

Mark your calendars...

- **November 1—
Teacher workshop at
FSDB (St.
Augustine), 8:30—3.
Call 904-824-4564
for details.**
- **November 8—4-H
Marine Ecology
Judging Event work-
shop at St. Johns
Ag. Center. 2-4 pm.
Call 904-824-4564
for information.**
- **November 22—9:30
am. 4-H Marine
Ecology Judging
Event at Camp
Ocala.**
- **More on back page!**

Exploring our Environment

Our first “adult day camp” program, “Exploring our Environment—from the ocean to the river,” was held at the GTM NERR headquarters September 22-26. We had a full class of 20 participants, who spent the week learning about beaches, sea turtles, marine debris, marine research, watersheds, estuaries, coastal hammocks, marine mammals and more! A repeat of this program is scheduled for March 22-26, 2004, and the program is already starting to fill up. For more information about this program, see <http://stjohns.ifas.ufl.edu> (click on the Sea Grant link) or call Maia or April at 904-824-4564. Many thanks to Janet Zimmerman, Terran Rosenberg, JB Miller, Bill Buzzi and Loretta Hodyss for helping to teach this program.



Maia tried (unsuccessfully!) to catch small fish in a tide pool.

Inside this issue:

What is the GTM NERR? 2

Make a Splash 2

Sargassum 3

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Reminder—aqua-notes now available by e-mail

If you would like to help save paper and postage, you can receive “aqua-notes” by e-mail, or read it on the website. Call or e-mail Maia with your e-mail address and we’ll take you off the “snail mail” list and add you to the electronic mailing list. Quarterly, you’ll receive an e-mail with the newsletter attached as a .pdf document, as well as the link to the newlsetter on the website (for those who cannot receive attachments).

What is the GTM NERR?



The Guana Tolomato Matanzas National Estuarine Research Reserve, generally abbreviated as the GTM NERR is one of 25 NERR's in the US, and one of three in Florida (the other two are the Appalachicola Bay NERR and Rookery Bay NERR). From the NERR website (<http://nerrs.noaa.gov>), "The National Estuarine Research Reserve System is a network of protected areas established for long-term research, education and stewardship. This partnership program between NOAA and the coastal states protects more than one million acres of estuarine land and water, which provides essential habitat for wildlife; offers educational opportunities for students, teachers and the public; and serves as living laboratories for scientists." The GTM NERR covers most of coastal St. Johns and Flagler counties. Duties of the Reserve staff include education, research and management. The GTM NERR Environmental Education Center will be built near the Guana River Dam. For more information about the GTM NERR, call their education coordinator, Janet Zimmerman at 904-461-4054 or visit <http://www.dep.state.fl.us/coastal/sites/northeast/gtmnerr/info.htm>. Janet sends out a monthly e-mail newsletter which includes a calendar of environmental activities within the GTM NERR area—to be added to the distribution list, send Janet an e-mail at jczimm@bellsouth.net.

Make A Splash

On September 26, 2003, 151 4th-grade students, teachers and chaperones came to the St. Johns County Agricultural Center for "Make A Splash." This water education program was sponsored by the St. Johns River Water Management District and was conducted in partnership with St. Johns County Recreation and Parks and the Sea Grant Extension Program. The students rotated through four different stations, each of which was designed to teach them about some aspect of Florida's water. At "Water beneath our feet," students saw an aquifer demonstration and made water cycle bracelets. At "Where the river meets the sea," students learned about estuaries and some of the different types of animals that live there. At "Wacky Wetlands," students participated in a play to learn about the value of wetlands. At "From past to present," Native American storyteller Jimmy Sawgrass taught students how water was used by Florida's first residents. Many of these types of activities can be done in the classroom—for information about the Water Management District's Watershed Action Volunteer (WAV) program, contact Bill Watkins at 386-329-4345.



Students learned about different types of organisms that live in estuaries

Sargassum

Recently, there have been several mats of fresh *Sargassum* seaweed that have washed ashore on NE Florida beaches. Many people regard this seaweed as nothing more than an inconvenience. However, for some of us, a sighting of fresh seaweed causes great excitement, as we welcome the opportunity to find some of the unique and unusual animals that call *Sargassum* home.



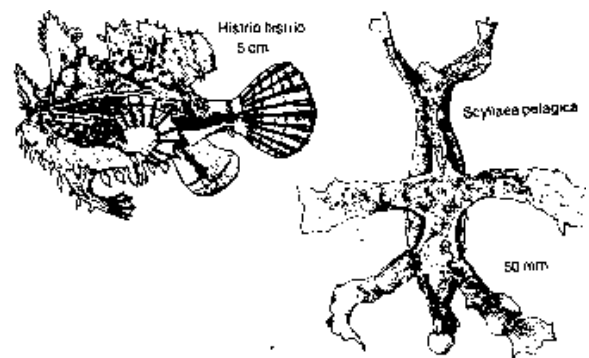
Unlike most marine algae, some species of *Sargassum* seaweed do not need to grow attached to the sea floor. Two of these species form floating mats in a region of the North Atlantic Ocean which is referred to as the Sargasso Sea. The seaweed floats because of its many small, gas-filled “bubbles” called pneumatocysts. It provides a hiding and feeding place for many marine creatures, including baby sea turtles and over 100 species of fish. Many of these animals will stay with the seaweed only until they grow large enough to head off for open waters. However, there are several species of fish and invertebrates that live their entire lives in the *Sargassum*, and they have evolved coloration and body shapes that allow them to be almost invisible in the seaweed.

Members of the *Sargassum* community include shrimp, crabs, a sea slug, pipefish, file fish and the sargassum frogfish. All of these animals have tan, brown and white mottled coloration which allows them to hide undetected in the seaweed. The sargassum frogfish is a member of the anglerfish family—like its deep-sea cousins, it has a “lure” which it uses to entice small fish near its mouth. It then swallows the small fish whole. Be warned, if you find a sargassum frogfish and want to add it to your salt water aquarium, it will eat anything that is not much bigger than itself...! Some of this fish’s fins are modified so it is able to grasp onto the seaweed and it often “walks” rather than swims.

Pipefish often look like a small stick or piece of floating seagrass. Close examination reveals a head with an elongated “snout”, very similar to that of its cousin, the seahorse. Like seahorses, male pipefish have a pouch in which they receive eggs from female pipefish, then incubate the larvae until they are able to fend for themselves. The “dads” then expel the juvenile pipefish, which are perfect miniatures of their parents (but only about 1/4” long!).

If you find fresh seaweed washed up on the beach, or floating in the water, scoop some of it up, throw it down onto the sand, then pick it back up. Look carefully at the sand and you may well find shrimp, sea hares, crabs and more! If you have a dip net, you may be able to find many different fish in and under the floating seaweed.

The National Marine Fisheries Service (NOAA Fisheries) recently (July, 2003) approved the Fishery Management Plan for Pelagic *Sargassum* Habitat in the South Atlantic Region. The management plan protects *Sargassum* from extensive commercial harvest. *Sargassum* is considered Essential Fish Habitat for Dolphin and Wahoo. For details about the management plan, see <http://www.safmc.net/news/SargFMP.pdf>.



Two members of the *Sargassum* community—the sargassum frogfish and sea slug. Illustrations from “Marine Flora and Fauna of Bermuda” by Wolfgang Sterrer.



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coastal Florida*

More “Mark your calendars”

- December 10-11—COSEE workshop—“Bridging the Gap: The Changing Paradigm in Science and Education” at the Paramount Hotel in Gainesville, FL. Registration — \$20.00. See www.flseagrant.org for information.
- February 7, 2004—Water Education Festival at MOSH. For information, contact Cheryl Abbott at 904-730-6261.
- February 19—NE Florida Regional Envirothon
- March 20—St. Johns River Cleanup. Watch local news media for details and contact information.
- March 22-26—Exploring our Environment—from the ocean to the river. For information, see <http://stjohns.ifas.ufl.edu/sea/seagrant.htm>. Note that this program is already starting to fill up, so get your registration in early! Space is limited to 20 participants.
- June 21-25—COSEE teacher workshop; pairs up teachers and researchers to give both partners a better understanding of the others’ jobs. Expenses and stipend paid—contact Karen Blyler at 352-846-0996 ext. 246
- July 18-22—National Marine Educators Association annual meeting (St. Petersburg, FL). See www.floridamarine.org/NMEA2004 for information.

Aqua Notes is provided as one of the many services relating to educational programs offered by the University of Florida/IFAS cooperative extension service. This publication is available on the Web at <http://stjohns.ifas.ufl.edu> or in an alternate format on special request. In compliance with ADA requirements, participants with special needs will be reasonably accommodated with 5 days advance notice by contacting the St. Johns County Extension Service at 904-824-4564. Those needing telecommunications assistance, please call the Florida Relay Service (TDD) at 1-800-955-8771. The use of websites or product names in this publication is not a guarantee, warranty or endorsement of the sites/products named and does not signify that they are approved to the exclusion of others. For more information about this document, contact Maia McGuire at the St. Johns County Extension Service at 904-824-4564