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Greetings!

We hope that your new year is off to a great start! IRC has had a very productive beginning in 2016. Please enjoy this newsletter that highlights only some of the conservation work that our wonderful staff are completing in South Florida and beyond!

Thank You,
The Institute for Regional Conservation

Findings From the Field

Craig van der Heiden, *IRC Chief Executive Officer*

While working in Marathon on an ecosystem restoration project we came across this beautiful Malachite butterfly (*Siproeta stelenes*) perched on a white mangrove (*Laguncularia racemose*). The butterfly was surprisingly calm and allowed us to observe it from close proximity. It is a large butterfly with a wingspan of 8-10 cm with brown to black margins and yellow-green windows that captured the light. Though the Malachite is wide spread, occurring through the southern tip of Florida and Texas, the Greater Antilles and central and south America it is increasingly becoming rare in south Florida. The Malachite became resident in Florida in the 1960 possibly coming from Cuba. The host plants are woody herbs from the Acanthaceae and Plantaginaceae families and locally they use the non-native green shrimp plant (*Ruellia blechum*) to lay their eggs on.



Malachite butterfly (*Siproeta stelenes*)

Continued Success of Puerto Rico Database

Jorge Carlos Trejos-Torres, *IRC Senior Botanist*

It has now been six weeks since the launching of IRC's Plants of the Island of Puerto Rico database. This plant page is being used by important nature-related groups as the main reference when posting plant images or topics related to Puerto Rico. Additionally, the database is being enriched by contributions from members of our Facebook group Friends of Plants of Puerto Rico, who provide information on species occurrences, common names and plant photos. This Facebook group has gained 370 members in six weeks after the launching on December 15, 2015. This is significant when compared to the 450 members who joined in the 8 months before the launch.



Moving forward, IRC is preparing for an invited talk at the Plant Conservation in the Caribbean Symposium at the Biodiversity Without Boundaries 2016 meeting of Nature Serve in April, San Juan, Puerto Rico. I am preparing for an invited talk at the XIII Symposium of the Asociación Ibero-Macaronésica de Jardines Botánicos (AIMJB) in April in Fuerteventura, the Canary Islands.

South Florida Butterfly Updates

Sandy Koi, *IRC Research Associate*

Even in Florida, the butterflies are not as abundant in the winter months as they are in the spring, summer, and fall. However, there are still some hardy fliers gracing our gardens and natural areas year-round. On a cold windy day, they will find shelter from the elements in a tree crevice, within hanging palm fronds, behind or within natural limestone outcrops, or even under the eaves of a house. As soon as a ray of sunshine appears, the butterflies fly out for nectar for as long as there is sunshine. On a cool rainy day, they may go into a period of "quiescence"...the state is not quite diapause, but certainly slows down their metabolism enough to preserve as much energy as possible until the environmental conditions improve. Surveying natural areas for IRC has been challenging because of the rain, more so than the cooler temperatures, this winter. It's an "El Nino" winter here in South Florida.



Resident Gulf Fritillaries and Monarchs that stay here in Florida year-round, rather than migrating further south, are fairly common now, as are White Peacocks. Zebra Heliconians are also abundant and can be found anywhere its hostplant, Passionvine

is found. Until the cooler temps arrived, Barred Yellows and Great Southern Whites were in abundance, but most have migrated on by now. There are actually 36 species of butterflies that migrate through Florida!



White Peacock (left) and Zebra Heliconian (right)

Most of the butterflies and other insects have cyclic periods of abundance and decline, and sometimes we know the cycles very well. Atala butterflies, for example, have a bi-annual "crash-eruption" cycle; the cycles are fairly predictable and we know that they are more frequently seen in mid-summer and again in late fall, then crash around December and again in March. They also seem to have a 7-8 year cycle of "eruption" levels when they are super-abundant. Other butterfly populations are more difficult to predict, partially because scientists are lacking long-term on-going data.

This is one of the reasons why the butterfly surveys that I do for IRC are vitally important in understanding the population dynamics of the rarer butterflies, such as our federally Endangered Bartram's Scrub Hairstreak and the Florida Leafwing. These on-going surveys in natural areas acquire the data we need to help prepare and support wise management plans, for both the insects and the habitats they require.

Invasive Plant Education

Cara Abbott, *Education and Outreach Coordinator*

This past month I have had the opportunity to be a part of two different educational events focused on invasive plant species. The first was at the Invasive Species Awareness Festival, a part of the 2016 Python Challenge, held by FWC at FIU's Miami campus where I gave a talk on Invasive Plants of South Florida. This presentation was part of a series of talks given by speakers from throughout the state who specialize in invasive reptiles, fish, snails and plants.





Presenting on Invasive Plant Species of South Florida.

I was also pleased to be a part of IRC's Atlantic Dunes Park Restoration Volunteer Day held on January 30th. We had nearly 40 participants join us at the park where together we removed several invasive plant species throughout the park including (snake plant) and (Brazilian-pepper). We also spent some time reintroducing native plants that were currently missing from the park. To learn more about and see pictures from this event, check out our [Facebook page](#) or website!

Invasive Plant Management in the Keys

Adriana Olavarria, Field Biologist

IRC Florida Keys Staff are working on invasive plant management projects throughout the Keys. Right now, we are spending much of our time on the Marathon Project which includes two different city parks. The first is Marathon community park where a mangrove fringe area was cleared of invasives, primarily Brazilian pepper (*Schinus terebinthifolius*), Lead tree (*Leucaena leucocephala*), and Seaside Mahoe (*Hibiscus tiliaceus*).



IRC Staff working at Coco Plum Beach in Marathon Key.

Our team is currently working on Coco Plum Beach on the northern side of Marathon Key. It is a 23 acre area to be cleared of FLEPPC Category 1 invasive plant species. This project is estimated to end around the end of February.

