



Dade Chapter

TILLANDSIA

Newsletter of the Dade Chapter of the Florida Native Plant Society, Inc.
- For Miami-Dade County and the Florida Keys -

FEBRUARY 2015

MONTHLY MEETING

Tuesday, February 24, 2015, 7:30 p.m.
Pinecrest Gardens, 11000 SW 57 Ave. (Red Road)
Free and open to the public

Refreshments begin at 7:15 pm. Merchandise sales are before and after the program (cash, checks and credit cards). The plant raffle follows the program. **Please label your raffle plant donations** with the plant name. Contributions of raffle items and refreshments are always greatly appreciated.

“Pollination biology in fragmented populations of *Angadenia berteroi*, a native perennial plant of the south Florida pine rocklands” -- Beyte Barrios Roque, Florida International University Ph.D. Candidate

Ms. Barrios Roque and her colleagues identified and studied the effective pollinator species for Pineland-allamanda to evaluate their importance in fruit set. The following is from an abstract by Barrios Roque, Sean Pena and Suzanne Koptur:

“*Angadenia berteroi* is a tropical perennial subshrub with large yellow flowers that set very few fruits in its native pine rockland habitat. The flowers open early in the morning (prior to sunrise) and have a complex floral arrangement that promotes outcrossing from visits by long-tongued pollinators. ... Although we predicted that butterflies would be the best pollinators ..., bees seem to carry large quantities of pollen on their shorter, wider probosces. ... Bee visits (that transfer more pollen to flowers distant from the pollen donors) are likely to be the most important for fruit set in this self-incompatible species.”

Beyte is a candidate for Ph.D. in Biology at FIU under Dr. Suzanne Koptur. She is specializing in ecology of plants and the influence of habitat fragmentation and focusing on reproductive biology, genetic diversity and animal-plant interactions. She received her M.S. from FIU and B.S. from the University of Havana. She was awarded a 2008 Endowment Research Grant from FNPS and has numerous grants, awards, publications and presentations on her



CHAPTER ACTIVITIES AT A GLANCE

- Feb. 7 (Sat.): Homestead Eco Fair – DCFNPS table
Feb. 22 (Sun): Field trip (Camp Owaissa Bauer and Hattie Bauer Park)
Feb. 24 (Tue.): Meeting at Pinecrest Gardens
Feb. 28 (Sat): Chapter workday & volunteer appreciation lunch, Everglades National Park
Mar. 21 (Sat.): Field trip (Everglades National Park)
Mar. 24 (Tue.): Meeting at Pinecrest Gardens
Mar. 27 (Fri.): Set up for Native Plant Day
Mar. 28 (Sat.): NATIVE PLANT DAY
Apr. 12 (Sun): Field trip (spoil island, Coconut Grove)
Apr. 25 (Sat.): Chapter workday, Everglades National Park
Apr. 28 (Tue.): Meeting at Pinecrest Gardens
May 28-31: FNPS Annual Conference in Tallahassee

resume.

March 24 program: “Coastal Habitat Restoration” - Gary Milano, Miami-Dade County biologist (retired)

In this issue:

- **Native Plant Day, March 28, 2015 – help us get ready!**
- **Sail Away and Support Natives**
- **News from the IRC:**
 - *Community Concern about Continuing Loss of Pine Rocklands in the Richmond Tract*
 - *Rare plants of Everglades National Park – their history, conservation and restoration* - Presentation by George D. Gann, March 2, 2015, at Fairchild Tropical Botanical Garden
- **Indian Pipes and the Blustery Day** by Chuck McCartney

UPCOMING FIELD TRIPS

If the weather is very bad, call Patty at 305-255-6404 to confirm. Field trips are for the study of plants and enjoyment of nature by FNPS members and their guests. Collecting is not permitted. Children are welcome.

Time, address and directions are in the newsletter mailed to members. Please join to enjoy all the activities of the chapter!

- **Sunday, February 22, 2015, 9 a.m. – 12:30 p.m.:**

Camp Owaissa Bauer and Hattie Bauer Hammock Preserve.

We'll explore these South Miami-Dade county parks to look for interesting plants and butterflies in the hammocks and open fields.

Bring: Sun protection, water, binoculars if you are interested in trying to spot butterflies, lunch if you want to picnic.

Difficulty: Easy

Lost? Call Patty 305-878-5705

• **Saturday, March 21, 2015: Hike/slog to a cypress dome or gator holes in Everglades National Park** led by Alan Scott, Chief of Resource Education and Interpretation for Everglades and Dry Tortugas National Parks. Details TBA.

• **Sunday, April 12, 2015:** Visit a spoil island off Coconut Grove vegetated with native and non-native plants (boat transportation provided). Details TBA.

SAIL AWAY AND SUPPORT NATIVES

Capt. John and Jeanne Rothchild, DCFNPS members, have generously offered a four hour sailing cruise for up to four people on their boat, to benefit DCFNPS. **The first four reservations made through the Dade Chapter FNPS email address (dadefnps@gmail.com) will be eligible to participate in the outing for a suggested minimum donation of \$30 per person.** The trip is open to chapter members and their guests, until all four places are filled. The date will be arranged to suit the participants.

More info: The boat is 39' in length and has a spacious and secure cockpit area with stern rail seats that offer superb views. It is docked along the Coral Gables waterway, so with only a short motor out, the sails are up, and within minutes you will enjoy the tranquility and splendor of sailing on the calm waters of Biscayne Bay, with views of downtown Miami, Key Biscayne and even Stiltsville. It is also possible to see manatees, dolphins, pelicans, sea gulls, cormorants and other wildlife.

The excursion includes complimentary wine or beer with assorted appetizers upon arrival back at the dock (non-alcoholic beverages also available). Guests should be able to climb stairs and step over 30" high life lines to board the boat. Please note this trip cannot accommodate children less than 8 years old.

YOU'RE NOT A MEMBER OF FNPS?

We'd like to support your interest in native plants -- and to count you as a supporter of native plants!

As a member, you can help FNPS and the Dade Chapter continue to provide this newsletter, the *Palmetto* magazine, websites, activities and information to members and the public. You will also be supporting efforts to preserve native plant and our natural areas.

See www.fnps.org or the contacts box in this newsletter.

It doesn't cost much to make a difference!

NATIVE PLANT DAY

March 28, 2015 – 9 a.m. to 4 p.m.

A.D. Barnes Park Natural Area

3401 SW 72 Avenue (Bird Road & SW 72 Ave.), Miami

Make it the best one ever!

Our 20th Native Plant Day will be at A.D. Barnes Park's Natural Area (back of the park), co-sponsored by DCFNPS and Miami Dade County Parks. Our FREE annual public outreach and education day has activities for all ages: walks, programs, plants for sale, raffles, booths by a host of organizations and more. Bring your family and friends to enjoy this day of learning and fun. The schedule will be on the chapter website closer to the event - be sure to share it far and wide!

As a chapter member, you are needed to make the day a success:

• **February 24: Give a bit of time to place address labels on promotional postcards.** Meet at Pinecrest Gardens at 5:45 p.m. before our regular meeting. *Contact Amy to RSVP.*

• **Help distribute stacks of postcards.**

Pick some up any time after February 24th and give them to friends, take to meetings you attend or place them at stores, doctor's office, library, church or other well-trafficked area (with permission, of course). *Contact Amy or pick some up at the February 24 meeting.*

• **Help set up on Friday afternoon, March 27.**

We need about a half-dozen people to help us prepare the day before NPD. Setting up the raffle and other stations, as well as moving tables and hanging signs are easy yet **essential** things to be done. Your help is MUCH appreciated and helps make the event such a big success. *Contact Amy.*

• **Volunteer on March 28 -- or suggest youth groups to help.**

Do you know of youth (Scouts, church groups, college professors that may want to give extra credit) that might be interested in earning community service? *Contact Gita if you can help us rustle up volunteers from any groups, or let her know you are interested in signing up for a time slot.*

• **Get your raffle or chapter plant sale donations ready.**

Groom native plants that you have potted up, and **look for other non-plant raffle items** (nature or gardening-related books, art, tools, decorative items, entrances passes, gift certificates, etc.). *Let Amy know what you will be bringing, and if you need help in getting it to the park.*

• **Help supply (raise or find) butterfly or moth caterpillars** that use native plant larval hosts. *Contact Patty.*

• **Suggest a speaker or offer to conduct a walk.** *Contact Ted.*

Contact information:

Amy Leonard: aleonar74@yahoo.com, 305-458-0969

Gita Ramsay: gita.ramsay@gmail.com, 786-877-7168

Patty Phares: pphares@mindspring.com, 305-255-6404

Ted Shaffer: tedshaffer@bellsouth.net

Thank you!

- Amy Leonard

DADE CHAPTER NEWS

Chapter workday and Volunteer appreciation lunch, Everglades National Park, Coe Visitor Center, February 28, 2015. The workday is **9 a.m. – noon, followed by lunch** (on the porch of the visitor center). Help the chapter enhance the entrance to ENP. Cold water provided; bring snacks to share if you care to. Gloves and hand tools are available. New helpers are encouraged to come! Everyone in your car gets into ENP free after the workday. Contact Patty 305-255-6404 or pphares@mindspring.com, if you have questions (305-878-5705 cell, for the morning of the workday).

The Dade Chapter has a new phone number: 305-985-3677 (or 305-985-FNPS). This phone number will transcribe all voicemails to our email and can also receive text messages. New business cards will be available soon for you to share.

Welcome new Dade Chapter members: Philip Busey (Ft. Lauderdale), **Ralph Ferrer** (Miami), **Zen Kurokawa** (Miami). Thank you to all who have renewed and rejoined recently. Your support helps make it possible for FNPS to strive to conserve and promote Florida's native plants.

FNPS NEWS

FNPS Awards and Grants. Submittal deadline March 6, 2015. See www.fnps.org, click on "Participate/ Grants and Awards" for information about **Endowment Research Grants, Conservation Grants and Landscape Awards.**

Broward Chapter FNPS. See www.npsbroward.org. Meetings are at Secret Woods, 2701 W. SR 84, Dania Beach.

Feb 11, 2015 meeting: "Practical Propagation with Art Constantino". Anyone can quickly learn to quickly grow plants from cuttings or seeds. 7 p.m., Secret Woods Nature Center, 2701 Florida (W. State Rd.) 84, Dania Beach, FL 33312.

Naples Chapter FNPS: Annual Banquet and Lecture, February 27, 2015, at the Naples Botanical Garden. Dr. Walter S. Judd, UF professor and a world-renowned expert on flowering plant taxonomy and tropical botany, will present "**Appearances Can Be Deceiving: Recent Advances in Plant Classification**". (Perhaps we will learn why plant names keep changing!) Wine and cheese reception and silent auction at 5:30 p.m., followed by dinner, with lecture at 7 p.m. **\$40 per person.** Contact Jean Roche (239-597-7222, www.naples.fnpschapters.org).

OTHER NEWS AND EVENTS

Dade Native Plant Workshop. MDC Kendall Campus Landscape Technology Center. 3rd Tuesdays at 7 p.m. See <http://nativeplantworkshop.ning.com> or contact Steve at steve@pronative.com. Bring at least three cuttings of plants (especially flowering/fruitlet), even if they do not pertain to the topic. **February 17, 2015 topic:** the Onagraceae (Evening Primrose Family). This family includes the large genus *Ludwigia* (Primrosewillows)

Friends of the Gifford Arboretum, University of Miami. March 4, 2015, 7 p.m. Program: "Symbiotic Relations Between Insects and Plants, and How to Attract Beneficial Insects to Your Garden." - Dr. Floria Mora-Kepfer Uy, Research Assistant Professor in the UM Biology Department. Cox Science Center, Room 166. UM. Directions to the arboretum (adjacent to Cox): www.bio.miami.edu/arboretum > visits or 305-284-1302. Free parking in the Purple Lot, south end of the Arboretum.

The 24th Annual Lecture Series: *The Delicate Balance of Nature 2015.* Wednesdays, 7:30 p.m. - 8:30 p.m., John Pennekamp Coral Reef State Park, MM 102.5 Overseas Highway. Gate opens at 7 p.m. Free, seating is limited. Bring a cushion for comfort. Info at 305-451-9570 or <http://www.floridastateparks.org/pennekamp/events.cfm>.

Feb. 11: "Why sharks matter" -- David Schiffman, PhD. student at the University of Miami

Feb. 18: "A lobster's life in the Florida Keys" -- Gabby Renchen, FFWCC biologist

Feb. 25: "History and development of the reef mooring buoy system" -- John Halas, biologist retired from Florida Keys National Marine Sanctuary

Mar. 4: "Native plant landscape alternatives to replace common non-native landscape plants" -- Janice Duquesnel, Florida Park Service biologist

Tropical Audubon Society. For info on TAS activities and conservation issues: <http://tropicalaudubon.org/tashome.html> or 305-667-7337. 5530 Sunset Dr., Miami, 33143.

● **Follow conservation issues with TAS.** Read the monthly TAS newsletter on the home page to stay informed and learn how to take action.

● **Sat.-Sun., Feb. 21-22, 2015: Native Plant Sale** at Doc Thomas House. 9a.m.-3p.m. Saturday, 11a.m.-3p.m. Sunday.

NEWS FROM THE INSTITUTE FOR REGIONAL CONSERVATION

● **"Rare plants of Everglades National Park – their history, conservation and restoration"**

-- **George D. Gann, Chief Conservation Strategist, The Institute for Regional Conservation**
www.regionalconservation.org

Fairchild Tropical Botanic Garden, Garden Room
Monday, March 2, 2015, 7-9 p.m.

Free and open to the public

Join The Institute for Regional Conservation at Fairchild to celebrate more than a decade of work on the native plants of Everglades National Park. Learn about some of the rarest plants in South Florida that have been found in the largest National Park in the eastern United States – which plants have disappeared, which are still present, and efforts to monitor and restore their populations. IRC's George Gann will describe the massive collaborative effort to document the status of rare plants in the park and recommendations to improve their plight in the

face of sea level rise, exotic species invasions and other threats. There will also be an open discussion including Everglades Botanist Jimi Sadle and Fairchild's Joyce Maschinski. A reception with refreshments will follow.

● News Release, January 12, 2015

Community Concern about Continuing Loss of Pine Rocklands in the Richmond Tract Formerly Home to More Than 350 Native Plant Species

DELRAY BEACH, Florida—The Institute for Regional Conservation (IRC) Chief Conservation Strategist, George Gann, recently sat down with IRC's floristic database to gain an understanding of the plant biodiversity in the Richmond Tract. What he found was that within this relatively small area of land, more than 350 species of native plants have been recorded, about one quarter of all the native plant species historically found in South Florida. The list contains everything from common species, such as our Florida state tree (the cabbage palm), to several federally listed endemic plants, to extremely rare tropical and temperate species at the ends of their global ranges. Several of these plants are found in Miami-Dade County and nowhere else in the world.

“There has been a lot of recent concern in the community about the continuing loss of pine rocklands outside of Everglades National Park, and in the Richmond Tract in particular,” said Gann. “And the basis for much of that concern is obvious. Any additional loss of pine rocklands is tragic, especially on public lands. We are down to the last little bits and every remaining bit matters. But the devil is in the details, and we need an updated floristic analysis of the Richmond Tract if we are really going to understand what is at stake for plant conservation.”

The commonly dubbed Richmond Tract comprises a patchwork of ownership by different entities, including the U.S. Coast Guard, Zoo Miami, and the University of Miami. While most of the concern has been on the remaining pine rocklands, former wetlands running through the site contribute to its remarkable diversity. After the protected Deering Estate at Cutler (which has more than 500 native plant species), the Richmond Tract is the most important native plant resource in Miami-Dade County outside of Everglades National Park. It historically had more native plant species, for instance, than Biscayne National Park.

“What we need to do now is to demonstrate that all the remaining undeveloped parcels at Richmond are important, and to promote the active restoration of pine rocklands in the so-called scraped areas, which have been cleared of pine trees and mowed,” Gann continued.

According to Gann, “Several areas in Richmond that others have thrown in the mental trash heap and are therefore available for development may in fact be critical habitat for native plants. It's unfortunate, in a way, that we named this globally imperiled ecosystem ‘pine rocklands’ since the pine tree is just the most obvious component. The loss of pine trees does not mean the ecosystem is destroyed. Perhaps it would have been better if we had named it ‘limestone savanna’ or something, so that people associated more with the herbaceous understory and not pine trees. This is where the rare biodiversity is located.”

One important thing we need to know now is how many native plant species are still present in the Richmond Tract. While some parts of Richmond have been conserved and are well managed, the overall trend over the last 30 years has been lack of management, continued fragmentation and the incremental loss of species.

“From reviewing the floristic data, we now know that many native species were recorded in only one or two tracts within Richmond. Unfortunately, some of these species may now be gone. The idea that all the native plants at Richmond can be protected in Larry and Penny Thompson Park and small protected areas at the Zoo is false. Larger areas are needed,” continued Gann.

The last extensive floristic inventories of Richmond were conducted by IRC more than a decade ago, and some species have not been seen since the early 1990s. Gann concluded, “We need updated information so that we can understand exactly what will be lost if more areas are developed or if critical management, such as prescribed burning and exotic species control, is not implemented.”

<http://regionalconservation.org/ircs/news.asp>.

INDIAN PIPES AND THE BLUSTERY DAY By Chuck McCartney

It was a blustery day on Nov. 22, 2014, when a few hardy souls gathered for the Dade Chapter Florida Native Plant Society's long-distance field trip to Palm Beach County's Juno Dunes Natural Area. As near-gale force winds (according to our own accompanying meteorologist, Jim Gross) whipped up tall waves on the Atlantic, we first visited the high coastal dunes on the ocean side of the preserve next to popular Loggerhead Park on the east side of U.S. 1 in Juno Beach. The historic narrow-gauge Celestial Railroad from Jupiter to Juno ran through this site from 1889 to 1895, although there are no vestiges of it left. The wind-cropped dwarf oaks and other scrub species on the high dunes at this 42-acre eastern tract were covered at one point with fading, seed-filled vines of the parasitic *Cuscuta exaltata* (Tall Dodder) in the Morning Glory Family (Convolvulaceae), a rarity for the area, according to field trip leader Steve Woodmansee.

The major part of the day, however, was spent exploring the larger west side of the preserve, which runs through the scrub all the way to the Intracoastal Waterway. At 569 acres, Juno Dunes Natural Area is the largest tract of Atlantic Coastal Ridge scrub left in Palm Beach County. Besides the interesting plants typical of coastal scrub, we also saw two species that were new to the plant list for Juno Dunes, according to Steve: tiny (nearly microscopic) *Burmannia capitata* in flower and a spiking plant of the rapidly naturalizing Asian exotic orchid *Eulophia graminea*. These grew in the ecotone between the scrub and a narrow band of land dominated by South Florida Slash Pines (*Pinus elliotii*) near the Intracoastal.

But the real find of the day came in the scrub. There, growing in

the white “sugar sand” beneath the dwarfed scrub oaks, we encountered a flowering colony of the odd little “saprophytic” plant called Indian Pipes (*Monotropa uniflora*). Traditionally, this species and its closest relatives have been placed in the Heath Family (Ericaceae), although some botanists prefer to segregate it into its own family, the Monotropaceae. The heaths include such familiar plants as rhododendrons, lyonias, blueberries and Tarflower (*Bejaria racemosa*). Indian Pipes certainly look weird compared to those green, leafy shrubs because they lack chlorophyll. The single stem (to 4 to 8 inches tall) is a ghostly white, with the color and appearance of Ivory soap. The leaves are reduced to a few scales clasp the stem, which supports a relatively large individual flower that is the same ghostly white as the rest of the plant. The urn-shaped flower (about half to three-quarters of an inch long) nods at the top of the stem, facing downward when it is fresh. The botanical name for the genus, *Monotropa*, comes from two Greek words meaning “one turn,” referring to the single crook at the top of the stem that bears the flower. The species epithet, *uniflora*, is from Latin meaning “one flower.” After the flower is pollinated, the stem uncurls upward so that the mature seed capsule points straight up, no doubt allowing for wider dispersal of the seeds.



Indian Pipes (*Monotropa uniflora*)
Photo by Chuck McCartney

The lack of photosynthetic green chlorophyll in the plant probably indicates a dependence on mycorrhizal (root) fungi in the soil to supply its food, making it what in the past we have called a “saprophyte,” although is it more properly known as a myco-heterotroph.

John Kunkel Small of the New York Botanical Garden and a recognized expert in the flora of Florida and the Southeastern United States in the early part of the 20th Century – as well as a

taxonomic “splitter” of the first order – separated the South Florida plants on rather tenuous grounds as *Monotropa Brittonii*, but that is now considered a synonym of *Monotropa uniflora*.

The common name for this interesting wildflower is apt. The stem and nodding flower do make it vaguely resemble a calumet, or so-called peace pipe, used in ceremonies by Native Americans

Our discovery of the Indian Pipes at Juno Dunes came as a bit of a surprise to me. I was familiar with the species in the mountains of western North Carolina, where I have botanized for many years and where I encounter it fairly often. Intellectually, I knew it occurred down into southern Florida, but this is the first time I recall encountering it here. It was a rare treat to see and photograph it on that blustery day at Juno Dunes.

Chuck McCartney is a former editor of the American Orchid Society's AOS Bulletin and the Awards Quarterly and was a copy editor with The Miami Herald's Broward Edition, before retiring in 2009. He has written extensively about wildflowers and orchids for numerous publications. Chuck is a member of FNPS.

DADE CHAPTER FLORIDA NATIVE PLANT SOCIETY

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Membership: Patty Phares (pphares@mindspring.com, 305-255-6404)

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TILLANDSIA

Editor: Patty Phares (pphares@mindspring.com, 305-255-6404)
Assistant editor: vacant – please consider volunteering

Articles, announcements and news items are invited for *Tillandsia* from Dade and Keys members. Please submit items for consideration by the 15th of each month. **Advertising rates** from \$12 per month.

FLORIDA NATIVE PLANT SOCIETY

FNPS office: info@fnps.org, 321-271-6702
FNPS Website: www.fnps.org
FNPS blog: www.fnpsblog.org
FNPS is on Facebook and Twitter: FNPSonline
Dade Chapter rep. to FNPS: vacant

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The Mission of the Florida Native Plant Society is to promote the preservation, conservation, and restoration of the native plants and native plant communities of Florida.