



Corkscrew  
Swamp Sanctuary

## Along the Boardwalk

September, 2007

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

### Butterfly Count returns from hiatus

Annual butterfly censuses of Corkscrew species were a staple of summer until schedule conflicts halted them in 2002. But thanks to intern Angie Germano, they're back.

Angie planned and organized a 2007 count, which tallied 35 species and 791 individuals on Saturday, August 18. Included in the 35 species were three that had never been recorded before in Corkscrew counts: Orange Sulphur (three), Palatka Skipper (one), and Three-spotted Skipper (two).

Volunteers split into two groups, one covering the area from the Blair Center to the fish farm and along wash-out road, and the other covering the boardwalk, Living Machine, and Insect Adventure trail.

The most commonly seen butterfly was the White Peacock with 212 sightings, followed by Queens (194), Pearl Crescents (104), Palamedes Swallowtails (80), and Phaon Crescents (58).

Although the count was limited to butterflies, a Tersa Sphinx Moth was spotted along the Plume Hunter spur, right.

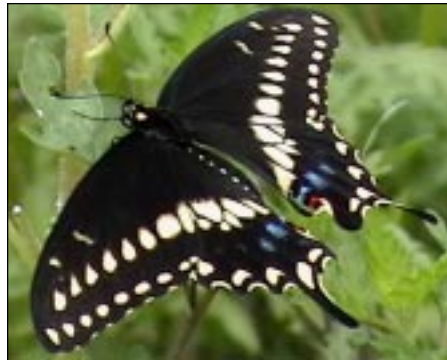


Assisting Angie were Dick Brewer, Rebecca Beck, Mike Duever, Candace Forsyth, Jean McCollum, Vanessa Morris, and Sally Stein.

Totals for this and previous counts are posted on the Corkscrew web page; click on "Wildlife," then "Insects," and then on "Butterfly Counts."



A new observation was the Palatka Skipper.



Five swallowtail species were seen, including this Black Swallowtail.

### Quick ID Guide:

#### Butterflies: Phaon Crescent vs. Pearl Crescent

Two small butterflies that are about the same size (3/4"), have similar markings, and are found in the same habitat may confuse observers.

The Phaon Crescent (*Phycoides phaon*), left photo, has a bright, cream-colored band toward the tip of each forewing.

The Pearl Crescent (*Phycoides tharos*), right photo, doesn't.



### News briefs...

#### Mark your volunteer calendar

Dates for the 2007-2008 season are beginning to be firmed up. Some volunteer dates to note:

- Nov. 7: canoeing field trip
- Nov. 9: Fakahatchee field trip
- Dec. 7: potluck dinner
- Dec. 15: Christmas bird count
- Mar. 22: recognition dinner

For a complete list of activities scheduled so far, visit the Corkscrew web page, click on "Information," and then click on "Calendar of Activities." Included are currently scheduled Discover Corkscrew walks and classes.

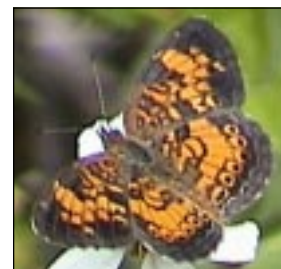
#### Fundraising Committee nears half way mark towards goal

The Corkscrew Volunteer Fundraising Committee raised \$17,975 with 36 volunteers contributing as of August 10. This represented nearly 40% of the overall monetary goal with 30% volunteer participation.

The Committee is very pleased with initial fundraising efforts, especially the average contribution per volunteer, and hopes that as the campaign continues through the summer, it will achieve its goal of raising \$45,000.

An easy mnemonic device to remember the difference is "Neon Phaon," referring to the bright band.

Both are common in open habitat (pine flatwood and wet prairie), and both fly close to the ground.



The larval plants are frogfruit for the Phaon Crescent and climbing aster for the Pearl Crescent.

### Bird Trivia

What bird has a unique adaptation for preventing sand and debris from getting under its wings when it scratch-feeds? Discover the answer at [www.collieraudubon.org/birding.html](http://www.collieraudubon.org/birding.html)

## In Case a Visitor Asks



### What are cypress knees, and what do they do?

Common questions visitors ask, upon seeing cypress knees for the first time, is “What are those? Do they turn in to trees? What good are they?”

Cypress knees are vertical extensions of the root system, and they will never be anything other than knees.

Three theories exist about the purpose of knees. None has been definitely proven, but one is most likely.

Because cypress are shallow-rooted (no tap root), they should be susceptible in hurricanes. But a projection (knee) growing up through a tangled matt of shallow roots provides extra stability, enabling the tree to stand up to hurricanes and not topple over.

The other two theories, disproved,

are that the knees may store starch or nutrients for the trees, or that they somehow help with oxygenation since cypress roots are under water.

However, experiments have failed to detect any sort of gaseous exchange, and trees with knees removed do not suffer any loss of starch or nutrients.

- Most cypress knees tend to grow until they’re about one to two feet above the highest water levels. Knees at Corkscrew are relatively short; knees in areas with a tidal flow may grow to eight feet or more.
- Tops of knees that are gray have stopped growing; those that are orangish-brown are still growing.

## August Sightings



Pig Frogs mate as water returns to the area in front of the Alligator Den shelter (August 2).



The Ghost Orchid’s second blooming started in August (Rod Wiley photo – August 14).



A White-eyed Vireo sings out as its family group forages together (August 7).

## Meet Allyson Webb

Allyson Webb joined the staff as the Natural Resources Manager for Panther Island in April, 2007.

The land Corkscrew acquired through the Panther Island Mitigation Bank project is on the far northwest side of the sanctuary, so her job responsibilities require her to spend more time



in that area than around the boardwalk.

She first came to Corkscrew as a volunteer in June, 2004, working as a resource management volunteer.

Before coming to Corkscrew, she spent two years as a Peace Corps volunteer in Haiti. While in Haiti, she taught biology, women’s health, and environmental education. Additionally, she worked in a tree nursery and spent time with neighborhood children in her kids’ group.

Growing up in the suburbs of Ft. Worth, Texas, she spent most of her free time playing in the woods and creeks of her neighborhood. This set her on a

path to a B.A. in biology with a minor in chemistry from Texas A&M University in College Station.

Currently, she is working on her Master’s degree in environmental science at Florida Gulf Coast University. Her passion is behavioral ecology, and her Master’s degree research delves into foraging preferences of bats in mangrove systems.

When she’s not in the field doing research or working for Corkscrew, she spends her time with her two Haitian dogs Trezo and Sovado, and by reading, writing, and enjoying time with friends and family.

# Friends in the Night

## Corkscrew's Bats: Third in a Species Profile Series

### Northern Yellow Bat

#### *Lasiurus intermedius*

The Northern Yellow Bat is a solitary, non-migratory, tree-loving species that lives along the southeastern Atlantic and Gulf Coasts, Cuba, and coastal Mexico, usually found in areas where Spanish moss is prevalent.

In Florida, these bats inhabit hardwood and pine forests near permanent water but are also found in palm groves. They roost year-round in Spanish moss or beneath the dead, fan-shaped fronds of palms.

At four to five inches in length with a 14-16 inch wingspan, the Northern Yellow Bat is the second largest bat in Florida after the Florida Bonneted Bat.

There are no reliable longevity records for this species, but the fact that they typically produce litters of three



Merlin D. Tuttle  
Bat Conservation International

suggests relatively short life spans compared to most other bats.

Its long, thick, silky fur varies in color from yellowish-orange to yellowish-brown to almost gray, enabling it to be well camouflaged in its roost habitat of dead palm fronds. The fur extends down the body to cover about half of its tail membrane. Its ears are relatively large and pointed.

Although it is solitary, small groups may roost together in the skirts of old fronds of cabbage palms.

This species forages at night at heights of 15 - 20 feet over meadows, golf courses, marshes, and above the treetops along lake and forest edges. Its diet consists entirely of insects, mostly flies, dragonflies and damselflies,

beetles, true bugs, and wasps.

Breeding occurs in autumn, but pups aren't born until May and June. The female leaves the pups in the roost while she goes out to forage, but if the roosting site is disturbed, she carries them with her. The young forage for themselves in two to five weeks.

Northern Yellow Bats do not migrate, but rather go into a state of torpor when the weather is harsh or food is not abundant. During torpor they rely on stored body fat to sustain them.

A dramatic decline in numbers has been reported in areas of Florida where pesticide use is especially heavy. That and loss of habitat are its main threats. The clearing of woodlands and the practice of removing old palm fronds and Spanish moss kills many individuals and destroys habitat.

Owls and rat snakes are known predators of Northern Yellow Bats.

### Seminole Bat

#### *Lasiurus seminolus*

The Seminole Bat is common throughout Florida except in the Keys. It spends most of its life in forests of mixed oak and pine, or in lowland cypress stands and river swamps and is closely associated with lowland wooded areas with Spanish moss. It ranges throughout the Gulf Coast states but not much further north than the Carolinas.

The Seminole Bat is a medium-sized bat with deep mahogany fur and frosted tips, giving it a distinct reddish-maroon hue. The fur goes to the tip of its tail and extends along the underarms to the wrists, ending with distinctive white patches on the wrists and shoulders. It is about two to three inches in length with a wingspan of 11-13 inches. The white wrist and shoulder markings are distinctive.

Both males and females roost in Spanish moss during winter and spring. Many roosts are in shaded locations

over ground that reflects minimal sunlight and where the bats can drop down and into flight. Females rear young in tree foliage. During extreme weather conditions, they may roost beneath loose bark.

The Seminole Bat is solitary and commonly roosts in pine trees and Spanish moss. Mating occurs in late fall or early winter, possibly in flight.

During winter and early spring, Seminole Bats don't hibernate or undergo extended migration but fall into torpor during cold spells, waking to feed in warmer times.

Most young are born in late May or early June, though times of birthing may vary in years of differing climatic conditions.

Litters are typically one to four pups, which are fully furred and appear almost identical to their mothers by the time they are two weeks old. At three

to four weeks, they can fly. No studies of Seminole bat longevity exist.

They are fast, direct flyers, feeding in flight above treetop level or as close as four feet above the ground in open areas. They also glean insects from foliage. They emerge early in the evening when temperatures are above 70° F and forage mostly over watercourses, pine barrens, and clearings, but also in edge habitats along rivers or roadways. They take advantage of prey attracted to street lamps.

Little is known about Seminole Bat food preferences, but the few available studies have shown that they consume mostly leafhoppers, flies, beetles, bees, and ants. Amounts vary with prey availability, season, and location.

Blue Jays are suspected of preying on these bats in the spring when young are unable to fly.



Jerry L. Gingeron, DVM

# Pond Apple

*Anona glabra*

Pond Apple is not an apple but a native tree associated with wetlands and swamps of southern Florida and the West Indies.

It belongs to the Custard Apple family (*Annonaceae*) and is related to the North American pawpaw. It is also called Alligator Apple or Monkey Apple, but not Custard Apple. As its common name suggests, this tree can grow in areas of periodic inundation from fresh, brackish, or salt water.

The Pond Apple is the only native representative of the Custard Apple family in South Florida. Among the related non-native tropical and semi-tropical fruits that have found a congenial home in southern Florida are the Sugar Apple (*Anona squamosa*), the Custard Apple (*Anona reticulata*), and the Cherimoya (*Anona cherimolia*). The black sheep of the family, Pond Apple flesh is usually palatable, but it pales in comparison to that of exotic members of its family. Humans find the fruit hard, relatively tasteless, and bitter.

From April to June, Pond Apples produce unique creamy yellow-white flowers with three fleshy outer petals and three inner petals. The inner petals have a red interior base. By mid summer, the flowers give rise to hard green pond apples which ripen to yellow-green into autumn.

The fruit is apple-sized and mango-shaped. When ripe, the thick stem pulls out of the fruit, leaving the creamy, custard-like flesh set with hard seeds next to a large central cavity. After falling, the fruit turns from green to yellow then black.

Each fruit holds 100 to 150 pumpkin-like seeds that are a little less than a half inch in length. Both fruits and seed



float and remain viable for many months. Once established in a wet or moist environment, trees grow rapidly.

The fruit is an important wildlife food, savored by raccoons. Even turtles and alligators feed on Pond Apples that fall into the water, although the carnivorous gators may mistake a bobbing Pond Apple for a Pig Frog.

Most pond apple trees top out at 30-35 feet with a relatively open, rounded, and spreading canopy. Usually single-trunked, seedlings can grow in clumps, giving the appearance of a multi-stemmed plant. Mature plants may have slightly buttressed bases. Branches start from a short trunk, and at old age Pond Apple trees become gnarled and twisted.

The upper surface of Pond Apple leaves is a light to deep-green, depending on the age, and is paler on the underside. Leaves are oval, leathery, and can be five inches or more in length. Pond Apple trees are generally semi-deciduous.

Pond Apples have other redeeming qualities. The roots are used to make bottle corks and fishing floats, and the trees are a vital component of the Comprehensive Everglades Restoration Plan.

Three islands named Torry, Kreamer and Ritta occupy approximately 7,000 acres at the southern end of Lake Okeechobee. Prior to settlement, Torry and Kreamer were covered by dense stands of Pond Apple and native gourds



(*Cucurbita okeechobeensis*). When the islands were settled in the early 1900's, they were cleared, ditched and bermed to produce cropland. By the mid-1970's farming operations had ceased.

In 1993, the islands were identified as potential restoration targets. Goals included reestablishing natural hydrologic connections between the islands' wetland habitats and the lake, preserving gourd habitat, and increasing the number of Pond Apples and willows on the islands for nesting wading birds.

Recently, the Florida Fish and Wildlife Conservation Commission and the South Florida Water Management District completed a habitat enhancement project on Ritta Island, removing the remaining structures that had impeded the natural hydrology of the islands and removing exotic vegetation. With the current low level of Lake Okeechobee, both agencies have taken the opportunity to re-establish Pond Apple and cypress forests along the shoreline of the island.

Not everyone, however, is enamored with the admirable qualities of Pond Apples.

In Australia, Pond Apple is regarded as one of the worst weeds, one of Australia's "20 Weeds of National Significance." Introduced as grafting stock for the closely related Custard Apple, it escaped to become a hardy tree and aggressive invader, forming dense thickets and canopies that gradually replaced everything else. It is a serious threat, ironically, to native *Melaleuca* wetlands.

That, some might argue, is only poetic justice.