

Estuary Resource Guide *for Educators*



Artist: Dianne Pierce



Developed By:
The Florida Center for Environmental Studies

Sponsored By:
Charlotte Harbor National Estuary Program



WHY PROTECT ESTUARIES?

- Estuaries are among the most productive natural systems on earth and produce more food per acre than the most productive Midwestern farmland.
- Estuarine areas are home to over 45 percent of the United States' population.
- Estuaries and other coastal waters provide more than 28 million jobs for our nation.
- Over 75 percent of the United States' commercial fish catch depends on estuaries. In the Southeastern United States, 96 percent of the commercial catch and over 50 percent of the recreational catch are comprised of fish and shellfish that are dependent on estuarine and coastal wetlands.
- An estimated 75 percent of Florida's game fish species and 90 percent of its commercial fish species depend on mangroves, a distinctive type of coastal wetland.
- The economic value of commercial fisheries supported by estuaries is at least \$19 billion annually.
- Commercial and recreational fishing contribute \$111 billion to the nation's economy and support 1.5 million jobs.
- Gulf of Mexico coastal wetlands provide essential habitat for 75 percent of United States' migratory waterfowl.
- Approximately 45 percent of the nation's endangered and threatened species inhabit coastal areas. Almost 75 percent of the endangered and threatened mammals and birds rely on these coastal habitats.
- About 80 percent of all fish and shellfish world-wide use estuaries as primary habitat, or as spawning or nursery grounds.
- Thirty-one percent of the United States Gross National Product is produced in coastal counties.

This figure was adapted from: Martin, D. M., T. Morton, T. Dobrzynski, & B. Valentine. 1996. *Estuaries on the Edge: The Vital Link Between Land and Sea*. A Report by American Oceans Campaign. For copies of this report, please send \$20.00 to American Oceans Campaign, 201 Massachusetts Avenue, N. E., Suite C-3, Washington, D. C. 20002.

Charlotte Harbor Estuary Facts

Did You Know?

- In 1995, Charlotte Harbor was designated as a “Nationally Significant” Estuary.
- Charlotte Harbor is the ninth largest estuary in the Gulf of Mexico.
- Charlotte Harbor has a surface area of 270 square miles and an average depth of 8 feet.
- The Charlotte Harbor greater watershed covers 4,360 square miles.
- In 1993, over 1.6 million tourists visited three coastal counties of the Charlotte Harbor estuary system (Charlotte, Lee, and Sarasota) and spent over \$1.1 billion.
- The Charlotte Harbor watershed supports approximately 316 bird, 44 mammal, 591 invertebrate, 55 reptile, and 273 marine fish species.
- Five National Wildlife Refuges and eight Florida State Aquatic Preserves are situated within the Charlotte Harbor watershed.

These facts were obtained from: Martin, D. M., T. Morton, T. Dobrzynski, & B. Valentine. 1996. *Estuaries on the Edge: The Vital Link Between Land and Sea*. A Report by American Oceans Campaign. For copies of this report, please send \$20.00 to American Oceans Campaign, 201 Massachusetts Avenue, N. E., Suite C-3, Washington, D. C. 20002.



Apalachicola National Estuarine Research
Reserve - Florida DEP
Education Coordinator
261 7th Street
Apalachicola, FL 32320
Phone: 850/653-8063

Estuarine Pathways

An elementary level teaching activity series which features the six major habitats along the Apalachicola estuarine system. Includes information on habitat, common plants and animals, food chains, arts and crafts, language arts, social studies and science lab activities, games, songs, suggested reading and references. Free.

Project Estuary

A five lesson curriculum for middle and high school, focusing on the Apalachicola River and Bay Estuarine System. Includes a teacher's guide, objectives, procedures, discussion questions, student activity pages, vocabulary lessons, review quizzes and a final test. Available for check-out through the mail.

The Oystercatcher

A newsletter focusing on the research and events at the Apalachicola National Estuarine Research Reserve. Free.



Charlotte Harbor
National Estuary Program
4980 Bayline Drive, 4th Floor
North Fort Myers, FL 33917
Phone: 941/995-1777
Fax: 941/656-7724
<http://www.charlotteharbornep.com/>

Harbor Happenings

The Newsletter of the Charlotte Harbor National Estuary Program. Free.

Directory of Existing Env. Education Programs in the Greater Charlotte Harbor Watershed

Provides basic information on public environmental education programs and providers in the CHNEP study area. Free.

The Story of Charlotte Harbor

A book for middle and high school which discusses the environmental issues in the region. Free.

Ecosystems Poster

A beautiful poster in pastels painted by artist Shelly Castle. Free.



Environmental Health Center
A Division of the National Safety Council
1025 Connecticut Avenue, NW, Suite 1200
Washington, DC 20036

Resources on the Internet

Coastal Challenges: A Guide to Coastal and Marine Issues

<http://www.nsc.org/ehc/guidebks/coasttoc.htm>

This guide, available in a PDF format, provides an overview of the current scientific, policy, and regulatory issues and describes the regulatory framework—the numerous agencies responsible for various coastal and marine resource management programs.



EPA-National Service Center for
Environmental Publications
P.O. Box 42419
Cincinnati, OH 45242-2419
Phone: 800/490-9198

"Earth is a Water Planet" Poster
#EPA800H97001

Resources on the Internet

Teacher's Resources

<http://www.epa.gov/rgytgrnj/kids/teachres.htm>

Teacher's Lounge

<http://www.epa.gov/rgytgrnj/kids/teach.htm>



**Estuarine
Research
Federation**

Resources on the Internet

ESTUARIES- Journal of the Estuarine Research Federation Online

<http://erf.org/journal/journal.html>



**ESTUARY
LIVE**

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

Waters of Life

A 16-minute video online packed with information about North Carolina's estuaries. This is a "surestream" video that will adapt to the speed of your internet connection for the best quality possible. You'll need Realplayer G2 on your computer.





The Florida Aquarium
701 Channelside Drive
Tampa, FL 33602
813/ 273-4015

Education Programs

For more information about the camps, teacher workshops, overnight programs and Scout activities offered by The Florida Aquarium, contact the number above.

Lessons from the Sea

Experiments On-line for Students grade K-12.
<http://www2.sptimes.com/Aquarium/FA.4.2.html>



Florida Department of Community Affairs
Florida Coastal Management Program
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100
850/487-4910
Carrie Hall
carrie.hall@dca.state.fl.us

Coastal Currents

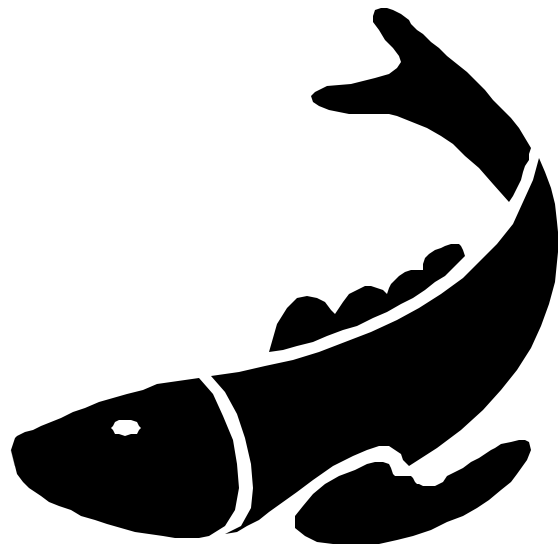
The quarterly newsletter of the Florida Coastal Management Program. If you would like to receive a past issue of Coastal Currents or be placed on the mailing list contact the address above.



Florida Center for Environmental Studies
3970 RCA Blvd., Suite 3210
Palm Beach Gardens, FL 33410

Resources on the Internet

Marine Seagrass Species of Florida
Includes photos, line drawings and distribution maps of the marine seagrass species found in Florida.
<http://www.ces.fau.edu/library/marinesgrass/>





Florida DEP-Environmental Education
3900 Commonwealth Boulevard, M.S. 30
Room 642 Douglas Building
Tallahassee, FL 32399-3000
850/488-9334

Aquatic Preserves Are Exceptional

An A-Z coloring book of which features aquatic species. Free. Limit 2.



Coloring Book pages also available on-line at:
http://www.dep.state.fl.us/cama/ED_more.htm
Color covers can be requested from the phone number above.

Florida Sea Grasses

<http://www.dep.state.fl.us/cama/seagrass.htm>



**Florida Fish and Wildlife
Conservation Commission-Bureau of
Protected Species**
620 South Meridian Street-MS OES-BPS
Tallahassee, FL 32399-1600
850/922-4330

Seagrasses Found in Florida

A guide to the marine flowering plants found in Florida. *Free.*

Manatee's: An Educator's Guide

Includes information on the natural history, habitat, and problems affecting the manatee in Florida. Send request on school letterhead along with a self-addressed envelope with \$1.65 postage on it to the address above.

Environmental Education Publications

A listing of many environmental publications with phone numbers to obtain more information. *Free.*

Resources on the Internet

Teacher Resources

<http://www.state.fl.us/gfc/educator/educator.html>

Florida Fish and Wildlife Conservation Commission-Florida Marine Research Institute

Scott Willis
100 Eighth Avenue SE
St. Petersburg, FL 33701-5095
727/ 896-8626

Brochures and Pamphlets

The Florida Marine Research Institute has a number of brochures and pamphlets that are available free of charge. The range of information covers most marine environments and many individual marine species. Contact the above address for more information.

Resources on the Internet

Teacher Resources

www.fmri.usf.edu

**Florida Fish and Wildlife
Conservation Commission-Division of
Marine Fisheries**

620 South Meridian Street
Tallahassee, FL 32399-1600
www.state.fl.us/fwc/marine

Fishing Lines

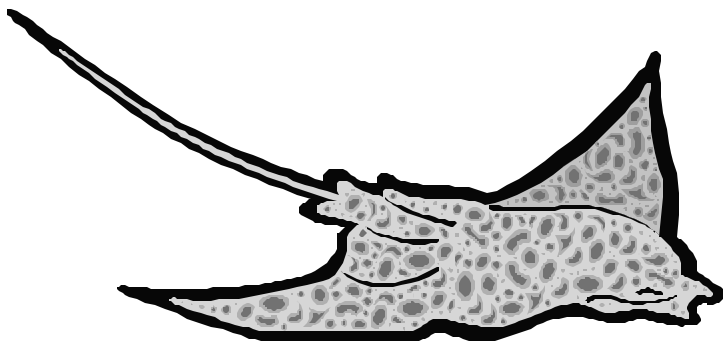
The quarterly Newsletter from the Division of Marine Fisheries. *Free.*



Florida International University
University Park
Miami, Florida 33199

Resources on the Internet

On-line Seagrass Key
<http://www.fiu.edu/~seagrass/key/seagrasskey.html>



Florida Keys National Marine Sanctuary
Ivy Kelly
P.O. Box 1083
Key Largo, FL 33037
Phone: 305/852-7717 ext. 36

Florida's Coral Reef Ecosystem Poster

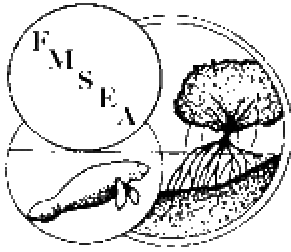
Eight habitats of the Florida Keys ecosystem are highlighted in this two-sided, educational poster. Color illustrations detail communities from the tropical hardwood hammocks and mangroves to the seagrass flats and various reef formations. On the reverse, a species list is keyed to outlines of the same illustrations. Suitable for framing - and learning!

Florida Keys Environmental Education Resource Directory

From summer camps to books, the Resource Directory lists details about organizations and their products. Find out about parks, education programs, and more with this comprehensive listing that offers information and resources on environmental education in or about the Florida Keys.

The Fishes of the FKNMS Poster

The Fishes of the Florida Keys National Marine Sanctuary is a full color poster developed for local educators and dive shops to use as a fish identification tool. Developed with the Reef Environmental Education Foundation (REEF) using images from Paul Humann's "Reef Fish Identification" book this poster features ninety-five of the most common species found in the Florida Keys National Marine Sanctuary including their relative abundance and where they are likely to be seen.



Florida Marine Science Education Association
B.J. Viers
1042 Big Pine Key
Atlantic Bch., FL 32233
http://www.pasco.k12.fl.us/FMSEA/FMSEA_homepage.html

Littoral Drift

A quarterly newsletter which contains information about educational workshops and conferences, teaching aids and resources, regional activities and events, field trip sites, and other articles of interest. *Yearly Membership \$20.*



Florida Sea Grant College Program
University of Florida
P. O. Box 110409
Gainesville, FL 32611-0409
904/392-2801
800/226-1764

The State of Florida's Estuaries

An issue of FATHOM, Florida Sea Grant's full-color magazine that addresses coastal, aquatic and other environmental issues of interest. \$3.00.

Florida's Estuaries: A Citizen's Guide to Coastal Living and Conservation

Publication number SGEB-23. \$2.00.



Gulf of Mexico Program Video Library
The Educator Resource Center
Building 1200
Stennis Space Center, MS 39529-6000
228/688-3338

The Gulf of Mexico Program provides professional educators with copies of the videos listed below (as well as many others not listed). Simply mail a blank ½" VHS SP Mode (two-hour) tape(s) to the above address. Include your name, mailing address, and the name(s) of the tape(s) you would like duplicated. The Gulf of Mexico Program will pay the return postage. Tapes are duplicated in the order received.

Adopt-a-Watershed

Curriculum for teachers implementing an Adopt-a-Watershed program for students K-12. Audience: Teachers; Run Time: 13:00

America's Wetlands

Overview of wetlands in America and its positive impact on us. Audience: High school and up; Run Time: 25:50

Coastal Ocean in Crisis - Science for Solutions

NOAA's activities in finding solutions to coastal ocean impacts. Audience: Jr. High and up; Run Time: 7:30.

Fabulous Wetlands

Humorous educational view of what wetlands are. Audience: Elementary; Run Time: 7:00.

From Farms to Forest - The Wetlands Reserve Program

Video discusses a wetlands reserve easement program. Audience: High school and up; Run Time: 11:00.

Gulf of Mexico

Environmental impacts affecting Florida's coastal estuaries and the Gulf of Mexico.

Audience: Junior High and up;
Run Time: 6:00.

Gulf of Mexico: America's Shining Sea

Discusses wetlands, beaches, boating, waterfowl, fishing and other natural resources found along the Gulf of Mexico. It also informs us how we can help preserve our habitats and natural resources along the Gulf.

Audience: Junior High and up;
Run Time: 7:00.

H2O Groundwater Video

Protecting groundwater from household and industrial pollution. Audience: Elementary through Junior High; Run Time: 9:20.

Haunted Waters, Fragile Lands - Oh, What Tales to Tell!

Barataria-Terrebonne National Estuary Program. Audience: High school and up.

Life on the Edge - The Gulf of Mexico Program

Video examines environmental impacts such as: marine debris, freshwater inflow, pesticides, and over enrichment. Also discusses positive environmental impacts in the Gulf of Mexico. Run Time: 19:00.

No Safe Harbor

Ted Danson, founder of the American Oceans Campaign, explores the condition of our waters and fish as he journeys from the eastern bays to the western sounds.

Audience: High school and up;
Run Time: 19:03.

The Peter W. Anderson: An Environmental Voyage

The Peter W. Anderson is the Ocean Survey Vessel of the EPA. An environmental voyage and how the crew helps prevent pollution and measures its effects along America's coasts.

The video is designed to give students an understanding of EPA's work in the marine environment as well as show them what they can do to help. Audience: Junior High and up; Run Time: 8:15.

Sarasota Bay - Reclaiming Paradise

Sarasota Bay improvement and solution projects. Audience: High school and up.

Water Quality-Based Approach to Pollution Control

Discusses water quality-based approaches to pollution control. Audience: High school and up; Run Time: 15:50.

Waterways

A coral reef classroom at Key West, FL where students participate in hands-on testing is explained. Interviews with three other scientists and their projects are also defined. Audience: High school and up
Run Time: 25:00



Harbor Branch Oceanographic Institution
5600 U. S. 1 North
Fort Pierce, FL 34946
561/465-2400 ext. 500

Mangroves, Mosquitoes and Man

A teacher resource and curriculum guide with Worksheets and transparencies. This 4th-6th grade level curriculum consists of a sequence of hands-on activities that foster critical thinking skills and increase student awareness of societal and economic factors that must be considered as citizens and local government decide how to manage local estuarine wetlands. A video on mangrove restoration efforts at HBOI can be checked out from the education center. *Call for more information.*

Living Lagoon

This entertaining and educational CD-ROM contains animations, sounds, videos and interactive quizzes. The IRL is the most biologically diverse estuary in North America, and has been designated as an "Estuary of National Significance". With this program you will experience an "electronic field trip" to the Indian River Lagoon. \$19.95.

Bioluminescence Coloring Book

This book is an introduction to the fascinating world of creatures that make their own light. A beautifully illustrated and designed hardcover book for ages 5 and up that is sure to be a keepsake. Measures 18" x 11 1/2" and includes childsafe "glow-in-the-dark" paints and paint brush. \$19.95.

Sea Profiles

A two-CD-Rom educational program that illustrates marine science discoveries from the world known as inner space.

Resources on the Internet

@ Sea

www.at-sea.org

Provides a glimpse into the exciting ocean world. Combining the skills of a dedicated group of media mixers, @Sea blurs the boundaries between journalism and education, computer and documentary. Using the tools of today's technology -- satellite communications, digital cameras, and rugged laptops -- online correspondents cover these extraordinary stories, offering an online window into life at sea and the ceaseless quest of science.

Careers in Marine Science

A video that discusses opportunities for students at marine laboratories in the National Association of Marine Laboratories network. Appropriate for high school level students. \$12.95. A free pamphlet on the subject is also available.

Teacher In-Service Training

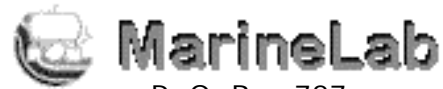
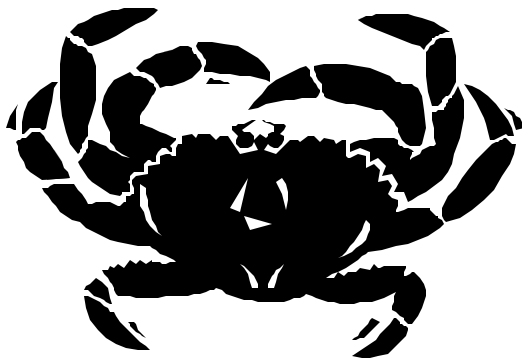
For more information contact Harbor Branch Oceanographic Institution.



IFAS Publications at the University of Florida
P.O. Box 110011
Gainesville, FL. 32611-0011
352/392-1764

Aquatic/Marine Ecosystems

This activity guide provides fun, interactive, and educational activities that teach youth about ecological concepts related to Florida's aquatic/marine ecosystems. Includes projects, experiments, games, and activity sheets need to conduct activities in an easy-to-use format. \$13.00.



P. O. Box 787
Key Largo, FL 33037
800/741-1139

<http://www.mrdf.org/mlhome.html>

Video

A 5-7 minute promotional video available free to interested teachers. This video features middle school students participating in a standard MarineLab 3-day, 2-night program, and also includes short features on SCUBA programs, teacher programs and Elderhostel. *Free.*

POSTER

An 11X17 poster, perfect for putting on your classroom door or wall to solicit participation in your MarineLab program, is available to teachers who have booked a MarineLab program. *Free.*

Student Programs

MarineLab provides the perfect setting and staff for a cumulative, holistic approach to learning about the ecology of the Florida Keys through interactive discussions with marine biologists, snorkeling investigations of seagrass beds, mangrove creeks, and coral reefs, and laboratory explorations of plankton and other small sealife. Student groups spend two to six days learning about these marine habitats of Key Largo through snorkeling. Snorkeling gear and instruction in its proper, safe use is part of every MarineLab program. **Teacher workshops are also available.**



Mote Marine Institute
Education Division
1600 Ken Thompson Parkway
Sarasota, FL 34236
941/388-4441
www.mote.org

Sleep With the Sharks

An overnight program for children ages 7-12. Shark activities involve learning about shark tagging, behavior studies, shark teeth and body part lessons, creating shark art, and viewing videotapes. The best part comes at night, when the lights go down and the children settle down to sleep next to the underwater viewing area of a 135,000-gallon shark tank!

Educational Curricula

- A curriculum on Sea Turtles for the elementary level, \$5.00
- A curriculum on Manatee for elementary & secondary levels, \$10.00
- A curriculum on the Whales of Florida for elementary & secondary levels, \$10.00

An additional charge of \$5.00 for shipping and handling should be added to your order.

Science VideoLink

Science VideoLink is an educational program that links students to Mote's scientific research. Each video features scientists working with students in the laboratory or field. Educational curricula and videotapes are available for the following subjects:

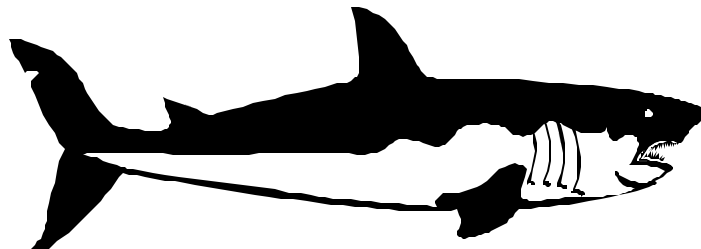
- Natural Marine Toxins and Chemical Pollutants
- What is the Truth About Sharks?
- Sarasota Bay Life: Small and Large
- Hurricanes and Their Effects
- Fish Today and Tomorrow

\$5.00 for video, \$8.00 for curriculum. An additional charge of \$5.00 for shipping and handling should be added to your order.

Environmental Education Outreach Program

This interactive presentation can be brought to your school or organization. Through hand-on demonstrations and group participation activities, elementary and secondary level students learn about the Gulf of Mexico and Florida's marine environments. Cost for program varies for county and group size.

Contact Mote Marine Laboratory for more information about any of the materials and programs listed.

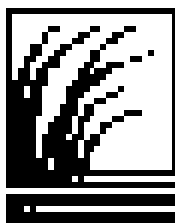




National Estuary Program
90 Route 6A
Sandwich, MA 02563
Phone: 508/833-6600
Fax: 508/833-3150
<http://www.epa.gov/nep/nep.html>

Coastlines Newsletter

Information about estuaries and near coastal waters. Selected issues available on-line at: <http://www.epa.gov/owow/estuaries/coast/index.htm> or can be ordered through the above address. *Free.*

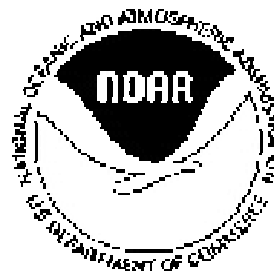


National Estuarine Research Reserve
P.O. Box 1040
Beaufort, North Carolina 28516
Phone: 252/728-2170
Fax: 252/728-6273

Resources on the Internet

Teacher Resources

<http://inlet.geol.sc.edu/estnet.html>
This site has many resources on estuaries including a **Water Quality Monitoring Curriculum** for High School Level students. For more information about their programs, contact the address above.



NOAA
Office of Oceanic and Atmospheric Research
Silver Spring Metro Center
Bldg 3, Rm 11627
1315 East-West Highway
Silver Spring, MD 20910
301/713-2458
<http://www.noaa.gov/>

Resources on the Internet

Sustainable Seas Expeditions

Teacher Resource Book

One of the main goals of the Sustainable Seas Expeditions is to bring new technologies, new knowledge and new learning opportunities to students and help teachers develop classroom activities and materials that highlight these exciting explorations of our national marine sanctuaries. This book can be downloaded from:

<http://www.sanctuaries.nos.noaa.gov/special/special.html#TeacherBook>

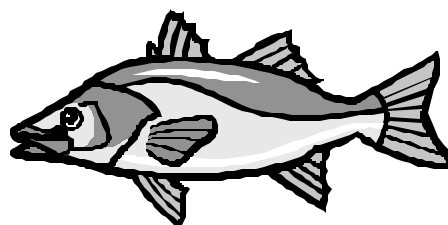
Teacher Resources

<http://www.education.noaa.gov/teachers.html>

The BookShelf

A collection of coloring books, games and other items.

<http://www.education.noaa.gov/books/index.html>



"Teacher At Sea" Program

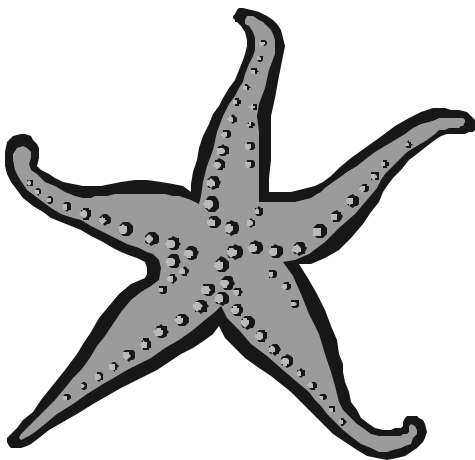
This program allows a teacher in grade K-16 to apply for the opportunity to serve as a researcher on NOAA ships. The current application materials and ship schedules are available on-line. You need to send your completed application packet at least 3 months prior to your desired sailing date. Visit www.tas.noaa.gov to obtain the complete application.



Northwest Florida Water Management District
Office of Public Information
Route 1, Box 3100
Havana, FL 32333
850/539-5999
<http://www.state.fl.us/nwfwmd>

A guide to Protecting Our Surface Water

This publication highlights water resource issues and important watersheds within the Northwest Florida Water Management District. *Free.*



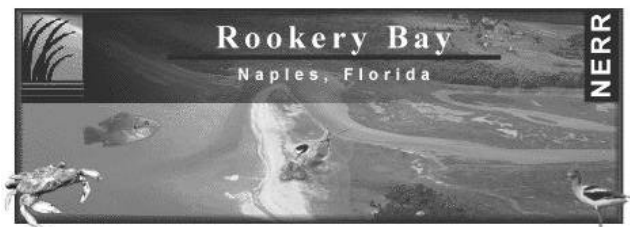
Restore America's Estuaries

Resources on the Internet

Estuary Information

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

Restore America's Estuaries' mission is to work together to help save and restore America's estuaries and coastal heritage for our children before it disappears.



Rookery Bay National Estuarine
Research Reserve
300 Tower Road
Naples, FL 34113
941/417-6310

Rookery Bay Field Guide

An illustrated guide to the common animals and plants of the mangrove estuaries of southwest Florida. Made available by the Friends of Rookery Bay. *\$10.00.*

Rookery Bay Poster

A black and white photographic art poster similar in style to Ansel Adams, by nationally known local photographic artisan Clyde Butcher. Made available by the Friends of Rookery Bay. *\$10.00.*

Keep It Clean

Available free of charge. Send a self-addressed 9x12 envelope with \$2.50 postage.

Marine Science Field & Lab Manual

A collection of lab and field exercises in marine science that enhances critical thinking. Available free of charge. Send a self-addressed 9x12 envelope with \$2.50 postage.

Rookery Bay Vascular Plant Species List

Booklet with scientific and common names and habitat notes for all plant species found in the reserve. \$2.50.



The School District of Lee County
2055 Central Avenue
Ft. Myers, FL 33901
941/275-3033

Resources on the Internet

Living With Estuaries

<http://www.lee.k12.fl.us/dept/ee/estuaries/welcome.html>

This website is designed to give both students and teachers and opportunity to explore and learn about the marine estuaries of southwest Florida.



Seacamp
1300 Big Pine Avenue
Big Pine Key, FL 33043-3336
305/872-2331
877/SEA-CAMP
<http://www.seacamp.org/>

Seacamp offers marine science education and summer camp experiences including SCUBA, sailing, board sailing, and arts & crafts to students from 12-17 years of age.



South Florida Water Management District
3301 Gun Club Road
West Palm Beach, FL
800/432-2045 ext. 6204
<http://www.sfwmd.gov>

A variety of resources are available for teachers upon request, including curriculum and workshops.



St. John's River Water Management District
P. O. Box 1429
Palatka, FL 32178-1429
<http://sjr.state.fl.us>



South Slough National Estuarine
Research Reserve
P. O. Box 5417
Charleston, OR 97420
Phone: 541/888-5558 FAX: 541/888-5559

Family Water Use Survey - grade 3-
adult, an easy way to calculate how much
water your family uses and how to conserve;
good math exercise.



**Who Lives in a Wetland Activity
Sheet** (2-page set) - grades 4-8, includes
pictures to color, cut and paste.

**The Indian River Lagoon Coloring
Book** - grades 1-7, 53 pages; features A to
Z pictures of estuarine animals and plants
with habitat and feeding information.



**Don't Teach your Trash to Swim
Activity Book** - grades 2-6; 13 pages;
coloring book on the effects of trash on
marine life and environments.

Resources on the Internet

Other free Publications

<http://sjr.state.fl.us/index8.html>

Resources on the Internet

Estuaries Feature Series

Many interesting articles about estuaries.

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



Southwest Florida Water Management District
Beth Bartos
2379 Broad Street
Brooksville, FL 34609-6899
800/423-1476
[http://www.swfwmd.state.fl.us/educators/
educators.htm](http://www.swfwmd.state.fl.us/educators/educators.htm)

Waterdrops

Water resource newsletter for grades 3-5.

WaterWeb

Water resource newsletter for grades 6-12.

Project WET Teacher Training Opportunities

Contact SWFWMD for more information.

Splash! Water Resources Education Packet



Water Resources Education Packet, information and activities for teachers and students to grades 5-9.

Splash is also available on-line at:
<http://www.swfwmd.state.fl.us/publications/splash/splash.htm>



Tampa Bay Estuary Program
100 8th Avenue S. E.
MS I-1/NEP
St. Petersburg, FL 33701
Phone: 727/893-2765
Fax: 727/893-2767
<http://www.tbep.org/>

Exploring Tampa Bay, A Teachers' Guide to Florida's Largest Estuary

Designed for students at the middle-school level, this guide assists teachers and parents in educating pupils about the bay's outstanding natural resources, and its most pressing problems. Contains six teaching units that feature handouts, fast facts about the bay and classroom activities utilizing science, social studies, writing, and mathematics skills. *Free.*

Tampa Bay Repair Kit

A spiral bound guide with tips on how to protect Tampa Bay through clean living indoors and out. *Free.*

Resources on the Internet

Free Publications from Tampa Bay
<http://www.tbep.org/publications/free-ub.html#TEACH>
Teachers' Corner from Tampa Bay
<http://www.tbep.org/media/teacher.html>



U. S. Geological Survey, Branch of
Distribution
Box 25286
Denver Federal Center
Denver, CO 80225
800/435-7627

Water Resources Posters

Cartoon posters on subjects of wetlands, water use, wastewater, navigation, ground water, and water quality for grades K-12, \$3.50 handling charge.

Resources on the Internet

<http://water.usgs.gov/education.html>

