

“Natives for Your Neighborhood Why Planting Local Matters”

Gardening for Life: Tropical Short Course
January 20, 2022



International Policy Lead

George D. Gann
www.regionalconservation.org
www.ser.org



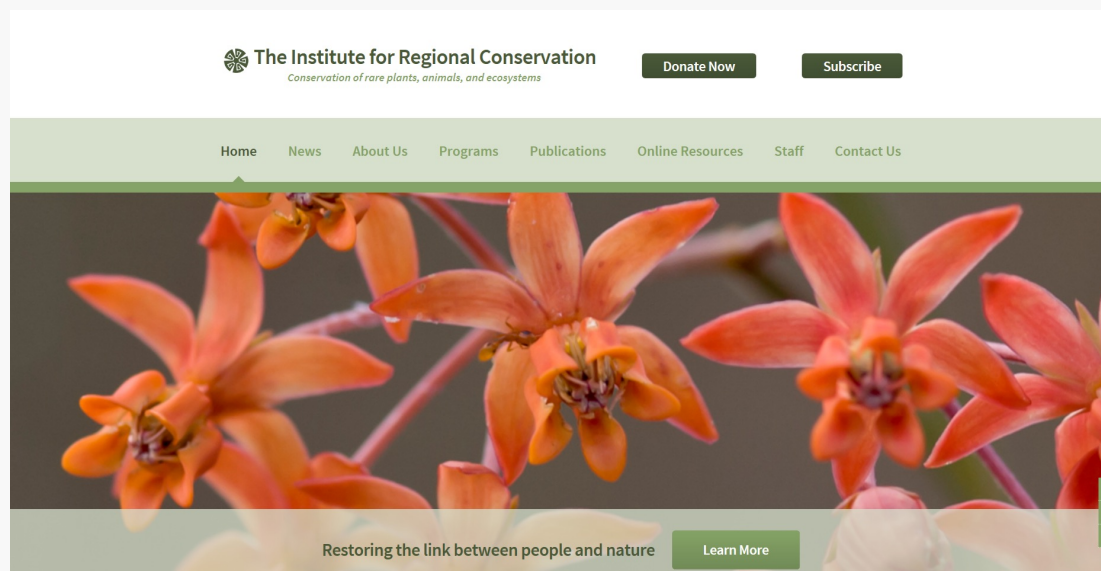
Chief Conservation Strategist

Acknowledgements

- **Barbara Hadsell** for the invitation and coordination.
- **Barbara Hadsell, Reina Snyder, Patricia Binder, Kimberlee Duke Pompeo, and Jerry Lower** for collaboration on publication projects.
- **All the IRC folks**, past and present, and all our **funders** and **conservation partners**.
- **Photographers**, including Roger Hammer, Keith Bradley, Shirley Denton, James Johnson and many others.

Outline

- 1) IRC's Program
- 2) South Florida Conservation Context
- 3) The Floristic Inventory of South Florida
- 4) Global Change
- 5) Being Restorative: The Key to our Future
- 6) Using NFYN to Make a Difference



IRC aims to protect, restore, and manage all biodiversity on a regional basis, and to **prevent local extinctions of native plants, animals and ecosystems**. All conservation is ultimately local. **2022 was our 38th Year**. Staff of 6, 13 Associates and 7 Board Members.

Floristic and faunistic inventories

Rare species research

Ecological restoration design and implementation

Educational training and workshops

Online tools and resources

International policy

Some IRC Resources

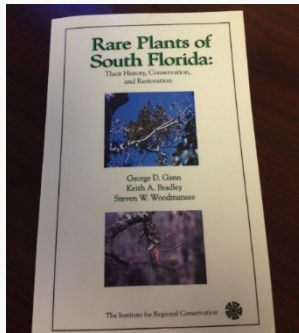


Natives For Your Neighborhood

Conservation of rare plants, animals, and ecosystems

Donate Now

Subscribe



South
Florida



The Floristic Inventory of South Florida

Conservation of rare plants, animals, and ecosystems

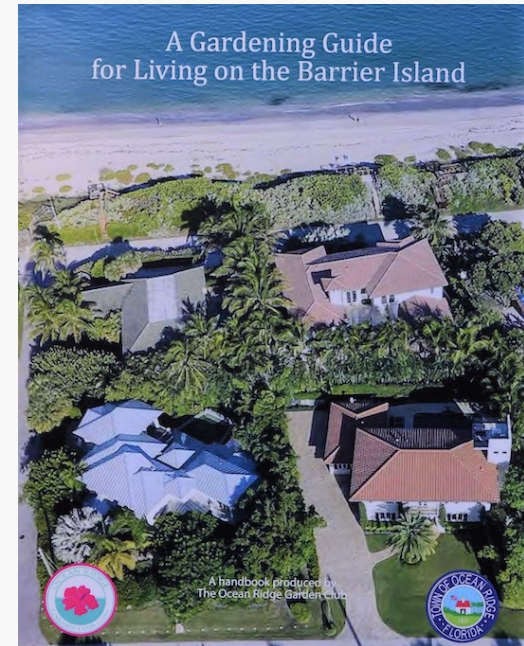
Plantas de la Isla de
Plants of the Island of **Puerto Rico**

Un servicio para la conservación de flora / A conservation service for the flora

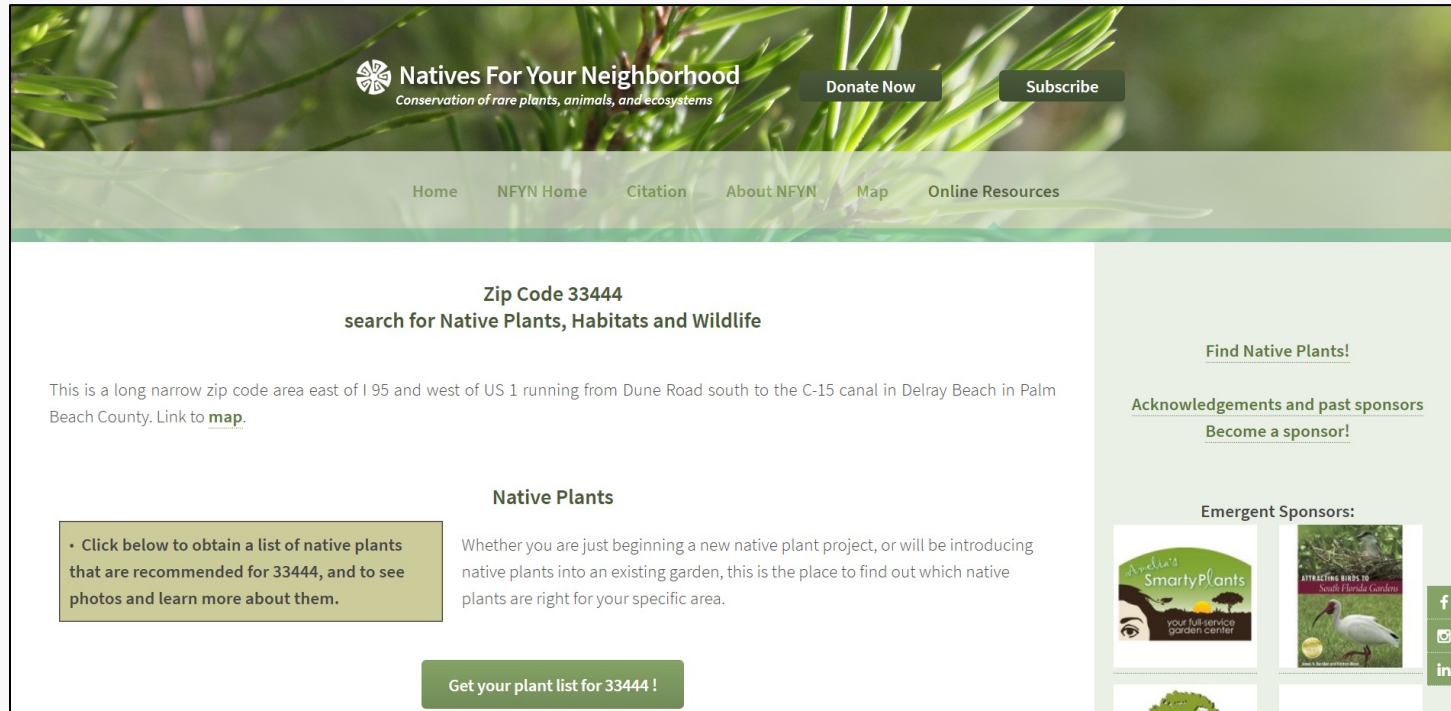


The Institute for Regional Conservation

**A Gardening Guide
for Living on the Barrier Island**



Online Resources: >1 million page views per year
NFYN 643,000 (2021)



The screenshot shows the website for "Natives For Your Neighborhood" with the tagline "Conservation of rare plants, animals, and ecosystems". The header includes navigation links: Home, NFYN Home, Citation, About NFYN, Map, and Online Resources. There are also "Donate Now" and "Subscribe" buttons. The main content area is titled "Zip Code 33444 search for Native Plants, Habitats and Wildlife". It describes a narrow zip code area in Delray Beach, Palm Beach County, and provides a link to a map. A section titled "Native Plants" explains that the page is for finding native plants for a specific area. A call to action button says "Get your plant list for 33444 !". On the right sidebar, there are links for "Find Native Plants!", "Acknowledgements and past sponsors", "Become a sponsor!", and "Emergent Sponsors:". The sidebar also features two book covers: "SmartyPlants" and "Attracting Birds to South Florida Gardens". Social media icons for Facebook, Instagram, and LinkedIn are visible at the bottom right.

Natives For Your Neighborhood
Conservation of rare plants, animals, and ecosystems

[Donate Now](#) [Subscribe](#)

[Home](#) [NFYN Home](#) [Citation](#) [About NFYN](#) [Map](#) [Online Resources](#)

Zip Code 33444
search for Native Plants, Habitats and Wildlife

This is a long narrow zip code area east of I 95 and west of US 1 running from Dune Road south to the C-15 canal in Delray Beach in Palm Beach County. Link to [map](#).

Native Plants

• Click below to obtain a list of native plants that are recommended for 33444, and to see photos and learn more about them.

Whether you are just beginning a new native plant project, or will be introducing native plants into an existing garden, this is the place to find out which native plants are right for your specific area.

[Get your plant list for 33444 !](#)

[Find Native Plants!](#)

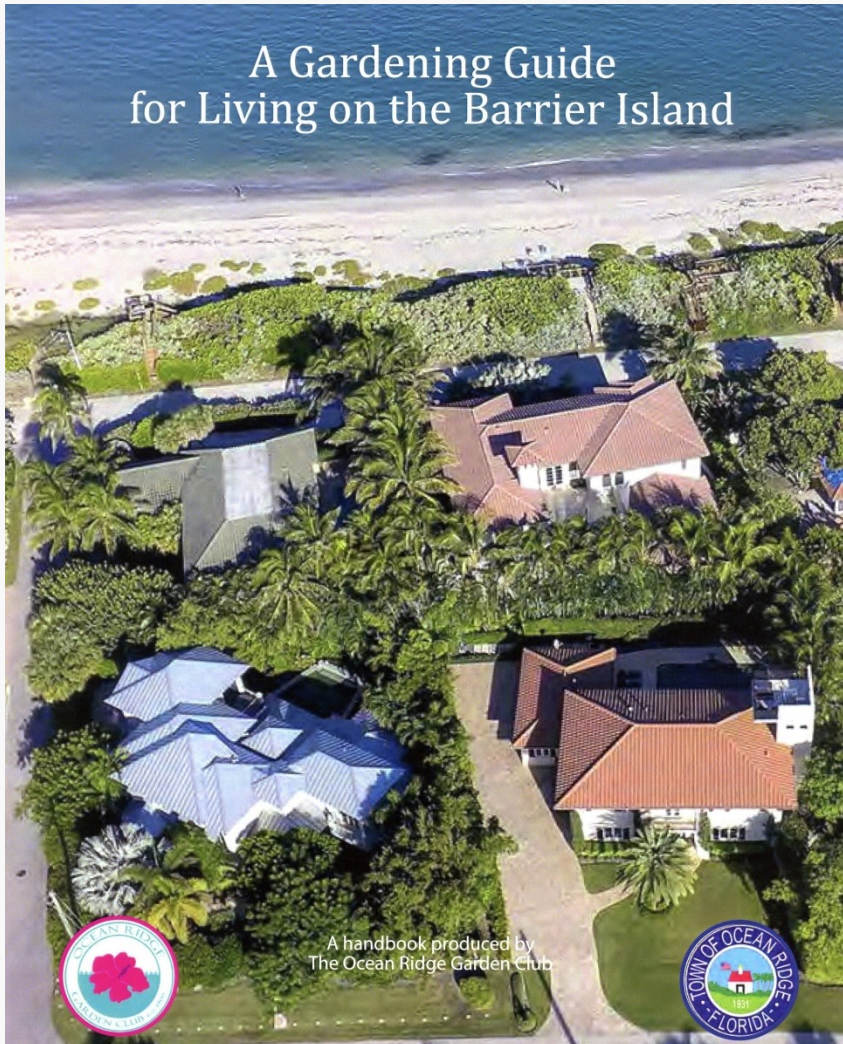
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your full-service garden center

[Attracting Birds to South Florida Gardens](#)

[f](#) [ig](#) [in](#)



GUIDELINES FOR PLANTING A PINE ROCKLAND IN MIAMI-DADE COUNTY, FLORIDA

George D. Gann, Jennifer Possley,
Steven W. Woodmansee



Version 2.0
October 2020

Why plant a pine rockland? Pine rockland is a critically imperiled ecosystem that has been heavily impacted by urban development and agriculture. Found only in South Florida and the Bahama Archipelago, less than 2% of the original pine rocklands remain in Miami-Dade County outside of Everglades National Park. Pine rocklands of the lower Florida Keys have also been heavily impacted by development, sea level rise, and flooding from hurricanes and tropical storms. Creating a pine rockland is not easy or simple, but it can be extremely rewarding. Pine rocklands provide wonderful habitats for native plants and wildlife, including many species of very rare plants, butterflies, bees and other pollinators, and songbirds. If well-planned and managed they can also be aesthetically pleasing.



Photo courtesy of Haniel Pulido Jr.

THE NATIONAL gardener

WINTER 2021

**GROWING
FOOD AND
COMMUNITY
SPIRIT**
-
**THE RAINKEEP -
AN INSPIRED
INNOVATION**
-
**LET'S GET
GROWING!**



native gardening - THE POWERFUL CONSERVATION TOOL OF MANY

By George Gann

▲ Native plant gardening and ecological restoration may be more closely linked than you think. A coastal garden at a dune in Ocean Ridge, Florida, uses local native plants to restore a coastal shrub land. It is both beautiful and restorative. Photo by George Gann.

Looking at the many woes of the world, from COVID-19 to climate change, it is understandable to feel overwhelmed. Yet, we know from ample evidence that the sum of individual actions is as important as those of government, large businesses or big conservation organizations. This is especially true in urban and suburban areas, where our collective individual actions may make the difference between conservation success – or the lack thereof. This need for individual action has never been more urgent, no matter where you live, and is embraced by Plant America with Trees, an

emphasis of National Garden Clubs Inc.

At the international level, there is tremendous work being done to address not one, but three global environmental challenges: countering climate change, preventing the extinction crisis and

providing adequate ecosystem services to meet the needs of a sustainable world. Meeting these challenges requires transformational change; business as usual just won't work. We know that traditional conservation alone, what we think of as "protection" or "preservation," is insufficient to meet these challenges. Instead, we need



▲ Photo by Kimberlee Duke Pompeo

Seagrapes and Biodiversity



A workshop contributing to understanding the issues behind seagrape trimming, ecological restoration, and coastal conservation



December 9, 2020

Ecological Restoration and Community Outreach



Restoring the Gold Coast

Major Sponsors



Sponsors



ERIN L. DEADY, P.A.



Collaborators



Conference Home

Registration

Abstracts

Schedule

Photo Gallery

Info for Presenters

Meals/Transport/Lod...

Organizers

Conference Map

Connect to Protect
Network

2018 PINE ROCKLAND WORKING GROUP CONFERENCE: EXPANDING THE FOOTPRINT

FEATURING FIU'S TROPICAL BOTANY SYMPOSIUM
& FAIRCHILD'S CONNECT TO PROTECT NETWORK

October 30 - November 4, 2018

Meeting at Fairchild Tropical Botanic Garden

You're Invited!

Pine Rockland Business Plan Team Meeting and Workshop
Thursday October 17th, 2019 from 10 AM- 3 PM

The Florida Room at Zoo Miami
12400SW 152nd St, Miami, FL 33177

*Light snacks and refreshments will be provided. Lunch will be available for purchase at nearby Zoo Miami restaurants.
Be sure to bring a reusable water bottle.*



A Pine Rockland Business Plan is being created for conservation of the pine rockland ecosystem in Miami-Dade County and the Florida Keys. This plan will augment and support existing conservation plans and strategies in a way that quantifies and prioritizes the conservation actions that need to be taken, and the costs to improve pine rockland extent and condition throughout its range.

We'll need some help from folks like you from the greater pine rockland community to develop this plan. Some topics to be covered at this initial meeting will include business planning goals, approach, timeline, and opportunities for collaboration on data needs and acquisition, as well as site-by-site condition scoring.

We hope you can join us as we begin this endeavor!

Please Contact Sarah Martin at sarah.martin@tnc.org or call 561-744-6668 ext. 102 For More Information on Attending



We Must Aspire to More!



Global Uptake of International Principles and Standards for the Practice of Ecological Restoration



Launched in September 2019

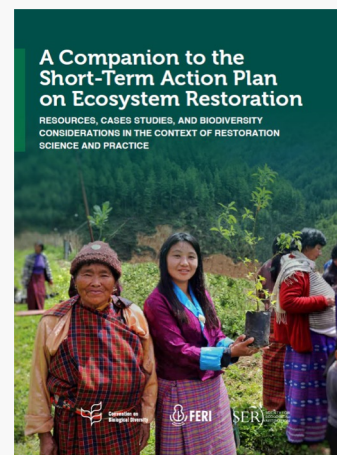
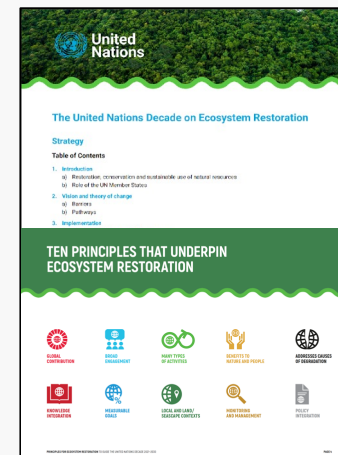
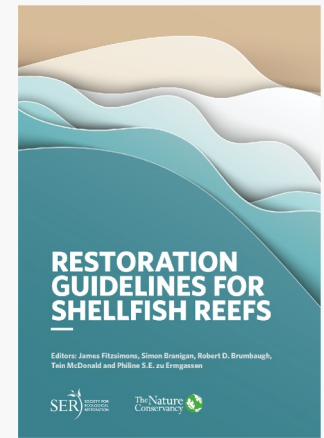
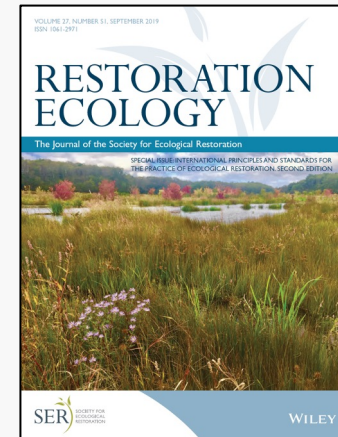
Incorporated into global restoration guidance

Cited as a key document in the official Strategy of the United Nations Decade on Ecosystem Restoration and the Decade Principles

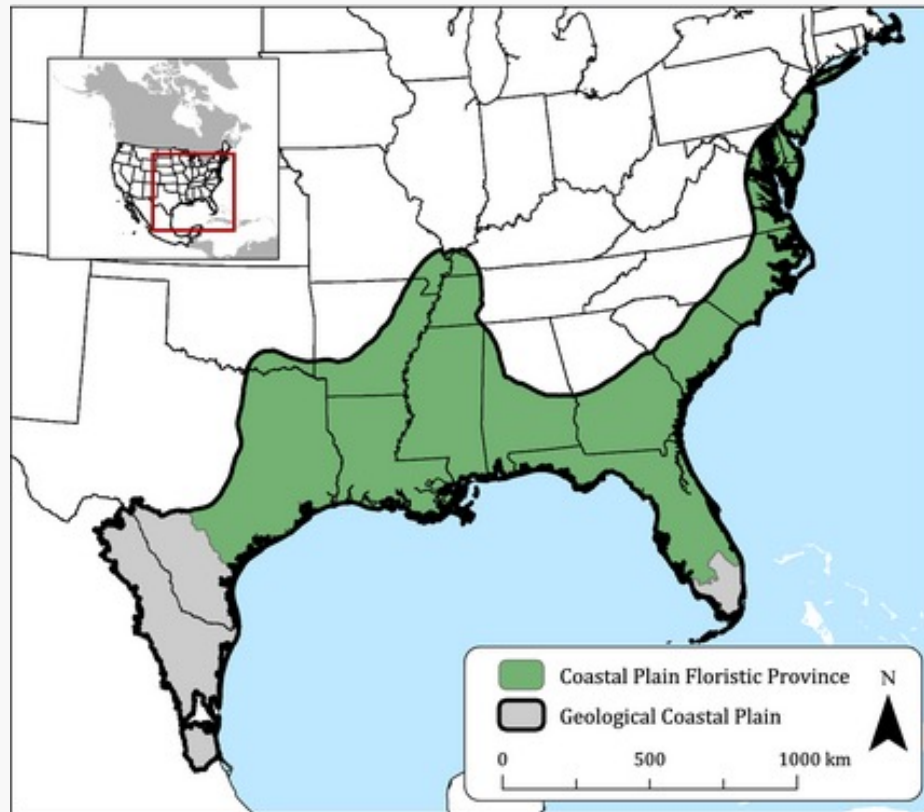
Is the most downloaded manuscript in the history of journal Restoration Ecology (>37,000 downloads in 2+ years)

Cited >270 times (Dimensions)

www.ser.org/standards, or <https://doi.org/10.1111/rec.13035>



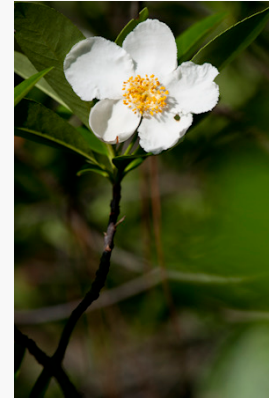
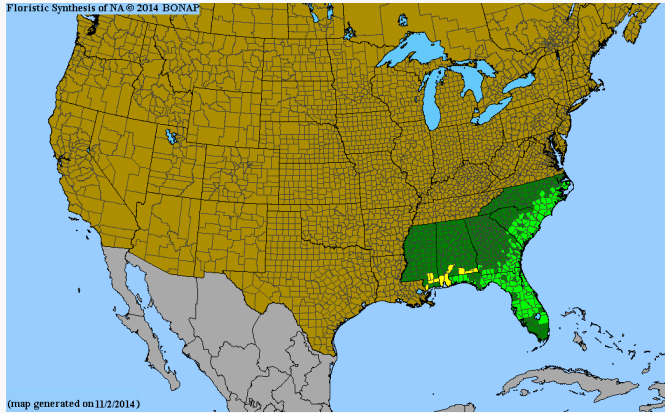
South Florida Conservation Context



North American Coastal Plain Global Biodiversity Hotspot

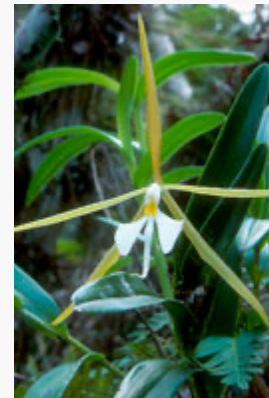
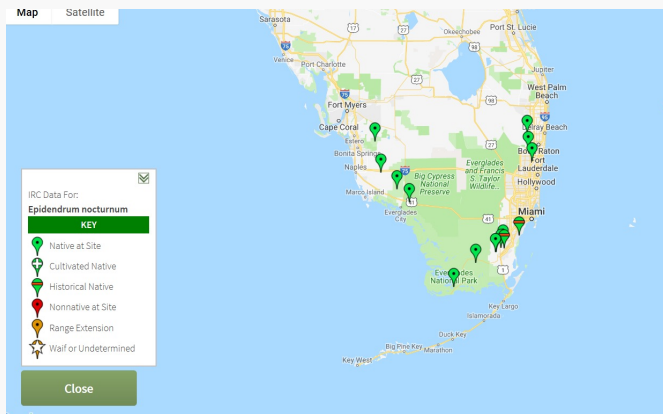
Noss et al. 2014

South & North Range Limits in South Florida



K. Bradley

Gordonia lasianthus (BONAP.org)



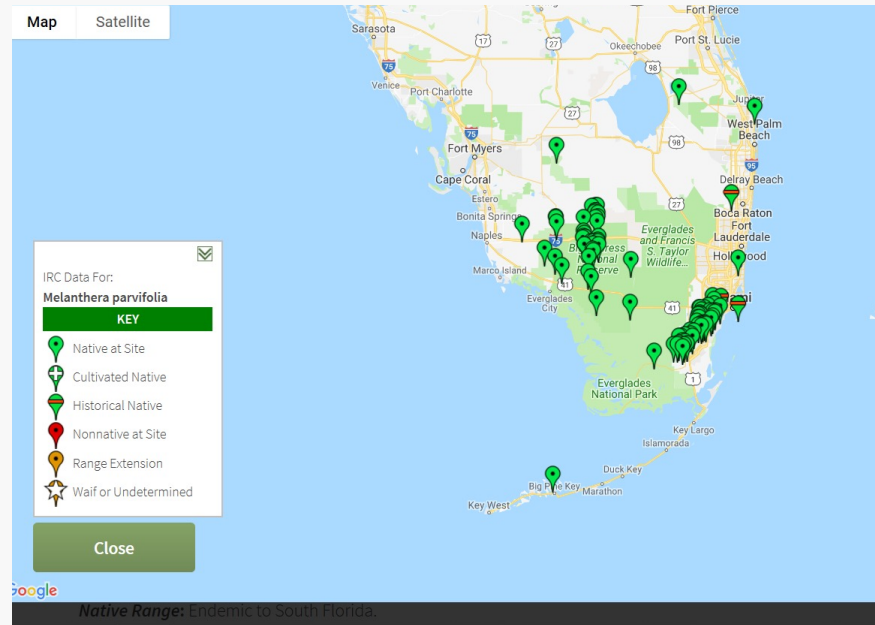
R. Hammer

Epidendrum nocturnum (IRC)

Melanthera parvifolia
Pineland blackanthers



J. Johnson



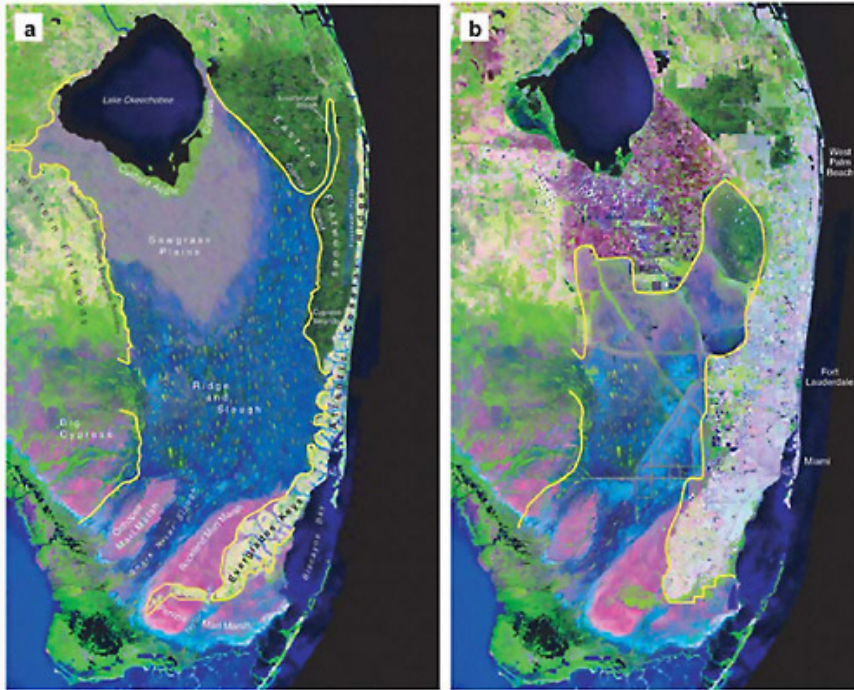
South Florida and Florida
Endemics,
>110 taxa in South Florida, of
which ~50 have been recorded
in Palm Beach County.

Local Biodiversity Matters



Species of Management Concern in Everglades National Park, hardwood hammocks.

Changes to Native Ecosystems



- Everglades transformation
- Coastal development & erosion
- Destruction of critical upland habitat in the interior

>50% of region in conservation; United Nations Convention on Biological Diversity (CBD) 2020 Protected Areas Target = 17%. So everything should be great. But its not.



Proportionality

The World Now Protects 15% of Its Land, but Crucial Biodiversity Zones Left Out

■ Sat, 03 Sep 2016

Close to 15% of the Earth's land and 10% of its territorial waters are covered by national parks and other protected areas; coverage of marine protected areas increased by almost 300% in the last decade; and eight in 10 key biodiversity areas worldwide lack complete protection.

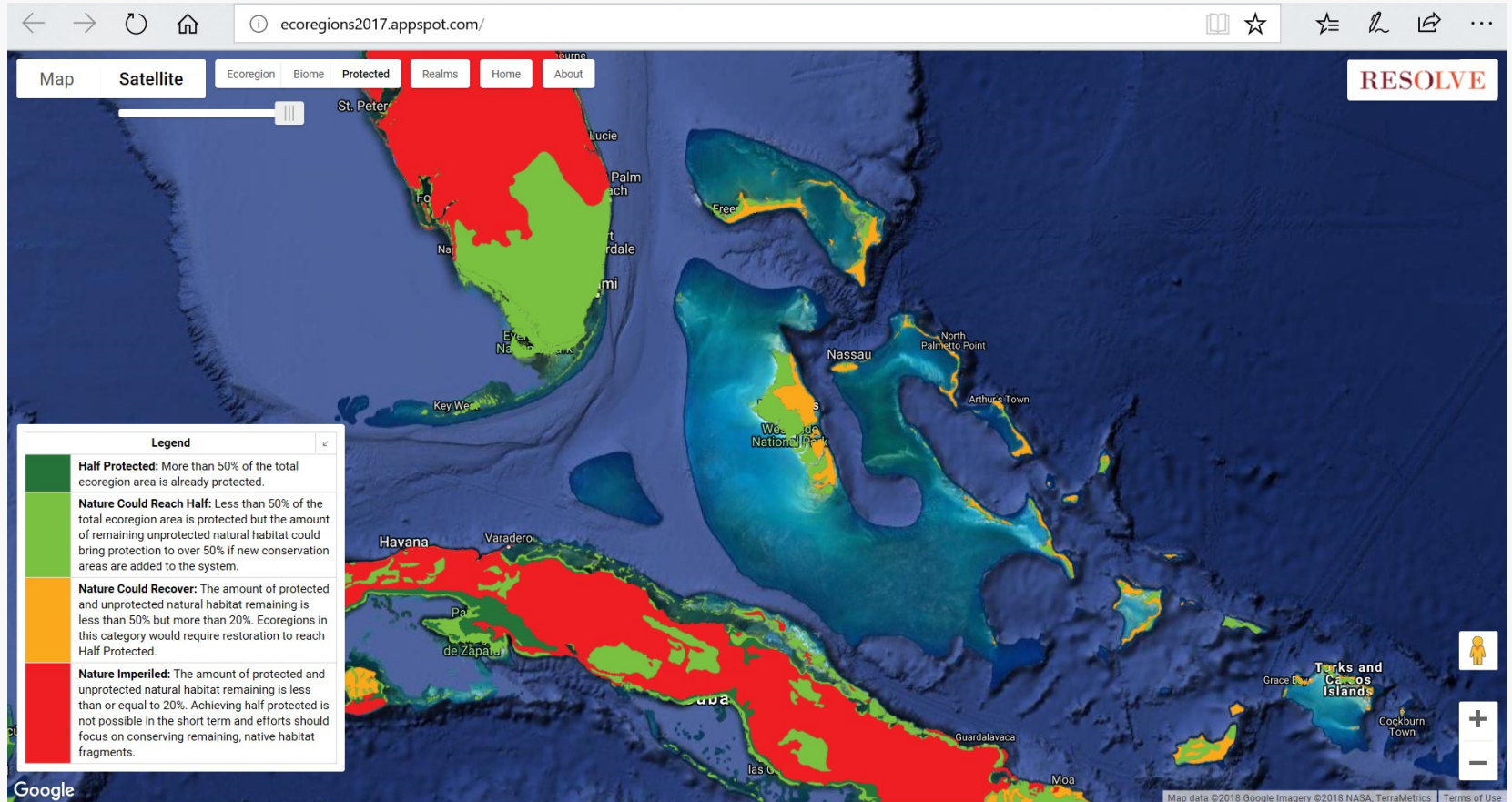


With 14.7 % of the Earth's land and 10 % of its territorial waters under protection, the world is on track to meet a major global conservation target, according to a new report by UN Environment and the International Union for Conservation of Nature (IUCN), launched today at the IUCN World Conservation Congress in Hawai'i.

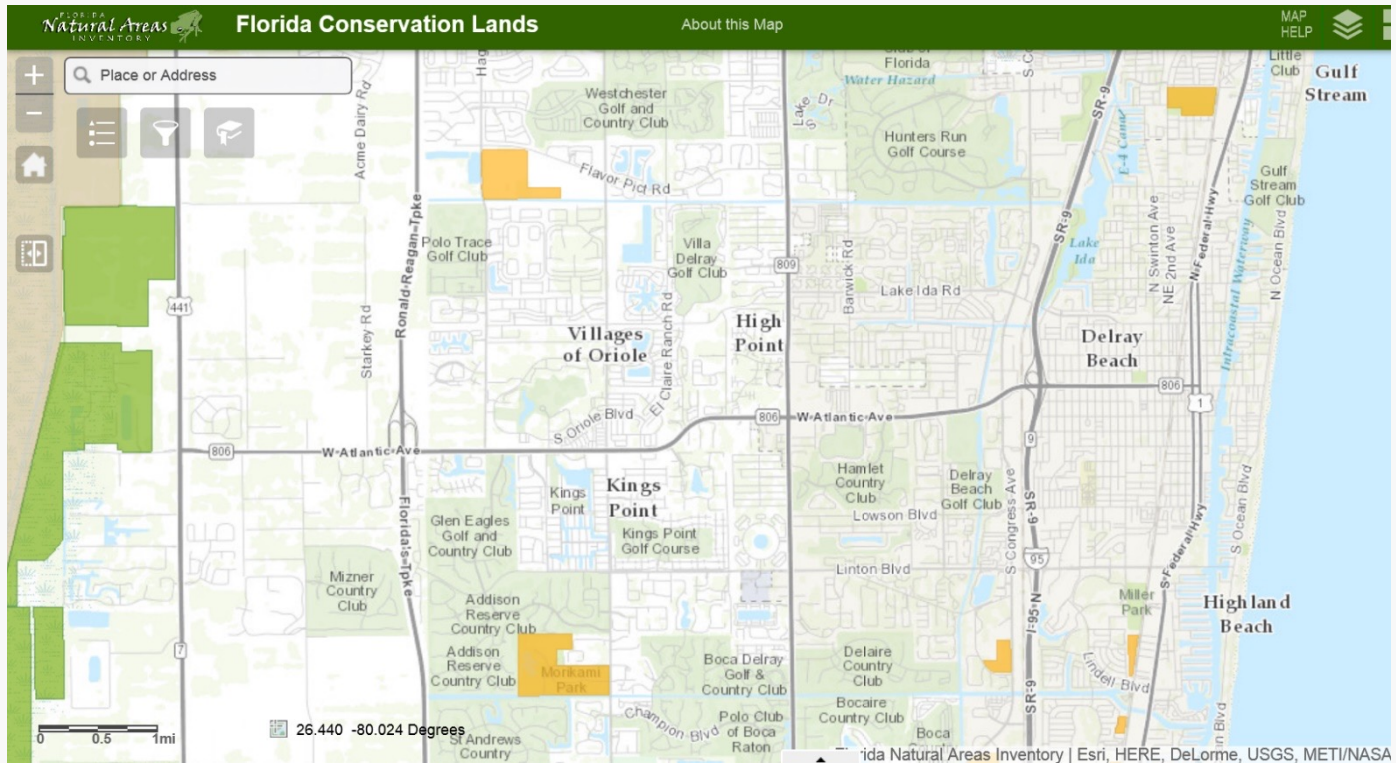
IUCN, 2016

Nature Needs Half

846 Ecoregions, Protect 50% by 2050



Our Local Reality



Conservation areas in and around Delray Beach.

Fragmentation leads to inexorable loss

no species are lost from either pool. As fragmentation proceeds we eventually reach some critical level of reduction and fragmentation where species begin to die out. The susceptible pool loses species earlier and loses more species in total than does the resistant pool. When the resistant pool begins to lose species, it loses them very rapidly, because by this time the fragments are small and there is little habitat left.

Insularization causes extinctions over and above those expected through reduction in the total area of habitat. More species persist at equilibrium if the remaining habitat is concentrated into a single large patch rather than distributed over many small fragments (Figure 4). We stress that the results in Figure 4 are equilibrium patterns; depending on the relative time scales of habitat destruction and species'

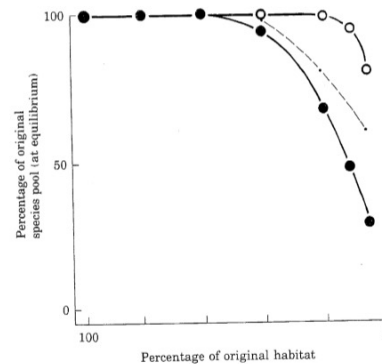


FIGURE 4. The number of species remaining in each species pool as fragmentation proceeds. Closed circles show the pool of species with large area requirements and low vagility. Open circles show the species with less stringent area requirements. The small dots connected by the dashed line depict the proportion of the first pool that would be present when the habitat is minimally fragmented. (From McLellan et al., 1986.)

Wilcove 1986

Some species and groups go faster.



© Holly L. Salvato



© Holly L. Salvato



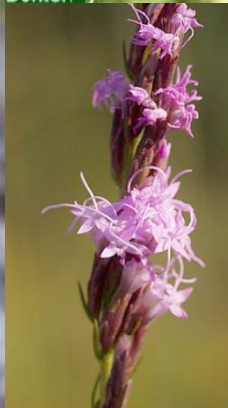
© Holly L. Salvato



© Holly L. Salvato



Some go slower.



Plant and Animal Biodiversity are Linked



Cicada

Images by Mary Trulio Fesmire



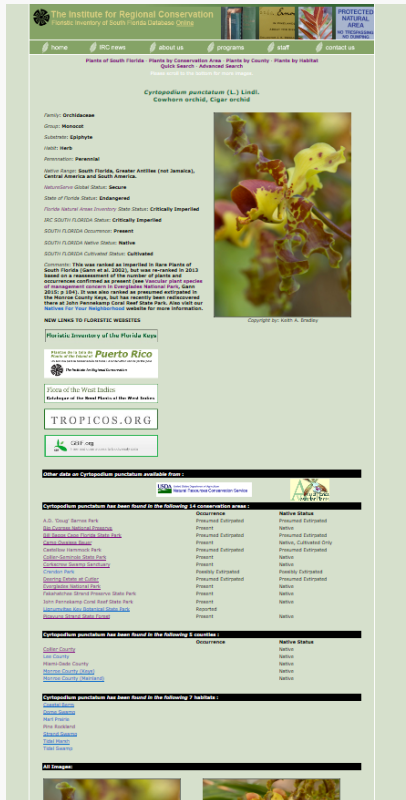
Ceraunus Blue

Biodiversity, or biological diversity, is the diversity of life at the ecosystem, species, and even genetic level.

All biodiversity is important because of its **intrinsic value**, as well as its role is providing **ecosystem services** essential to human survival and wellbeing.

The Floristic Inventory of South Florida

The Floristic Inventory of South Florida 1995 – present

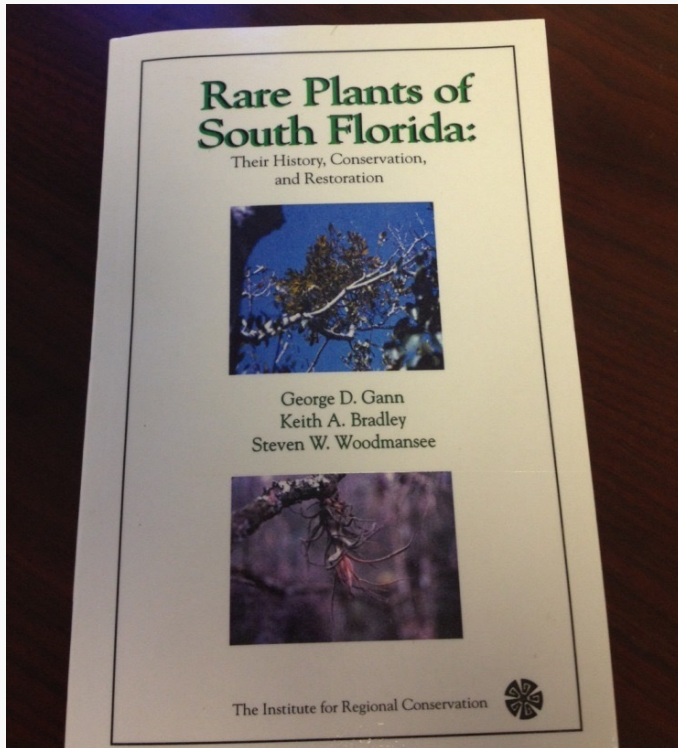


Castellow Hammock Park							
County: Miami-Dade County Size: 114.79 acres Latitude: 25.59972° Longitude: -80.45528° Section: 17 Township: 36 Range: 39 Notes: Historically spelled as Castell's Hammock or Castell's Hammock. For a map and more information click here . Managing Agency: Miami-Dade County Department of Parks and Recreation							
There are 379 taxa reported for Castellow Hammock Park							
Group By Family: <input type="checkbox"/> Show Results							
Scientific Name:	Occurrence:	Native Status:	Introduced Status:	Invasive Status:	Cultivated Status:	Reference:	Voucher:
Acanthaceae							
Barleria vitida	Present	Not Native, Naturalized	Introduced	Potentially Invasive		2772	2772
Ruellia strepera	Present	Not Native, Naturalized	Introduced	Ruderal		14737	
Ruellia strepera	Present	Not Native, Naturalized	Introduced	Potentially Invasive		14737	
Ruellia strepera	Present	Native	Not Introduced	Native		14737	
Amaranthaceae							
Achyrocline saturei var. saturei	Present	Not Native, Naturalized	Introduced	Ruderal		14737	
Amaranthus spinosus	Present	Not Native, Naturalized	Introduced	Ruderal		14737	
Anacardiaceae							
Mangifera indica	Present	Not Native, Naturalized	Introduced	Invasive		14737	
Mangifera indica	Present	Native	Not Introduced	Native		14737	
Rhus copallinum	Present	Native	Not Introduced	Native		14737	
Schinus molle	Present	Not Native, Naturalized	Introduced	Invasive		14737	
Toxicodendron radicans	Present	Native	Not Introduced	Native		14737	
Anemniaceae							
Anemniaceae	Present	Native	Not Introduced	Native		14737	
Annonaceae							
Annona reticulata	Present	Native	Not Introduced	Native		14737	
Apiaceae							
Cyclospermum leptophyllum	Present	Not Native, Naturalized	Introduced	Ruderal		14737	
Apocynaceae							
Asclepias speciosa	Present	Native	Not Introduced	Native		14737	
Asclepias speciosa	Present	Not Native, Naturalized	Introduced	Invasive		14737	
Asclepias speciosa	Present	Native	Not Introduced	Native		14737	
Catharanthus roseus	Present	Not Native, Naturalized	Introduced	Ruderal		14737	
Echium umbellatum	Present	Native	Not Introduced	Native		14737	
Hemerocallis flava	Present	Native	Not Introduced	Native		14737	
Aquifoliaceae							
Ilex cassine	Present	Native	Not Introduced	Native		14737	
Ilex cassine	Present	Native	Not Introduced	Native		14737	
Araceae							
Epipremnum pinnatum	Present	Not Native, Cultivated Only	Not Introduced			14737	
Epipremnum pinnatum cv. Aurum	Present	Not Native, Naturalized	Introduced	Invasive		14737	
Monstera deliciosa	Present	Not Native, Cultivated Only	Not Introduced	Cultivated Only	Cultivated	14737	
Monstera deliciosa	Present	Not Native, Naturalized	Introduced	Invasive		14737	

SOME QUESTIONS

- Are very small, fragmented conservation areas important?
- How well does the current conservation system protect rare vascular plants?
- Have there been regional extirpations or extinctions?

2002



Bulbophyllum pachyrachis

1 in 4 native plant species were critically imperiled or extirpated.

About 8% were reported as presumed or possibly extirpated or extinct (now 6%).

Four South Florida endemic taxa reported as extinct in Knapp et al. (2020) were documented by IRC in 2002.

Flora of Broward County (2019 numbers)

731 native taxa
10-20% are likely extirpated already

Working list of 150+ taxa being reviewed

Extirpations in South Florida
(2002-present)
6%, slight increase expected

Extirpations in Florida Keys
(2007-present)
13%, likely to go up



Bidens laevis



Pleopeltis astrolepis



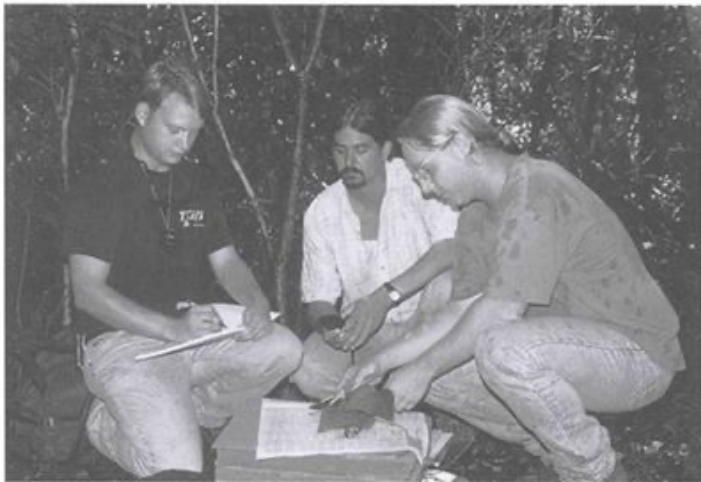
Calopogon multiflorus



Carya floridana

Recognition of our Work

Afield celebrates...
Orion



80 Species To Be Added to Florida's
Endangered Species List

Orion Magazine 1996

face endangerment in the Florida Everglades



Washington Post, March 2015

Global Change



World Wildlife Fund 2014

Science 'Hyperalarming' study shows massive insect loss



The emerald anole, one of the main insect eaters in the Luquillo forest of Puerto Rico. (Brad Lister/PNAS)

Washington Post 2018

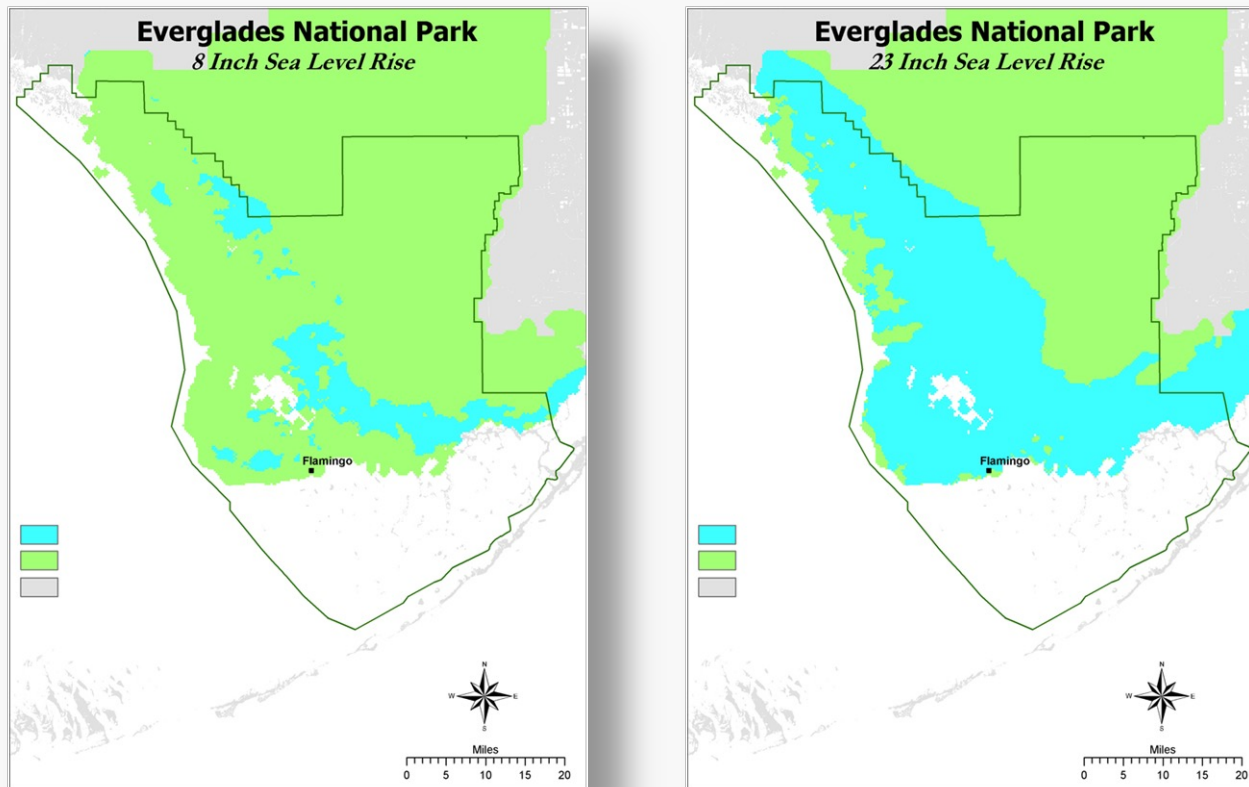
The Newsfeed on Biodiversity

Most comprehensive assessment of its kind;
Current global response insufficient;
1,000,000 species threatened with extinction;
'Transformative changes' needed to restore
and protect nature;
Opposition from vested interests can be
overcome for public good



Intergovernmental Panel on Ecosystem Services and Biodiversity 2019

Sea Level Rise



Everglades National Park scenarios by end of this century from 2007 IPCC projections.

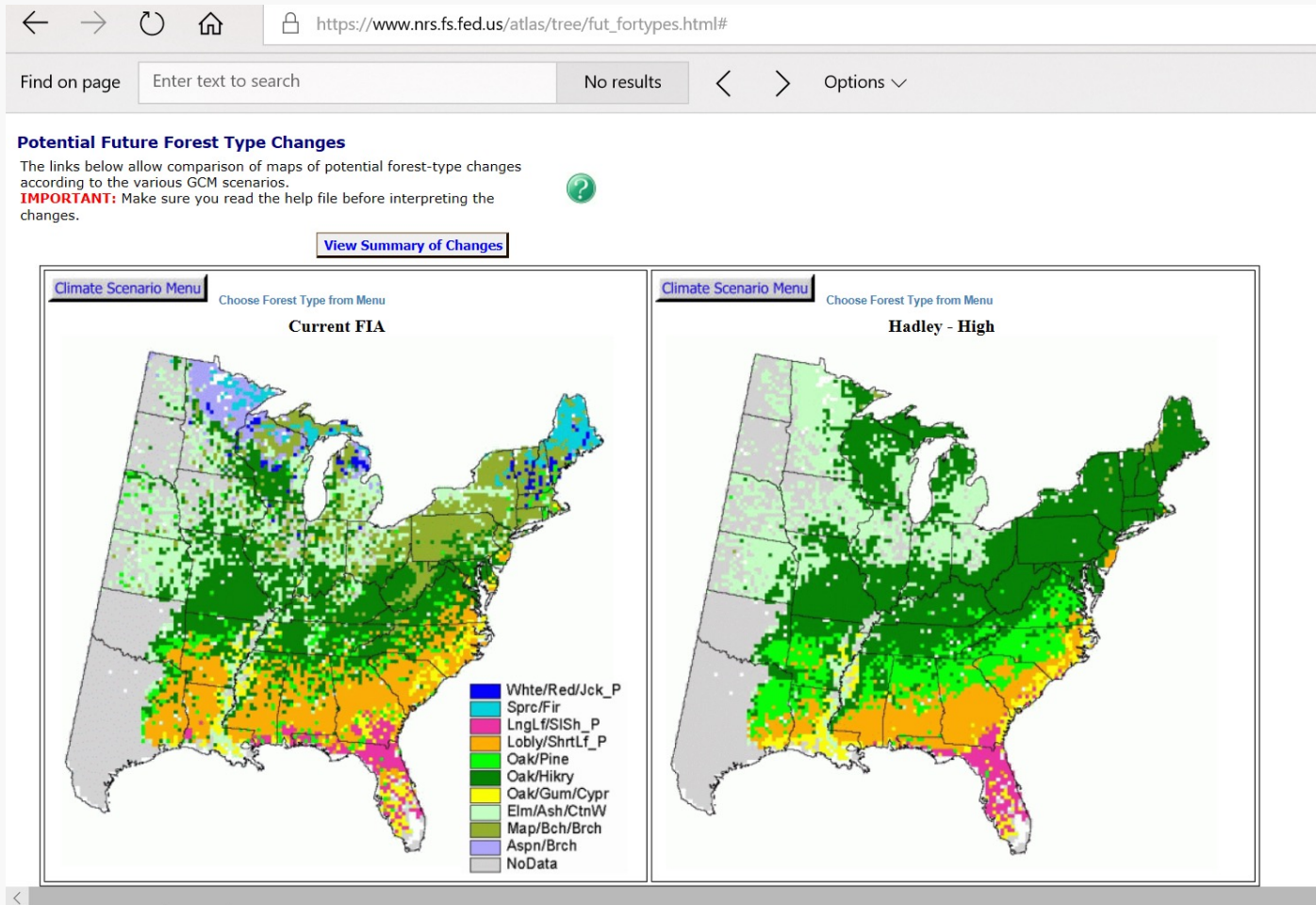
King Tides, West Palm Beach, 2016

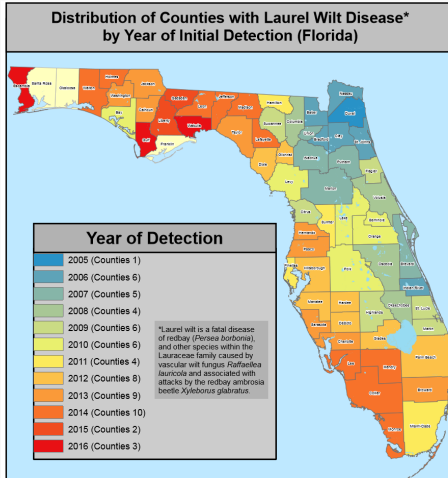


Extreme Storms, Pulse Events, and Ecosystem Reassembly

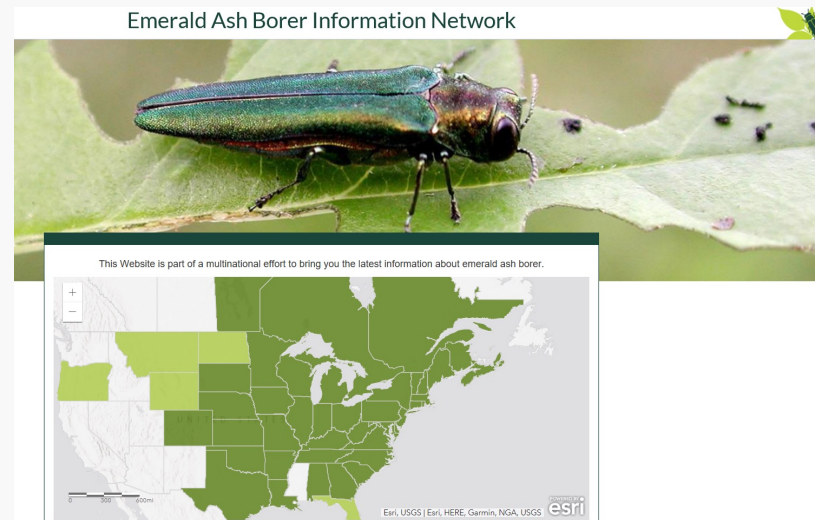


Migration and Ecological Reassembly



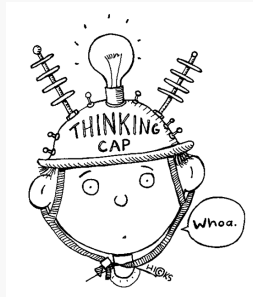


Invading Pests and Diseases



Being Restorative
The Key to Our Future

Thinking, Thinking, Thinking



Page 4, Spring 1987, PALMETTO

Restoration: a Global Perspective

“Particularly hazardous to Florida is the potential for a **global climate change** related to tropical deforestation and the excess burning of fossil fuels. A slight **rise in sea level** could destroy many of our native plant communities...”

Early publishing
1987

“In the United States, and particularly in Florida, preservation has been the basis of the native plant movement. More recently, **restoration** as a conservation alternative has received some attention, although it is certainly not accepted by all.”

“By concentrating on **sustainable development**, rather than preservation, as a goal international conservation movements seem to be moving ahead in terms of meeting the environmental needs of the future.”

George 1985



Trans Amazon Highway, Brazil

Are we in the
extinction prevention business?

Or the biodiversity recovery
business?

How do we actually Save Species?

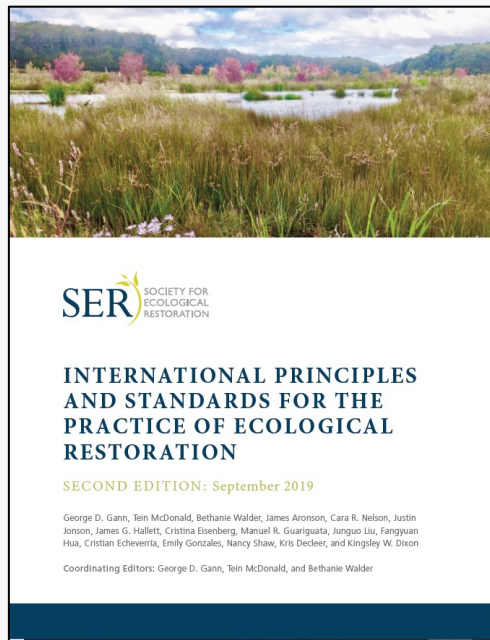
And ourselves?

United Nations Decade on Ecosystem Restoration 2021-2030

“There has never been a more urgent need to restore damaged ecosystems than now”



Progressive Industry Standards



Linking Local and Global Thinking to Achieve Transformative Change

Eight Principles Underpinning Ecological Restoration



1 ENGAGES
STAKEHOLDERS

2

DRAWS ON
MANY TYPES
OF KNOWLEDGE



3 IS INFORMED BY
NATIVE
REFERENCE
ECOSYSTEMS,
WHILE CONSIDERING
ENVIRONMENTAL CHANGE

4

SUPPORTS
ECOSYSTEM
RECOVERY
PROCESSES



5 IS ASSESSED AGAINST
CLEAR GOALS
AND OBJECTIVES
USING MEASURABLE
INDICATORS

6

SEEKS THE
HIGHEST
LEVEL OF
RECOVERY
POSSIBLE



7

GAINS
CUMULATIVE
VALUE
WHEN APPLIED
AT LARGE SCALES

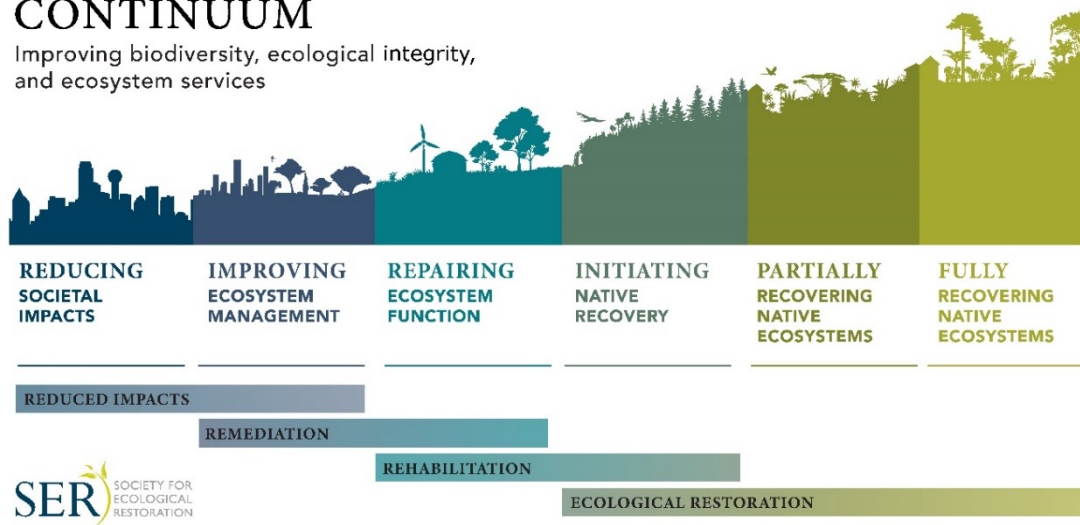


8

IS PART OF A
CONTINUUM
OF RESTORATIVE
ACTIVITIES

THE RESTORATIVE CONTINUUM

Improving biodiversity, ecological integrity,
and ecosystem services



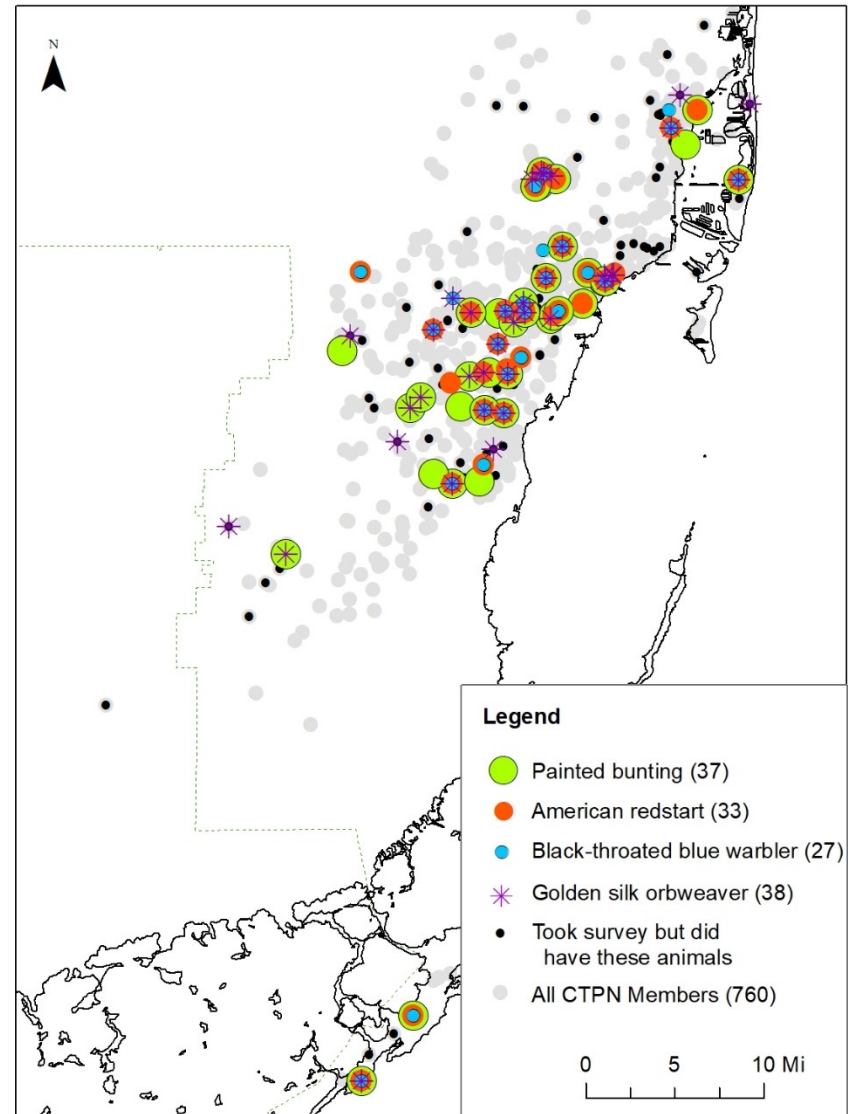
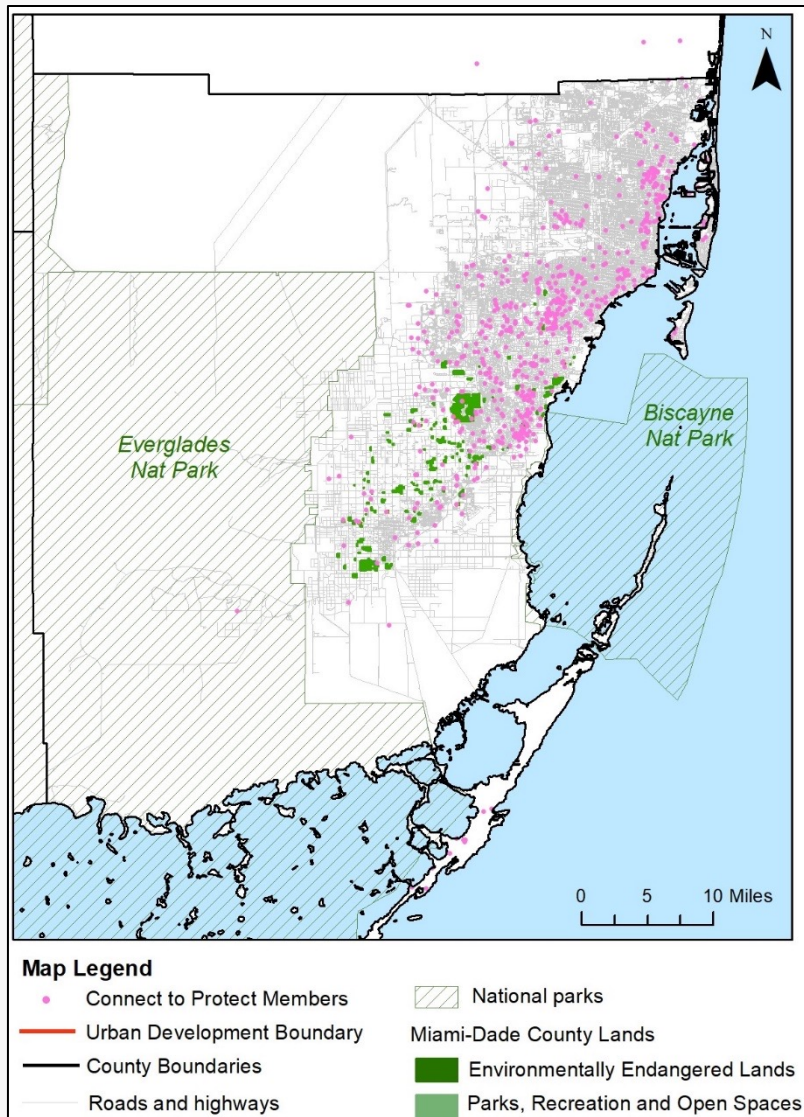
All restorative activities matter, no matter how small. But some activities may not be restorative at all (e.g., some mitigation, afforestation of native savanna).

Impacts of Individual Landscapes

Every garden or landscape project can have beneficial outcomes regardless of size by:

- increasing numbers and population sizes of depleted native species
- increasing connectivity of native ecosystems
- reducing populations of invasive species and other threats
- improving ecosystem functions such as pollination and trophic interactions
- sequestering CO₂eq

Impacts at Landscape Scale



FTBG Connect to Protect Network

Business As Usual Thinking

1. Sustainability is about reducing impact
2. Emphasis is on gray infrastructure, not green infrastructure

Transformative Thinking

1. The baseline is Net Degradation Neutrality (sensu UNCCD)
2. The goal is restorative (e.g., bending the curve, net gain, moving the needle, ecological uplift) with regard to biodiversity and ecosystem services.

Using NFYN to Make A Difference

Sources of Native Plant Data



Florida Native Plant Society

Who We Are ▾ What We Do ▾ Native Plants ▾ Resources ▾ Events ▾ Chapters ▾

Join / Support ▾

Home > Native Plants

Native Plants

Learn about native plants!

Click on the links to learn more.

- 
[Natives for Your Area](#)
 Get a list of species appropriate for landscaping in your area. You can explore the entire list, identify species that thrive in specific conditions (salt tolerance, water use, etc.), that provide habitat for butterflies and wildlife, and that are native to your particular area. Descriptions and photographs are provided.
 - 
[Natives for landscaping and restoration: Plants](#)
 - 
[Attracting butterflies and native pollinators: Butterflies and Pollinators](#)
 - 
[Attracting Wildlife: Wildlife](#)
- 
[Native Plant Communities](#)
 Native plants exist naturally in specific habitats. This page provides general information and photographs of the major natural communities that support plants in Florida.
- 
[Gardens with Natives](#)
 Find public gardens near your community that have native plants. Most also have non-natives, but they are listed as such.



Florida Association of Native Nurseries (FANN)

Growing, planting and promoting Florida native plants for sustainable landscapes.

Join Now Sign In

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REAL Florida Landscapes

Starting a design? Consider what grows naturally, then find the plants.

Select Your County ▾

or Enter your Zip...

[Learn More](#)

Know Your Natives: Navigating the Hamelia Mess

[Learn More](#)

FEATURED NATIVE PLANT

Butterfly Milkweed
Asclepias tuberosa

In Florida, out-of-state plant stock often performs poorly. Ask your grower about plant/seed origin and choose Florida native ecotype for use in Florida. Growers now recognize at least two native ecotypes in Florida: one which prefers moist pinelands, with blooms that are typically bright orange, and another which thrives in excessively well-drained sandhills and scrub, with blooms that exhibit more color variation from yellow-orange to orange-red. The pinelands ecotype may be easier to use in most typical landscape settings.

[Learn More](#)

Find a specific plant

Enter the first few letters of the common or botanical name, then select a plant from the list.

Looking for...

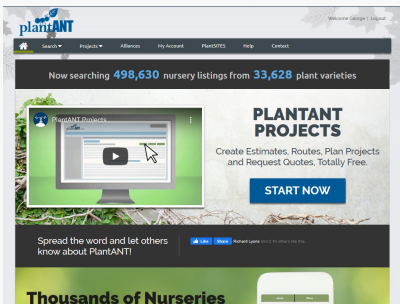
Or, choose a plant type below:

or select plant type ▾

Find a nursery or grower

Find a nursery that grows...

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Now searching **498,630** nursery listings from **33,628** plant varieties

PLANTANT PROJECTS

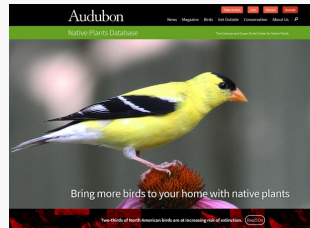
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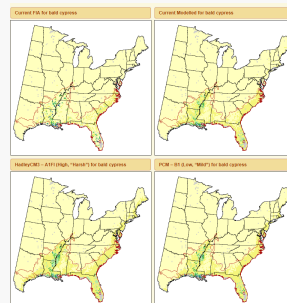
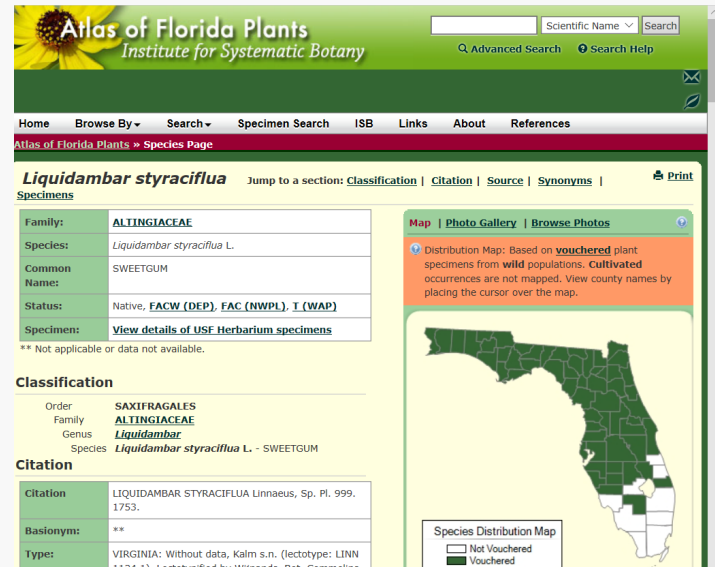
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Thousands of Nurseries



Audubon

Bring more birds to your home with native plants

Atlas of Florida Plants
 Institute for Systematic Botany

Scientific Name ▾ Search

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Atlas of Florida Plants > Species Page

Liquidambar styraciflua Jump to a section: [Classification](#) | [Citation](#) | [Source](#) | [Synonyms](#) | [Print](#)

Specimens

Family:	ALTINGIACEAE
Species:	<i>Liquidambar styraciflua</i> L.
Common Name:	SWEETGUM
Status:	Native, FACW (DEP) , FAC (NWPL) , I (WAP)
Specimens:	View details of USF Herbarium specimens

** Not applicable or data not available.

Classification

Order: **SAXIFRAGALES**
 Family: **ALTINGIACEAE**
 Genus: ***Liquidambar***
 Species: ***Liquidambar styraciflua* L. - SWEETGUM**

Citation

Citation:	LIQUIDAMBAR STYRACIFLUA Linnaeus, Sp. Pl. 999. 1753.
Basionym:	**
Type:	VIRGINIA: Without data, Kalm s.n. (lectotype: LINN 1134.1). Lectoviolated by Winands. Bot. Commelins

Map | Photo Gallery | Browse Photos

Distribution Map: Based on **vouchered** plant specimens from **wild** populations. **Cultivated** occurrences are not mapped. View county names by placing the cursor over the map.

Species Distribution Map

☐ Not Vouchered
☒ Vouchered

Zip Code 33413
search for Native Plants, Habitats and Wildlife

This is a large zip code area in western West Palm Beach mostly south of Belvedere Road, east of the Florida Turnpike and west of Jog Road. Link to [map](#).

Native Plants

- Click below to obtain a list of native plants that are recommended for 33413, and to see photos and learn more about them.

Whether you are just beginning a new native plant project, or will be introducing native plants into an existing garden, this is the place to find out which native plants are right for your specific area.

Get your plant list for 33413 !

Advance search for plants

Habitats

- You can try your hand at ecological restoration in your yard or project site by recreating a native habitat.

- Click below to view a list of some native habitats for 33413.

To take gardening with natives a step further, you can learn about the plant and animal habitats that are native to your area. Here you can also learn more about native habitats and ecosystems, and get a list of plants native to this habitat that are recommended for your zip code.

Read more about restoring native habitats in our [Frequently Asked Questions section](#), and learn how you can attract wildlife such as birds and butterflies to your yard.

Get your list of habitats for 33413 !

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Hard Coded Precise Data Encouraging the Use
of Native Species Within Their Native Ranges

How Does It Work?

County Lists – Ecological generalists with broad ranges



ZIP Code Lists – Ecological generalists + generalists within local habitats



Habitat Lists – Generalists + habitat specialists within native range within ZIP Code



NFYN Encourages It is not Prescriptive

Bourreria succulenta

Boraginaceae

General Landscape Uses: Accent or specimen flowering shrub or small tree.

Ecological Restoration Notes: A relatively common mid-canopy or ecotonal species in rockland hammocks in the Florida Keys. Very rare elsewhere.

Availability: Native plant nurseries. Available in Fort Myers at **All Native Garden Center and Plant Nursery** ([239-939-9663](tel:239-939-9663)) and in Lake Worth at **Indian Trails Native Nursery** ([561-641-9488](tel:561-641-9488)).

Description: Large shrub or small tree with spreading branches that droop toward the tips. Trunks erect, about 2-6 inches in diameter. Bark thin, light brown tinged with red, slightly roughened. Leaves smooth, shining, about 2-3 inches long. The leaves can be hairy or even rough when plants are immature, sometimes leading this to be misidentified as the very rare *B. radula*.

Dimensions: Typically 10-15 feet in height; to 28 feet in South Florida. Can be as broad as tall in the sun, but usually taller than broad in the shade.

Growth Rate: Moderate.

Range: Monroe County Keys and Miami-Dade County; West Indies and northern South America. Very rare on the mainland south of the Miami River. For a digitized image of Elbert Little's Florida range map, visit the [Exploring Florida](#) website.

Map of select IRC data from peninsular Florida.

Habitats: Coastal hammocks.

Soils: Moist, well-drained limestone or calcareous sandy soils with humusy top layer.

Nutritional Requirements: Moderate; can grow in nutrient poor soils, but needs some organic content to thrive.

Salt Water Tolerance: Low; does not tolerate long-term flooding by salt or brackish water.

Salt Wind Tolerance: Moderate; grows near salt water, but is protected from direct salt spray by other vegetation.

Drought Tolerance: High; does not require any supplemental water once established.



Copyright by: George D. Gann


in habitat, Everglades National Park, Key Largo,
Florida, 2013



NFYN can be used virtually anywhere – at residences and office complexes, in parks, and even in medians. And by increasing, restoring, and connecting existing protected areas.

Planting Native Trees

← → ↺ 🏠 🔒 https://www.gardenclub.org/plant-america 🔍 ☆ ⚙️ 👤 ...



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Plant America

Inspiring Gardens Across the Americas

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The theme for President Gay Austin's administration is **Plant America**, a singularly focused initiative on gardens and gardening. Both a call to service and a description of what NGC clubs do, Plant America supports the main reason that people say they join a

Windows taskbar: Search (Type here to search), Task View, Edge, File Explorer, Mail, Chrome, Photos, OneDrive, PowerPoint, Outlook, Word, Excel, System tray (8:45 AM, 10/8/2020, notifications).



Rain Gardens



A Rain Garden is a planted area of your yard where rain water collects. Instead of running off of a driveway or other hard, impervious surface and in to a storm drain or canal unfettered, rain water collected in a rain garden has time to absorb into the ground, assisted by the root systems of the plants.

Benefits include reducing stormwater flooding, improving water quality, increasing infiltration into the aquifer, and attracting wildlife benefits when native plants are used.

(image source: [The Nature Conservancy](#))

Learn more about your local water resources, using rain gardens to manage stormwater and attract wildlife, and the benefits of rain barrels in the presentation below.

The Institute for Regional Conservation created a list of rain garden plants for Hollywood residents. Find more native plants using their tool [Natives for Your Neighborhood](#).

Wondering where to find those native plants? The Broward Native Plant Society, Coonite Chapter, have created [a list](#) of local nurseries that sell native plants.

Water Conservation: Rain Barrels and Native Plants

A joint workshop between the
City of Hollywood and the
City of Hallandale



Native Plants for Rain Gardens

Plants that resist drought and salt

Plants that resist drought and salt

Plants that resist drought and salt

Plants that resist drought and salt

Plants that resist drought and salt

Plants that resist drought and salt

Plants that resist drought and salt

Plants that resist drought and salt

Plants that resist drought and salt

Plants that resist drought and salt

Plants that resist drought and salt

Rain Barrels

Nationally, 30% of residential water use is outdoors. In Florida that average can be as much as 50% primarily for landscape irrigation. That water must be extracted from our aquifer, treated, and distributed to our homes all of which uses energy.

Save water, energy and money by installing a rain barrel on your home.

In addition to the aforementioned savings, rain barrels also help with stormwater





Citharexylum spinosum, *Myrcianthes fragrans*



Chrysobalanus icaco

Switching Out Hedges



Native Landscapes



Raul Moas Garden
Pinecrest

Native Landscapes



Restoring Native Ecosystem Landscapes at Scale



Rooftop Gardens



Facilitating Recovery: Restoring Key Species



Piriqueta cistoides subsp. *caroliniana*

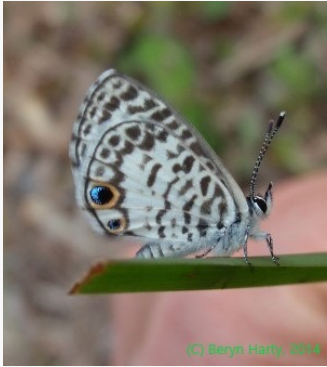


Trichostema dichotomum

Facilitating Recovery: Restoring Biodiversity

Four Larval Host – 10 Coastal Butterflies

Zebra Heliconian



Cassius Blue



Large Orange Sulphur



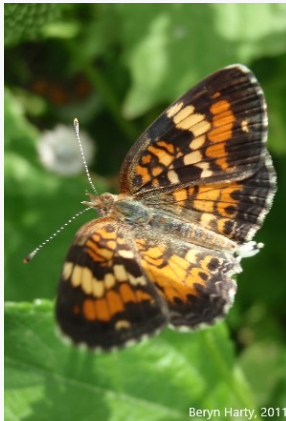
Martial Scrub-Hairstreak



Common Buckeye



Gray Hairstreak



Phaon Crescent



White Peacock



Gulf Fritillary



Julia Heliconian

Facilitating Recovery: Habitat for Birds and Butterflies



The Institute for Regional Conservation

Conservation of rare plants, animals, and ecosystems

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Restoring the link between people and nature

[Learn More](#)

IRC's Book



Ecological Restoration Standards



Pine Rockland Initiative

[f](#)[ig](#)[in](#)



A Resource to Help Change a Hobby for a Few into a Powerful Conservation Tool of Many.

Here you can learn how to turn simple gardening into habitat restoration by using plants that are native to your specific area. This website will provide you with the information you need to do that. By planting native plants and recreating natural habitats that are unique to your area, you will make a valuable contribution to the conservation and restoration of South Florida's natural heritage!

Find out About the Unique Plants, Habitats, and Wildlife in Your Area.

Choose what you would like to search:

☒ Florida Zip Code

☐ By County

☐ Plant

☐ Animal

Search By Florida Zip Code

Start by entering a 5-digit Florida ZIP Code here:

33413

Find

If you would like to learn more about native plants and the importance of conserving them, or [how to use this website](#), see the topics at right.

Map

Originally designed for South Florida (counties from Lake Okeechobee southward), NFYN is now moving north with the aspiration of serving all of the state of Florida by 2020. Where complete, a list of the cultivated native plants that commonly occur throughout that each county will be provided. If you'd like to obtain information specific to your home or project site, please enter the 5-digit ZIP code of your area on the NFYN Home Page.

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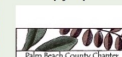
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- Widely cultivated
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Cultivated at native plant nurseries

Common Name

Scientific Name

Trees



Bald cypress ■

Taxodium distichum



Cabbage palm ■

Sabal palmetto



Coastal Plain willow ▲

Salix caroliniana



Dahoon holly, Dahoon ■

Ilex cassine



Gumbo-limbo ■

Bursera simaruba



Lancewood ▲

Nectandra coriacea



Laurel oak, Diamond oak ■

Quercus laurifolia



Paradisetree ■

Simarouba glauca



Persimmon, Common persimmon ▲

Diospyros virginiana



Pigeonplum, Tietongue ■

Coccoloba diversifolia

PRINTER FRIENDLY VERSION

Please scroll to the bottom for more images.

Piriqueta, Pitted stripeeed
Piriqueta cistoides* subsp. *caroliniana
Passifloraceae

General Landscape Uses: Primarily recommended for natural landscapes and habitat restorations. Also wildflower gardens.

Availability: Grown by enthusiasts and occasionally by native plant nurseries.

Description: Small herbaceous wildflower.

Dimensions: About 4-8 inches in height. Usually taller than broad, but sometimes falling over and forming small patches.

Growth Rate: Fast.

Range: Southern United States south to the Monroe County Keys; West Indies. In the Monroe County Keys, apparently disjunct from Miami-Dade County to the pine rocklands of Big Pine Key; also collected once on Key Largo, but perhaps introduced there.



[Map of select IRC data from peninsular Florida.](#)



[Map of suggested ZIP codes north to Indian River and Manatee counties.](#)



[Map of ZIP codes with habitat recommendations north to Martin and Charlotte counties.](#)

Habitats: Pinelands, prairies and marshes.

Soils: Moist to seasonally wet, well- to moderately well-drained sandy or limestone soils, without humus.

Nutritional Requirements: Low; it grows in nutrient poor soils.

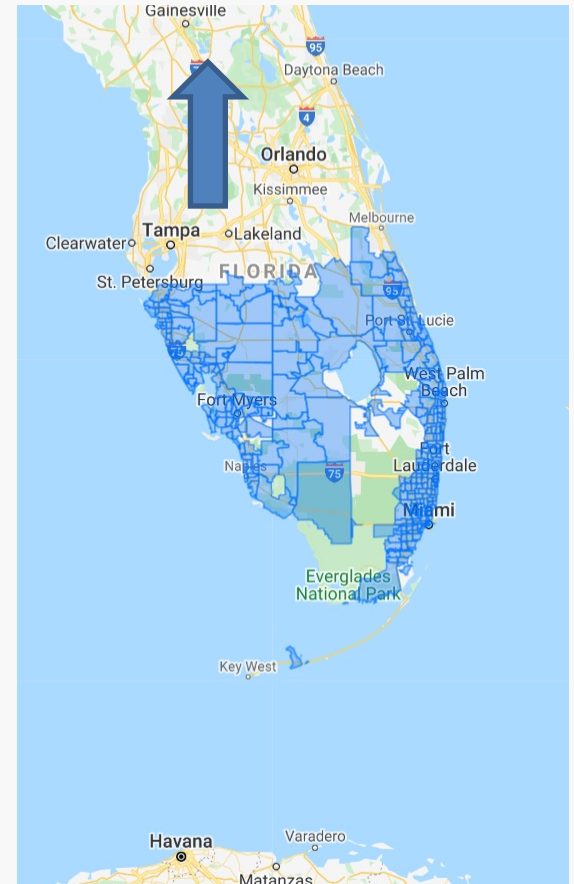
Salt Water Tolerance: Low; does not tolerate long-term flooding by salt or brackish water.



Copyright by: James Johnson, 2014

In habitat, Everglades National Park, Florida

[Expand](#)



Habitats

Habitats in Zip Code 33444

To take gardening with natives a step further, you can learn about the native plant habitats that are appropriate for your area. You can then choose a habitat, and view a list of plants for that specific habitat. This way, you can try your hand at restoring a native plant habitat in your yard or project site. Habitat lists also include some hard to grow natives and natives with narrow habitat requirements, such as strictly coastal species, that may not be included on your main zip code list.

Bayhead

[Learn More](#)

[Plant List](#)

Dome Swamp

[Learn More](#)

[Plant List](#)

Mesic Flatwoods

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Mesic Hammock

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Prairie Hammock

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Scrub

[Learn More](#)

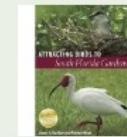
[Plant List](#)

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Below is a list of animals that may be observed in this zip code. By planting native species, you will not only create a low-maintenance landscape to enjoy, but you will also create habitat for these wildlife species.

Sort

Scientific Name

Common Name

By:

PRINTER FRIENDLY VERSION

Common Name	Scientific Name
-------------	-----------------

Butterflies



Barred Yellow

Eurema दौरا



Black Swallowtail

Papilio polyxenes



Brazilian Skipper, Canna skipper

Calpodes ethlius



Carolina Satyr

Hermeuptychia sosybius



Cassius Blue

Leptotes cassius theonus



Ceraunus Blue

Hemiargus ceraunus antibubastis



Wildlife-Plant Interactions

Plant Associates of

Gulf Fritillary

Sort By:

[Scientific Name](#)

[Common Name](#)

[Printer Friendly Version](#)

Common Name	Scientific Name	Plant Uses
Blue porterweed, Joe	Stachytarpheta jamaicensis	Nectar source.
Christmasberry, Carolina desertthorn	Lycium carolinianum	Nectar source.
Common wireweed, Common fanpetals	Sida acuta	Nectar source.
Corkystem passionflower	Passiflora suberosa	Larval host.
Jack-in-the-bush	Chromolaena odorata	Nectar source.
Maypop, Purple passionflower	Passiflora incarnata	Larval host.
Paper flower	Bougainvillea glabra	Nectar source.
Passion fruit, Purple granadilla	Passiflora edulis	Larval host.
Piriqueta, Pitted stripeseed	Piriqueta cistoides subsp. caroliniana	Larval host.
Scorpiontail	Heliotropium angiospermum	Nectar source.
Silver sea-oxeye-daisy, Bushy seaside oxeye	Borrchia frutescens	Nectar source.
Snow squarestem	Melanthera nivea	Nectar source.

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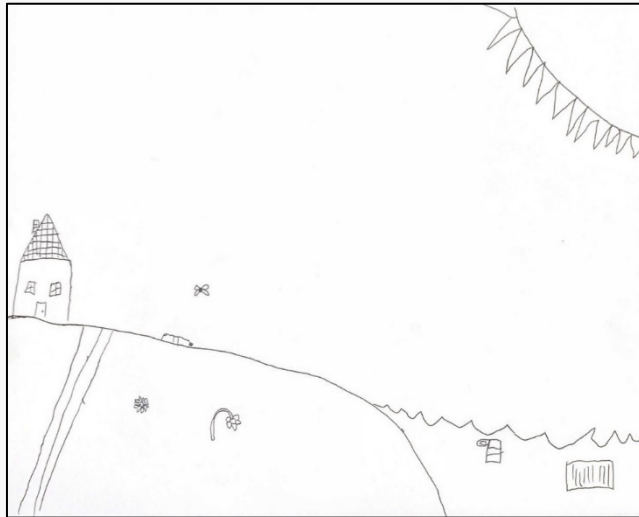
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Be Restorative!

Even Kids Can Visualize Transformative Change

Degraded
Dune



Restored
Dunes



Banyan Creek
Elementary
Kindness Matters
Club (2nd grade)
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Be Creative and Have Fun

The Institute for Regional Conservation

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John Miller Everyone did a great job! It's going to be a fantastic park eventually! Here's a pic of Iain's boat making a delivery.



· 3d

1 Reply

Bill Bathurst great work , sorry I missed this one 1

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[illegible]

Play the Long Game

