



The Ghost Writer

APRIL 2016

NEWSLETTER of the Friends of Fakahatchee, "Home of the Ghost Orchid"

EVENTS

RESERVATIONS REQUIRED!!!
for dates & costs, see
www.orchidswamp.org
and select Tours & Events

GHOST RIDER TRAM TOUR
will resume in the fall

MOONLIGHT TRAM TOUR
will resume in the fall

TRAM TOUR & SWAMP WALK
will resume in the fall

BIOLOGIST'S SWAMP WALK
will resume in the fall

GUIDED BOARDWALK TOUR
will resume in the fall

FOF BOARD MEETING
Sunday, April 10, 1:30 p.m.
Ranger Station, Copeland

ANNUAL MEMBERS' DINNER
Sunday, April 10, 5:00 p.m.
see article on page 3

WILDLIFE BLITZ
Wednesday, April 20, 7:30 a.m.
see article on page 2



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Boardwalk Expansion – Progress!

by Patrick Higgins

The deceleration lane along Highway 41 for the new parking area has been completed by FDOT. And after agreeing to some tweaks to the Bureau of Design & Construction's plans, we've been advised by the Florida Park Service that the target start for construction of the rest of Phase 1 is this July, with completion in November. So we should have the new entrance for next season. Phase 1 consists of the new parking area; bridge over the canal, a low-level boardwalk across the marsh to Green Heron Lake, a crushed rock path around the southern perimeter of the lake to join up with the existing boardwalk site, interpretive signage for the new sections and severing of the old entrance by the Indian village. Sadly we won't have new restrooms there yet.



PICNIC PICS



Thanks to Bruce Bunch for this panoramic view of the Volunteer Appreciation Picnic on March 12 during the awards ceremony.



There was a variety of food for every palette, some donated by volunteers including a delicious smoked turkey from Steve Rosen. See *President's Message* on page 3.

Visit www.orchidswamp.org for events, newsletters, glorious photos, and more ...

BOARDWALK REPORT

by Linda Koreny

Wow, what an unusual season this has been. “Unusual” observations seem to be the “norm” this year while, for the most part, “usual” observations have not been. The Big Cypress Bend Boardwalk has never disappointed me on any visit!

Even our alligator population has been “unusual” this year. “Normally” about 10 juvenile **American Alligators** hatch from the 35 to 50 eggs laid and we then expect about 3 of these to reach maturity. Well, as of yesterday, we are still counting 20 juveniles! Kathy Hatch, a regular Boardwalk volunteer, contributed this observation: “I also saw a very small baby alligator in the pond by the picnic tables. It was only 10 to 12 inches long, much smaller than the babies in front. Where did it come from??”

Another rare and “unusual” sighting this month includes a **Northern Harrier**, a slim, long tailed hawk, perched high on top of one of the snags. Northern Harriers have a flat, owl-like face and a small, sharply hooked bill. They often fly with their wings held in V-shape. Males are gray above and whitish below with black wingtips, a dark trailing edge to the wing, and a black-banded tail.

Kathy also noted: “*Swallow tailed kites soaring overhead. A barred owl landed and watched Dick and Edite work for over an hour. Lots of visitors got great pictures.*” Dick and Edite are the two volunteers who do all that beautiful board replacement work on our Boardwalk.

Our **Florida Bald Eagles** are still guarding the nest; we’ll be watching for the young eaglets.

Yesterday I noticed a few **Convict Caterpillars** (below) on the swamp lily leaves. Their black and white striped bodies remind one of the clothes of a convict. According to several resources, these caterpillars “feed gregariously” on their host plants which, in this case, are the swamp lilies. Eventually these caterpillars will become **Spanish Moths**, those moths with the pink and black wings spotted with orange.

Several plants are blooming or getting ready to do so. Bright green leaves are bursting out on the **Bald Cypress** trees. Look for the white **Button Bush** blooms – bright white balls looking like pin-cushions. You probably know the saying “leaves of three, leave it be” to help identify **poison ivy**. In Florida poison ivy leaves come in several sizes so count the leaves before touching a plant. Looking closely at the poison ivy plants now, without touching it, you might see the tiny clusters of white or yellow flowers.

Spring is definitely in the air!



Linda Koreny sent this photo with the comment:

I never knew poison ivy had flowers. Yesterday Mike Owen, Linda Weinland (a retired biology teacher who did her field trips at the BCBB), and I spent the better part of the day walking the boardwalk. I learned so much, it was totally awesome!



The Button Bush with a Spanish Moth which has hatched from a Convict Caterpillar. See Boardwalk Report.

Wildlife Blitz

The final session this winter to record observations of wildlife will take place on **Wednesday, April 20**. Volunteers meet at the ranger station at 7:30am and should be finished by 11am. To take part, contact Tom Mosely or WynLyn McBride at the park office (239) 695-4593.

Among the mammals seen so far are **Eastern Gray Squirrel, White-tailed Deer, Raccoon, Virginia Opossum, and River Otter**. After all the data is entered, we will have a report in a future issue of *The Ghost Writer*.

President's Message

by Francine Stevens

I am pleased to report a very good turnout at the **Volunteer Appreciation Picnic** on 12th March. We all enjoyed catching up with friends driving from the east coast and North Fort Myers indicating that distance means nothing to those who have the Fakahatchee in their hearts. I want to thank Don Leonard for once again cooking up a storm for nearly 85 people and a special thank you to the resident volunteers and Park staff who set up the tents, chairs, and all that was needed at the picnic site as well as breaking down after everyone left. I was very happy that Valinda Subic, Bureau Chief District 4, accepted my invitation to the picnic; she drove from the Oscar Scherer Park in Osprey to spend some time with us. All were delighted with the Everglades Astronomical Society who took their time to educate us about the sky above the Fakahatchee (*see photo bottom right*)—it was great fun and it reminded me I need to look up more often!

In the meantime, the Board has been extremely busy closing another **fiscal year** and I am very proud to say all have put their best effort to raise funds so we can continue to support the Park and move forward with the Boardwalk Expansion project. The closing of the fiscal year also means that a new fiscal year is afoot and so again the entire Board put their nose to the grinder to develop the coming fiscal year's budget.

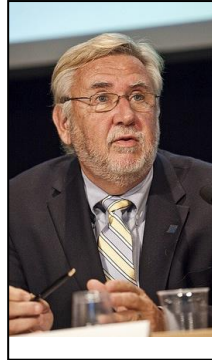
Onward to the **Annual Members' Meeting and Dinner** set for 10th April when we will introduce the elected officers, the new Board members, and the Mell Finn award recipient. I am looking forward to Bill Mitsch's lecture and spending some time with my Friends!



Telescopes were set up by the Everglades Astronomical Society at the Annual Picnic.

EXPERT AT ANNUAL DINNER

The speaker at our Annual Dinner on **Sunday, April 10**, is world-renown wetlands expert Dr. Bill Mitsch who will talk about "The Watershed and Global Roles of Wetlands in Mitigating Pollutants".



Dr. Mitsch has been Eminent Scholar and Director, Everglades Wetland Research Park, and Juliet C. Sproul Chair for Southwest Florida Habitat Restoration and Management at Florida Gulf Coast University's field station in Naples, Florida, since Fall 2012. Before that he was Distinguished Professor at The Ohio State University where he taught for 26 years and was Founding Director of the Olenangy River Wetland Research Park. Among his many publications is the textbook *Wetlands* now its 5th edition.

The dinner will be held at the Everglades Adventure Center (formerly the Depot) in Everglades City, starting at 5:00 p.m. and includes a brief Annual Members' Meeting at which the results of the election to the Board will be announced. The cost is \$45 per person and reservations are required. You can book your places at our website www.orchidswamp.org, click on Events, or phone (239) 695-1023.

CONGRATULATIONS

District 4 Employee of the Month

February 2016

Steve Houseknecht, Park Service Specialist with Fakahatchee Strand Preserve State Park



As the Park Service Specialist at Fakahatchee Strand Preserve State Park, Steve has served as the Fire and Resource Management Coordinator, ensuring that all of the park's resources are managed and protected to help accomplish District and Agency goals.

Steve has recently shown his leadership ability and skills by coordinating a group effort between staff, volunteers, CSO, Copeland Residents, and Big Cypress National Preserve. Because of Steve's efforts, more than 1300 lbs. of litter have been removed from the park's drive and the Community of Copeland.

Recently Steve led coordination efforts for the Everglades Ultras Marathon, which involved over 200 runners and 3 different races consisting of 50 miles, 50 kilometers, and 25 kilometers. Steve was involved in all aspects of the event and was a main contributor to the huge success of the event. Steve continually exhibits an attitude of dedication to Fakahatchee Strand Preserve State Park and to the Florida Park Service.

This makes Steve a critical member of the District 4 team.

Well Done, Steve!

UNSUNG HEROES

by Patrick Higgins

FOF Vice President, naturalist, and frequent swamp walk leader Patrick Higgins.
(photo courtesy of Robert Fisher)



I'm often privileged to take people into the Fakahatchee for their very first swamp walk. It's nearly always a transformative experience for them. After marveling about the dappled light, oohing over the epiphytes, commenting on the clarity of the water, the fresh minty smell and how surprisingly firm the footing is, they often quizzically remark "but there are no bugs." Well, that is if you take them to the right place at the right time of the year.

By bugs of course they mean mosquitoes and so, on cue, I can launch into a talk about those little two-winged flies and their nemesis, the humble mosquito fish. As Floridians we can be very proud; we have over 80 species of mosquitoes. That's more than any other state. These can be divided these into two broad groups; floodwater and standing water mosquitoes.

Floodwater mosquitoes like our particularly vicious black salt marsh mosquito (*Aedes taeniorhynchus*) don't lay their eggs in water. Instead they seek out moist ground. The eggs need to dry out before they hatch and lay dormant in mud cracks and crevices. When they are inundated by heavy rains, or in the upper reaches of our salt marshes, monthly by spring tides, they quickly develop. The density of mosquito eggs in a floodwater habitat can be staggering, as high as 1.3 million per acre.

All but 3 other species of our 'swamp angels' are standing water mosquitoes that lay their eggs in water. They cannot withstand drying out and usually hatch within 24 hours. Fortunately in both categories it's only the females that need a blood meal as a protein source for egg development. The males typically feed on nectar. Think what it would be like otherwise.

In a perfect model mosquitoes should only be a problem at the beginning and end of the dry season when there are isolated pockets of water that our native mosquito fish cannot reach. But it's not as simple as that because sometimes the rains don't follow our seasonal model. Last summer was a classic example. The rains started in a timely manner in June but then kind of stopped in July, then came back with a vengeance in September. I was reconnoitering a potential new swamp walk off South Main a few weeks after this occurred, and the mosquitoes were so bad I couldn't escape soon enough.

We'd had repeated deluges that had flooded the dry swamp landscape triggering both floodwater eggs and creating habitat for standing water mosquitoes to breed. And breed they did at a much faster rate than their vertebrate predator, the mosquito fish. This created a lag, which if you plotted on graph paper would show a classic bell curve as the mosquito population surged, then a rapid decline as the mosquito fish population multiplied and spread across the newly created aquatic landscape. Eventually we reached a nice equilibrium for our swamp walk season.

So our unsung hero in all this is the Eastern Mosquito fish (*Gambusia holbrooki*). The females are about 2 ½ inches long and the males about an inch shorter. *Gambusia* are viviparous – they bear live young which enhances their survival probability. In nature the quantity of offspring is usually inversely related to the chances of any individual reaching maturity and reproducing. So, for example, when a female cod spawns she lays 100s of thousands of eggs. A mosquito fish typically only gives birth to 25 live young, but can do this up to nine times a season. These young reach sexual maturity in 4-6 weeks. They are technically planktivores but are voracious predators of mosquito larvae when available. A large female can consume hundreds a day.

But here's the rub, as demonstrated by a remark made to me on a recent tram tour, "We should get some of those and take them up to Michigan." That's exactly what has been done all over the world. The problem is that they have co-evolved here in a highly competitive environment where they've had to eke out a specialized niche. When they are introduced to non-native waters they tend to prey heavily on the eggs and young of other fish species – perhaps the very ones that ate mosquito larvae there. So if you search the literature on mosquito fish, you'll find most of it is about how to get rid of them where they have been introduced.

Incidentally a British biotech firm is in the late stages of FDA approval for a trial release of genetically modified male *Aedes aegypti* mosquitoes here in Florida. The idea is to help control the spread of Zika and dengue fever. They have been engineered to pass on a 'kill-switch' gene when they mate with our wild females. This prevents their offspring reaching maturity. Trials in other countries have reduced the target *Aedes* population by more than 90 per cent, but I'm not sure the locals in Key Haven, the chosen test site, will go for it so we'll just have to rely on our *Gambusia*.



An egret's eye view of our native mosquito fish and the female Eastern Mosquito Fish (*Gambusia holbrooki*). Photos by Patrick Higgins.

MEMBERSHIP

We have 308 current memberships including 68 members whose renewal was due in the 1st quarter of 2016.

You can join or renew on our website. For info, call Jinny at (239) 695-1023.

Welcome to new members since our last newsletter:

- Thomas Alcamo, East Aurora, NY
- Barbara Autry, Cincinnati, OH
- Helen Bryan, Chokoloskee
- Gary & Kristine Chirlin, Naples
- Louise Cromwell, Naples
- Laura Foht, Naples
- Tom & Vicki Johnson, Marco Island
- Thomas Kinniry, Naples
- Rebecca LeBaron, Boca Raton
- Janet Pesaturo, Bolton, MA
- Susan Raleigh & Zartman Barnes, Apollo Beach
- Joanne Seehousen, Ft Lauderdale

BY-LAW REVIEW

The Board of Directors is considering a review of the By-Laws for the Friends of Fakahatchee. Members who would like to participate are invited to contact Ted DeGroot at 239-248-8788 for details.



FWC News

The next Commission meeting will be held in Jupiter on April 13-14. For details and to read the agenda, see www.myfwc.com.

TURTLE TALK

“Turtles of Southwest Florida” is the subject of a free talk by Lou Diperna on **Tuesday, April 12**, at 10am at Naples Preserve, corner of Fleischmann Ave and Tamiami Trail. For info, call (239) 261-4290.

What Are We? Who Are We?

The **Friends of Fakahatchee, Inc**, a 501(c)(3) not-for-profit corporation Citizen Support Organization, provides financial and volunteer support to preserve the unique ecology and cultural heritage of Fakahatchee Strand Preserve State Park and to educate the public about its importance. The Fakahatchee is the largest cypress strand in the world and the deepest slough in the greater Everglades. Its 80,000 acres are bordered by I-75 (Alligator Alley), US-41 (Tamiami Trail), SR-29, Fakahatchee Bay, and Picayune State Forest.

The Ghost Writer, named after the endangered Ghost Orchid which blooms in the Preserve, is edited by Marya Repko with contributions from members and friends. It is issued at least six times a year and has an average circulation of over 400 copies.

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NEW MEMBERSHIP

date _____

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