



UNIVERSITY OF
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EXTENSION

Institute of Food and Agricultural Sciences

aqua-notes

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Mark your calendars...

- August 30-31: 4-H Centennial Celebration at World Golf Village. See <http://4H.ifas.ufl.edu/newsandinfo/centennial.htm> for details. Exhibitors are invited to register for booths at the Home, Garden and Agricultural Expo (August 30, 10 am—4 pm)—contact David Dinkins at 904-966-6224 for information.
- More on back page!

New location, same programs...

The long anticipated move has happened! The Sea Grant extension office is no longer located in the bubble building at Marine-land—you can now find me at the St. Johns County Agricultural Center (address and phone # above). Please update your address books if you haven't already done so. After a couple of weeks of disarray, I am getting back to the point where I can find things again! In late August, I will be welcoming April Alexander, my new part-time secretary and Michele Nisi, my student intern for the fall semester. It's been a busy few months; as you'll read inside, the monofilament recycling program continues to grow locally and nationally, and I've been busy with teacher workshops and summer camps. This issue of aqua-notes focuses primarily on beaches and beach-related issues. Enjoy!

M. P. McGuire

Maia McGuire
Marine Extension Agent



4-H members assembled 17 fishing line recycling containers at a leadership event in St. Johns county.

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Got tar?

Everyone who goes to the beach will probably, at some point, experience tar firsthand. Tar appears as black, sticky balls that range in size but are usually about the diameter of a silver dollar. Tar balls are usually found along the high tide line, where they may be mixed up with seaweed or sand and be difficult to spot. On hot days, tar may melt into a pool of shiny black goo. Where does tar come from? Tar is what petroleum products which have made their way into the ocean turn into over time, as components of the fossil fuels evaporate and are acted on by ultraviolet light. If you get tar on your body or shoes, scrape off as much of it as you can with something that you can throw away (plastic utensils, large shells and sticks work well), then remove the rest with a cloth soaked in another oily product, like baby oil, WD-40 or vegetable oil. Some oily suntan lotions will also work as tar removers.

St. Johns County Habitat Conservation Plan

St. Johns County has contracted the environmental consulting firm Ecological Associates Inc. to develop a **Habitat Conservation Plan** for the county. The HCP is being developed so that the county can apply to the US Fish and Wildlife Service for an **incidental take permit** which would release the county from liability in cases where endangered species are harmed accidentally during otherwise legal activities, specifically by vehicles driving legally on the beach or as a result of associated activities. The species that will be included in the permit application are 5 species of sea turtles and the Anastasia Island beach mouse. The HCP is still under revision; the first complete draft is expected by the end of August. To view the work in progress, go to www.co.st-johns.fl.us and click on the Hot Topics link, then click on Habitat Conservation. Public input is an essential part of developing a HCP and you are encouraged to contact Heather McCarthy at Ecological Associates, Inc (772-334-3729 or heather_mccarthy@bellsouth.net), Dave Williams (St. Johns County Division of Recreation and Parks, 904-471-6616; rec2@co.st-johns.fl.us) or Jan Brewer (St. Johns County Planning Department, 904-823-2479; envioplan@co.st-johns.fl.us) if you have comments or concerns. The plan will be presented to the St. Johns County Board of County Commissioners on September 17; the final report is expected to be ready on October 1, 2002.



The goals of the plan are to minimize the impacts on endangered species and mitigate unavoidable impacts. Note that this plan has to be a compromise between all persons who have an interest in the beach. The plan is several hundred pages long, so what follows is **EXTREMELY** simplified; please refer to the plan online (or at the county libraries or planning department) for full details!

- Public beach driving would be allowed between 8 am and 8 pm from May 1—October 31 and 24 hours between Nov 1 and April 30. Beach driving north of the Vilano Ramp would be prohibited at any time. Driving lanes would be marked on the beach.
- Beach drive-on access points would be better controlled
- Turtle nests would be inventoried daily and a rut removal program would be implemented to remove vehicle tracks that might trap turtle hatchlings. An HCP Coordinator would be hired by the county.
- More staff would be hired to enforce beach driving and lighting rules
- Beachfront lighting ordinances would be consistent throughout the county; an additional county Lighting Officer would be hired
- Trash cans on the beach on Anastasia Island would be raised on posts
- Fliers would be produced to educate residents and tourists about the new rules and the reasons for the changes
- Beach horseback riding would be better regulated and equestrians would be educated about potential impacts on turtles and beach mice
- Vehicular access at Porpoise Point would be restricted to one marked driving lane

Beach renourishment



Of the 825 miles of sandy beach on Florida's Gulf and Atlantic coasts, about 40% (329 miles) are designated as "critically eroded" shoreline. This means that erosion on these beaches threatens development or cultural resources. In Northeast Florida, Nassau, Duval and St. Johns counties have had or are currently undergoing beach renourishment efforts to restore eroded beaches. Nassau county leads the state when it comes to development on critically-eroded shoreline, with an average of 33 homes, hotels and condominiums per mile of critically eroded beach.

Why does beach erosion happen? Beach erosion is a natural process; beaches are dynamic systems that lose sand during stormy times of the year and accumulate sand at other times of the year. Rain, wind and waves can all contribute to beach erosion. When waves hit the beach, they suspend sand particles in the water. If the waves hit the shore at anything other than a 90° angle, part of the wave's energy will be deflected parallel to the shore, creating a longshore current (on a large scale, these currents can become rip currents). As the water moves parallel to the shore, it carries grains of sand with it. In theory, sand that is removed from the beach by longshore currents will be replaced by sand which is carried to the beach by another longshore current (on the Atlantic coast of North America, longshore currents generally run from north to south). In practice, however, longshore currents become disrupted by human-made structures like breakwaters, jetties and inlets and often lose energy and drop their sand grains prematurely, leaving some beach areas prone to erosion with little or no natural replenishment.

What are the problems caused by beach erosion? The primary concern is property loss, particularly in areas where construction of buildings or roads has occurred close to the beach. In Florida, the Florida Department of Environmental Protection is the agency which must grant a permit for construction seaward of the Coastal Construction Control Line (CCCL). The CCCL represents the line that would be reached by the ocean during a 100-year storm event. In the past 24 years, 99% of the building permits that have been requested for property that extends beyond the CCCL have been granted. It is likely that a permit will be granted to build a single-family home in an eroded beach area if four criteria are met: the lot was platted before 1985, the owner does not own the adjacent upland lot, the home will be built as far from the water as practical and the house will not be on the seaward dune (which has washed away in many parts of the state).

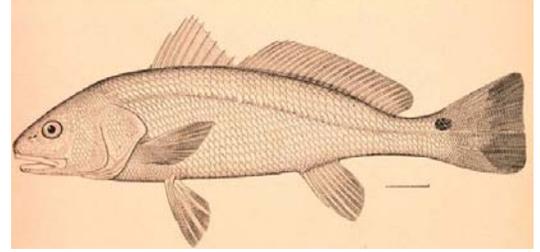
How can we control beach erosion? A number of different types of methods are often used to try and prevent loss of coastal property. These include the construction of seawalls, bulkheads or other hard structures, beach renourishment and/or dune restoration. Hard structures are typically used in order to protect homes or roads that are in danger of washing into the ocean. Beach renourishment and dune restoration are generally used in order to maintain a wide, "natural" beach system.

How much does beach renourishment cost? It's not cheap. Orrin Pilkey, professor emeritus at Duke University, estimates that the cost of maintaining nourished beaches is between \$3.3 and \$5.9 million per year. Beach renourishment programs are generally acknowledged to be short-term solutions; on average it takes 3-10 years for a renourished beach to erode to the point where it was before the renourishment. Funds for beach renourishment in Florida generally come either from the state or from the federal government. Sand for beach renourishment in Florida generally comes from dredging of inlets (as is the case in Fernandina Beach, Ft. Clinch State Park and Anastasia State Recreation Area).

How can I find out more about this topic? Check out <http://www.ocrm.nos.noaa.gov/pdf/finalbeach.pdf>

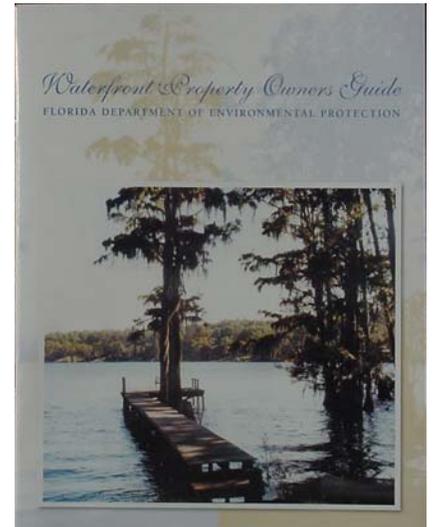
Recreational fishing regulations

The Fish and Wildlife Conservation Commission has released its updated Florida Recreational Saltwater Fishing Regulations. This publication contains the size limits, bag limits, closed season and other restrictions applicable to recreational saltwater anglers. In addition, the July 2002 edition contains information about new scallop regulations (Gulf of Mexico), recreational fishing gear (hook and line, nets and spearfishing), fun facts about redfish (did you know that if you have a redfish in your livewell, then catch a larger redfish it is illegal to release the first redfish and keep the second? You must release the second fish you caught, as you are already in possession of the first fish and the law states that you can only possess one redfish of legal size per person per day). The publication also contains information about saltwater fishing licenses, divers down flags and a list of the most recent artificial reef locations. For more information about fishing regulations, check out the FWCC website at www.marinefisheries.org.



New publication available from DEP

The Waterfront Property Owner's Guide is a relatively new publication available from the Florida Department of Environmental Protection. The 40-page, glossy, full-color booklet aims to educate people about the causes, effects and prevention of water pollution and includes sections on stormwater management, pet wastes, boating, Florida friendly landscaping, water resource management and funding opportunities. These booklets are free and can be obtained from the DEP's Office of Nonpoint Source Management and Water Quality Standards, 2600 Blair Stone Road, Mailstation 3570, Tallahassee, FL 32399-2400, or by calling 850-488-3605 or by e-mailing Patricia.Sanzone@dep.state.fl.us



Thanks to all who volunteer!

The fishing line recycling program could not function without the dedicated group of volunteers who empty the stations, sort out the trash from the fishing line, throw out the stinky bait bags and cigarette butts that have been improperly discarded in the containers and transport the fishing line to tackle shops so it can be recycled. Many thanks go out to Rene Angers, Chris Bodin, Peggy Ferver, Leigh Gardner, Dottie Gray, Liz, Allison and Anne Heffner, Greg Herkert, Bob Howard, Jill Howard-Wilson, Marilyn Jackson, Jack Jones, Jorjann Kuypers, Carroll and Wade Kissam, Ray Marson, Mary Ann Shields, Carolyn Simon, Robin Wilson and the park staff at Fort Clinch State Park, Guana River State Park, Anastasia Island State Recreation Area, Fort Matanzas National Monument, Faver Dykes State Park and Washington Oaks State Gardens. Also, thanks go out to those who are waiting for new recycling stations in their area so they can become volunteers!

Fishing line recycling website

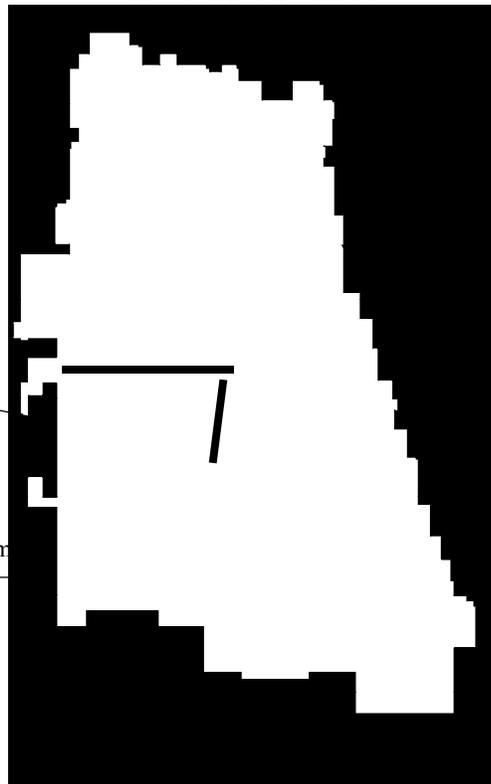
There's a new resource for people who are interested in finding out more about fishing line recycling in Florida. [Http://www.fishinglinerecycling.org](http://www.fishinglinerecycling.org) is a new website which is hosted by the Florida Fish and Wildlife Conservation Commission. The website contains information about MRRP, the pioneer monofilament recycling program in Brevard county. On this website are many downloadable resources (graphics, brochures and other information) for people who are interested in setting up monofilament recycling programs. In addition, there are links to recycling locations (indoor and outdoor) around the state. The website is still in the development stages, but most of the site is accessible. It is hoped that the website will be useful not only to Florida residents but also to people in other parts of the country who are interested in recycling fishing line. There is a feedback form and user survey on the site so you can make suggestions/comments.



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Fishing line recycling program— who to contact



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Volunteers needed for new recycling stations

The following locations have fishing line recycling stations but no volunteer to empty the station! If you'd be willing to check on any of these stations about once a month, remove the fishing line and take it to an indoor recycling location, please contact me.

Duval county: Wayne B. Stevens ramp, Lighthouse ramp, Stockton Park

St. Johns county: Guana River State Park dam (coming soon: St. Augustine South boat ramps)

Flagler county: Bing's Landing, Princess Place Preserve, Haw Creek at Russell Landing, Varn Park, Lake Disston, Shell Bluff, Palm Coast Resort Marina



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coastal Florida*

More “Mark your calendars”

- September 21: Coastal Cleanup. In 2001, over 25,000 volunteers collected more than 1,000,000 lbs of garbage along 1450 miles of Florida beaches. To help out with the 2002 coastal cleanup, in Jacksonville contact Clean It Up, Green It Up at 904-630-3420, in St. Johns county call Chris Benjamin at 904-824-9720 or contact cleanup@oceanconservancyfl.org.
- September 19: 3:30—5 pm, Duval Environmental Educators Network (DEEN) meeting at Jacksonville University. Contact Jennifer Hinckley at (904) 266-5021 or Erin Clary at (904) 665-8887 for more information
- October 27: Daylight savings time ends—set clocks back 1 hour!
- November 5-6: Workshop: “Invasive Species in Florida's Saltwater Systems: Where We Are and Where We're Going” at Tampa Aquarium. For details, see link at www.flseagrant.org
- November 10-15: Elderhostel program: “Marineland: More than just a dolphin show”. See www.elderhostel.org for more information
- November 12-14: Symposium on the Effects of Fishing Activities on Benthic Habitats, Tampa, FL. See walrus.wr.usgs.gov/bh2002/ for more 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 in alternative format upon specific request. For more information about this document, contact Maia McGuire at the St. Johns county extension service at 904-824-4564