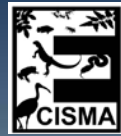


15th Annual Everglades Invasive Species Summit



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CISMA Partners

MOU Signatories

South Florida Water Management District

Miami-Dade County

US Fish and Wildlife Service

US National Park Service

Army Corps of Engineers

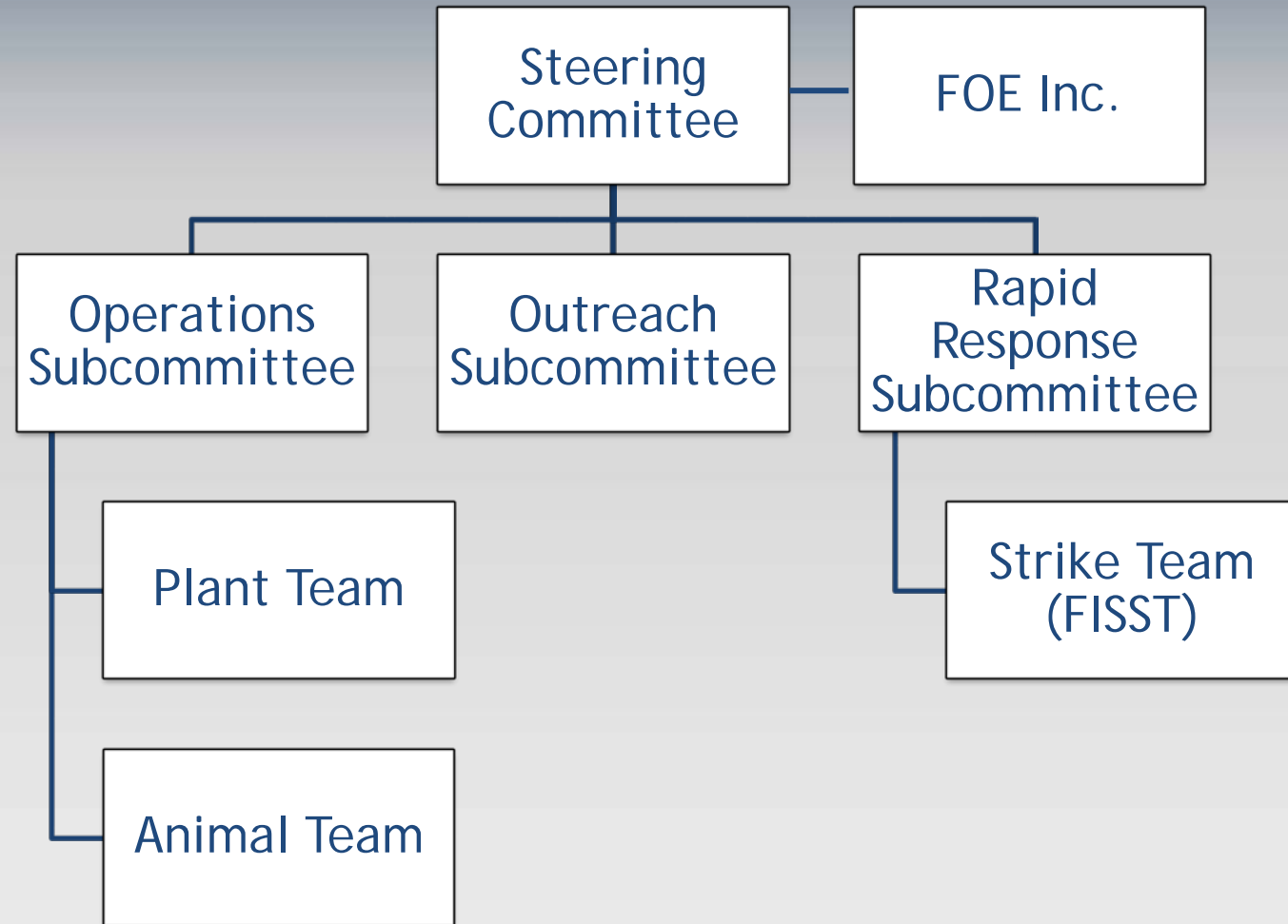
Florida Fish and Wildlife Conservation Commission

Partners

Broward County, The Nature Conservancy, University of Florida, Department of Agriculture and Consumer Services, Florida Department of Environmental Protection, U.S. Geological Survey, Florida Department of Transportation, Florida Power and Light, Miccosukee Tribe of Indians of Florida, Seminole Tribe of Florida, U.S. Department of Agriculture, U.S. Department of the Interior, Florida Department of Transportation, Fairchild Tropical Botanic Garden, Kampong Tropical Botanic Garden, the Everglades Foundation, Auburn University, Palm Beach County



Everglades CISMA Organizational Chart





Everglades Cooperative Invasive Species Management Area

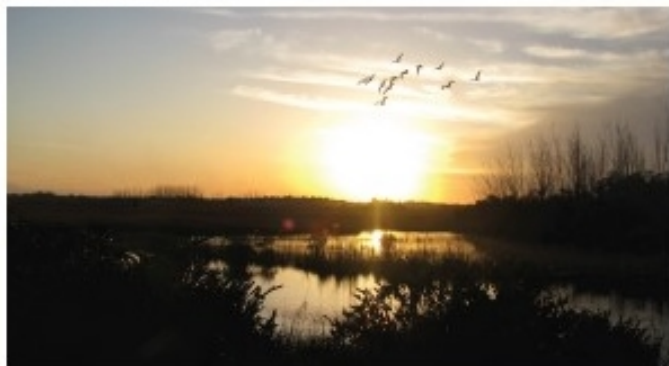
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Newsletter

VOLUME 8 2018



South Dade Wetlands (SDW) wildfire (Photo by Miami-Dade County staff).

South Dade Wetlands: Not So Boring After All!

by Robin Gray-Urgelles and Gwen Burzycki, Miami-Dade County

Have you ever driven the 18-mile stretch on US-1 from Florida City to the Keys and thought, "When am I going to get through this? There's nothing to see!" You are passing through the 54,000-acre South Dade Wetlands (SDW, aka Model Lands), a large wetland preserve that is being jointly acquired and managed by the Miami-Dade County Environmentally Endangered Lands (EEL) Program and the South Florida Water Management District (SFWMD). SDW and the adjacent Southern Glades Wildlife and Environmental Area (SGWEA) encompass the largest chunk of freshwater marl prairie outside Everglades National Park and have almost all the ecological values of their more famous next-door neighbor.

Within one of the fastest growing urban areas, the EEL Program along with SFWMD has brought 20,600 acres under public ownership since 1994. Most of that is critically important habitat for wading birds, waterfowl, raptors, migratory songbirds, as well as threatened and endangered species such as the wood stork, Eastern indigo snake, and the occasional Florida panther.

This area acts as a keystone, connecting a 3.5 million-acre contiguous wetland preserve representing most of the remaining Everglades watershed (including Loxahatchee National Wildlife Refuge, Everglades & Francis S. Taylor Wildlife Management Area, Big Cypress National Preserve, Everglades National Park, the SGWEA) with Biscayne National Park (Figure 1).

Like the rest of the Everglades, SDW has sweeping vistas of sawgrass prairie dotted with tree islands. The cool stuff, however, is in the details. On the 18-mile stretch, kingfishers, kestrels, and red-shouldered hawks perch on power lines; bald eagles soar on thermals; and wading birds feed in borrow pits which are remnants of Flagler's railway to the Keys. And why is there all that fencing? Special wildlife underpasses keep panthers, crocodiles, and alligators off the road and cars on.

Get off the main roads to appreciate pockets of woodstorks, snowy egrets, little blue herons, tricolored herons, and roseate spoonbills as the wetlands dry down and prey become concentrated.

CONTINUED ON PAGE 2

Scleria Rides the Waves of Infestation into the River of Grass

by Ryan Brown, South Florida Water Management District (SFWMD)



Removing *Scleria lacustris* from WCA3A in 2015 (Photo by: SFWMD).

Exotic *Scleria* species have been creating waves in Florida lately. There are now four nonnative species of this genus that have naturalized in the state, all of which occur in the Greater Everglades Region. Two of these species were first discovered in Florida within the last two years.

Scleria lacustris (Wright's nutrush) is an annual sedge that grows in seasonally inundated marshes. Its home range extends from the lower African continent to the Greater Caribbean. While it is considered extremely rare in its home range, this plant has found the ideal conditions to proliferate in Florida. It was first documented 3 decades ago in central Florida between two wildlife management areas in Jane Green Swamp. Initially, it was listed as a Florida Exotic Pest Plant Council (FLEPPC) Category 2 species in 2005, but once its displacive nature and ability to alter the natural state of native wetland plant communities became apparent, it was reclassification as a Category 1 species in 2009.

Wright's nutrush has been making its way down the Everglades watershed and has found a suitable home in the Water Conservation Areas (WCA). The main causes of its spread are thought to be foraging birds and airboats moving the seed to new bodies of water. In 2011, we discovered it had reached WCA3B and more recently it popped up in WCA3A North and WCA3A South in 2015 and 2017, respectively. The South Florida Water Management District (SFWMD) and Florida Fish and Wildlife Conservation Commission (FWC) have been working to routinely monitor and treat these areas.

Last summer, ECISMA members teamed up at the southern end of WCA3B to methodically survey for Wright's nutrush. Multiple state and federal agencies, among other volunteers, split up into small teams on airboats were assigned to specific survey transects.

As a result of the workday, a

new infestation was discovered not far from where it had been documented in 2011. The size and density of the infestation suggested the introduction was not recent. Because Wright's nutrush had already gone to seed, the focus shifted to directly collecting seeds from the mature plants, bagging them and ensuring proper disposal. The established plants were then treated with herbicide to prevent further seed production. This seemed to successfully reduce the number of plants within the infested area in WCA3A North.

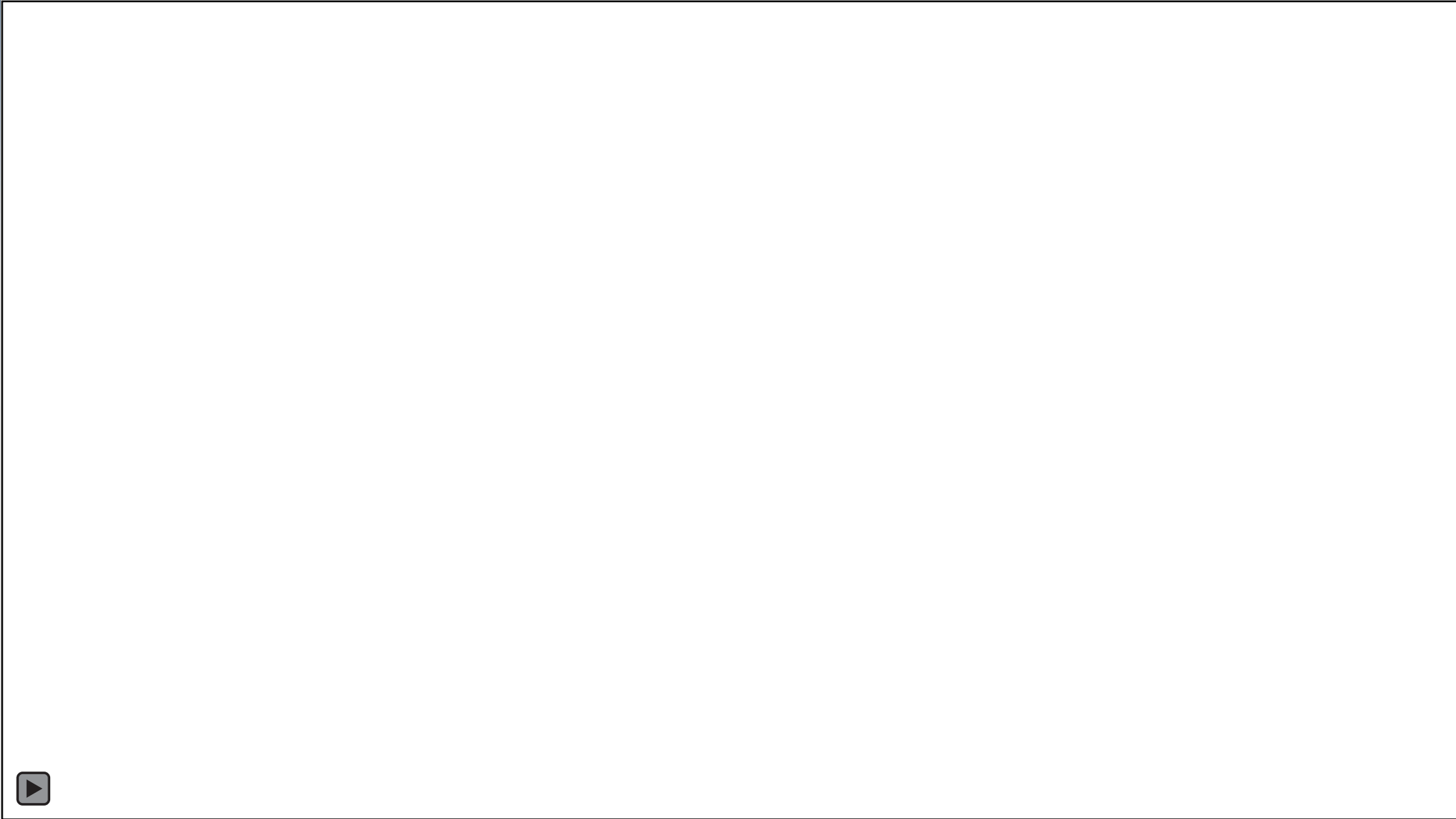
Given the size of WCAs, it is entirely possible that there are undocumented infestations of Wright's nutrush. Conducting more surveys is crucial to determining the extent of its occurrence in the Everglades. We are still hopeful these infestations can be eradicated once they are located, but until we know how much is present, we can't be sure whether containment or eradication are possible.



Scleria lacustris removed from WCA3B in 2015 (Photo by: SFWMD).

CONTINUED ON PAGE 5

Coconut Creek Outreach





Don't Let It Loose

Be a responsible pet owner

- Learn about exotic pets before bringing one home
- Never release unwanted exotic pets

Have an exotic pet you can no longer keep? Bring it to an FWC Exotic Pet Amnesty Day

- All exotic pets are accepted (domestic pets are not accepted)
- Can't attend an event? Call the FWC's Exotic Species Hotline year-round at **888-Ive-Got1**
- There are no penalties for unlicensed or illegally held exotic pets surrendered at these events

Adopters needed!

- The FWC needs experienced pet owners who are willing to adopt surrendered exotic pets
- Applying to be an Exotic Pet Amnesty adopter is free
- Animals can be adopted at Exotic Pet Amnesty Day events or year-round through the FWC's Exotic Species Hotline

For more information about Exotic Pet Amnesty Day events and to download adoption forms visit MyFWC.com/Nonnatives (click on "Exotic Pet Amnesty Program") or call 1-888-IVEGOT1 (483-4681).



MyFWC.com

NISAW Event Pine Jog Elementary Outreach



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NISAW Simpson Park Workday



Young catclaw vine with tuber. Notice the limestone rock characteristic of the rockland hammock habitat (Photo by: Gloria Antia).



Licaria triandra sapling with characteristic coloration of new growth (Photo by: Gloria Antia).



Licaria saplings in the foreground with catclaw vine climbing a false mastic in the background (Photo by: Gloria Antia).

2018 Lumnitzera Blitzera



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Pythons

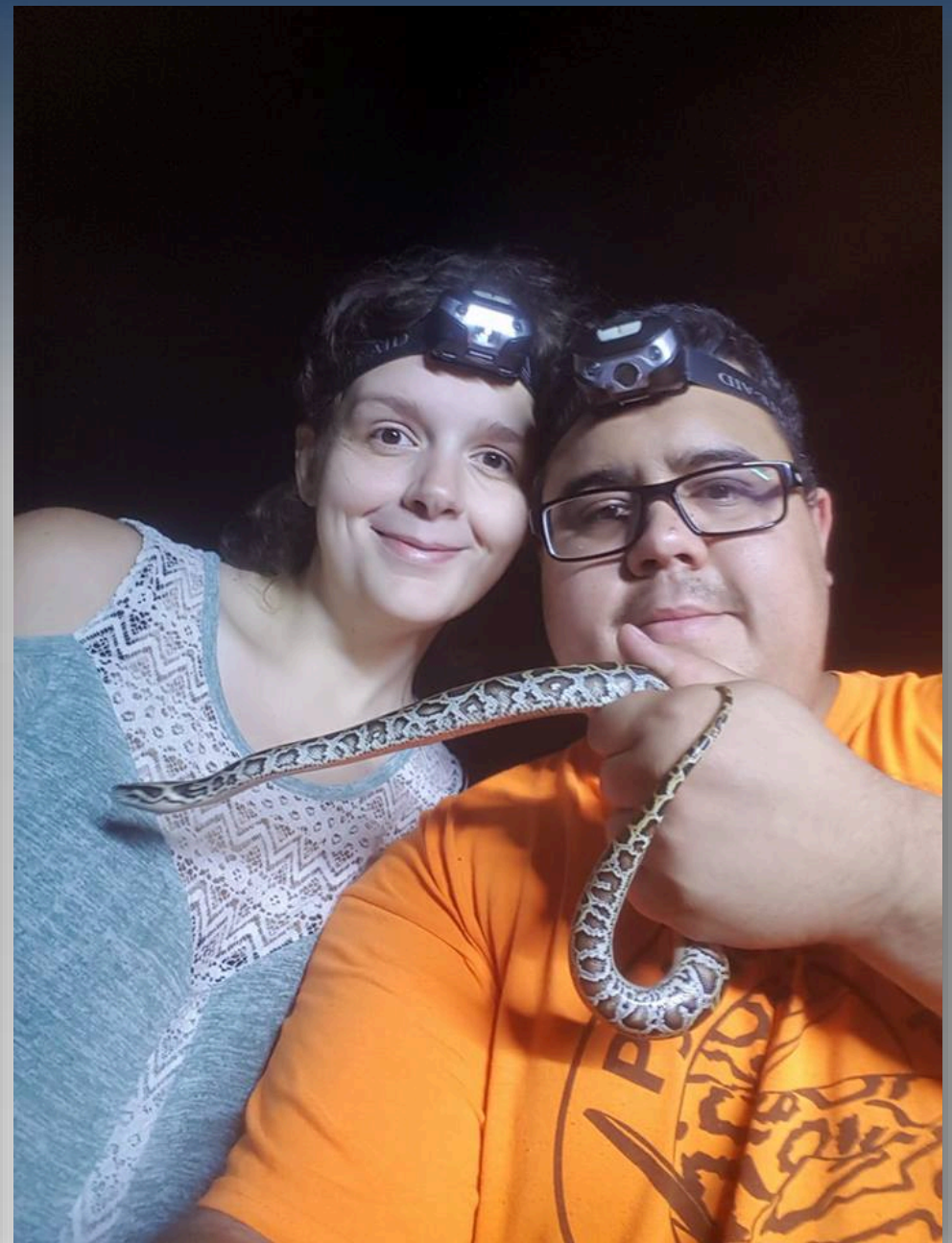


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FWC Python Contractors



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SFWMD Python Contractors

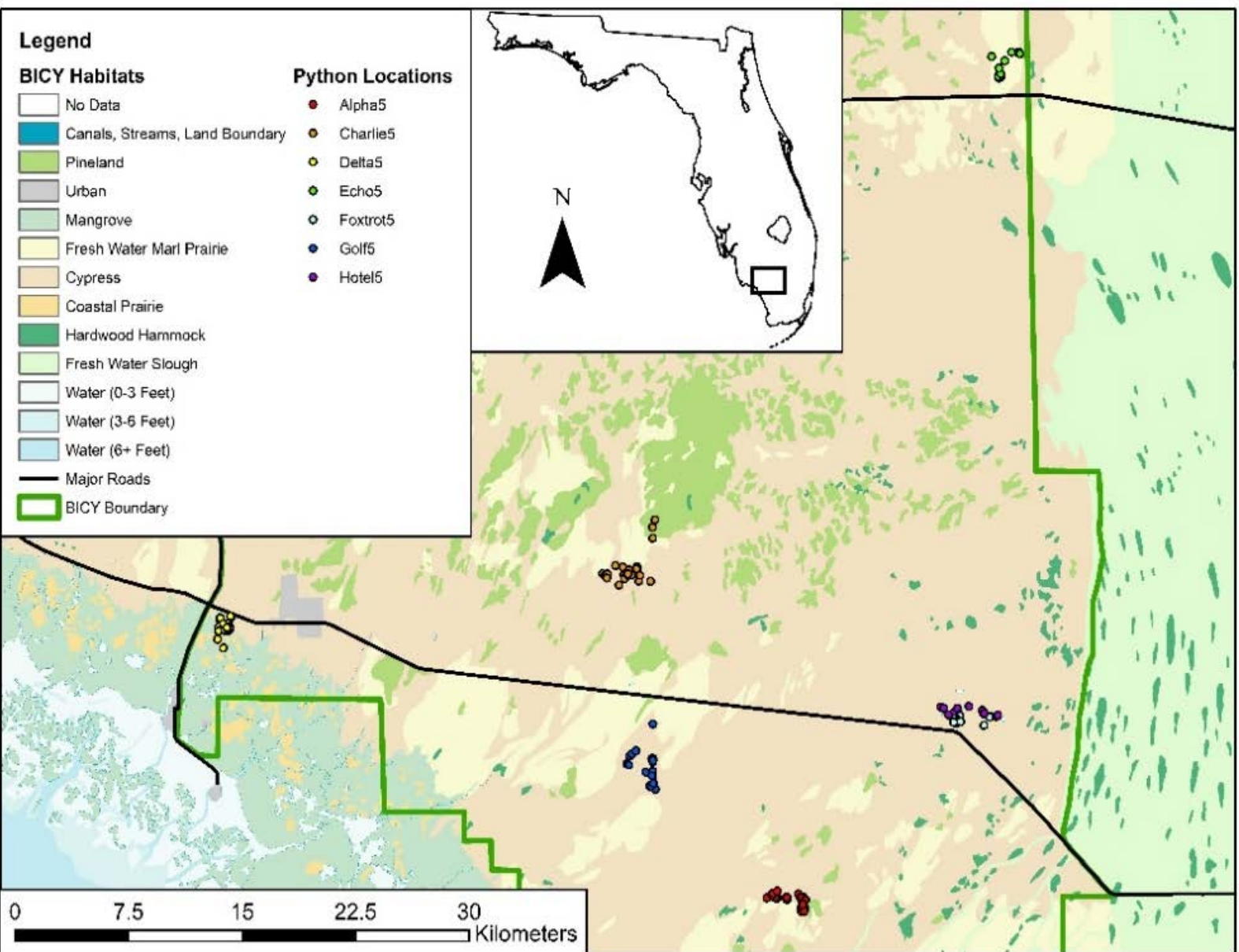


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USGS Python Research





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USDA Wildlife Services Python Trap Research



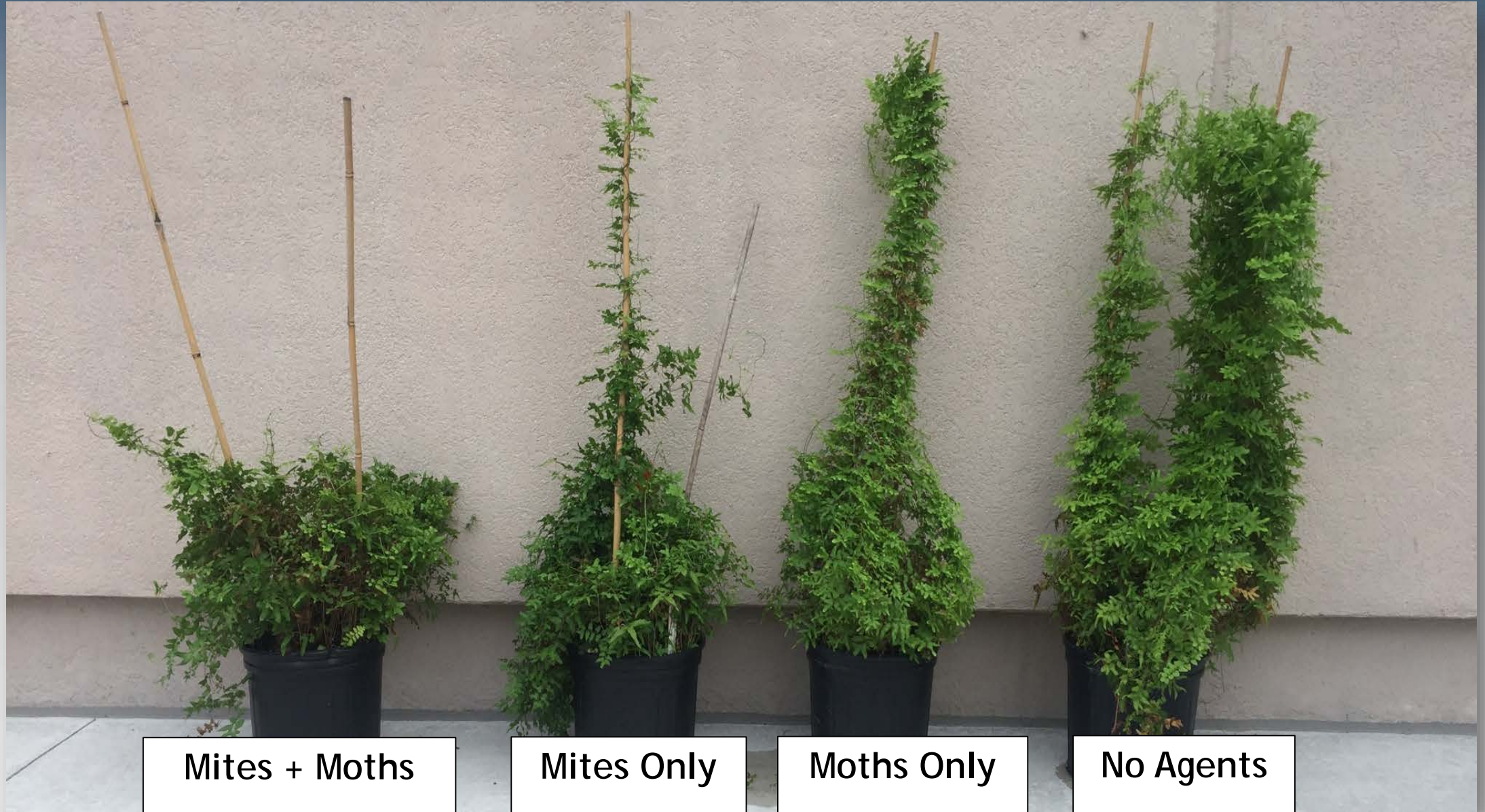
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Non Target Exclusion Trials at Loxahatchee NWR



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Biological Control Development



Mites + Moths

Mites Only

Moths Only

No Agents

Downy Rosemyrtle Biological Control



Brazilian Pepper Biological Control



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University of Florida EDRR - Morlett's Crocodile



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Conehead Termites



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Giant Hammerhead Flatworms



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Fish Chat/Slam



Pinecrest Gardens Bay Snook Eradication



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2018 Non Native Fish Roundup, Miccosukee Arches



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Everglades Plant Monitoring Program

Weed Technology

cambridge.org/wat

Symposium

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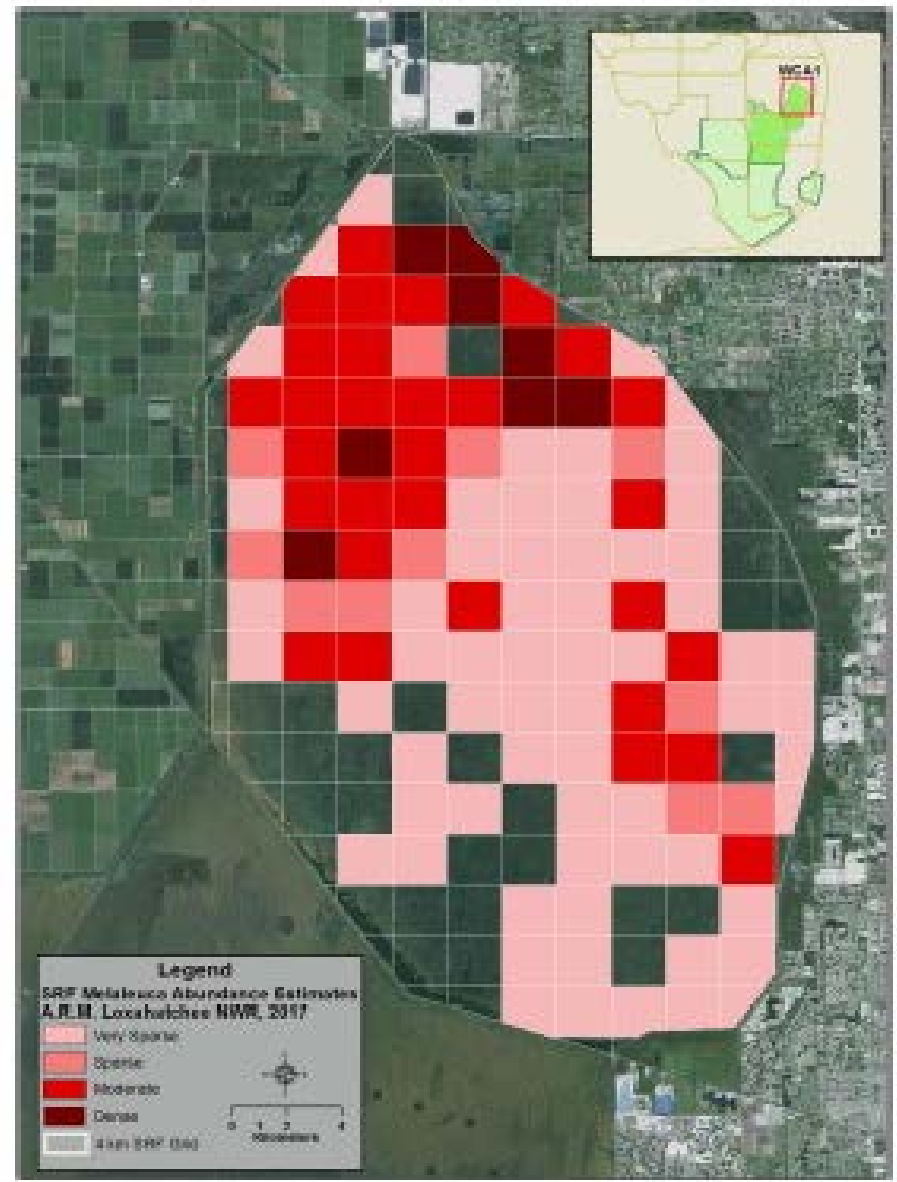
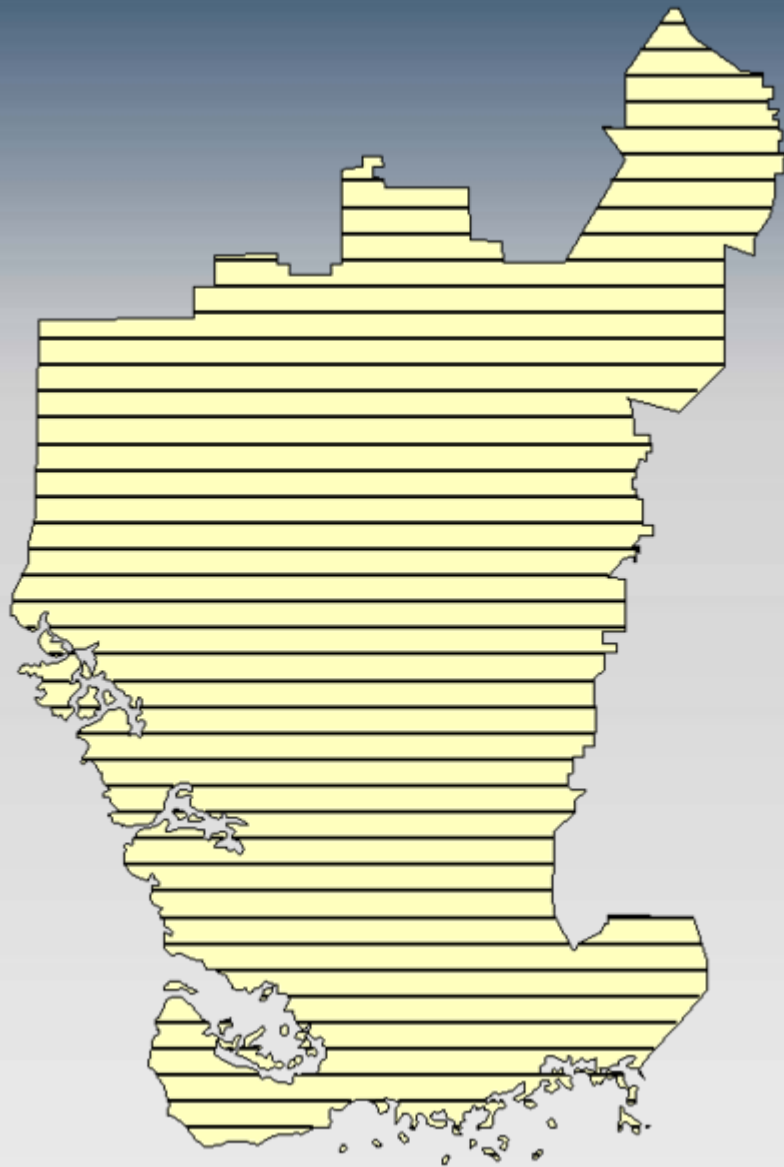
Multiscale Invasive Plant Monitoring: Experiences from the Greater Everglades Restoration Area

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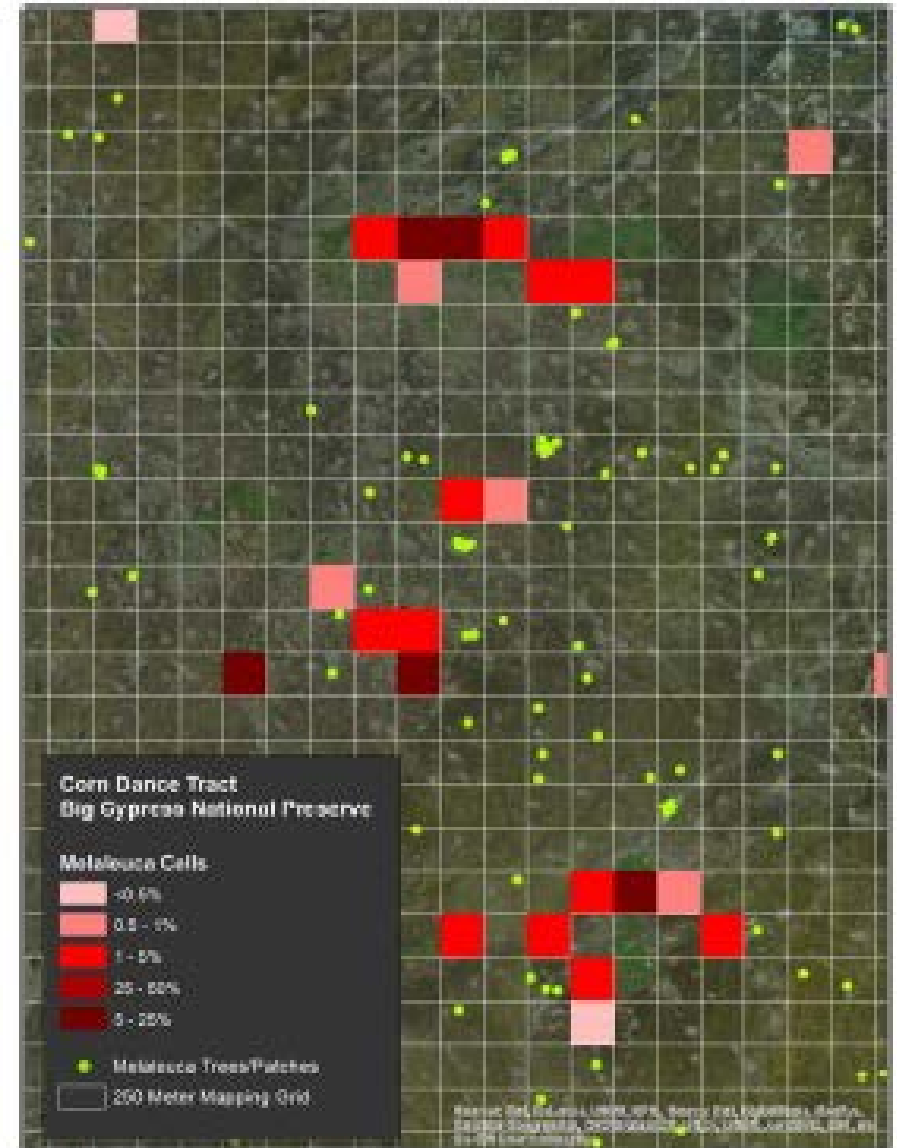
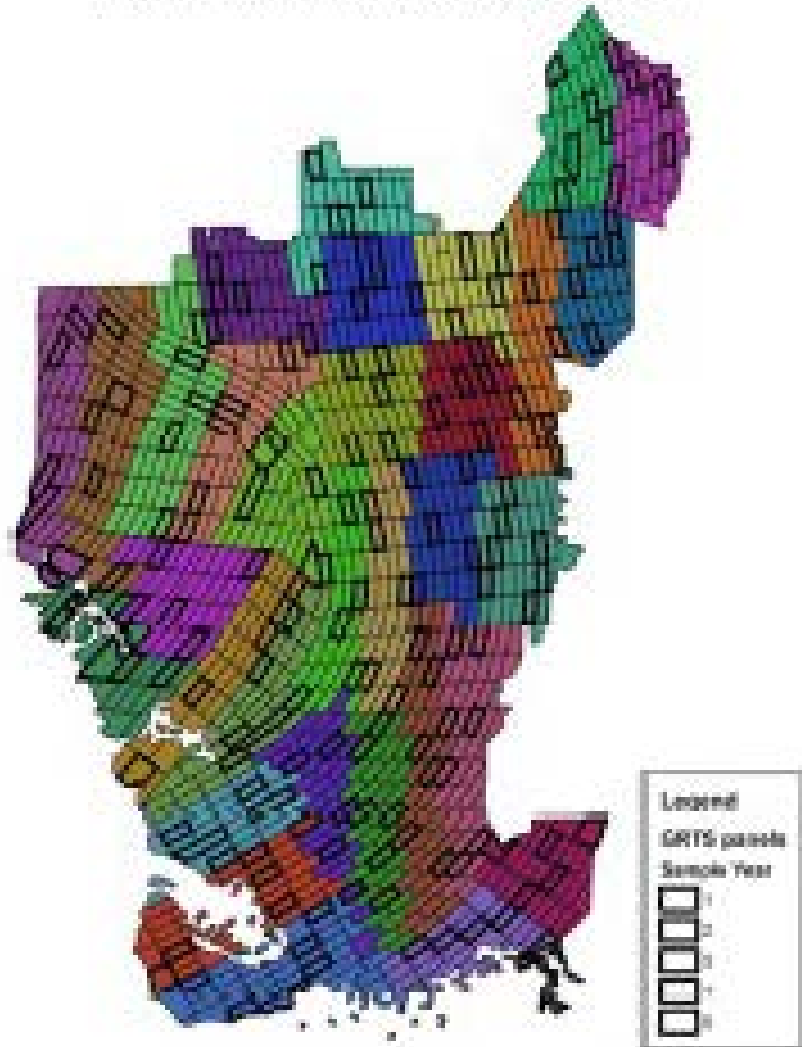
Abstract

Obtaining spatially explicit, cost-effective, and management-relevant data on invasive plant distributions across large natural areas presents considerable challenges. This is especially true when multiple monitoring objectives exist, because the utility of different monitoring methodologies varies with scale, logistical considerations, and information needs. The Florida Everglades is a vast wetland landscape with widespread invasive plant infestations and multiple management jurisdictions. A multi-agency team Working Group conducted a workshop in 2013 to explore opportunities to enhance the performance of a regional weed control program. Among the most important developments occurring at this meeting was the recognition that relevant management questions are scale-dependent. This led the team to define multiple monitoring objectives. Essential for conveying the success of the weed management program is quantifying large-scale patterns of change, as are quantifying fine-scale patterns informing control activities, defining mechanisms of spread, recognizing accelerating rates of spread, and detecting patterns of occupancy immediately before management intervention. The group's deliberations resulted in the emergence of a multiscale monitoring program utilizing several distinct monitoring protocols, including systematic landscape-level reconnaissance, a sample-based spatially stratified monitoring system, detailed inventories in planned treatment areas, and a set of methods focused solely on early detection and rapid response. Here we provide an overview of the Everglades multiscale invasive plant monitoring program, highlight benefits and challenges of each program component, and discuss how this program has improved regional invasive plant management.



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Everglades Invasive Plant Generalized Random
Tessellation Stratified Monitoring Design



Tegus



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Monitor Lizards



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Goodbye Bobby Hill



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2012 Partner of the Year

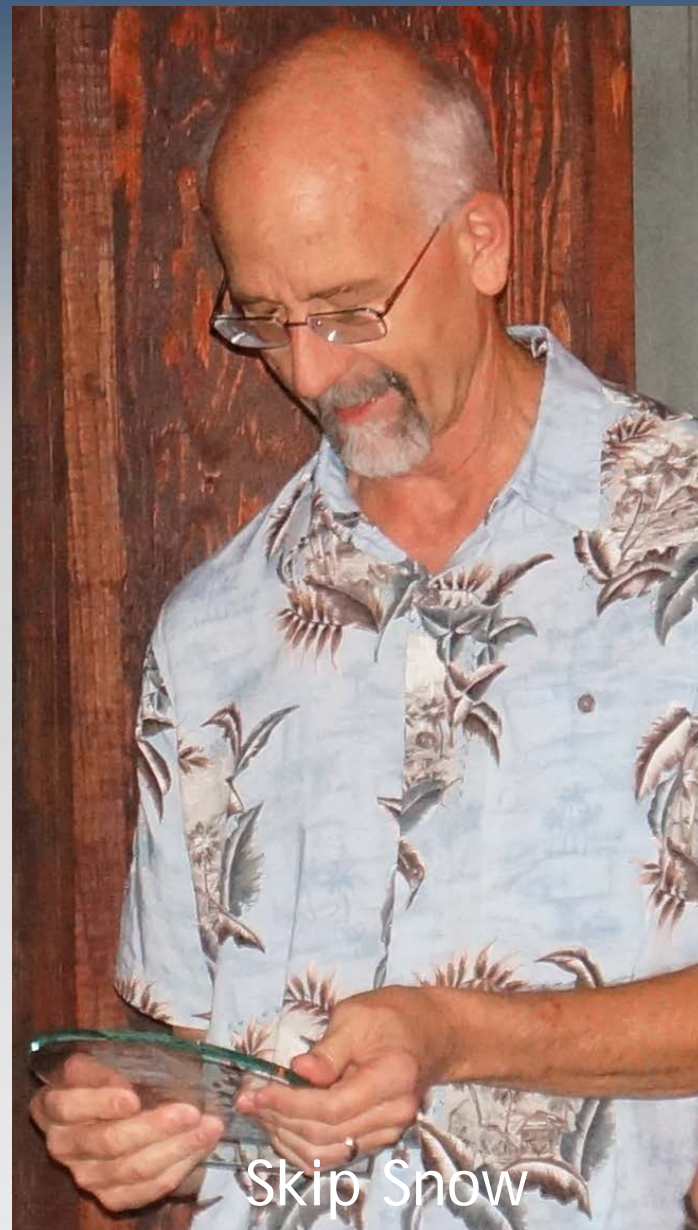
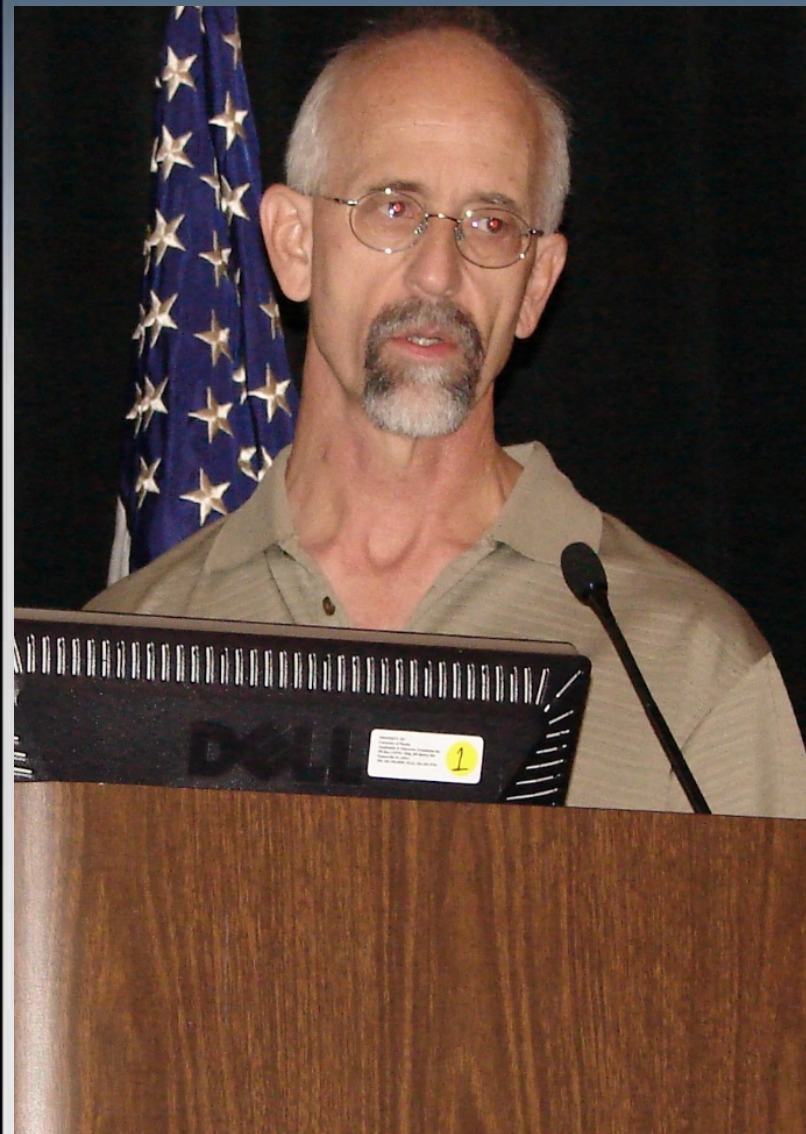


LeRoy Rogers



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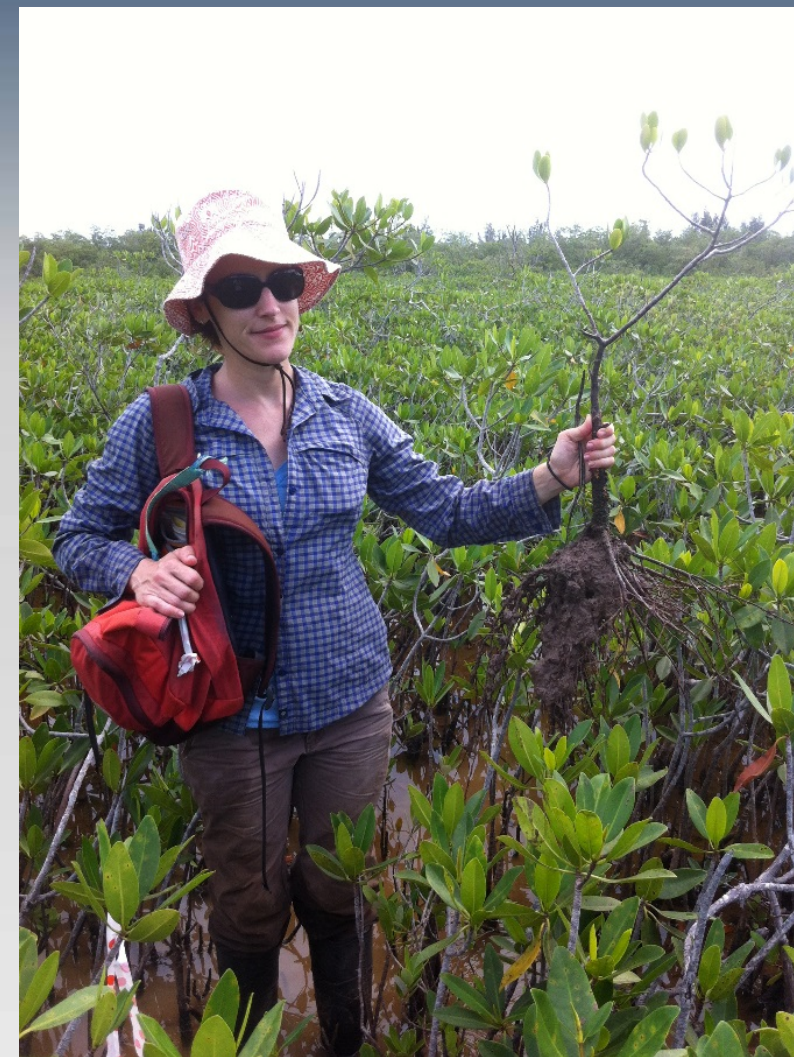
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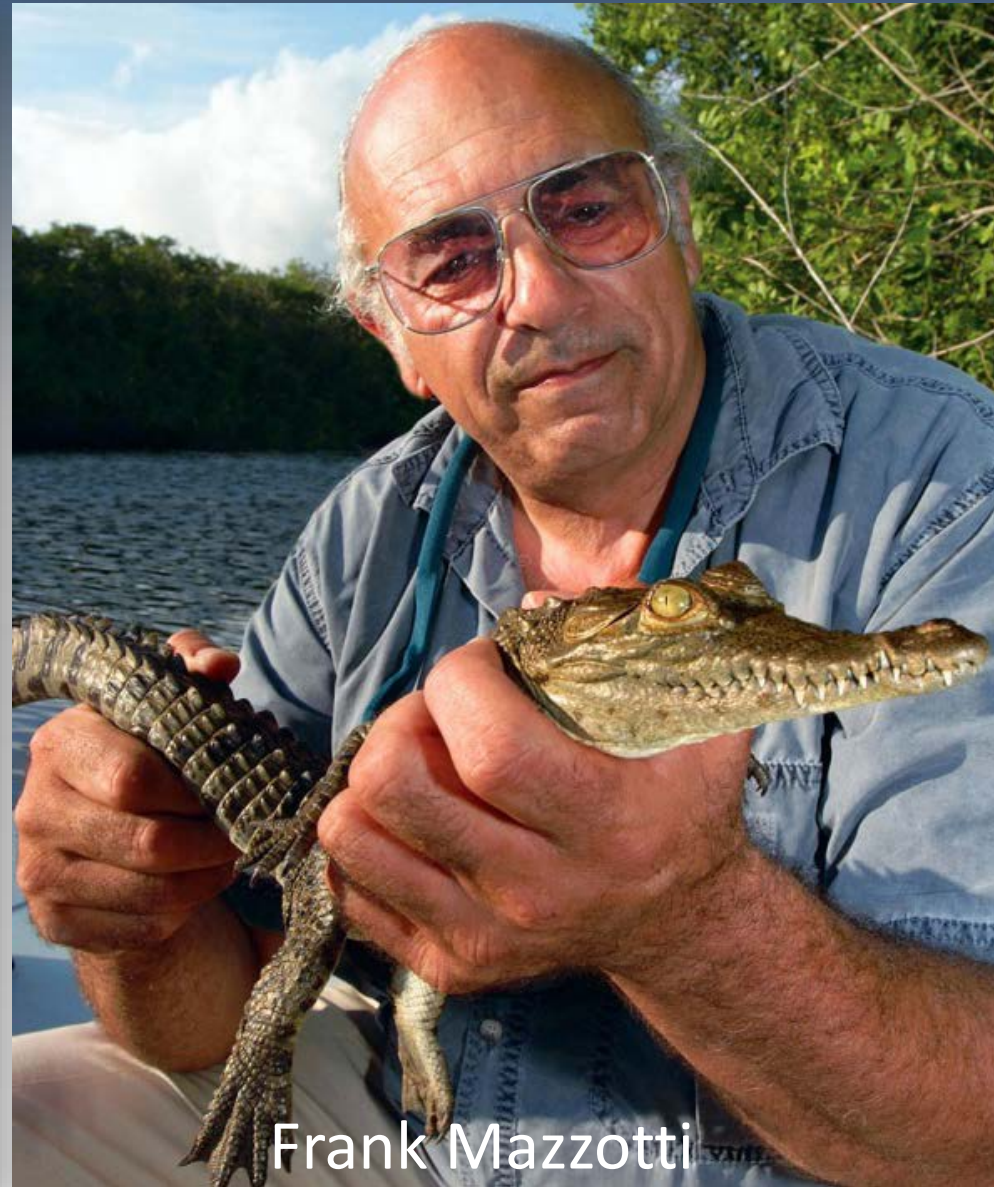
Jennifer Ketterlin Eckles



2016 Partners of the Year

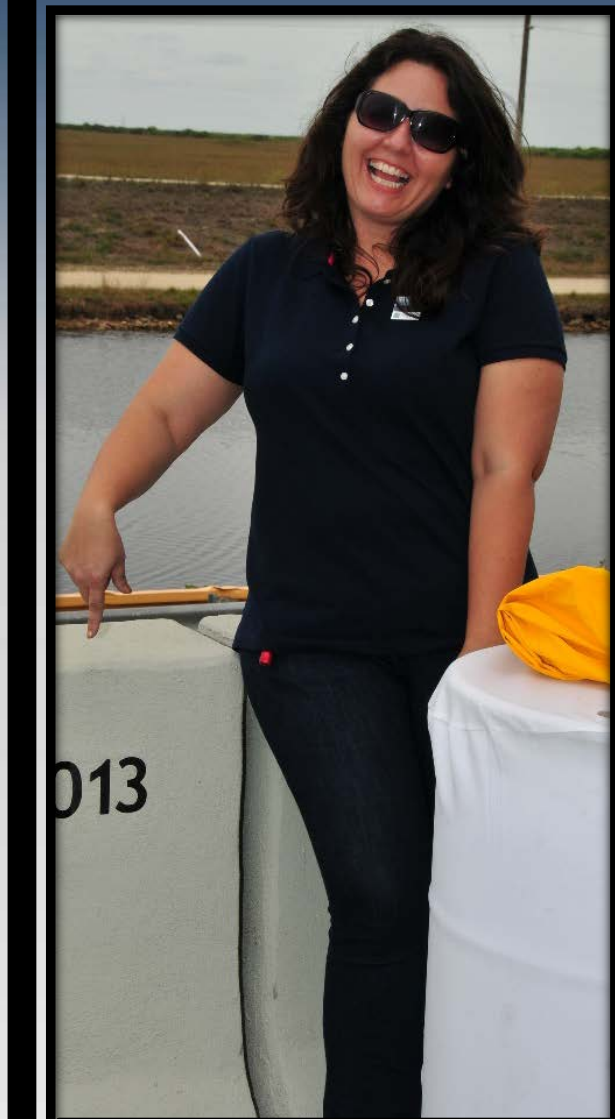


Rebecca Harvey

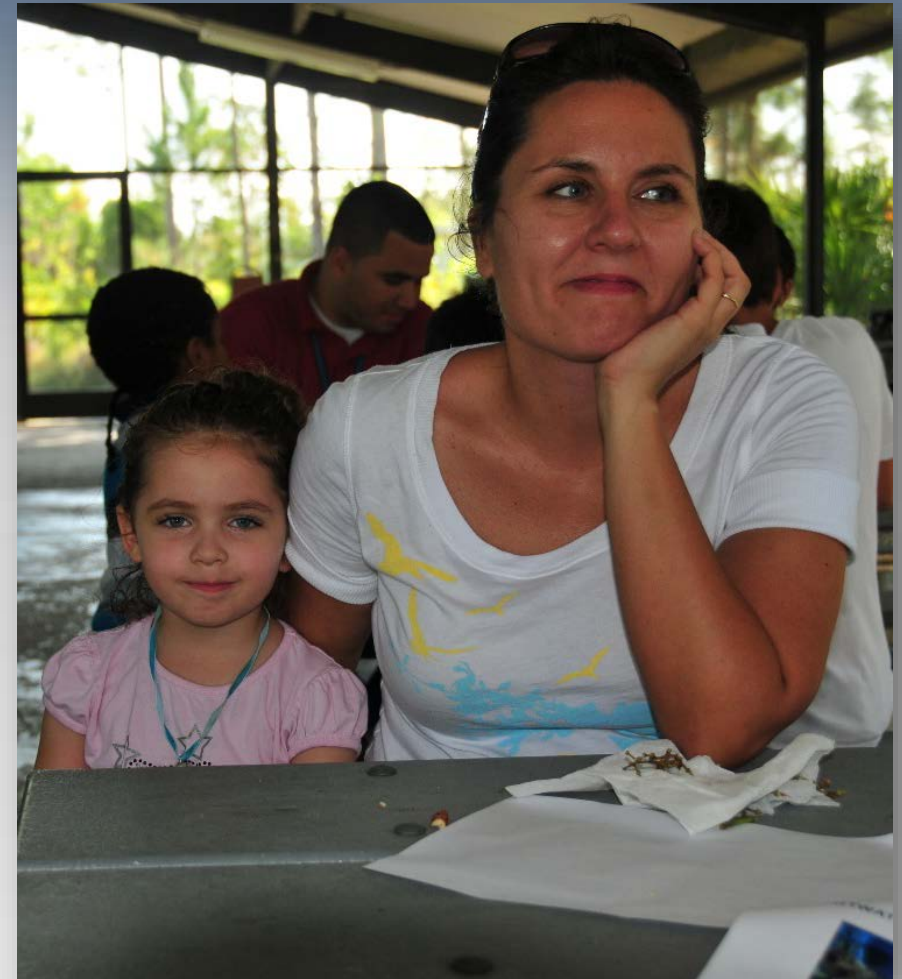


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2/23/2019 Shark Valley



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Thank You



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