National Oceanic and Atmospheric Administration

Information Exchange for Marine Educators

Archive of Workshops and Professional Development

ACE Basin Adventure – South Carolina
Teachers are invited to participate in a free learning workshop in the ACE Basin, named for the Ashepoo, Combahee and Edisto rivers, a world-class ecosystem rich in habitat diversity, wildlife, and historical significance representing one of the largest undeveloped estuaries on the East Coast. The workshop, June 7-10, 2007 at Bennett's Point, South Carolina, will help teachers learn more about estuarine ecology, hammock islands, sea turtles, water quality, and the historical significance of the ACE Basin.
http://www.dnr.sc.gov/ccd/aceadvent.html

Acropora ssp. Information Gathering Workshops
NOAA Fisheries Service published a proposed rule to list elkhorn /(Acropora palmata) and staghorn /(Acropora cervicornis) corals as threatened under the Endangered Species Act. Pending a final determination on this rule, NOAA Fisheries is sponsoring stakeholder input workshops throughout south Florida, the Florida Keys, Puerto Rico, and the U.S. Virgin Islands to collect information concerning the conservation of the species.
http://sero.nmfs.noaa.gov/pr/protres.htm

Adaptations from the Depths - Texas
This workshop, February 17, 2007 in Houston, Texas, is sponsored by Flower Garden Banks National Marine Sanctuary. Find out how creatures have adapted to survive in an underwater world. Free curriculum and materials will be available. And while you're on the website, check out the other workshops available at the Houston Zoo.
http://www.houstonzoo.org/index.asp?page_ID=344

Adopt-A-Stream Training - Georgia
The Elachee Nature Science Center offers Adopt-A-Stream Training, February 10-11, 2006, in Gainesville, Georgia. Join up for a total immersion into stream monitoring. Get an in-depth course in stream ecology as you become certified in both biological and chemical monitoring techniques. This is an ideal service-learning training course for teachers and students (grades 5-12) alike.
http://www.elachee.org/TeachEduc/Teacher_Education.htm

Advanced Conservation GIS and Remote Sensing course - Virginia
The Smithsonian National Zoological Park's Conservation and Research Center is offering the advanced conservation GIS and remote Sensing course, *Measuring Landcover Change and its Impact on Endangered Species,* April 3-7, 2006 and September 11-15 2006 in Front Royal, Virginia. The course will provide conservation biologists and wildlife managers an opportunity to learn how GIS and remote sensing can be used to assess the conservation status of endangered species.

http://nationalzoo.si.edu/ConservationAndScience/ConservationGIS/GIS_training/advanced_GIS

Advanced Courses in Tropical Marine Sciences - Florida
Mote Marine Laboratory's Tropical Research Laboratory is pleased to announce the schedule for Advanced Courses in Tropical Marine Sciences, August 2007 on Summerland Key, Florida. These courses cover specialized topics by experts in the topic areas. The courses are designed for advanced undergraduates, graduate students, and professionals.

- Coral Tissue Slide Reading Workshop, August 8-10, 2007
- Coral Restoration Workshop, August 8-10, 2007
- Diseases of Corals and Other Reef Organisms, August 11-18, 2007
- Benthic Workshop: Marine Sponges, August 19-26, 2007

http://isurus.mote.org/Keys/adv_courses.phtml

Advanced Project Wild Workshops – Georgia
Join Georgia Wildlife Resources Division biologists for two advanced Project Wild Workshops. WILD Bird, May 20-22, 2005 will provide al look at migratory songbird conservation and management. The Aquatic Ecology Workshop, June 10-12, 2005, will study the wildlife in ponds and streams. Also given July 13-14, 2005
http://eeingeorgia.org/content/ee/docs/WildAdv.pdf,
http://eeingeorgia.org/net/calendar/details.aspx?c=26780&s=29847.0.68.4863

Advanced ROV Building for Classroom Projects – California
The Marine Advanced Technology Education (MATE) Center offers the free summer institute for 2008, Advanced Remotely Operated Vehicle Building for Classroom Projects, July 7-13, 2008 in Monterey, California. Educators teams to will design and build their own ROVs to complete a set of predetermined mission tasks. Participants will have the opportunity to interact with undersea engineers, ROV pilots, and marine technicians to understand the technology and the work of these marine professionals.
http://www.mpcfaculty.net/tami_lunsford/SI_08_institute/Info.aspx

Advanced ROV Building for Classroom Projects - California
The Marine Advanced Technology Education Center offers a faculty workshop, Advanced Remotely Operated Vehicle (ROV) Building for Classroom Projects, July 23-30 2007 in Monterey, California. Educators will work in teams to design and build their own ROVs to complete a set of predetermined mission tasks. The workshop will begin with a SolidWorks tutorial. The educators will program a basic stamp to control sensors and motors on their ROVs.
http://www.mpcfaculty.net/tami_lunsford/SI_07_Institute/Info.aspx

Alien Species Field Trip and Monitoring – Maine through New Jersey
David Delaney from McGill University monitors two invasive species: Asian shore crab and the European green shore crab, and offers teachers and their students able to get to any coast from New Jersey to Maine after May 1, 2006 free science lessons and activities (quadrat sampling, trapping, mark recapture “scavenger hunts”) about alien species. Students will learn research methodology and then work as a team to gather data. They will learn how to record standardized data and answer scientific questions.
http://www.invasivetracers.com

All Wet Teacher Education Course - Georgia
These days of aquatic and watershed studies, June 20-23, 2006 in Gainesville, Georgia, will whet your appetite for water education. Enjoy pond and stream analysis, water testing on Lake Lanier, wetland studies, computer modeling and more. Participants will also receive Project WET certification.
http://eeingeorgia.org/net/calendar/details.aspx?c=28055&s=30663

The Amazing Life of the Elephant Seal - California
Dr. David Aurioles of the Instituto Politecnico Nacional in La Paz, Mexico, will present, in Spanish and English, the life of elephant seals, February 2-4, 2007 in Cambria, California. The weekend retreat is limited to 20 adult guests; join leading researchers for field trips, lectures, and personal interaction with a leading marine science researcher.
http://www.campoceanpines.org/

Ambassadors of the Environment Program – Santa Barbara
The Ambassadors of the Environment Program is an environmental education program from the Ocean Futures Society, based on the National and California State Science Education Standards. It uses experiential education in the marine and terrestrial environments to begin fostering an ecological literacy and inspire curiosity and appreciation for the natural world through exploration and discovery. Visit the spring session at El Capitan Canyon, April 5 or 6, 2005.
http://www.aote.org/menu/prog/sb/index.htm

American Maritime History to 1870 - Online
The History Channel and the State University of New York-Maritime College will offer a specialized online course for credit featuring the series, *Great Ships*. In the course, American Maritime History to 1870, students will explore the major developments in American maritime history from pre-Columbian times through the Civil War. The course will focus on the growth of America's maritime heritage as the foundation of our culture.
http://www.broadcastnewsroom.com/articles/viewarticle.jsp?id=173805

American Museum of Natural History Online Diversity of Fishes Seminar
In partnership with the NSTA Institute, The American Museum of Natural History offers Seminars on Science, its award-winning online professional development program. A six-week course in ichthyology will be available to K-12 educators, February 16-March 28, 2004. Participants receive learning resources for use in the classroom.
http://learn.amnh.org/welcome.php?w=NSTAIW041 .

American Museum of Natural History's Graduate Science Courses – Online
Spring Session 1 runs January 15-February 25, 2007; the registration deadline is January 5, 2007. Spring Session 2 runs March 19-April 29, 2007; the registration deadline is March 5, 2007. The courses include: Earth: Inside and Out; Genetics, Genomics, Genethics; Diversity of Fishes; the new course, Evolution; and more. Fall Session 2 courses (including The Ocean System, Evolution, Earth: Inside and Out, and more) run October 20-November 30, 2008.
http://learn.amnh.org/

American Museum of Natural History's Online Graduate Science Courses – D.C.
Deepen your knowledge with Seminars on Science courses from the American Museum of Natural History. Fall classes begin September 26, 2005. Winter 2006 registration is

open until January 2, 2006, with classes held from January 16 – February 26, 2006. Session Two summer classes run July 3-August 13, 2006; registration ends June 19, 2006. Offerings include the integrated science course on the Ocean System, the Diversity of Fishes, Sharks and Rays, and more. Offerings include the integrated science course on the Ocean System, the Diversity of Fishes, and more. Offerings include the new integrated science course on the Ocean System. Each 6-week course immerses the learner in a collaborative investigation of a current topic within one of the life, Earth, or physical sciences. All courses are taught by museum scientists and educators, and highlight current, cutting-edge research.
http://learn.amnh.org/courses/courses.php
http://learn.amnh.org/courses/

American Museum of Natural History Winter & Summer 2005 Courses
The American Museum of Natural History offers accredited courses (through the City University of New York) in a variety of natural science topics. Included on the 2005 schedule are The Diversity of Fishes and Sharks and Rays.
http://learn.amnh.org/courses/courses.php .

American Museum of Natural History's Graduate Science Courses – Online
Deepen your knowledge with Seminars on Science courses from the American Museum of Natural History. Spring classes run March 20-April 30, 2006. Offerings include the integrated science course on the Ocean System, the Diversity of Fishes, and more. Offerings include the Ocean System and Earth: Inside and Out. Each 6-week course immerses the learner in a collaborative investigation of a current topic within one of the life, Earth, or physical sciences. Also check out the summer session schedule.
http://learn.amnh.org/courses/

American Museum of Natural History's Fall 2 Sessions 2006 – Online
Fall Session 2 runs October 30–December 10, 2006; the registration deadline is October 16, 2006. The five courses available this fall are: *Earth: Inside and Out*; *The Ocean System; Genetics, Genomics, Genethics;* and *Space, Time and Motion*. Free sample resources are available for each course on the new Seminars website.
http://learn.amnh.org/

American Museum of Natural History's Graduate Science Courses – Online
Deepen your knowledge with Seminars on Science courses from the American Museum of Natural History. Summer 1 courses (including The Ocean System, Evolution, Earth: Inside and Out, and more) run June 11–July 22, 2007. Summer 2 courses (including The Ocean System, The Diversity of Fishes, Sharks and Rays, and more) run July 2–August 12, 2007.
http://learn.amnh.org/about/

Animal Adaptations Workshop - Texas
The Houston Zoo offers teachers in grades 1-4 the Animal Adaptations Workshop, sponsored by Flower Garden Banks National Marine Sanctuary, February 25, 2006 in Houston, Texas. Animals that live in the ocean face challenges we never dream of. Find out how these amazing creatures have adapted to survive in an underwater world. Free "Adaptations from the Depths" curriculum and materials included. (Note that the curriculum may be downloaded from
http://www.sanctuaries.noaa.gov/education/teachers/features/divetybee05.html).

http://www.houstonzoo.org/Educators/Professional_Development.aqf

Antarctica: Life in a Polar Sea Teacher Workshop - California
COSEE-West invites K-12 educators to a free workshop, March 24, 2007 in Santa Monica, California. The workshop offers hands-on, inquiry-based, integrative classroom activities correlated with California Content Standards and a public lecture on the Antarctic marine ecosystem. Participants may receive a stipend for the full workshop. Contact Peggy Hamner at 310-206-8247 or cosee.west@gmail.com

Applied Environmental Education Program Evaluation Online Course
A 9-week online course, "Applied Environmental Education Program Evaluation," is offered periodically through the University of Wisconsin-Stevens Point. The course is designed to assist environmental educators and natural resource professionals in evaluating their education programs. Participants have the opportunity to apply skills in designing evaluation tools such as surveys, observation forms, and interview and focus group guides.
http://www.uwsp.edu/natres/rwilke/eetap/

Applied Environmental Education Program Evaluation – Online
The on-line course, Applied Environmental Education Program Evaluation, will be offered June 10-August 24, 2007, and September 10-December 7, 2007, February 18-May 9, 2008 through the University of Wisconsin-Stevens Point. The course is designed to assist environmental educators and natural resource professionals in evaluating their education programs. Participants have the opportunity to develop and apply skills in designing evaluation tools such as surveys, observation forms, and interview and focus group guides.
http://www.uwsp.edu/natres/rwilke/eetap/Website2006/AEEPE.htm

Approaches to Scientific Inquiry - Washington
The Port Townsend Marine Science Center presents Approaches to Scientific Inquiry: Science Beyond the WASL (Washington Assessment of Student Learning), a workshop for teachers, grades 3-8, August 17-20, 2008, in Port Townsend, Washington. Tuition is free and covers instruction, instructional materials, and accommodations at the Fort Worden Conference Center.
http://www.ptmsc.org/education/teacher.html

Aquaculture Center for Training, Education and Demonstration
The mission for the Aquaculture Center for Training, Education and Demonstration division of Harbor Branch Oceanographic is to educate and develop a highly skilled workforce, through practical education and training that will support competitive and sustainable aquaculture industries. Education and training programs include intensive courses, degree programs, customized training, secondary school field trips, and teacher workshops.
http://www.hboi.edu/aqua/education.html

Aquaculture Systems Workshop - Florida
Harbor Branch Oceanographic Institution and Cornell University will host a Water Quality and Recirculating Aquaculture Systems Workshop, November 13-17, 2006 in Fort Pierce, Florida. The course focuses on the design, operation, and management of water reuse systems for finfish through hands-on laboratories and classroom presentations.

After the workshop, individuals should be able to design their own recirculating systems and have a fundamental knowledge of principles influencing their design decisions.
http://www.hboi.edu/aqua/acted_workshops.html

Aquatic and Marine Science for Today's Classroom Teacher – Washington, DC
The National Aquarium in Washington, DC, with funding from the Toyota USA Foundation, is offering a teacher training program, Aquatic and Marine Science for Today's Classroom Teacher. Workshops will be offered in October and November, 2008 and February, March, and May of 2009. Each participant will receive a stipend and resources for their classroom. Space is limited.
http://nationalaquarium.org/workshops.html

Aquatic Ecosystems and Research Methods Teacher Workshop
The Bruce Museum of Arts and Science in Greenwich, Connecticut, in collaboration with Audubon Greenwich, is hosting a summer teacher's workshop on Aquatic Ecosystems, July 12 - July 16, 2004. The workshop will provide hands-on research experience of Long Island Sound and its watershed tributaries, including marine and fresh water environmental science. Participants will receive classroom and field activities appropriate for elementary and middle school classes.
http://www.brucemuseum.org/education/teachers_summer.php .

Aquatic Nuisance Species Teacher Workshop - Mississippi.
The Scott Aquarium of The University of Southern Mississippi will offer an Aquatic Nuisance Species workshop November 17-19, 2004, Biloxi, Mississippi. The workshop includes lectures by guest scientists, numerous educational activities, and a field trip to Horn Island and the Grand Bay National Estuarine Research Reserve. Participation is limited to 18 teachers; accommodations and meals will be provided. This workshop has been approved for 1.4 CEUs.
shelia.brown@usm.edu .

Archaeological Field School - Texas
The PAST Foundation will host its 2007 Field School June 2-10, 2007 in Port Isabel, Texas. The site is the wreck of an early 19th century two-masted schooner on the beach. Participants will learn about the different aspects of a scientific archaeological investigation while recording the shipwreck via mapping, test excavation, and artifact analysis. Teachers will participate in developing a public outreach program that can be taken back to the classroom and incorporated in numerous lesson plans and activities.
http://www.pastfoundation.org/2007BocaChicaFieldSchool/

Archeological Resources Protection Training Program
The Archeological Resources Protection Act (ARPA) training was developed by the Federal Law Enforcement Training Center together with the U.S. Forest Service, Bureau of Land Management, and the National Park Service. This class provides training in archeological investigation and the subsequent prosecution of the crimes.

- Columbus, Ohio, March 10-14, 2008
- Bar Harbor, Maine, April 7-11, 2008
- Panama City, Florida, April 21-25, 2008

http://www.fletc.gov/training/programs/forensics-and-investigative/archeological-resources-protection-training-program-arptp

Armada Project - Research & Mentoring Experiences for Teachers
The ARMADA Project provides K-12 teachers opportunities to actively participate in ocean, polar, environmental science research and peer mentoring. Master Teachers develop ways to bring their research experiences, including scientific data, methodologies, and technology, into the classroom. ARMADA teachers mentor new teachers and present at NSTA Conventions.
http://www.armadaproject.org

Association of Marine Laboratories of the Caribbean Scientific Meeting
The scientific meeting of the Association of Marine Laboratories of the Caribbean, June 13-17, 2005 in Curacao, will include poster and verbal presentations, promoting the exchange of scientific and technical information concerning Caribbean marine sciences. Topics include coral reef ecology and research, regional ecological connectivity, public awareness and education, and more.
Click on "Future Meetings" at http://www.amlc-carib.org/en/

Atlas of Science Literacy Workshops - Various
The American Association for the Advancement of Science offers three-day workshops on the Atlas of Science Literacy throughout fall 2008, with future workshops planned for 2009. Participants will use Atlas 1 and 2 and other Project 2061 resources to enhance their understanding of science literacy and to improve curricula, instruction, and assessment. Registration is limited and earlybird rates are available.
http://www.project2061.org/events/workshops/default.htm?txtRef=&txtURIOld=%2F070619%2Fworkshops

Autosub Under Ice Webconference and Educator Workshop
This three week long on-line conference and educator workshop, September 18-October 6, 2006, focused on the science, technology and engineering of the Autosub Under Ice programme. Learn about this cutting edge science and technology directly from the scientists and engineers. Resources and lesson plans are included, and the program will provide a foundation for learning during the International Polar Year, which begins in March 2007.
http://www.coexploration.org/autosub

Awareness of Coastal Habitat - Texas
The Nature Conservancy offers the workshop, Awareness of Coastal Habitat, June 11-13, 2008, starting in Collegeport, Texas. Teachers will study and compare the flora and fauna of the mid coast of Texas, including freshwater and salt marsh wetlands and prairies at Mad Island Marsh Preserve. Participants will also spend time on Matagorda Island, studying organisms of the barrier island beach, sand dunes, grasslands, and back-bay habitats.
Contact Cathy Porter at cporter@tnc.org

Beach Management, Tourism and the Coastal Environment Workshop
Beach Management, Tourism and the Coastal Environment Workshop: *A Conference of America's Beaches*, planned for March 2-4, 2005 in Miami, Florida will focus on overlapping contemporary social and scientific issues. Topics include beach management and tourism, beach management in the face of coastal disasters, and beach management and the environment (including education).
defraene@fiu.edu

Best Education Practices for Water Outreach Professionals
The University of Wisconsin Environmental Resources Center hosts *Defining Best Education Practices, Refining New Resources and Recommending Future Actions Symposium*, June 2-4, 2004, Madison, Wisconsin. Best education practices and topic-specific water outreach resources will provide a resource for natural resource and water outreach professionals.
http://www.uwex.edu/erc/waterbeps

Beyond Penguins and Polar Bears - Online
NSDL continues its partnership with NSTA, presenting web seminars for teacher professional development that showcase NSDL experts and resources. The presenters share their expertise and answer questions live during a 90-minute online program; archive versions of each presentation are provided following the presentation. *Beyond Penguins and Polar Bears: Energy and the Polar Environment* will be presented November 13, 2008.
http://learningcenter.nsta.org/products/symposia_seminars/NSDL3/Webseminar3.aspx

Biocomplexity in Shallow-Water Hydrothermal Systems Student Workshop
National Science Foundation and the University of South Florida sponsored a student workshop, May 25-31, 2003, St. Petersburg, Florida to explore *Biocomplexity in Shallow-Water Hydrothermal Systems.*
http://www.biocomplexity.usf.edu/index.htm

Biomimicry: Using Nature's Design to Revitalize Your Science Curriculum - New York
Biomimicry borrows nature's ideas to derive more sustainable designs for human existence. This biomimicry workshop, August 4-6, 2008 in Westchester County, New York, is aimed at middle school science teachers and will help guide educators in incorporating biomimicry into their own curricula. Check out the website for lesson plans, brief case studies, and more.
http://www.biomimicryinstitute.org/

Birch Aquarium's MARE Summer Workshop for Teachers - California
The 2008 MARE Ocean Immersion Summer Workshop for teachers is July 28-August 1, 2008 in La Jolla, California. Participate in classroom and field experiences highlighting Southern California's marine habitats. Ocean science content and hands-on activities from the Marine Activities, Resources and Education (MARE) curriculum includes: inquiry-based science teaching strategies; reading literacy through science instruction; addressing the needs of English language learners; and effective field-based activities.
http://aquarium.ucsd.edu/Education/For_Schools/For_Teachers/Professional_Development/

Boeing Teacher Institute
The Aquarium of the Pacific's 2004 Boeing Teacher Institute, August 23-27, 2004, provided K-8 teacher participants an intensive introduction to the aquarium, marine biology and Southern California's diverse marine life, habitats and ecosystems. Guided tours, standards-based activities and field trips provided teachers with an up-close look at California marine life. Participants also receive a complete aquarium, including filtration and a guidebook on how to incorporate aquariums into their curriculum.
John McCord at 562/951-1624 or jmccord@lbaop.org.

California and Energy Course
Join the Aquarium of the Pacific each Thursday in October, from October 6-27, 2005 in Long Beach, California, to learn about energy. Each session will feature experts exploring energy sources, uses, and surrounding issues. Participants will get the inside scoop on gas prices and energy costs from industry experts. The course will also explore the future of our energy supply and a discussion of tomorrow's technology, including renewable energy and fuel cells.
http://www.aquariumofpacific.org/EDUCATION/ADULT/cal_energy.htm

California and Water Classes - California
Learn about one of California's most limited resources—water—through this course offered on five consecutive Thursdays at the Aquarium of the Pacific in Long Beach, California, March 9-30, 2006. This course is taught by industry experts and explores current issues relating to California's water budget, threats to water quality, desalination and the allocation of water resources such as the Colorado River Basin.
http://www.aquariumofpacific.org/EDUCATION/ADULT/cal_water.htm3

California Islands Symposium
The 7th California Islands Symposium, February 5-7, 2008 in Oxnard, California, is a forum for the presentation of natural and cultural resource information collected on all of the California Islands - the Channel Islands, the Farallones, and the Baja Mexican islands - and their surrounding marine environments.
http://www.californiaislands.org/

California Professional Development Workshops
CREEC-LA Network, a project of the California Department of Education and TreePeople, hosts an extensive search engine of California educational resources, including the following professional development opportunities: *9th annual WEFTeach* for Los Angeles-area high school teachers about water quality, Oct. 14, and *Waves, wetlands and watersheds educator workshops*, Orange County, November 5, 2003.
www.creec.org, www.coastforyou.org, and www.wef.org/wefteach

California Summer Professional Development Opportunities
The following are just some of the professional development opportunities available in the California area for educators interested in marine and coastal issues.

- **Coastal Ecosystem Workshop**: The Coastal Ecosystem Workshop, June 20-22, 2007 in San Francisco, California, will focus on the physical and biological oceanography of the Gulf of the Farallones and our coastal ocean.
  http://farallones.org/education/teacher_workshops.php
- **Sloughs and Stewardship**: Join Save The Bay staff for a two-day summer workshop, Sloughs & Stewardship, June 26-27, 2007 in San Francisco, as you explore the richness and splendor of San Francisco Bay in two different regions.
  http://www.saveSFbay.org/workshop
- **Summer Leadership Institute**: The National Science Education Leadership Associations' annual Summer Leadership Institute, The Rising Tides of Science Education: Preparing Our Students for Global Leadership, will be held June 28-July 2, 2007 in Pacific Grove, California. The institute offers professional development to support both experienced and emerging leaders who serve with schools, school districts, universities, and community colleges, and professional organizations in an instructional and/or leadership capacity.
  http://www.nsela.org/calendar/calendar.html

- **Watershed Awareness and Sustainable Action**: Formal and non-formal educators, science teachers, environmental program developers, and others are invited to this four-day summer training, July 31-August 3, 2007 in Berkeley, California. Contact Shefali Shah at shefali@kidsforthebay.org

Camp SEA Lab Teacher Workshop
Camp SEA Lab is a marine science camp adventure for youth ages 8-13. Science, Education, and Adventure are the focus as SEA Campers explore the marine world from the top of the watershed to the bottom of the deep sea. They hosted a free teacher workshop *From Sandy Shores to Salty Seas* on February 21, 2004.
http://www.campsealab.org/Programs/Teachers/ .

Cape Ann Whale Watch Workshops for Students or Teachers – Massachusetts
Cape Ann Whale Watch is offers the World of *Whales,* one-day, hands-on workshop for teachers, which will take place each Thursday from July 21 through August 25, 2005, and *Ocean Detectives,* offering students entering grades 4-6 a one-day, hands-on experience exploring the plants and animals in the Gloucester Harbor as well as the Stellwagen Bank National Marine Sanctuary, Wednesday mornings, July 20 through August 24, 2005.
http://www.caww.com/Teachers%20and%20Students.htm

Case Western Reserve University Professional Development – JASON Project
Three professional development opportunities in conjunction with the JASON Project will be available from Case Western Reserve University:

- Wetlands Habitats - March 22, 2005
- Compare the Chagrin River and Mississippi Flood Plains - April 21, 2005
- Wildlife Created and Manmade Wetlands Habitats in the National Park - May 16, 2005

216-368-5075

Certified Interpretive Guide Training
The National Association for Interpretation (NAI) offers a professional certification program to recognize individuals who exhibit knowledge and skills necessary to assure quality interpretive services to all audiences. The Certified Interpretive Guide (CIG) program is one level in that program. The State Arboretum of Virginia at Blandy Experimental Farm, Boyce, Virginia, will host a CIG workshop March 2 - 5, 2005. The Pacific Northwest region will host a 32-hour CIG workshop March 20-23, 2005. Other certification programs and locations are posted on the website.
http://www.interpnet.com/interpnet/miscpages/programs/main.htm
http://interpnet.com/interpnet/miscpages/programs/Workshops/CIG/ArboretumMarch2005.htm

Certified Interpretive Guide Training - Texas
The Houston Zoo is offering Certified Interpretive Guide Training, December 3-6, 2007, in Houston, Texas. Participants will learn to use interpretation to create meaningful experiences, participate in activities, and receive curriculum and materials.
Contact Tara Tucker at TTucker@houstonzoo.org

Certified Marine Investigator Training Seminar
For those place-based educators whose additional duties cover a lot of water, check out this seminar. The International Association of Marine Investigators offers its annual Certified Marine Investigator Training Seminar, February 22-25, West Palm Beach, Florida.
http://www.iamimarine.org/2004%20Seminar.htm .

Channel Islands MERITO Academy Workshop - California
The Channel Islands MERITO Academy Workshop will be held October 5-6, 2007 with a follow-up workshop on February 2, 2008, in Oxnard and Santa Barbara, California. The MERITO Academy's goal is to increase students' understanding of coastal and ocean issues through hands-on, in the field and classroom activities while exposing students to careers in science and building pride and stewardship towards their sanctuary and local environment.
http://channelislands.noaa.gov/edu/edu_act1.html

Channel Mappers Workshop - California
Channel Mappers workshop, March 10-11, 2007 in Camarillo, California, was offered by the Ventura County Office of Education and the Center for Image Processing in Education, in collaboration with Channel Islands National Marine Sanctuary and the Marine Science Institute of the University of California, Santa Barbara. Middle and high school teachers learned to use GIS as a tool that allows students to examine scientific information. The workshop afforded the opportunity to learn how to integrate inquiry-based learning aided by technology into science, social studies, and history instruction.
https://www3.scoe.net/ctap7/index.cfm?fuseaction=eventdetail&eventid=1358
Contact Kris Rees at krisr@evisual.org

Charlotte NC SE PORT
The Southeast COSEE SouthEast Portal to Ocean Research for Teachers (SE PORT) has an Ocean Awareness Day scheduled for March 27, 2004 at the Discovery Place, Charlotte North Carolina, for North and South Carolina educators.
Contact Mary Bures at maryb@discoveryplace.org .

Charting an Interdisciplinary Voyage - Massachusetts
This curriculum development workshop for teachers, August 8-18, 2006 with an optional voyage August 19-22, in Woods Hole, Massachusetts, is based on Massachusetts Frameworks for Grades 3-6. The workshop will assist upper-elementary school teachers to link New England maritime history to science, math and social studies skills using an interdisciplinary voyage-based curriculum.
http://www.sea.edu/academics/program_teacherprogram.asp

Chesapeake Bay Gateways Network Conference - Maryland
The 2005 Gateways Network conference will be held April 4-6, 2005 in Solomons, Maryland. There will be more than 30 sessions on topics which include developing education programs, planning and delivering effective interpretation, and inspiring resource stewardship. There are also six full-day seminars to pursue an in-depth topic.
http://www.baygateways.net/2005_conference.cfm

Children's Water Festival - Georgia
Winning Water will be an interactive day of learning for selected 4th grade classes in the Coosa, Tallapoosa, and Tennessee River basins on March 8, 2005, in Dalton, Georgia.

The purpose of the festival is to educate students about watersheds and water quality in a fun hands-on atmosphere. It will serve as a model for future water festivals in Georgia's other river basins. On March 7-8, there will be a 2-day workshop designed for those who want to learn about hosting a children's water event in their community.
http://www.winningwater.org/
http://www.groundwater.org/pe/festival_expedition.html

Classroom Exploration of Oceans – Maritime Heritage Online
This online virtual teacher workshop focuses on maritime heritage: Mysteries and Sirens of the Deep: April 4-17, 2005. The upcoming keynotes are Maritime Heritage: Resources Revealed in the Hawaiian Islands; The Steamship Portland - Discovering and Managing our Maritime Heritage and the Technologies That Take Us Beneath the Blue Horizon; and Exploring Shipwrecks Together: How one program helps scientists and the public connect with the past.
http://www.coexploration.org/ceo/

Classroom Exploration of the Oceans - Online
Join this virtual teacher workshop series to explore America's little-known ocean realm during the upcoming Classroom Exploration of the Ocean Virtual Teacher Workshop Series, October 9–20 and November 6–17, 2006. This professional development program is offered free to anyone who has access to the Internet. Leading and emerging scientists will present their research, explorations and discoveries in these unique ocean areas to you online through engaging keynotes which will be followed by opportunities for you to ask the scientists questions online about their work. Links to educational resources, networking opportunities, and more are also available.
http://www.coexploration.org/ceo2006

Classroom Exploration of the Ocean - Online
The College of Exploration, with the support of NOAA's Office of Ocean Exploration and the Marine Sanctuaries Foundation, presents the Virtual Teacher Workshop Series 2008-2009, September 29-October 10, 2008. Week 1 is *Deep Ocean Exploration – New Discoveries and Implications for Our Warming Planet*, September 29–October 3, 2008, with an introduction to the NOAA OE websites and curriculum. Week 2 is *The Okeanos Explorer*, October 6-10, 2008, with a virtual tour of the Okeanos Explorer.
http://www.coexploration.org/oe

Classroom in the Wild - Alaska
American University's School of Communications Center for Environmental Filmmaking is hosting this eight-day Alaskan wilderness adventure, August 12-20, 2007, combining survival skill training with wildlife and expedition filmmaking. Students will get hands-on experience under extreme filmmaking conditions.
http://www.environmentalfilm.org/

Climate Change E-Conference Series - Online
The EcoRes Forum is a new series of free, online e-conferences focusing on the ethical, political, and sociocultural aspects of climate change. The first e-conference, *From Anthropocentrism to Ecocentrism: Making the Shif*t, April 14-30, 2007, will evaluate the current status - what is working, and what isn't, around the globe. Armed with this knowledge, participants will shift focus to the future, considering multi-prong approaches for moving forward on this issue.
http://www.eco-res.org

Climate Change Educator Conference - California
NASA JPL offers this Climate Change Educator[1]s conference, March 3-4, 2007, April 4-May 16, 2008 in Pasadena, California, including presentations by Earth scientists, engineers, and educators. Participants will gain a better understanding of how NASA data is gathered that informs the climate debate and some of the recent results. There will also be discussion of past climate variations and their impacts on human society.
http://ecourses.ncar.ucar.edu/
http://education.jpl.nasa.gov/events/climate20070116.html

Climate Discovery Courses for Educators - Online
The National Center for Atmospheric Research offers distance learning courses that build upon their face-to-face professional development workshops. Climate Discovery is a series of six-week courses for middle and high school educators that aims to enhance teacher qualifications, competency, and self-confidence in integrating Earth system science, climate, and global change the science classroom.
http://ecourses.ncar.ucar.edu/

Climate Science in Support of Decision Making Workshop - Virginia
The U.S. Climate Change Science Program is hosting a workshop entitled *Climate Science in Support of Decision Making*, November 14-16 2005, in Arlington, Virginia. The workshop will include a discussion of decision-maker needs for scientific information on climate variability and change, as well as expected outcomes of the program's research and assessment activities that are necessary for sound resource management, adaptive planning, and policy formulation.
http://www.climatescience.gov/workshop2005/default.htm

Coast Alive Workshop - California
Learn how to explore the complex biological issues of southern California's marine environment, coastal wetlands, and related watersheds through this Coast Alive! Workshop, April 8-9 in Long Beach, California. Coast Alive! Offers an 8-day teacher institute, helping teachers learn ways to incorporate inquiry-based, hands-on, and interactive multimedia activities in their middle and high school science classrooms, using a comprehensive curriculum that integrates Ocean Literacy with California Content Standards. Educators in all subjects and grade levels are encouraged to apply.
http://www.coastalive.org/
http://eurekaseries.org/coastalive/land-sea-interface/

Coast Alive! Teacher Training Workshop - California
Coast Alive! is a project created by the California Institute for Biodiversity, California State Parks Foundation, and California State Parks for 5th-9th grade teachers and their students. The project provides teacher professional development and incorporates interactive computer technology and lessons in literacy, science, math, and social science. Teachers will be able to have their students extend and apply classroom lessons to field investigations.
http://www.coastalive.org/

Coast Alive! Teacher Institutes – California
Coast Alive! and the California Institute for Biodiversity offer this field experience to strengthen teacher's skills in science, pedagogy, and leadership. Coast Alive! Earth, Wind, Fire, Water Institute for southern California will be held in June 2008; Coast Alive!

Land-Sea Interface Institute for the East Bay Regional Park District – San Francisco Bay Area will be held August 3–8, 2008.
Contact Roger Renn at roger@calalive.org

Coastal Curricula Workshops - Louisiana
The Barataria-Terrebonne National Estuary Program is partnering with the Louisiana Department of Wildlife and Fisheries to offer free summer wetland teacher training workshops for educators who teach grades K-4. Teachers can learn more about Louisiana wetlands through interactive Coastal Curricula Workshops. Teachers will receive information and instruction on Louisiana's wetlands during this one-day workshop along with standards-based lessons and activities
http://www.btnep.org/newsletter/newsletters.asp

Coastal Ecosystem Education Program
A free, one-week Coastal Ecosystem Education Program workshop offers professional training about rocky intertidal and sandy beach monitoring projects. The complimentary curriculum offers background information and activities about the ecology and oceanography of the Gulf of the Farallones National Marine Sanctuary.
http://www.farallones.org .

Coastal Ecosystem Teacher Workshop - California
This five-day professional development workshop, June 25-29, 2005, in San Francisco, California, is for middle and high school teachers and educators. Learn about the oceanography and ecology of the Gulf of the Farallones through field work and standards-based activities to take back to your classroom. This professional development workshop focuses on monitoring projects at the rocky shore and sandy beach.
Contact April Devitt at (415) 561-6625 x304 or adevitt@farallones.org

Coastal Ecosystem Workshop - California
The Farallones Marine Sanctuary Association and the Gulf of the Farallones National Marine Sanctuary are hosting their annual educators' workshop, August 10-11, 2006 in Montara, California for middle and high school teachers. The workshop will focus on the rugged, diverse coastal ecosystems of San Mateo County. Participants join sanctuary staff on field trips to rocky intertidal and sandy beach sites to learn monitoring and learn how to incorporate inquiry-based monitoring projects into their curriculum.
http://www.rudyalicelighthouse.net/CalLts/PtMntara/PtMntara.htm

Coastal Explorations Workshop – North Carolina
The North Carolina National Estuarine Research Reserve and Coastal Reserve programs held a Coastal Explorations Workshop, September 10-11, 2004, Atlantic Beach, North Carolina. This workshop targeted activities for use in both the classroom and in the field. These activities are designed to increase awareness and understanding of the importance of estuaries. Both activity guides include a variety of activities and levels of information.
http://www.ncnerr.org/education/workshops/index.html .

Coastal Oceanography Day - California
Coastal Oceanography Day is a free workshop, April 28, 2007 in Tiburon, California, designed to promote interaction between San Francisco Bay Area marine scientists and middle and high school science teachers. Participating teachers will learn about local

scientific resources, take home lesson plans and project ideas aligned with state science standards, and have an opportunity to network with other science teachers as they study the coastal ocean through interactive lectures, activities, and a research cruise.
Contact Sarah Davies at daviess@sfsu.edu

Coastal Science Institute for Middle School Teachers - Maine
Bowdoin College offers a weeklong Summer Institute in Brunswick, Maine. The institute will provide a meaningful professional development opportunity for teachers to conduct hands-on science and disseminate important environmental knowledge into classrooms over time. Interdisciplinary teams are encouraged to apply. The theme of the 2007 institute is *Invasive Species* and will introduce teachers to laboratory and field techniques that will help to identify, monitor, and trace the spread of introduced species.
http://academic.bowdoin.edu/csc/bccsi/index.shtml

Coastal Services Center Online Training Courses
NOAA's Coastal Services Center has two e-learning training courses available online. The *Public Trust Doctrine* course provides an overview of the physical, legal, and administrative aspects of public trust lands. The *Web Content Design and Evaluation* course is designed to help coastal organizations develop better web content and determine its effectiveness.
http://www.csc.noaa.gov/bins/training.html

Coastal Legacy Workshop for Teachers – North and South Carolina and Georgia
Coastal Legacy will assist you integrate Sea Island culture and heritage into your science and mathematics instruction. The workshop will be held July 25-30, 2005 on St. Helena Island, South Carolina. Teachers will explore South Carolina and Georgian coastal habitats, land use, geology, and geography of the Southeast region, in the context of the Gullah/Geechee culture. Teachers will receive educational resources and lessons, access to scientists and community leaders, and more.
http://www.scseagrant.org/se-cosee/education.htm

Coastal Legacy Program – North Carolina, South Carolina, and Georgia
The 2006 Coastal Legacy Program for middle level teachers, June 17-23, 2006 on St. Helena Island, South Carolina, highlights the cultural history of the Southeast's coast, barrier islands, and sea Islands. In this week-long investigation, teachers will explore coastal culture, history, and heritage to earth, environmental, and physical science and mathematical concepts. Participants will investigate barrier island ecosystems, impact of hurricanes, geography, and physical factors.
http://www.scseagrant.org/se-cosee/teacher/06_coastal_legacy.htm

Coastal Ocean Observing Workshop - Georgia
This Coastal Ocean Observing Workshop will take place June 20-25, 2006 in Savannah, Georgia. The workshop is open to middle and high school teachers who are presently involved in teaching marine science, physical science, physics, or earth/oceanography.
http://eeingeorgia.org/net/calendar/details.aspx?c=28356&s=37717

Coastal Restoration Workshop – California
The California Coastal Commission is hosting a series of free workshops on how to develop a volunteer-based habitat restoration program; the next seminar will be held September 18, 2008 in Carlsbad, California. The workshops will introduce the guide, Digging In: A Guide to Community Based Habitat Restoration. The guide covers each

step of a volunteer restoration project, from getting permissions, to collecting seeds, to conducting outreach for your restoration event.
http://www.coastal.ca.gov/publiced/UNBweb/diggingin.html
Contact Kristina Finstad at kfinstad@hotmail.com

Coastlines 2005 - Georgia
Join educators and research faculty for fifteen days of intensive field and laboratory experience which will prepare teachers to identify water quality issues and conduct studies in their own schools and communities. Twenty middle and high school teachers will work alongside research scientists collecting water samples in the field, conducting both field and laboratory assays, and statistically analyzing results to assess water quality. This is a residential program on Skidaway Island, Georgia from July 6-19, 2005.
http://www.uga.edu/aquarium/workshops/CL05.html

COASTeam Leadership Institute – South Carolina
The COASTeam Leadership Institute is a free, three-hour graduate professional development credit course, June 13-17, 2005, in Charleston, South Carolina. The COASTeam Program is an integrated course for middle school teachers to learn marine science concepts in the fields of geology, biology, chemistry, and physics. The course teaches these concepts using South Carolina's coast as the classroom, providing teachers with relevant, local examples.
Contact Sarah McGuire, COASTeam@cofc.edu

Colonial Coast Birding & Nature Festival - Georgia
The Colonial Coast Birding & Nature Festival celebrates Southeast Georgia as a birder's paradise, offering a wide variety of habitats and wildlife. Shorelines, salt marshes, old rice fields, woodlands, tidal rivers, freshwater wetlands and more all host their own fascinating bird communities. The festival is not just for birders, offering field trips and seminars that will appeal to all types of nature lovers, including different vendors, conservation groups, kids' activities, arts and crafts, even a live raptor show.
www.coastalgeorgiabirding.org .

Communicating Complex Biological Stories in National Parks
This workshop, March 30-31, 2004, Atlanta, Georgia (immediately preceding NSTA's Conference), focuses on communicating and designing educational programs for National Park Service biological resources. Participants will complete a pre-workshop assignment, a post-workshop product, and contribute to a publication on techniques for bringing the biological sciences to both the general public and educators.
http://www.nature.nps.gov/LearningCenters/new/biowrkshp_flyer_mar03.pdf .

Communicating for Conservation Workshops
The Ocean Project conducts day-long conservation communications workshops to bring their communications strategy directly to key staff at Partner Institutions throughout the country, including aquariums, zoos, and museums. The interactive workshops increase the capacity of staff at these institutions to effectively educate their visitors about conservation through improved exhibits, outreach, and other educational programs.
http://www.theoceanproject.org/what_we_do/communication.html

Communicating Ocean Sciences Summer Workshop - California
The Center for Ocean Science Education Excellence (COSEE) – California will host a two-day workshop, Communicating Ocean Sciences Summer Workshop, June 11-12,

2007 in Berkeley, California. Participants will study education-theory-grounded methodology and receive the materials needed to teach the courses which are now being taught at more than 20 universities that have marine science programs.
http://cacosee.net/collegecourse/workshop.html

Communicating Ocean Sciences Summer Workshop - California
COSEE-CA offers the Communicating Ocean Sciences Summer Workshop, June 2-4, 2008 in Berkeley, California. The course will teach education-theory-grounded methodology and provide materials needed to teach the award-winning courses, Communicating Ocean Sciences and Communicating Ocean Sciences to Informal Audiences, taught at more than 24 universities with marine science programs.
http://www.coseeca.net/collegecourse/

Communication Workshops - Online
The Goodman Center was founded to help nonprofits recruit, propose, persuade, and present more effectively. This new online education venture will offer interactive online workshops from nationally recognized experts, designed to teach nonprofit professionals how to effectively communicate the significance of their causes. The courses will offer guidance on how organizations can convincingly reach out to stakeholders through storytelling, strategic communications, market research, and compelling presentations.
http://www.thegoodmancenter.com/

Community Biodiversity Education Partnership Program
The U.S. Fish and Wildlife Service's National Conservation Training Center will host forty formal and nonformal educators for the *Community Biodiversity Education Partnership Program* and present a training session, November 12-14, 2003 Shepherdstown, West Virginia. The program will bring educators together to explore creative ways to enhance biodiversity education locally and globally.
www.worldwildlife.org/windows/CBEPP.html

Community Culture and Sense of Place Training
The US EPA's Coastal Management Branch provided *Community Culture and Sense of Place Training*, March 10-11, 2003, Seattle, Washington. For more information about the Seattle workshop, contact trainor.theresa@epa.gov.
http://www.trainex.org

Compromise in the Estuary – South Carolina
This workshop, sponsored by the Centers for Ocean Sciences Education Excellence SouthEast (COSEE SE) and the South Carolina Aquarium, will be held March 18, 2006 in Charleston, South Carolina. Learn about the importance of estuaries by participating in a stakeholders' forum of guest speakers which include a biologist, an environmentalist, a politician and a developer. Workshop activities will also include a field trip, an aquarium gallery tour, and a crab lab investigation.
http://www.scaquarium.org/visit/upcomingevents.aspx

Connecting with Climate Change - Maryland
NOAA and Sally Ride Science offer this educator conference, Connecting with Climate Change, July 23-24, 2008 in Silver Spring, Maryland. Explore the latest findings, meet experts, and learn to customize content for your classroom.
http://www.sallyridescience.com/for_educators/conferences/climate

Connecting With Visitors - Communication Skills Training
Connecting with Visitors Communication Skills Training workshops provide training and strategies to create tours and interpretive programs that connect with visitors. The schedule for spring, 2005, in locations throughout the country, is available on the website, along with several training articles.
http://www.connectingwithvisitors.com/

Conservation across Borders – Texas and Montana
The Boone and Crockett Club offers a hands-on field course designed for teachers who are interested in integrating natural resource conservation into their curricula, June 15-29, 2007 in Sinton, Texas, (also July 11-25, 2006). The course takes a systems approach comparing two distinct ecological regions of North America, and the science behind the conservation and management of wildlife species endemic to these regions to enable students to conceptualize a systems view of the underlying causes and solutions to issues regarding wildlife and natural resources. Reimbursements for expenses and graduate credit is available.
http://www.boone-crockett.org/educationPrograms/education_cab.asp?area=educationPrograms&ID=6080AFEF&se=1&te=1
http://www.boone-crockett.org/educationPrograms/education_cab.asp?area=educationPrograms

Conservation Biology for Educators - Online
The Bronx Zoo is piloting its newest online course, Conservation Biology for Educators, May 3-31, 2008, at a discounted rate.
Contact Tom Naiman at tnaiman@wcs.org

Cool Waters: Water Workshop for Georgia Educators
This free water workshop for Georgia educators, June 14-16, 2004, and June 4-6, 2007 in Marietta, Georgia, was geared toward middle school teachers. Each day of the workshop included field trips and hands on classroom activities, food, field trips, and many free resources. K-12 resources will be provided, including Project WET, The Urban Watershed, Healthy Water Healthy People, and Georgia Adopt-A-Stream certification. The deadline for registration is May 25, 2007.
http://www.gawp.org/events.htm#Anchor-Cool-49575
http://eeingeorgia.org/event.asp?eventID=17802 .

Coral Ecosystems - Online
Plan ahead. Sign up for free web seminars, offered by the National Science Teachers Association, featuring NOAA scientists and education specialists with a focus on the biology, dynamics, and conservation of coral ecosystems designed for grade 5-12 level educators. The presenters will share their expertise and assist participants in linking this content to hands-on, inquiry-based, classroom activities. All activities will address national science education standards topics.
http://institute.nsta.org/Anaheim/coral/webseminar.asp

Coral Reef CSI
The International Coral Reef Initiative has created a committee on Coral Reef Enforcement and Natural Resource Investigation to facilitate the development of standards and protocols for training field investigators in investigative, forensic and rapid

ecological assessment techniques, to ensure accurate assessment and data collection and maximize prosecution, mitigation, or negotiation success.
http://www.icran.org/action-csi.html

Coral Reef Ecology Field Course - Bermuda
The Bermuda Institute of Ocean Sciences, formerly the Bermuda Biological Station for Research, offers a Coral Reef Ecology field course July 8-28, 2007 in Bermuda. The course is open to undergraduates and graduate students with strong academic credentials; all students must be certified SCUBA divers. Scholarship and financial aid are available.
http://www.bbsr.edu/Education/summercourses/cre/cre.html

Coral Reef Ecology of Hawai'i Teachers Workshop – Hawai'i
This week-long course will be held twice during July, 2005, in South Kona, Hawai'i. Participants will learn first-hand how humans are impacting the life of the organisms on the coral reef of Hawai'i and what the state is doing about it. Participate in daily snorkel excursions along the shore, explore the coastline, visit Pu'uhonua o Honaunau National Historical Park (Place of Refuge) and more.
http://www.aote.org/menu/prog/haw/index.htm

Coral Reef Task Force Meeting and Bleaching Tools Workshop – American Samoa
The 18th Meeting of the U.S. Coral Reef Task Force will be held August 20-25, 2007 in American Samoa. Additional information will be available on the website in the coming weeks, but if you plan to attend, you are advised to make flight arrangements as soon as possible.

In a follow-on event of the task force meeting, NOAA's Coral Reef Conservation Program and Australia's Great Barrier Reef Marine Park Authority will hold a joint 3-day ***Bleaching Tools Workshop***, designed to increase the ability of coral reef managers to anticipate and respond to coral bleaching events. If you would like to attend this workshop, please email Jessica Morgan for more information. Space is limited, so please indicate your interest now. The workshop is offered free of charge, and some travel assistance may be available.
Workshop contact: Jessica Morgan at Jessica.morgan@noaa.gov
http://www.coralreef.gov/taskforce/index.html

Coral Reefs: Bacterial Worlds - Florida
Researchers and educators from the Smithsonian Marine Station at Fort Pierce and Mote Marine Laboratory have joined efforts to create two free professional development workshops for teachers:

- January 19, 2008, Fort Pierce, Florida
- February 16, 2008, Sarasota, Florida

Workshop registration includes an activity guide, PowerPoint presentations, a classroom poster, and more.
Contact Laura Diederick at diederick@si.edu

Corals to Classrooms Workshop - Texas
The Corals to Classrooms educator workshop was held April 25-27, 2008, July 11-12, 2006 and June 19-20, 2007 in Galveston, Texas, sponsored by the Gulf of Mexico Foundation and hosted by the Flower Garden Banks National Marine Sanctuary. The workshop will focus on coral reef biology and ecology, and includes information,

resources, hands-on activities, and a field trip. This is the same workshop as the Down Under, Out Yonder program, but without the SCUBA component.
www.gulfmex.org/duoy.htm
http://flowergarden.noaa.gov/education/workshops.html

Cordell Bank ROV Teacher Workshop - California
You are invited to participate in the Cordell Bank ROV Teacher Workshop, offered by NOAA's Cordell Bank National Marine Sanctuary in collaboration with the Marine Advanced Technology Education Center, Deep Ocean Exploration and Research, and the National Marine Sanctuary Foundation. This workshop will take place November 4-6, 2005 in Alameda, California. Participants are encouraged to participate with a team member (another teacher or student) as limited kits with parts will be distributed.
http://www.sanctuaries.noaa.gov/education

COSEE Great Lakes Professional Development
COSEE Great Lakes, the only Center on America's North Coast, serves an area that is the home of more than 1/4 of the U.S. population and shares marine sciences through freshwater research. COSEE Great Lakes offers a variety of professional development workshops throughout the summer, and links to valuable curriculum for Great Lakes classrooms.
http://coseegreatlakes.net/

COSEE Scientist/Teacher Institute – Gulf of Mexico
This program invites 12 teachers and 5 scientists from Alabama, Florida, Louisiana, Mississippi, and Texas to participate in a three-week, three-semester-hour, graduate course focused on coastal processes, habitats and organisms, and marine technology. The grant provides room and board, ocean sciences education materials, instruction, and a stipend. The resident/field component is June 3-8, 2007 in Alabama and June 24-29 in Louisiana.
http://dhp.disl.org/newsite/teachertraining.htm

COSEE-SE's Coastal Processes in the Outer Banks Workshop – North Carolina, South Carolina, and Georgia
This free Coastal Processes in the Outer Banks workshop is part of the *Coastal Legacy: Multicultural Marine Science, Professional Development Summer Program* from COSEE-SE. Participants will explore the physical forces which create barrier island dynamics. Multicultural strategies that maximize learning in the science classroom will be examined. Teachers who teach in schools with high percentages of underserved populations are encouraged to apply.
Contact Elizabeth Joyner at elizabeth.rogers@scseagrant.org for complete details. Information and applications will be posted in January on the COSEE SE website, at http://www.scseagrant.org/se-cosee/.

Critter Cam Virtual Teacher Workshop
The National Geographic Society and the National Science Foundation offer a 2-week virtual teacher workshop, highlighting the use of National Geographic's research tool, Crittercam, to explore the mysteries of ocean life. Deployed on the backs of whales, sharks, seals, sea turtles and more, Crittercam provides an unprecedented look at the marine world through the animals' perspective. Teacher resources include access to research findings, lesson plans, magazine articles, video clips, and Internet links.
http://www.coexploration.org/crittercam/ .

Cultural Resources Professional Development – West Virginia
The 2007 Cultural Resource course will be held at the U.S. Fish and Wildlife Service's National Conservation Training Center in Shepherdstown, West Virginia, during the week of August 13, 2007. The course is aimed at project leaders and refuge managers.
Contact Eugene Marino at Eugene_Marino@fws.gov

Cultural Resources Training Series – On-line
The first module of the Cultural Resources On-line Training Series has been launched. This first module focuses on aspects of cultural resources and includes basic definitions of key concepts as well as information on how cultural resource management fits in the broader conservation context.
Contact Eugene Marino at Eugene_Marino@fws.gov

DataStreme Atmosphere - Online
An online weather course by the American Meteorological Society is offered free for K-12 teachers. DataStreme Atmosphere is a precollege teacher enhancement program. Applications are sought from persons who can demonstrate potential for leadership as resource teachers. They must be willing to act as resource persons for other teachers and as advocates for promoting the use of electronically-delivered environmental data in schools.
http://www.ametsoc.org/amsedu/DataStremeMiddle.html

DataStreme Water In The Earth System Online
This free Water in the Earth System course is sponsored by the American Meteorological Society and the National Science Foundation. This Internet-based distance-learning course is directed towards middle-school teachers. The course incorporates inquiry-based instructional strategies and a holistic concept of Earth from oceanic, atmospheric and terrestrial water and problem-focused perspectives. It investigates the mass and energy flows associated with the global water cycle, and with related issues.
http://64.55.87.13/amsedu/WES/index.html .

Dauphin Island Sea Lab Summer Programs for Students and Teachers - Alabama
Dauphin Island Sea Lab, Dauphin Island, Alabama, is offering a wide variety of summer programs for students and teachers.
For Students

- Oceans Alive!: June 9, 23, 2006
- Treasure Island: June 16, 30, 2006
- Gulf Island Journey: May 28-June 2, July 9-14, July 16-21, July 23-28, 2006
- Summer High School Course: June 4-30, 2006

For Teachers

- Spring Fossil Workshop: March 18-19, 2006
- Exploring the Florida Keys: May 28-June 2, 2006
- Marine Application of Science and Technology: June 4-8 and June 18-22, 2006
- Beaches, Birds & Barrier Islands: June 25-29 and July 9-13, 2006
- Coastal Connections - July 16-20, 2006
- Submerged Grassbeds of the Northern Gulf of Mexico: June 11-15 and July 23-27, 2006.

http://dhp.disl.org/k12.html

Dauphin Island Sea Lab Summer Teacher Workshops - Alabama
Dauphin Island Sea Lab in Alabama is offering various teacher workshops this summer.

- Marine Application of Science and Technology, June 17-22 and June 24-29, 2007
- Coastal Connections - Linking Watersheds to the Gulf of Mexico, July 22-26, 2007
- Submerged Grassbeds of the Northern Gulf of Mexico, July 29-August 2, 2007
- Beaches, Birds, and Barrier Islands, June 10-14, 2007

Applications must be received by May 15, 2007.
http://dhp.disl.org/newsite/teachertraining.htm

Dauphin Island Sea Lab Summer Programs for Students and Teachers - Alabama
Dauphin Island Sea Lab, Dauphin Island, Alabama, offers a wide variety of summer programs for students and teachers. Check the website for dates.
For Students

- Oceans Alive!: Half day beach exploration for children 5-8 years with parent;
- Treasure Island: Half day history treasure hunt for children 9-11 years;
- Gulf Island Journey: Marine summer camp on a barrier island for middle school students;
- Summer High School Course: Four week marine science course for high school students.

For Teachers

- The Delta: Explore the Mobile-Tensaw Delta;
- Beaches, Birds and Barrier Islands: A "three island tour" of Gulf Coast barrier islands;
- Sharks and Rays: Ins and outs of shark biology;
- Marine Applications of Science and Technology: Special, free teacher workshop for Alabama math or science teacher for grades 6-12; availability is limited.

For College and Graduate Students: Courses in this intense program will be offered from May to August.
http://dhp.disl.org/newsite/

Dauphin Island Summer Teacher Workshops
Dauphin Island Sea Lab offers an array of summer teacher workshops. Each features hands-on learning experiences and classroom materials.

- Exploring the Florida Keys, May 30 – June 5, 2004
- Beaches, Birds & Barrier Islands, July 11-14, 2004
- Coastal Connections – Linking Watersheds to the Gulf of Mexico, July 18–22, 2004
- Grasses, Groupers & Gastropods, July 25 - 29, 2004
- Marine Application of Science and Technology, June 6-11, June 13-18, and June 20-25, 2004

http://dhp.disl.org/teachertraining.htm .

Deep Atlantic Stepping Stones Teacher Workshops – Maine and Rhode Island
This workshop presents inquiry- and standards-based activities tied directly to the exploration of the Atlantic seamounts. The DVD from the 2003-2004 “Mountains in the Sea” expedition includes video of the technologies and remarkable biodiversity and complex geologic structure of seamounts. Workshops will take place July 26, 2005, Portland, Maine, and July 27, 2005, Narragansett, Rhode Island.
Contact Ms. Chris Marceau at 860.405.9121 or at Chris.Marceau@uconn.edu

Designing for e-Learning
This 15 week course explores the essential components of designing and developing an e-Learning course. Participants will explore principles, theories, and paradigms of distance education; review technology issues; and demonstrate design, development and assessment methodologies. You will have the opportunity to design and develop your own course by the end of the learning experience. Credit is available from University of Alaska Anchorage. .
http://www.creative-conservation.com/designinffordistance.htm

Designing for e-Learning – Online
Explore the essential components of designing and developing an e-Learning course through this online course, which runs September 5-December 18, 2005, February 20-May 31, 2006. Learners will explore principles, theories, and paradigms of distance education; review technology issues; and demonstrate design, development and assessment methodologies. Participants will have the opportunity to design and develop their own course by the end of the learning experience.
http://www.creative-conservation.com/designinffordistance.htm

Designing for Distance Workshop Series
This six-part Designing for Distance workshop mentors you through the design and development of a distance learning course, and then offers methods to teach your creation to your audience. The workshop is taught entirely using distance methodologies. The workshop begins January 26, 2004.
http://www.creative-conservation.com/Flyer2/Flyer2.htm

Developing Teacher Training Course - California
This face-to-face training course, scheduled for February 28 - March 4, 2005, in San Francisco, California, presents the essential components of work with schools and school systems, designing, conducting and evaluating teacher training. The course culminates with participants applying their skills at actual teacher workshop. Upon return to their sites, each participant is also expected to plan and conduct a workshop for teachers within a year.
georgia_jeppesen@fws.gov
https://otis.fws.gov (OUT8161)

Developing Teacher Training – West Virginia
The U.S. Fish and Wildlife Service offers professional development courses at the National Conservation Training Center campus in West Virginia. *OUT8161: Developing Teacher Training* will be held March 30-April 3, 2009; the deadline for registration is January 5, 2009. This course presents the essential components of working with schools and school systems, specifically on conducting teacher training. The course culminates with participants applying their skills at an actual teacher workshop. Contact Georgia Jeppesen at georgia_jeppesen@fws.gov.
http://training.fws.gov/documents/Section1_NCTC_Sponsored_Courses.pdf

Developing Teacher Training – West Virginia
The National Conservation Training Center will offer Developing Teacher Training (OUT8161), February 12-16, 2007, and September 10–14, 2007 in Shepherdstown, West Virginia. This training presents the essential components of working with schools and school systems, specifically on designing, conducting, and evaluating teacher

workshops/trainings. The course includes practice through an actual 2-hour teacher workshop, and each participant is also expected to plan and conduct a workshop for teachers within a year.
http://training.fws.gov/catalog/coursecontents.html
Contact Georgia Jeppesen at georgia_jeppesen@fws.gov

Digital Science Workshops
Ed.gov from the U.S. Department of Education offers online professional development for teachers in math and science, language arts, and other areas. Watch presentations on inclusive classrooms, using data to improve instruction, inquiry in the classroom, and more.
http://www.paec.org/teacher2teacher/

Discovering the Mysteries of Whales Lecture – California
The Center for Ocean Sciences Education Excellence-West (COSEE-West) offered a lecture and workshop about whales, October 13, 2004, Los Angeles, California. The research focuses on the evolution, natural history, anatomy and conservation of whales, dolphins and porpoises. K-12 teachers pre-registered for the post-lecture session received documentation for professional development hours. Additional content information and classroom materials were provided in the teachers' session.
Peggy Hamner at 310/206-8247 or phamner@ucla.edu .

Dive into Education Workshop - Georgia
NOAA's National Marine Sanctuary Program invites educators throughout the southeast to participate in the Dive into Education workshop, May 13-14, 2005 on Tybee Island, Georgia. The workshop will feature programs specifically adapted to address science performance standards in ocean science and other disciplines. National level educators will bring their unique programs, materials and perspectives from their part of the country.
http://www.graysreef.nos.noaa.gov/education/workshop051305.html

Down Under, Out Yonder Professional Development Workshop
Flower Garden Banks National Marine Sanctuary invites scuba-certified K-12 educators from around the country for a week-long underwater exploration workshop called Down Under, Out Yonder, June 25-29, 2005; June 24-28, 2006; July 7-11, 2007 and July 21-25, 2007 (2nd workshop for alumni only).. Covering topics such as coral biology, reef fish identification, geology, sustainable fisheries and natural resource management, the workshop's goals are to inspire and motivate educators to include coral reefs and the resources of Flower Garden Banks National Marine Sanctuary in their lesson plans. It includes two days of land-based workshop followed by three days of SCUBA diving in the sanctuary. Applicants must already be SCUBA certified.
http://www.gulfmex.org/duoy.htm http://flowergarden.noaa.gov/education/DUOY.html
http://flowergarden.noaa.gov/education/workshops.html
http://www.gulfmex.org/duoy.htm

Down Under, Out Yonder Workshop Update
The Flower Garden Banks National Marine Sanctuary *Down Under, Out Yonder* education workshop application workshop dates are July 10-14, 2004.
http://www.gulfmex.org/duoy.htm .

Down Under, Out Yonder - Texas
The 2008 Down Under, Out yonder workshops and field expeditions, sponsored by the Gulf of Mexico Foundation and ConocoPhillips, will be held July 19-23, 2008. This unique way to learn about coral reef ecosystems and the National Marine Sanctuary Program, specifically the Flower Garden Banks NMS, consists of two days of land-based workshop followed by three days of SCUBA diving in the sanctuary. All applicants must be previously SCUBA certified and have diving experience.
http://gulfmex.org/duoy.htm

Duke Environmental Leadership Program – Online
The Duke Environmental Leadership Program is comprised of an online master's degree, continuing and executive education courses, and community outreach programs, the program is driven by interdisciplinary and global themes, strategic approaches to environmental management, communication, and effective leadership.
http://www.nicholas.duke.edu/del/

Earth as a System is Essential: Seasons and the Seas – MA, NH, ME
Earth as a System is Essential: Seasons and the Seas aims to transform the traditional middle school study of seasons and weather into an exploration of the dynamic interactions between Earth's land, oceans, atmosphere, and living world. Middle school teachers from Massachusetts, Maine, and New Hampshire will work with scientists to develop a unifying systems theme that bridges the gap between existing materials and concepts related to seasonal and climatic changes in the Gulf of Maine.
http://www.mmsa.org/easie/

Earth Expeditions
Earth Expeditions are tuition-free graduate courses open to educators from all disciplines and settings. Different courses and field expeditions are offered and offer inquiry-driven, community-based learning for the benefit of ecological communities, student achievement, and global understanding. The Global Field Program is a master's degree from Miami University offered entirely through tuition-waived Field Expeditions experiences worldwide, with coursework in web-based learning communities.
http://www.earthexpeditions.org/

Earth Gauge Courses - Online
Earth Gauge is a weather and environment program of the National Environmental Education Foundation and the American Meteorological Society. Earth Gauge provides free environmental education materials to broadcast meteorologists that they can use on-air in their TV or radio forecasts and in other media. In addition, they offer free on-line courses, designed to train meteorologists, but also useful tools for educators.
http://www.earthgauge.net/wp/courses

Earth System Science Course - Online
SCED 507 is an Earth system science course designed for middle school teachers, offered this fall through Texas A&M University–Texarkana. Students develop Earth system analyses in relation to specific environmental events; create collaborative, inquiry-based classroom applications; and use technology as a learning and teaching tool for grades 5-8 students.
Contact David Allard, David.Allard@tamut.edu

Earth Then, Earth Now: Our Changing Climate - Online
NOAA and Sally Ride Science offered this educator conference, July 23-24, 2008, to teach K-12 educators how to integrate the science of earth's changing climate into their classroom lesson plans. The webcasts, available as streaming video, are now available online for those who were unable to attend.
http://www.sallyridescience.com/for_educators/conferences/climate/live

Earthworks: Earth System Science Workshop - Colorado
The Cooperative Institute for Research in Environmental Sciences at the University of Colorado at Boulder offers *Earthworks*, a free, one-week workshop designed to help secondary teachers create earth system science research projects for their students. *Earthworks*, June 24 - July 1, 2006 in Boulder, Colorado. Teachers will work in small groups with scientists in designing and conducting research projects and investigating Earth system science at the local level through the interconnections between the geosphere, atmosphere, biosphere, and hydrosphere.
http://cires.colorado.edu/education/k12/earthworks/

Eco-Art Professional Development via Kayak - Texas
This free professional development workshop, October 11, 2008, is designed to show Galveston County teachers different methods of learning via a science and art integrated kayak adventure. Learn about Galveston Bay, non-point source pollution, and more while interpreting nature's beauty into a watercolor painting.
Contact Rani Henderson at rhenderson@artistboat.org

Ecological Field Studies – Online
The Montana State University On-Line Course - Environmental Science Education: Fall Ecological Field Studies, which will take place from September 19 - December 9, 2005, is designed for educators of students in grades 6-12 who are interested in integrating inquiry oriented, experienced-based, environmental studies into their educational program. Participants will learn basic ecological field study techniques and conduct studies in their local environment.
http://www.scienceteacher.org/courses/edci580FldStdA.htm

Ecological Teaching and Learning Program – Massachusetts and Online
The Audubon Expedition Institute at Lesley University in Cambridge, Massachusetts offers a Master of Science in Ecological Teaching and Learning, an 18 month program for working educators in schools, museums, and nature centers. Students explore the integration of ecological concepts into the curriculum. The program includes field experiences and online courses while the educators use their own classrooms as practicum settings and create a self-designed project.
http://www.lesley.edu/gsass/audubon/etl_index.html

Ecology of Harmful Algal Blooms - Online
The Center for Ocean Sciences Education Excellence-West invites educators to join in an online workshop to learn about Harmful Algal Blooms (HABs), March 4-19, 2006. Learn about HABs: what they are; how they occur; their importance, and how you can use them to teach science. The workshop is free but the number of participants is limited.
http://www.coexploration.org/cosee_west/index.html

Ecosystem-Based Management Tools Webinars - Online
The Ecosystem-Based Management (EBM) Tools Network hosts presentations and demonstrations of EBM tools and strategies. Interested parties can view the demonstrations real time through the Internet, or by downloading pdfs and/or audio recordings from the website at a later date. Upcoming webinars include management strategy evaluation tools, Fishery Analyst (ArcGIS), and more.
http://www.ebmtools.org/tools_training/presentations.html

Education and the Environment Initiative Workshops - California
The California Environmental Protection Agency and the California Integrated Waste Management Board invite participants to learn more about the Education and the Environment Initiative and become part of the statewide effort to implement this initiative. Participate in one of six regional professional development workshops across the state followed by two rounds of technical assistance workshops in those same regions, in May, July, and August, 2006, to inform California's environmental organizations.
http://www.calepa.ca.gov/Education/EEI/

Education Programs for Youth: School's Out! – West Virginia
This three-day course from the Fish and Wildlife Service, March 20-22, 2006 in Shepherdstown, West Virginia, presents participants with the elements of designing outdoor programs for youth in a non-formal setting, such as wildlife refuges, parks, and elsewhere. The course offers opportunities to create or modify natural resource focused youth programs and staff training for these programs that help to address site missions and/or management objectives. Participants will use a program design model to work on their own youth program during the course, then complete and implement it as a required post-course assignment. Apply on-line (program OUT 8162) or contact Georgia Jeppesen at Georgia_jeppesen@fws.gov for an application. The registration deadline is January 23, 2006.
http://training.fws.gov/applic.html

Education Program Evaluation
The U.S. Fish and Wildlife Service's National Conservation Training Center will host *The Education Program Evaluation course* (OUT8102), January 27-30, 2004, Shepherdstown, West Virginia. The course provides an overview of conducting evaluations for education and outreach programs and a chance to practice skills in designing and using evaluation tools for surveys, interviews, and observations.
http://training.fws.gov/courses.html

Education Programs For Youth; School's Out! – West Virginia
Education Programs For Youth; School's Out! (OUT8162) is a 3-day course offered by the U.S. Fish and Wildlife Service at the National Conservation Training Center in Shepherdstown, West Virginia. The course presents participants with the elements for designing outdoor programs for youth (e.g. after school, day and residential camps, and weekend programs) in a non-formal setting, such as wildlife refuges and parks.
http://training.fws.gov/courses.html
Contact Georgia Jeppesen at georgia_jeppesen@fws.gov

Educational Value of Coastal Observing Systems – Hawai'i
The special session, *The Educational Value of Coastal Observing Systems,* will be held during the 2006 Ocean Sciences Meeting, February 20-24, 2006 in Honolulu, Hawai'i. This session is designed for those interested in and involved in translating ocean

observing data, research, and content to students of all levels. The goals of this session are to share methods, practices, and lessons learned involved in teaching and translating near- and real-time data to classrooms and outreach programs.
Contact Amy Holt Cline at amy.cline@unh.edu, or Tom Shyka, tom@gomoos.org
http://www.agu.org/meetings/os06/

Educators' Workshop and Public Lecture - California
The Cabrillo Marine Aquarium will host a free educators' workshop, *Catch on! Fish Contamination, Bioaccumulation and Healthy Fishing*, June 9, 2007 in San Pedro, California, featuring inquiry-based, hands-on exercises for K-12 educators. The lecture, "DDT, PCB, past mistakes and the legacy left behind: what can we do now?" for both workshop participants and the public, will take place from 10:30 a.m.–noon. To register for the K-12 educators' workshop, contact the COSEE-West office at cosee.west@gmail.com; no registration is needed to attend the lecture.

EE and Diversity Workshops
EETAP and Intercambios offer professional development diversity workshops for environmental educators. The workshops explore multicultural issues as they occur in the real world of environmental education through case study discussion. Participants explore the intersection of EE and cultural diversity and identify steps that can be taken to make one's own organization and program more inclusive and culturally diverse.
http://eetap.org/html/workshops.php

E.E. Just Environmental Leadership Institute – New Hampshire
The E.E. Just Environmental Leadership Institute for Educators and Students at Kimball Union Academy in New Hampshire is an integrated summer environmental studies program for students and educators. Their mission is to train and empower participants to become the environmental leaders of tomorrow. Educators will learn how to weave inquiry-based learning units into their curricula. Includes three-weeks of field trips, laboratory investigations, and group problem-solving.
http://www.eejust.org/

EETAP Diversity Workshops for Environmental Educators
The Environmental Education and Training Partnership (EETAP) offers professional development diversity workshops for environmental educators. The workshops explore multicultural issues as they occur in the real world of environmental education through case study discussion. Participants explore the intersection of EE and cultural diversity and identify steps that can be taken to make one's own organization and program more inclusive and culturally diverse.
http://www.eetap.org/html/new_products.php#PRODUCT_5 .

EETAP Fall Courses - Online
The University of Wisconsin-Stevens Point and the Environmental Education and Training Partnership (EETAP) offer the following online fall courses

- Applied Environmental Education Program Evaluation, September 8-December 5, 2008
- Fundamentals of Environmental Education, September 8 - November 28, 2008
- Leadership Development in Natural Resources: Strategic Planning and Implementation, September 22-November 21, 2008

http://www.uwsp.edu/natres/eetap/index.aspx

EETAP Spring Courses - Online
The University of Wisconsin-Stevens Point and the Environmental Education and Training Partnership (EETAP) offer the following online spring courses

- Applied Environmental Education Program Evaluation, February 2-May 1, 2009
- Fundamentals of Environmental Education, February 2-April 24, 2009
- Making EE Relevant for Culturally Diverse Audiences, February 2-April 10, 2009

The deadline for registration is January 2, 2009.
http://www.uwsp.edu/natres/eetap/index.aspx

e-Learning Design Workshop - Online
This e-Learning Design workshop, July 10-October 21, 2006, will engage participants in the process of designing an e-Learning project for their organization. Learn the differences between classroom and online instruction, review technology and the issues surrounding them, and learn a quick model for e-Learning instructional design. In the end, participants will have a draft design of their project. Credit is available through University of Alaska.
Contact Sandi Sturm at ssturm@creative-conservation.com

E-Learning Opportunities from Creative Conservation
Creative Conservation designs, develops, and teaches professional development e-Learning programs. Upcoming offerings include Project WILD and Project Learning Tree professional development workshops. Special professional development for K-12 and non-formal educators in Alaska includes Alaska Wildlife Curriculum, Fire! In Alaska, and Project Learning Tree/Project WILD.
http://www.creative-conservation.com/trainingopps.htm

Emerging Scientist Project – Washington, DC
The NOAA Chesapeake Bay Office's Emerging Scientists Project (ESP) provides urban high school teachers with the means to bring oceanic and atmospheric sciences into their classrooms and the opportunity to get their students into the field. The project encourages youth to pursue careers in science, technology, engineering, and math as well as increases understanding of and appreciation for the resources of the Chesapeake Bay. NOAA is currently recruiting a new class of ESP teachers in the Washington, D.C. area.
http://noaa.chesapeakebay.net/EmergingScientist.aspx

Enduring Resources for Earth Science Education
The Enduring Resources for Earth Science Education (ERESE) Teachers Workshop will be held at the Scripps Institution of Oceanography, July 11-24, 2004. The two-week summer workshop is open to middle and high school teachers who teach Earth science concepts. Participants will learn how to create Enduring Resources.
http://earthref.org/events/ERESE/2004/

Energy: Stop Faking It! - Online
Plan ahead. Sign up for free web seminars, offered by the National Science Teachers Association, featuring the author of the publication, *Energy: Stop Faking It!* designed for grade 4-8 level educators. The author will guide participants through easy-to-understand explanations and perform activities that will enhance participants' knowledge of common physical science concepts, including potential energy, kinetic energy, work, and the transformation of energy.
http://institute.nsta.org/Anaheim/energy/webseminar.asp

Environmental Affairs - Global Issue, Local Action – Online
This free community-based online course aims to lead students to resources on threats to the environment, and to information on approaches to understand and manage these threats. The resources include case studies, online exercises, and interactive sessions.
http://www.suite101.com/course.cfm/17295/overview

Environmental Art Exhibit - California
This Environmental Art Exhibit takes place in Riverside, California on April 7, 2005. This year's theme is water. All artwork must pertain to water and/or water-related issues. The website has environmental art lesson plans and standards-aligned ideas. The entry deadline is March 19, 2005.
http://www.creec.org/region10/stories/storyReader$20

Environmental Communication for Behavior Change - Online Short Course
This course, from February 7 - March 4, 2005 and January 17 – February 24, 2006, provides environmental professionals with a practical introduction to the strategies, methods, and tools of environmental communication that effectively lead to changes in behavior. The field-based skills gained through this course will benefit all practicing environmental professionals faced with the challenge of changing behaviors. The course is facilitated by the Duke Environmental Leadership Program at Duke University. Duke University's Environmental Leadership Program offers the online course, Environmental Communication for Behavior Change, January 16-February 25, 2007.
http://www.nicholas.duke.edu/del/continuinged/envcommunication.html
http://www.nicholas.duke.edu/del/continuinged/envcomm.html

Environmental Communication for Behavior Change - Online
The Duke Environmental Leadership Program offers the online course, Environmental Communication for Behavior Change, January 15-February 24, 2008 and again January 13-February 22, 2009. The course provides environmental professionals with an introduction to the strategies and tools of environmental communication that effectively lead to changes in behavior. The environmental social marketing tools gained will benefit all practicing environmental professionals faced with the challenge of changing behaviors.
http://www.nicholas.duke.edu/del/continuinged/envcommunication.html

Environmental Concern's Wetlands Training Schedule for 2004
Environmental Concern, Inc. has posted their schedule for wetlands training for the upcoming year. In addition to advanced delineation techniques, topics include Fern and Fern Allies ID, Grasses, Sedges and Rushes, Wetland Botany for Non- Botanists, Wetland Mitigation Design. There are also plans to offer their WOW! and POW! workshops in Puerto Rico.
www.wetland.org .

Environmental Education in the Albemarle-Pamlico Sounds Region Workshop
The North Carolina Department of Environment and Natural Resources offers the 2004 Environmental Education Institute, *Environmental Education in the Albemarle-Pamlico Sounds Region*. This is a free professional development opportunity for K-12 teachers to integrate Environmental Education into North Carolina's Standard Course of Study Curriculum focusing on inquiry-based field investigations and hands-on activities. Curriculum materials are provided.

http://www.ee.enr.state.nc.us/Institutes/APNEP%20Institute%20Info%202004.htm .

Environmental Education Courses - Online
The Environmental Education and Training Partnership (EETAP) and the University of Wisconsin, Stevens Point offer these twp online courses for the summer and fall of 2008. Scholarships are available.

- Applied Environmental Education Program Evaluation, June 2-Augus 22 and September 8-December 5, 2008
- Fundamentals of Environmental Education, June 2-August 15 and September 8-November 28, 2008

http://www.uwsp.edu/natres/eetap/index.aspx

Environmental Education Master's Series - Maryland
The College of Notre Dame of Maryland and Environmental Concern, Inc. are collaborating to support the development of highly qualified science teachers in Maryland with an environmental education master's series focusing on wetlands education. Courses include Watershed Field Ecology for Educators, Bay Animals for Educators, Wetlands for Educators, and more. Each course requires the completion of a project. The 2007/8 series will be held in Anne Arundel County in Maryland.
Contact Sr. Sharon Slear at sslear@ndm.edu or Bronwyn Mitchell at dir.educate@wetland.org

Environmental Education Methods
Environmental Education Methods (OUT8160) is a 4-day course offered by the U.S. Fish and Wildlife Service at the National Conservation Training Center in Shepherdstown, West Virginia, September 13-16, 2004, September 11-14, 2006. It helps participants incorporate evaluation strategies into program planning and implementation, and learn about working with students, teachers, youth groups, and their leaders, both on and off public lands. This course is only offered alternate years.
http://training.fws.gov/courses.html,
georgia_jeppesen@fws.gov, 304-876-7366.
http://training.fws.gov/catalog/coursecontents.html

Environmental Educator Workshop - Alaska
This teacher workshop is sponsored by Center of Instruction, Professional Development, and Evaluation, and will take place June 18-24, 2006 in Seward, Alaska. Participants will experience six days of glaciers, fjords, and wildlife in Alaska while learning Investigating and Evaluating Environmental Issues and Actions (IEEIA), an environmental education curriculum and the focus of the workshop.
http://eelink.net/cgi-bin/ee-link/newclick/515645

Environmental Educators Training Program - California
The Environmental Educators Training Program, cooperatively presented by the Headlands Institute, the National Park Service and UC Berkeley Extension, is a residential training program for formal and nonformal educators to enhance knowledge of environmental sciences, concerns, and skills for teaching integrated, hands-on curriculum. This five-day residential course was offered July 26-30 or August 9-13, 2004, and August 1-5 or August 8-12, 2005, and July 31-August 4, 2006 and August 14-18, 2006 in Sausalito, California.
http://www.yni.org/hi/educator.html .

Environmental Educators Training Program – California
The Marin Headlands Environmental Educators Training Program provides teachers and non-traditional educators with skills to create hands-on science standard relevant curriculum for students. The program is presented in partnership with the National Park Service and includes five days of instruction, field trips, seaside lodging, and all meals. Scholarships are available. Two sessions are offered: July 28–August 1, 2008 and August 11-15, 2008, in Sausalito, California.
http://yni.org/hi/adulted/index.php

Environmental Film and Video Festival - Call For Submissions
The Toronto International Environmental Film and Video Festival has issued a call for submissions for *Planet in Focus: Toronto International Environmental Film and Video Festival*, September 28 - October 2, 2005. Toronto, Canada. Submissions of films and videos are invited that critically examine the concept of 'environment' and challenge current human/nature relations.
http://www.planetinfocus.org/festival/submissions.shtml

Environmental Learning Institute
The Environmental Learning Institute is a not-for-profit organization working with host-country communities, scholars, and institutions to conduct community-based environmental research and offer undergraduate and graduate field study courses in various natural and cultural scientific disciplines. The courses employ an action-research model working with communities on locally identified projects that serve the public good.
http://www.environmentallearning.org/index.htm

Eonfusion 4D Analysis Tool Webinar - Online
The Ecosystem-Based Management Tools Network will host a web-based demonstration of Eonfusion, January 14, 2009, a new software tool that provides 4D analysis and visualization of time-varying spatial data. It allows users to streamline the integration of large and diverse data sets, explore relationships among multiple variables, and communicate complex results. A recording of this presentation will be made available on the EBM Tools Network a few days after the presentation.
https://www1.gotomeeting.com/register/146610135
http://www.ebmtools.org/tools_training/presentations.html

Estuaries 101 and Chesapeake Exploration - Virginia
The Chesapeake Bay National Estuarine Research Reserve and the Virginia Institute of Marine Science offer this 4-day curriculum training opportunity, August 11-14, 2008, in Gloucester Point, Virginia. This workshop is designed to provide teachers from throughout the Chesapeake Bay region with the resources, knowledge, and experience necessary to facilitate the integration of estuaries and their related issues into the classroom using the curriculums *Estuaries 101* and *Chesapeake Exploration*.
Contact Sarah McGuire at mcguire@vims.edu

Estuaries to the Abyss Expedition Professional Development Institute – South Carolina
A Professional Development Institute for the Estuaries to the Abyss Expedition, from August 20-September 1, 2004, focused on the expedition, which used a variety of tools to map and describe the unique bottom features, faunas, and ecology of the Florida-

Hatteras Slope, the Charleston Bump, and Blake Escarpment off the Southeastern coast of the U.S. Scientists explored faunal change and human impact along a gradient that includes increasing depth and distance from land.
http://oceanexplorer.noaa.gov/explorations/04etta/welcome.html .

Estuary Escapades - Georgia
Join the University of Georgia Marine Education Center and Aquarium on November 5, 2005, in Savannah, Georgia for the *Estuary Escapades Workshop*. Explore the world of Georgia's estuaries during the SouthEast Center for Ocean Sciences Education Excellence's third annual Ocean Awareness Day. This workshop includes an aquarium tour, hands-on activities on mapping, the Grays Reef education program *Rivers to Reefs*, and more.
http://eeingeorgia.org/net/calendar/details.aspx?c=27711&s=34956.0.68.4863

EstuaryLive: NOAA in the Carolinas 2007 - Online
Registration is now open for EstuaryLive: NOAA in the Carolinas, a celebration of 200 years of NOAA, which will be held May 9-11, 2007 in Beaufort, North Carolina. Lessons highlighted during this three-day, interactive, Internet field trip will provide information on basic estuarine features and species including seagrass, beach geology, oysters, dolphins, and more. Other lessons will focus on the scientists and agencies that study these estuaries, providing insight on the history of coastal studies.
http://estuaries.gov/elivenc07.html

E-Teaching: Preparing Successful Online Instructors
E-Teaching: Preparing successful online instructors is a five-week distance delivered course designed to prepare instructors to teach distance education. It explores the differences of traditional and virtual classrooms and many of the options in between, as reported by experts in the field of e-learning. It also shows applicable techniques for effective e-teaching and common mistakes to avoid.
http://www.creative-conservation.com/classes_eteach.htm

Eureka! Series - California
The California Institute for Biodiversity, in partnership with California State Parks, offers the Eureka! Series, field-based science education for California's students, including standards-based multimedia curriculum, intensive training for teachers that directly enables them to use the curriculum to its full potential and lead field trips, and material that is tailored to specific regions of California, making it more relevant to students' lives and their surrounding environment. The Eureka! Series is a collection of regionally-based programs throughout California that strategically combine high-quality, multimedia classroom materials with local field experiences in California's state parks and other natural areas. The goal of the program is to improve teaching, increase students' interest in science, and encourage academic achievement in the areas of science, math, and reading for students in grades 5-10.
http://eurekaseries.org/main/

Expanding the Ark: The Emerging Science and Practice of Invertebrate Conservation
Of particular note to New York area students due to the special student registration rate: The American Museum of Natural History's Center for Biodiversity and Conservation, in collaboration with Conservation International, the National Parks Service, NatureServe, the U.S. Fish and Wildlife Service, and the Xerces Society, convenes a two-day

symposium, March 24-25, 2004, New York City, New York, to examine the status of invertebrate biodiversity.
http://research.amnh.org/biodiversity/symposia/expandingthearc/ .

Explore Costa Rica
Join Mid-Atlantic Marine Education Association (MAMEA) members on a trip to Costa Rica, September 27-October 5, 2008, to experience the diverse terrain of the tropics. Highlights include lowland rainforests, active volcano, and transitional coastal ecosystems. Experience whitewater rafting, snorkeling, and much more.
http://www.holbrooktravel.com/MAMEA
For more information, contact Debbie Sturdivant at debbie@holbrooktravel.com or Terri Kirby Hathaway at terrikh@csi.northcarolina.edu

Exploring Marine GIS: An ArcGIS Field and Lab Course - Mexico
Coastal Ecosystems Research Foundation is hosting an immersion week in geospatial sciences and marine biology, March 6-12, 2006 in San Ignacio Lagoon, Mexico.
This course is for both beginning and advanced GIS users. Participants will integrate these skills and perform exercises and explore data modeling in GIS. Participants will work with graduate students and marine mammal biologists, collecting data on the distribution, behavior and ecology of gray whales occupying winter breeding grounds.
Contact Michelle Kinzel at kinzel@cox.net

Exploring the Coastal Wetlands of Texas
This workshop, sponsored by Texas Marine Education Association from September 26-28, 2008 in Port Aransas, Texas, will explore wetlands along coastal Texas as participants cruise Aransas Bay.
http://statweb.org/TMEA/wetlandsworkshop.html

Farallones Marine Sanctuary Association Workshops - California
The Gulf of the Farallones National Marine Sanctuary is celebrating its 25th anniversary, and is offering a variety of teacher workshops for educators to learn about ocean concepts, student monitoring projects, and current research related to the Gulf of the Farallones. The lectures and field trips will take place in and around San Francisco, California.

- LiMPETS Introduction to Rocky Intertidal Monitoring, February 24, 2007
- LiMPETS Introduction to Sandy Beach Monitoring, March 10, 2007
- Intertidal Invertebrate Ecology, March 17, 2007
- Shifting Seas of Sand and Other Geologic Processes, April 21, 2007

All workshops and seminars are free; K-12 teachers will receive a stipend for their attendance.
http://farallones.org/education/teacher_workshops.php

Farallones Teacher Workshops - California
The Farallones Marine Sanctuary Association is offering a series of teacher workshops throughout the 2007-2008 school year. Workshops are geared for middle and high school teachers, though all are welcome. All workshops are free and continuing education credits are available.
http://www.farallones.org/education/teacher_workshops.php

Festival of Whales Ocean Awareness Day - California
Dana Point Harbor will celebrate its 35th year with The Dana Point Festival of Whales, March 4-11, 2006, in Dana Point Harbor, California, to provide a greater awareness and understanding of the migrating California Gray Whale and the preservation of the ocean environment. The Ocean Awareness day will take place March 12, 2006, bringing together city, county, state, public and non-profit groups to reach out to the community to educate about the many different issues our oceans and its environment face.
Contact Kim Tilly at dkckc@cox.net

Field Ecology Course - Maryland
Montgomery College offers BI 208, Field Ecology, at its Rockville, Maryland campus. A combination of lecture, laboratory, and field exercises will be used to study a variety of ecosystems, with an emphasis on coral reefs and the Chesapeake Bay. On-campus instruction will be combined with six or more days of field trip studies. Field studies may be conducted at biological field stations located in the Florida Keys, the Bahamas, the Chesapeake Bay, or other sites.
http://www.mc.cc.md.us/Departments/biorv/courses.htm

Field Marine Study of Coastal Ecosystems - Maine
August 18-21, 2008, teachers will travel aboard the *Erica Lee* to survey the ecosystems of the lower portion of the Merrimack River, coastal Plum Island and Ipswich Bay, the Isles of Shoals, and Thacher Island. Particular emphasis will be paid to the rocky intertidal zone, fishing and the fishing industry, and the gull rookery.
Contact Kate Yeomans at Kate@boatcamp.org

Field Trip Basics and Curriculum Connections - Illinois
The Shedd Aquarium offers the free workshop, Field Trip Basics and Curriculum Connections, for K-8th grade teachers, every third Thursday in the fall, starting September 18, 2008, in Chicago, Illinois. Teachers will learn strategies for planning a focused and successful field trip, practice creating a pre-trip lesson plan, and more.
Contact Amy Christiansen at AChristian@sheddaquarium.org

FLEXE: From Local to EXtreme Environments - Mississippi
The Pennsylvania State and partners are offering this FLEXE/ GLOBE Teacher Workshop, *FLEXE: From Local to EXtreme Environments, Bringing Deep-sea Science into the Earth Science Classroom*, July 24-25, 2008, in Ocean Springs, Mississippi. FLEXE aims to help students understand remote environments through direct exploration of analogous systems in their local environment. The course will teach about extreme environments and implement a number of activities into their curriculum.
Contact Shelia Brown at shelia.brown@usm.edu

Floating Classroom Program - Texas
The Sea Grant Extension Floating Classroom Program of Texas A&M University will visit Galveston Bay from May 14-June 1, 2007. The purpose of this excursion away from its homeport of Matagorda is to provide Houston-Galveston Area students the opportunity to explore the waters and shores of this rich and dynamic estuary in a hands-on fashion.
http://www.mtshouston.org/floating_class.htm

Floods and Flows: Exploring Mars Geology on Earth – Montana
In this NASA-sponsored field-based workshop for middle school science teachers, participants will visit the site of Ancient Glacial Lake Missoula and tracing its flood waters

through Montana, Idaho, and into Washington. From these field experiences and accompanying classroom activities, participants will build an understanding of surface processes on Earth, including water flow, volcanism, glaciation, and sedimentation, and extend their understanding to interpret the features on the surface of Mars.
http://www.lpi.usra.edu/education/fieldtrips/2008/

Florida Reef Resilience Program Workshop
This workshop, offered March 9 and 10, 2006, will be the first in a series of public workshops that will include one or two-day sessions in 2006 and 2007. The program is designed to improve our understanding of coral reef resilience by exploring the biological and environmental aspects of reef health. Ultimately the program seeks to develop strategies to improve the health of Florida's reefs and enhance the economic sustainability of reef-dependent commercial enterprises.
Contact Anna Symington at asymington@tnc.org

Florida's Wildlife: On the Frontline of Climate Change - Florida
The Florida Fish and Wildlife Conservation Commission invites participation, August 20-22, 2008 in Orlando, Florida for an event focusing on Florida's Wildlife: On the Frontline of Climate Change. Learn from presenters and share your knowledge and expertise in one of five workshops to identify key research needs, improve awareness of impacts on wildlife, and develop ideas to optimize species conservation for integration into Florida Fish and Wildlife's comprehensive climate change strategy.
http://www.ces.fau.edu/floc/

Florida's Wildlife: On the Frontline of Climate Change
The Florida Fish and Wildlife Conservation Commission invites you to participate in the workshop, *Florida's Wildlife: On the Frontline of Climate Change*, August 20-22, 2008, in Orlando, Florida. Learn from presenters and share your knowledge and expertise in this workshop to identify key research needs, improve awareness of impacts on wildlife, and develop ideas to optimize species conservation for integration into Florida Fish and Wildlife's comprehensive climate change strategy.
http://www.ces.fau.edu/floc/index.php

Flower Garden Banks National Marine Sanctuary Education Workshop
K-12 educators are invited to participate in a two-part workshop, July 10-14, 2004, that concludes with a field experience in SCUBA diving in the Flower Garden Banks National Marine Sanctuary (FGBNMS). The land-based portion of the workshop includes lectures on basic coral biology, the National Marine Sanctuary Program, the FGBNMS and its current issues, and an introduction to reef fish identification.
http://flowergarden.noaa.gov

Flying Wild Educator Workshop - Georgia
This two day Flying Wild Workshop, June 27-28, 2007 or July 12-13, 2007 in Covington, Georgia, demonstrates activities from the Flying Wild Guide, provides instructions on how-to establish a schoolyard wildlife habitat, and helps teachers learn how to integrate bird education into their classroom curriculum.
http://www.eeingeorgia.org/net/calendar/details.aspx?c=32283&s=52045.0.68.4863

Flying WILD with Project WILD Workshop - Georgia
Flying WILD, from the Council for Environmental Education, introduces students to bird conservation through standards-based classroom activities and environmental

stewardship projects. This workshop will take place October 13, 2005 in Acworth, Georgia. Flying WILD encourages schools to work closely with conservation organizations, community groups, and businesses involved with birds to implement school bird festivals and bird conservation projects. Space is limited to 30 participants.
http://eeingeorgia.org/net/calendar/details.aspx?c=27390&s=32849.0.68.4863

Fort Fisher Teacher Workshops – North Carolina
The North Carolina Aquarium at Fort Fisher offers professional development workshops for classroom teachers and informal educators. The following workshops will be offered July 16-20, 2007.

- ***MAURY Project*** is a six-hour workshop for middle- and high-school teachers interested in integrating marine research and oceanography into classroom science.
- ***Aquariums Teacher Workshop*** introduces K-12 teachers to pre- and post-visit activities designed to enhance an aquarium field trip as well as integrate ocean awareness in the classroom across disciplines.
- ***Project WET*** provides water-education curriculum for K-12 teachers.
- ***Aquatic WILD*** introduces K-12 teachers to innovative and interactive curriculum designed to integrate aquatic environmental education in the classroom.
- ***Land of a Thousand Nests*** is designed to introduce participants to colonial nesting water birds.
  http://web.eenorthcarolina.org/net/org/info.aspx?s=43746.0.0.37430

Fort McHenry Field Day
The National Aquarium in Baltimore, in partnership with the National Park Service and others, announces a community volunteer field day on December 3, 2005 at Fort McHenry, Maryland. Volunteers will work together to remove debris, maintain trails, restore habitat, record wildlife observations, and more. Space is limited, so please register in advance.
Contact the Conservation Department at conserve@aqua.org or (410) 659-4274.

Fossils in the Classroom - Alabama
The Dauphin Island Sea Lab will offer a fossil workshop, March 17 and 18, 2007 in Coffeeville and Thomasville, Alabama. The workshop will introduce teachers to organisms from past seas of Alabama. Participants will spend a day in the field collecting fossils and then label these treasures to be carried back to their classrooms.
Contact Denise Keaton at dkeaton@disl.org

Fostering Sustainable Behavior Workshop – Massachusetts
Several Cape Cod organizations concerned with sustainability are hosting a workshop on January 24, 2005, in Hyannis, Massachusetts with respected world expert, Doug McKenzie-Mohr. The cornerstone of sustainability is behavior change. Sustainability requires individuals and businesses to act (e.g., reduce waste, increase water and energy efficiency and prevent pollution). Community-based social marketing, has emerged as an effective alternative for promoting sustainable behavior.
http://www.coastaltraining.org/events/jan_feb_mar_05.htm

Fragile Ice Seminar - Online
In honor of the International Polar Year, NASA, NSTA, NOAA, and NSF present The Fragile Ice, a web seminar for grades 5-8 educators. Dr. Waleed Abdalati, head of the

Cryospheric Sciences Branch at NASA's Goddard Space Flight Center, will be presenting online to share his expertise. Hurry – register online for the February 6, 2007 web seminar. The seminar will also be presented live at the NSTA National Conference March 30, 2007.
http://institute.nsta.org/fall06/ipyice/webseminar.asp

Fragile Ice Symposium - Utah
Celebrate the International Polar Year at the regional NSTA conference, December 8, 2006 in Salt Lake City, Utah. The Fragile Ice Symposium is designed for grade 5-8 educators in celebration of the International Polar Year. This event is a blended professional development experience that includes this face-to-face learning opportunity at the conference followed by online experiences (a discussion listserv and two NSTA Web Seminars) designed to extend the interactivity between the participants and the presenters.
http://institute.nsta.org/fall06/ipyice/symposium.asp

From Stream to Sea Seminar – New Mexico
The Albuquerque Aquarium will be hosting a professional development seminar for educators on February 17-19, 2006 in Albuquerque, New Mexico. The seminar, *From Stream to Sea: Connecting Classrooms, Local Watersheds and Marine Education*, will provide creative ways for teachers to utilize their student's local landscape--be it the bosque, the foothills, the desert or even the playground--to teach them about the importance and wonders of the ocean.
Contact Allyson Wallace at awallace@cabq.gov

From Watersheds to Oyster Beds
SouthEast Center for Ocean Sciences Education Excellence (SE-COSEE) and NOAA's SouthEast Phytoplankton Monitoring Network will host *From Watersheds to Oyster Beds,* a teachers' workshop. The workshop is open to 20 middle and high school teachers, and CEUs are available. Participants will engage in hands-on activities and receive free educational resources.
julie.cahill@noaa.gov or wendy.perry@noaa.gov.

Fundamentals of Environmental Education
The 10-week long, on-line course provides educators with the knowledge and skills necessary to incorporate environmental education into their instruction. Participants discuss the history, definition, and goals of environmental education, develop an understanding of the professional roles and instructional methods of environmental educators, and interact with other educators from across the country.
http://www.eetap.org/html/online_ee_course.php
http://www.uwsp.edu/natres/rwilke/eetap/ .

Fundamentals of Environmental Education - Online
The Fundamentals of Environmental Education online course will be offered June 4-August 17, 2007 and September 10-November 23, 2007, February 4-April 18, 2008. The course provides educators with the knowledge and skills necessary to incorporate quality environmental education into their instruction. Participants discuss the history, definition, and goals of environmental education; develop an understanding of the professional roles and instructional methods of environmental educators; and interact with other educators.
http://www.uwsp.edu/natres/rwilke/eetap/Website2006/FEE.htm

Galveston Bay Community Open House - Texas
The Galveston Bay Estuary Program invites you to attend a *Charting the Course to 2015 Galveston Bay* Community Open House. Learn about Galveston Bay's impact on our economic well-being, health, and quality of life, and how you can become involved in shaping its future. Open houses will be held throughout the Houston-Galveston region through the beginning of April. Be sure to check out the extensive information available on the website, including links to estuary education programs.
http://www.gbep.state.tx.us/hot-topics/ctc%20page.asp

Generation Earth Back To School Forum – Los Angeles County
This workshop, for Los Angeles County middle and high school teachers, August 28, 2004, offers environmental education resources and assists teachers in planning action projects for the coming year. Teachers will create a plan to increase the quality of environmental education in their classrooms. Generation Earth provides resources and referrals that support teachers' plans for the coming school year.
http://www.generationearth.com/action/index.htm .

Generation Earth Summer Institute - California
Generation Earth invites teachers and administrators from 6-12th grade Los Angeles County to this free workshop, July 25 - 26, 2007 in Pasadena, California. The workshop includes tools to create a standards-based environmental service learning project, exploration of environmental issues in Los Angeles, resource publications, auditing techniques for schools, personalized project support, free bus for a project-related fieldtrip, resource fair to network with community partners, and a Teacher Action Guide.
http://www.generationearth.com/eco/index.htm

Generation Earth Workshop - California
Generation Earth, an environmental education program of the County of Los Angeles and presented by TreePeople, offers a free workshop for secondary school teachers, February 11, 2006 in Beverly Hills, California. Generation Earth works to educate and empower secondary students in L.A. County to take an active part in solving environmental concerns in their community.
Contact Loyda Ramos at lramos@treepeople.org

Geophysical Prospection Workshop - Georgia
The National Park Service sponsored sixteenth annual archaeological prospection techniques workshop, *Current Archaeological Prospection Advances for Non-Destructive Investigations in the 21st Century*, May 15-19, 2006, on St. Simons Island, Georgia is dedicated to the use of aerial photography, geophysical, and other remote sensing methods to identify, evaluate, conserve, and protect archaeological resources. This workshop will focus on the theory of operation, methodology, processing, interpretation, and on-hands use of field equipment.
http://www.cr.nps.gov/mwac/

Georgia Adopt-A-Wetland Training
The Coastal Georgia Adopt-A-Wetland Program is a hands-on education program that promotes wetland conservation through volunteer monitoring. The organization offers chemical and biological Adopt-A-Wetland Training workshops for adults and students. Participants will learn how to assess water quality and then receive all equipment

needed to assess environmental health at an adopted site of their choice. Admission is free, but registration is required.
http://www.eeingeorgia.org/net/content/go.aspx?s=52177.0.68.4863

Georgia Shore Program
The University of Georgia presents the Georgia Shore Program: Using the Marine Environment as a Model for Integrating Science and Math, June 7-22, 2005, on Skidaway Island, Georgia. Immerse yourself in a coastal Georgia experience, bring inquiry-based activities back to you classroom, and conduct your own research. The two-week class is supported by an "Improving Teacher Quality" grant to the Marine Education Center and Aquarium.
http://www.uga.edu/aquarium/workshops/SHORE.html

Georgia's Native Waters and the Leopold Education Project
Georgia's Native Waters and the Leopold Education project workshops will create awareness among participants about the important role the environment can play in their classrooms. Learn the skills necessary to complete interactive projects for the indoor and outdoor classroom. Connections will be made to the curriculum by participating in hands-on activities and scientific investigations.
http://www.gaconservancy.org/Events/Event.asp?id=301&yy=2007&mm=2&dd=9

Georgia's Shorebirds Conservation Workshop
Join birding experts and biologists for an exciting weekend of learning, December 2-4, 2005, on Sapelo Island, Georgia. Venture out to the beach to probe the sands as the birds do, take a close look at what they're feeding on, and create your own shorebird nest. This workshop is open to K-12 teachers.
http://eeingeorgia.org/net/calendar/details.aspx?c=27712&s=34959.0.68.4863

GIS Faculty Development Institutes - California
The Marine Advanced Technology Education (MATE) Center announces two faculty development institutes for summer 2005:

- Creating a GIS Field Project to Address Marine and Coastal Issues, June 27-July 2, 2005, and
- Building Remotely Operated Vehicles (ROVs), July 30-August 5, 2005.

There is no fee for participating in the institutes. Some travel stipends, accommodations, and meals are available. In addition to classroom and hands-on time, participants will take field trips around the Monterey Bay area.
http://www.mpcfaculty.net/tami_lunsford/SI_05_Institute/Information.htm

GIS Ocean Explorers Project in California
The Ocean Explorers project is a 3-year NSF funded project for middle and high school teachers to lead teams of teachers in the creation of lesson plans utilizing GIS technology in the study of the Channel Islands National Marine Sanctuary. There will be 2-3 day GIS introductory workshops in LA, as well as travel to the Channel Islands for a week-long research expedition this summer.
http://www.exploreoceans.org .

GIS and Underwater Robotics Workshops - California
The Marine Advanced Technology Education Center is offering two free Summer Institutes for 2006, in Monterey, California. *Creating a GIS Field Project to Address Marine and Coastal Issues*, July 8-14, 2006 will lead educators through each step of

creating their own GIS projects to use their classrooms. *Building Remotely Operated Vehicles*, July 31-August 5, 2006, will teach educators the basic skills to help their students build ROVs that can compete in ROV competitions.
http://www.mpcfaculty.net/tami_lunsford/SI_06_Institute/Information.htm

GIS Workshops at National Marine Sanctuaries – Florida and Massachusetts
A three-day geographic information systems (GIS) workshop for teachers will be offered at two marine sanctuaries. During the workshop, teachers will receive hands-on training in GIS and global positions systems technologies, and learn how they can be used to study the marine environment. Participants will receive complimentary copies of the Exploring Data with GIS to Experience Marine Sanctuaries (EDGES) curriculum and Mapping Our World curriculum, and a one-year site license for ArcView GIS software.

- Florida Keys National Marine Sanctuary, Key Largo, Florida, June 22-24, 2005
- Stellwagen Bank National Marine Sanctuary, Scituate, Massachusetts, July 6-8, 2005.

Contact Jenny Brady at jennyb@evisual.org

Glaciers and Global Sea Level Rise – California and Online
The Center for Ocean Sciences Education Excellence-West invites you, your colleagues and students, family and friends, to learn more about the ocean's impact on our changing world. The *Glaciers and Global Sea Level Rise* lecture will take place November 16, 2005 in Los Angeles, California. The public lecture will be followed by session for K-12 teachers and informal educators. A related workshop on November 19, 2005 will provide K-12 teachers and informal educators with additional content and inquiry-based classroom activities. The lecture can be accessed online after logging in to the College of Exploration website.
http://www.usc.edu/org/cosee-west/
http://www.coexploration.org/

Glacier Bay eFieldTrip
The eFieldTrip, "Glacier Bay: A Living Laboratory for Studying Marine Mammals" premiered February 27, 2006, and is designed to meet state and national education standards. This is offered as a free educational outreach opportunity. In addition to the virtual visit and trip journal, on March 8 and 9, 2006, the park will host *Ask the Experts*, encouraging students to post questions through the website, to be answered by experts at Glacier Bay National Park and Preserve.
http://www.efieldtrips.org

Global Climate Change and Informal Earth System Science - Online
SUNY College at Oneonta offers this online, 10-week graduate course, designed to provide professional development for the informal Earth system science education community. The first module, Global Climate Change, discusses recent scientific study on global climate change. The second module, Earth System Science in Your Backyard, provides the tools for creating in-house, inquiry-based Earth science education products focusing on the participants' local geology and existing collections/exhibits/programming.
Contact Carlyn Buckler at csb36@cornell.edu

Global Issues and Sustainability Summer Institute – New Hampshire
Facing the Future is facilitating a one-week summer institute on July 9-14, 2006 in Meriden, New Hampshire, *It's All Connected: Integrating Global Issues and Sustainability across the Curriculum*. Get an in-depth look at global issues and

sustainability while working with middle and high school teachers from around the country.
http://www.eejust.org/educators/connected.html

GLOBE Watershed Project Educator Workshop - Colorado
GLOBE and The Geographic Data in Education Initiative at Northwestern University are looking for middle-high school science teachers to participate in an Earth system science education project that connects students with real scientific data sets for a workshop August 7-9, 2007 in Boulder, Colorado. The GLOBE Watershed Dynamics Project offers students the opportunity to conduct investigations on watershed behavior on local, regional, and national scales.
http://www.globe.gov/fsl/html/templ.cgi?watersheds&lang=en&nav=1

Google Ocean - from Sneakers to Sea Lions Workshop - California
The Center for Marine Studies offers this free workshop for middle and high school teachers, Saturday, May 12, 2007 in San Pedro, California. The workshop includes tours of two rescue facilities, working with GIS data and Google Earth, information about pinnipeds and marine birds, and more.
Contact Todd Shattuck at todd.shattuck@lausd.net

Got the HOTS for Inquiry? - Online
This free digital workshop from ED.gov shows how to increase student learning by integrating inquiry and Higher Order Thinking Skills (H.O.T.S.) into instruction; discusses how to incorporate inquiry and the revised Bloom's Taxonomy into student assessment; disaggregate the scientific method and connect it to inquiry; and discuss assessments for inquiry and H.O.T.S. Science classroom activities are also presented within the workshop.
https://www.t2tweb.us/Digital/workshop_hots/index.html

Grant Development Workshop – Michigan and Ohio
Sponsored by the Grant Training Center, these intensive three-day grant proposal workshops are geared for those who wish to strengthen their grant writing skills and for beginners who wish to acquire and master the techniques of preparing, writing, and winning proposals from various funding agencies. The center of attention will be on how to effectively tell the story that leads to funding, be it for the researcher, educator, or the non-profit professional.
http://www.granttrainingcenter.com

Grant Proposal Writing Workshop
The Grant Institute's *Grants 101: Professional Grant Proposal Writing Workshop* will be held August 21-23, 2006 in Ann Arbor, Michigan. The course introduces the process, structure, and skill of professional proposal writing for development professionals, researchers, faculty, and graduate students. Participants will learn the entire proposal writing process and complete the course with a solid understanding of the ideal proposal structure and factors which determine whether or not a program gets funded.
http://www.thegrantinstitute.com

Great Barrier Reef Study Program - Australia
The Great Barrier Reef Study Program offers field intensive, academic short courses providing students the opportunity to undertake field-based experiential learning in Queensland's marine environment. The courses are in a classroom which includes the

Great Barrier Reef and Moreton Bay Marine Parks. Courses include coral reef ecosystems, marine neurobiology, coastal resource management, and more.
http://www.cms.uq.edu.au/GBRSP/whatis.htm

Great Lakes Institute Teacher Workshop
Lake Michigan Federation, Indiana Dunes Environmental Learning Center, and Indiana Dunes National Lakeshore present the Great Lakes Institute Teacher Workshop, July 18-23, 2004. Teachers will spend 4 nights on board an EPA research vessel and one at the Learning Center. Materials and activities will include excerpts from the *Great Lakes In My World* curriculum. Citizen science projects will be the theme of this workshop, with activities from GLOBE, Adopt-a-Beach and the Midwest Clamwatchers projects.
http://www.nps.gov/indu/learning/duneseducatorinstitutes.htm .

The Great Lakes Rock! - Online
Centers for Ocean Sciences Education Excellence Great Lakes offers archives of this online workshop, focusing on the geology of the lake basin and its relevance to the lakes themselves and the life of the region. Educational materials include invasive species, fisheries, Great Lakes background information with maps and photos, music, and much, much more.
http://www.coexploration.org/coseegreatlakes/

Green Eggs and Sand Workshops – Delaware and Georgia
The Green Eggs and Sand Horseshoe Crab and Shorebird Professional Teacher Development workshops will feature presentations from scientists and resource managers, along with field trips to take part in spawning surveys and search for eggs and shorebirds. Participants will receive training from teachers who have developed learning modules; in addition, participants will receive middle and secondary level classrooms materials and resources about the horseshoe crab/shorebird phenomena.

- May 4–6, 2007 in Savannah, Georgia, contact Dodie Sanders at sandersd@uga.edu
- May 18-20, 2007 in Dover, Delaware, contact Gary Kreamer at gary.kreamer@state.de.us

Green Eggs and Sand Workshops – Georgia, Delaware, New York
The Green Eggs and Sand workshops are designed to explore the Atlantic Coast horseshoe crab/shorebird phenomenon and management controversy. There are three Green Eggs and Sand workshops scheduled:

- May 2-4, 2008, Savannah, Georgia
- May 16-18, 2008, Lewes, Delaware
- June 20-22, 2008, Long Island, New York

Contact Jennifer Holmes at Jennifer.Johnson@state.de.us

Green Eggs and Sand Workshop - Georgia
The Green Eggs and Sand Horseshoe Crab and Shorebird Education Workshop co-sponsored by Sapelo Island National Estuarine Research Reserve and the University of Georgia Marine Education Center, will be held April 28-30, 2006 in Savannah, Georgia. Participants will receive training to educate middle and secondary students about the horseshoe crab/shorebird phenomena.
http://eeingeorgia.org/net/calendar/details.aspx?c=27719&s=34995.0.68.4863

Green Eggs and Sand Workshops – Delaware, Georgia, and Massachusetts
The Green Eggs and Sand team is offering three full weekend workshops along the Atlantic coast for spring of 2006. Participants will learn about a globally significant ecological phenomenon and take home the middle/high school-targeted curriculum package which is keyed to national standards and offers videos and activities.

- Savannah, Georgia, April 28-30, 2006; contact Dodie Sanders at sandersd@uga.edu
- Smyrna, Delaware, May 19-21, 2006; contact Gary Kreamer at gary.kreamer@state.de.us
- Sandwich, Massachusetts, June 10-11, 2006; contact Katy O'Connell at katy.oconnell@state.de.us

Grounds for Teaching: Watershed Institute - Maryland
The Maryland Association for Environmental and Outdoor Education offers this four-day institute, March 20-23, 2770 in Anne Arundel County, Maryland, which will cover the best available science for using small spaces to help improve habitat diversity along with air and water quality. This workshop is designed for the informal educator who wants to incorporate more habitat restoration into their program.
Contact: habitat@maeoe.org

Guiding National Ocean Research Investment - Colorado
The National Science and Technology Council is holding a public workshop, April 18-20, 2006 in Denver, Colorado, to solicit input and guidance from the ocean science communities on the Ocean Research Priorities Plan called for in the Ocean Action Plan. In addition to the workshop, interested parties will have the opportunity to provide comments during a 45-day public comment period, scheduled to open mid-March, 2006.
http://ocean.ceq.gov/about/jsost_workshop/welcome.html

Gulf Coast Research Laboratory Summer Field Courses - Mississippi
Explore the plants, animals, and ecology of the northern Gulf of Mexico and the Mississippi coast. A variety of undergraduate and graduate summer field courses are offered at the gulf coast research laboratory campus of the University of Southern Mississippi, including barrier island ecology, marine mammals, elasmobranch biology, coastal ornithology, and more.
http://www.usm.edu/gcrl/summer_field/index.php

Gulf of the Farallones National Marine Sanctuary Teacher Workshops - California
The Gulf of the Farallones National Marine Sanctuary provides opportunities for teachers and educators to learn about ocean concepts, student monitoring projects, and current research related to the Gulf of the Farallones through the Farallones Marine Sanctuary Association's teacher workshops. The workshops and seminars are free and K-12 teachers will receive stipends for their attendance. Upcoming workshops in spring, 2007, include rocky intertidal and sandy beach monitoring, intertidal invertebrate ecology, and sand and other geologic processes. All workshops are free and include both lecture and field excursion; K-12 teachers will receive a stipend for their attendance.

- LiMPETS Introduction to Sandy Beach Monitoring, March 10, 2007
- Intertidal Invertebrate Ecology, March 17, 2007
- Shifting Seas of Sand and Other Geologic Processes, April 21, 2007

http://farallones.org/education/teacher_workshops.php

http://farallones.org/education/teacher_workshops.php

Hampton Roads Naval Museum Teacher Seminar - Virginia
The Hampton Roads Naval Museum and the NOAA Monitor National Marine Sanctuary will hold a teacher seminar on the *USS Cumberland* and underwater archaeology, August 17, 2007 in Norfolk, Virginia. Learn about the archaeology of the *Cumberland* and *USS Monitor* and take home resources for use in your classroom. Lessons and activities are geared for high school science and history teachers.
http://monitor.noaa.gov/news/pdfs/hrnm_workshop.pdf

Hands-on Learning in the Ballona Wetlands - California
The Center for Ocean Sciences Education Excellence-West (COSEE-West) invites you to wade into the water, November 19, San Pedro, California, for environmental and marine science research and education. K-12 teachers may receive documentation for professional development hours upon request. Additional content information and classroom materials will be provided.
Contact Peggy Hamner at phamner@ucla.edu.

Hatfield Marine Science Summer Sessions - Oregon
The Hatfield Marine Science Center offers seven different courses during two summer sessions. Courses are for upper level undergraduates, graduate students, teachers, and other professionals.
http://hmsc.oregonstate.edu/classes/summer/

Hawaiian Fishponds Workshop
This free teacher workshop, July 10, 2004, Maui, Hawaii, focuses on science, social studies, Hawaiian culture and language, through the study of native Hawaiian fishponds. The program, presented by NOAA's National Marine Sanctuary Program, is funded by the U.S. Department of Education to develop culturally relevant curricula utilizing the Hawaiian fishpond as a resource. Project Kähea Loko, “Call of the Pond,” has developed these curricula in partnership with the Hawai’i Department of Education and others. Kaimana Lee, (808) 879-2818.

Holbrook Global Field Expeditions – Costa Rica
Holbrook Global Field Expeditions offers a series of international professional development workshops. Travel and study with the Florida Marine Science Educators Association, July 19-27, 2007, to Costa Rica. Designed for K-16 instructors, the workshop participants will experience environments and communities while covering new techniques and applications within science curriculum and instruction.
http://www.holbrooktravel.com/pages/educationExpeditions/details.aspx?Id=463

Holbrook Global Field Expeditions
Holbrook Global Field Expeditions partners with organizations such as the Jean-Michel Cousteau Ocean Futures Society, the Geological Society of America, Project Wet, and others to offer a series of international professional development workshops. Designed for K-16 instructors, participants experience environments and communities around the world, while covering new techniques and applications within science curriculum and instruction. The programs support the bridge between field inquiry and the full incorporation of new themes and topics in the classroom. Upcoming expeditions in 2007 include Costa Rica, Galapagos Islands, Fiji, and New Zealand.

http://www.holbrooktravel.com/pages/educationExpeditions/professionaldevelopment.aspx
http://holbrooktravel.com/educationexpeditions

Humpback Whales Workshops – Hawai'i
The Hawaiian Islands Humpback Whale National Marine Sanctuary is offering a series of free workshops in November to learn about humpback whales, Hawaiian culture, marine life, geology, stewardship and ocean safety. Workshops will take place in Kihei and Lahaina.
Contact Emily Carlson at (808) 879-2818 or emily.carlson@noaa.gov

Insects in the Classroom Course – Online
The Insects in the Classroom Online Course explores the use of insects as teaching tools in K-12 education. Aligned with No Child Left Behind standards, the course focuses on teaching science concepts and developing critical thinking skills. The online, self-paced program offers continuing education credits through Texas A&M University.
http://cecoe.tamu.edu/insects.htm

Interdisciplinary Watershed Investigations Professional Development
Michigan Technological University Educators' Professional Development Institute Series for Teachers (grades 3-12) hosts an *Interdisciplinary Watershed Investigations Workshop*, June 20-26, 2004, Houghton, Michigan. Teachers will learn methods used in watershed assessment.
http://wupcenter.mtu.edu/teachers_professional.html .

Interdisciplinary Workshop in Environmental Education - Wisconsin
A summer environmental education workshop, May 31 - August 19, 2005, in River Falls, Wisconsin, is designed for K-12 teachers who want to improve their environmental education skills and knowledge. Workshop participants will gain a basic knowledge of the nature and distribution of groundwater; sources and characteristics of common water pollutants; waste management problems and solutions; water science curricula; field experience to observe water-related and land use environmental problems; and more.
http://www.uwrf.edu/ogs/CAFES.php#envwshp

International Environmental Law Course - Online
The United Nations Institute for Training and Research offered a free, on-line course in International Environmental Law. This basic course provides a general overview of international environmental law, introducing its fundamental principles, law making process, implementation and compliance, negotiations of environmental agreements and developments and trends in international environmental law.
http://www.unitar.org/elp/e-learning/the_course.htm

International Heritage Development Conference
The Alliance of National Heritage Areas presents the 2005 International Heritage Development Conference, June 4-8, 2005 in Nashville, Tennessee. The theme is *Creating Economic Futures, One story at a time*. Sessions include a workshop on Heritage Education Approaches and Programs; Building Relationships with Corporations; and Economic Enhancement, Land Conservation, and Recreation as Tools of Progress.
http://www.ihdc2005.org/

International Leadership Institute for Biodiversity Education
World Wildlife Fund and Disney's Animal Kingdom are looking for 40 leaders to participate in the *International Leadership Institute for Biodiversity Education* to be held October 11-16, 2004, Orlando, Florida. The goal of this institute is to provide the tools to enable participants to lead, engage, and inspire others to protect biodiversity. The institute is open to leaders who have a broad reach, experience in implementing programs, and creating effective partnerships.
www.worldwildlife.org/windows/institute.cfm .

Interpreting to Diverse Audiences - California
Be part of this interagency workshop for journey-level interpreters who have at least two years of experience. Join fellow interpreters for this 36-hour workshop, January 23-27, in Pacific Palisades, California, and explore new ways to connect your agency's resources and stories to increasingly diverse audiences. See interpretation to diverse audiences in action at the Rancho Sierra Vista/Satwiwa Native American Indian Culture Center, Long Beach Aquarium of the Pacific, and the Skirball Cultural Center.
Contact Wes Chapin at wchap@parks.ca.gov or (805) 585-1845

Interpreting Parks and Gardens - Online
This 10-week online course has been developed for the staff, docents, and volunteers of public gardens, parks, zoos, aquariums, and similar institutions. Explore how to create and use interpretive programming to improve visitor understanding. A Certified Interpretive Trainer will use text, participatory assignments, and case studies to guide this web-based class. Course details (HORT 255) are available at
http://schedule.edcc.edu/search.php?d=hort&quarter=spring05
www.interpconsulting.com

Interpretive Training - Online
This site is the result of a partnership between the NPS Interpretative Development Program and the Eppley Institute for Parks and Public Lands of Indiana University. The website provides competency-based training and development to anyone with access to a computer. The free Foundations of Interpretation is the first course to become available, introducing interpreters and managers to the purpose, practice, and theory of interpretation. Additional courses covering each of the ten NPS benchmark interpretive competencies will be posted as they are developed and will be available for a small registration fee.
http://www.interptraining.org/

Introduction to Earth's Climate - Online
This course is designed to guide participants through the basics of climate science, weaving content, classroom activities, and community-building discussions to help educators understand the answers to common questions about climate. The course is the first part of Climate Discovery, a series of six-week courses for middle and high school educators from the National Center for Atmospheric Research. The online course incorporates information about state-of-the-art research and modeling efforts of nationally renowned climate scientists with classroom-tested science inquiry activities.
http://ecourses.ncar.ucar.edu./

Introduction to the MANERR Habitats – Texas
The Texas Marine Education Association and the University of Texas Marine Science Institute-Marine Education Services Mission-Aransas National Estuarine Research

Reserve (MANERR) present an Introduction to the MANERR Habitats Workshop, September 22-23, 2007, in Port Aransas, Texas.
http://www.statweb.org/TMEA/

Invasive Species Coastal Science Institute – Maine
Bowdoin College will offer a weeklong Summer Institute for middle school teachers to help improve coastal and marine literacy with a focus on invasive species, June 25-30, 2006 in Brunswick, Maine. Interdisciplinary teams involving a science teacher and a teacher representing another discipline are encouraged to apply. The institute will introduce teachers to laboratory and field techniques that will help to identify, monitor, and trace the spread of introduced species.
http://academic.bowdoin.edu/csc/

Invasive Species Education - Michigan
The Inland Seas Education Association is offering aquatic invasive species education opportunities on Lake Michigan from the Grand Traverse Bay area. Tuition for these courses is paid by scholarship funds with partial funding provided by a grant from the EPA.

- Advanced Invasive Species Field Course for Teachers, July 17-18, 2008
- Invasive Species Research Course for High School students, July 2-3, 2008
- Invasive Species Field Course for Teachers and Environmental Professionals, July 28-30, 2008.

http://www.schoolship.org/schoolship/?id=669

Invasive Species of Everglades National Park
Take your students on an electronic field trip to the Everglades National Park to explore invasive species. The eFieldTrip consists of three major components: a trip journal, a virtual visit, and posting questions via the Ask the Experts Web Form. Ask the Experts will be available from April 15-17, 2008.
www.eFieldTrips.org

Invasive Species eFieldTrip - Online
The U.S. Fish and Wildlife Service presents a live eField Trip on April 5, 2005, on invasive species. Students can ask questions and participate in a live web chat with experts to learn about invasive species. This is a moderated chat and a moderator will screen all input to ensure only appropriate questions are entered into the chat room.
www.eFieldTrips.org/Invasives

Invasive Species Workshop - Pennsylvania
Delaware, Maryland, and Pennsylvania Sea Grant will hold a three day professional development workshop for educators and K-12 teachers. *Invasive Species: The Good, the Bad and the Prolific* will be held June 28 - 30, 2005 in Chester, Pennsylvania. Learn more about invasives in your backyard, and bring back activities to incorporate invasive species concepts into your curriculum. There will be afternoon field trips to nearby locations.
www.pserie.psu.edu/seagrant/invasive_species.pdf

Investigating and Evaluating Environmental Issues and Actions Workshop – Alaska and Hawaii
The Investigating and Evaluating Environmental Issues and Actions Workshop will help teachers learn how to help students develop critical thinking skills, investigate

environmental issues, and plan responsible citizenship action. Workshops will be held in Seward, Alaska, June 19-25, and Molokai, Hawaii, June 25–July 2, 2005.
http://www.cisde.com/index.htm
cisde@midwest.net
teachu@wabash.net

Island Species Conservation Course – St. Lucia
An island species conservation course, Island Species-Led Action (ISLA), August 29 – September 9, 2005 in St. Lucia, is offered by the International Training Centre of the Durrell Wildlife Conservation Trust, based in Jersey, UK Channel Islands. The course will provide a combination of theoretical and practically-based activities focused on developing understanding of the management of endangered terrestrial species on islands.
www.durrellwildlife.org

Islands, Vents, and Oceans…Essential Ecosystems For Many Species Nonformal Workshop - Mississippi
The Center for Ocean Sciences Education Excellence: Central Gulf of Mexico (COSEE-CGM), the Office of Naval Research - National Oceanographic Partnership Program (NOPP), and other partners will sponsor a Nonformal Educators' Workshop December 2-3, 2004, Biloxi, Mississippi. Workshop topics will include marsh restoration; methane seeps and hydrothermal vents and the role that sulfide-producing bacteria play on vent ecosystems; and oceans past, present, and future.
Contact Shelia A. Brown at shelia.brown@usm.edu .

JASON Academy
The JASON Academy offers award-winning online courses. Sessions begin February 7, 2005, and include aquatic ecology, ocean science, rainforests-endangered ecosystems, and more. Several interactive science workshops will also be offered.
http://www.jason.org/jason_academy/jason_academy.htm

JASON Expedition Teacher Workshop - Florida
A Florida Aquarium Teacher Workshop for the distance learning program JASON Expeditions will take place on October 8, 2005 in Tampa, Florida. JASON is an annual middle school science program emphasizing technology and real time data through a new curriculum each school year. This year's expedition focuses on comparisons between Earth and Mars.
http://www.flaquarium.org/html/l3/l3_comm_schools_workshops.html

Jekyll Island Turtle Crawl - Georgia
The Jekyll Island Sea Turtle Project is hosting the second annual Turtle Crawl, October 9, 2004, to benefit the new Georgia Sea Turtle Center at Jekyll Island. All proceeds from the event will go to support the development and educational efforts of the Center. With a planned opening in 2006, the Georgia Sea Turtle Center will be the first of its kind in the state. The Turtle Crawl will feature athletic competitions, entertainment, and educational activities.
www.jekyllisland.com .

Key to the Sea Workshop - California
Key to the Sea is a marine environmental education program designed for teachers and elementary school children throughout Los Angeles County. Learn about watershed

stewardship, storm water pollution prevention, and marine conservation through engaging hands-on educational activities. Participants receive a free curriculum guide aligned to California state standards, all the supplies needed to conduct the activities in the classroom, and you can take your students to the partnering aquarium.
http://www.healthebay.org/ . http://www.healthebay.org/key2sea

Lab and Field Explorations in Marine Science - California
Join this continuing program for middle and high school teachers, June 26-30, 2006, June 25-29, 2007 in Monterey Bay, California. The course provides techniques for incorporating meaningful watershed and marine-related experiences into core curricula, and demonstrates how research data are collected, analyzed and used in resource management and protection of the marine environment. The course includes lab, field, schoolyard, computer, and classroom activities. Participants will be provided lesson plans, handouts, and more.
http://teach.mlml.calstate.edu/

Lake Huron Exploration Workshop – Great Lakes
The COSEE Great Lakes, in partnership with the Great Lakes Sea Grant Network, invites teachers (grades 4-10) and non-formal educators from the Great Lakes region to participate in the Lake Huron Exploration Workshop, August 11-17, 2007, in Alpena, Michigan. This workshop is designed to promote Great Lakes and ocean sciences in formal and informal education and forge lasting relationships between science researchers and educators. Participants will be involved in classroom and field programs, work with scientists, examine curricula and resources, and explore classroom activities relating to the Great Lakes and ocean resources.
http://coseegreatlakes.net/events/

Las Maravillas de Humedales
Environmental Concern, Inc. offers quality wetlands education from their WOW! The Wonders of Wetlands curriculum in Spanish. Instruction includes *WOW! The Wonders of Wetlands* curriculum guide, select translated activities, and instructors who speak both English and Spanish to help participants reach their education goals no matter what their Spanish level.
Contact Bronwyn Mitchell at dir.educate@wetland.org

Leadership Development in Natural Resources – Online
Leadership Development in Natural Resources: Strategic Planning and Implementation is designed to assist environmental educators and natural resource professionals in learning and applying key elements of successful strategic planning. Emphasis will be placed on managing the strategic planning process to build the capacity of organizations to provide effective environmental education programs.
http://www.uwsp.edu/natres/rwilke/eetap/Website2006/SPandI.htm
http://www.uwsp.edu/natres/eetap/index.aspx

Learning Ocean Science and Exploration through an Online Environment - Oregon
Join classroom science teachers of grades 6-12, June 30, 2007 in Corvallis, Oregon, and bring the excitement of ocean science and deep ocean exploration to your students using the resources at NOAA's Discovery Center and Ocean Explorer Web sites.
Contact Melissa Feldberg at melissa.feldberg@oregonstate.edu

Learning Ocean Science through Ocean Exploration - Various
NOAA's Ocean Exploration Program and partners will offer introductory and follow-up Learning Ocean Science through Ocean Exploration professional development workshops for science teachers. Participants will receive the curriculum with CD-ROM's, certificates of participation, and more. Contact the noted educator for registration and more information.

- Alabama – with Dauphin Island Sea Lab, November 1, 2008, Dauphin Island with a follow-up workshop March 14, 2009. The deadline for registration is October 17, 2008. Contact Denise Keaton at dkeaton@disl.org
- Louisiana – with the Audubon Zoo, October 11, 2008, New Orleans with a follow-up workshop in Spring, 2009. Hurry – the deadline for registration has been extended to October 7, 2008. Contact Gail Gainey at ggainey@AudubonInstitute.org
- South Carolina – with South Carolina Aquarium, October 18, 2008, Charleston, with a follow-up workshop February 7, 2009. The deadline for registration is October 10, 2008. Contact Brian Thill at BThill@scaquarium.org
- California with SeaWorld Adventure Camp, a follow-up workshop January 31, 2009. The deadline for registration is January 16, 2009. Contact Adrienne Marriott at Creec9a@hotmail.com
- Virginia with Nauticus, The National Maritime Center and Norfolk Public Schools, a follow-up workshop January 31, 2009. The deadline for registration is January 16, 2009. Contact Veronica Haynes at vhaynes@nps.k12.va.us
- South Carolina with South Carolina Aquarium, a follow-up workshop February 7, 2009. The deadline for registration is January 23, 2009. Contact Brian Thill at BThill@scaquarium.org
- Hawaii with Waikiki Aquarium, February 21, 2009. The deadline for registration is February 6, 2009. Contact Dan VanRavenswaay at danv@hawaii.edu
- Georgia with Georgia Aquarium, a follow-up workshop March 7, 2009. The deadline for registration is February 20, 2009. Contact Kim Morris-Zarneke at kzarneke@georgiaaquarium.org
- Alabama with Dauphin Island Sea Lab, a follow-up workshop March 14, 2009. The deadline for registration is February 27, 2009. Contact Denise Keaton at dkeaton@disl.org
- Florida with University of South Florida College of Marine Science, a follow-up workshop March 21, 2009. The deadline for registration is March 6, 2009. Contact Teresa Greely at greely@marine.usf.edu
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Learning Ocean Science through Ocean Exploration - Various
NOAA's Office of Ocean Exploration conducts professional development workshops at a variety of locations around the United States for science teachers of students in Grades 6-12. From October through December of 2006, workshops will be provided in San Diego, Seattle, Baltimore (in conjunction with the NSTA conference), Chicago, Tampa, Corvallis, and Norfolk. The website lists available professional development opportunities, along with contact information for those wishing to request registration information for individual workshop sites. To be added to the NOAA Ocean Explorer Education e-mail list so you can be notified of professional development and other educational opportunities, send a request to cindy.renkas@noaa.gov.
http://www.oceanexplorer.noaa.gov/edu/development/development.html

Learning Ocean Science through Ocean Exploration - Alabama
NOAA's Ocean Exploration Program and Dauphin Island Sea Lab will provide an introductory Learning Ocean Science through Ocean Exploration professional development workshop for grade 5-12 science teachers on September 15, 2007 on Dauphin Island, Alabama. This is the first of a two-part workshop series; the second workshop will be March 8, 2008.
Contact Denise Keaton at dkeaton@disl.org

Learning Ocean Science through Ocean Exploration Workshop - Alaska
Presented by Paula Keener-Chavis and Dr. Valerie Chase, this 6-hour pre-NMEA conference workshop, Sunday, July 18, 2004, provides hands-on activities from the Ocean Exploration curriculum, mixed with website connections, so that you can see the interaction between technology and classroom instruction in ocean science. Participants will receive a copy of *Learning Ocean Science through Ocean Exploration*, CDs of the Ocean Exploration website and other NOAA materials. Another was sponsored by the Alaska Sealife Center, Seward Alaska, August 14, 2004.
Valerie Chase at vchase529@worldnet.att.net
Lea Paddock at Lea_Paddock@alaskasealife.org

Learning Ocean Science through Ocean Exploration - California
SeaWorld will host a Learning Ocean Science through Ocean Exploration professional development workshop for grade 6-12 science teachers, January 26, 2008 in San Diego, California, with a follow-up workshop on March 1, 2008. Registration is required and space is limited. Participants will receive the curriculum with CD-ROM's, certificates of participation, and more.
Contact Adrienne Marriott at creec9a@hotmail.com

Learning Ocean Science through Ocean Exploration - Various
NOAA's Ocean Exploration Program and partners will offer introductory Learning Ocean Science through Ocean Exploration professional development workshops for grade 5-12 science teachers, with follow-up workshops at later dates. Participants will receive the curriculum with CD-ROM's, certificates of participation, and more. Contact the noted educator for registration and more information.

- San Diego, California with SeaWorld Adventure Camp, September 20, 2008; deadline for registration is August 29, 2008. Contact Adrienne Marriott at Creec9a@hotmail.com
- Norfolk, Virginia with the National Maritime Center and Norfolk Public Schools, September 27, 2008; deadline for registration is September 8, 2008. Contact Veronica Haynes at vhaynes@nps.k12.va.us
- New Orleans, Louisiana with Audubon Aquarium of the Americas, October 11, 2008; deadline for registration is September 26, 2008. Contact Gail Gainey at ggainey@AudubonInstitute.org
- Charleston, South Carolina South with the Carolina Aquarium, October 18, 2008; deadline for registration is October 10, 2008. Contact Brian Thill at BThill@scaquarium.org
- Chicago, Illinois with John G. Shedd Aquarium, November 15, 2008; the deadline for registration is October 31, 2008. Contact Amy Christiansen at AChristian@sheddaquarium.org

- Alabama – with Dauphin Island Sea Lab, September 13, 2008, with a follow-up workshop May 14, 2009, Dauphin Island, Alabama. The deadline for registration is August 22, 2008. Contact Denise Keaton at dkeaton@disl.org
- Massachusetts – with New England Aquarium, October 11, 2008, with a follow-up workshop May 16, 2009 in Boston, Massachusetts. Contact Jayshree Oberoi at oberoi@neaq.org
- Tennessee – with Tennessee Aquarium, August 23, 2008, with a follow-up workshop on May 2, 2009 in Chattanooga, Tennessee. The deadline for registration is August 11, 2008. Contact George Bartnik at gpb@tennis.org
- Florida – with University of South Florida College of Marine Science, September 20, 2008 in St. Petersburg, Florida. The deadline for registration is August 29, 2008. Contact Teresa Greely at greely@marine.usf.edu
- California – with SeaWorld Adventures, October 4, 2008, with a follow-up workshop January 31, 2009, San Diego, California. The deadline for registration is September 26, 2008. Contact Adrienne Marriott at Creec9a@hotmail.com or register at http://www.creec.org/region9a.
- Georgia – with Georgia Aquarium, November 1, 2008, Atlanta, Georgia. The deadline for registration is October 10, 2008. Contact Kim Morris-Zarneke at kzarneke@georgiaaquarium.org
- Oregon – with Oregon Museum of Science & Industry, November 8, 2008, Portland, Oregon. The deadline for registration is October 24, 2008. Contact Nancee Hunter at nancee.hunter@oregonstate.edu
- Florida – with University of South Florida College of Marine Science, November 22, 2008, St. Petersburg, Florida. The deadline for registration is November 7, 2008. Contact Teresa Greely at greely@marine.usf.edu
- California – with Aquarium of the Pacific, December 6, 2008, Los Angeles, California. The deadline for registration is November 14, 2008. Contact Alie Lebeau at ALebeau@lbaop.org
- Maryland with the National Aquarium in Baltimore, April 4, 2009. The deadline for registration is March 20, 2009. Contact Joe Harber at jharber@aqua.org
- Oregon with the Oregon Museum of Science & Industry, a follow-up Professional Development Workshop for Teachers, April 4, 2009. The deadline for registration is March 20, 2009. Contact Nancee Hunter at nancee.hunter@oregonstate.edu
- Illinois with the John G. Shedd Aquarium, a follow-up Professional Development Workshop for Teachers, April 18, 2009. The deadline for registration is April 3, 2009. Contact Amy Christiansen at AChristian@sheddaquarium.org
- Louisiana with the Audubon Aquarium of the Americas, a follow-up Professional Development Workshop for Teachers, April 18, 2009. The deadline for registration is April 3, 2009. Contact Tricia LeBlanc at tleblanc@AudubonInstitute.org
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Learning Ocean Science through Ocean Exploration – South Carolina
A NOAA Learning Ocean Science through Ocean Exploration Professional Development Follow-Up Workshop will be held February 2, 2008 in Charleston, South Carolina. This workshop is for teachers who participated in the September 2007 introductory workshop and other interested science educators of grades 6-12. Join educators during this follow-up session with the curriculum developed by NOAA's Office of Ocean Exploration. Pre-registration is required and space is limited.
Contact Brian Thill at BThill@scaquarium.org

Learning Ocean Science through Ocean Exploration - Florida
NOAA's Office of Ocean Exploration offers the professional development workshop, Learning Ocean Science through Ocean Exploration for Grade 6-12 science teachers, November 18, 2006 in St. Petersburg, Florida.
http://oceanexplorer.noaa.gov/edu/development/development.html

Learning Ocean Science through Ocean Exploration - Florida
A NOAA Learning Ocean Science through Ocean Exploration Professional Development Follow-up Workshop will be held September 22, 2007 in St. Petersburg, Florida. Please come prepared to share your experiences with OE educational activities, samples of student work, along with suggestions for extension activities, OE-themed science fair project ideas, and other feedback from the introductory workshop.
Contact Teresa Greely at greely@marine.us

Learning Ocean Science through Ocean Exploration - Florida
NOAA's Ocean Exploration Program and the University of South Florida's College of Marine Science will provide an introductory Learning Ocean Science through Ocean Exploration professional development workshop for grade 6-12 science teachers on April 21, 2007 in St. Petersburg, Florida. This is the first of a two-part workshop series; the second workshop will be September 22, 2007. A stipend is available for educators attending both workshops.
Contact Teresa Greely at greely@marine.usf.edu

Learning Ocean Science through Ocean Exploration - Indiana
NOAA's Ocean Exploration Program will be providing a *Learning Ocean Science through Ocean Exploration* professional development workshop for grade 5-12 educators, Saturday, April 17, 2007 in Lafayette, Indiana. Registration is required and space is limited.
http://www.abcsignup.com/reg/event_page.asp?ek=0005-0003-69E22FBCEDB34FCC83E26BA5AF437168

Learning Ocean Science through Ocean Exploration – Hawai'i
NOAA is offering a professional development workshop prior to the National Marine Educators Association 2005 Conference, *Learning Ocean Science through Ocean Exploration* Curriculum Professional Development, on July 11, 2005 in Maui, Hawai'i. Bring the excitement of current ocean science discoveries to your students using the ocean exploration curriculum and companion CD-ROM. Join the experts for inquiry- and standards-based activities tied directly to NOAA ocean expeditions.
www.hawaii.edu/maui/oceania/NMEA05PRE.html
http://oceanexplorer.noaa.gov/edu/curriculum/welcome.html

Learning Ocean Science through Ocean Exploration - Maine
NOAA's Ocean Exploration Program will provide a professional development workshop for educators in July in conjunction with the National Marine Educators Association 2007 Conference, July 23, 2007 in Portland Maine. The workshop is offered to grade 5-12 science teachers and other educators interested in ocean exploration. Registration is free, but pre-registration is required and space is limited.
Contact Dr. Valerie Chase at vchase529@worldnet.att.net

Learning Ocean Science through Ocean Exploration Workshop – Massachusetts
Teachers of grades 6-12 who are interested in ocean exploration can participate in this professional development workshop on October 29, 2005 (part 1) and April 8, 2006 (part 2) in Boston, Massachusetts. Join educators at the New England Aquarium as you do inquiry- and standards-based activities tied directly to ocean expeditions. A copy of Learning Ocean Science through Ocean Exploration and CD-ROM will be provided.
Contact Joel Rubin at jrubin@neaq.org

Learning Ocean Science through Ocean Exploration Curriculum - Oregon
NOAA's Office of Ocean Exploration and Oregon Sea Grant present this professional development workshop for science teachers of grades 6-12, on November 8, 2008 in Portland, Oregon. This is the first of a two-part workshop series; the second workshop will be on held April 4, 2009. Educators participating in both workshops will receive a stipend. The deadline for registration has been extended.
Contact Nancee Hunter at nancee.hunter@oregonstate.edu

Learning Ocean Science through Ocean Exploration Curriculum Professional Development – Massachusetts and South Carolina
The New England Aquarium will host a professional development institute for grade 6-12 teachers. The South Carolina Aquarium, Charleston, South Carolina, will host an Introduction to Learning Ocean Science through Ocean Exploration, and a follow-up session for those educators who have already attended the introduction to the Curriculum Session.
http://oceanexplorer.noaa.gov .
jrubin@neaq.org
kbryan@scaquarium.org.

Learning Ocean Science through Ocean Exploration – North Carolina
Join fellow educators for this Ocean Exploration Professional Development - Learning Ocean Science through Ocean Exploration in Wilmington, North Carolina on April 22, 2006 for an introductory session, or May 20, 2006 for a follow-up session with the Ocean Exploration curriculum. Learn as you do inquiry- and standards-based activities tied directly to ocean expeditions. Materials will be provided which will enable your students to model ocean science exploration in your classroom.
Contact Jim Nesbit at jnesbit@ec.rr.com

Learning Ocean Science through Ocean Exploration - Oregon
The Oregon Museum of Science and Industry will host a Learning Ocean Science through Ocean Exploration professional development workshop for grade 6-12 science teachers, October 27, 2007 in Portland, Oregon, with a follow-up workshop in 2008. Registration is required and space is limited. Participants will receive the curriculum with CD-ROM's, certificates of participation, and more.
Contact Melissa Feldberg at melissa.feldberg@oregonstate.edu

Learning Ocean Science through Ocean Exploration - Oregon
NOAA's Office of Ocean Exploration and Oregon Sea Grant offer this professional development follow-up workshop, April 12, 2008 in Portland, Oregon, for teachers who participated in the October 2007 introductory workshop, along with other interested science educators of grades 6-12.
Contact Nancee Hunter at nancee.hunter@oregonstate.edu

Learning Ocean Science through Ocean Exploration Workshop – South Carolina
Teachers of grades 6-12 who are interested in ocean exploration can participate in this professional development workshop on September 24, 2005 in Charleston, South Carolina. Join South Carolina Aquarium educators as you do inquiry- and standards-based activities tied directly to ocean expeditions. A copy of Learning Ocean Science through Ocean Exploration and CD-ROM will be provided.
Contact Katrina Bryan at 843.579.8546 or kbryan@scaquarium.org

Learning Ocean Science through Ocean Exploration Professional Development – South Carolina
Join South Carolina Aquarium educators, March 12, 2005, for an introductory session, or April 16, 2005 for a follow-up session to the Ocean Exploration curriculum. Learn as you do inquiry- and standards-based activities tied directly to ocean expeditions. A copy of Learning Ocean Science through Ocean Exploration and CD-ROM will be provided. Registration is required and space is limited. A stipend and six renewal credits are available. The course is offered to teachers of grades 5-12.
Contact Katrina Bryan at 843.579.8546 or kbryan@scaquarium.org

Learning Ocean Science through Ocean Exploration Workshop – South Carolina
Join Grade 5-12 educators at the South Carolina Aquarium June 16, 2007 in Charleston, South Carolina, during this follow-up session to the introductory professional development workshop Learning Ocean Science through Ocean Exploration. Conduct inquiry- and standards-based activities tied directly to ocean expeditions. Pre-registration is required and space is limited.
Contact Brian Thill at BThill@scaquarium.org

Learning Ocean Science through Ocean Exploration - Virginia
NOAA's Ocean Exploration Program will provide a professional development workshop for science teachers of grades 6-12 in conjunction with the NAAEE (North American Association for Environmental Education) annual conference, November 14, 2007 in Virginia Beach, Virginia. Registration is required and space is limited. Take-home materials and more will be provided for each participant.
http://www.naaee.org/conference/registration

Lessons from the Sea – Hawai'i
Lessons from the Sea is a new marine science curriculum for grades 3-8 developed by the Hawaiian Islands Humpback Whale National Marine Sanctuary, Pacific Resources for Education and Learning, and Hawaii Institute for Biology. The curriculum includes science-based inquiry lessons, integrated art, technology, call to action lessons, and opportunities to get involved in marine related projects and field trips.
Contact Patty Miller at patty.miller@noaa.gov

Let's Go Native – Georgia
Educators will become empowered by these two workshops offered through the Georgia Conservancy, May 19-20, 2006 in Roswell, Georgia. Learn the skills necessary to complete interactive projects for the indoor and outdoor classroom and connect to the curriculum with hands-on activities and scientific investigations. *Georgia's Native Waters* offers 212 pages of interdisciplinary lessons and activities for K-12 students that inspire them to apply classroom knowledge to real-world situations. *Georgia's Native Seasons* studies the natural world as it passes through stages that are part of a continuing cycle.

http://www.georgiaconservancy.org/Events/Event.asp?id=272&yy=2006&mm=5&dd=19

Let`s Go Native! - Georgia
Georgia's Native Waters and Georgia's Native Seasons workshops will be held January 11, 18, and 25, 2007 in Newnan, Georgia by the Georgia Conservancy. Georgia's Native Waters is designed to be more than conservation education, with 212 pages of interdisciplinary lessons and over 55 activities.
http://www.gaconservancy.org/Events/Event.asp?id=302&yy=2007&mm=1&dd=11

LiMPETS Introduction to Rocky Intertidal Monitoring - California
This workshop, December 8, 2007 in San Mateo County, California, is for teachers who are interested in participating in the Gulf of the Farallones National Marine Sanctuary's Long-term Monitoring Program and Experiential Training for Students (LiMPETS). Participants will learn to survey key invertebrate and algae species at an established monitoring site along the coast of California.
http://farallones.org/education/teacher_workshops.php

LiMPETS Workshop - California
The Long-term Monitoring Program & Experiential Training for Students network provides a unique opportunity for teachers to gain the necessary skills and confidence to engage students in monitoring activities in the field. The workshop includes an introduction to monitoring techniques; field trips to a sandy beach site and a rocky intertidal site to collect data; instruction for entering data into online databases; and guidance for setting up your own marine monitoring program with your students.
http://limpets.noaa.gov/projectInformation/introduction/welcome.html

LiMPETS Workshop - California
This workshop will cover two aspects of the program: rocky intertidal and sand crab monitoring. Teachers will be trained in the LiMPETS protocols including online data entry, and receive materials for use in the classroom. March 8, 2008 in San Francisco, California
http://farallones.org/education/teacher_workshops.php
http://limpets.noaa.gov
Contact Lisa Emanuelson at Lisa.Emanuelson@noaa.gov .

LiMPETS Workshops – California
Check out the LiMPETS (Long-term monitoring and experiential training for students) workshops for the 2008-09 year posted on the Farallones Marine Sanctuary Association website.

- LiMPETS Introduction to Rocky Intertidal Monitoring, February 21, 2009 in San Mateo County, California
- Feeling the Heat: Thermal Biology and Responses to Climate Change, March 21, 2009 in San Francisco, California
- Life & Death, Love & Sex, Drama in the Intertidal Zone, May 2, 2009 in San Francisco, California

http://www.farallones.org/education/teacher_workshops.php

Linking the Ocean to the Classroom
This educators workshop about the Gulf of Maine, June 28-July 1, Durham, New Hampshire, explores the latest technology and methods used to study the basis of the entire marine food web, phytoplankton. Educators and scientists will discuss, plan, and

generate new ways of incorporating real-time and archived ocean observation data using an inquiry based model while still meeting the state or national standards.
http://www.cooa.unh.edu/workshop.html

Long Island Sound Educators Conference - Connecticut
The Southeastern New England Marine Educators are hosting the Long Island Sound Educators Conference on May 2, 2008 in Norwalk, Connecticut. The conference focuses on topics addressing Long Island Sound and the coastal environments.
http://www.seneme.org/

Louisiana Department of Wildlife & Fisheries' Teacher Workshops
Workshops are held throughout the state and offer Louisiana teaching resources to all participants. Topics range from wetland issues (one-week workshop held on a barrier island) to a migratory waterfowl workshop (3-day workshop with an air boat ride through optimal duck habitat in central LA).
http://www.wlf.state.la.us/apps/netgear/index.asp?cn=lawlf&pid=315 .

Louisiana Universities Marine Consortium Scientist / Teacher Institute
LUMCON and the Central Gulf of Mexico - COSEE Scientist/Teacher Institute course for middle school teachers includes a five-day residence component, June 20-25, plus 6 online sessions, July 8- August 13, 2004. Learn about oceanography and spend a week developing a continuing relationship with a research scientist. Additional institutes will be held in 2004 in: Alabama, June 27-July 2, Florida, June 20-25, Louisiana, June 20-25, Mississippi, June 21-25, and Texas, June 13-18.
www.lumcon.edu/education/cosee .

Making EE Relevant for Culturally Diverse Audiences – Online
The new 10-week on-line course, Making EE Relevant for Culturally Diverse Audiences, September 2–November 6, 2008, is designed to provide participants with the basic knowledge and skills needed to make environmental education relevant to culturally diverse audiences. This online course has been developed in collaboration with national EE experts who represent diverse cultural and ethnic backgrounds.
http://www.uwsp.edu/natres/eetap/index.aspx

Making Ocean Life Count Seminar Series – Maryland and Webcast
The NOAA Office of Ocean Exploration is hosting a series of seminars on the Census of Marine Life, *Making Ocean Life Count*. These seminars will be held from mid-April through June, 2007 at a variety of locations around NOAA's Silver Spring, Maryland campus, with live video webcast feed and phone-in available for remote users. Presentations will also be posted on the website when available.
http://explore.noaa.gov/about/seminar.html

Managing Visitor Use in Coastal and Marine Protected Areas - Delaware
This free workshop, January 12-13, 2006 in Dover, Delaware, provides an overview of the human dimensions of protected area management; offers examples of visitor use and associated impacts to natural resources and visitor experiences; and demonstrates applications to help managers address the people side of resource management. In addition to training sessions, local and regional guest speakers will share case studies. Contact Katy O'Connell at Katy.OConnell@state.de.us or (302) 739-3436 ext. 20

Mangrove Forest Ecology, Management and Restoration Training Course
The second "Mangrove Forest Ecology, Management and Restoration Training Course," Hollywood, Florida, USA, February 23-26, 2004 and February 20-23, 2006, March 3-6, 2008, taught in conjunction with the Mangrove Action Project. The tidal hydrology of mangrove forests was a major topic during the course. The third workshop, February 21-24, 2005, will emphasize cost-effective successful mangrove management and restoration.
http://www.mangroverestoration.com/

Mapping Oceans and Coasts: GIS Workshop for Teachers - California
The Center for Image Processing in Education, Channel Islands National Marine Sanctuary, and Ocean Explorers Master Teachers offer a three-day Mapping Oceans and Coasts GIS workshop for teachers July 12-14, 2006 in Camarillo, California. During the workshop, participants will explore the biological, physical, and geological characteristics of our oceans and coastlines and learn how GIS can be used to manage, understand, and protect these areas.
http://www.evisual.org/index.php?option=com_content&task=view&id=39&Itemid=35

Mapping Ocean Sanctuaries- Florida
The free, Mapping Ocean Sanctuaries teacher workshop, June 22-24, 2005 in Key Largo, Florida, will explore the biological, physical, and geological characteristics of our coastlines and national marine sanctuaries. The workshop will include hands-on instruction on how to use geographic information system (GIS) software and global positioning system hand-held units, using the Exploring Data with GIS to Experience Sanctuaries (EDGES) curriculum.
http://floridakeys.noaa.gov/edu/gis_workshop.htm

Mapping Ocean Sanctuaries GIS Workshop in Georgia
A *Mapping Ocean Sanctuaries* GIS workshop, July 7-9th, 2004, Savannah, GA, included three days of hands-on instruction in Global Positioning Systems (GPS), Geographic Information Systems (GIS) technologies, and field data collection techniques. Participants receive complimentary copies of NOAA's *Exploring Data with GIS to Experience Sanctuaries* (EDGES) curriculum and ESRI's *Mapping Our World GIS Lessons for Educators* curriculum (with a 1-year educational ArcView GIS site license). Jenny Brady at jennyb@evisual.org or (800) 322-9884 x 253.

Mapping Ocean Sanctuaries - Massachusetts
The free, Mapping Ocean Sanctuaries teacher workshop, July 6-8, 2005 in Scituate, Massachusetts, will explore the biological, physical, and geological characteristics of our coastlines and national marine sanctuaries. The workshop will include hands-on instruction on how to use geographic information system (GIS) software and global positioning system hand-held units, using the Exploring Data with GIS to Experience Sanctuaries (EDGES) curriculum.
http://www.evisual.org/www/pdfs/SBNMS_app.pdf

Mapping Ocean Sanctuaries Teacher Workshop - California
Learn how to use Geographic Information Systems to study geography and ocean science and involve your students in field data collection and analysis using their own data along with data from scientific and governmental institutions. The workshop will involve 3 days of hands-on training in GIS and GPS technologies. Participants will

receive the EDGES curriculum and a copy of *Mapping Our World* book which includes a one-year site license for ArcView 3.X GIS software.
http://www.channelislands.noaa.gov/edu/edu_teacher.html .

MARE New Teacher Workshop - California
Discover MARE (Marine Activities, Resources, and Education) at the Scripps Institution of Oceanography in La Jolla, California. This workshop will provide an overview of the award-winning MARE curriculum. Explore ideas for hosting your first Ocean Week or Ocean Month at your school site. Discover how to adopt an ocean science program that addresses the needs of your English learners while incorporating technology and literacy into your science program. Scholarships are available.
http://aquarium.ucsd.edu/Education/For_Schools/For_Teachers/Professional_Development/

MARE Professional Development - California
The 2006-2007 MARE (Marine Activities, Resources & Education) from the Lawrence Hall of Science professional development schedule is available, offering half-day habitat and curriculum introduction workshops, full-day workshops, and field trips. Some offerings include Rocky Seashore, Sandy Beach, Wetlands, Open Ocean, & Islands; Kelp Forest Habitat Workshop; and Ponds Habitat Workshop.
http://www.lawrencehallofscience.org/mare/profdev/calendar.html

MARE Summer Leadership Institute
The MARE Program from University of California/Berkeley's Lawrence Hall of Science Offers a one-week residential summer institute, August 1-8, 2004, UC Santa Cruz campus. June 26-July 1, 2006 in Santa Cruz, California. Participants will gain skills to help them lead a school or district in the implementation of Ocean Week or Month using MARE's whole-school ocean immersion model and K-8 science curriculum. Daily instruction will include ocean science content delivered by educators, scientists and researchers.
http://www.lhs.berkeley.edu/MARE

MARE Workshop Series - California
Discover MARE at the Birch Aquarium at Scripps Institution of Oceanography in La Jolla, California, designed for K–8 teachers, science specialists, and informal educators. The workshops provide training in standards-rich, inquiry-based science strategies for addressing the needs of English learners and ideas for incorporating technology and literacy into any science program. Check the website for dates and topics.
http://aquarium.ucsd.edu/Education/For_Schools/For_Teachers/Professional_Development/

Marine Activities Resources and Education Workshops - California
Birch Aquarium is pleased to offer an upcoming series of Marine Activities Resources and Education (MARE) Habitat Workshops for Southern California teachers. Each of the Habitat Workshops will offer K-8 teachers opportunities to explore ocean science content and hands-on teaching strategies, specific to your own grade level and habitat focus.
http://aquarium.ucsd.edu/Education/For_Schools/For_Teachers/Professional_Development/MARE/

Marine Biology Field Courses - Mississippi
The University of Southern Mississippi Gulf Coast Research Laboratory is now registering for marine biology college field courses to be offered this summer in Ocean Springs, Mississippi. Courses offered May 29-June 20, 2007 are marine biology, marine mammals, shark biology and marine ichthyology. Courses offered June 21-July 13, 2007 are oceanography, marine invertebrate zoology, marine ecology and marine biology for teachers.
http://www.usm.edu/gcrl/summer_field/calendar.php

Marine Biotechnology and Bioinformatics - California
Learn to incorporate hands-on biotechnology and bioinformatics activities into your classroom and research through this marine science summer educator workshop, July 10-28, 2006 in Monterey Bay, California, July 9-27, 2007 in Monterey Bay, California,. Participants will investigate using biotechnology techniques to generate DNA data and the latest bioinformatics software to analyze it and incorporate cutting edge science techniques into their instructional programs.
http://www.marinebiotech.net/
http://teach.mlml.calstate.edu/

Marine and Estuarine Invertebrates Field Course - Oregon
A summer field course at the Hatfield Marine Science Center will be held June 20 – July 15, 2005 in Newport Oregon. It will include the comparative survey of eight major invertebrate phyla and many lesser-known phyla. Three areas of emphasis will be invertebrate identification, natural history, and comparative anatomy. Laboratories and field trips will strongly supplement lecture material.
http://hmsc.oregonstate.edu/classes/summer/zoo461.html

Marine Mammal Seminars - California
The second annual Marine Mammal Weekend Seminars at Camp Ocean Pines in Cambria, California will join biologists in field observations of elephant seals, sea otters, sea lions, harbor seals, and other marine mammals. On January 21-23, 2005 Dr. Burney LeBoeuf will focus on land based behaviors and reproduction of Elephant Seals. Join Dr. Jim Estes and Dr. Terrie Williams on January 28-30, 2005 to observe and discuss sea otters and sea lions in California.
http://www.campoceanpines.org/upcoming/

Marine Mammal Seminars - California
Camp Ocean Pines is hosting three weekend retreats focused on marine mammals. Leading scientists will share their latest research and discoveries.

- Tagging of Pacific Pelagics, Dan Costa, January 6-8, 2006
- Sleuthing Mother Nature with Seals: Revelations from Long-Term Study, Burney LeBoeuf, January 13-15, 2006
- Sea Otters, Terrie Williams and Jim Estes, January 20-23, 2006.

The retreats feature lectures and activities with the leaders in the field, food, and lodging.
http://www.campoceanpines.org/

Marine Protected Areas Course - Mexico
Students and practitioners interested in MPAs in the Caribbean region are invited to enroll in an international course to be held June 21-29, 2008, in Puerto Morelos, Mexico. The course, *Marine Protected Areas for the South Florida, Mexican Caribbean, and*

Mesoamerican Region, will analyze ecological and socioeconomic aspects of MPA design and management. Full fellowships for the course are available for Latin American students. The course is fully bilingual.
Contact Ligia Collado Vides at colladol@fiu.edu

Marine Protected Areas Outreach and Education Workshops – Rhode Island and Maine
Two 2-day workshops will provide input on the development by the New England Fishery Management Council of a thoughtful policy on the use of marine protected areas for managing fisheries. The Council is seeking input from the public on the development of an MPA policy while also providing background on basic ecology, the role of habitat in fisheries, and the science of marine protected areas.
May 5-6, 2005, West Greenwich, Rhode Island and May 10-11, 2005, Ogunquit, Maine
Contact Woneta Cloutier at wcloutier@nefmc.org

Marine Resources Population Dynamics Workshop - Florida
This undergraduate workshop, presented by the National Marine Fisheries Service and Virginia Tech, will be held at the Mote Tropical Research Laboratory on Summerland Key, Florida, January 6-12, 2007. The all-expenses-paid week will include coursework, fieldwork, and social activities.
http://www.nmfs.vt.edu/workshop/info.1.07.htm

Marine Studies Teacher Workshops
The University of Delaware Graduate College of Marine Studies offers a variety of professional development workshops for teachers. Upcoming January and February workshops include Invasive Species, Delaware and Chesapeake Watersheds, and Rookie Science workshops.
http://www.ocean.udel.edu/public/teachercourses.html#course1

Marine Wildlife Viewing Workshop
The 2003 *Marine Wildlife Viewing Workshop*, November 9-10, 2003, South Padre Island, Texas, provides a forum for the development of generally applicable guidelines for major types of commercial and recreational marine wildlife viewing activities. This year's program emphasizes the Gulf Coast and Greater Caribbean regions.
http://www.watchablewildlife.org/conference/marine_workshop.htm

MarineLab Courses - Florida
MarineLab offers three teacher workshops, July 27-August 3, 2008 in Key Largo, Florida. *Introduction to Coastal Marine Ecology* is an overview of the marine habitats of the Upper Keys; *Restoring the Habitats of the Keys* includes learning and observing current restoration efforts in the Everglades, seagrasses, and coral reefs; and *ReefCheck* is a workshop using SCUBA to gather data as part of the global REEFCHECK program.
http://www.marinelab.org/Teacher_Workshops.html

Massachusetts Institute of Technology's OpenCourseWare
MIT's OpenCourseWare (OCW) launched its large-scale, web-based electronic publishing initiative, a free and open educational resource for faculty, students, and self-learners around the world, with the publication of approximately 500 courses. Courses include Ocean Engineering, Science Technology and Society, and Urban Studies and Planning.

http://ocw.mit.edu/OcwWeb/index.htm

MAST (Multicultural Students At Sea Together)—Opportunity for College Students
This on-the-water program ran from June 16-July 10, 2003 in the Chesapeake Bay. The program covered marine science, marine policy, the heritage of African Americans and Native Americans on the Chesapeake and under sail, and seamanship. They also recruited an ethnically diverse crew, including African Americans, Native Americans, Hispanic Americans, Pacific Islanders, and others.
http://www.hamptonu.edu/science/masthompage.htm

Master Naturalist Program - Florida
The Florida Master Naturalist Program is an adult environmental education program from the University of Florida. Three 40-hour teaching modules include freshwater wetlands, coastal systems, and upland habitats. Students learn science-based curriculum and interpretation skills in the classroom and in the field.
http://www.masternaturalist.org/ .

Master of Science in Resource Interpretation - Online
An online master's degree specializing in resource interpretation is available through the College of Forestry and Agriculture at Stephen F. Austin State University in Nacogdoches, Texas. Course example include: Curriculum-based Learning, Interpretive Planning, Media and Graphics, and Field-based Programs. The courses have been designed in cooperation with the National Park Service. Applications are being accepted for the fall semester.
http://www.sfasu.edu/msri/

Master Tread Trainer Program
Tread Lightly! promotes responsible outdoor recreation through education and restoration. The Tread Trainer program is designed to train participants in innovative, practical methods of spreading outdoor ethics to the public. The training is provided through a one-day course and will qualify the participant to become a Tread Lightly! representative – a "Master Tread Trainer." In addition to the training, participants receive a manual, guidebooks, public service announcements, and other materials.
http://www.treadlightly.org/

MATE Center Faculty Development Institutes
The Marine Advanced Technology Education (MATE) Center announces two faculty development institutes for summer 2004:

- Building Remotely Operated Vehicles (ROVs), July 1 - July 9, 2004
- GIS and Marine Science: Using GIS to model marine habitats, July 11-17, 2004.

Educators interested in organizing future workshops or regional student ROV competitions to feed into the national competition can participate in an optional day.
http://www.marinetech.org/education/institutes.php .

MATE's Summer ROV Workshop – California
The Marine Advanced Technology Education (MATE) Center announces their summer institute for 2008, Advanced Remotely Operated Vehicle Building for Classroom Projects, July 21-27, 2008 in Monterey, California. Throughout the week, educators will work in teams to design and build their own ROVs to complete a set of predetermined mission tasks. The participants will test their ROVs in a mini-competition at the end of the week. The deadline for application to this free workshop is April 14, 2008.

http://www.mpcfaculty.net/tami_lunsford/SI_08_institute/Info.aspx

MERITO Academy Workshop - California
The MERITO Academy's goal is to increase multicultural student's understanding of watershed and ocean issues through hands-on field and in-class activities while exposing them to careers in science and building pride and stewardship towards their sanctuary and local environments. This workshop for educators is scheduled for October 13-14, 2006 in Oxnard, California, with a follow-up on February 3, 2007.
http://sanctuaries.noaa.gov/education/teachers/professional.html

Migratory Bird Education for Educators – West Virginia
The U.S. Fish and Wildlife Service National Conservation Training Center is offering Migratory Bird Education for Educators (OUT8163) June 18-21, 2007 in Shepherdstown, West Virginia. This course teaches the knowledge, skills, instructional tools, and strategies to educate others about birds and their conservation. Participants learn to teach others basic bird identification, explore a wide array of available educational resources with emphasis on festivals and citizen science, practice educational activities, and identify potential cross-cultural connections. This is not a bird identification course.
Contact Juanita Gustines at Juanita_Gustines@fws.gov

Monitor Open House and R.O.V. Workshops - Virginia
The Monitor National Marine Sanctuary will host a teacher open house at their office in Newport News, Virginia on October 5, 2006. The open house is an opportunity for local teachers to preview programming available through the national marine sanctuary program. Discover new resources to teach social studies and science standards using the Civil War ironclad USS Monitor and the National Marine Sanctuaries. The sanctuary will also sponsor professional development opportunities for teachers to learn about remotely operated vehicles (ROVs) this fall, on September 30, 2006, November 4, 2006, and November 18, 2006. These hands-on workshops teach how to design and build working ROVs.
http://monitor.noaa.gov
Contact Krista Trono at Krista.Trono@noaa.gov for information about the workshops.

Monterey Bay Aquarium Teacher Institutes – California
The Monterey Bay Aquarium offers two teacher institutes. The Splash Zone Institute, July 10-14, 2006 is for Pre-K - 2nd grade teachers. Teachers will have an opportunity to explore schoolyard and rocky shore habitats, share inquiry-based activities and implement new teaching strategies. The Coastal Systems Institute, July 24-28, 2006 is for 3rd - 5th grade teachers. Teachers will use living coastal ecosystems to teach standards, integrate content and process skills and facilitate language acquisition.
http://montereybayaquarium.org/lc/teachers_place/edu_program.asp

Monterey Bay Aquarium Teacher Institutes - California
The Monterey Bay Aquarium offers several different institutes and workshops for teachers. *The Coastal Systems Teacher Institute*, July 21-25, 2008, is designed for teachers of grades 3-5; the *Dynamic Cycles Institute*, July 7-11 is designed for 6-12th grade teachers. The summer institutes are free and a stipend and credit are available. Three follow-up sessions are required.
http://www.mbayaq.org/lc/teachers_place/edu_programs.asp

Monterey Bay Watershed Academy Workshop - California
Educators are invited to participate in the Monterey Bay National Marine Sanctuary, Multicultural Education for Resource Issues Threatening Ocean (MERITO), Watershed Academy Leader Training, August 24-25, 2007 in Watsonville, California. The Watershed Academy program includes a free train-the-trainer workshop, local field trips, in-class activities, teacher resources, guest speakers, and stipends for program transportation and materials. MERITO has developed a Watershed Activity Guide addressing state standards. Each year MERITO is pleased to offer 20 scholarships for programs interested in implementing the Watershed Academy program at their site. Contact Sonya Padron at sonya.padron@noaa.gov

Mote Professional Development Workshops - Florida
Join Mote Marine Laboratory this fall for new Marine Science Professional Development Workshops during September in Sarasota, Florida. Choose from the listed programs and receive supporting print materials and more.

- Manatees 09/10/2005, registration deadline September 2nd, 2005
- Dolphins 09/24/2005, registration deadline September 9th, 2005
- Sharks, 10/15/2005, registration deadline September 30th, 2005

Contact Kasey Gaylord at kasey@mote.org or 1-800-691-MOTE ext 263

MS PHD'S Professional Development Program
The Minorities Striving and Pursuing Higher Degrees of Success in Earth System Science (MS PHD'S) Professional Development Program provides professional development experiences that facilitate the advancement of minorities committed to achieving Earth system science careers. The program includes mentoring and networking activities and provides a supportive environment in which participants develop strategies and professional skills.
http://www.msphds.org/

My NASA Data Teacher Workshop - Virginia
NASA will host a hands-on workshop designed for grade 6-12 teachers. The workshop will focus on the implementation and use of earth system science data sets developed for the pre-college education community. The data sets are derived from the archive of remotely-sensed data from NASA's Earth Observing System satellites. Participating teachers will explore topics in Earth system science (especially atmospheric science), educational application of data sets, and hands-on classroom activities.
http://mynasadata.larc.nasa.gov/workshop.html

Nab the Aquatic Invader Workshop - Indiana
This workshop from Illinois-Indiana Sea Grant in conjunction with the National Park Service, November 8, 2006 in East Chicago, Indiana, offers professional development training to help educators for grades 4-10 get their students involved in community stewardship projects that help prevent spread of aquatic invaders.
http://www.iisgcp.org/cal/Promo%20for%20Nov-2006%20Wkshop.%20Final%20Copy.pdf

NASA Climate Change Lectures – DC and Online
NASA Goddard Space Flight Center and The Library of Congress are offering free public presentations by top NASA scientists on current topics, including climate change, urban sprawl, and natural disasters. The lectures will take place in Washington, DC and will also be posted on the Library of Congress website.

- Who Left the Freezer Door Open? What the Poles Are Telling Us About Climate Change, January 24, 2007
- Honey Bees, Satellites, and Climate Change, April 3, 2007
- City Lights, Spy Satellites, and Urban Sprawl, June 27, 2007
- Predicting, Observing, and Mitigating Damage from Fires and Other Natural Disasters, October 17, 2007

http://www.loc.gov/rr/scitech/events/events.html#cybercasts

NASA Earth Science Education Community Meeting - Florida
NASA will hold a second Earth science education community meeting on May 18-20, 2005, in Orlando, Florida, and invites diverse participation. At this meeting the Steering Committee will present a draft NASA earth science education roadmap for community review and comment. Classroom teachers are encouraged to apply for travel support, with an application deadline of April 4, 2005.
http://www.ncar.ucar.edu/eo//roadmap/

NASA Earth Scientist Lectures – Washington, D.C. and Online
NASA Goddard Space Flight Center and The Library of Congress announce free public presentations by NASA scientists on current topics such as climate change, urban sprawl, and natural disasters. For those unable to attend the event in person, the lectures will be recorded and available for viewing after the event on the website.
http://www.loc.gov/rr/scitech/events/events.html#cybercasts

NASA and GLOBE Earth's Atmosphere Educator Workshop - Virginia
An educator workshop, *NASA Satellites Study Earth's Atmosphere: CALIPSO, CloudSat and Aura Partner with the GLOBE Program,* will be held July 9-15, 2006 in Hampton, Virginia. This workshop primarily targets middle school educators who will work with the missions by involving their students in collecting and reporting cloud observations and sun photometer data at the GLOBE Program Website. Applications are due March 10, 2006.
http://calipsooutreach.hamptonu.edu/va2006.html

NASA Ocean Mission Educator Conference - California
NASA's Ocean Surface Topography Mission on the Jason-2 satellite (OSTM/Jason-2) is scheduled to launch on June 15, 2008. An Educator Launch Conference will be held on June 14-15, 2008. OSTM will measure sea surface height; sea surface topography has numerous applications, including: predicting hurricane intensification, improving tide models, mapping deep ocean bathymetry, monitoring and forecasting El Niño Southern Oscillation, measuring the rate of global sea level rise, and charting surface currents.
http://endeavours.org/sec/

National Conservation Training Center Courses – West Virginia
The U.S. Fish and Wildlife Service offers professional development courses at the National Conservation Training Center campus in West Virginia, many of which may be of interest to this group. For more information, contact the individual identified below.

- OUT8106: Powerful Presentation Tools and Techniques; July 14- 18, 2008; the deadline for registration is June 2, 2008; contact Juanita Gustines at juanita_gustines@fws.gov
- OUT8114: Volunteer Recruitment Management; August 5-8, 2008; the deadline for registration is June 23, 2008; contact Laura Jones at Laura_Jones@fws.gov

- OUT8181: Working with the News Media; August 4-6, 2008; the deadline for registration is June 20, 2008; contact Sandy Spakoff at sandy_spakoff@fws.gov
- OUT8122: Applying Collaboration to Complex Environmental Issues; August 11-15, 2008; the deadline for registration is May 30, 2008; contact Ora W. Dixon at Ora_Dixon@fws.gov

http://training.fws.gov/documents/Section1_NCTC_Sponsored_Courses.pdf

National Conservation Training Center Courses – West Virginia, Oregon

The U.S. Fish and Wildlife Service offers professional development courses at the National Conservation Training Center campus in West Virginia, many of which would be of interest to this group. For more information, contact the individual identified below

- OUT8101: Public Outreach and Education: Overview and Program Planning; April 21-25, 2008; the deadline for registration is March 3, 2008; contact Sandy Spakoff at sandy_spakoff@fws.gov
- OUT8119: Sustainable Funding Strategies for Non-Profit Partners; May 6-8, 2008; contact Laura Jones at laura_jones@fws.gov; NOTE: this course will take place in Portland, Oregon
- OUT8113: Developing and Working with Friends Groups; May 21-23, 2008; contact Laura Jones at laura_jones@fws.gov
- OUT8116: Grant Writing for Conservation; May 28-30, 2008; the deadline for registration is March 14; contact Ora Dixon at ora_dixon@fws.gov
- OUT 8127: Public Participation & Informed Consent–Part I, Bleiker Approach for Public Officials to Complex Problem-Solving; June 10-12, 2008; the deadline for registration is March 3, 2008; contact Ora Dixon at ora_dixon@fws.gov
- OUT8163: Connecting People to Nature through Birding; June 16-19, 2008; the deadline for registration is April 21, 2008; contact Juanita Gustines at Juanita_gustines@fws.gov
- OUT8121: Interest-Based Negotiation; June 30-July 2, 2008; the deadline for registration is April 22, 2008; contact Ora Dixon at ora_dixon@fws.gov
- OUT8106: Powerful Presentation Tools and Techniques; July 14-18-2008, the deadline for registration is June 2, 2008; contact Juanita Gustines at Juanita_gustines@fws.gov
- OUT8114: Volunteer Recruitment Management; August 5-8, 2008; contact Laura Jones at laura_jones@fws.gov
- (Formally LED 5136): Applying Collaboration to Complex Environmental Issues; August 11-15, 2008; contact Ora Dixon at ora_dixon@fws.gov
- OUT8127: *Public Participation and Informed Consent – Part I*, January 21-23, 2009, the deadline for registration is November 12, 2008. Contact Ora W. Dixon at Ora_Dixon@fws.gov
- OUT8115: *Balancing Nature and Commerce in Communities that Neighbor Public Lands,* January 26-29, 2009; the deadline for registration is December 5, 2008. Contact Laura Jones at Laura_Jones@fws.gov
- OUT 8128: *Public Participation & Informed Consent – Part II,* February 18-20, 2009; the deadline for registration is December 10, 2008. Contact Sandy Spakoff at sandy_spakoff@fws.gov
- OUT8144: *Developing Festivals and Special Events*, February 23-27, 2009; the deadline for registration is December 15, 2008. Contact Laura Jones at Laura_Jones@fws.gov
- *OUT8101: Public Public Outreach and Education: Overview and Program Planning*, March 30-April 3, 2009; the deadline for registration is January 19, 2009

(after deadline, call for availability). Contact Sandy Spakoff at Sandy_Spakoff@fws.gov.

- *OUT8113: Developing and Working with Friends Organizations*, May 27-29, 2009; the deadline for registration is March 18, 2009 (after deadline, call for availability). Contact Laura Jones at Laura_Jones@fws.gov.
- *OUT8119: Advanced Partnerships: Building Sustainable Revenues,* May 12-14, 2009. This is an advanced course for federal agency and non-profit partners engaged in an active partnership. There is no charge for FWS, NPS, or BLM federal employees' tuition. Contact Laura Jones at laura_jones@fws.gov

http://training.fws.gov/documents/Section1_NCTC_Sponsored_Courses.pdf

National Conservation Training Center Courses – West Virginia
The U.S. Fish and Wildlife Service offers professional development courses at the National Conservation Training Center campus in West Virginia, many of which may be of interest to this group. For more information, contact the individual identified below.

- OUT8119: Sustainable Funding Strategies for Non-Profit Partners, September 3-5, 2008; call for availability; contact: Laura Jones at Laura_Jones@fws.gov
- OUT8194: Trail Management: Plans, Projects and People, October 6-10, 2008, the deadline for registration is July 28, 2008 - after deadline call for availability; contact Matt Gay at Matt_Gay@fws.gov

http://training.fws.gov/documents/Section1_NCTC_Sponsored_Courses.pdf

National Marine Sanctuaries Field Studies – Hawai'i
The National Marine Sanctuaries Field Studies in Hawai'i will take place August 4-9, 2005 on O'ahu, Hawai'i. NOAA's National Marine Sanctuary Program, in partnership with the National Geographic Society, offers hands-on ocean field studies based on educational standards, including subject areas such as marine science, water systems, habitat monitoring, and exploration. Teacher/student pair work will include snorkeling and fish identification on the coral reefs, studies of the local watershed, and more.
http://www.ngsednet.org/workshop_details.cfm?w_id=27

National Preservation Institute Training
The National Preservation Institute offers a series of professional training seminars for the management, development, and preservation of historic, cultural, and environmental resources related to historic preservation and cultural resource management. The Institute's Training Calendar, along with course descriptions, is available on the website.
www.npi.org

National Science Teachers Association's 2009 Conference
Submit a session proposal for NSTA's 2009 conferences, March 19-22, 2009 in New Orleans, Louisiana (March 19–22, 2009).
http://science.nsta.org/sessions/proposal_submission.asp

NSTA Web Seminars
NSTA Web Seminars are free, 90-minute, live professional development experiences that use online learning technologies to allow participants to interact with subject matter experts and education specialists. The programs are live and interactive and all online tools are provided. Seminars may be archived and available for viewing after the live event has occurred. *Watershed Dynamics* will be offered December 8, 2005 and February 16, 2006. A new series of seminars is scheduled between September 2006

and March 2007. Topics include the ocean's role in weather and climate, energy, the International Polar Year, and more. Registration is required.
http://institute.nsta.org/web_seminars.asp

National System of MPAs Public Dialogue - Maine
The National Marine Protected Areas Center is holding a series of public dialogues around the country to solicit and collect input that will be used to develop the framework for the national system of marine protected areas. Each forum will begin with a presentation from MPA Center staff on our current plans. Participants will break into small groups to ask questions, discuss relevant issues, and provide input on the national system. The New England Region Public Dialogue will be held on May 16, 2005, in Portland, Maine.
http://mpa.gov/national_system/

National Teachers Enhancement Network
The National Teachers Enhancement Network (NTEN), delivers teaching resources and professional development opportunities through the Internet directly to K-12 science teachers. University scientists, engineers, mathematicians, and science educators teach NTEN's graduate courses. Educators access electronic teacher resources, discuss issues with other educators, and participate in high-quality graduate tele-computing courses, including the *Global Warming, Climate Change and our Environment* course.
http://scienceteacher.org/courses.htm

Natural History and Conservation of Florida Turtles Summer Workshops - Florida
The fourteenth annual summer workshops for formal and non-formal educators on the natural history and conservation of Florida turtles provide educators with an introduction to the ecology and conservation of Florida turtles through both classroom presentations and first-hand field experiences.

- Boyd Hill Nature Park, St. Petersburg, June 5-8, 2006.
- Guana Tolomato Matanzas National Estuarine Research Reserve, Ponte Vedra Beach, June 12-15 2006
- Apalachicola National Estuarine Research Reserve, Apalachicola, June 19-22, 2006
- June 4-7, 2007 in St. Petersburg, Florida,

http://heinrichecologicalservices.com/2006registration.pdf
http://www.heinrichecologicalservices.com/programs.html

Natural Resource Communications Techniques and Technologies – West Virginia
This Natural Resource Communications Techniques and Technologies course (OUT8106), June 6-10, 2005, July 17-21, 2006, in Shepherdstown, West Virginia, is designed to help natural resource professionals communicate more effectively through oral presentations using dynamic visuals aids. Topics include developing communication strategies for specific audiences, creating computer-generated PowerPoint images, and solving equipment problems. A special session entitled "Verbal Victories" (SM) provides hints for handling difficult or hostile audiences. The course combines lecture, role-playing, demonstration, and practice in making presentations on natural resource topics.
Contact Juanita Gustines at Juanita_Gustines@fws.gov
http://training.fws.gov/catalog/coursecontents.html

Nature and Environmental Writers - College and University Educators - Maine
Nature and Environmental Writers - College and University Educators (NEW-CUE), Inc. is a non-profit, environmental education organization founded primarily to assist writers and educators who are dedicated to enhancing the public's awareness of environmental issues. The Fourth NEW-CUE Writers' Conference and Workshop in honor of Rachel Carson will be held June 13-16, 2006 in Boothbay Harbor, Maine, with the theme of *Wilderness/Wildness.* Conference enrollment is limited to 100 participants.
http://www.new-cue.org/

NERRS Education Calendar of Events
NOAA's National Estuarine Research Reserve System (NERRS) offers an online Education Calendar of Events. This searchable calendar allows users to find education activities by type, date, or reserve. Listings of events include the event title, date, location, contact, hosting reserve, and category (i.e. community ed/outreach, K-12 student, or post-secondary programs). Whenever available, visitors can also link to additional information.
http://www8.nos.noaa.gov/publicnerrs/eduevents.aspx

New Jersey Teach at the Beach
The New Jersey Marine Education Association announces *Teach At The Beach* in Camden, New Jersey, May 14, 2004. The workshops and activities are designed to provide educators of all grades and disciplines with ideas, resources, lesson plans and programs dedicated to utilizing marine and aquatic environments as a background to classroom teaching.
http://hometown.aol.com/newjerseymea/register.html .

New York State Marine Education Association Conference – New York
The theme for the 32nd New York State Marine Education Association Annual Conference, June 8, 2008 in New York, New York, is Seafood, Sea Turtles, and a Sea Legacy. Join them with their host, the American Museum of Natural History, for an enriching experience in marine science.
http://www.nysmea.org/con08/NYSMEA08.htm

Ninetyeast Ridge Expedition – Indian Ocean
Prior to scientific ocean drilling projects, marine geological research expeditions explore and map the areas proposed for drilling. The Ninetyeast Ridge Expedition, one such site survey of one of the longest linear features on Earth, will be conducted June 15-August 15, 2007. One educator will be selected as part of the Teacher at Sea Program, to participate and to interpret the expedition for a variety of shore-based audiences.
http://joilearning.org/training/default.html

NOAA Ocean Explorers Educators' Workshop – Hawai'i
Bring the excitement of modern day explorers to your teaching with this NOAA Ocean Explorers' Workshop, February 24, 2007 in Honolulu, Hawai'i. Stipends cover time, teaching materials, travel costs (including costs from neighbor islands), and a copy of Learning Ocean Sciences through Ocean Exploration curricula and CD-ROM. Since part of the program is web-based, your librarian or IT team member are welcome as well.
http://www.waquarium.org/class/family.html#noaa_ocean_explorers

NOAA Ocean Exploration Professional Development Workshops - Mississippi
The Gulf Coast Research Laboratory, University of Southern Mississippi, J.L. Scott Marine Education Center presents NOAA Ocean Exploration Professional Development Workshops for science educators of grades 6-12 on June 30, 2008, in Ocean Springs, Mississippi, with a follow-up workshop October 17, 2008.
Contact Dr. Shelia Brown, shelia.brown@usm.edu

NOAA Ocean Exploration Workshop – New York
Join Dr. Valerie Chase for a hands-on, secondary earth and life science workshop using some of the more than 200 lessons from the Ocean Explorer website during this free, pre-NMEA conference workshop on July 16, 2006 in New York, New York. The activities emphasize the use of real ocean science data in a classroom setting. The workshop is first come, first served for 32 participants.
Contact Dr. Valerie Chase at vchase529@worldnet.att.net

NOAA Ocean Exploration Workshop – North Carolina
Bring the excitement of current ocean science discoveries to your students using the Ocean Exploration curriculum and CD-ROM's of the Ocean Explorer website at this workshop, July 28, 2006 in Kure Beach, North Carolina.
http://www.oceanexplorer.noaa.gov
Contact Danielle Wallace at Danielle.Wallace@ncmail.net
Alabama - September 16, 2006, with Part II on March 24, 2007 on Dauphin Island, Alabama. Contact Denise Keaton at dkeaton@disl.org

NOAA Open House for Educators - Maryland
NOAA invites you to learn more about its programs and educational resources. The NOAA Science Center in Silver Spring, Maryland will be open on July 17, 2007 to teachers and informal educators to meet NOAA scientists and educational specialists and find out about resources, websites, and programs that engage students in the science of NOAA. Free educational resources will be available.
Contact Karrie Carnes at Karrie.Carnes@noaa.gov

NOAA Seminars
NOAA offers a series of Science Seminars in Silver Spring, Maryland, which can be joined off-site through video, webcast, or by phone. You can view the schedule through Google Calendar, which offers links to a detailed description of the seminar along with viewing and listening methods when available. For example, Stephen Weisberg will present *New opportunities in beach water quality monitoring* on April 11, 2007. You can also join the seminar email list by contacting Hernan Garcia at Hernan.Garcia@noaa.gov.
http://www.google.com/calendar/embed?src=39n13ap56usih9flusufcft34o%40group.calendar.google.com&dates=20070401%2F20070501

North Cascades Institute Birding Seminars - Washington
The North Cascades Institute offers a variety of winter birding seminars. Led by experienced naturalists, most seminars are one day with transportation provided. The three-day retreat not only addresses birds but looks at Skagit Delta winter ecology, land use and habit conservation by landowners.

- January 7, 2006: Bald Eagles and Salmon of the Skagit River
- January 14-16, 2006: Skagit Delta Naturalists Retreat: Lowlands, Rich
- Lands

- January 21, 2006: Winter Birds of the Skagit and Samish Deltas
- February 4, 2006: Water Birds of Bellingham Bay aboard the Snow Goose
- February 5, 2006: White Birds of Winter
- February 11, 2006: Trumpeter Swans: Ecology and Conservation

http://www.ncascades.org

Northwest Aquatic and Marine Educators Conference - Washington
The Northwest Aquatic and Marine Educators will host their annual conference, *Living on an Island: Salish Sea Stewardship,* July 9-12, 2008 on San Juan Island, Washington.
http://www.wsg.washington.edu/education/events/name.html

NSTA International Polar Year Web Seminars - Online
NSTA's Web Seminars offers two free online seminars designed for educators of grades 5–8 on *The Role of Polar Regions in Earth's Changing Climate System*, November 27 and December 13, 2007, featuring scientists and education specialists from NASA. The seminars will focus on the International Polar Year and how polar regions interact with Earth's climate system; atmospheric gas changes over Earth's history; what ice cores tell us about past climate; and the implications of climate change in the polar regions.
http://learningcenter.nsta.org/products/symposia_seminars/fall07/IPY_Denver/websemin ar.aspx

NSTA – NSDL Web Seminars - Online
The National Science Teachers Association and the National Science Digital Library (NSDL) will partner once again, offering web seminars for teacher professional development that showcases NSDL experts and resources. The presenters within the NSDL community of trusted educational and research-based organizations will share their expertise and answer questions live during a 90-minute online program straight from your desktop. Archive versions of each presentation will be provided.
http://nsdl.org/resources_for/k12_teachers/?pager=professional_development

NSTA Web Seminars
NSTA Web Seminars are 90-minute, live professional development experiences that use online learning technologies to allow participants to interact with experts, education specialists, and others. Seminars may be archived and available for viewing after the live event has occurred. Upcoming seminars focus on corals, polar science, and more.
http://learningcenter.nsta.org/products/webseminars.aspx

NSTA Web Seminar – Coral Ecosystems
NSTA Web Seminars are 90-minute, live professional development experiences that use online learning technologies to allow participants to interact with nationally acclaimed experts, scientists, education specialists, and others from NSTA government partners such as NASA and NOAA. NOAA: Coral Ecosystems will be presented on June 7, 2006. Registration is required.
http://institute.nsta.org/Anaheim/coral/webseminar.asp

NTEN Online Courses
The National Teachers Enhancement Network (NTEN) provides quality online science courses developed just for teachers, created by a collaborative team of scientists and in-service teachers. The courses contain rich science content and emphasize discussion and collaboration among participants. Upcoming courses include Biology of Riparian

Zones and Wetlands, Environmental Measurement: Sensors and Electronics, Construction of Curriculum, and more.
http://btc.montana.edu/courses/aspx/ntenindex.aspx

Ocean Awareness Through Aquarium Education – North Carolina
Join aquarium staff and marine education specialists to experience science education driven by ocean awareness in this free Ocean Awareness Through Aquarium Education workshop. Activities will connect teachers to aquariums and oceans, as resources for discovery and relevant science education. Teachers participating in this workshop receive CEU credit, classroom activities, posters, and other useful materials.
Contact Danielle Wallace at Danielle.Wallace@ncmail.net

Ocean Adventures Workshops - California
KQED Public Broadcasting has partnered with The Oakland Zoo and River of Words to present educator workshops for upper elementary, middle school, and high school teachers to celebrate the PBS series, *Jean-Michel Cousteau: Ocean Adventures.* Learn about marine debris and invasive species and the educational materials available on the series website.

- Making Sense of Marine Debris; June 17, 2006; Berkeley; www.kqedrow.mollyguard.com
- Invasive Species around the World; June 22, 2006; Oakland; www.kqedoaklandzoo.mollyguard.com

Additional workshops will include The Gray Whale Obstacle Course in August and Sharks at Risk and America's Underwater Treasures in September, 2006.
ScienceEd@kqed.org.

Ocean Awareness Days – Georgia and South Carolina
The following institutions are hosting workshops for high and middle level teachers during events called Ocean Awareness Day workshops. Each workshop focuses on various marine themes for middle and high school teachers in their local area. Please contact the appropriate person for more information.

- March 4 2006, Carrollton Georgia – Steve Rich at srich@westga.edu
- March 25, 2006, Athens, Georgia – Kate Mowbray at katemowbray@co.clarke.ga.us
- April 1, 2006, Ravenel, South Carolina – registration, Amy Oser at aoser@ccprc.com or content questions, Sara Marhenke at smarhenke@ccprc.com

Ocean Explorer Workshops
NOAA's Ocean Explorer program offers professional development offerings around the country. Workshops in January and February 2007 will take place in California, Washington, South Carolina, and Hawai'i.
http://www.oceanexplorer.noaa.gov/edu/development/development.html

Ocean Exploration Professional Development Workshop - Oregon
Bring the excitement of current ocean science discoveries to your students using NOAA's Ocean Exploration curriculum and CD-ROM's of the Ocean Explorer Web site, June 17, 2006 in Corvallis, Oregon. Perform inquiry- and standards-based activities tied directly to ocean expeditions. Participants receive a copy of the Learning Ocean Science through Ocean Exploration curriculum and CD-ROM's.

www.oceanexplorer.noaa.gov
Contact Melissa Feldberg at melissa.feldberg@oregonstate.edu

Ocean Explorer Professional Development
NOAA's Ocean Explorer website lists upcoming professional development offerings for teachers and other educators to engage in learning more about ocean exploration. Opportunities focus on how educators can use the mathematics, science, and technology associated with exploring the oceans in their classrooms to help increase awareness and understanding of the ocean world. These workshops are designed to introduce educators to premiere ocean scientists/explorers and their research and explorations, and at the same time, provide exemplary tools and resources to engage students in ocean exploration by bringing the classroom closer to the ocean than it has ever been before. The website includes contact information to sign up for individual workshops.
http://oceanexplorer.noaa.gov/edu/development/development.html

Ocean Explorer Workshops - Various
NOAA's Ocean Explorer program offers professional development offerings around the country. Opportunities focus on how educators can use the science, technology, and mathematics associated with exploring the oceans in their classrooms to help increase awareness and understanding of the ocean world. The website lists upcoming workshops through August 2007 throughout the country. Check the website for details and contact information.
http://www.oceanexplorer.noaa.gov/edu/development/development.html

Ocean Literacy Summit - Massachusetts
Join ocean scientists, science writers, educators and their administrators, and policymakers at the New England Ocean Sciences Education Collaborative Ocean Literacy Summit, November 4, 2006 in Boston, Massachusetts. The summit will include workshops, discussions, networking, and exhibits, with a principal focus on ocean science literacy (OSL), an understanding of the ocean's influence on you and your influence on the ocean. Learn how the national OSL Principles can be used to frame ocean science research, teach about science, and incorporate ocean sciences into standard curricula.
http://necosee.net/NEOSECOceanScienceLiteracySummit.htm

Ocean Observing Educator Workshop – New Hampshire
This free educator institute, Seasons in the Sea: Understanding Change in the Gulf of Maine Through Buoys, Boats, and Satellites, June 26-30, 2006 in Durham, New Hampshire, will help grade 7-12 classroom teachers link the ocean to their classroom. Learn how the ocean undergoes seasonal from regional to microscopic scales. Learn content, gain lab and sea research experience, and identify new classroom activities to translate ocean science to learners.
http://www.cooa.unh.edu/workshop2006.jsp

Ocean Observing Educator Institute Workshop – New Hampshire
The University of New Hampshire Coastal Observing Center and the Gulf of Maine Ocean Observing System will cosponsor an Educator Institute, *Understanding Seasonal Change in the Ocean Using Ocean Observing Data*, July 7-11, 2008 in Durham, New Hampshire. This workshop aims to provide a deeper understanding on how the Gulf of

Maine works, how it changes, and how we can monitor these changes by studying ocean observing data. Check the website for materials from previous workshops.
http://www.cooa.unh.edu/education/workshops.jsp

Ocean Observing System Teacher Workshop – Chesapeake Bay
The Bridge educators are planning a workshop for grade 9-12 science teachers within the Chesapeake Bay watershed. This data-rich professional development and classroom opportunity will focus on the Bay and its associated ocean observing systems, including the Chesapeake Bay Interpretive Buoy System, National Estuarine Research Reserve system, the Chesapeake Bay Observing System, and Virginia Estuarine and Coastal Observing System. This workshop is tentatively scheduled for June 26-29, 2007, and is contingent upon funding.
http://www.vims.edu/k12/cbibs

Ocean Observing Workshop - Alabama
Dauphin Island Sea Lab and COSEE will host an Ocean Observing Systems and Apex Predators Workshop at the Southern Association of Marine Educators Conference, November 14-16, 2008, on Dauphin Island, Alabama. The nominal fee includes lodging, meals, field trips, and workshop materials, along with a one-year membership to the Southern Association of Marine Educators and the National Marine Educators Association.
Contact Denise Keaton at dkeaton@disl.org

Ocean Science Professional Development Workshop - Washington
This four-day *Ocean Science Professional Development Worksho*p for teachers of grades 4-5, August 4-7, 2008 in Forks, Washington, explores the dynamic relationships in the marine environment from Puget Sound to the Olympic Coast to the deep ocean. Participants in this course will be eligible for free admission to the Seattle Aquarium and a field trip to a local beach, including free transportation for their class. Registration is required and space is limited.
Contact Jacqueline Laverdure at Jacqueline.Laverdure@noaa.gov

Ocean Science Professional Development Workshop - Washington
This four-day Ocean Science Professional Development Workshop for teachers of grades 4-5, August 4-7, 2008 in Seattle, Washington, explores the dynamic relationships in the marine environment from Puget Sound to the Olympic Coast to the deep ocean. Participants in this course will be eligible for free admission to the Seattle Aquarium and a field trip to a local beach, including free transportation for their class.
Contact Karen Matsumoto at karen.matsumoto@seattle.gov

Ocean Science Workshop – Washington
This Ocean Science Workshop will focus on marine ecosystems of Puget Sound and the coastal ocean of Olympic Peninsula. From July 24-27, 2007, this 4-day course will provide opportunities for learning about coastal ecology and the interconnections between humans and the ocean. Participants will focus on activities, lesson planning, and investigations that support Washington State learning standards and grade level expectations in elementary science.
http://www.sanctuaries.noaa.gov/education/teachers

Ocean Sciences Education Leadership Institute - Georgia
Middle and high school teachers, pre-service teachers, and informal educators in North Carolina, South Carolina, and Georgia are invited to build and test their own Remotely Operative Vehicle (ROV) from the MIT Sea Grant SEA PERCH program. This COSEE SE Ocean Sciences Education Leadership Institute, June 24-30, 2007 in Savannah, Georgia, will allow participants to discover how ROVs are used to study the seafloor to understand habitats, geology, and effects of surface storms on the bottom.
Contact Margaret Olsen at olsen@uga.edu

Ocean Sciences Education Leadership Institute – North Carolina
The Center for Ocean Sciences Education Excellence SouthEast invites middle and high school science teachers to participate in the Ocean Sciences Education Leadership Institute, *Estuaries and Living Resources*, July 23-28, 2006 in Pine Knoll Shores and Beaufort, North Carolina. This Institute is designed to promote ocean sciences in formal and informal education and forge lasting relationships between ocean sciences researchers and educators. Twenty teachers (5th grade - 12th grade) will be selected from North Carolina, South Carolina and Georgia.
http://www.scseagrant.org/se-cosee/teacher/06_leadership.htm

Ocean System: Integrated Science - Online
This summer, the American Museum of Natural History's award-winning online professional development program, Seminars on Science, is presenting eight standards-based courses, including The Ocean System: Integrated Science. This course explores the origin and evolution of the ocean, as well as its vast diversity of life and ecosystems. Other summer online courses include The Diversity of Fishes and Sharks and Rays - Ecology.
http://learn.amnh.org

Ocean Treasure: The Natural and Cultural Resources of the Stellwagen Bank National Marine Sanctuary – Massachusetts
The Stellwagen Bank National Marine Sanctuary and Cape Cod Museum of Natural History are sponsoring a 13-week lecture series and course entitled *Ocean Treasure: the Natural and Cultural Resources of the Stellwagen Bank National Marine Sanctuary*. Graduate credits are available. Each session, Tuesday nights from 6-9pm, February 1-May 9, 2005, will feature specialists who will introduce the resource and discuss cutting edge research in the field.
http://www.ccmnh.org/

Ocean's Role in Weather and Climate - Maryland
This symposium for middle and high school level educators on the topic of the ocean's influence on weather and climate is a blended professional development opportunity including this face-to-face learning opportunity at the conference followed by several online experiences. The half-day symposium will focus on the interconnections among air, sea, and land; the processes by which energy is stored, released and transferred among them; and how our understanding and ability to monitor ocean conditions is key to predicting climate change.
http://institute.nsta.org/fall06/oceans/symposium.asp

Oceans for Life Virtual Teacher Workshop
Oceans for Life Virtual Teacher Workshop Earth Day 2007 was a two-week online workshop held April 16-28, 2007. It is still open for viewing, but not for input. Keynotes

are provided by scientists in the field conducing cutting edge research. You can access their presentations as well as their online discussions with participants in the workshop. The keynotes have National Science and other standards linked to them, and are supported by additional resources and materials to help your efforts improving ocean literacy in the classroom. Check out the Teacher's Tool Kit and Share-a-Thon sections.
http://coexploration.org/ngs/EarthDay/index.html

Olympic Park Teacher Training and Summer Field Science Studies - Washington
The Olympic Park Institute is offering Environmental Science teacher training, July 28-31, 2005, in Olympic National Park, Washington. In addition, two five-day field science study sessions are offered for students entering grades 8-12 in July, 2005.
http://www.olympicparkinstitute.org/

On the Cutting Edge – Geoscience Workshops and Resources
The 2006 series of workshops for current and future geoscience faculty is available from the Science Education Resource Center website. The *On the Cutting Edge* project helps geoscience faculty stay up-to-date with both geoscience research and teaching methods. The workshop series and website combine to provide professional development opportunities, resources, and opportunities for faculty to interact on-line and in person with colleagues around the world.
http://serc.carleton.edu/NAGTWorkshops/index.html

On the Lynn Waterfront – Massachusetts
The New England Aquarium, in partnership with Northeastern University's Marine Science Center in Nahant, offers a summer institute for teachers funded by the Massachusetts Department of Education. This institute, On the Lynn Waterfront: Integrating Science Standards through Classroom and Field Investigations, will run for 8 days in the summer and two follow-up days in the fall (August 6-15, October 27, and November 17, 2007 in Nahant, Massachusetts).
http://www.neaq.org/scilearn/ed_progs/subpage.php?id=31

Online Professional Development Courses
The National Science Teachers Association provides a convenient webpage featuring providers of online courses for science educators. These providers—from universities to informal science institutions—invite you to learn more about their courses to see if they are right for you. Current links include the American Museum of Natural History, Montana State University, University of Maryland, and University of Massachusetts Extension.
http://institute.nsta.org/tier2.asp

Onshore and Offshore: Investigating the Marine Environment - Washington
The Port Townsend Marine Science Center offers Onshore and Offshore: Investigating the Marine Environment, a week-long course on marine science, July 29-August 3, 2007. Learning takes place on the beach, in the Port Townsend Marine Science Center's tanks and labs, and on board the *Adventuress Schooner*. Teachers will receive standards based-activities for K-12 classrooms in content areas ranging from biology, geology, art, chemistry, physics, and language arts.
http://www.ptmsc.org/education/teacher.html

Onshore/Offshore Workshop - Washington
The Port Townsend Marine Science Center offers *Onshore/Offshore, Workshop on Marine Ecology and Conservation for Teachers*, a week-long course, June 24-29, 2006, on the Olympic Peninsula, Washington. Learning takes place on the beach, in the lab, and while sailing on board the Adventuress Schooner. Teachers take home standards-based activities for K-12 classrooms on marine biology, physical oceanography, basic navigation, tide and currents, marine mammals, and sand studies. Credits are available.
http://www.ptmsc.org/programs/onshore_offshore.htm

Open House for Educators at The Mariners' Museum - Virginia
The Mariners' Museum and the NOAA Monitor National Marine Sanctuary will be co-sponsoring an open house on September 26, 2007 for teachers and school administrators at The Mariners' Museum in Newport News, Virginia.
Contact Krista Trono at Krista.Trono@noaa.gov

Ossabaw Island Educator Workshops - Georgia
Ossabaw Island is managed by the Georgia Department of Natural Resources (DNR). The Ossabaw Island Foundation, a Savannah-based non-profit organization which has the exclusive right to use certain areas on the north end and non-exclusive access to other areas, works cooperatively with DNR to manage access to Ossabaw for public educational programs. Upcoming educator workshops include *Biostudy of Birds*, April 28-30, 2006, and *Sea Turtle Ecology*, July 14-17, 2006.
http://eeingeorgia.org/net/content/go.aspx?locationid=13063&eventid=39124&c=28668&locationid=13063&s=13063.0.68.4863

Our Wetlands, Our World Educator Workshops - California
The California Coastal Commission is hosting free teacher workshops based on the downloadable *Our Wetlands, Our World* curriculum, in Newport Beach, California. This high school curriculum is focused on the natural history of and human impact on wetlands, specifically the Upper Newport Bay in California. Participate in several activities from the curriculum while previewing a potential field trip for you and your students at the Upper Newport Bay.
Contact Matt Yurko at myurko@coastal.ca.gov

Outdoor Classroom Symposium - Georgia
The 2005 Outdoor Classroom Symposium, *Teaching Outside the Box*, will be held October 14, 2005, in Acworth, Georgia. This year's symposium will provide ideas how to better use your outdoor learning center and offer creative ways to teach outdoors.
http://eeingeorgia.org/net/calendar/details.aspx?c=27057&s=31021.0.68.4863

Pali Institute Outdoor Weekend for Educators - California
Not marine, but near the lake and a great opportunity for those in the area. Teachers, principals, and science educators are invited for a free weekend, March 23-25, 2007, at the Pali Institute in Running Springs, California. Learn more about science, outdoor, and experiential education curriculum; challenge yourself on high and low ropes course elements; explore the night sky through telescopes; and reenergize yourself in 74 acres of majestic beauty of the San Bernardino Mountains near Lake Arrowhead.
http://www.paliinstitute.com/

Parks as Labs, Studies of Wildland Fire Ecology & Globe Workshop in Santa Monica
This combination workshop, Santa Monica Mountains National Recreation Area, California, August 9-12, 2004, for middle and high school teachers, presents participants with skills and knowledge about these three environmental education programs. Participants will receive teacher manuals, GLOBE protocols and data sheets. Priority enrollment is given to middle and high school teachers of science and environmental studies.
http://www.nps.gov/samo/educate/workshops/PAL-Fire-GLOBE.htm .

PAST Foundation Field School - Florida
The PAST Foundation (Partnering Archaeology with Science and Technology) will host its 2005 Field School August 1-12, 2005 in Biscayne National Park, Florida. The field school will teach basic underwater documentation techniques and explore how archaeological information is translated into the creation and management of underwater parks. The application deadline is June 10, 2005.
http://www.pastfoundation.org/Field%20School%202005.htm

Planning of Wetlands Facilitator Training – Maryland
This three-day course, August 3-5, 2005, in St. Michaels, Maryland, is designed to guide educators to become a trained facilitator and teach others to turn their schoolyard into a wetland. Participants will be guided through the steps of planning and designing a wetland.
Contact Suzanne Greene at wow@wetland.org or (410) 745-9620

POW! The Planning of Wetlands – Bringing Schoolyards to Life - Georgia
Environmental Concern, Inc. will help you find the bog behind your cafeteria and the marsh next to the parking lot on October 15, 2005, in Kennesaw, Georgia. Using a schoolyard as the classroom, this one-day workshop will take you through all the steps of designing a wetland with your students. Learn basic wetland ecology, assess the schoolyard for suitable sites using topography and soils, measure the drainage area, calculate a water budget, design the wetland, and create an appropriate planting plan.
http://eeingeorgia.org/net/calendar/details.aspx?c=27391&s=32850.0.68.4863

POW! Planning of Wetlands – North Carolina
This two-day course, September 10-12, 2004, at the Cape Lookout Environmental Education Center, North Carolina, guided educators in the construction, restoration, enhancement and monitoring of wetlands in or near schoolyards using natural and/or artificial sources of water. Participants planned a wetland using hands-on activities. Each participant received a copy of *POW! The Planning of Wetlands.*
http://www.wetland.org/educa.htm .

POW! The Planning of Wetlands Facilitator Training
Through a grant from The Waterfowl Festival, Environmental Concern constructed a demonstration wetland at their facility in St. Michaels, Maryland, August 25-27, 2004. Rather than building the wetland as an end unto itself, it was incorporated into a 3-day POW! Facilitator's Training for those interested in working with schools and communities to build schoolyard habitats as areas for outdoor education.
www.wetland.org .

Power Presentations - Online
The American Society of Training and Development, Southcentral Alaska chapter, is offering a two hour on-line seminar that focuses on creating exciting PowerPoint® presentations. The seminar is not a class in PowerPoint®. Rather, it's a fun, interactive course on how to more effectively use PowerPoint® and other applications to work creatively and efficiently to create world-class graphics and present with confidence.
http://www.astdalaska.org/PowerPresentations.htm

Powerful Presentation Tools and Techniques – West Virginia
The U.S. Fish and Wildlife Service offers Powerful Presentation Tools and Techniques (OUT8106), designed to help natural resource professionals communicate more effectively with both general and technical audiences through oral presentations using dynamic visual aids, July 30-August 3, 2007, in Shepherdstown, West Virginia. Topics include developing communication strategies for specific audiences, creating computer-generated PowerPoint images, Photoshop tools, and solving equipment problems.
Contact Juanita Gustines at Juanita_Gustines@fws.gov
http://training.fws.gov/catalog/coursecontents.html

Principles of Science Inquiry for the K-8 Classroom - California
The Birch Aquarium at Scripps Institution of Oceanography is hosting this workshop March 5, 2008 in La Jolla, California. Teach your students how to ask scientifically oriented questions and initiate a life-long learning process, developing explanations that connect their science knowledge base to the natural world. This workshop includes a trip to a sandy beach field trip for a low-tide investigation. Scholarships are available.
http://aquarium.ucsd.edu/Education/For_Schools/For_Teachers/Professional_Development/

Professional Development from the National Marine Sanctuary Program
The NOAA National Marine Sanctuary Program aims to provide teachers with resources and training to support ocean literacy in America's classrooms. Check out the workshop and professional development opportunities for educators, from short courses in California to Georgia's Rivers to Reefs, from shipwreck archaeology to marine technology, and much more.
http://www.sanctuaries.noaa.gov/education/teachers/professional.html

Professional Development in Georgia
The Georgia Youth Science and Technology Center provides professional development for Georgia's educators, including workshops and excursion classes that involve travel to unique areas of the globe. Upcoming training includes:

- Changes in Latitudes: A Study of the Ecosystems of the Florida Keys
- Sapelo Island Excursion: Introduction to the Coastal Ecology of Sapelo Island
- Cumberland Island

http://www.spsu.edu/gystc/events.html .

Professional Development Institute - Massachusetts
The New England Aquarium offers a free summer Professional Development Institute for Massachusetts science teachers, July 28-August 6, 2008 and two Saturdays in Fall, 2008, in New Bedford, Massachusetts. Funded by the Massachusetts Department of Education, the institute will serve upper elementary and middle school science teachers from districts of need, but all Massachusetts teachers are welcome to apply.
Contact the Teacher Resource Center at trc@neaq.org

Professional Development Programming for K-12 Teachers Available On-Line
Annenberg/CPB, a partnership between The Annenberg Foundation and the Corporation for Public Broadcasting, uses media and telecommunications to advance teaching in American schools. The partnership funds and distributes educational video programs with coordinated Web and print materials for the professional development of K-12 teachers, for both course content and teaching methods.
www.learner.org

Professional Development Weekends - California
Camp Ocean Pines is offering two professional development opportunities this winter in Cambria, California. *All About Abalone* is a weekend conference with tour and dinner, January 29-February 1, 2009. *Humpback Whales* is a weekend conference, January 23-25, 2009.
http://campoceanpines.org/

Professional Grant Proposal Writing Workshop - Michigan
The Grant Institute's Grants 101: Professional Grant Proposal Writing Workshop will be held April 10-12, 2006 in Detroit, Michigan. The course is a detailed introduction to the process, structure, and skill of professional proposal writing. It can provide a thorough overview, introduction, and refresher at the same time. Check out the website for additional times and locations.
http://www.thegrantinstitute.com

Project Wild Aquatic Workshop - Maine
The Maine State Aquarium is hosting a Project Wild Aquatic workshop, May 23, 2008 in Boothbay Harbor, Maine, for teachers and education students. The workshop will include curriculum materials and the Project Wild Aquatic activity book and provide hands-on activity training. Participants will receive a complimentary 2008 Family Pass to the aquarium, and more.
http://www.maine.gov/dmr/rm/aquarium/resources.htm

Project Design and Evaluation Training - California
This course, offered through the University of Southern California Sea Grant Program on October 10-11, 2007 in Los Angeles, California, will provide coastal resource management extension and education professionals with the knowledge, skills, and tools to design and implement projects that have measurable impacts on the audience they want to reach. The interactive curriculum can help increase the effectiveness of projects by applying valid instructional design theory to their design.
Contact Lynn Whitley at lwhitley@.usc.edu
http://www.csc.noaa.gov/cms/cls/project_design.html

Project Design and Evaluation Workshop – North Carolina
This course, February 13-14, 2006, on Roanoke Island, North Carolina, provides coastal resource management extension and education professionals with the knowledge, skills, and tools to design and implement projects that have measurable impacts on the audience they want to reach. The workshop is provided by NOAA Coastal Services training staff. There is no charge for the workshop, but pre-registration required.
Contact Wanda Best at Wanda.M.Best@ncmail.net

Project Design and Evaluation Workshop
A Project Design and Evaluation Workshop, February 17-19, 2004, Fairhope, AL, will be hosted by Weeks Bay National Estuarine Research Reserve. The workshop is designed to provide coastal educators in the Southeastern U.S. with the knowledge, skills, and tools to design and implement projects that have measurable impacts on the audience they want to reach.
tsanchez@sarpc.org

Project Design and Evaluation Workshop
NOAA Coastal Services Center offers a three-day *Project Design and Evaluation Course* in the Charlotte Harbor National Estuary Program study area, December 8-10, 2003, Punta Gorda, Florida. The course provides coastal resource management extension and education professionals with the knowledge, skills and tools to design and implement projects that have measurable impacts on the audience they want to reach.
www.CharlotteHarborNEP.org

Project Design and Evaluation – New Jersey
The Project Design and Evaluation course, November 17-19, 2004, Tuckerton, New Jersey, provides coastal resource management extension and education professionals with the knowledge, skills, and tools to design and implement projects that have measurable impacts on the audience they want to reach. This interactive curriculum can help you increase the effectiveness of your projects by applying valid instructional design theory to their design.
Contact Lisa Weiss at weiss@imcs.rutgers.edu .

Project Design and Evaluation Workshop - Oregon
The Project Design and Evaluation course, February 15-17, 2005, in Hillsboro, Oregon, provides coastal resource managers and education professionals with the knowledge, skills, and tools to design and implement projects that have measurable impacts on the audience they want to reach. This interactive curriculum can help you increase the effectiveness of your projects by applying valid instructional design theory to their design. Please register by February 4, 2005.
Contact Patrick Willis at patw@ci.hillsboro.or.us or (503) 681 6206

Project E3 Workshops - Texas
Project E3: Expanding Energy Education is an interdisciplinary, PreK-12th grade energy education program. This workshop offers teaching ideas for use in science, math, social studies, language arts, art, physical education, and music to increase your students' energy and earth science literacy. Each activity utilizes readily available materials and contains all of the information necessary, including grade levels, concepts, skills, objectives, materials, time constraints, and a glossary.
http://www.oceanstaroec.com/education/education.htm

Project Learning Tree E-Learning Workshop
This online workshop, February 21 - April 3, 2005, is designed for educators in grades preK-8. Educators from the following states are invited to participate in this workshop: Arkansas, Colorado, Florida, Idaho, Maine, Minnesota, Missouri, New York, North Dakota, Oklahoma, Oregon, Rhode Island, Vermont, and West Virginia. The course syllabus is available on the website. Registration deadline is February 11, 2005.
http://www.creative-conservation.com/trainingopps.htm

Project Shark Awareness Teacher Workshops - Florida
The Florida Program for Shark Research and Florida Museum of Natural History offer two upcoming "train the teacher" Project Shark Awareness workshops, August 4-5 and 18-19, 2005. Participants will receive information and teaching kits that will enable them to conduct shark awareness programs in their individual school districts. These include a teaching kit consisting of a PowerPoint presentation, teaching guide, handouts, and more. Also included are hands-on items such as a shark jaw, embryo, teeth, and skin.
http://www.flmnh.ufl.edu/fish/education/psa/psa.htm

Project Shark Awareness Teacher Training Workshops - Florida
Join the Florida Program for Shark Research to learn about the myths and realities of shark behavior, biology, and conservation. Workshop participants will receive information and materials that will enable them to conduct shark awareness programs in their individual school districts and classrooms. Materials include a teaching binder and CD with a PowerPoint presentation, teaching guide, handouts, and classroom learning activities, as well as a shark jaw, shark skin, shark embryo, shark vertebrae and more. Workshops will be held March 8-9, 2007 and April 19-20, 2007 in Gainesville Florida. Registration priority is given to Florida elementary school educators.
http://www.flmnh.ufl.edu/fish/education/psa/psa.htm
Contact Cathy Bester at cbester@flmnh.ufl.edu

Project Soundwise Teacher Workshops - Connecticut
Schooner Inc. offers Project Soundwise, a marine education curriculum, to New Haven area schools. This hands-on curriculum covers a variety of topics including oceanography, water chemistry, and marine biology. With funding from the NewAlliance Foundation, they are offering free teacher workshops and educational resources. Two workshops will take place, on December 13, 2005 and January 24, 2006, in New Haven, Connecticut.
Contact Heather Blankenstein at educator@schoonerinc.org

Project Wet Facilitator Workshops - California
Two workshops are scheduled in California, in Fresno, October 1, 2005, and El Cajon, December 2, 2005. The goal of Project WET (Water Education for Teachers) is to promote the awareness, appreciation and knowledge of water resources. Facilitator training is an 8-hour workshop providing training in using the Project WET activities with your students and to help train fellow educators. Participants will be trained in the basics of how to use Project WET materials as well as in facilitation and organization skills.
Contact Brian Brown at projectwet@watereducation.org

Projects WET, WILD and Learning Tree Facilitator Workshop - Georgia
The Charlie Elliott Wildlife Center will host facilitator training workshops, January 23-24, 2007 in Mansfield, Georgia. Participants will receive certification and resource materials to become Project WET, WILD and Learning Tree facilitators.
http://eeingeorgia.org/net/calendar/details.aspx?c=29418&s=43308.0.68.4863

Projects WET, WILD and Learning Tree Facilitator Workshop - Georgia
Projects WET, WILD and Learning Tree Facilitator Workshops will be held January 23-24, 2007 in Mansfield, Georgia. Participants will receive certification and resource materials to become Project WET, WILD and Learning Tree facilitators. Facilitator training is for individuals interested in conducting workshops for their school or organization on how to teach these environmental education programs.

http://eeingeorgia.org/net/calendar/details.aspx?c=29418&s=43308.0.68.4863

Project WET Workshops - Tennessee
Project WET (Water Education for Teachers) Tennessee provides free six-hour workshops for teachers and non-formal educators of grades K-12. Participants receive the Project WET Curriculum and Activity Guide with interdisciplinary, hands-on activities and classroom-ready lessons.

- Clarksville, June 5, 2007
- Robertson County, June 15, 2007
- Knoxville, July 16, 2007
- Houston County, July 16 (K-5) and 17 (6-12), 2007

Contact Michelle Rogers at ogersm@apsu.edu

Project WET/Webfoot Training - Tennessee
Educators at Reelfoot Lake State Park will conduct Project WET and Project Webfoot training on May 3, 2008 in Tiptonville, Tennessee. Participants will receive both Project WET and Project Webfoot curriculum guides, along with additional materials.
Contact Kim Crews at kcrews@utm.edu

Project WILD Aquatic Facilitator Training - California
Facilitator training will certify participants to conduct WILD workshops that train and provide the WILD materials to others. Facilitators are expected to conduct one workshop, presentation or staff an exhibit each year to remain active. This free workshop will take place February 21, 2006 in El Sagundo, California.
Contact Bobbie Winn at bwinn@dfg.ca.gov

Project WILD & Monarchs Across Georgia Workshop
Cobb County Adopt-A-Stream, Marietta, Georgia, presents this dual workshop September 21-22, 2004. Project WILD emphasizes the intrinsic and ecological values of wildlife, as well as its importance as a basis for teaching how ecosystems function. Monarchs Across Georgia teaches ways to make your schoolyard or backyard an attractive habitat for monarchs and many other butterflies. Curriculum and resources are provided for both programs.
http://eeingeorgia.org/event.asp?eventID=19621 .

Puget Sound Marine Science Education Workshop
Join a workshop to coordinate and advance the state of field-based marine science education in Puget Sound. The workshop, *Coordinating and Advancing Field-Based Marine Science Education in Puget Sound: Creating a vision for the future*, will be held March 14-15, 2004, Seattle, Washington.
http://www.oceaninquiry.org/workshop/ .

Research and Education: Volcanoes, Exploration and Life (REVEL) Project 2005
The Research and Education: Volcanoes, Exploration and Life (REVEL) Project invites grade 5-12 science teachers to bring cutting-edge earth and ocean research into their classrooms. Through the program, teachers are immersed in the scientific process as they participate in and contribute to a deep-sea, seagoing research cruise in the northeast Pacific Ocean.
http://www.ocean.washington.edu/outreach/revel/

Reef Rendezvous - Texas
The Houston Zoo and the Flower Garden Banks National Marine Sanctuary offer this one-day workshop, November 12, 2005, in Houston, Texas. Come explore the life that lives just below the surface of the ocean. Learn the basics of coral reef biology and ecology and tie it in to what you'll see at the zoo. There will be activities and plenty of resources for participants. This workshop is for elementary and middle school teachers.
http://www.houstonzoo.org/index.asp?page_ID=344

Regional Oceans Conference for Students and Teacher Preconference - Florida
The Florida Aquarium will be hosting the Regional Oceans Conference for Students (ROCS), on December 7, 2005. The teacher pre-conference workshop will be held on November 9, 2005. ROCS is a one-day workshop to ignite the curiosity and imagination of young people and to instill a sense of ownership and stewardship for the environment, specifically our marine and estuarine resources. Our topic, *Estuary Action*, will challenge students to explore the various local, state, and national environmental agencies involved in estuary education. This year, Suncoast Earth Force strategies and a Six Step Process for action will be included.
Contact Debbi Berger at Dberger@flaquarium.org

Regional Student ROV Competitions in the Sanctuaries
The NOAA National Marine Sanctuary Program offers ways to get students involved with marine technology and its application in ocean studies through the ROV program. The National Marine Sanctuaries are hosting three Regional Student ROV (Remotely Operated Vehicles) competitions. Teachers and students can attend a variety of ROV workshops around the country to learn how to build Lego and PVC pipe ROVs, as well as sign up to compete in regional ROV competitions.

- April 8, 2006: First-Annual Mid-Atlantic Regional ROV Competition, Norfolk, Virginia
- April 21-23, 2006: Southeast ROV Regional Competition, Savannah, Georgia
- May 13, 2006: Virginia and Maryland ROV Regional Competition, Norfolk, Virginia

http://sanctuaries.noaa.gov/education/events/welcome.html

Remote Sensing Applications for the Geosciences Workshop - Wisconsin
The University of Wisconsin–Madison offers this remote sensing workshop, July 10-11, 2007 in Madison, Wisconsin. This workshop will equip science teachers with the knowledge and skills to utilize data and teach remote-sensing applications in four geoscience topics: meteorology, oceanography, geology and climate change. The workshop will culminate with a climate change session that highlights the connections between remote-sensing applications and Earth system science.
http://cimss.ssec.wisc.edu/satmet_workshop/

Resource Management and Conservation Workshop – Panama
A Darwin Project conference and workshop, *Resource Management and Conservation in the Las Perlas Special Management Zone*, will be held March 29-31, 2006, in Panama City, Panama. This free meeting will include presentations on the scientific results of the 3-year Darwin Project aimed at assessing the biodiversity and conservation needs of the Las Perlas Archipelago in the Gulf of Panama, along with additional presentations from similar projects in Ecuador and Colombia, and issues on Marine Protected Areas.
Contact Inez Campbell at campbeli@si.edu for more information about the workshop.
http://striweb.si.edu/darwin_initiative/

REVEL Project 2004
The Research and Education: Volcanoes, Exploration and Life (REVEL) Project invites highly-motivated 7-12 grade science teachers who want to bring cutting-edge earth and ocean research into their classrooms to apply to the program. Through the REVEL Project, teachers are immersed in the scientific process as they explore the seafloor of the Juan de Fuca Plate in the Northeast Pacific Ocean.
http://www.ocean.washington.edu/outreach/revel/ .

REVEL Visions 2005 Project
The REVEL (Research and Education: Volcanoes, Exploration and Life) Project is a professional development program for science teachers, providing an opportunity to engage in science by pursuing cutting-edge research alongside deep-sea scientists. The practice of the research process empowers these teachers to become better facilitators of genuine, inquiry-based science learning in their classrooms, schools, and districts.
http://www.ocean.washington.edu/outreach/revel/missionframework.html

Remotely Operated Vehicles (ROVs) Workshop – Massachusetts
The Stellwagen Bank National Marine Sanctuary, Woods Hole Oceanographic Institute and other partners offer an ROV Teacher Workshop, October 15-16, 2004, in Falmouth, Massachusetts. Participants will be introduced to ROV technology, research, monitoring and exploration; discuss infusing technology into the high school curriculum; help develop lesson plans for use in high school classes and after school programs get connected with a technology mentor; and more.
http://stellwagen.nos.noaa.gov/ .

Remotely Operated Vehicles (ROVs) Workshop – Texas
The Flower Garden Banks National Marine Sanctuary is sponsoring a teacher workshop to bring science technology into the classroom. Workshop participants will learn how technology, especially underwater ROVs, is used to research and explore sanctuary ecosystems in support of resource management. They will leave the workshop having constructed and tested their own mini-ROV to take back to the classroom, along with lesson plans and ideas for incorporating their new knowledge into the classroom. Contact Shelley DuPuy at shelley.dupuy@noaa.gov .

Rookie Science Weekend Workshops - Delaware
The University of Delaware, College of Marine Studies and the Delaware Teachers of Science will once again be sponsoring two workshops for rookie science teachers, January 27-29, 2006 in Lewes, Delaware. These secondary and elementary workshops are for any teacher who has taught science in Delaware for five years or less. Participants will leave this workshop with successful activities that they can use in their classrooms.
http://www.ocean.udel.edu/public/teachercourses.html

ROV Teacher Workshops – Delaware and Virginia
These workshops, hosted by the Monitor National Marine Sanctuary and partners, teach educators about Remotely Operated Vehicle (ROV) technology and its application in ocean studies. Participants learn how to build a ROV with students, sponsor a student team to participate in a regional ROV competition, and more.

- July 25, 2007 in Norfolk, Virginia
- October 5, 2007 in Lewes, Delaware

- November 10, 2007 in Norfolk, Virginia

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

ROV Workshop - Georgia

Learn about Remotely Operated Vehicle (ROV) technology and its use in ocean exploration and research, January 26-27, 2007 in Atlanta, Georgia. Teach your students how to build an ROV and put together a student team to participate in a regional ROV competition. This workshop is hosted by NOAA Gray's Reef National Marine Sanctuary and Georgia Aquarium in partnership with Marine Advanced Technology Education Center.

http://eeingeorgia.org/net/calendar/details.aspx?c=30113&s=46328.0.0.4863

ROV Teacher Workshop – North Carolina

This workshop, hosted by the Monitor National Marine Sanctuary and partners, November 17, 2007 in Manteo, North Carolina, teaches educators about Remotely Operated Vehicle (ROV) technology and its application in ocean studies. Participants learn how to build a ROV with students, sponsor a student team to participate in a regional ROV competition, and more.

http://monitor.noaa.gov/news/features/0507_rov.html

ROVing the National Marine Sanctuaries - Texas

Discover how ROVs are used in real life ocean science and exploration; build your own ROV with LEGOs; and take home lesson plans, images, and other materials to help bring into your classroom with a new twist. This workshop, brought to you by Texas Marine Education Association and NOAA's Flower Garden Banks National Marine Sanctuary, takes place April 27-29, 2007, in Galveston, Texas.

http://statweb.org/TMEA/DTMar07.htm

Salish Sea Educator Sails - Washington

Salish Sea Expeditions is a Washington State-based non-profit organization that combines Inquiry-Based Learning with classroom scientific study and boat-based field research, enabling students to learn scientific principles and practice problem-solving skills while navigating the waters of Puget Sound. They offered a chance for teachers to learn first-hand about their programs during free, three-hour, informal sails.

http://www.salish.org/Teacher%20Sails%20031802.htm .

Sanctuary Advisory Council Meeting - Texas

The public is invited to attend the Flower Garden Banks National Marine Sanctuary Advisory Council Meeting, December 6, 2007 in Galveston, Texas, and provide comment during a public forum period. The agenda will focus on the following priority issues for management plan review: enforcement, education and outreach, and impacts from visitor use.

http://flowergarden.noaa.gov/advisory_council/council.html

Sanctuary Currents Symposium - Call for Research Posters - California

The 2009 Sanctuary Currents Symposium, *Back to the Future - Preserving the Sanctuary by Exploring its Past*, will be held April 18, 2009 in Monterey, California. Proposals for the research poster session are being accepted; abstracts that address the theme of the symposium are especially encouraged, however, submissions may be from all types of coastal and marine research in the central California area.

http://sanctuarysimon.org/monterey/posters/

Sapelo Island National Estuarine Research Reserve Celebrations - Georgia
2006 marks the 30th anniversary of Sapelo Island National Estuarine Research Reserve on Sapelo Island, Georgia. To celebrate, there a variety of programs that will showcase the reserve and the beauty of Sapelo Island. Programs include history, natural resource ecology, art, music, and more.
Contact Brooke Vallaster at brooke@darientel.net

Schoolyard Habitats Distance Learning and Electronic Field Trip
The Happenin' Habitats! website has a wealth of resources about the National Wildlife Federation's Schoolyard Habitats® Program. Tune in for a 30-minute broadcast, *Happenin' Habitats: An Introduction* on March 14, 2005. This distance learning program will teach your students about wildlife habitat and provide information about how to create and preserve habitat. In addition, check out the live electronic field trip on April 13, 2005.
http://happeninhabitats.pwnet.org/index.php

Schoolyard Habitat Workshop – Virginia
Educators and community resource professionals are encouraged to attend this free workshop, July 11-13, 2005, in Gloucester, Virginia, to learn how to turn unused portions of your local schoolyard into an area that attracts wildlife, helps protect the Chesapeake Bay, and stimulates student achievement. The U.S. Fish and Wildlife Service, the Maryland Association for Environmental and Outdoor Education, and the Chesapeake Bay National Estuarine Research Reserve in Virginia are cosponsoring this workshop.
http://www.vims.edu/cbnerr/education/teachers_sy_2005.htm

The Science and Impacts of Weather Prediction - Pennsylvania
Science and Impacts of Weather Prediction: How Weather Forecasts Shape our Daily Lives workshop participants, July 8-13, 2007 in State College, Pennsylvania, will launch a weather balloon, predict the weather, and visit state-of-the-art forecasting facilities both on- and off-campus, while immersing themselves in a scenario-based journey starting with the weather forecast and leading through its effects on our day-to-day activities. The workshop is designed for 6–12 grade educators.
http://teachscience.psu.edu/weather_prediction.html

Science at Sea Talk - Delaware
The University of Delaware will present the annual faculty lecture sponsored by the University of Delaware Library Associates, *Ships, Submersibles and Underwater Habitats: Diving into the Adventures of Science at Sea*. The lecture focused on the multiple research platforms that scientists use to conduct work on the surface and under the sea and the unexpected adventures they sometimes encounter.
http://www.udel.edu/PR/UDaily/2008/mar/sea031708.html

Science Lectures - California
Join Point Reyes National Seashore and Cordell Bank National Marine Sanctuary staff for presentations on scientific research being performed at Point Reyes and other locations in California. On November 20, 2008, join them for *MPA Fish Assessments at the Channel Island*s in the afternoon, and *A Conversation on Sharks* in the evening.
http://www.nps.gov/pore/planyourvisit/events_sciencelectures.htm

Science Training Programs
The Science Training Programs Directory for Teachers and Students from Science Service Inc. has more than 300 programs in their on-line catalog of science, mathematics and engineering enrichment programs for pre-college students and teachers. The training programs listed in the directory cover a wide variety of scientific disciplines and take place throughout the year at a variety of institutions.
http://www.sciserv.org/stp

Scientific Photography - Bermuda
Scientific Photography, July 31-August 20, 2005, and July 30-August 19, 2006 at the Bermuda Biological Station for Research, is an intensive class comprised of lectures, required reading, laboratory exercises, demonstrations, and field assignments. This three-week course exposes students to the use of photography as a scientific tool. Partial scholarships may be available.
http://www.bbsr.edu/Education/summercourses/photog/photog.html
http://www.bbsr.edu/Education/summercourses/summercourses.html#photog

School of Rock - Texas
During the School of Rock 2008, *Using Ocean Cores to Explore Past Climate Change*, July 6-14, 2008 in College Station, Texas, educators will conduct geological, physical and/or chemical analyses of sediment and hard-rock cores. Scientists will instruct participants on mid-ocean ridges, composition and structure of the oceanic crust, paleoceanography, and more. Educators will brainstorm and begin planning classroom activities based on their research and new knowledge.
http://www.oceanleadership.org/learning/SOR2008

Schoolyard Habitat Workshop – Wisconsin
Plan, design, and create an outdoor classroom, July 28-29, 2006 in Poynett, Wisconsin. The Wisconsin Wildlife Federation and National Wildlife Federation are teaming up to teach Wisconsin educators how to plan, design, and create a National Wildlife Federation certified outdoor classroom for your school, and will provide the instructor, curriculum, and $200 in start up funds.
http://www.wiwf.org/page3.htm

Scott Aquarium Teacher Workshops
The University of Southern Mississippi and the Scott Aquarium offer teacher workshops:

- Storm Drains: Pollution Solution workshops, March 9, and April 20, 2004
- Marine Biotechnology: The Wave of the Future, February 11 - 13, 2004
- Aquatic Nuisance Species teacher workshop, February 15 -17, 2004
- Centers for Ocean Sciences Education Excellence: Central Gulf of Mexico

(COSEE:CGOM) will sponsor

- Educators' Workshop, March 4-5, 2004
- The Wonders of Wetlands teacher workshop, April 21 - 23, 2004

shelia.brown@usm.edu or kay.baggett@usm.edu .

Sea ExChange
NMEA and the Australian based Marine Education Society of Australasia (MESA) team up to bring marine educators together for professional development experiences through Sea ExChange, a cooperative program to assist marine educators working at similar

jobs and facilities to set up exchanges. The program offers three types of exchange: short-term Partner and Education Group ExChanges, and longer term Job Exchanges.
http://www.mesa.edu.au/careers/sea_ExChange.asp

Sea Grant Law and Policy Journal Inaugural Symposium - Mississippi
The National Sea Grant Law center is developing a Sea Grant Law and Policy Journal ti explore legal topics of relevance to the Sea Grant network of extension agents, researchers, coastal managers and users, and local decision-makers. An inaugural symposium, March 25-26, 2008 in Oxford, Mississippi, from which the Law Center will invite papers for the publication in June, will focus on coastal resiliency. Relevant topics might include land use planning, emergency management, risk analysis, and mitigation.
http://www.olemiss.edu/orgs/SGLC/National/SGLPJ/SGLPJ.htm

Sea Science Career Day - Florida
This career day will be hosted by Florida Sea Grant Extension and the Miami Museum of Science, February 26, 2005 in Miami, Florida. The Sea Science Career Day is for high school students who are enrolled in the Upward Bound Program or in 9-12th Grades. There will be several speakers and it is open to the public.
Contact Marella Crane at mgcrane@mail.ifas.ufl.edu

Sea Turtle Ecology - Georgia
Ossabaw Island in Georgia is used exclusively for educational and scientific purposes. From July 10-13, 2007, it will host a Sea Turtle Ecology course, offering participants the opportunity to study the ecosystems of the island as well as many aspects of sea turtle ecology including classification, behavior patterns, migration, nesting, and threats to sea turtle survival. Hurry – the course is limited to twelve participants.
http://www.eeingeorgia.com/net/calendar/details.aspx?c=32773&s=53032.0.68.4863

Sea Turtle Saturday - Texas
Join the Houston Zoo, February 23, 2008 in Houston, Texas, for a sea turtle restoration symposium with a line-up of lectures by sea turtle experts aimed to educate the public on conservation efforts. This is an opportunity for students, teachers, and the public to learn more about sea turtles and how to get involved locally in sea turtle conservation.
http://www.houstonzoo.org/seaturtle/

Sea Turtle Workshop for Educators - Georgia
The Sapelo Island National Estuarine Research Reserve presents a Sea Turtle Workshop for educators, June 26-29, 2006, on Sapelo Island, Georgia. Work with sea turtle biologists from Georgia and South Carolina who share their research in physiology, behavior, and conservation. Learn why the Georgia Coast is so important to these magnificent animals, and ways you can help through educating your students. Participants will receive resource and curriculum materials.
http://eeingeorgia.org/net/calendar/details.aspx?c=28886&s=40374.0.68.4863

Seabird Workshop - California
This free ocean stewardship workshop, sponsored by Oikonos Ecosystem Knowledge and Cordell Bank National Marine Sanctuary, is funded by the California Coastal Commission. The workshop, October 18, 2005 in Sausalito, California, is designed for middle- and high-school educators. The workshop will focus on using current research on the Black-footed Albatross and Sooty Shearwater to directly link scientists, seabird research, and marine pollution with teachers and students. For more information about

the project and Oikonos, check out www.Oikonos.org. For workshop information, contact Keley Stock at (415) 332-3871.

Seacoast Science Center Distance Learning
The Seacoast Science Center in Rye, New Hampshire offers distance learning opportunities. All of the programs can be adjusted to meet the learning styles and curriculum needs of each audience. In addition to the following four standard programs, science center educators can work with you and their resources to custom create a program or a series of programs.

- The American Lobster
- Coastal Creatures and Animals Adaptations
- Horseshoe Crab Program
- Love and Lifecycles at the Seacoast Science Center

http://www.seacoastsciencecenter.org/programs/distance_learning.php

Seafood Sense: Fisheries Technology for Food Educators - Delaware
Seafood specialists will lead a two-day training on seafood preparation and safety. Hands-on cooking activities will provide participants will practical opportunities to learn about buying, handling and preserving seafood, seafood composition and nutrition, and commercial fishing practices. The workshop will include seafood cooking and sampling, curriculum ideas for use in the participant's own educational workshops, a tour of a local seafood market, and a seafood issues internet tour.
http://www.ocean.udel.edu/seagrant/outreach/seafood/seafoodsense.html

Seattle Aquarium's Marine Protected Areas Conference
This past August, the City of Seattle designated much of the Seattle shoreline as a no-take marine protected area. To raise general public awareness of MPA issues, the Seattle Aquarium is hosting a workshop on Puget Sound MPAs on Saturday, March 27, 2004.
Contact Leo Shaw at Leo.Shaw@Seattle.Gov

SECORE Workshop – Online
The SECORE (SExual COral REproduction) Project is an initiative of public aquariums and coral research institutions dedicated to nature conservation through the sustainable management of coral reefs. This website allows viewers to follow the daily update of the 3rd SECORE workshop, August 1-8, 2007 in Puerto Rico, focused on developing appropriate breeding, aquaculture and cryopreservation techniques for the threatened Elkhorn coral, Acropora palmata.
http://www.secore.org//index_weblog.htm

SECOSEE 2004 Ocean Leadership Institute
The SouthEast Center for Ocean Sciences Education Excellence (SouthEast COSEE) will hold the second Ocean Education Leadership Institute for middle and high school science teachers from NC, SC, and GA, June 25-July 1, 2004, Savannah, Georgia. Teachers will be introduced to ocean science research in island dynamics, physical and biological parameters of the South Atlantic Bight region, and develop and implement leadership skills necessary to share what they learn with their colleagues.
http://www.scseagrant.org/se-cosee/education.htm

Seminars on Science - Online
Seminars on Science courses from the American Museum of Natural History Fall 1 courses include Earth: Inside and Out and runs August 27-October 7, 2007; the deadline for registration is August 20, 2007. Fall 2 courses include The Ocean System and runs October 22-December 2, 2007; the registration deadline is October 8, 2007. Designed for K-12 educators, each six-week course is led by an experienced classroom teacher and a scientist affiliated with the American Museum of Natural History.
http://learn.amnh.org/about/

Seminars on Science: Sharks and Rays – Ecology, Classification and Evolution
The American Museum of Natural History offers this six-week summer workshop, June 28 - August 8, 2004. Key science concepts and processes covered in the course include diversity and adaptation, anatomy, fossil evidence, and data analysis. Participants will have access to Museum scientists and educators and receive teaching tools to take back to their classroom.
http://learn.amnh.org/courses/sharks.php .

Shedd Aquarium Fall Teacher Workshops - Illinois
The Shedd Aquarium offers a variety of professional development for classroom teachers throughout the year. Upcoming workshops include:

- *Classroom Habitats* - October 13, 2007
- *Learning Ocean Science through Ocean Exploration* - November 3, 2007 (Part 1) and April 12, 2008 (Part 2).

Check the website for more offerings, along with lesson plans, interactives, and more.
http://www.sheddaquarium.org/teacherprogram_listings.html

Shipboard and Shoreline Science Workshop Cruise - Ohio
The Center for Ocean Sciences Education Excellence Great Lakes invites 4th-10th grade teachers and non-formal educators to participate in its first annual Lake Guardian Shipboard and Shoreline Science workshop, June 18-24, 2006. This year's cruise on Lake Erie is designed to promote Great Lakes and ocean sciences in formal and informal education. It will offer first hand explorations of Lake Erie geography, resources, processes and issues, and demonstrate how Great Lakes science parallels the science of the world ocean.
http://coseegreatlakes.net/events/

Shipwreck Archaeology Workshop for Students – North Carolina
The Graveyard of the Atlantic Museum offers its third Shipwreck Archaeology Workshop to be held June 18-24, 2006 in Hatteras, North Carolina. The Shipwreck Archaeology Workshop is designed for ten students from eighth grade and above. The workshop will provide a glimpse of what it is like to study a shipwreck and use skills learned in math, science, history, social science and writing in a real life, hands on situation.
http://www.graveyardoftheatlantic.com/

Shoals Marine Laboratory Summer Courses - Maine
Shoals Marine Laboratory still has openings in six college credit courses that will be taught on Appledore Island, Maine, later this summer.

- Forensic Science for Marine Biologists - http://www.sml.cornell.edu/college/pc-ccfsmb.htm

- Field Marine Biology and Ecology - http://www.sml.cornell.edu/college/pc-ccfmbe.htm
- Underwater Research - http://www.sml.cornell.edu/college/pc-ccur.htm
- Marine Vertebrates - http://www.sml.cornell.edu/college/pc-ccmv.htm
- Sharks - http://www.sml.cornell.edu/sml_cc_sharks.html
- Biological Illustration - http://www.sml.cornell.edu/sml_cc_bi.html

Contact them by e-mail at shoals-Lab@cornell.edu as soon as possible

ShortCourses.com: Digital Cameras and Photography Courses – Online
This website, created by Dennis Curtin, offers tutorials and informational essays on all aspects of digital photography, camera operation, and editing digital photos. In the site's seventeen sections, visitors can learn about how to choose a digital camera, how to display and share digital photos, and how to best use one's digital camera for a variety of purposes. There's also an on-line photographic journal of natural events in and around Marblehead, Massachusetts.
http://www.shortcourses.com/

Smithsonian Environmental Leadership Course - Virginia
The Smithsonian Institution's Monitoring and Assessment of Biodiversity Program offers professional training courses for international scientists, resource managers and educators. The Environmental Leadership Course, September 11-23, 2005 in Front Royal, Virginia, teaches communication skills and problem solving techniques. This course covers foundation skills for the environmental leader, negotiation and conflict resolution strategies, creating compelling futures, and environmental communication.
http://nationalzoo.si.edu/ConservationAndScience/MAB/training/leader.cfm

Society for Conservation GIS Domestic Scholarship Program
The SCGIS Domestic Scholarship Program offers competitive scholarships to conservation GIS users to attend advanced GIS training courses focused on conservation applications. Scholarship funds will cover all or partial airfare, waivers for SCGIS conference related fees, as well as pre- and post-conference training. The annual ESRI User Conference is August 9 - 13, 2004, in San Diego, California. The annual SCGIS conference will be held September 27-29, 2004, in West Virginia.
http://www.scgis.org/ .

SouthEast Portals to Ocean Research for Teachers (SEPORTs)
The SouthEast COSEE supports Action Projects in North and South Carolina and Georgia, with state and regional efforts to promote coastal environment projects, professional development opportunities for educators, and research activities. November 2004 events included the Southeast Phytoplankton Monitoring Network, *From Watersheds to Oyster Beds* and the North Carolina Estuarium, and *Eastern North Carolinians' Impact on the Atlantic Ocean*. Additional workshops are scheduled for January through March.
http://www.scseagrant.org/se-cosee/ .

Space Science Institute Workshops
The Space Science Institute is hosting two education workshops this spring:

- Designing Exemplary Professional Development Experiences for Educators, March 18-20, 2004,
  http://halvas.spacescience.org/registration/SpecialTopicSpring2004/1.asp

- 4-Day Education Workshop for Scientists, Engineers, and E/PO Managers, April
- 25-28, 2004, http://halvas.spacescience.org/registration/k12spring2004/1.asp#ann.

State of the Bay Educator Summit - Texas
The theme of the eighth biennial State of the Bay symposium of education-focused sessions, January 23-25, 2007 in Galveston, Texas, is *Teaching Science using our Bay System as an Integrating Context*. The summit offers workshops, field workshops, symposium, and resources for educators.
http://www.gbep.state.tx.us/news-events/Educator_Summit_Webpage.htm

Stingray Tracking – Hawai'i
This course offered by the University of Hawai'i (MARE 394), May 29 - June 4, 2005 on O'ahu, Hawai'i, includes guest speakers, lectures on general ray and shark ecology, and practical techniques of tracking and telemetry. Participants assist with a tracking study of stingrays using transmitters and data loggers. Gain experience in field research and conservation ecology. For more information, contact Mark Heckman at mheckman@hawaii.edu.
http://www.uhh.hawaii.edu/depts/summer/credit.php

Stone Lab Summer Teacher Courses
F.T. Stone Laboratory, Ohio State University's Island Campus in Lake Erie, offers college credit courses to undergraduate and graduate students, educators, and outstanding high school students every summer. From Lake Erie geology to aquatic biology courses, students receive a hands-on science experience in one-day, one-week, or term courses.
http://www.sg.ohio-state.edu/SLAB/PRINT.HTM#workshops .

Stormwater and Aquaculture Effluent Technology Fair
This two-day workshop will highlight innovative technologies and practices for controlling stormwater runoff and aquaculture effluent. Various companies and engineering firms will demonstrate their products or past projects. The fair will take place in Beaufort, North Carolina, March 8-9, 2005. It will also be broadcast over the Internet for those who are unable to attend in person.
www.CoastLive.org

Streamside Science – Online
Headlining this summer's online course offerings from the National Teachers Enhancement Network (NTEN) is a new course for teachers of grades 8-12. Streamside Science: Hands-On Approaches to Water Quality Education asks teachers to adopt a local stream and perform lab assignments in the field. There are 18 other online courses in nine disciplines, including biology, chemistry, Earth science, entomology, education, land resources and environmental science, math, microbiology, and physics.
http://www.scienceteacher.org/courses.htm

Student-Teacher Field Studies in the National Marine Sanctuaries
Funding is provided through the National Marine Sanctuary Program in partnership with the National Geographic Society Education Foundation for two student-teacher field studies in the national marine sanctuaries, Gray's Reef Marine Sanctuary in Georgia, grade 9-12, July 23-28, 2004 and the Channel Islands Marine Sanctuary in California, grade 5-8, and August 9-12, 2004.

www.ngsednet.org/profdev .

Students on Ice - Antarctica
Experience a ship-based university expedition to Antarctica. University students and faculty members will embark on a journey to Antarctica to experience and learn firsthand the effects of climate change in one of the planet's most remote places. Students on Ice Expeditions is organizing the International Polar Year Antarctic University Expedition 2009, a two-week ship-based field course leaving Argentina from February 14-28, 2009. Additional expeditions are also planned.
http://www.studentsonice.com/

Submerged Cultural Resources Law Enforcement Class
The National Park Service's Submerged Resources Center, the NOAA Marine Sanctuary Program, and Archaeological Resource Investigations are co-sponsoring a Submerged Cultural Resources Law Enforcement Class, in Convoy Point, Florida, May 15-19, 2006. The course provides training on all aspects of the investigation and prosecution of archeological crimes involving submerged cultural resources.
Contact Larry Murphy at larry_murphy@nps.gov

Summer Education in Maine
Main Audubon offers summer sessions for adults and youth at their camp on Hog Island, Maine. Financial aid may be available.

- Educators Workshop Week, July 13-19, 2008, offers ideas and insights in a relaxed atmosphere.
- Climate Change Workshop, July 23-26, 2008, helps educators integrate nature and climate change into their curriculum.
- Coastal Maine Marine Science Session for teens, July 20-26, 2008, is designed to help teens explore the field of marine science and gain the basic knowledge necessary to begin thinking about a future career in marine science or simply appreciate the complexities of marine communities.

http://www.maineaudubon.org/explore/camp/hi_overview.shtml

Summer Institute on Invasive Species - Maine
Bowdoin College offers a Coastal Science Institute for middle school science educators, June 26-July 1, 2005 in Brunswick, Maine. The theme for this year is invasive species, and will introduce teachers to laboratory and field techniques that will help to identify, monitor, and trace the spread of introduced species. Teachers will receive course packets, equipment, and software training that will help them implement invasive species monitoring and analysis in their own classrooms.
http://academic.bowdoin.edu/csc/bccsi/index.shtml

Summer Teacher Workshops – Alabama
The 2009 Summer Teacher Workshops at the Dauphin Island Sea Lab are now open for registration. These workshops will help you bring the oceans, marshes, and barrier islands into the classroom. Some workshops are free; note registration deadlines on the website. Workshops include:

- The Delta, May 31-June 4, 2009
- Marine Application of Science and Technology (MAST), June 7-12 and July 12-17, 2009

- Centers for Ocean Sciences Education Excellence: Central Gulf of Mexico (COSEE: CGOM), June 21-26, 2009
- Coastal Connections Linking Watersheds to the Gulf of Mexico, July 6-10, 2009
- Sharks and Rays, July 20-24, 2009
- Submerged Grassbeds of the Northern Gulf of Mexico, July 26-30, 2009

http://dhp.disl.org/teachertraining.htm

Summer Tropical Marine Courses
The graduate program at the National University of México and The Florida International University are conducting a bilateral set of courses open to any interested student or manager. Two courses are offered for this summer: marine botany, with an emphasis on the Caribbean and South Florida, and a marine protected areas course. Scholarships may be available.
http://serc.fiu.edu/seagrass/FIU_UNAM_Course/PMcourse.htm

Summer Workshops for Teachers
This summer in June through August, 2006, the U.S. Department of Education will hold 14 Teacher-to-Teacher regional workshops for teachers to learn from fellow educators who have had success in raising student achievement. A number of workshops will focus on enhancing teaching skills in math and science. Three are cosponsored by the National Park Service and will be dedicated to math, science and history.
http://www.t2tweb.us/Workshops/Schedule.asp

***Survey of Oceanography* Graduate Course Offered Via Web**
Texas A&M University, College Station, offers the *Survey of Oceanography* course. All lectures, homework, and quizzes will be offered remotely. The course emphasizes problem-based learning and the use of web resources in the classroom. Modules include the role of the oceans in climate, the role of the ocean in weather, fisheries and the ocean as food source, coastal erosion, and coastal pollution.
stewart@ocean.tamu.edu

Sustainable Marine Tourism Workshops – Southeast Florida
Marine entrepreneurs are invited to learn how preserving coral reefs will safeguard businesses. The Southeast Florida Coral Reef Initiative is sponsoring a series of free workshops for the marine tourism industry during May 2006 entitled "Coral Reefs and Sustainable Marine Tourism: Protect Your Business by Protecting Your Reef." The workshops, conducted by the Coral Reef Alliance (CORAL), will feature international and local experts discussing the socioeconomic value of the coral reefs, innovative local solutions and market sustainability.

- Broward County Workshop, May 3, 2006, Davie
- Miami-Dade Workshop, May 6, 2006, Miami Shores
- Palm Beach County Workshop, May 10-11, 2006, West palm Beach

Contact the workshop facilitator, Dr. Alex Brylske at abrylske@coral.org

Take the Pulse of Our Changing Planet Workshop
The Mid-Atlantic Center for Ocean Science Education Excellence (MACOSEE) offers a professional development workshop for middle school science teachers in Cambridge, Maryland, July 11-17, 2004. Scientists take Earth's pulse through a network of high-tech stations called ocean observing systems. This workshop showcases these new observatories and how observatory data can enhance your science lessons.

www.macosee.net .

Taking Conservation to the Public Workshop - California
The American Cetacean Society and Blue Ocean Society for Marine Conservation will be co-hosting a workshop in conjunction with the Society of Marine Mammology's biennial conference on December 10, 2005 in San Diego, California. The workshop, *Taking Conservation to the Public: Strategies for Getting the Message out there*, will be discussion-based to allow participants to discuss how they connect people to their experiences in conservation.
http://www.blueoceansociety.org/workshop/

Teach at the Beach – New Jersey
The New Jersey Marine Educators Association announces the 2005 *Teach at the Beach,* May 13, 2005, in Sandy Hook, New Jersey and May 19, 2006, in Stone Harbor, New Jersey, May 16, 2008 in Pomona, New Jersey. Bring the ocean into any classroom -lessons and other hand-out materials will be distributed during each activity. NJ Core Content Standards will be listed in these materials. Register early; due to the increasing popularity of this workshop, the number of participants is limited and there will be no walk-in registration.
http://hometown.aol.com/newjerseymea/index.html

Teach at the Beach– New Jersey
The New Jersey Marine Education Association will offer its annual Teach at the Beach, Friday, May 18, 2007 in Manahawkin, New Jersey. The workshop is designed to provide educators of all grades and disciplines with a wealth of ideas, resources, lesson plans, and programs dedicated to utilizing marine and aquatic environments as a background to classroom teaching.
http://hometown.aol.com/newjerseymea/register.html

Teach Fundamentals of Environmental Education
To increase the number of educators receiving EE training, the Environmental Education and Training Partnership (EETAP) will make the course *Fundamentals of Environmental Education* available to universities across the country. There is no cost to obtain, and a $500 honorarium is offered after faculty have successfully taught the course to at least 15 students.
http://www.naaee.org/programs-and-initiatives/distributionflyer.pdf

Teach the River - California
Teach the River is open to the families, teachers, parents, or anyone who wants to learn and discover the wonders of the greater Fresno, California area. A wide variety of seminars, field trips, and other special events are offered from January through June, 2007, including river workdays, seminars, and more. Many of the seminars and field trips are available for academic credit through California State University, Fresno.
http://www.teachtheriver.org/index.html

Teacher at Sea
NOAA's Teacher at Sea program, is accepting applications from currently employed K-16 teachers. The mission of the program is to give teachers a clearer insight into our ocean planet and a greater understanding of maritime work and studies, and to foster an interdisciplinary educational experience that provides a unique environment for learning and teaching.

http://teacheratsea.noaa.gov/

Teacher at Sea – California
The Channel Islands National Marine Sanctuary is partnering with the NOAA Teacher at Sea Program on board the *R/V Shearwater*, June 19-21, 2007. The selected teacher will work alongside researchers on Xantus's Murrelet seabird population studies. As part of their experience, they will develop an online journal, a mini-unit of lessons, and will present activities at regional or national conferences or submit articles for publication in professional education journals.
http://sanctuaries.noaa.gov/education/teachers/fieldstudies.html

Teacher Seminar Research at SEA
The Sea Education Association in Woods Hole, Massachusetts, offers teachers (grades 5-9) its Teacher Seminar Research at SEA. The seminar, funded by the National Science Foundation, provides oceanographic research experience and affords the opportunity to explore the oceanic environment while learning about the scientific research process first-hand. Applications are reviewed monthly.
http://www.sea.edu/sea2000/admission2000/teachers.htm .

Teacher-to-Teacher Workshops – Various Locations
The U.S. Department of Education's Teacher-to-Teacher Initiative will be held in 22 cities throughout the country to provide free high-quality professional development opportunities for teachers. Prominent educators will share best practices in all grade levels and content areas. Check the website for locations and focus areas. Registration begins: April 8, 2007.
https://www.t2tweb.us/Workshops/Schedule.asp

Teacher Training Expeditions - Alaska
Discovery Southeast in partnership with Alaska Discovery, Alaska Natural History Association, U.S. Forest Service, and the Alaska Department of Fish and Game are offering three Teacher Training Expeditions for 2007. Professional development credits are available.

- The Brown Bears of Admiralty Island, June 5-11, 2007
- Seals, Ice and the Wilderness Idea, June 26-July 2, 2007
- Whales of Icy Strait, July 19-25, 2007

http://www.discoverysoutheast.org/content/view/32/40/

Teacher Workshops – North Carolina
The North Carolina Aquarium at Fort Fisher offers a variety of teacher workshops from July 14-18, 2008. All workshops are free of charge and teacher credit is available.

- July 14: *Aquariums Teacher Workshop* introduces K-12 teachers to pre- and post-visit activities designed to enhance an aquarium field trip as well as integrate ocean awareness in the classroom across disciplines.
- July 15: *Incorporating Environmental Education* into the Humanities helps educators bring environmental appreciation and education into the humanities.
- July 15: *Art and Nature* with the North Carolina Museum of Art, investigates the artist's use of nature as a subject that reflects and addresses cultural attitudes and beliefs about the importance of the environment.

- July 16: *Project Learning Tree* uses trees as "windows" into natural and built environments, helping people gain an awareness and knowledge of the world around them and their place within it.
- July 17: *Project WET* provides water education curriculum for K-12 teachers.
- July 17: *Field Trip Earth* with the North Carolina Zoological Society, facilitates communication between classrooms and field scientists at work with wildlife around the world.
- July 18: *Plants that bite back* focuses on activities and resources for the middle grades to teach about carnivorous plants. (To register for this workshop, contact Martha Flanagan at martha.flanagan@ncmail.net)

To register for workshops on July 14-17, 2008, please email: ncaff.registrar@ncmail.net

Teacher's Domain Online Courses
The Teacher's Domain courses, online professional development courses produced by WGBH Educational Foundation, are developed by educators specializing in science teaching. They are designed to broaden knowledge of science content and teaching methodologies and integrate that technology into the classroom. Courses feature interactive resources that can be incorporated into lesson plans, videos of classroom practices, and online discussions, enabling teachers to communicate with their peers.
http://www.teachersdomain.org/courses/

Teaching Science by Ocean Inquiry Summer Workshop - Maine
The School of Marine Sciences and the College of Education & Human Development at the University of Maine and the Center for Ocean Sciences Education Excellence-Ocean Systems are offering a summer workshop, July 17-21, 2006 in Walpole, Maine. The goals of the workshop are to help teachers develop inquiry-based units for teaching physical concepts using oceans and their climate-links as a vehicle; and to develop a network between teachers, scientists, and experts in education.
http://server.dmc.maine.edu/courses.html

Teaching Science by Ocean Inquiry - Maine
Applicants are invited for a summer workshop, July 23-27, 2007 in Walpole, Maine. The free workshop is intended for high school and middle school teachers who teach physics, chemistry, physical science, and/or earth sciences. Teachers will work with the program instructors to develop hands-on, inquiry -based activities, teaching materials, and means of assessment.
Contact Lee Karp-Boss at lee.karp-boss@maine.edu or Herman Weller at herman.weller@umit.maine.edu

Teacher Trainings - Alaska
Explore Alaska's natural and cultural heritage with the Alaska Geographic Institute. Accredited teacher trainings and field seminars are hands-on experiences set in remote locations throughout Alaska. Courses in 2008 include Recovering the Sound: After the Exxon Valdez; Seals, Ice, and the Wilderness Idea; Whales of Icy Strait, and more. All courses are offered in partnership with Alaska's national parks, forests, and refuges.
http://www.alaskageographic.org/static/169/teachers

Teacher Workshop on Geoscience Time Scales & Global Climate Change - Wisconsin

Supported by UW-Madison's Atmospheric and Oceanic Sciences Department, teachers can look backward and forward in time by studying weather for 1 day, 1 week, 1 month; climate for a year, 30 years, 400,000 years; and geology for millions of years. Workshop sessions, July 9-10, 2008 in Madison, Wisconsin, will include hands-on activities utilizing real-time satellite imagery in Google Earth to study the Earth System and discussions of the Intergovernmental Panel on Climate Change 2007 Summary for Policy Makers. http://cimss.ssec.wisc.edu/teacherworkshop/

Teacher Workshops – North Carolina

The North Carolina Aquarium is offering teacher workshops, July 14-18, 2008 in Kure Beach, North Carolina; all workshops are free of charge. The workshops introduce K-12 teachers to pre- and post-visit activities designed to enhance an aquarium field trip as well as integrate ocean awareness in the classroom across disciplines.

- **Aquarium Teacher Workshops**, July 14; aquarium education staff help participants become familiar with on-site activities and resources through a series of selected experiences.
- **Incorporating Environmental Education into the Humanities**; July 15; participants create their own journal and practice the art of papermaking, creative writing, and drawing from nature.
- **Art and Nature**; July 15; this North Carolina Museum of Art's workshop investigates the artist's use of nature as a subject that reflects and addresses cultural attitudes and beliefs about the importance of the environment.
- **Project Learning Tree**; July 16; the workshop uses trees as windows into natural and built environments, helping people gain an awareness and knowledge of the world around them and their place within it.
- **Project WET**; July 17; the workshop provides water education curriculum for K-12 teachers.
- **Plants That Bite Back**; July 18; the workshop focuses on activities and resources for the middle grades to teach about carnivorous plants. For this workshop, contact Martha Flanagan at martha.flanagan@ncmail.net.

To register, or for more information, contact North Carolina Aquarium staff at ncaff.registrar@ncmail.net.

Teacher Workshops - Virginia

The Chesapeake Bay National Estuarine Research Reserve in Virginia offers a series of free teacher workshops at the Virginia Institute of Marine Science in Gloucester Point, Virginia this summer.

- ***Estuarine Aquarium Keeping in the Classroom***; July 18-19, 2006; Teachers will learn the art and science of keeping Chesapeake Bay species in classroom aquaria, with an emphasis on raising juvenile blue crabs and summer flounder. In addition to learning the information necessary for proper maintenance and trouble-shooting, participants will tour the Virginia Sea Grant fish aquaculture facility and the Virginia Institute of Marine Science aquarium, and will receive the 20-page CBNERRVA *Estuarine Aquarium Keeping for Beginners* manual.
- ***Water Quality***; July 25-26, 2006; This workshop is designed to allow teachers to learn more about water quality, how to access water quality monitoring data from throughout the Chesapeake Bay and across the nation.

- ***Chesapeake Bay Habitats***; August 9-10, 2006; Learn more about York River estuarine habitats, the aquatic animals that live there, and York River water quality.

http://www.vims.edu/cbnerr/education/index.htm

Teachers in Geosciences - Online
The Teachers in Geosciences program at Mississippi State University provides an opportunity to earn a Master of Science degree through distance learning. The program concludes with an 8- to 10-day capstone field course that is taught during the summer at a variety of locations including Western Lake Superior, the Outer Banks, the Bahamas, and more. The program includes courses in meteorology, geology, planetary science, oceanography, hydrology, and environmental geoscience.
http://www.msstate.edu/dept/geosciences/CT/TIG/Site.htm

Teaching Environmental Issues - Online
This online EE Teacher's Institute, June 2-August 8, 2008 from the Colorado Alliance for Environmental Educator, is a professional development course designed to actively involve educators in facilitating the investigation and evaluation of environmental issues with their learners. It models a variety of EE strategies to assist learners in exploring and seeking responsible courses of action toward the resolution of environmental issues specific to their community. Hurry – note the starting date of June 2, 2008.
http://www.caee.org/development/online-ee-teacher-s-institute-1

Technology Integration On-Line Courses
The George Lucas Educational Foundation provides a series of teaching modules developed by professional development experts and education faculty. For an understanding of effective technology integration, explore the modules focused on using technology in mathematics, science, language arts, and social studies curricula. An example integrates a digital microscope into pre-K through 5th grade science instruction.
www.glef.org/foundation/courseware.php .

Texas A&M University's Marine Advisory Service Educator Workshops
Texas Marine Advisory Service will host two development workshops for Texas educators on the environment and natural resources in Texas and the Gulf Coast. Teachers, science curriculum specialists, and department heads working in public and private schools are encouraged to register. Training sessions for elementary school educators were June 28-30; training for secondary school educators July 7-9. Contact lbeach@neo.tamu.edu .

Texas Bays and Estuaries Meeting - Texas
The Texas Bays and Estuaries Meeting, April 16-17, 2008 in Port Aransas, Texas will focus on work being done in the bays, estuaries, and near-shore Gulf of Mexico. The meeting provides an opportunity for both natural and social science researchers working in the Texas coastal zone to share information, results, and insights into this diverse coastal environment.
http://www.utmsi.utexas.edu/its/tbem2008/tbem2008.htm

Tidal Wetlands Seminar - Virginia
The Center for Coastal Resources Management Wetlands Program will hold a Tidal Wetlands Seminar, March 9, 2005 at Gloucester Point, Virginia. The seminar will include a comprehensive review of tidal wetland community functions and values, the

permit application review process, current scientific guidelines for evaluating impacts to tidal wetlands, and the Living Shorelines Stewardship Initiative.
Contact Dawn Fleming at dawnf@vims.edu

Tortugas Field Trip and Symposium – Carnegie Lab Centennial
The centennial celebration of the Carnegie Laboratory for Marine Biology in the Dry Tortugas will take place October 13-15, 2005 in Key West, Florida. The celebration includes a field trip to the Dry Tortugas and the site of the Laboratory, along with a Symposium on the Past, Present and Future of Research in the Tortugas. Limited financial aid is available for university students and high school and college teachers early in their careers.
http://www.rsmas.miami.edu/conference/tortugas/

Trail Management: Plans, Projects and People – California
The U.S. Fish and Wildlife Service offers a variety of professional development courses. OUT8194: Trail Management: Plans, Projects and People will be held March 30-April 3, 2009 in Marshall, California; the deadline for registration is January 19, 2009. Participants will learn to achieve sustainable and accessible trails of all kinds, using the best practices of the trail management process.
Contact Matt Gay at matt_gay@fws.gov .
http://training.fws.gov/documents/Section1_NCTC_Sponsored_Courses.pdf

Treasures of the Deep Workshop - Florida
This one-day workshop, *Treasures of the Deep - Deep Water Corals of the South Atlantic and the Oculina Bank: A Local Resource Workshop for Teachers*, will be held September 17, 2005, in Titusville, Florida. Teachers will learn about deep-water coral ecosystems, the Oculina Bank Habitat Area of Particular Concern, research and monitoring efforts, and educational materials available for classroom use. The workshop also solicits educator input on deep-water coral outreach and education activities.
Contact Jennifer Schull at jennifer.schull@noaa.gov or 305 361-4204

Tread Lightly! Awareness Course - Online
The Tread Lightly!® Awareness Course is now available online. This course is appropriate for anyone who goes ATV riding, mountain biking, snowmobiling, or owns a four wheel drive vehicle or a personal watercraft; land and water managers are also encouraged to use it in their educational programs. The free 30-minute interactive course covers outdoor ethics. They combine flash animation, audio voice-overs, hypothetical scenarios and quick quizzes. Note that you may need to temporarily disable your popup blocker. Also new on the website is the Tread Lightly! Kids Club.
http://www.treadlightly.org/

Tread Trainer - Alabama and Florida
The Tread Trainer program is designed to train participants in innovative, practical methods of spreading outdoor ethics to the public with a curriculum specifically focused on motorized and mechanized recreation. A Tread Trainer course will be held March 22, 2006 in Birmingham, Alabama; the deadline for registration is February 27, 2006. The Ocala, Florida course will take place 5/1/2006; scholarships may be available.
http://www.treadlightly.org/trainer.mv?action=listcourses&coursetype=trainer&auth=

Understanding Aquatic Nuisance Species and Their Terrestrial Counterparts
The Dauphin Island Sea Lab and the J.L. Scott Marine Education Center and Aquarium announce a new on-line course for March, 2004, *Understanding Aquatic Nuisance Species and Their Terrestrial Counterparts*.
www.coexploration.org/ans .

Understanding Tsunamis – Online
The College of Exploration will present *Understanding Tsunamis,* a 3-week online teacher workshop from April 22-May 15, 2005, funded by the National Science Foundation. The workshop will provide educational outreach to teachers, present information about current research, and offer a chance for teachers to interact with scientists about the topic of tsunamis and to gain resources for classroom infusion.
http://www.coexploration.org/tsunami/

University of New Hampshire Marine Science Graduate Fellowships
Ten fellowships, coordinated by the UNH Marine Program, are offered for a summer 2004 start. They are with: the Center for Coastal and Ocean Mapping, Northeast Consortium, Cooperative Institute for Coastal and Environmental Technology (CICEET), Cooperative Institute for New England Mariculture and Fisheries, Center for Excellence in Coastal Ocean Observation and Analysis, and UNH/NOAA Joint Hydrographic Center.
http://www.marine.unh.edu/aboutmpfellowship.html .

Urban Watershed Summit - California
Heal the Bay, in conjunction with the Los Angeles and San Gabriel Rivers Watershed Council and others, will host an Urban Watershed Summit February 12, 2005, in Compton, California. The day-long summit will bring attendees together to create new partnerships and launch coordinated efforts to clean, restore, and revitalize local urban watersheds. Attendees will learn how to develop successful partnerships and effective community outreach tools.
Contact Debbi Dodson at ddodson@san.rr.com

Using Marine Biology to Teach Biology and Ecology - Florida
The Institute for Biomedical Philosophy offer teachers and students the opportunity to explore national standards-based biology and ecology concepts using hands-on marine biology models. Teachers and students will snorkel the coral reef, swim with dolphins, and participate in beach programs. The material includes extensions for statistics, computer science, and mathematics as well as for information technology, language arts, fine arts, library science, reading, and psychology.
Contact Melissa Demetrikopoulos, Ph.D. at mdemetr@BioPhi.org
http://www.biophi.org/pages/1/index.htm

Using Marine Biology to Teach Physiology and Ecology Workshops
The Institute for Biomedical Philosophy offers teacher workshops utilizing marine biology as a hook to teach physiology and ecology. These programs are open to teachers, preservice teachers, administrators, informal educators, and science educator faculty. They are based on the national science education and teaching standards with content that can be integrated across the curriculum. The workshops are scheduled right before or after the NMEA meeting in St Petersburg.
http://www.biophi.org/pages/1/index.htm .

USS Monitor Professional Development Workshop - Virginia
Partners offer a professional development workshop for science and social studies teachers in grades 4-8, July 21, 2006, in Norfolk, Virginia. Join educators, historians, and ocean explorers in this one-time specially developed workshop for teachers related to exploration of the *USS Monitor* shipwreck site off the Virginia Capes. Teachers will participate in hands-on social studies and science activities related to the Battle of Hampton Roads, the *Monitor* shipwreck, remotely-operated vehicles used in deep-sea exploration, and metal degradation as it relates to marine archaeology.
Contact Brent Rudmann at brent.rudmann@noaa.gov

Virtual International Educators' Web Site – Conference Listing
This website, with listings about national and international conferences, is maintained by the Harvard Graduate School of Education. Please note that it does not currently have any environmental education conferences listed.
http://www.gse.harvard.edu/%7Eviews/conferences.html .

Volunteer Monitoring in the Mid-Atlantic - West Virginia
This conference, *Volunteer Monitoring in the Mid-Atlantic: Citizen Scientists Involved in the Watershed*, November 4-5, 2005 in Davis, West Virginia, is sponsored by the US EPA Nonpoint Source Pollution Program. Share monitoring skills, technical advances, organizational and program ideas, and network with volunteer colleagues. Scholarships are available for a limited time.
http://www.wvca.us/workshops/vmc/

Volunteers and Invasive Plants: Learning and Lending a Hand
This e-learning website from the U.S. Fish and Wildlife Service provides science-based, introductory information about invasive plants. The five self-study modules address the purpose and history of the National Wildlife Refuge System, how volunteers help in invasive plant management, how refuges manage invasive plants, and tips for community outreach.
http://www.fws.gov/invasives/volunteersTrainingModule/index.html

Water: Ecological Connections - Georgia
The Gwinnett Environmental and Heritage Center offers the Water: Ecological Connections workshop, July 21-22, 2008 in Buford, Georgia. Participants will learn how to incorporate the complex relationships between water, humans, and the environment into classroom activities. The deadline for registration is June 30, 2008.
http://www.gwinnettcounty.com/cgi-bin/gwincty/envhc/Sub.do?mypageid=ProgramsEvents|BookClub

Water Quality Service Learning Program - Online
Join the California Water Boards for free training on their new water quality service learning program, November 15, 2005. This student-centered science investigation is designed to teach specific California Content Standards for grades four through six. Raise a student's awareness of polluted runoff and how it impacts them, local waterways, and the environment. Teachers will guide students through a campus audit to learn how water flows through school grounds collecting pollutants as it leads to other waterways. Students will learn how to reduce water pollutants through community-oriented projects. Lesson plans and teacher support are posted on the new website, http://www.waterlessons.org.
http://www4.scoe.net/ims/webcasts/cf/index.cfm

Water Quality Workshop - Virginia
The Chesapeake Bay National Estuarine Research Reserve in Virginia offers a free, two-day water quality workshop for teachers on July 25-26 and August 1-2 in Gloucester, Virginia. Training will include water quality parameters, use of new curricular activities that use water quality data from the York River to answer applied marine science questions, and learning to access water quality monitoring data on the Internet.
http://www.vims.edu/cbnerr/education/teachers_wq_2005.htm

Water Quality Workshop - Virginia
The Chesapeake Bay National Estuarine Research Reserve in Virginia is hosting a two-day workshop, August 7-8, 2007 in Virginia, designed to allow teachers to learn more about water quality, how to use curricular activities that use water quality data from the York River to answer applied marine science questions, and how to access both archived and real-time water quality monitoring data from throughout the Chesapeake Bay and across the nation.
http://www.vims.edu/cbnerr/education/index.htm#WaterQuality

Water, Weather, and Electricity Workshops – Los Angeles
The Los Angeles Department of Water and Power, in cooperation with the Los Angeles Unified School District, is offering a series of 13 workshops this fall emphasizing basic electricity and water science. Workshops will also include weather and air quality and advanced transportation for secondary teachers. All workshops are hands-on and materials are free to participants. The workshops are developed to help address the physical science components of testing. Standards are addressed at each workshop.
http://www.ladwp.com/ladwp/cms/ladwp004782.jsp? .

Waterfowl Workshop - Georgia
Learn to identify the many species of waterfowl that find their way each winter to the ponds, reservoirs and wetlands of the Clayton County Water Authority in metro Atlanta, February 04, 2006, in Hampton, Georgia. Naturalist and Audubon field trip leaders will discuss the species, their habitat requirements and migration patterns, with resource materials. The majority of time will be spent in field observation and learning identification techniques.
http://eeingeorgia.org/net/calendar/details.aspx?c=28017&s=36190.0.68.4863

Waterfowl Workshop - Georgia
Newman Wetlands Center is offering a Waterfowl Workshop, February 17, 2007, in Hampton, Georgia. Learn to identify the many species of waterfowl that find their way each winter to the ponds, reservoirs and wetlands in metro Atlanta. The majority of time will be spent in field observation and learning identification techniques, with group discussions of the species, habitat requirements, and migration patterns.
http://eeingeorgia.org/net/content/go.aspx?s=6346.0.68.4863

Watershed Academy Distance Learning Program
The EPA provides an on-line Watershed Academy Distance Learning Program. The website offers a variety of training modules that present a basic and broad introduction to the watershed management field. The six module themes are introduction/overview, watershed ecology, watershed change, analysis and planning, management practices, and community/social/water law. The program is also available on CD.

http://www.epa.gov/watertrain/

Watershed Course - Online
Watersheds: Connecting Weather to the Environment is a primer on how weather events relate to the health of a watershed, and how the public can take simple actions to protect watershed health. The course is produced by the Cooperative Program for Operational Meteorology, Education & Training (COMET) and National Environmental Education & Training Foundation (NEETF).
http://www.meted.ucar.edu/broadcastmet/watershed/

Watershed Institute - California
Follow the path of water as it moves down the Salinas Valley and into the ocean at Monterey Bay Aquarium's Watershed Institute for grade 4-6 classroom teachers, from August 8-12, 2005. Learn to implement new teaching strategies and activities, investigate local streams and rivers, integrate inquiry science into your curriculum, and visit aquarium exhibits. The summer session is free, but is limited to 40 participants. Contact Alfonso Brillantes at abrillantes@mbayqaq.org or (831) 648-4862

Watershed U. – Santa Clara, California
Every Wednesday afternoon for six weeks, from October 5 through November 9, 2005, the University of California Cooperative Extension offers Watershed U. for those who live, work, or spend time in the Santa Clara River Watershed and are interested in understanding how to sustainably manage it while balancing many issues.
http://celosangeles.ucdavis.edu/natural_resources/watershed-u/santaclara.html

Waves, Wetlands, and Watersheds Educator Workshops - California
Waves, Wetlands, and Watersheds is a classroom activity guide for teachers that addresses critical coastal and marine issues such as endangered species, marine debris, coastal geology, water use, and more. Aligned to the California State Science Content Standards for grades 3 through 8, it includes Community Action lessons adaptable for all ages up to and beyond grade 12. The connection between inland areas and the ocean is emphasized throughout. Three free workshops are scheduled:

- Berkeley California, February 7, 2007; register by February 2, 2007
- San Mateo California, February 24, 2007; register by February 20, 2007
- Long Beach California, March 3, 2007; register by February 28, 2007.
- Roseville, March 11, 2008; register by March 6, 2006
- Huntington Beach, March 31, 2008; register by March 25, 2008
- Santa Barbara, April 1, 2008; register by March 25, 2008
- San Luis Obispo, April 2, 2008; register by March 25, 2008
- San Francisco, April 15, 2008; register by April 10, 2008.

Contact Annie Kohut Frankel at afrankel@coastal.ca.gov

Waves, Wetlands, and Watersheds Educator Workshops
Waves, Wetlands, and Watersheds is a classroom activity guide for teachers that addresses California's coastal and marine issues such as endangered species, marine debris, coastal geology, water use, and more. It is aligned to the state standards for grades 3 through 8, and includes Community Action lessons adaptable for all ages. The connection between inland areas and the ocean is emphasized throughout. Upcoming workshops on the activity guide are scheduled in February and March.
afrankel@coastal.ca.gov

www.coastforyou.org

Waves, Wetlands, and Watersheds Workshops - California
The California Coastal Commission offers free educator workshops as an introduction to the science activity guide for teachers, *Waves, Wetlands, and Watersheds*. The book addresses issues such as marine debris, coastal processes, water use, endangered species, and more. It is aligned to the California State Science Content Standards for grades 3 through 8, and includes Community Action lessons adaptable for all ages up to and beyond 12th grade.
http://www.coastal.ca.gov/publiced/waves/waves1.html

Weather Science Workshops for Educators - Pennsylvania
Applications are being accepted for summer workshops sponsored by NASA and the Pennsylvania Space Grant Consortium. The workshops offer innovative ways to teach science in the classroom, information on the latest science research, and standards-based activities. The 2007 summer sessions include *The Science and Impacts of Weather Prediction: How Weather Forecasts Shape our Daily Lives*, July 8-13, 2007 in State College, Pennsylvania.
http://teachscience.psu.edu/index.html

Weather, Sea Level Rise and Climate Change Workshop - Online
COSEE-West and the College for Exploration invite formal and informal educators to participate in an online workshop, Weather, Sea Level Rise and Climate Change, November 3 - 23, 2008. Educators can learn learning how scientists are studying climate change and its accompanying effects on our planet. The online website will include "rooms" to ask questions of keynote speakers; to hold discussions with other educators around the country and the world; for teacher resources; and more.
http://www.coexploration.org/cosee_west/nov08/index.html

Web Content Design and Evaluation Workshop – Alabama
The Weeks Bay Reserve will host a NOAA Coastal Services Center workshop on web content design and evaluation, February 24, 2005, in Fairhope, Alabama. Creating a website is much more than just turning your brochures and white papers into web pages. This one-day course focuses on how to plan, organize, and evaluate your website to ensure you are meeting your communication objectives.
Contact Margaret H. Sedlecky at weeksbay@gulftel.com or 251 928-9792 or Tina Sanchez at 251 433-6541

Western Upper Peninsula Center Professional Development – Michigan
The Western Upper Peninsula Center for Science, Mathematics and Environmental Education offers a variety of programs focused on enhancing the teaching and learning of science and mathematics in Michigan's Upper Peninsula. The center's primary goal is to build an educated workforce by providing quality student, teacher and community programming to improve K-12 science and mathematics education throughout the state. Check the website for a variety of watershed and lake-based professional development.
http://wupcenter.mtu.edu/

Wetland Courses for Educators
Environmental Concern, Inc. offers a variety of courses designed for formal and non-formal educators who are interested in learning more about wetlands, and who would like to bring the excitement of wetland education into their classroom. Check out their

schedule on-line, or contact the education department to learn how to arrange for a course in your area. They can also design a custom course to meet your needs. Scholarships are available.
http://www.wetland.org/EC%20main/edu_schedule.htm

Wetland Education through Maps and Aerial Photography (WETMAAP) Workshop
A free WETMAAP Workshop for teachers will be held during the week of June 21-25, 2004. The workshop will be given twice, with each session lasting 2 ½ days. Discover the functions and values of wetland habitats, learn the basics of wetland mapping, aerial photography, airborne and shuttle imagery, topographic maps, and GIS technology. Educators will learn how they can integrate wetland issues, maps, and images into their existing curriculum. Materials and resources will be provided.
http://www.tbep.org/media/wetmaap.html .

Wetland Education through Maps and Aerial Photography Workshops - Florida
The Tampa Bay Estuary Program, the U.S. Geological Survey's National Wetlands Research Center, and other collaborators are sponsoring two Wetland Education through Maps and Aerial Photography (WETMAAP) workshops for middle and high school teachers. Participants will receive a variety of materials, including a resource guide, aerial photos, topographic and land cover maps, and educational exercises correlated to national standards. The workshops will take place at the end of June.
http://www.tbep.org/media/wetmaap.html

Wetlands Institute - California
Discover the importance of wetland ecosystems at Monterey Bay Aquarium's Wetlands Institute, June 20-24, 2005. For grade 4-8 classroom teachers, this workshop helps you implement new teaching strategies and activities. Investigate wetlands and sloughs, integrate inquiry science into your curriculum, learn how to use LEGOS to gather and analyze data, and visit aquarium exhibits. This summer session is free, but is limited to 20 participants.
Contact Alfonso Brillantes at abrillantes@mbayqaq.org or (831) 648-4862

WETMAAP Workshops - California
The U.S. Geological Survey's National Wetlands Research Center and partners are sponsoring free WETMAAP (Wetland Education through Maps and Aerial Photography) workshops for middle and high school teachers, August 13-15 and August 16-18, 2007 in Tiburon and Menlo Park, California, respectively. The workshops will explore the changes in wetlands and changing habitats of the San Francisco Bay; introduce educators to wetland habitats, functions, and values; introduce wetland mapping, aerial photography, satellite imagery, topographic maps, and GIS technology; and more.
Contact Diane Gribschaw at dgribschaw@mail.arc.nasa.gov

Whale Camp
The Whale Camp offers one, two, and three week programs for students age 10-17 and teachers or adults interested in marine biology. The courses take place on the New Brunswick, Canada, island of Grand Manan, located in the the Bay of Fundy. Participants have the opportunity for whale encounters, Atlantic Puffin nesting colony visits, and more. There are sessions for adults and for students in July and August, 2004.
www.whalecamp.com .

Whale Class – Massachusetts
The University of Georgia, College of Education is offering the 2008 Whale Class, July 12-20, 2008 in Salem and Gloucester, Massachusetts. This is a graduate-level course for teachers who are interested in advancing environmental education through principles of contextual learning and teaching. Participating teachers serve as naturalists on whale watching boats while learning to apply aspects of contextual learning, teaching and reflective practice; new contextualized instructional materials are an expected outcome.
http://jschell.myweb.uga.edu/discovery/

Whaling Heritage Symposium – Connecticut and Massachusetts
NOAA's Maritime Heritage Program, along with Mystic Seaport, New Bedford Whaling Museum, and New Bedford Whaling National Historical Park, will sponsor a whaling heritage symposium, June 16-18, 2008 in Mystic, Connecticut and New Bedford, Massachusetts. The symposium will feature cultural practitioners, authors, archaeolo-gists, historians, curators, marine resource managers, and others.
http://sanctuaries.noaa.gov/maritime/whaling/

What Are Our Birds Telling Us? – Alaska Workshop
The Alaska Natural Resource and Outdoor Education Association will host an educators' workshop and lecture, October 20, 2004, Anchorage, Alaska to explore what can we learn from birds about environmental change. The evening event will include hands-on educator activities related to birds and the environment, dinner, a panel discussion of changes that are being observed in the scientific and native communities in regards to bird populations, and more.
www.anroe.org .

Wiese Distinguished Lecture Series - Alabama
The University of South Alabama and the Dauphin Island Sea Lab present *Global Coastal Change* for the 14th annual Wiese Distinguished Lecture Series, November 13, 2007 in Mobile, Alabama.
http://press.disl.org/10_05_07wieselec.htm

Wilderness in the American Context – Distance Learning
Wilderness in the American Context provides a broad perspective of what wilderness is and how the idea developed, and exposes the student to some of the differing values, ethics, and expectations of wilderness held by society. Students will examine the early history of wilderness preservation that ultimately led to federal protection in the Wilderness Act and subsequent legislation, including how each agency applies these laws.
http://wmdep.wilderness.net/

Wilderness Management Distance Education Program
The Wilderness Management Distance Education Program offers courses for a comprehensive study of wilderness management, including topics from philosophy and ecology to recreation and planning. The program offers on-line versions of the courses in the spring and fall, cycling through the four courses. The courses are offered in two formats: 1) traditional correspondence and 2) online (spring and fall). Their distance education option removes the constraints of time and location, with study from the privacy of your own home and rolling admissions.

- Wilderness in the American Context
- Management of the Wilderness Resource

- Wilderness Management Planning
- Managing Recreation Resources

http://wmdep.wilderness.net/default.htm

Wildlife Conservation Society Courses - Online
The Bronx Zoo offers traditional and hybrid online programs for environmental educators. Upcoming classes include Marine Biology for Elementary Instructors, Conservation Biology, Habitat Ecology, and more.
http://www.bronxzoo.com/educators/online-professional-development.aspx

Wildlife Recreation and Nature Tourism - Online
This graduate-level certificate program from the University of Wisconsin – River Falls, will help conservationists, community leaders, and recreation and hospitality providers build the skills necessary to effectively preserve the natural resources of and generate jobs and revenue for their communities.
http://www.uwrf.edu/ogs/programs/programs-index.php/wrnt/21/gs

Wildlife Recreation and Nature Tourism Certificate
The University of Wisconsin-River Falls, in partnership with Watchable Wildlife, Inc., has developed a new graduate-level certificate program to help conservationists, community leaders, and recreation and hospitality providers build the skills necessary to effectively preserve the natural resources of and generate jobs and revenue for their communities. The course can be taken on campus or through distance learning via the Internet.
http://www.uwrf.edu/ogs/wrnt/

William P. Ridley 4-H Center Workshops - Tennessee
The William P. Ridley 4-H Center's Science program in Columbia, Tennessee invites participation in two free teacher workshops in Columbia, Tennessee - *Project Archeology* and *Project Flying WILD*.

- Flying Wild, February 16, 2006; register by February 10, 2006
- Project Archeology, March 2, 2006; register by February 24, 2006.

Contact Terri Quillin at tlquilln@utk.edu

Wonders of Water - National Park Service Environmental Education Training Course
This multi-certification course, July 26-30, 2004, Chattahoochee River Environmental Education Center, Alpharetta, Georgia, provides participants with certificates for Project WET, Wonders of Wetlands, EPD Adopt-A Stream, and National Park Service environmental education training. Participants receive the Project WET Curriculum and Activity Guide with 89 activities, Wow! the Wonders of Wetlands: An Educator's Guide with over 40 activities, and other lesson plans and resources.
http://www.nps.gov/chat/educational_techniques.htm .

Wonders of Wetlands: Learning Techniques and Strategies - Georgia
Join the National Park Service, July 11-12, 2007 or July 18-19, 2007 in Alpharetta, Georgia, for hands-on instruction in environmental education activities for upper elementary through high school. These workshops will include techniques and strategies for interdisciplinary learning utilizing the wetlands of the Chattahoochee River Corridor. This is a certification workshop. Chemical Certification is available on July 20, 2007.

http://eeingeorgia.org/net/calendar/details.aspx?c=32860&s=53239.0.68.4863

Working Effectively with Tribal Governments - Online
The online training course for federal employees, *Working Effectively with Tribal Governments,* is available to the public free of charge until April 30, 2008. While the one-hour training is geared towards federal employees, others who might benefit from the training are encouraged to register.
http://www.golearn.gov/MaestroC/

Workshop on the Beach in the Florida Keys
During this workshop, hosted by the Institute for Biomedical Philosophy, July 10-16, 2004, Marathon Key, Florida, educators will explore national standards-based biology and ecology concepts using hands-on marine biology models. The program is open to middle and high school teachers, pre-service teachers, informal educators, and science education faculty.
http://www.biophi.org/pages/1/index.htm

Your Ocean and Your Health – South Carolina and Online
Hidden Threats and Exciting Opportunities in Products from the Sea, September 10, 2007 in Charleston, South Carolina, is the final seminar in a four-part series, *Your Ocean, Your Health*. Hosted by the Hollings Marine Lab, each free seminar has featured two speakers, a panel discussion, and a question/answer period. South Carolina Sea Grant, a co-sponsor, has posted materials available for downloading from their website.
http://www.scseagrant.org/Content/?cid=144