experiences, and more. The deadline for submission is June 15, 2013.

<http://events.r20.constantcontact.com/register/event?oeidk=a07e6zm08iud62a63dd&llr=68kelrcab>

### **Winged Ambassadors Summer Workshop - California**

The Oakland Museum of California and partners offer this free teacher workshop, Winged Ambassadors: Ocean Literacy Through the Eyes of Albatross, June 26-27, 2013 in Oakland, California. Winged Ambassadors is a set of five lessons that use data from current research tracking albatross migrations and ocean plastic pollution. The lessons use inquiry-based science instruction aligned to standards for grades 6-8, with extensions for grades 9-12. The workshop includes talks by seabird scientists, a full day field trip, and much more. A stipend may be available.

[https://www.surveymonkey.com/s/Winged\\_Ambassadors](https://www.surveymonkey.com/s/Winged_Ambassadors)

## **EDUCATIONAL RESOURCES**

### **BirdSleuth K-12**

The BirdSleuth project helps birds teach students about science. Downloadable lesson plans are available for drawing upon the Birds-of-Paradise Project website and videos, for homeschoolers, and more. Be sure to check out the workshops and webinars.

<http://www.birdsleuth.org>

### **Book of Insect Records**

The University of Florida hosts the Book of Insect Records website which names insect champions and documents their achievements. Check out Most Tolerant of Cold, Shortest Generation Time, and Smallest Eggs. Individual chapters can be downloaded for easy access and each record offers scientific, referenced detail. The topics can be used to pique students' imagination while encouraging them to further research their greatest interests.

<http://entnemdept.ifas.ufl.edu/walker/ufbir/index.shtml>

### **Chestory Virtual Archive**

The Center for the Chesapeake Story Virtual Archive contains decades of educational materials focused on environmental and cultural studies developed by Tom Wisner. The website provides example activities and lessons containing strategies that can be applied to any watershed.

<http://www.chesapeake-envliteration.com/>

### **Climate Change and the Pacific Islands**

Teachers' Domain offers this collection to help students examine the impact of climate change in the Pacific Islands and the ways local communities are responding to the challenges they face. The media resources in the collection examine ecosystems on volcanic high islands and low-lying atolls and the climate-related threats to these ecosystems. They also highlight human activities that strengthen or weaken ecosystems, as well as actions that islanders are taking to reduce the threats they face and help preserve their future.

<http://www.teachersdomain.org/special/pacific/>

### **Early Childhood Hands-On Science**

The Miami Science Museum has a curriculum for elementary school students designed to intertwine conceptual learning goals with teaching process skills and practices needed to do science. Units are connected through process skills that function across lessons in preparation for what children should know and be able to do when they enter kindergarten. The curriculum consists of nine thematic units focused on Life, Earth, and Physical Science. Each unit contains an overview, teacher back-ground, four lessons, and twelve integration activities. Download the brochure to review the materials.

[http://www.miamisci.org/echos\\_downloads/Miami Science Museum 2012 ECHOS Brochure.pdf](http://www.miamisci.org/echos_downloads/Miami_Science_Museum_2012_ECHOS_Brochure.pdf)

### **Environmental Education Listserv - California**

Join the California Department of Education's Environmental Science/Environmental Education Listserv to receive time-sensitive statewide announcements about grants, contests, and events.

Send a blank message to [Join-environmental-science-ed@mlist.cde.ca.gov](mailto:Join-environmental-science-ed@mlist.cde.ca.gov)

### **EPA Earth Day Website**

Earth Day, April 22, is quickly approaching. Check out EPA's Earth Day website for lesson plans and more. Check out the Environment in a Day photo project, Pick 5 for the Environment, and more.

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

### **Fishery Data for the Classroom**

NOAA Fisheries' Alaska Fisheries Science Center Education and Outreach website offers links to a variety of fisheries data to help bring the world of fisheries science into the classroom. There are links to activities, Killer Whale, and Microworlds curricula. Be sure to check out the home page and all of the resources available through this great website.

<http://www.afsc.noaa.gov/Education/Activities/data.htm>

### **FishWatch**

FishWatch provides easy-to-understand science-based facts to help consumers make smart sustainable seafood choices. The website offers information on popular seafood harvested or farmed in the United States. Topics include fish profiles, news, recipes, and more.

<http://www.fishwatch.gov/>

### **Historical Shoreline Survey Viewer**

Discover how your coastline has changed over time. NOAA's Historical Shoreline Survey Viewer links to around 7800 historical shoreline surveys conducted by NOAA and its predecessor organizations, with the earliest dating back to 1841. In addition to overlaying a scanned image of the survey in Google Earth, the viewer provides links to download the original scan, a descriptive report compiled by the survey team, and more.

<http://oceanservice.noaa.gov/news/features/feb13/historical-shoreline.html>

### **Invasive Lionfish in Spanish**

The Gulf and Fisheries Institute and partners offer the Spanish translation of Invasive Lionfish: A Guide to Control and Management. The manual can assist coastal managers and field workers with local control and research efforts for invasive lionfish. The manual loads quickly and is easy to read online and can be downloaded to a mobile device. It continues to also be available in English.

<http://gcfi.org/index.php>

### **Kicking the Tires Expedition**

NOAA's Office of Ocean Exploration and Research has launched the NOAA Ship *Okeanos Explorer* 2013 Shakedown: Kicking the Tires Expedition. Follow along with this mission online and through the archives March 18-April 5, 2013. The posting includes an Ocean Explorer Expedition Education Module, lesson plans, a ship tracker, and more.

<http://oceanexplorer.noaa.gov/okeanos/explorations/ex1301/welcome.html>

### **Lake Erie Science Shipboard Curriculum**

The Pennsylvania Sea Grant website hosts lesson plans developed for use on the US *Brig Niagara* and the Research Vessel *Environaut* to facilitate science instruction. The contents include pre- and post-field experiences, assessment, and much more.

<http://www.paseagrant.org/education-programs/lake-erie-science-aboard-gannon-university-environaut/>

### **Lesson Plans & Classroom Resources**

The National Museum of Natural History has a myriad of resources to teach about natural history. Three sections, Lesson Plans, Web-based Student Activities, and Resources for Teachers & Classrooms, offer lesson plans, fact sheets, mapping activities, and much more. Topics include biodiversity, the ocean, anthropological research, and much more.

[http://www.mnh.si.edu/education/classroom\\_resources.html](http://www.mnh.si.edu/education/classroom_resources.html)

### **National EE Week**

National Environmental Education Week 2013, April 14-20, 2013, is dedicated to increasing the environmental knowledge of K-12 students. Check out the extensive resources and curricula library. Register for the webinar, 21st Century Tools for Environmental Learning in the Community, April 3, 2013. Watch the video and download the Educator Toolkit for Using Technology to Connect Students & the Environment.

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

### **Ocean Acidification Videos**

The California Academy of Sciences posted this ocean acidification video, which will be used by the Academy as part of their effort to educate the public about ocean acidification online and in their exhibits. While on the website, pull up other YouTube videos on ocean acidification through a simple word search.

[https://www.youtube.com/watch?feature=player\\_embedded&v=dbMomQgl3Fk](https://www.youtube.com/watch?feature=player_embedded&v=dbMomQgl3Fk)

### **Ocean Exploration Facts**

NOAA's Office of Ocean Exploration and Research offers this new Ocean Exploration Facts section on the Ocean Explorer web site. The section provides short answers to common or intriguing ocean questions. New information will be added every few weeks. The questions are categorized according to the seven Ocean Literacy Essential Principles and Fundamental Concepts for grades K-12.

<http://oceanexplorer.noaa.gov/facts/facts.html>

### **Ocean Health Index Newsletter**

The Ocean Health Index is a tool for the ongoing assessment of ocean health, organized by ten public goals, including food provision, coastal protection, sense of place, and more. The online newsletter features monthly stories on a marine theme, including MPAs, aquaculture, and more. Check out the short videos in the MPA Film Festival.

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

### **Ocean Science App**

The Ocean Science App for iTunes offers a journey deep into the sea through the seven essential principles of Ocean Science with movies, 360° pictures, animations, and more.

<https://itunes.apple.com/us/app/ocean-science/id612611622?mt=8&ign-mpt=uo%3D2>

### **Tampa Bay Teacher's Corner**

The Tampa Bay Estuary Program offers downloadable lessons, activities, and stories. Check out Fish Invaders at Gypsy Point, Salt Marsh Teacher's Guide, and the high school curriculum, Tampa Bay: Living Legacy.

[http://www.tbep.org/teacher/classroom\\_lessons.html](http://www.tbep.org/teacher/classroom_lessons.html)

### **Team WILD**

This online science game on the ARKive website encourages students to discover the importance of a career in conservation and science. As they play, students discover a diverse range of field tasks a conservation scientist or ecologist performs. Team WILD is supported by curriculum-linked teaching resources.

<http://www.arkive.org/education/team-wild>

### **Twitter Teaching**

This blog reviews a Twitter Teach-In on bycatch. Visitors can read the transcript of the lecture, including questions and comments from participants, and see if this online teaching method could be of interest.

<http://rjd.miami.edu/conservation/bycatchteachin-teaching-a-marine-biology-class-live-over-twitter>

### **Weather-Ready Nation**

NOAA's Weather-Ready Nation is about building community resilience in the face of increasing vulnerability to extreme weather and water events. The initiative includes improvements in a wide range of areas to support management of the nation's water supply, understanding of climate-related risks, economic productivity, and healthy communities and ecosystems. Check out the resources available on the Be a Force of Nature webpage, Tools for the Public, and more.

<http://www.nws.noaa.gov/com/weatherreadynation/>

### **Wild Alaska in the Classroom**

The Alaska Wilderness League provides free resources teachers can use to work the Arctic and the Arctic National Wildlife Refuge into their lesson plans. The website features a variety of lessons and activities which cover components of the arctic ecosystem, including migration, bird identification, and animal adaptations. Materials include games, art, lessons, and much more.

<http://www.alaskawild.org/take-action/educate/>

### **Youth Changing the World: A Service Project Toolkit**

This free guide from Youth Service America takes readers step-by-step through the process of identifying a community need to address and then planning, implementing, reflecting upon, showcasing, and celebrating a service project. The guide contains worksheets to lead students through each step, examples and mini-case studies of projects, a glossary of terms, and links to more resources.

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

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

### **Bird & Moon**

Rosemary Mosco is a field naturalist, artist, and nature lover with a passion for science communication. Check out this website with charts and comics. Spend some time laughing here.

<http://www.birdandmoon.com/index.html>

### **CARIWIG Project**

The CARIWIG project will address issues of bias and scale in current climate model projections of the weather for the Caribbean. The project will focus on locally relevant information on the weather impacts of climate change for a range of time horizons, training for stakeholder technical staff in the use of such weather information, the development of support networks within the region, and development of partnerships with UK research institutes specializing in the management of a range of hazards and impacts.

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

### **Inspiring Places - Promote your Protected Area**

Have images of your protected area displayed on the most viewed pages of IUCN's homepage and in their bi-monthly newsletter.

[http://www.iucn.org/about/work/programmes/gpap\\_home/pas\\_gpap/paoftheweek/](http://www.iucn.org/about/work/programmes/gpap_home/pas_gpap/paoftheweek/)

### **NGOpolis**

This social network for the conservation and development sector, is a free online initiative which offers a space through which field scientists, academics, students, and others can search for relevant peer groups, projects, data, and more; share knowledge; collaborate; connect with funders; and more.

<http://ngopolis.com/>

### **Stow It-Don't Throw It**

The Stow It-Don't Throw It Project is a youth-driven marine debris prevention and ocean conservation program dedicated to protecting marine environments and their inhabitants while educating others to do the same. The project works to engage youth in combating the dangers of improperly disposed of monofilament fishing line, educate the public on sustainable fishing practices, and engage young people in marine debris prevention programs.

<http://stowitdontthrowitproject.org/>