



Corkscrew  
Swamp Sanctuary

## Along the Boardwalk

January, 2007

[www.corkscrew.audubon.org](http://www.corkscrew.audubon.org)

# Storks wired for satellite tracking to preserve nesting colony feeding areas

In order for Wood Storks to have a successful nesting season, they must not only have a safe place for the nesting colony but they must have enough accessible feeding areas to support the colony.

Information about nesting at Corkscrew is documented, but not enough is known about the areas where the storks feed outside the sanctuary to make accurate, informed decisions about protecting those essential areas.

To address that situation, a program of satellite tracking began last year. A small, cell phone-size transmitter is attached to the back of the stork between the wings using a silicone strap harness which loops beneath the wings and under the belly. The birds preen the feathers over the device effectively concealing it, except for a thin antenna which remains protruding from the feathers. Visible plastic leg bands are also attached to each tagged stork.

Five new satellite tags have been purchased to deploy on storks nesting at Corkscrew this year.

Jason Lauritsen, leader of the tracking project, said, "Hydrologic conditions cause me to believe they will nest before mid-January. If this occurs, I hope to have a rocket-netting team in place right away so we can track their foraging movements."

Less than a dozen transmitters will be in use, and while satellite tracking identifies patterns and feeding areas, it is a very limited picture. Observations of volunteers reporting feeding areas to Jason will be essential to the overall success of the preservation program.



Photographs by Will Wellman

## Quick ID Guide

### How can you distinguish between immature Yellow-crowned Night Herons and immature Black-crowned Night Herons?

Field guides say the immature Yellow-crowned has smaller white spots on the upper wing, darker gray flight feathers, a little longer neck, a more finely streaked breast, and a slightly stouter bill.

That works if the two are roosting side by side so those comparisons

Yellow-crowned  
Night Heron



What do you say if...  
...visitors complain that they have traveled a long way and haven't seen one alligator?

Acknowledge their disappointment and explain why they may not have seen any alligators: (1) the Sanctuary is 12,000 acres and unlike a zoo, alligators can go anywhere they want, which is not necessarily where we want; (2) in the summer and fall, water levels are high so the alligators are more spread out, and they stay in the water to stay cool; (3) on cold winter mornings, water holds temperature better than air and the alligators stay under water to stay warmer.

Additionally, radio other volunteers to see if there are any gators visible elsewhere.

Try and show them some other unique animals or plant life (have a common plant in mind like a strangler fig or resurrection fern so you are not dependent on trying to find another animal that might not be there and disappointing him/her again).

Lastly, refer them to Lake Trafford for an airboat ride where there are hundreds of gators in a more confined area. We refer visitors to Lake Trafford because they are sure to see a gator and it is part of Corkscrew's watershed.

can be made, but that situation rarely occurs in real life.

Here's the easier way. Look at the lower mandibles of the bills and think **OPPOSITE COLOR OF THE NAME**.

The Yellow-crowned's lower bill is black.

The Black-crowned's lower bill is yellow.

Black-crowned  
Night Heron



## Why do Anhingas spread their wings?

...and the answer is NOT that they need to dry them off

The structure of Anhinga feathers decreases buoyancy and facilitates underwater pursuit of fish. Hence, their plumage is not water-repellent like ducks, but “wetable.”

It was once suggested that the functions of the spread-wing posture was to dry the wings after wetting. Biologists thought that deficient production of oils from the preen gland required the wings to be dried.

We now know that the degree of waterproofing of their feathers is primarily due to the microscopic structure of the feathers, and not to being oiled.

Some birds do use a spread-wing posture for wing drying. Not Anhingas.

Anhingas have unusually low metabolic rates and unusually high rates of heat loss from their bodies. Whether wet or dry, they exhibit spread-wing postures mostly under conditions of bright sunlight and cool ambient temperatures, and they characteristically orient themselves with their backs to the sun.

Thus, it appears that Anhingas adopt a spread-wing posture primarily for thermoregulation – to absorb solar energy to supplement their low metabolic heat production and to partly offset their inordinately high rate of heat loss due to convection and (when wet) evaporation from their plumage.



Reference: The Birder's Handbook, pp. 25-27

## December Sightings



Orange-crowned Warbler at the south lake (December 1).



Painted Bunting near the feeder by the Bunting House (December 5).



Common Grackle, aberrant coloration on tail feathers, near Bunting House (December 18).

## Christmas Bird Count

Corkscrew Area Count sets records for 18 species, tallies almost 28,000 birds

In spite of rain and overcast skies, 41 volunteers were in the field for the 107<sup>th</sup> Christmas Bird Count on Saturday, December 16.

Volunteers met in the Corkscrew parking lot between 6:15 and 7:30 AM where they divided into small groups. Most of the groups completed their counts by 5:00 PM.

The territories counted in the Corkscrew Circle stretched from the Sanctuary property (including the fish farm, central marsh and washout trail), north and east to Lake Trafford and

Immokalee, south to 18th Avenue and west almost to Twin Eagles.

A grand total of 27,907 birds was counted during the day. The most often seen bird was the American Robin with a total of 7,137 individuals, followed by Tree Swallows (5,320), Common Grackles (2,229), Yellow-rumped Warblers (1,767), and Mourning Doves (1,727).

Numbers for eighteen species were all-time highs in the 26 years of the Corkscrew Circle Christmas Bird Counts.

Record highs for individual species included Green-winged Teal, Wild Turkey, Northern Harrier, Red-shouldered Hawk, Least Sandpiper, Eurasian Collared Dove, Mourning Dove, Rock Dove, Red-bellied Woodpecker, Eastern Phoebe, Loggerhead Shrike, Blue-headed Vireo, Blue Jay, Gray Catbird, Northern Mockingbird, Summer Tanager, and American Robin.

Less common birds observed included Bufflehead, Peregrine Falcon, Scrub Jay, Wood Thrush, Sora, and Solitary Sandpiper.

Cypress are in the redwood family *Taxodiaceae*, which includes the redwoods and giant sequoias in the western United States.

Although cypress are conifers, they are unique because they are deciduous. This indicates that although Corkscrew is in a subtropical area, cypress originated as temperate plants where being deciduous was an advantage, and they spread south rather than originating as tropical plants and spreading north.

The oldest trees at Corkscrew are around 600 years old. The age was based on a core peat sample from the central marsh which indicated that approximately 600 years ago, a massive fire occurred. The carbon deposit was thick enough that the fire must have destroyed everything.

Cypress was and is heavily harvested because of its qualities: it is resistant to decay but it is soft, light, very durable, and doesn't warp easily. These qualities have made it useful as railroad ties, docks, bridges, silos, caskets, garden mulch, and in boat building. The U.S. Navy used cypress for hulls of its mine sweepers and P.T. boats in the 1940's and 1950's because metal hulls set off water mines while wood hulls did not.

Almost every swamp in Florida was logged between the 1800's and 1950's. Heavy logging began in the 1930's. Corkscrew was saved and is now the largest and oldest virgin bald cypress forest in North America. Other unlogged areas of cypress trees in South Carolina are older, but they are in what is a cypress-tupelo forest rather than a bald cypress forest.

Bald cypress produces seed every year, and good seed production occurs at intervals of about three to five years. Male cones appear on trees from December to March and give off pollen to fertilize the female cone. Male cones occur in tassel-like structures several inches

## Bald Cypress

*Taxodium distichum*



long and are usually near the tops of the cypress trees.

Female cones are mostly round and are usually in the lower portions of the cypress trees. They appear from March to April after pollination and reach maturity between October and December. Each cone contains from 18-30 seeds and usually breaks apart on the tree to disperse the seeds.

At maturity, parts of cones with their resin-coated seeds clinging to them, or sometimes entire cones, drop to the water or ground. The seeds are dispersed by water flow.

Seeds cannot germinate in water but can remain viable for up to 30 months under water. They need saturated but unflooded soil for a period of one to three months after seedfall for germination, so a dry-down is essential for their successful reproduction. When you see cypress growing in standing water, the ground had to be dry at the time the seed germinated.

After germination, seedlings must grow fast enough to keep at least part of the crown above water level for most of the growing season. Growth stops when a seedling is completely submerged and prolonged submerging kills the seedling.



Cypress can regenerate after wind or lightning damage as long as the root system and some of the living trunk is intact. Trees up to 60 years of age send up healthy sprouts; trees up to 200 years of age may also sprout but not very vigorously. Adventitious branching (sprouting from unusual or unexpected places) may occur after storm or fire damage.

The thin bark of cypress trees offers little protection against fire, but the trees are usually protected because fire burns out in the moist soils where cypress grow. During drought years when the soil is dry, a fire will usually kill the trees.

Cypress roots are widespread, shallow, and horizontal. Young trees send a tap root down, but because of the limestone base beneath the sand and peat in Corkscrew, the tap roots never develop. Cypress knees grow up from the roots and tend to be one to two feet above the highest water mark. Knees growing up through a dense matt of horizontal roots give the trees stability to withstand wind storms.

## Cypress Trivia

- DNA testing has confirmed that bald cypress and pond cypress are two distinct trees rather than one being a variation of the other; however, they can hybridize.
- The largest bald cypress by volume is in Cat Island National Wildlife Refuge near Baton Rouge. Its trunk is 17 feet in diameter and it has a crown spread of 85 feet.
- *Taxodium* is derived from a Greek word meaning "yew-like" and *distichum* means "two-ranked" referring to the way the needles are arranged in two ranks (exactly two rows on each side of the stem).

Reference: [www.na.fs.fed.us/spfo/pubs/silvics\\_manual/Volume\\_1/taxodium/distichum.htm](http://www.na.fs.fed.us/spfo/pubs/silvics_manual/Volume_1/taxodium/distichum.htm)

# January Calendar

For more informaton, including times, go to [www.corkscrew.audubon.org/calendar/01\\_Jan.html](http://www.corkscrew.audubon.org/calendar/01_Jan.html)

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1  <b>Blair Center Art Exhibit</b> Christine Reichow watercolors <i>all month</i>	2	3	4 DC-Day Walk	5	6	7
8 <i>Training:</i> New volunteers	9 <i>Training:</i> FGCU Colloq. guide	10 <i>Training:</i> New volunteers  DC-Night Walk	11 <i>Training (2):</i> FGCU Colloq. guide & Truck trip guide  DC-Day Walk	12 <b>VFT:</b> North end by truck (limit: 7)  <i>Training:</i> New volunteers	13 DC-Bird Banding	14 Volunteer picnic at Delnor Wiggins Park
15  <i>MLK Day</i>	16 DC-Early Bird Walk  *CCAS prog. Wood Storks <b>VFT:</b> Sunset truck trip (limit: 17)	17 DC-Sunset Walk	18 <i>Training:</i> Adult board-walk guide  DC-Day Walk	19  <b>**Southwest Florida Birding Festival</b>	20 DC-Bird Banding	21
22 <b>VFT:</b> canoe trip, Fisheating Creek (min. needed: 7)  DC-Deep Sky	23	24 DC-Night Walk	25 <i>Training:</i> Insect Adventure workshop  DC-Day Walk	26	27	28
29	30	31 DC-Sunset Walk	<p>* <b>Collier County Audubon Society program</b> (Jan. 16): “Wood Storks” presented by Corkscrew’s Jason Lauritsen. Information and directions at <a href="http://www.collieraudubon.org/programs.html">www.collieraudubon.org/programs.html</a></p> <p>** <b>Southwest Florida Birding Festival</b> (Jan. 19-21): Corkscrew volunteers needed; fliers in the Bunting house and more information at <a href="http://www.rookerybay.org/bird_fest_2007.htm">www.rookerybay.org/bird_fest_2007.htm</a></p>			

**DC** = Discover Corkscrew program.

**VFT** = Volunteer field trip information and sign-up in the blue notebook by the radios in the Bunting House