

Mark your calendars...

- **May 21-22, Coastal Master Naturalist Instructor training at GTM NERR.** See www.masternaturalist.org for details and to register.
- **June 3-6, Marine Discovery 4-H camp (Duval county) for ages 8-12.** Call the 4-H office at 904-387-8850 for details.
- **More on back page!**

Invasive species; poster contest winners

Much of this issue of aqua notes is devoted to the growing concern about invasive exotic species. The problems caused by invasive trees like the Australian pine, melaleuca and Brazilian pepper are fairly well-known (habitat modification, displacement of native species). However, we are just starting to learn about the presence of some of the freshwater and marine invasive plants and animals. We may not know their ecological impact for many years. Florida Sea Grant will be conducting workshops around the state in the next year to educate people about these invasive species. I'll let you know if any of those workshops will be held in NE Florida. Congratulations to the winners of the monofilament recycling poster contest! All of the winning artwork can be viewed at <http://stjohns.ifas.ufl.edu/sea/seagrant.htm> (click on the big Poster Contest Winners button). Sean Lefevre's poster (right) was judged to be the overall winner. The 12 winning posters will be featured in a 2004 calendar. Look for ordering information in the next "aqua notes".



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Message in a bottle

I've been contacted by a writer in Texas who is compiling a book of true stories about people finding messages in bottles on coastlines around the world. If you have been lucky enough to find a message in a bottle and are willing to share the story, please contact Dan Parker at P.O. Box 235, Port Aransas, TX 78373, phone 361-749-5738 or e-mail him at cen60999@centurytel.net.

Look out for Green Mussels

The green mussel, *Perna viridis*, is native to the Indian and Pacific Oceans. In 1999, live green mussels were found in Tampa Bay, Florida. The mussels were presumably introduced as larvae in sea water from ship ballast tanks. Recently I have heard several reports of live green mussels found in north-east Florida. The mussels get their name from the deep blue-green color around the edge of the shell. These mussels are considered an invasive species and there is concern that they may have an impact on our estuarine and marine waterways similar to the impact zebra mussels have had in freshwater habitats. Green mussel larvae can settle onto hard surfaces even in swift currents, and the mussels grow rapidly, reaching a maximum size of about 4 inches. In Asia, they are clogging pipes in water treatment facilities and are fouling navigation markers. The mussel is considered to be good to eat, but people should check to be sure that the waters where the mussels are found are considered safe shellfish harvesting areas by the state. Green mussels should be removed from the water if found and their presence should be reported to the Nonindigenous Aquatic Species Program at 877-STOP-ANS (877-786-7267). To check on the harvest status of waterways in Florida, go to www.floridaaquaculture.com and click on "shellfish harvesting maps". For more information about green mussels, see the invasive marine species links at <http://stjohns.ifas.ufl.edu/sea/seagrant.htm>.



Other marine invasive animals

The green mussel is only one of several non-native aquatic species that have been found in Florida in recent years. Cannibalistic Caribbean jellyfish, Australian spotted jellyfish, and Pacific lionfish have all been reported in Florida's waters. Freshwater fish such as the Asian snakehead and Asian swamp eel have also been reported in the state. Since it is impossible to predict what ecological impact these non-native species will have on native ecosystems and species, it is very important that we control the release and transport of non-native species. Never release aquarium specimens into waterways. Boaters should drain bilge water at the designated location when they remove their boat from the water and should check their prop and hull for "hitchhikers". You can help scientists track the spread of marine invasives—report sightings of exotic (non-native) marine fish, such as lionfish at http://www.floridamarine.org/features/view_article.asp?id=15297



Invasive aquatic plants

Hydrilla, water hyacinth, water lettuce and giant salvinia are all well-known freshwater invasive plants (see <http://plants.ifas.ufl.edu> for more information). Recently there has been concern about marine invasive plants, such as a species of *Caulerpa* algae, native to the Pacific Ocean, which is growing rapidly over reefs off the east coast of central Florida (see <http://www.flmnh.ufl.edu/fish/southflorida/news/invasivealgae.html>). There is concern that this algae will smother other living organisms on the reefs. Another *Caulerpa* species has smothered reefs in the Mediterranean ocean where it grows without any natural predator. Scientists from Harbor Branch Oceanographic Institution are currently studying the *Caulerpa* outbreak off the Florida coast to learn more about the algae and its growth.



Water hyacinth—drawing
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Balloon reminder

Every now and then I come across an article in a newspaper or newsletter that mentions that balloons were released to commemorate some occasion. For those who don't know, it is illegal to release into the atmosphere (within a 24 hour period) 10 or more balloons inflated with a gas that is lighter than air, with the following 4 exceptions:

1. Balloons released for scientific or meteorological purposes in association with a government agency.
2. Hot air balloons that are recovered after launching.
3. Balloons released indoors.
4. Balloons that are biodegradable or photodegradable (you must have a copy of the manufacturer's certificate). These balloons may not have string, ribbon or other attachments.

Florida Statute 372-995 does permit residents to petition their county court for permission to release 10 or more balloons in that county.

Remember that what goes up must come down, and that very often these balloons end up in the ocean where they can be mistaken by sea turtles as jellyfish. Once a turtle eats a balloon, the balloon can block the digestive tract and cause the turtle to starve to death.



Sea turtle nesting season

May 1 marks the official start of sea turtle nesting season in Florida. Remember that sea turtles and their nests are protected by the Endangered Species Act. If you see an injured or dead sea turtle, call the Florida Fish and Wildlife Conservation Commission Division of Law Enforcement at 1-888-404-FWCC or contact Florida Fish and Wildlife Conservation Commission Turtle Stranding Staff by Pager at 1-800-241-4653 (ID#274-4867). Please be prepared to answer the following questions: What is the exact location of the animal? Is the turtle alive or dead? What is the approximate size of the turtle? Is the turtle marked with spray paint? (This indicates that the turtle has been documented.) What is the location of the closest access point to the turtle? Sea turtle nesting season continues through October 31.



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More “Mark your calendars”

- June 8—International World Oceans Day
- June 16-20 Environmental 4-H Camp (St. Johns County) for ages 13-18. For details, call the 4-H office at 904-824-4564.
- June 30-July 3 Marine Discovery 4-H Camp (St. Johns County) for ages 8-12. For details, call the 4-H office at 904-824-4564.
- July 20-24—National Marine Educators Association annual conference in Wilmington, NC. See <http://www.vims.edu/nmea/nmea2003/> for details
- July 29-30—Pollution Prevention (P2) Conference in Orlando, FL
- August 2—Rain barrel workshop at St. Johns County Ag Center. Make your own 55-gallon rain barrel to take home. Call 904-824-4564 to register.
- September 22-26—“Exploring Our Environment—from the ocean to the estuary”. An adult education program conducted jointly by staff from Sea Grant, GTM NERR, Marineland and the University of Florida’s Whitney Laboratory. Contact Maia at 904-824-4564 for details.

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