



Corkscrew
Swamp Sanctuary

Along the Boardwalk

June, 2008

www.corkscrew.audubon.org

More new boardwalk signs arrive

Eight new boardwalk interpretive signs have arrived and are awaiting installation.

The new signs are a result of the combined efforts of the Volunteer Fundraising Committee and individual donors.

The total project cost for 19 signs is \$38,900; all but \$9,450 has been raised. New or additional donations are welcome.

Signs that are ready for installation are #4 "Wet Prairie," #6 "Wonders of the Wetlands" (near Otter Watch shelter), #7 "Mystery of the Swamp" (near Ghost Orchid area), #8 "If Ancient Forests Fall" (past Ed Carlson bench), #10 "Bathe in Used Water" (near the *Polystachya* orchids), #11 "Live in a



Shed" (near the Dodson Spur), #12 "Soup or Salad" (south lake, pictured above), and #13 "No Place of Their Own" (north lake).

Six entry way signs are in place and the final five signs are in production. Those yet to come are #1 (fire), #2 (boardwalk wood), #3 (plume hunters), #5 (It's All About Water), and #9 (Nature in Gear on observation platform).

Wildfire burns acres

Corkscrew experienced its first wildfire of the season on Saturday, May 10. At approximately 7:30 PM, a blaze was discovered on the north end of the Sanctuary at Eagle Island. After reporting the fire, Audubon staff assisted Florida Division of Forestry and Big Corkscrew Island Fire Department with an initial attack on the blaze.

By approximately 3:30 AM Sunday, the fire was officially contained. Beginning at 9:00 AM Sunday, crews conducted fire line enhancement and mop-up, finally ending at 6:00 PM. The fire site was monitored over the next two weeks for hot spots and flare ups.

This fire spread to Corkscrew from debris being burned on an adjacent landowner's property. Extremely dense vegetation hampered and prolonged suppression of the fire.

Although wildfires at Corkscrew are uncommon, this could be a bad season because of the prolonged dry conditions and low water levels. Vegetation is tinder dry, including the stuff that does not usually burn well.

Quick ID Guide: Three nasty, exotic plants we don't want to see

Brazilian Pepper (*Schinus terebinthifolius*) is a shrub or small tree up to 35 feet tall with a short trunk usually hidden in dense, intertwining branches. The compound leaves have a reddish midrib with from 3 to 13 oblong, finely toothed leaflets which have a turpentine-like smell when crushed. Small, white flowers can appear year round, but mostly September through October. Fruits are in clusters which are glossy, green and juicy at first, becoming bright red on ripening. It is related to poison ivy and poison sumac.



<http://edis.ifas.ufl.edu/FW037>

Downy Rose Myrtle (*Rhodomyrtus tomentosa*) is a small shrub with leaves that are opposite, simple, entire, elliptic/oval, to three inches long. The leaves are glossy green above and densely soft-hairy below, giving the underside a gray or silvery appearance. Downy Rose Myrtle flowers profusely in the spring. The flowers are rose-pink. The fruit is a bluish-purple berry about a half inch across that looks similar to a blueberry but is more oblong. Once established, Downy Rose Myrtle can displace Brazilian Pepper.



<http://aquat1.ifas.ufl.edu/rhotom.pdf>

Old World Climbing Fern (*Lygodium microphyllum*) consists of long fronds to 90 feet that spread along the ground, over trees and shrubs, and climb by twining around other structures. The rachis (main stem) of the frond is dark brown to black and wiry. Leafy branches off the rachis are 2 to 5 inches long with several pairs of leaflets (pinnules). Fertile leaflets (*inset*) are fringed with tiny lobes of en-rolled leaf tissue along the leaf margin, covering the reproductive tissues.



<http://edis.ifas.ufl.edu/AG122>

Bird Trivia

What is the smallest North American heron, and about how much does it weigh?

Discover the answer at www.collieraudubon.org/birding.html

Where did the water go, and when will it come back?

The general flow of sheet water through Corkscrew is from the northeast to the southwest. Water that begins west of Lake Trafford moves through the Corkscrew Marsh, through the Sanctuary, and eventually into the Gulf generally through the Imperial River in Bonita Springs and the Cocohatchee River in North Naples.

Because rain is the only source of that incoming water, the lack of rain in the dry season means no water is flowing in but the water here still flows out.

Once the sheet flow stops, water remaining in isolated spots slowly disappears by evaporation and by percolating down through the peat.

Water returns with onset of the rainy season, usually beginning in early June.

When the dry-down is prolonged, as it is this year, the peat dries out and it takes several weeks of soaking downpours before the peat becomes waterlogged enough that surface water will stay on the surface.

Last summer, water didn't register at the water gauge in the north lake until the end of July.

While rain in Corkscrew would



brighten the Resurrection Fern and get the frogs calling, it would be more beneficial to have steady rains to the northeast so water slowly flows into Corkscrew, dampening the peat gradually.

May Sightings



A Barred Owl swallows a mouse it caught near Sign 11 (May 20).



A Carolina Wren feeds a caterpillar to its chick behind the Alligator Den shelter (May 13).



A Red-bellied Turtle emerges from the mud in what once was the north lake (May 6).

How Does That Work?

Earth's geomagnetic field helps birds determine migration orientation

For decades, scientists have known that migratory birds use Earth's geomagnetic field along with light, stars, and other cues to guide them during migration. But it was unclear just how birds sense this relatively weak field and use it for navigation.

Now German researchers have provided new evidence supporting the notion that migratory birds actually *see* magnetic fields. They uncovered a link between neurons in the eye and a region of the brain thought to be involved in migration.

Their experiments support a theory that birds collect magnetic-field information through specialized receptors in

the eye. Researchers aren't sure what this receptor is, but cryptochrome, a protein known to be involved in some animals' circadian rhythms, has been found in the eyes of several migratory birds and is a prime candidate.

If that's it, then north and south look inherently different to migratory birds, and even when flying over open ocean on a starless night, they may use that distinction to stay on course.

Researchers have long known that migratory birds receive information about magnetic fields from a part of their upper beak called the magnetite receptor, which contains iron-based magnetic crystals. This receptor seems

to measure the strength of the magnetic field—the field is generally strongest at the poles—and the angle of the field in relation to the ground, which also varies with latitude.

The magnetite receptor and the visual magnetic receptor complement one another. Birds using the receptors in their beaks like GPS and use visual magnetic information like a compass to determine which way they're facing.

For more information, visit:

www.discovermagazine.com/2007/oct/birds-navigate-using-magnetic-compass-vision.

www.naturalhistorymag.com/0607/0607_samplings.html

Florida Black Bear

Ursus americanus floridanus

All wild bears in the state are Florida Black Bears, and while nearly identical in the field, the Florida Black Bear can be distinguished from other subspecies by its highly arched forehead and its long, narrow braincase.

They are normally black with a brown muzzle and may occasionally have a brownish tint to the fur along their spines.

Some people think that because body size of some Florida mammals such as raccoons and white-tailed deer is smaller compared to their northern counterparts that black bears in Florida are smaller than more northern bears. This is not true.

Adult male Florida Black Bears average around 350 pounds and adult females normally weigh around 175-200 pounds, both typical for northern black bears subspecies. The state record for a Florida Black Bear, at 624 pounds, was an 8-year old male bear that was struck and killed by a vehicle in December, 1988, here in Collier County.

The weight of individuals varies greatly throughout the year. Food availability is low during the winter months, even in Florida, and both male and female bears lose weight. As the summer breeding season ends and fall begins, both genders focus on putting on weight and they spend a lot of time eating.

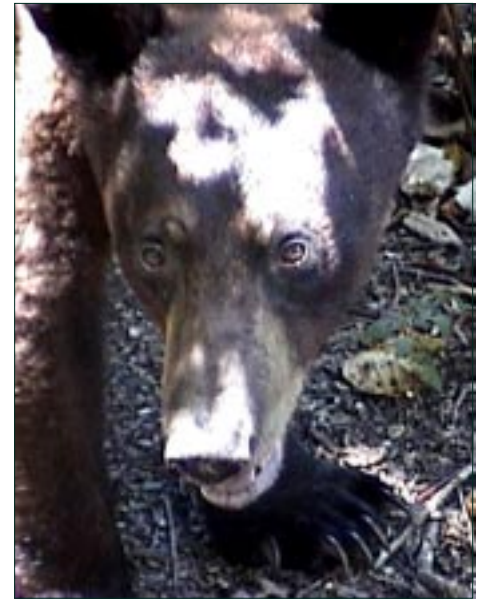
Male bears may stay active and eating all winter. Being big and fat allows males to get through the winter and dominate other bears, and being in good condition through the spring allows them to spend more time searching for mates and less time eating.

Females that put on a lot of weight are in better condition to feed cubs at the den site all winter, or to recover from poor body condition from nursing cubs the year before. Bears can gain or lose over a 100 pounds during one year.

Bears are omnivores, eating mostly acorns, nuts, berries, and other vegetation, as well as insects. A small percent-



A yearling approaches the Bunting House. It turned back when it heard people on the boardwalk (July, 2004).



A female with a nearby cub watches the boardwalk near the beginning of the shortcut trail (May, 2002).

age of their diet is meat, often from scavenging. The Florida Wildlife Commission has compiled a long list of items that Florida bears are known to eat (<http://myfwc.com/bear/foodlist.htm>).

Bears are solitary by nature unless it is the mating season or they have cubs. In general, they are not territorial and do not defend a specific area from intrusion by other bears. Instead of a territory, the area they wander in search of food, water and adequate cover is called a home range. Its size may vary each

season and year depending on food availability, the sex, age, and reproductive status of the bear, and population density. In Florida, male bears typically have home ranges of 50 to 120 square miles; female ranges generally are 10 to 25 square miles.



A male sashes through the pond cypress near the exit trail (July, 2006).

Black bears have decent eyesight, possibly as good as humans, and recent research has found that they have color vision. They have acute hearing and an excellent sense of smell.

The myth of poor vision may be due to their reliance on their sense of smell,

as well as behavior. When black bears see humans, they often do a lot of sniffing, and may stand up. This is not a sign of aggression; it helps them to catch scent and to get a better look.

Bears are quiet creatures, but occasionally they make sounds to communicate. Cubs bawl and moan when distressed, and make a sort of grunting purr when suckling. A sow communicates with her young by grunts or moans, sending the cubs up trees for safety or indicating that they should follow her.

An aggressive bear does not growl like a dog. Instead, it will stare, protrude its lower lip, and flatten its ears. If the source of the unease remains, it may slap the ground, huff, or snap its jaws. If these behaviors don't work, the bear may charge.

To avoid confrontations with bears, think of them as extremely large, powerful dogs. Don't make eye contact, and don't run. If it's a single bear, wave your arms and make noise. If it doesn't retreat, *slowly* walk away without looking at it or turning your back to it.