Go Native!
what’s it all about and how it works

Silver Palm Garden Club
Royal Poinciana Garden Club
January 23, 2019

George D. Gann
Chief Conservation Strategist
The Institute for Regional Conservation
www.regionalconservation.org
Acknowledgements

- Carol Stankee, for the invitation and Cara Abbott, for coordinating.
- The original NFYN authors: Melissa Abdo, my parents Joyce & Donald Gann, the FISF team Steve Woodmansee & Keith Bradley, and our wildlife specialists Emily Grahl and Kirsten Hines.
- Kay Brennan (retired) from Palm Beach County Environmental Resources Management; tirelessly working on upgrading butterfly and other animal data.
- All the IRC folks, past and present, including our Program Manager and Education & Outreach Coordinator Cara Abbott.
- Our NFYN sponsor, past as present.
- Photographers, including Roger Hammer, Keith Bradley, Shirley Denton, James Johnson and many others.

Outline

- Background on IRC, our mission and history.
- Conservation context and IRC program and the why NFYN is important.
- Natives For Your Neighborhood and how it works.
- A look forward to where NFYN is heading.
IRC follows a different conservation model – rather than focusing on charismatic animals or plants with narrow global ranges, we seek to protect, restore and manage all biodiversity on a regional basis, and to **prevent regional extinctions of rare plants, animals and ecosystems**. This is our 35th Year!
IRC Program in South Florida

Since 1995, dozens of projects in collaboration with federal, state and local agencies, non-profit organizations and educational institutions:

- Floristic and faunistic inventories, and online resources
- Endangered species surveys, mapping, demography and status surveys
- Vegetation mapping and ground truthing
- Invasive species mapping, control and monitoring
- Ecological restoration programs, including rare species reintroductions and augmentation, wildlife enhancement and prescribed fire
- Educational training and workshops, and Natives For Your Neighborhood online
- Regional ranking system used by agencies including Everglades National Park

Work on replicates at different scales, in different places, with different biota
Some IRC Online Resources

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

South Florida

The Floristic Inventory of South Florida
Conservation of rare plants, animals, and ecosystems

Floristic Inventory of the Florida Keys

Plantas del Mayab

Plantas de la Isla de Puerto Rico
Un servicio para la conservación de flora / A conservation service for the flora

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This is hard on-the-ground work! IRC staff and colleagues, 1995 to present.
South & North Range Limits in South Florida

Gordonia lasianthus (BONAP.org)

Oncidium ensatum (GBIF.org)

K. Bradley

C. McCartney
South Florida Endemics (probably >50)

*Euphorbia deltoidea* subsp. *deltoidea*
(regionalconservation.org)
Conservation Geography of South Florida

From: Myers et al. 2000. Biodiversity Hotspots for Conservation Priorities. Nature. 44% of plants and 35% of vertebrate animals in 25 hotspots covering 1.4% of global land area.
North American Coastal Plain Global Hotspot
Noss et al. 2014
Davis, 1943
What we have to work with
• Everglades transformation
• Coastal development & erosion
• Destruction of critical upland habitat in the interior
>50% of region in conservation; CBD 2020 Protected Areas Target = 17%. So everything should be great – but it’s not.
Conservation lands along the Atlantic Coastal Strip are few and scattered.
The Floristic Inventory of South Florida
1995 – present

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?
Methods of the FISF

- Comprehensive (looks at all species in region)
- Collates all available data on conservation areas (published and unpublished, FNAI data, herbarium specimens, field notebooks, personal communications)
- Uses NatureServe assessment methods at a smaller scale
- Filters for rarest species (SF1, SFH, SFX)
- Intensifies work on rarest species and conservation areas with little or no data

Botanist George Avery, c. 1970s
Courtesy Sally Channon
Cyrtopodium punctatum and Trichocentrum undulatum, et al. collected north of Flamingo in what is now Everglades National Park, April 1916, by J.K. Small and colleagues.
1990s - Contributed to original management plans for several Palm Beach County Natural Areas, including Delray Oaks, Seacrest Scrub and Jupiter Ridge.

1. NORTHERN JUNIPER SAVANNA - 375 acres, Delray Beach
- This 320-acre natural area preserves an oak-pine woodland. It is part of the juniper-scrub landscape that provides habitat for numerous bird species. Additionally, it is a popular site for bird watching.

2. JUPITER RIDGE - 250 acres, Jupiter
- Jupiter Ridge preserves 270 acres of scrub and pine flatwoods. The area is rich in wildlife, including numerous bird species, small mammals, and reptiles.

3. DELRAY OAKS - 60 acres, Delray Beach
- Delray Oaks is a 60-acre park with several oak trees, providing habitat for various bird species and small mammals.

4. PINE GLADES - 1,000 acres, Jupiter
- Pine Glades is a large natural area containing a variety of pine flatwoods and oak-pine woodlands. It is home to numerous bird species and small mammals.

5. BEECHWOOD SAVANNA - 120 acres, Jupiter
- Beechwood Savanna is a 120-acre park with a variety of plant species and bird species.

6. SEACREST SCRUB - 150 acres, Jupiter
- Seacrest Scrub is a 150-acre park with a variety of scrub and pine flatwood vegetation.

7. JUPITER RIDGE - 1,000 acres, Jupiter
- Jupiter Ridge is a large natural area with a variety of plant species and bird species.

8. LAKE PARK SCRUB - 5 acres
- Lake Park Scrub is a 5-acre park with a variety of scrub and pine flatwood vegetation.

9. GARDEN SCRUB - 50 acres
- Garden Scrub is a 50-acre park with a variety of scrub and pine flatwood vegetation.

10. Source Scrub - 10 acres
- Source Scrub is a 10-acre park with a variety of scrub and pine flatwood vegetation.

11. TIDES LAGUNA - 100 acres
- Tides Laguna is a 100-acre park with a variety of scrub and pine flatwood vegetation.

12. WATERFRONT MOUNDS - 5 acres
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- Adoway Savanna is a 50-acre park with a variety of scrub and pine flatwood vegetation.

17. PINE GLADES - 1,000 acres, Jupiter
- Pine Glades is a large natural area with a variety of plant species and bird species.

18. ACREAGE PLANS - 451 acres, Jupiter
- Acreage plans for various natural areas are available online for planning and development.

19. ROYAL PALM BEACH RIVER - 50 acres
- Royal Palm Beach River is a 50-acre park with a variety of scrub and pine flatwood vegetation.

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Testimony to Florida Rare Plant Advisory Council
1996 listings

80 Species To Be Added to Florida’s Endangered Species List
Rare Plants of South Florida published

- About 1,435 native plant taxa in South Florida.
- About 1/4 either critically imperiled or possibly extirpated (the super rare). Only 1/4 was thought to be secure. About 8% were reported as possibly extirpated.
- The importance of both large and small conservation areas were documented.
- Patterns of rarity were explored (Pteridophytes, epiphytes, tropical plants)
Acknowledgments

We would like to thank the many individuals and organizations that have contributed to this project over the last seven years. We especially are grateful for the support of The Institute for Regional Conservation’s board members Robert Heinzman and Jena Matzen, who have contributed to the project since its inception. Kellie Westervelt has provided continuous encouragement and assistance with the administration and funding of the project. Doria Gordon provided key guidance in the early design phases.

The backbone of this project, the Floristic Inventory of South Florida, was made possible by a generous, unencumbered donation from the Steve Arrowsmith Fund. Additional funding for specific elements of the inventory, and for database development, was received from the South Florida Water Management District, U.S. Fish and Wildlife Service, National Fish and Wildlife Foundation, and Florida Department of Environmental Protection. A recent agreement with Fairchild Tropical Garden has allowed IRC to assist the Garden with its rare plant program while conducting research essential to our own project. The preparation and publishing of this manual was made possible by a grant from the Elizabeth Ordway Dunn Foundation.

Many others have contributed in important ways. Most especially, we would like to thank those who contributed time and resources to help us conduct floristic inventories and rare plant surveys on conservation lands: Janice Duquesnel, J.B. Miller, R. “Bobby” Hattaway, Jim Duquesnel, Mike Owen, Elizabeth Golden, Sally Braem, Renate Skinner, and Erik Johnson of the Florida Park Service; Sandra Vardaman of Martin County; Joy Klein of Miami-Dade County, Roger Clark, Rob Irving, and Rick Joyce of Lee County; Mike Bodle, Amy Ferriter, and Dan Thayer of the South Florida Water Management District; Tony Pernas, Toby Obenauer, and Matt Patterson of the National Park Service; Tom Wilmers, Brian Lockwood, and Dawn Jennings of the U.S. Fish and Wildlife Service; Robert Guerra of the Florida Fish and Wildlife Conservation Commission; Dena Garvue, Cynthia Lane, Meghan Fellows, and Jennifer Possley of Fairchild Tropical Garden; Juan Fernandez of the City of Miami; Dick Workman of Coastplan, Inc; Misty Nabers of Gasparilla Island Conservation and Improvement Association; and Dee Serage of Sanibel-Captiva Conservation Foundation.

Our colleagues in the field, Roger Hammer and Chuck McCartney, have continued to botanize with us and make important contributions to the project, including sharing their vast knowledge of the flora of South Florida. Tiffany Troxler Gann assisted with the fieldwork and the collection of herbarium specimens. We would also like to thank the numerous land managers throughout South Florida for allowing us access to the region’s conservation areas, providing in-kind contributions such as off-road transportation, and for sharing their data and knowledge with us. In particular, we would like to thank Dick Roberts for providing us with important feedback on plants at Jonathan Dickinson State Park and Steve Farnsworth and Frank Griffiths for their assistance concerning conservation areas in Palm Beach County.

We must acknowledge the support of the staff of many herbaria, without whose support this project would not have been possible. Fairchild Tropical Garden provided us almost unlimited access to their herbarium and library, and we especially thank Lynka Woodbury for her assistance. Fairchild Keeper of the Herbarium, Gerald “Stinger” Guala, used our data to produce a searchable database of plants in conservation areas for the Internet, which was a precursor to the Floristic Inventory of South Florida Database that is now available at www.regionalconservation.org. Mary Collins provided us with much needed information on the Garden’s accessioned plants. We wish to thank the staff of The Institute for Systematic Botany at the University of South Florida, in particular Richard Wunderlin and Bruce Hansen, for providing us with access to the herbarium, as well as for a continuous exchange of information on the flora of South Florida. Dan Austin at Florida Atlantic University provided us with access to the FAU herbarium and much needed information on the flora of South Florida. We also would like to thank Kent Perkins from the University of Florida, Loran Anderson from Florida State University, Rusty Russell from the Smithsonian Institution, Jackie Kallunki and Sarah Hunkins from the New York Botanical Garden, Sharon Yelton and Emily Wood from Harvard University, and the staff of numerous other herbaria who provided us with access, label data, and other information. Maika Hoffmann assisted with data collection at the New York Botanical Garden and Alice Warren-Bradley assisted us at the Smithsonian Institution.

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We also would like to thank the eleven land managers who attended a peer review workshop in March, 2001, at Fairchild Tropical Garden: Roger Clark, Janice Duquesnel, Frank Griffiths, Brenda Hahr, Roger Hammer, Brian Lockwood, Joe Maguire, Mike Owen, Matt Patterson, Tony Pernas, and Kellie Westervelt. The feedback received at that workshop was extremely useful in completing this manual, and we thank Fairchild Tropical Garden as an institution, and Dena Garvue and Cynthia Lane as colleagues, for their support for this event. Anne Statham of the University of Wisconsin, Parkside, organized the workshop evaluation, assisted by her husband Mike Zupan.

While we have received tremendous support for the Floristic Inventory of South Florida and this manual, the content and recommendations are entirely our responsibility. We realize there may be errors and omissions, and we can only hope that the readers will bring these to our attention so that we can amend the manual in future editions.
Subsequent Collaborations and Work

Management and Monitoring of Miami-Dade County Fragments
Volunteers Needed for Pine Rockland Restoration Event on Saturday, March 4 from 9 am—12 pm

- There will be activities for all skill levels such as but not limited to: tree and brush cutting, invasive species control, plantings, nature/ recreation trails maintenance.
- A short tour of the pine rockland will occur by homeowners, so arrive on time.
- Come prepared: Closed toe shoes required, long pants/ sleeves, hat, sunglasses, and sunscreen are recommended. Volunteers should bring a reusable water bottle as we will provide drinking water and light snacks.
- All participants are required to sign a release form prior to participation. Volunteers under the age of 18 must have parental signature.
- RSVP to Muha Nasrat (mnasrat@regionalconservation.org or 305-505-9192) for the address of the event and additional information.

IRC Awarded Grant From the City of Miami Beach.

Wednesday, May 31, 2017

IRC is excited to announce that we have been awarded a $3,000 Environmental and Sustainability Grant from the City of Miami Beach to promote environmental stewardship through a Beach Restoration program. We plan on using volunteers to help us remove invasive plant species and replace them with plants native to Miami’s dune ecosystem. IRC has a long history of restoring Miami Beach and we are thrilled to continue that work this year.

Stay tuned throughout the next year to find out how you can participate in our volunteer days!
2003-2008, Long Pine Key, Everglades National Park

- **31 species studied**, 21 thought to be present, and 10 thought to be possibly extirpated.
- One terrestrial orchid species (*Ponthieva brittoniae*) was rediscovered.
- 79 long-term monitoring plots and 24 monitoring transects were installed.
- **596 rare plant stations** with coordinates were recorded.
- 12 species were identified as **candidates for augmentation or reintroduction**.
- **Trials** were initiated with 9 species in collaboration with Marie Selby Botanical Garden, FTBG, Miami-Dade county and others.
Rare plants are “COMMON” on Long Pine Key
Rare Plants of Everglades National Park - 2015

59 “Species of Management Concern” Studied
56% of SOMC’s occur in hardwood hammocks, 25% in pine rocklands, 15% in coastal woodlands.
Florida bristle fern (Didymoglossum punctatum subsp. floridanum) studies prior to federal listing.
**Fig. 1 a** Sketch of a coastal hammock on an elevated rise flanked by buttonwood forests at intermediate elevations and mangrove forests at sea level. Also shown are the vadose zone (with water drops), freshwater lens (where shading indicates increasing brackishness towards the bottom of lens), and seawater. **Bottom sketch b** shows a rise in sea level that decreases the volume available to hold freshwater (shrinking of the freshwater lens), with consequent mortality of coastal hammocks and the migration of buttonwoods and mangroves along with the decrease in the freshwater lens. Elevation exaggerated in illustration to indicate water pools.

Local environmentalist says sea level on the rise in Southwest Florida

*By Jack Lewenstein - Jul 18, 2015*
Of the 808 native species, **397 species** are ranked as regionally rare or possibly extirpated in South Florida by IRC.

Or just under half of the known Everglades flora.

About 19% of the Everglades flora is listed by the State of Florida.
Education & Outreach

Cara Abbott, Coordinator
Some Contributions to Big Data

- Species missed
- New discoveries
- Extirpations and rediscoveries
- Discrepancies between assessment scales
- Local taxonomic concepts
- National and global assessments

Thelypteris sancta
Discovered 2006

Peperomia glabella
Rediscovered 2003
George Gann (IRC, SER)
Tein McDonald (Society for Ecological Restoration Australasia, Australia)
About 775 species of native plants have been recorded in Palm Beach County, a little more than one half of the South Florida total and one quarter of the Florida total. Some of those are now extirpated, that is, regionally extinct. As individuals we can play a role in conserving what remains and restoring some of what has been lost.
Increase plant and animal habitat and connectivity throughout the urban and suburban matrix
- Through use of native plants within their historical ranges
- Gardening for wildlife
What is a Native Plant?

- Simply put, a plant that historically grows in a specific region
- We call something a native if it’s natural range includes southern Florida, i.e. here without modern human involvement
- It’s not always easy to figure out, so there are a few species that we are just not sure about

Sea oats (*Uniola paniculata*) – iconic species of Florida beaches, and beaches of the eastern US, Caribbean, and Mexico.
Other Benefits of Landscaping with Natives

- Save water and energy
- Reduce chemical contamination
- Prevent invasive species from spreading
- Create beautiful gardens!

American beautyberry (Callicarpa americana) – native nearly throughout Florida in a wide variety of habitats.
Native plants can be used almost anywhere – at residences and office complexes, in parks, butterfly gardens and even in street medians.
And by increasing, improving and connecting existing protected areas.
A Resource to Help Change a Backyard Hobby for a Few into a Powerful Conservation Tool for 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 South Florida ZIP Code here:

[ ] 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), NFN 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 NFN Home Page.
How Does It Work?

County Lists – Ecological generalist with broad ranges (95% rule)

ZIP Code Lists – Ecological generalists + generalists within local habitats

Habitat Lists – Generalists + habitat specialists within historical range within ZIP Code
NOT NATIVE HERE!

West Indian mahogany

Southern magnolia
Zip Code 33432
search for Native Plants, Habitats and Wildlife

This is a large zip code in eastern Boca Raton in Palm Beach County, mostly east of the El Rio Canal to the Atlantic Ocean and south of Glades Road. Link to map. Information on strictly coastal plants can be found by viewing coastal habitat data for this zip code area (beach dune, coastal strand, coastal interdunal swale, maritime hammock, coastal bar, tidal marsh, tidal swamp). If your project is near salt water, please check the salt water and salt wind tolerances of the plants you select.

Native Plants

- Click below to obtain a list of native plants that are recommended for 33432, and to see photos and learn more about them.

Native Plants

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 33432!
- 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 33432.

Habitats

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 33432!

Wildlife

- Click the button below to learn about the wildlife that may be expected in your area and what native plants can be planted and habitats created to attract them.

Wildlife

- Get your wildlife list for 33432!
Acer rubrum
Annona glabra
Bursera simaruba
Celtis laevigata
Chrysothemium oligonervum
Coccoloba diversifolia
Diospyros virginiana
Eugenia axillaris
Ficus aurea
Ilex cassine
Magnolia virginiana
Morus rubra
Myrcianthes fragrans
Neclandre coriacea
Persea palustris
Pinus elliottii var. densa
Quercus chapmanii
Quercus geminata
Quercus laurifolia
Quercus myrtifolia
Quercus virginiana
Sabal palmetto
Salix carolitana
Sideroxylon foetidissimum
Red maple
Pond apple
Gumbo-limbo
Sugarberry, Southern Hackberry
Satinleaf
Pigeonplum, Tictongue
Persimmon, Common persimmon
White stopper
Strangler fig, Golden fig
Dahoon holly, Dahoon
Sweet-bay
Red mulberry
Twinberry, Simpson’s stopper
Lancewood
Swamp bay
South Florida slash pine
Chapman’s oak
Sand live oak
Laurel oak, Diamond oak
Myrtle oak
Virginia live oak
Cabbage palm
Coastal Plain willow
Wild mastic, False mastic
General Landscape Uses: An excellent accent tree in wet or mucky soils or along the edges of ponds and lakes. With proper moisture and soils, it can be used as a street tree, in parks, and in commercial and residential landscapes.

Ecological Restoration Notes: An important canopy or subcanopy tree in a wide variety of freshwater forested wetlands.

Availability: Widely cultivated.

Description: Medium to large erect tree with a narrowly cylindrical to broadly rounded crown and ascending branches arising from tall, well-developed trunks. Trunks to 2 feet in diameter, but usually smaller in South Florida. Temperate deciduous, the thin leaves are palmately 5- to 9-lobed, green above, whitish-green below, 2-4 inches long, 2-4 inches wide. Bark gray, smooth when young, becoming roughened with numerous ridges.

Dimensions: Typically 30-60 feet in height in South Florida, to 107 feet in Florida. Taller than broad.

Growth Rate: Fast to moderate.

Ranges: Eastern and central North America west to Texas and south to Broward, Miami-Dade and Collier counties and the Monroe County mainland. In Miami-Dade County, it is known only from the eastern edge of the Big Cypress Swamp. It is relatively common throughout its range. For a digitized image of Elbert Little's Florida range map, visit the Exploring Florida website.

Map of select IUCN data from peninsular Florida.

Habitats: Freshwater swamps.

Soils: Wet to moist, poorly-drained to seasonally inundated organic freshwater soils, with a humusy top layer.

Nutritional Requirements: High, requires rich organic soils for optimal growth.

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

Salt Wind Tolerance: Low; salt wind may burn the leaves.

Drought Tolerance: Low; requires moist to wet soils and is intolerant of long periods of drought.

Light Requirements: Light shade to full sun. Young plants grow best in light shade.

Flower Color: Red.

Flower Characteristics: Semi-showy dense flowering clusters, borne before new leaf growth is initiated. Dioecious or polygamous, with male and female flowers on different plants, or plants bear both male and bisexual flowers.

Flowering Season: Typically winter to early spring; in South Florida, almost always fully flowering by early January.

Fruit: Bright red, 2-winged fruit (samara), 1" or less long, in clusters; seminiferous to showy. Winter to spring; in South Florida, fruits may ripen by January.

Wildlife and Ecology: Provides significant food and cover for birds and other wildlife.

Horticultural Notes: Easily grown. Seedlings are easily transplanted.

Comments: An excellent tree, numerous cultivars are known from farther north. The wood...
Paradise tree in Southern Florida
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.

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<td>Freshwater Tidal Swamp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maritime Hammock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mesic Flatwoods</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Plant list for Beach Dune

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shrubs and Woody Groundcovers</strong></td>
<td></td>
</tr>
<tr>
<td>Ernoda littoralis ▲</td>
<td>Beach-creeper, Golden-creeper, Coughbush</td>
</tr>
<tr>
<td>Iva imbricata ▲</td>
<td>Beach-elder, Seacoast marshelder</td>
</tr>
<tr>
<td>Opuntia humifusa ▲</td>
<td>Pricklypear</td>
</tr>
<tr>
<td>Scaevola plumier ▲</td>
<td>Inkberry, Beachberry, Gulfseed</td>
</tr>
<tr>
<td>Tournefortia graffiolodes ▲</td>
<td>Sea-lavender, Sea-rosemary</td>
</tr>
<tr>
<td>Yucca aloifolia ▲</td>
<td>Spanish-bayonet, Aloe yucca</td>
</tr>
<tr>
<td><strong>Herbs</strong></td>
<td></td>
</tr>
<tr>
<td>Alternanthera flavescens</td>
<td>Yellow joyweed</td>
</tr>
<tr>
<td>Alternanthera maritima ▲</td>
<td>Seaside joyweed</td>
</tr>
<tr>
<td>Ambrosia hispida ▲</td>
<td>Beach ragweed, Coastal ragweed</td>
</tr>
<tr>
<td>Crotalaria pumila</td>
<td>Low rattlebox</td>
</tr>
<tr>
<td>Crotalaria rotundifolia</td>
<td>Rabbitbells</td>
</tr>
<tr>
<td>Croton glandulosus var. floridanus ▲</td>
<td>Florida vente connigo</td>
</tr>
<tr>
<td>Croton punctatus</td>
<td>Beach-tea, Gulf croton</td>
</tr>
<tr>
<td>Helianthus debilis subsp. debilis ▲</td>
<td>East Coast dune sunflower</td>
</tr>
<tr>
<td>Hymenocallis lalifolia ▲</td>
<td>Mangrove spiderlily, Perfumed spiderlily</td>
</tr>
<tr>
<td>Oenothera humifusa</td>
<td>Seaside evening-primrose</td>
</tr>
<tr>
<td>Okenia hypogae ▲</td>
<td>Beach-peanut, Burrowing four-o'clock</td>
</tr>
<tr>
<td>Panicum amarum ▲</td>
<td>Beachgrass, Bitter panicgrass</td>
</tr>
<tr>
<td>Paspalum vaginatum ▲</td>
<td>Seashore paspalum</td>
</tr>
<tr>
<td>Zip Code:</td>
<td>33412</td>
</tr>
<tr>
<td>----------</td>
<td>-------</td>
</tr>
<tr>
<td>Name (common or scientific):</td>
<td></td>
</tr>
<tr>
<td>Light Preference:</td>
<td>Light Shade</td>
</tr>
<tr>
<td>Soil:</td>
<td>Moist</td>
</tr>
<tr>
<td>Form:</td>
<td></td>
</tr>
<tr>
<td>Drought Tolerance:</td>
<td></td>
</tr>
<tr>
<td>Fruit:</td>
<td></td>
</tr>
<tr>
<td>Wildlife Attractant:</td>
<td>Yes</td>
</tr>
<tr>
<td>Flowers Significant:</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Search**

**St. Andrew’s-cross – Hypericum hypericoides**

**Tarflower – Befaria racemosa**

**American beautyberry – Callicarpa americana**

**White stopper – Eugenia axillaris**
Julia Heliconian
Drysas julia
Nymphalidae

Description:
Medium-sized butterfly with a wingspan up to 3-5/8 inches. The male is bright orange-brown with several small black spots near the tips of the forewing and a narrow black border on the outer edge of the hindwing. The female is a duller orange-brown, with a black band across the forewing and more black markings. The underside of the hindwing in both sexes has a pale band through the center. The caterpillar has an orange head with black patches and two black horns on top. The body is usually brown or black with white patches and many long, black, needle-like spines arranged in rows. Some populations have white bodies with dark markings. The chrysalis is brown with a few silver markings.

Range:
South Florida and southern Texas; West Indies, Mexico, Central America and South America; strays to the north in the summer as far as Nebraska and coastal areas of Georgia and South Carolina.

Distribution and Abundance in Florida:
Locally common all year in South Florida; common all year in the Keys. Caterpillars are present all year.

Habitat(s):
Hammock edges, pinelands and open, disturbed sites.

Comments:
Some people may develop a rash after handling caterpillars. For more information, visit the Florida Museum of Natural History's Florida Wildflowers & Butterflies website and Butterflies and Moths of North America.
**Corkystem passionflower**
*Passiflora suberosa*
Passifloraceae

**General Landscape Uses:** Informal groundcover or low-climbing vine.

**Availability:** Native plant nurseries. Available in Sanibel at the Sanibel Captiva Conservation Foundation (239-472-2323), in Panama at *Sweet Bay Nursery, LLC* (239-765-0501), and in Boynton Beach at *Native Choice Nursery* (561-798-4376).

**Description:** Low climbing herbaceous vine with extremely variable leaves.

**Dimensions:** N/A; a vine with stems to 2 feet or more in length. Sometimes spreading horizontally and forming large open or dense patches.

**Growth Rate:** Fast.

**Range:** Monroe County Keys north to Duval, Lake and Dixie counties; West Indies, Texas, Mexico, Central America and South America.

**Map of select IRC data from peninsular Florida.**

**Habitats:** Moist forests and pinelands.

**Soils:** Moist, well-drained sandy or limestone soils, with or without humusy top layer.

**Nutritional Requirements:** Moderately to low; prefers soils with organic content, but will still grow reasonably well in nutrient poor soils.

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

**Salt Wind Tolerance:** High; can tolerate moderate amounts of salt wind without injury.

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

**Light Requirements:** Light shade to full sun.

**Flower Color:** Greenish to yellowish.

**Flower Characteristics:** Semi-showy but small. Petals are absent.

**Flowering Season:** All year.

**Fruit:** Purple-black globose berry. Edible.

**Wildlife and Ecology:** Larval host plant for gulf fritillary (*Agraulis vanillae*), Julia (*Dryas iulia*) and zebra longwing (*Heliconius charitonius*) butterflies.

**Horticultural Notes:** Can be grown from seed. Smash mature fruit on paper towel or place in blender with water and grind just enough to break up the berries; strain and place on paper towel. When dry, scrape seed onto surface of soil. Do not cover. Place container in light shade.

**Comments:** One of the best larval host plants for butterflies.
# Scrub

Old dune with deep fine sand substrate; xeric; temperate or subtropical; occasional or rare fire (20 - 80 years); sand pine and/or scrub oaks and/or rosemary and lichens.

## Plants found in the Scrub habitat, in zip code 33444

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ball-moss</td>
<td>Tillandsia recurvata</td>
</tr>
<tr>
<td>Cabbage palm</td>
<td>Sabal palmetto</td>
</tr>
<tr>
<td>Candyweed, Showy milkwort</td>
<td>Polygala violacea</td>
</tr>
<tr>
<td>Chapman's goldenrod</td>
<td>Solidago odora var. chapmanii</td>
</tr>
<tr>
<td>Chapman's oak</td>
<td>Quercus chapmanii</td>
</tr>
<tr>
<td>Coastalplain staggerbush</td>
<td>Lyonia fruticosa</td>
</tr>
<tr>
<td>Common pawpaw, Netted pawpaw</td>
<td>Asimina reticulata</td>
</tr>
<tr>
<td>Densetuft hairseedge</td>
<td>Bulbostylis ciliatifolia</td>
</tr>
<tr>
<td>Feay's palafax</td>
<td>Palafoxia feayi</td>
</tr>
<tr>
<td>Florida rosemary, Sand heath</td>
<td>Ceratiola ericoides</td>
</tr>
<tr>
<td>Forked bluecurls</td>
<td>Trichostema dichotomum</td>
</tr>
<tr>
<td>Giant wild-pine, Giant airplant</td>
<td>Tillandsia utriculata</td>
</tr>
<tr>
<td>Gopher-apple</td>
<td>Licania michauxii</td>
</tr>
<tr>
<td>Hairy dawnflower</td>
<td>Stylosma villosa</td>
</tr>
<tr>
<td>Hog-plum, Tallowwood</td>
<td>Ximenia americana</td>
</tr>
<tr>
<td>Largeflower false-rosemary</td>
<td>Condradina grandiflora</td>
</tr>
<tr>
<td>Largeflower jointweed</td>
<td>Polygonella robusta</td>
</tr>
<tr>
<td>Myrtle oak</td>
<td>Quercus myrtifolia</td>
</tr>
<tr>
<td>Narrowleaf silkgrass</td>
<td>Pityopsis graminifolia</td>
</tr>
<tr>
<td>Postridge pea</td>
<td>Chamagrostis fasciata</td>
</tr>
</tbody>
</table>
Please scroll to the bottom for more images.

**Great Southern White**

*Ascia monuste*

Pieridae
A Coastal Quirk

This is a large zip code in eastern Boca Raton in Palm Beach County, east of St. Andrews Boulevard to the Atlantic Ocean and from State Road 794 south to Glades Road. Link to map. Information on strictly coastal plants can be found by viewing coastal habitat data for this zip code area (beach dune, coastal strand, coastal interdunal swale, maritime hammock, coastal berm, tidal marsh, tidal swamp). If your project is near salt water, please check the salt water and salt wind tolerances of the plants you select.
**Past Major Sponsors: $5000 and up**

South Florida Water Management District

Broward County

The Elizabeth Ordway Dunn Foundation

The Florida Native Plant Society

**Past Supporting Sponsors**

Ecohorizons, Inc.

W. Lawson Nursery

The Florida Native Plant Society, Naples Chapter

The Florida Native Plant Society, Palm Beach Chapter

The Florida Native Plant Society, Dade Chapter

The Florida Native Plant Society, Coccocola Chapter

Tropical Audobon Society

The Curtis & Kimball Company

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Lauren McFarland

Tiffany Troxler

Jeannne and John Rothchild

**George N. Avery Memorial Fund**

Robert L. Kelley

Don and Joyce Gann
Baccharis halimifolia

NFYN Statewide!
Building Statewide Partnerships

More links to other resources
Mapping Zip Codes to North

Laurel Oak – Quercus laurifolia
More and better butterfly info and a special thanks to Kay Brennan.
What is a Rain Garden?

A Rain Garden is a planted area in your yard where rainwater collects. Instead of running off of a driveway or other hard, impervious surface and into a storm drain or canal unfiltered, rainwater 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, Coquitlam 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

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 control.

Native Plants for Rain Gardens

Plants that need constantly moist or flooded soil

<table>
<thead>
<tr>
<th>Tree</th>
<th>Shrub</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annona glabra</td>
<td>Myrtus communis</td>
</tr>
<tr>
<td>Pinus echinata</td>
<td>Rhododendron catawbiense</td>
</tr>
<tr>
<td>Tilia x euchlora</td>
<td>Rubus texanus</td>
</tr>
<tr>
<td>Magnolia virginiana</td>
<td>Rhododendron catawbiense</td>
</tr>
</tbody>
</table>

Plants that can survive in periodically flooded soil

<table>
<thead>
<tr>
<th>Tree</th>
<th>Shrub</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azalea 'Pink Dawn'</td>
<td>Bumelia laevigata</td>
</tr>
<tr>
<td>Alpinia rosea</td>
<td>Camellia sasanqua</td>
</tr>
<tr>
<td>Manicaria xWallet</td>
<td>Crape myrtle</td>
</tr>
<tr>
<td>Quercus palustris</td>
<td>Lagerstroemia indica</td>
</tr>
<tr>
<td>Salix alba 'Sir Joseph Hooker'</td>
<td>Lagerstroemia indica</td>
</tr>
</tbody>
</table>

Find more information about these and other native plants that belong in YOUR neighborhood by visiting www.regionalconservation.org and using the tool Natives for Your Neighborhood.
Planning for Climate Change and Sea Level Rise

Lancewood – Nectandra coriacea
Trees

Gumbo-limbo (Bursera simaruba)

Sweet-bay (Magnolia virginiana)
Marlberry (Ardisia escallonioides) and Coco-plum (Chrysobalanus icaco) are shrubs.
Herbaceous Groundcovers

Eastern gamagrass (Tripsacum dactyloides)  Giant leatherfern (Acrostichum danaeifolium)
Herbaceous Wildflowers

Tickseed (Coreopsis leavenworthii)  Swamp-lily (Crinum americanum)
Herbaceous Epiphytes

Cardinal airplant (Tillandsia fasciculata)

Resurrection fern (Pleopeltis polypodioides)
Thanks!