“The Institute for Regional Conservation
Conservation and Gardening in a Changing World”

District X Fall Meeting, Florida Federation of Garden Clubs
October 8, 2020

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www.regionalconservation.org
www.ser.org

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- **Photographers**, including Roger Hammer, Keith Bradley, Shirley Denton, James Johnson and many others.
Our Program
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. **2019 was our 35th Anniversary Year.** Staff of 8, 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

Rare Plants of South Florida:
and Associated Fauna

South Florida

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

Plantas de la Isla de Puerto Rico
Un esfuerzo para la conservación de las plantas de la Isla de Puerto Rico / A conservation effort for the plants of Puerto Rico

A Gardening Guide for Living on the Barrier Island

The Institute for Regional Conservation
The Institute for Regional Conservation

Get Your Hands in the Sand ~ Native is NOT a Dirty Word!

by Kimberlee Duke Pompeo, FFGC District X, PAT Committee,
Vice Chairman of Barrier Islands with George D. Gann, IRC Founder

Were you told as a youth not to play in the dirt? Good chance most of us were. Yet, I don’t think our parents meant for us to stop caring about mother earth. Here’s how the environment sees us. It’s as simple as a multiple-choice question. When asked, do you crusade for the environment? …which do you check?

[ ] Never   [ ] Rarely   [ ] Sometimes   [ ] Always

If you checked the last box “Always” – read no more, go straight to the end where you’ll find your like-minded [donate] button for a modest contribution towards nature’s shouldered burden.

If you checked either of the first three than I’m afraid you have a little required reading to do. Don’t worry, though. You’re not alone. We’re writing as a result.

People often view nature conservation and traditional views of gardening as having to choose one way or the other. It’s simply not true. It’s not a contrast like hardscapes – the stepping stones in your garden from the softscapes – the feathery, green ferns that delicately sway in the wind. Gardeners know that it resides in “the variety” of methods that make a visually appealing garden. Just as there are varietals of soil and dirt to grow particular flowers and foods, natives offer intrinsic beauty in a variation of colors and textures, forms and functions with the powerful contribution towards mitigating climate change.
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.

Get your plant list for 33444!
Ecological Restoration and Community Outreach
International Policy Work on Ecological Restoration, Conservation, and Sustainability
South Florida Conservation Context
North American Coastal Plain Global Biodiversity Hotspot
Noss et al. 2014
South & North Range Limits in South Florida

**Gordonia lasianthus** (BONAP.org)

**Epidendrum nocturnum** (IRC)

K. Bradley

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

*Melanthera parvifolia*
Pineland blackanthers
Species of Management Concern in Everglades National Park, hardwood hammocks.
• Hydrological transformation
• Coastal development & erosion
• Destruction of critical upland habitat in the interior
• Similar issues in St. Lucie and Indian River counties
>50% of region in conservation; United Nations Convention on Biological Diversity (CBD) 2020 Protected Areas Target = 17%. So everything should be great.
Nature Needs Half
846 Ecoregions, Protect 50% by 2050
Our Local Reality

Conservation areas in and around Delray Beach.
Fragmentation leads to inexorable loss

Wilcove 1986
Some species and groups go faster.
Some go slower.
**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 in providing **ecosystem services** essential to human survival and wellbeing.
The Floristic Inventory of South Florida
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?
1 in 4 native plant species were critically imperiled or possibly extirpated. About 8% were reported as possibly extirpated (now down to about 6%)
**Flora of Broward County**
(today’s 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
Global Change
“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…”

“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.”
Potential Future Forest Type Changes

The links below allow comparison of maps of potential forest-type changes according to the various GCM scenarios.

IMPORTANT: Make sure you read the help file before interpreting the changes.
Sea Level Rise

Everglades National Park scenarios by end of this century from 2007 IPPC projections.
Invading Pests and Diseases

Bromeliad Weevils in Florida
Ecological Restoration
The Key to Our Future
In 1984 Norman Myers estimated that there were 12,130 international non-profit groups (INGOS) worldwide, mostly dealing with environmental and social issues.

Paul Hawken 2007: estimated that there were more than 1,000,000 non-profit groups and community organizations dedicated to the “environmental and social justice movement”.
“The UN Decade on Ecosystem Restoration is both urgently needed and globally appreciated,” said George Gann, SER International Policy Lead. "Achieving the goals of this new UN Decade will require continued enthusiasm and funding for this work, as well as a common understanding of how to design and implement successful restoration projects that proactively and collaboratively engage local communities.” SER Media Release, [www.ser.org](http://www.ser.org)
Updated International Principles and Standards launched at SER2019 in South Africa, simultaneously in *Restoration Ecology* and by SER.
Global and Local Perspectives

World Conference on Ecological Restoration
Cape Town, South Africa 2019

Restoration site, No Name Key
National Key Deer Refuge, FL, USA
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).
How Can You Help?
Collaborate, Collaborate, Collaborate!
Identify Opportunities and Celebrate Success!
Restoring the Gold Coast
What We Have Done Well

- move sand
- plant sea-oats and a few other species
- recover sea turtles
Dune Assessments
New Discoveries
Outreach
As part of our **Restoring the Gold Coast** program, IRC is offering native Biodiversity Starter Plant Kits for coastal gardens in southern Palm Beach County.

Each kit comes with hand-selected native plants perfect for enhancing your native beach dune system or coastal garden. This service helps make the restoration of native habitats on barrier islands cost effective and time efficient.
OUR STARTER PLANT KITS

Beach Dune and Coastal Grasslands Starter Plant Kits

Each beach dune starter kit contains 5 plants native to the beaches and dunes of southern Palm Beach County. Our Spring 2020 Kits contain: (1) **Baycedar**, (1) **Sea-lavender**, (1) **Inkberry**, (1) **Seaside joyweed** or **Yellow joyweed**, and (1) rare plant surprise. Each kit contains (1) 10” container, (2) 6” containers, and (2) 3-4” containers. These kits are perfect for coastal dunes with an active pioneer zone with established sea-oats, native dune vines, and other pioneer species. The price for each kit is $75.00.
Four Larval Host – 10 Coastal Butterflies

- Cassius Blue
- Large Orange Sulphur
- Martial Scrub-Hairstreak
- Common Buckeye
- Gray Hairstreak
- Phaon Crescent
- White Peacock
- Gulf Fritillary
- Julia Heliconian
- Zebra Heliconian
40 species planted

Seeds and plants collected
Green Delray Program and Lake Ida Parcel Restoration
We Must Restore
Degraded Ecosystems, Small and Large, Fragmented and Connected
Precise Data Encouraging the Use of Native Species Within Their Native Ranges

(2019, >71,000 users, >742,000 page views)
We Want to Increase Success

1) In the Garden
2) For Conservation
3) Increase Connectivity
4) Recover Rare Species
Piriqueta, Pitted stripeseed
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.

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.
Plant America
Inspiring Gardens Across the Americas

The theme for President Gay Austin’s administration is Plant America, a singularly focused initiative on gardens and gardening. Both a legacy-defining and transformational plant NDE, Plant America supports the philanthropy that makes it possible to join a
Be Creative and Have Fun
Play the Long Game
THANK YOU!