

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
INFORMATION EXCHANGE FOR MARINE EDUCATORS

JUNE 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, 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>.

NOTABLE REFERENCES

Building Your Roadmap to a Disaster Resilient Future

This report, published by the National Hazards Mitigation Association, offers links to a wide range of available resources and insight on how to navigate them.

<http://nhma.info/building-your-roadmap-to-a-disaster-resilient-future/>

Ocean Management

Navigating the seascape of ocean management: waypoints on the voyage toward sustainable use, is a new paper published on OpenChannels.org for policy makers, managers, and students. It provides a short history of ocean management, its conceptual foundations, modern frameworks for it, and numerous real world examples of how these concepts and frameworks are being applied.

<https://www.openchannels.org/literature/16817>

PROGRAM OF THE MONTH

West of the West: Tales from California's Channel Islands

The Educational Resource website for the documentary film series, West of the West: Tales from California's Channel Islands, offers downloadable resources supporting the content of eleven tales in the film. For each tale, there is a summary of the film segment, teacher lesson plans with headings detailing subject and grade level appropriateness, and more.

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

WEBSITES OF THE MONTH

Hidden World of National Parks

This award-winning Google Arts and Culture page was developed in collaboration with the National Parks Service. The website allows visitors to experience wonders at five different national parks in the United States: Kenai Fjords National Park, Hawai'i Volcanoes National Park, Carlsbad Caverns National Park, Bryce Cannon National Park, and Dry Tortugas National Park. Visitors can take a virtual tour of each park headed by a park ranger. Spend some time here when you need a jolt of beauty to counter the news of the day.

<https://artsandculture.withgoogle.com/en-us>

Ocean as a Classroom

The World Ocean Observatory offers the Ocean as a Classroom with links to online resources. Themes include Marine Biology, Coastal Issues, and much more. The Curriculum Catalog provides a list of links to educational content, lesson plans, and educational activities for kindergarten through secondary programs. Additional resources include Ocean Careers links, Visualization Theater, and more.

<http://worldoceanobservatory.org/content/ocean-classroom>

Teach the Earth

Teach the Earth is a portal to thousands of resources from dozens of Earth Education websites. Course topics include Ecology, Oceanography, and more. Other major themes include Incorporating Society Issues, Enhancing your Teaching, and more. Spend some time browsing this great portal, hosted by the Science Education Resource Center (SERC) at Carleton College.

<http://serc.carleton.edu/teachearth/index.html>

GRANTS AND OPPORTUNITIES

Coral Reef Alliance Conservation Prize

This award recognizes coral reef conservation leaders from around the world and supports outstanding local coral reef conservation efforts. The deadline for nomination is June 9, 2017.

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

Competitive Program for Science Museums

The NASA Office of Education offers funding for the 2017 NASA Research Announcement: Competitive Program for Science Museums, Planetariums and NASA Visitor Centers. Projects should feature NASA-themed content, which includes Earth science. The deadline for proposals is June 19, 2017.

<https://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId={DEC7277A-A04F-F35D-94F0-D7EA8A1F4E04}&path=open>

Cornell Douglas Foundation Grants

The Cornell Douglas Foundation provides small grants to organizations which promote the vision of the foundation: advocating for environmental health and justice, encouraging stewardship of the environment, and furthering respect for sustainability of resources.

<http://www.cornelldouglas.org/about>

Delaware Wetland Warrior Awards

Delaware's Division of Watershed Stewardship is seeking nominations for the 2017 Delaware Wetland Warrior Award, for students, teachers, organizations, or businesses that have demonstrated exemplary efforts to benefit Delaware wetlands in the areas of outreach and education, monitoring and assessment, or restoration and protection. The deadline for education applications is June 23, 2017; for professional, October 2, 2017.

<http://www.dnrec.delaware.gov/Admin/DelawareWetlands/Pages/WetlandWarriors.aspx>

Disney Summer of Service Grants

Disney and Youth Service America will award Summer of Service Grants to 26 organizations to incorporate youth-led service projects into summer activities. Hurry - the deadline for application is June 4, 2017.

<http://ysa.org/grants/youth-grants/disney/>

Doris Duke Charitable Foundation Environment Program Grants

The mission of the program is to enable communities to protect and manage wildlife habitat and create efficient built environments. Grants are given in four key program areas, including Land Conservation in an Era of Climate Change, Strengthening the Conservation Field, and more.

<http://www.ddcf.org/what-we-fund/environment/goals-and-strategies/>

Every Kid in a Park Funding

Fourth grade teachers can request funding to help cover transportation costs and more, to a U.S. national park, forest, wildlife refuge or other national public lands and waters. Applications must be submitted by a National Park Service staff person, and programs can be operated by Friends Group or other NPS approved partner. The deadline for application is June 9, 2017.

<https://www.nationalparks.org/grant-applications>

Funky Nests in Funky Places

The Cornell Lab of Ornithology encourages submission of photos, artwork, or stories about Funky Nests in Funky Places. The deadline for submission is June 30, 2017.

<http://celebrateurbanbirds.org/community/challenges/funky-nests-2017/>

Glide Foundation Grants

These grants are available for land and wildlife conservancy groups, preservation of land in its natural state, and more.

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

Grants & Contests

The California Department of Education and the California Regional Environmental Education Community (CREEC) Network have updated the CREEC website with new features. The Grants & Contests section offers grants with rolling deadlines, absolute deadlines, and student contests.

<http://www.creec.org/grants-contests/>

SavingSpecies Grant

SavingSpecies helps local conservation groups purchase land for conservation and habitat restoration, and may consider projects for restoration of habitat on land that is within an existing protected area. They offer grants for the purchase and restoration of land that connects existing habitat fragments, or that prevents isolation of habitat that would otherwise continue due to habitat loss.

<http://www.savingspecies.org/projects/submit-project/>

Science for Nature and People Partnership

The Science for Nature and People Partnership (SNAPP) envisions a world where protecting and promoting nature works in concert with sustainable development and improving human well-being. SNAPP has convened 23 working groups tackling a diversity of global conservation problems. Working groups fall under four thematic areas: Food Security & Nature; Water Security & Nature, Community; Resilience & Climate Change; and Ecosystem Services & Biodiversity Benefits. Hurry: the deadline for submission is June 7, 2017.

<https://www.nceas.ucsb.edu/content/snapp-call-proposals-2017>

Sol Hirsch Education Fund Grants

The National Weather Association awards grants to K-12 teachers to improve the study of meteorology. Selected teachers can use the funds to take accredited courses, attend workshops and conferences, or purchase materials for the classroom. Hurry - the deadline for application is June 5, 2017.

<http://nwas.org/scholarship-grants/nwa-sol-hirsch-education-fund-grants/>

FELLOWSHIPS, INTERNSHIPS, AND TEMPORARY OPPORTUNITIES

EDGE Fellowships

The Zoological Society of London's EDGE of Existence program focuses on threatened species that represent a significant amount of unique evolutionary history. They are accepting applications for the fellowship program from in-country early-career conservation biologists or wildlife managers. This year, they are looking specifically for potential fellows from Latin America and the Wider Caribbean to design and conduct research projects on one (or more) species of EDGE Coral. They will also consider submissions from the diving community and anyone who is passionate about their local reef and would relish the opportunity to learn more. The deadline for application is June 16, 2017.

http://www.edgeofexistence.org/conservation/become_fellow.php

Summer Camps - Alaska

The Prince William Sound Science Center offers a variety of summer camp opportunities for high school students, including restoration, stewardship, and more. Scholarships may be available.

<http://pwssc.org/education/camps/>

CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT

Alabama Water Watch Workshops - Alabama

The 4-H Alabama Water Watch Program offers two upcoming Exploring Our Living Stream workshops, June 13-15 and June 26-28, 2017, and a Bacteriological Monitoring Workshop, July 20, 2017. Participants receive certification and much more. See the website for full details.

<http://www.alabamawaterwatch.org/training-workshops/>

Bringing Finance and Conservation Together - Online

The Coalition for Private Investment in Conservation was launched to develop investment models and funding pipelines for conservation and sustainable development. Three of the coalition's initial focus areas are coastal resilience, green infrastructure for watersheds, and sustainable coastal fisheries. Join the webinar hosted by the EBM Network and partners, July 25, 2017.

<https://attendee.gotowebinar.com/register/4905494599358550019>

Ecodesign for Cities and Suburbs - Online

This free, six-week MOOC (massive, online, open course) from the University of British Columbia uses case studies to explore how ecology can guide urban design to avert environmental disasters and improve people's lives. Though it started May 24, 2017, it will be easy for late enrollees to catch up.

<https://www.edx.org/course/ecodesign-cities-suburbs-ubcx-ecodesignx-0>

Ecosystems of the Central Valley Flood Plain Institute – California

The Floodplain Ecology Institute, June 12-15, 2017 in Fresno, California, will include content focused on Central Valley floodplain, delta, riparian, and watershed ecology, and includes Project WET Certification Course. A stipend may be available.

<http://cvscienceproject.ning.com/events/water-resources-and-ecosystems-of-the-central-valley-flood-plain->

GOES-S Educator Workshop at Lockheed Martin - Colorado

Learn about the GOES-R satellite series and tour Lockheed Martine with fellow educators, August 23, 2017 in Littleton, Colorado. The tour will include STEM resources and more. Stipends may be available.

<http://cimss.ssec.wisc.edu/education/goesr/GOES-S-LM.html>

ISRS Call for Abstracts

The deadline for abstract submission for the International Society for Reef Studies sponsored European Coral Reef Symposium, December 13-15, 2017 in Oxford, England, is June 30, 2017.

<http://www.reefconservationuk.co.uk/ecrs-2017.html>

Marine Litter - Online

The Open Universiteit, UN Environment, and partners offer this eight week MOOC on Marine Litter as part of the #CleanSeas campaign. While it started May 22., 2017, it is still open for enrollment and late joiners will be able to catch up. The course seeks to

inspire students to take action and leadership in the area of marine litter through stimulating interaction with all stakeholder groups. Two tracks are available: a leadership track and an expert track.

<https://www.marinelittermooc.org/learn/marine-litter-mooc-may-2017>

Ocean Exploration Workshop – Louisiana

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.

- June 20, 2017 with the Audubon Aquarium of the Americas in New Orleans, Louisiana. The deadline for registration is May 30, 2017. Contact Stephanie Smith at

educationprograms@auduboninstitute.org

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

Rising Tides Mentoring Program

The Coastal and Estuarine Research Federation (CERF) offers the Rising TIDES 2017 Conference Mentoring Program, which will jointly support ten underrepresented minority students and mentors to attend the Biennial CERF Conference, November 5-9, 2017 in Providence, Rhode Island. The program includes financial support to participate in a Rising TIDES workshop, scientific sessions throughout the week, and other conference activities. The deadline for recommendations is July 7, 2017.

<http://www.erf.org/rising-tides-mentoring-program>

Service-Learning Educator Institutes – Various

The National Youth Leadership Council will host two Service-Learning Educator Institutes, June 20-21, 2017 in St. Paul, Minnesota; and July 11-12, 2017 in Phoenix, Arizona. The New York State Association of Independent Schools will host a Summer Service Learning Institute, July 18-20, 2017 in Rensselaerville, New York.

<https://nylc.org/educator-institute/>

<http://www.nysais.org/page.cfm?id=3094&start=07/11/2017&verbose=14641>

Summer Discovery Cruises - Michigan

Learn about the Great Lakes with Michigan Sea Grant during their 2017 Summer Discovery Cruises season. There are educational cruises around themes such as Fisheries, Wetlands, Weather, and more. Cruises for educators wanting to enhance the use of Great Lakes content in their teaching are also provided, with stipends.

<http://www.miseagrant.umich.edu/sdc/>

Teachers on the Estuary Workshops - Various

NOAA's National Estuarine Research Reserves are offering many Teachers on the Estuary programs this spring and summer around the country. Check out the 2017 Workshop Calendar page for the specific workshops and contact information. Hurry – application deadlines for the free workshops are approaching quickly.

<https://coast.noaa.gov/estuaries/teachers-on-the-estuary/calendar.html>

Trash-Free Waters Webinar Series - Online

This webinar series hosted by the EPA promotes increased knowledge and understanding of the sources, distribution and impacts of plastics and microplastics in the environment. Plastics in the Deep Sea streams May 30, 2017. Sign up for

newsletters to be advised of upcoming events. Recordings of the webinars and links to resources are available online.

<https://www.epa.gov/trash-free-waters/trash-free-waters-webinar-series>

Turning Misinformation into Educational Opportunities - Online

Join NOAA's Climate Stewards Project for this webinar, June 5, 2017. The speaker will explain research surrounding inoculation and misconception-based learning, describe practical case studies, and point to resources based on this teaching approach.

<https://attendee.gotowebinar.com/register/135976985760927745>

Vanishing Treasures Workshops - Various

The NPS Vanishing Treasures Program is offering 15, two- to four-day technical and cultural resource management preservation workshops across the western U.S. in 2017. The program supports the preservation of traditionally-built architecture, facilitates the perpetuation of traditional skills, and promotes connections between culturally associated communities and places of their heritage. Check the facebook or the contact us links for information.

<https://www.nps.gov/orgs/1022/index.htm>

EDUCATIONAL RESOURCES

Above the Noise

KQED public television and radio station offers the YouTube show, Above the Noise, designed to help teenagers develop the skills to assess the validity of science news reports. The short videos examine the kind of recent scientific headlines that affect teens, and include Top 4 Tips To Spot Bad Science Reporting, Why Do Our Brains Love Fake News?, and more.

<https://www.youtube.com/abovethenoise>

Alignment of Marine Biology to NGSS and Common Core

Mark Friedman has posted PowerPoint presentations from an NSTA workshop on alignment of Marine Biology to NGSS and Common Core. Please share them as widely as possible. The presentations are available for free download and use. Be sure to open the first two documents for links to free marine biology courses and more.

<https://drive.google.com/drive/folders/0BwXv240jmRGUNWVMEJla1lkdGs>

America Adapts Podcast

The America Adapts podcast explores the challenges presented by adapting to climate change and approaches that may already be working. Podcasts include ground truthing sea level rise, disaster management meets climate adaptation, and much more.

<http://www.americaadapts.org/#!podcasts>

California Coastal Voices

California Coastal Voices is a free, project-based learning tool designed to address California's Next Generation Science and Common Core standards. The six units introduce students to coastal conflicts, challenges, and scientific and policy issues, with emphasis on problem solving and communication. Links and resources include discipline-specific thematic slideshows and much more.

<https://www.coastal.ca.gov/coastalvoices/>

Clearing Magazine

CLEARING, the Pacific Northwest Journal of Community-based Environmental Literacy Education, is a print and online publication that provides information that can be used in classrooms or outdoor settings. It includes activities and lesson plans, curriculum resources, and more. Sign up for the free mailing list to get the latest stories every month. They have established monthly themes to encourage submissions, including STEM Best Practices (July), Marine/Aquatic Education (September), Art and the Environment (April) and much more. The deadline for submission is the 15th of the month prior to the theme month. Be sure to check this out and submit your articles. <http://clearingmagazine.org/>

Climate Change Links

The city of Chicago now hosts climate change information previously hosted on the EPA's website and includes active links to background information, adaptation, and more. <https://www.cityofchicago.org/city/en/sites/climatechange/home.html>

Climate Change Wildlife and Wildlands

This video focuses on the science of climate change and its impacts on wildlife and their habitats in the U.S. There are short sections on coral reefs, migrating birds and their breeding grounds, and more. The video concludes with some discussion about solutions, including backyard habitats, citizen scientists, and more. <https://www.youtube.com/watch?v=drINEQFXbPY>

Connected Science Learning

Connected Science Learning is a peer-reviewed, open access online journal that highlights STEM education experiences that bridge the gap between in-school and out-of-school settings. It features articles about highly effective programs, specifically highlighting effective mechanisms for collaboration. <http://csl.nsta.org/>

Coral Reef Management Learning Module

This module offers a brief look into how the Gulf of Mexico Fishery Management Council manages corals throughout the Gulf of Mexico. The online learning module covers unique coral reefs of the Gulf of Mexico, coral management areas in the Gulf of Mexico, endangered species act, octocorals, live rock management, and references. <http://portal.gulfcouncil.org/CoralReefManagement.html>

Cuba's Twilight Zone Reefs and Their Regional Connectivity Expedition

From May 15 - June 13, 2017, the R/V F.G. Walton Smith will circumnavigate Cuba, conducting daily remotely operated vehicle dives to focus on the mesophotic reef sites. Follow along with the research expedition to discover and characterize the extent of mesophotic reefs in Cuba and to compare the health and connectivity among the mesophotic and shallow coral reef systems in Cuba and the United States. Check out the mission logs, educational resources, and more. <http://oceanexplorer.noaa.gov/explorations/17cuba-reefs/welcome.html>

Designing Project Based Learning Using the Environment

Ten Strands works to strengthen partnerships and strategies to foster environmental literacy for California's K-12 students. Their website hosts the article, How to Use the

Environment to Design Project Based Learning Experiences, describing examples of student projects and offering links to more information.

<https://tenstrands.org/epcs/use-environment-design-project-based-learning-experiences/>

EarthKAM

Registration is open for the fall 2017 mission for the Sally Ride EarthKAM @ Space Camp program. During the mission, students worldwide may submit requests to have a camera aboard the International Space Station capture an image of a specific location on Earth. Related resources, including images and activities, are available for use in the classroom.

<https://www.earthkam.org/>

ENOW Explorer

NOAA's Office for Coastal Management offers this tool, which streamlines the task of obtaining and comparing economic data, both county and national, for the six sectors dependent on the ocean and Great Lakes: living resources, marine construction, marine transportation, offshore mineral resources, ship and boat building, and tourism and recreation. Data are derived from Economics: National Ocean Watch (ENOW), available on NOAA's Digital Coast. Be sure to check out Econ 120, two-minute videos on economic concepts.

<https://coast.noaa.gov/digitalcoast/tools/enow.html>

Environmental Education Resources for Teachers and Students

These free resources were developed by the New Bedford Public Schools' Sea Lab and partners. Materials include Biomagnification Role Play; New Bedford Harbor: Go Fish! Activity; and much more.

<https://www.epa.gov/new-bedford-harbor/environmental-education-resources-teachers-and-students>

Flickr: The Commons

From Flickr comes The Commons, a project that seeks to catalogue public photography collections from around the world. There are currently over 100 participating museums, libraries, and other institutions. Visitors can browse this collection by participating institution or simple text search.

<https://www.flickr.com/commons>

Global Reef Tracker Database

The Reef Check Global Reef Tracker Database offers 20 years data and includes coral cover, fish, coral bleaching, and many other parameters for more than 10,000 surveys in over 90 countries.

<http://data.reefcheck.us/>

Global School of Service

Youth Service America is partnering with K-12 schools around the world that are creating a culture of service school-wide or district-wide where students develop and use skills to apply their learning to address the world's challenges. Participating schools will be supported by grant opportunities, technical assistance, and more.

<https://ysa.csod.com/LMS/catalog/Welcome.aspx>

Honoring Tribal Legacies

The National Park Service and University of Oregon funded a diverse team of educators to design Honoring Tribal Legacies, seven model curricula available to educators so they can integrate Native American Tribal perspectives into curricula at all grade levels and in multiple subject areas.. While not marine environmental education, the materials can serve as a design model for cross-curricular materials.

<https://blogs.uoregon.edu/honoringtriballegacies/>

Horseshoe Crabs

NOAA's Ocean Today Every Full Moon features videos about all aspects of the ocean and was originally designed for the National Museum of Natural History's Sant Ocean Hall, with a new collection of videos released each month. Check out the latest, Horseshoe Crabs, along with others on the website.

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

Introduction to Invasive Species Video

Ecology Project International is launching a series of issue videos that touch on their work with teachers and students at their program sites. The first is What makes some species run wild? Follow along on their facebook page for more videos and classroom-ready content in the future.

<https://www.facebook.com/EcologyProject/>

Investigating the Effect of Warmer Temperatures on Hurricanes

In this activity from Teach the Earth, students investigate the link between ocean temperatures and hurricane intensity, analyze instrumental and historical data, and explore possible future changes.

<http://serc.carleton.edu/NAGTWorkshops/hurricanes/activities/28313.html>

JASON Live with STEM Role Models

JASON Learning connects youth with STEM role models through this live, interactive webcast series. On the day of the live event about 30 minutes prior to the start time, the event's landing page on the website is updated with instructions on how to access the live video feed along with a link/form to get to it. No advanced sign-up is required. On-demand video archives of each live event are available for later viewing on the website and on JASON's YouTube channel.

<http://www.jason.org/live>

Let's Talk About Water

Part of the North American Association for Environmental Education's (NAAEE) Environmental Issues Forums series, Let's Talk About Water provides a step-by-step guide to developing discussion materials to get a community to learn about and consider water issues. There is also a worksheet for developing your own discussion material.

<https://naaee.org/eeopro/resources/lets-talk-about-water>

Let's Talk Trash

This interactive comic book allows visitors to join a field trip to learn about marine debris, and dig debris out of the "sand."

https://coast.noaa.gov/data/SEAMedia/Careers/Marine_Debris/story.html

LITTERBASE

Scientists have created an online database, LITTERBASE, with the goal of centralizing scientific research on global ocean pollution. They have taken the results of more than 1000 studies and turned them into interactive maps and infographics that make information about ocean pollution and its effects on animals more accessible and searchable for the public.

<http://litterbase.awi.de/>

Marine Spatial Planning Map

This U.N. website hosts a map linking to summaries of MSP processes worldwide. Click on a location to explore how countries are using Marine Spatial Planning to encourage compatible uses, reduce use conflicts, and balance sustainable use and marine conservation.

<http://msp.ioc-unesco.org/>

Marine Species Identification Portal

The Key to Nature Program hosts the Marine Species Identification Portal, an extensive collection of diagrams, photographs, and descriptions of hundreds of marine species. Visitors can explore these species alphabetically or by category.

<http://species-identification.org>

Micronesian Outer Islands Expedition

The One People One Reef project has embarked on an expedition to survey the reefs and meet with communities in the outer islands of Yap state, Federated States of Micronesia. The goals are to assess reefs, work with communities to implement fisheries monitoring, and share information about their reefs and management. They will post updates as their satellite connections allow.

<http://ulithimarineconservation.ucsc.edu/blog/>

National Marine Sanctuaries Media Library

The National Marine Sanctuaries Media Library is a collection of public-domain photographs and short video clips from the 14 marine protected areas managed by NOAA. Photo galleries include Human Impact, Maritime Heritage, and more. Visitors can also search by keyword, media type, and more.

https://marinelife.noaa.gov/media_lib/default.aspx

Octonauts Corner

NOAA's Office of Ocean Exploration and Research and the Octonauts, a team of undersea adventurers, are on a mission to explore underwater worlds, rescue sea creatures, and protect the ocean. Check out the Deep Sea Creature Chart and Creature Cards.

<http://oceanexplorer.noaa.gov/octonauts/welcome.html>

Ready for Hurricanes

The latest NOAA Story Map, Ready for Hurricanes, focuses on NOAA's effort to prepare the nation for Hurricane Season. It discusses new technologies.

<https://noaa.maps.arcgis.com/apps/MapJournal/index.html?appid=8edfeb42a6d64e519de878720192bc4e>

ROV Loan Program

The MATE Center has a variety of kits and resources to help design and build an ROV, which can be used at summer camps and other programs. Check out the video and use the contact form for inquiries.

<https://www.marinetech.org/mate-loaner-rov-kit-request-form-/>

Steller Watch

NOAA's Alaska Fisheries Science Center launched the citizen science project, Steller Watch. Participants are asked to review photos of endangered Steller sea lions from unmanned, automatic cameras monitoring beach sites in the remote western Aleutian Islands in Alaska, and note if they see any marked sea lions.

<https://www.afsc.noaa.gov/News/StellerWatch.htm>

STEM for ALL Video Showcase

More than 150 federally funded projects showcased three-minute videos of their innovative work broadening participation and access to STEM education. Check these out.

<http://stemforall2017.videohall.com/presentations>

Teacher-Friendly Guide to Climate Change

This book includes both the basics of climate change science and perspectives on teaching a subject that has become polarized. The focus audience is high school Earth science and environmental science teachers, and it is written with an eye toward the kind of information and graphics that a secondary school teacher might need in the classroom. A pdf version is available as a free download.

<http://priweb.org/publications/pubdetails.php?pubID=5813&back=catID%3D51%26buy%3D2>

Teacher-Friendly Guides to the Earth Science of the United States

The Paleontological Research Institution offers a national series of seven Teacher-Friendly Guides™ to regional Earth science, covering all 50 states. Illustrated chapters are available as free pdf downloads, and some are available for purchase.

<http://geology.teacherfriendlyguide.org/index.php/home-7>

The True Size Of...

Portraying the globe on a two-dimensional map distorts the true size of different countries and regions. This website enables visitors to compare the size of different countries and shapes and see how the Mercator projection has influenced our perceptions of country size. Visitors can move a highlighted country around and superimpose it on any other region in order to make area comparisons.

<http://www.thetruesize.com>

VCAPS

The Vulnerability, Consequences, and Adaptation Planning Scenarios process supports planning by local decision makers concerned about coastal management and climate change vulnerability and adaptation. The VCAPS process is intended to help communities become more resilient to weather and climate change.

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

Virtual Dive Gallery

The NOAA Office of National Marine Sanctuaries has just launched a Virtual Dive Gallery accessible on any computer or mobile device, complete with immersive 360-degree views of five national marine sanctuaries: American Samoa, Florida Keys, Flower Garden Banks, Gray's Reef, and Thunder Bay. The virtual dives take users underwater for a scuba diver's view of these national marine sanctuaries, allowing visitors to navigate through the dive sites as if there in person.

<http://sanctuaries.noaa.gov/vr/>

Wind for Schools Project

The U.S. Department of Energy funds the Wind for Schools project. Students at higher education institutions join Wind Application Centers and serve as project consultants for small wind turbine installations at rural elementary and secondary schools. Teacher training and hands-on curricula are implemented at each K-12 host school to bring the wind turbine into the classroom through interactive and interschool research tasks.

http://apps2.eere.energy.gov/wind/windexchange/schools_wfs_project.asp

INITIATIVES, JOURNALS, and MORE

NMEA Osprey Banding - Maryland

Join fellow National Marine Educators Association members for a hands-on conservation research opportunity, July 1, 2017 in Upper Marlboro, Maryland. The field outing includes a presentation on ospreys, followed by on-water stops at osprey nests where 6-8 week-old chicks will be collected, banded, and released back to their nest.

<http://www.marine-ed.org/event/2017ospreybanding>

Tea Bag Index

The Tea Bag Index is a citizen science project that measures global tea bag decomposition. Following an easy protocol, participants bury two tea bags and then dig them up and submit weight data following decomposition. The weights indicate the rate of plant decay in a specific location, which is influenced by the amount of carbon in a particular location. This offers information about the impact of greenhouse gasses in the local environment. Help increase participation in this project.

<http://www.teatime4science.org>

World Oceans Day

The Ocean Project coordinates World Oceans Day, held every year on June 8. The theme for 2017 is Our Oceans, Our Future. Check out the plastic pollution resources, register an event, and more.

<http://www.worldoceansday.org/plastic-pollution-resources>