



# The Institute for Regional Conservation Newsletter

Summer 2015 Issue

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September/2015

## Greetings!

The Institute for Regional Conservation has had a very busy summer come to an end. We wanted to keep you, our supporters, volunteers and friends up to speed on exactly what we've been doing and what you can expect from us in the near future. Thank you for your continued support!

## IRC in the Field

by: **Craig van der Heiden, CEO**

Recently while working in Key Largo we happened to come across large areas of coastal berm, while on a search to destroy mission to exterminate exotic plant species. The coastal berm consists of storm debris with sand and shell substrate and the canopy was dominated by buttonwood and mangroves. The buttonwood and some mangroves were festooned with masses of Florida butterfly orchid, *Encyclia tampensis*.





The definition of the orchid genus name comes from the Greek verb Encyclia meaning "encircle", with reference to the lateral lobes of the labellum surrounding the column. In this species, the labellum looks like the wings of a butterfly hence the common name butterfly orchid. The species name "tampensis" means of Tampa, refers to the location (Tampa Bay) where it was found and collected for the first time in 1847.

This particular orchid is wide spread growing in the wild from Orlando through Tampa and south to the Florida keys and can also be found as native to the Bahamas. The species occurs in a wide variety of habitats growing as an epiphyte on the trunks and branches of trees and shrubs in the humid forests and swampy areas as well as in the dry forests up to about 100 m of altitude. The orchid does not tolerance long term flooding by brackish or salt water but does grow near salt water in areas where it is protected from direct salt spray as in the area where we found them growing in the coastal berm. They have a wide tolerance for light and can grow in areas with full sun or canopy shade.

The Florida butterfly orchids we found were in full bloom and a spectacular sight.



## News from Latin America & the Caribbean

by: Jorge Carlos Trejos, Senior Botanist

IRC has collaborated for years with Jorge Carlos Trejo Torres who recently obtained his PhD. from CiCy. Carlos was a reviewer on the "Floristic assessment of the northern karst belt of Puerto Rico, phase three" report that was published by IRC staff members in 2006 and can be accessed [here](#). He also played an integral role in the "Rediscovery of *Eugenia fajardensis* (Myrtaceae), a rare tree from the Puerto Rican Bank," a publication that can be found [here](#).



Senior Botanist, Carlos is working closely with IRC's Chief Conservation Strategist, George Gann, in the completion of the website and database ***Plantas de Borikén/Plants of Puerto Rico***. This is a bilingual, Spanish/English site that details over 3,500 plant species of the island of Puerto Rico.



A few of the 3,500 plants that will be included in the ***Plantas de Borikén/Plants of Puerto Rico*** site.

Top Left: *Macropodium atropurpureum*

Top Right: *Merremia dissecta*

Bottom Left: *Sagittaria lancifolia*.

Bottom Right: *Thelypteris sclerophylla*.

This website will have a very useful search tool that will allow users to access conservation data for each species. IRC plans to launch the website in early December 2015 with hopes that the site will encourage collaborators to finance the growth of the website as it is sure to become a daily tool utilized in the conservation of Puerto Rican plant species. In order to draw attention the release of the website through social media, Carlos created a Facebook group named 'Amigos de Plantas de Borikén/Friends of Plants of Puerto Rico,' now with nearly 400 members.

Carlos and George also maintain a botanical website entitled ***Plantas del Mayab: Plantas para todos!*** This is a catalogue for the over 2,500 plant species of the Yucatan Peninsula, a portion of southeast Mexico. The website, which can be found [here](#), includes a listing of botanical activities and groups around the peninsula, mainly in the main city of Merida; it also includes an interesting list of botanical literature including literature rarities.



Photo shared from <http://www.plantasdelmayab.com/>.

This particular website was launched on January 1<sup>st</sup> and plans are made to upgrade the plant name catalog into a plant conservation tool similar to the one found in the Floristic Inventory of South Florida and the upcoming Puerto Rico site. Furthermore, Carlos runs the **PLANY - Plantas Nativas de la Península de Yucatán** facebook group that boasts over 1500 members.

## Florida Keys Projects Wrap Up

by: James Walther, Crew Leader

It has been a very busy past few months as multiple projects have simultaneously reached completion here in the Lower Keys. In late July, with the help of the Upper Keys crew and Lower Keys Crew, our project in The National Key Deer Wildlife Refuge was completed. The project consisted of sweeping through acres of dense hardwood hammocks

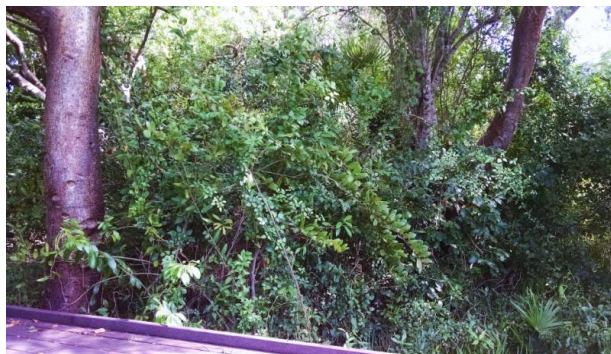


eradicating invasive exotics with the Brazilian pepper being the predominant target. Further south, our projects at the Key West Botanical Garden and the Naval Air Station Key West at Saddlebunch were completed.

The KWBG project consisted of eradicating invasive species throughout the garden which included felling and removal of multiple large tamarind trees as well as many large clusters of seaside mahoe. Bowstring hemp, snake plant, and brazilian jasmine were among other predominant invasive exotics treated and successfully removed within the garden, as seen below.



Removal of snake plant in KWBG. Top picture is before and bottom picture is after IRC employees worked on the area.





Removal of Brazilian Jasmine in KWBG. Top picture is before and bottom picture is after IRC employees worked on the area.

For more information and pictures of the work we completed at KWBG, click [here](#).

The NASKW at Saddlebunch project consisted of sweeping acres of protected area surrounded by mangrove marsh. The predominant target species eradicated at this site were brazilian pepper and australian pine. Although it has been a challenging and busy past few months it has also been very rewarding and I am looking forward to our future projects!

### IRC Reengages with International Conservation Community!

**by: George Gann, Chief Conservation Strategist**



This August, IRC Chief Conservation Strategist George Gann traveled to Manchester, England to give a lecture on the conservation and restoration of rare plants in Everglades National Park. The venue was the 6<sup>th</sup> World Conference on Ecological Restoration, hosted by the Society for Ecological Restoration (SER), an organization that IRC has worked with and supported since the mid-1990s. More than 700 attendees from 60 countries were present at the conference. George has a long history of work with SER, especially on building international capacity and policies, and was honored with a Chair Emeritus title in 2011 for his 17 years of leadership on the SER Board of Directors. For more information on SER, click [here](#).



George Gann presenting at the 6<sup>th</sup> World Conference on Ecological Restoration, hosted by the Society for Ecological Restoration.

In addition to giving the Everglades talk, George attended side meetings with SER's Science and Policy Committee, including special invitation meetings with the Executive Secretary of the United Nations Convention on Biological Diversity (CBD), Bráulio Ferreira de Souza Dias. In particular, SER has been engaged with the CBD on issues related to the use of ecological restoration to help end the loss of species, a core mission of IRC. For 2011-2020, the CBD has set targets in which ecosystems of particular importance to water security, human health, and sustainable livelihoods are restored, and their resilience and contribution to carbon stocks enhanced, through conservation and restoration, including the restoration of at least 15% of degraded ecosystems. Target 12 states that by 2020, the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained. These are ambitious targets and they are unlikely to be fulfilled, but tremendous international resources are now being directed toward the issues of



biodiversity losses, sustainability, and climate change. And that is a good thing.

Critical to measuring biodiversity losses is the identification and assessment of rare species, something in which IRC has substantial experience, both using the NatureServe system for ranking South Florida plants, and the IUCN Red List system as part of the global cactus assessment. Unfortunately, to date only about 15% of the world's 350,000 to 400,000 plant species have been ranked for the global Red List, a reality that hinders global plant conservation efforts. In response, the CBD's Global Strategy for Plant Conservation for 2011-2020 calls for the conservation assessment of all known plant species by 2020, a herculean effort by any means. But even more ambitious were earlier targets to assess plants not just globally, but also at regional (meaning multinational) and national levels. While IRC supports international efforts such as the Global Strategy for Plant Conservation, we believe these efforts still fall short of the need, which is to assess rare plants and other species at the regional scale where conservation actions actually takes place.

We believe that IRC's long history of working with regionally rare species in South Florida, together with expanded work in the Yucatan, Puerto Rico and the Bahamas, can shed light on what is actually happening on the ground at the global level. We have enough information now to inform and engage global efforts to conserve and restore rare species, which needs to move beyond work on species with narrow global ranges and focus on conserving rare floras (and faunas) at the local level. Please consider helping IRC in this effort by making a donation or posting your thoughts on our [Facebook page](#).

by: Michael Barry, Senior Biologist



By using ground-truthing and aerial photography dating back to the 1940's, the Applied Conservation Science program of IRC has been able to track detailed vegetation shifts in Rookery Bay National Estuarine Research Reserve (located in Southwest Florida) and determine the likely causes. Common vegetation trends found through the mapping area from 1940 to 2010 include freshwater and brackish marshes, cypress strands and slash pine areas transitioning to mangrove and buttonwood wetlands.



On Site at Rookery Bay National Estuarine Research Reserve.

Although each mapping area had unique causes driving the vegetation shifts due to localized hydrology, elevation, porosity of the soil below and anthropogenic interactions the main contributing factors in altering the vegetative ecology of Rookery Bay were sea level rise, elimination of freshwater sheet flow, humans directly changing the physiography an area, ditching, nutrient input and shortened hydroperiods. The most recent mapping from 2010 will serve as a great reference in monitoring future changes. To read the final report written by Michael Barry and Craig van der Heiden, click [here](#). Moving forward, we need to work both globally and locally to stop contributing to climate

change, stop altering natural freshwater flow throughout Florida and to minimize the effects of sea level rise in the future.

It is well established that sea levels have been on the rise for a long time. Yet more recently we have been seeing the direct effects of human impacts on rising sea levels. I have been working in Southwest Florida for 25 years and specifically mapping vegetation for the last 10 years. During this time we have seen increasing shifts from species that are salt intolerant to more halophytic species. A common example of this would be the shift of marshes to mangroves. Although sea level rise alone is driving vegetation shifts (as evident in some of the middle islands and Big Cypress with isolated hydrology where natural cycles are still rain-driven), it is also compounded by the drainage of wetlands, development, and the diversion of freshwater sources. Currently, the warming of ocean water caused by the greenhouse effect is the main cause of rising sea levels. Melting glaciers and the subsequent release of methane are still contributing factors that will only become more significant in the future. The overall rate of sea level rise is accelerating with the rate being approximately 0.4 mm/year about 3,000 years ago and upwards of 3 mm/year in the last couple of years. For more information on the causes and future predictions of climate change, I would encourage you to check out the work NASA is doing by clicking [here](#).

### IRC Website Updates

**by: Cara Abbott, Education and Outreach Coordinator**



As the new Education and Outreach Coordinator, part of my responsibilities include updating the IRC website and its associated databases: The Floristic Inventory of South Florida (FISF), Natives For Your Neighborhood (NFYN), Plantas del Mayab, and the Floristic Inventory of the Florida Keys (FIFK). We are continually working to update these sites to bring you the

most current, accurate, and detailed information on every plant. To that note, you can now find additional information on each plant by clicking on the embedded links that will take you to the Flora of the West Indies site and Tropicos site provided by The Missouri Botanical Garden.

**Abildgaardia ovata (Burm. f.) Kral**  
Flatspike sedge

Family: **Cyperaceae**  
Group: **Monocot**  
Substrate: **Terrestrial**  
Habit: **Herb**  
Perennation: **Perennial**  
Native Range: **Peninsular Florida, the West Indies, Mexico, Central America, South America and the Old World tropics.**  
SOUTH FLORIDA Occurrence: **Present**  
SOUTH FLORIDA Native Status: **Native**  
IRC SOUTH FLORIDA Status: **Rare**  
SOUTH FLORIDA Cultivated Status: **Cultivated**  
Comments: Visit our [Natives For Your Neighborhood](#) website for more information.  
Synonyms: **A. monostachya.**

**NEW LINKS TO FLORISTIC WEBSITES**

- Flora of the West Indies
- Catalogue of the Seed Plants of the West Indies
- TROPICOS.ORG

New links to floristic websites can be found on each plant page.

We are also working on adding in new plant pictures and welcome the submission of plant photos from the public! If you have personal photographs that highlight the unique features of local plants, feel free to email them to us along with any information on when and where you took the photo. Although our many of our pages are dedicated to South Florida, we like to show photographs of species found throughout their native range. Therefore we welcome any photos that can be useful in identification of species found within South Florida. We encourage you to consider submitting your photographs to be featured on our website that gets over 100,000 hits per month!

We are currently looking for additional sponsors for our Natives For Your Neighborhood website. If you own a nursery that provides native plant species to your customers, we want to partner with you. By sponsoring NFYN, we get the funding necessary to maintain the website and you get your local business advertised to the over 10,000 weekly users who are actively searching

for native plants online. A sponsorship not only buys you ad space for your nursery's logo, but also allows you to advertise directly on 10 plant pages that your nursery specifically sells. For more information on being a sponsor, click [here](#) or email me at [abbott@regionalconservation.org](mailto:abbott@regionalconservation.org).

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Thank you for taking the time to read about what IRC has been up to lately. Stay tuned to hear about our upcoming projects and volunteer opportunities! As always, if you wish to contact us, send us an email at [admin@regionalconservation.org](mailto:admin@regionalconservation.org) or call us at 305-247-6547.

**Sincerely,**

The Institute for Regional Conservation