

# The Ghost Writer

## **MAY 2016**

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

# **EVENTS**

For dates & costs, see www.orchidswamp.org and select Tours & Events

GHOST RIDER TRAM TOUR
MOONLIGHT TRAM TOUR
TRAM TOUR & SWAMP WALK
BIOLOGIST'S SWAMP WALK
GUIDED BOARDWALK TOUR
will resume in the fall

FOF BOARD MEETING Sunday, May 15, 12:00 noon Ranger Station, Copeland

#### FOF COMMITTEE CHAIRS

Finance - Ken Shapiro
Boardwalk Vision - Tom Maish
Tours & Education - Patrick Higgins
PR & Media - Bruce Bunch
Membership - Jinny Ball
Events - Francine Stevens
Governance - Ted DeGroot
Elections - Ted DeGroot
By-Laws - Ken Shapiro
If you want to help on a Committee,
contact President Francine Stevens at
(239) 495-6744.



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## **ANNUAL MEMBERS' MEETING & DINNER**



Vice-President Patrick Higgins was presented with the MEL FINN AWARD on April 10 by President Francine Stevens who said his commitment to the Fak "exceeded expectation".

Patrick is a Master Naturalist and holds a degree in biology & environmental science. He chairs the Tours & Education Committee and is the project manager for the Boardwalk Expansion project, just to name a few of his commitments to FOF.

Mel Finn was a Miami attorney and orchid expert who fought to have the Fakahatchee preserved. The wording on the award is "For reflecting the spirit of the Founding Father of the Fakahatchee Strand State Preserve."

Photo thanks to Saul Friess





Bill Mesce with his wife Pam and mother Billie were among the many attendees at the Annual Dinner. See Francine's tribute to Bill on page 3.

## Comment from a Visitor

I visited the Fakahatchee Strand with my parents and son for the tram and swamp walk on March 22. I must admit, my mom was a little wary of this walk; as much as we all like nature, we didn't want to be in water with alligators or snakes nipping at our toes.

Patrick Higgins was our guide and put us at ease. He is a Master Naturalist, holds degrees in Biology & Environmental Science, and is a great storyteller – he absolutely made our trip – I can't rave about him enough.

We started off on a tram and learned background on the area and the park. Our first stop was at a hammock where we walked around and were shown the islands of high ground within wetland habitat. We also discussed the type of animals that would like the environment.

We didn't see alligators during our waist-deep walk but we did see spiders, webs, snakes, Spanish moss, giant cypress trees. The star of our tour was the swamp walk. We were given walking sticks and instruction on the best way to travel in the water. Fakahatchee is known for its 47 variety of orchids; luckily we were able to see some growing naturally.

Take the tram and swamp walk – you will definitely not be disappointed.

## **BOARDWALK REPORT**

by Linda Koreny

This was another interesting, though quite abnormal, year at the Big Cypress Bend Boardwalk. Normally when we arrive back in late fall, the water has begun to go down; this year, however, the strand maintained its water level and only now can it be said that the water is definitely dropping! As a result, most everything was different this year which just increased my fascination.



The activity of our **Florida Bald Eagles** in their nest was quite out-of-the-ordinary for April. Late afternoon of the 4th I saw both of the adults in the nest. And then Wynlyn McBride, a Park employee, shared her April observations:

On 4/6/16 I observed the eagles nest from 12:55pm to 1:35pm. 1 adult was observed in the nest & 2 separate vocalizations from chicks were heard during that time period. At 1:33pm the 2<sup>nd</sup> adult arrived in the nest, flying in from the west side of the nest.

On 4/13/16 I observed the eagles nest from 1:00pm to 1:30pm. 1 adult was observed during that time period. No vocalizations from chicks and no observations of the 2<sup>nd</sup> adult.

One evening we observed two baby **Barred Owls** and their parent, one on a lower branch and the other higher in an adjoining tree. They seemed to be enjoying observing us as much as we enjoyed observing them and then, casually, one by one, they flew off.

Another frequent visitor to the Boardwalk shared her wildlife viewing experiences with these remarks:

Though the Belted Kingfishers seem to be gone now, I noticed a Green Heron feeding in the canal in front of the Boardwalk; also an Anhinga and small gators with their dark with yellow stripes hanging out as well as an adult gator. Along the path to the boards, I saw an approximately 3 foot red rat snake and Grackles and on the boardwalk itself, Redbellied Woodpeckers, Pileated Woodpeckers, Catbirds, Crows, Red-shouldered Hawks, Ospreys, American Woodstorks and Swallow-tailed Kites.

A week ago 2 young men, 4 and 5 year old Owen & Chasse, wearing their backpacks filled with snacks, reported seeing

a (Eastern Gray) **Squirrel** eating something that looked like an acorn, an (American) alligator floating by as well as fish gulping air.

The **Bald Cypress Trees** are now bursting with green leaves, creating a cool, shady canopy – a very pleasant place to take a quiet, reflective stroll.

Share your summer experiences on the Big Cypress Bend Boardwalk with me via email at lkoreny@gmail.com.

See you in the fall!

## JANES SCENIC DRIVE UPDATE

by Don Leonard

I'm probably not telling anything new here to those who have been in the Fakahatchee area this winter; the rains over the winter caused considerable damage to the road while at the same time, delayed work on it. In other words, A Double Whammy for JSD!

Around the last week of February we got a break in the weather and the tasks of filling holes, pulling materials in from the edges, and blade work started. Considerable work was accomplished from the park compound to the beginning of the strand. Slightly less work was done from there to Gate 7 and a little less between there and Gate 12. Some work was accomplished from Gate 12 to the area of Gate 17, especially the deep holes between Gates 15 and 17.

We were ready to use the rest of the fill we had available to fill those big holes when the brakes on the dump truck failed and the truck had to be taken back to the compound without hauling even one load. The failing part was removed and taken in to see if a new part is obtainable.

Having no dump truck, a good amount of fill (numerous trips) was taken to the holes by the front-end loader and blade work was done around the edges to make the holes passable. It should be noted that the holes are still there but they are not as deep. They will have to be dealt with at a later date.

As of April 4, 2016, the road from the park compound to the beginning of the strand is in very good condition. The road to Gate 2 is in relatively good condition and is in fair condition to Gate 12. Beyond Gate 12, the road is what I consider passable by vehicles.

Dee and I hope you have a great summer – we will see you in early November.



## President's Message

by Francine Stevens

I start my letter with sad news; Bill Mesce passed away on 25th April. Bill was one of the founding members of the Friends of Fakahatchee, a recent recipient of the Mel Finn award, and a Vietnam veteran. In my conversation with Bill at the 10th April Annual Members' Dinner, I was touched by his optimism and brave heart. What Bill didn't know is that he was by my side on my very first swamp walk at the Fakahatchee Safari; at that time I was on a personal quest to find out what the FOF was all about. Bill made a lasting impression on me because, although his knowledge of the swamp was remarkable, his unpretentious laid-back personality was so re-assuring that I think I caught what he coined as the "Fak-a-Habit" that day. Bill leaves me with good memories; a good man with a great smile who loved the Fakahatchee. I extend my sincere condolences to his wife Pam Mesce and his family.

At the Annual Dinner Dr. Bill Mitsch's presentation about wetlands was excellent. I appreciated how he tailored his scientific data for the FOF audience. It all came down to a simple conclusion – if we would just let Mother Nature and Father Time take charge, the Everglades would be in better shape. Dr. Mitsch offered his assistance to help us have the Fakakatchee recognized as a RAMSAR site; read all about RAMSAR at www.ramsar.org.

It was comforting to be once again in company of our most loyal members at the dinner. I was happy to see Sam and Cynthia Peters who rarely miss an FOF dinner; Cynthia is a former Board member and Sam recently joined the great FOF tours team. Sam drives from the East coast to lead tours demonstrating his support for our mission to educate the public about the importance of preserving the fragile ecology of the Fakahatchee.

And, on the subject of tours, a little over 650 people participated in the FOF tours this season promoting FOF's success in its pursuit to educate the public about the

importance of preserving the Fakahatchee. That is 650 people who would not have visited the Park without the dedication of the FOF tour leaders and their valuable tours assistants as well as Bruce Bunch who advertised all the tours and Jinny Ball who answered numerous and early morning phone calls!

As most snowbirds are heading North, the Board is embarking on an exciting summer. FOF Vice-President Patrick Higgins, project manager for the Boardwalk Expansion Project, will continue to assist the State in Phase One of the Boardwalk Expansion project that will, this summer, shift from reading blue prints to the actual construction of the parking site and trail connecting to the Boardwalk. I am very grateful for the States' collaboration in recent conference calls with Donald Forgione, Valinda Subic, Teri Carron, Heather Shuke-Nelson, and David Corban Architect here in Naples, a formidable team all making a Boardwalk Vision a reality within grasp. Tom Maish, former Board president and long time Boardwalk Vision chair, will finally see the result of his years of persistence, determination, and leadership of the Boardwalk Vision committee.

Snowbirds I particularly want to acknowledge are Dick and Edith Hughes; they have once again put their nose to the grindstone and as usual did a great job repairing the Boardwalk – we owe them more than a thank you can express. We will be reading about their efforts soon in the Naples *Gulf Shore Life* magazine!

In closing, I welcome new board member Don Leonard and returning Board member Howard Lubel. I look forward to my fourth year as President and another year of service with Vice-President Patrick Higgins, Secretary Jinny Ball, Treasurer Ken Shapiro, directors Ted DeGroot, Glen Stacell, John Kaiser and Dennis Giardina, I am very fortunate to have a great Board!

Safe travels to all.



Bill Mesce was congratulated by Mike Owen after receiving the Mel Finn award in 2014.



Cynthia and Sam Peters, the newest FOF tour leader, with Tom Maish at the Annual Members' Dinner. *Photo thanks to Saul Friess*.

## LIFE IN THE HIGH RISE

by Patrick Higgins

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



Sloshing through the swamp our view is primarily tree trunks and water. However, for our recently arrived migrants from the Amazon, the swallow-tailed kite, it's an entirely different one. As they swoop low over the swamp's canopy to snatch an unsuspecting tree frog, they see an undulating carpet of almost endless green. Occasionally this verdant aerial landscape is punctuated by a splash of color. This will be the bloom of an epiphyte.

Epiphytes are plants that grow harmlessly on other plants without drawing nourishment from them, using them merely for support. Ours fall into 5 main groups; bryophytes, lichens, ferns, bromeliads, and orchids. The largest concentrations of epiphytes are found in tropical rainforests. Thinking about that environment, it's easier to understand the evolutionary pressures to become an epiphyte. Light and space on the forest floor are scarce. That same forest floor may become periodically flooded. So it's natural that some species would migrate upwards towards brighter light, protection from flooding and from the foraging of animals, where there is greater air circulation for better seed and spore dispersal.

But, as always in nature, there is a trade-off. Perched in the canopy, water is scarcer and, removed from the ground, nutrients are harder to obtain. So these plants have had to evolve special adaptations to retain moisture and to capture nutrients. Some root systems have become diminished, functioning solely as anchors. In these plants nutrient absorption has been taken over by their leaves. Others, like our ghost orchid, have abandoned leaves altogether and evolved strap-like chlorophyllous roots in their place to both anchor them and produce food.

Other adaptations are micro seeds that are easily wafted by the slightest breeze or tufts of fine hairs to help transport seeds on the wind. But the evolutionary arms race is two sided. Whilst Fakahatchee's epiphytes seldom achieve enough mass to damage branches, many tropical trees like the gumbo limbo have evolved shedding bark to rid themselves of juvenile epiphytes and twining vines.

Our most obvious epiphytes are our bromeliads, those spiky growths in our trees that resemble the tops of their terrestrial cousin, the pineapple. They are almost exclusively tropical and a New World phenomenon. Of the 3,400 known species, just one has made it outside of our hemisphere. Here in the Fakahatchee, near the northern limit of their range, our 16 native species qualify us as the U.S. bromeliad capital.

Bromeliad water and nutrient absorption have largely been taken over by their leaves and they can be categorized by how this absorption takes place. Spanish moss and ball moss are *atmospherics* or true 'air plants'. Their leaves are typically silvery gray and coated with unique leaf scales called

trichomes that can absorb water and the minerals dissolved in it directly from the air when available and then clamp down to minimize moisture loss when it's not. Their silvery surface also helps to reflect light, further reducing moisture loss.

The rest of our bromeliad gang are *impounders*. These have their leaves arranged in whorls to trap water in a central reservoir. This tank also collects litter falling from the forest canopy and drowned insects. The process of decay transforms the water into a broth from which the plant extracts valuable nutrients. These tanks also form miniature ecosystems in their own right where micro-organisms may live out their entire life cycles. In the tropics some may even become nurseries for tadpoles. It's not uncommon to see birds drinking from them who might then leave nutrient—rich droppings.

Most of our silvery-gray bromeliads have another important adaption to living in Florida's periodic drought conditions. They employ CAM photosynthesis rather than the more common C3 pathway. In CAM the leaf stomata only open at night to take up  $CO_2$  which is then stored for use in the daytime. This avoids their pores having to open in sunlight when water loss would be higher.

Half of the Fakahatchee's native orchid species are epiphytic. Many of these have pseudobulbs - swollen stem bases that serve as water storage organs - three are leafless and all have precise fungal associations necessary for nutrient uptake. They are also all of tropical origin, with most in common with Cuba. This connection is not surprising as the Park is less than 200 miles from Havana - the direction of our prevailing winds. But there's more to it than that. Our sloughs, especially the central slough, continuously radiate humidity even in the driest years from an accumulation of peat. The moisture is trapped by the forest canopy creating a microclimate. In the summer it's always just a little bit cooler and in the winter just a little bit warmer. This means that many parts of the Strand never freeze in the even the coldest years, allowing those minute windborne orchid seeds blown up from the tropics to flourish.

Less spectacular are our bryophytes (mosses and liverworts). They are often represented by a fuzzy green layer on logs and branches which, if you examine closely, appear as tiny forests. They have a lifestyle halfway between that of aquatic algae and ferns. They require moisture but can dry out, go completely dormant, then spring back to life when moisture returns. Their ability to readily store and release water is an important ecosystem function. They can also help create a secondary 'terra firma' high up on horizontal branches by stabilizing detritus. This improves the habitat for other epiphytes.

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by Patrick Higgins

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



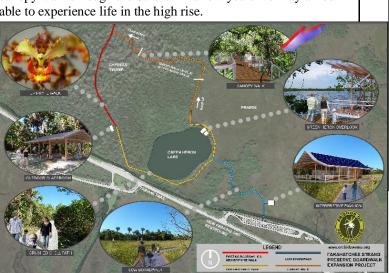
Another epiphytic group is our lichens. They form those beautiful blotches of pink, orange, white and blue-gray on almost every trunk and limb, varying in texture from crust-like to scaly or even filamentous like old man's beard. Lichens can be so numerous it's hard to discern a tree trunk's true color. They are composite organisms: a fungus and an algae or cyanobacteria living together symbiotically. The fungus provides shelter and water absorbing services to the algae, which would otherwise be unable to survive, and the algae in turn produce sugars through photosynthesis. It was often thought that lichens were more abundant in northern latitudes, but in 2009 a group of lichenologists conducted a 5-day survey in the Fakahatchee and recorded 432 species, putting paid to that theory!

Our epiphytic community wouldn't be complete without mention of our half a dozen or so species of epiphytic ferns. Many of them utilize the organic material in the boots of Sabal palms like rabbit foot, hand and shoestring ferns. The most remarkable of all is our resurrection fern which favors roughbarked trees. Its leaves curl and turn brown when desiccated, then resurrect themselves after a good rainfall, quickly becoming a lush green — a throw-back to a bryophyte ancestor.

The canopy and all its plant diversity combine to sequester carbon, produce oxygen and support a complex web of life from pollinators and millions of other insects, to spiders, mites, snails, tree frogs, snakes, lizards, birds, bats. and squirrels. We don't often get a close-up look, but this may all change. In partnership with the state, FOF has a major boardwalk improvement project underway at Big Cypress Bend. Phase 1 this year is a new parking area, a bridge over the canal and low-level marsh boardwalk, but yet-to-befunded Phase 2 includes plans for an 1100 ft long elevated canopy walk through the Strand. In a few years we may all be able to experience life in the high rise.



Southern needle-leaf, cardinal airplants and Spanish-moss festooning an oak canopy. *Photo Patrick Higgins*.



Architect's renderings of future Canopy Walk in Phase II of Big Cypress Bend Boardwalk Expansion Project. Rendering David Corban pllc.

## **MEMBERSHIP**

We have 258 current memberships plus 55 members whose renewal was due in the 1<sup>st</sup> quarter of 2016. Reminders were sent by email in mid-April. Renewal notices for the 2<sup>nd</sup> quarter were also sent by email.

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

#### Welcome to new members since our last newsletter:

Amy & Brooke Boyd, Naples Jeb Bradley, Wolfeboro, NH Patrick Lawton, Chesaning, MI Kristin Sweeney, Portland, ME

THIS IS THE LAST NEWSLETTER UNTIL THE FALL ... UNLESS WE HAVE SOMETHING AMAZING TO TELL.

#### **Best Wishes for a Good Summer!**



#### JOIN THE PARADE

The Fakahatchee tram will again carry dignitaries during the Independence Day Parade on Saturday, July 2, in Everglades City starting at 10:00 a.m.

### What Are We? Who Are We?

The **Friends of Fakahatchee, Inc,** a 501(c)(3) not-for-profit corporation <u>Citizen Support Organization</u>, 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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