

Mark your calendars...

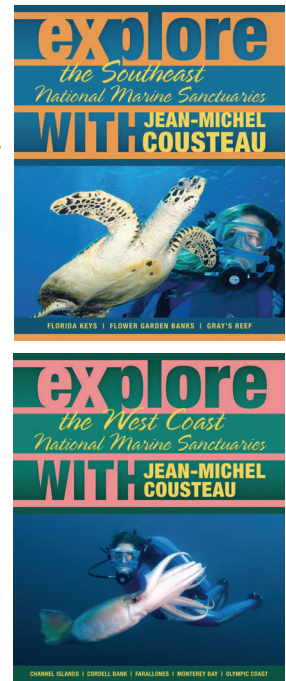
- May 18: Endangered Species Day. See www.endangeredspeciesday.org
- May 19: Pet Amnesty Day (Turn in unwanted non-native pets) at Gatorland, Orlando. See <http://myfwc.com/wildlifehabitats/nonnatives/amnesty-day-events/> for details.
- More on back page!

Inside this issue:

Sea oats	2
Human-wildlife interactions	1, 3

Update on Sanctuary books

Some readers may be aware that I am compiling material for and editing a series of books about the National Marine Sanctuary System. Published by Ocean Publishing, the book series is being produced in partnership with Jean-Michel Cousteau's Ocean Futures Society. The first two books in the series, *Explore the Northeast National Marine Sanctuaries with Jean-Michel Cousteau*, and *Explore the West Coast National Marine Sanctuaries with Jean-Michel Cousteau* are both available. The third book, which focuses on the sanctuaries in the northeast region of the US will be available by early summer. The books provide an overview of each sanctuary and highlight key habitats, species, research topics and environmental issues. They also provide information for people wishing to visit each sanctuary. The books are full of photographs provided by the National Marine Sanctuary system and Ocean Futures Society.



M. P. McGuire

Maia McGuire, PhD
Marine Extension Agent

Human-wildlife interactions

As Florida's human population increases, development reduces the amount of natural habitat available for Florida's wildlife. As wild animals are compressed into smaller and smaller areas, the chances of people encountering them increases. In rare cases, a human-animal encounter can be harmful to the human; in most situations, it is the animal that is likely to suffer harm.



In coastal areas, it is common to see large flocks of birds huddled together on the beach or shoreline. In winter months, many shorebirds migrate to or through Florida before heading to their breeding areas. When these birds are standing or lying on the beach, they are typically resting; conserving their strength for flights that can cover thousands of miles.

Continued on page 3...

Sea oats

Sea oats is a grass that grows on southern coastal dunes throughout the Gulf and Atlantic coastal region of the southeastern US. It is named for and recognized by its seed head, which resembles that of terrestrial oats. Sea oats flower in the spring and summer; seed heads mature in the fall and persist on the plant. The leaves are narrow and pale green and can be up to 24 inches in length; the plants can reach heights of up to 6 feet.

Sea oats plants can reproduce by producing seeds, but under natural conditions seed germination is not high, and seedling survival is low. Sea oats can also reproduce using underground stems, or rhizomes, which allow the plant to create “daughter plants” and spread locally. Once established, sea oats can grow laterally up to four feet per year, and can produce seeds in the second or third year after planting.

Sea oats are considered to be important dune plants for sand stabilization; they also act as a food source and cover for birds and some small mammals, including the endangered *Anastasia* beach mouse. Once established, sea oats resist wind erosion, and the leaves act to trap blowing sand, resulting in accumulation of sand in the dunes. However, waves are capable of washing away sea oats plants, especially during storm events. Sea oats are adapted for life in the dunes—they have high drought and soil salt tolerance and grow well in full sun. The plants produce massive root systems, but do not survive in fine sediments or wet soils.

Sea oats are protected by Florida law. State statute 161.242 states that “it is unlawful for any purpose to cut, harvest, remove, or eradicate any of the grass commonly known as sea oats or *Uniola paniculata*... from any public land or from any private land without consent of the owner of such land or person having lawful possession thereof.”

Dr. Michael Kane, environmental horticulture professor at the University of Florida, has been studying sea oats for many years. Because sea oats are so difficult to grow from seeds, he and his co-workers have been working on growing the plants by using a technique called micropropagation. Essentially, they are growing the plants from small samples of shoot buds. Because sea oats from different parts of the state are genetically different, part of the research involves determining what factors affect the survival of the different genotypes.

In November, 2011, Dr. Kane brought about 1000 plants from his lab in Gainesville to Matanzas High School. Students in Wendy Vidor’s agriculture class maintained the plants, and collected growth data from them for five months. On the morning of Monday, April 30 2012, these students, along with Brian Tuttle’s students from Pathways Academy planted their sea oats in the dunes at Beverly Beach. Vidor hopes to have her students continue monitoring the progress of the different sea oat genotypes as the plants grow.



Students from Matanzas High School and Pathways Academy plant young sea oats in the dunes at Beverly Beach on April 30

Human-wildlife interactions (cont.)

In spring months, some species of shorebirds will nest on our beaches (and some rooftops). In most cases, the nests are simple indentations in the sand, in which camouflaged eggs are laid. The chicks, once hatched, are also well camouflaged. Some shorebirds feed in the swash zone—where the water rolls up and down the beach as waves break close to shore.

Regardless of the birds' reason for being on the beach, people should try to avoid interacting with the birds. Chasing birds will serve to tire them and may prevent them from being able to successfully feed or gain enough strength to complete their migration. Feeding shorebirds will teach them to approach people for food—this is annoying to beachgoers, but can also be fatal to the birds. Birds looking for handouts may eat inappropriate items and may stop seeking natural food sources, relying instead on human discards which are nutritionally lacking for the birds. Wandering into nesting areas can cause parent birds to abandon their nests, as they try to lure you (a perceived threat) away from their eggs or chicks. If you notice birds making squawks or hopping around oddly (perhaps looking like they have a broken wing), those birds may be signaling you that you are too close to their nest. The parent birds actually insulate the eggs/chicks by sitting on the nest. If the eggs or chicks are left uncovered for too long in the hot sun, they can die, so it is important that the parent birds not leave the nest unnecessarily.



Endangered least terns nest on our beaches

In general, the public should not try to assist stranded marine mammals or sea turtles. There are risks to both the humans and the animals in a stranding situation, so it is best handled by people who are trained to do so. Beached marine animals are generally sick or injured, and often are not strong enough to survive if pushed back into the water. It is not a good idea to pour water over the head of a stranded whale or dolphin, as the water may go into the animal's blowhole (its "nose") and drown it. Injured animals often thrash about, and may unintentionally hurt someone who is trying to help. Report strandings to the FWC hotline at 1-888-404-4922 and they will notify the closest responder.

It is often difficult to distinguish a freshwater turtle from a land turtle from a sea turtle. Occasionally, people will find gopher tortoises (land animals) on or near the beach. Gopher tortoises often have burrows in the dunes, so it is not unusual to see them in that environment. While gopher tortoises can travel short distances through water, they cannot really swim if placed into the ocean or a large body of water.

Similarly, freshwater turtles will not survive in the ocean. If you find a turtle or tortoise, it is generally best to leave it where it is—don't assume that it needs to be put into water. It is illegal to move tortoises (or other wildlife) from one location to another—this can spread disease, remove the animal from its home, or place the animal in an area where it is at risk of being eaten by predators. For more information about gopher tortoises, check out FWC's gopher tortoise education corner at <http://myfwc.com/education/wildlife/gopher-tortoise/>.



Baby redear slider turtle. This non-native freshwater turtle cannot legally be released in Florida...

We're now on Facebook—check out [facebook.com/NEFLSeaGrant](https://www.facebook.com/NEFLSeaGrant) and “like” it to keep informed about coastal topics in the region. Don't have a Facebook account? That's OK—you can view the page without one :)



NE Florida Sea Grant Extension Program
150 Sawgrass Road
Bunnell, FL 32110

Phone: 386-437-7464

Fax: 386-586-2102

E-mail: mpmcg@ufl.edu

<http://stjohns.ifas.ufl.edu/sea/seagrant.htm>

More “Mark your calendars”

- May 20: St Johns Sea Turtle Festival noon-5pm, St Augustine Municipal Marina. See www.keepersofthecoast.org for more information.
- June 11-14, 9 am—4 pm: Teachers on the Estuary workshop. See <http://gtmnerrtote-es1.eventbrite.com/?srnk=2> for information and to register.
- June 13-14: Oyster reef restoration workshop, Indian River Research and Education Center, Fort Pierce, FL. Contact LeRoy Creswell (creswell@ufl.edu) to register.
- June 13-29: Coastal Master Naturalist class, St. Johns County. See www.masternaturalist.org for more information and to register.
- June 24-28: National Marine Educators Association annual conference, Anchorage, AK. See www.marine-ed.org for conference details.
- July (dates vary) Adventures in the Estuary summer day camp: see <http://gtmnerrcamp-es1.eventbrite.com/?srnk=1> for details and to register.
- September 29: Pet Amnesty Day at the Jacksonville Zoo. See <http://myfwc.com/wildlifehabitats/nonnatives/amnesty-day-events/> for more information
- October 5-November 9: Freshwater wetlands Master Naturalist class, Volusia County. See www.masternaturalist.org for more information and to register.

Please check the calendar at <http://calendar.ifas.ufl.edu> for other environmental education programs around the state.

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>. 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 Flagler County Extension Service at 386-437-7464.

The Foundation for The Gator Nation

An Equal Opportunity Institution