

Implementation of the GSPC in the Bahamian Archipelago

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Leon Levy Native Plant Preserve
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Lepidaploa arbuscula



The Bahamian Archipelago



US Dept of State Geographer
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Image Landsat
Data SIO, NOAA, U.S. Navy, NGA, GEBCO

24°07'51.30" N 75°53'56.68" W elev -984 m eye alt

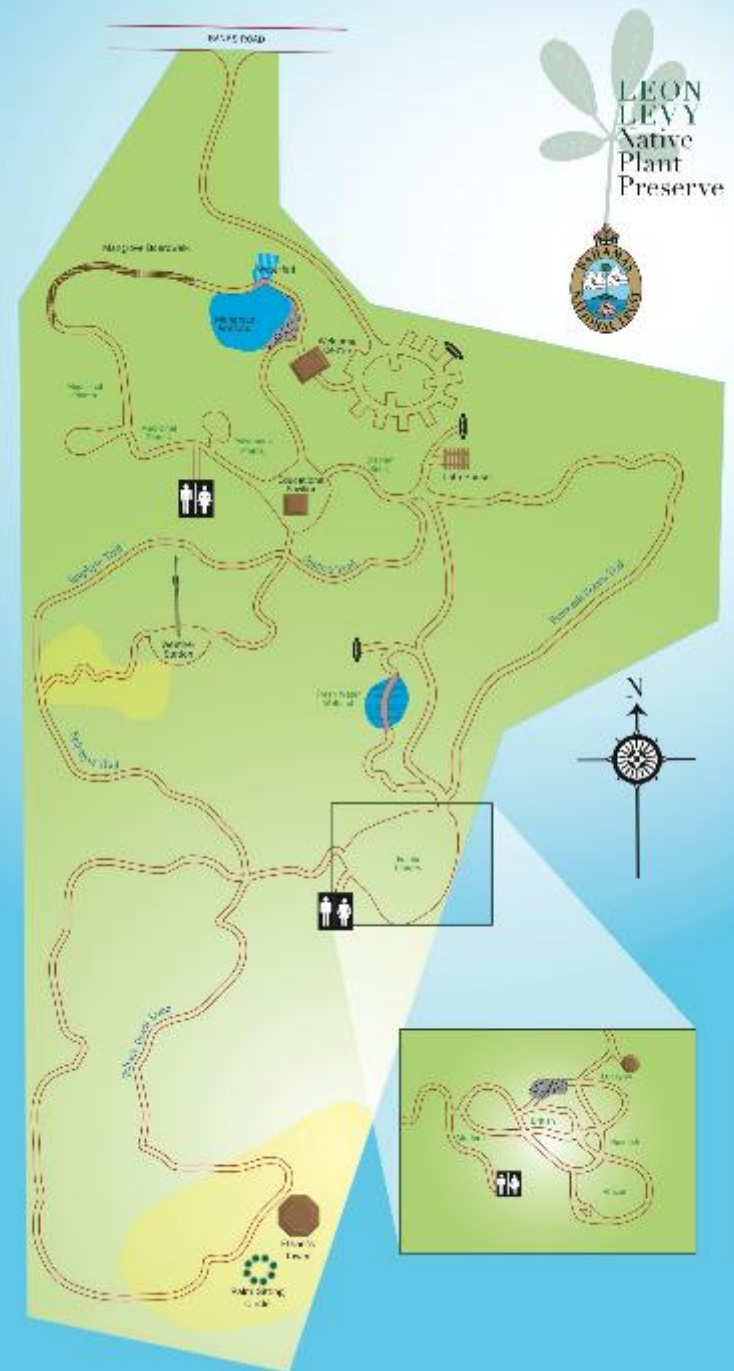


LEON LEVY FOUNDATION

The Legacy Of Leon Levy



Trails
Mangrove Boardwalk
Medicinal Plant Beds
General/Endemic Display Beds
Education Pavilion
Lath House
Fresh Water Wetland
Edible History
Overlook Tower
Permanent Forest Plots
Weather Station



Global Strategy for Plant Conservation

Leon Levy Native Plant Preserve

1, 2, 3, 7, 8, 13, 14, 15, 16

Bahamas National Trust

4, 5, 6, 10

National Government

6, 9, 10, 11, 12



Linum bahamense

A close-up photograph of a plant's inflorescence. The central focus is a cluster of small, pale green, fuzzy buds. To the right, several small, white, five-petaled flowers are in various stages of bloom, showing their stamens. The background consists of several long, narrow, green leaves with prominent veins, slightly out of focus. The overall lighting is soft and natural.

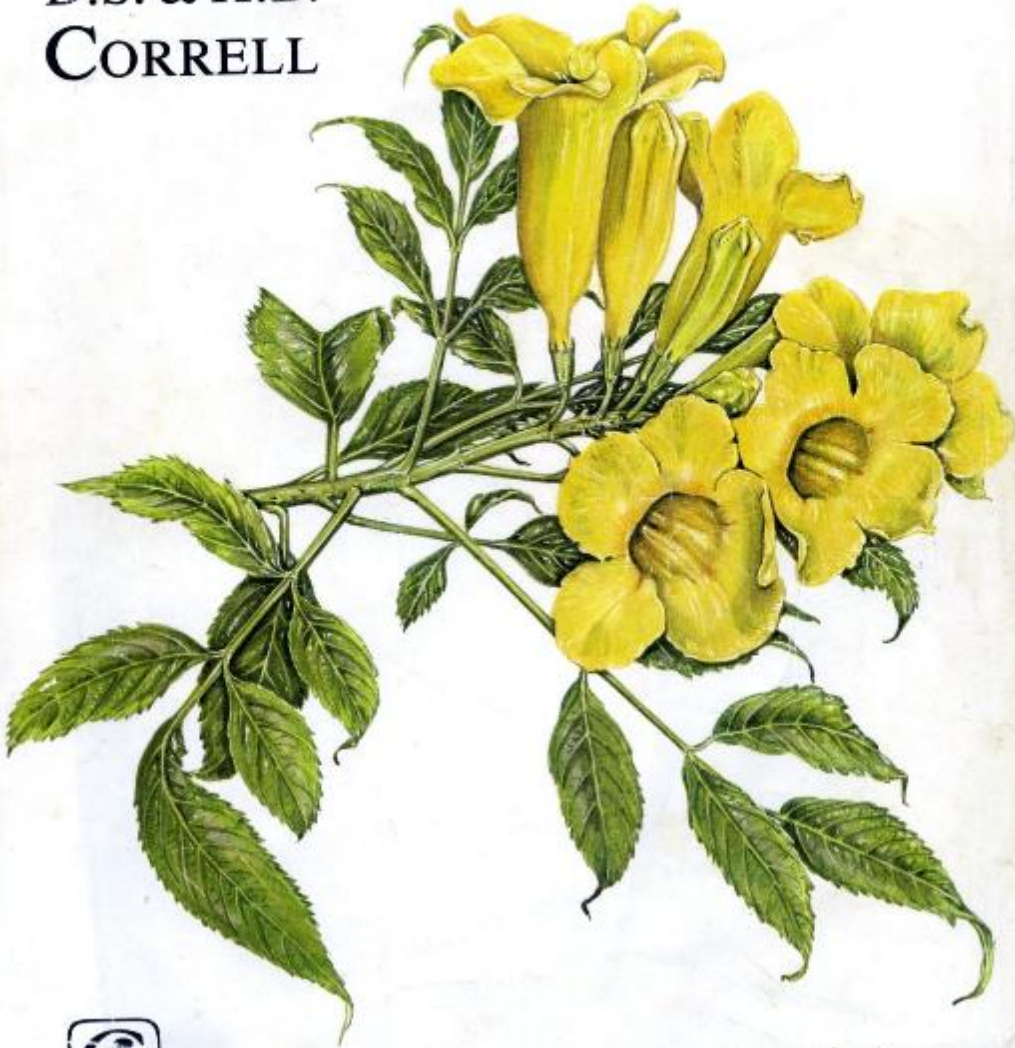
Target 1

An online flora of all known plants

Varronia bahamensis

Flora of the Bahama Archipelago

D.S. & H.B.
CORRELL



J. Cramer



Published in 1982

Includes - 1371 taxa,
in 663 genera in 144
families (including
pteridophytes)



LEON LEVY NATIVE PLANT PRESERVE



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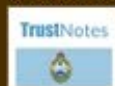
Plant Information



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What's New

Preserve Featured in BNT
Trust Notes
10/9/2015 1:20:00 PM



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Events

November 2015						
Mon	Tue	Wed	Thu	Fri	Sat	Sun
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15



Ardisia escaionioides

Ardisia escaionioides Schitdl. & Cham

Common Names: Mariberry, Dog-berry

Family: Primulaceae

Habit: *Ardisia escaionioides* grows as a shrub to small tree up to 8 meters in height. The leaves are arranged alternately, lanceolate to oblanceolate, slightly fleshy, up to 20 cm long (typically shorter), with a rounded leaf apex and an entire margin.

The actinomorphic, perfect, complete, flowers occur in panicles. The calyx has 5 unfused, green sepals occurring as triangular lobes. The corolla has 5 fused, white with purple petals that form a short tube. There are 5 bright yellow stamens that are fused to the corolla tube. The ovary is superior with 1 locule and many ovules. The fruit



is a black berry at maturity.

Habitat: *Ardisia escaionioides* grows in Dry Broadleaf Evergreen Formation- Forest/Shrubland (coppice).

Distribution in Bahamas/Globally: *Ardisia escaionioides* occurs on the northern island groupings in the Bahamian Archipelago, as well as Florida, the Caribbean region, and Central America.

Medicinal/Cultural/Economic usage: *Ardisia escaionioides* is not used medicinally in the Bahamas.

Target 2

An assessment of the conservation status of all known plant species, as far as possible, to guide conservation action

**IUCN Redlist
Certification Training
Nov 11-17th, 2018**

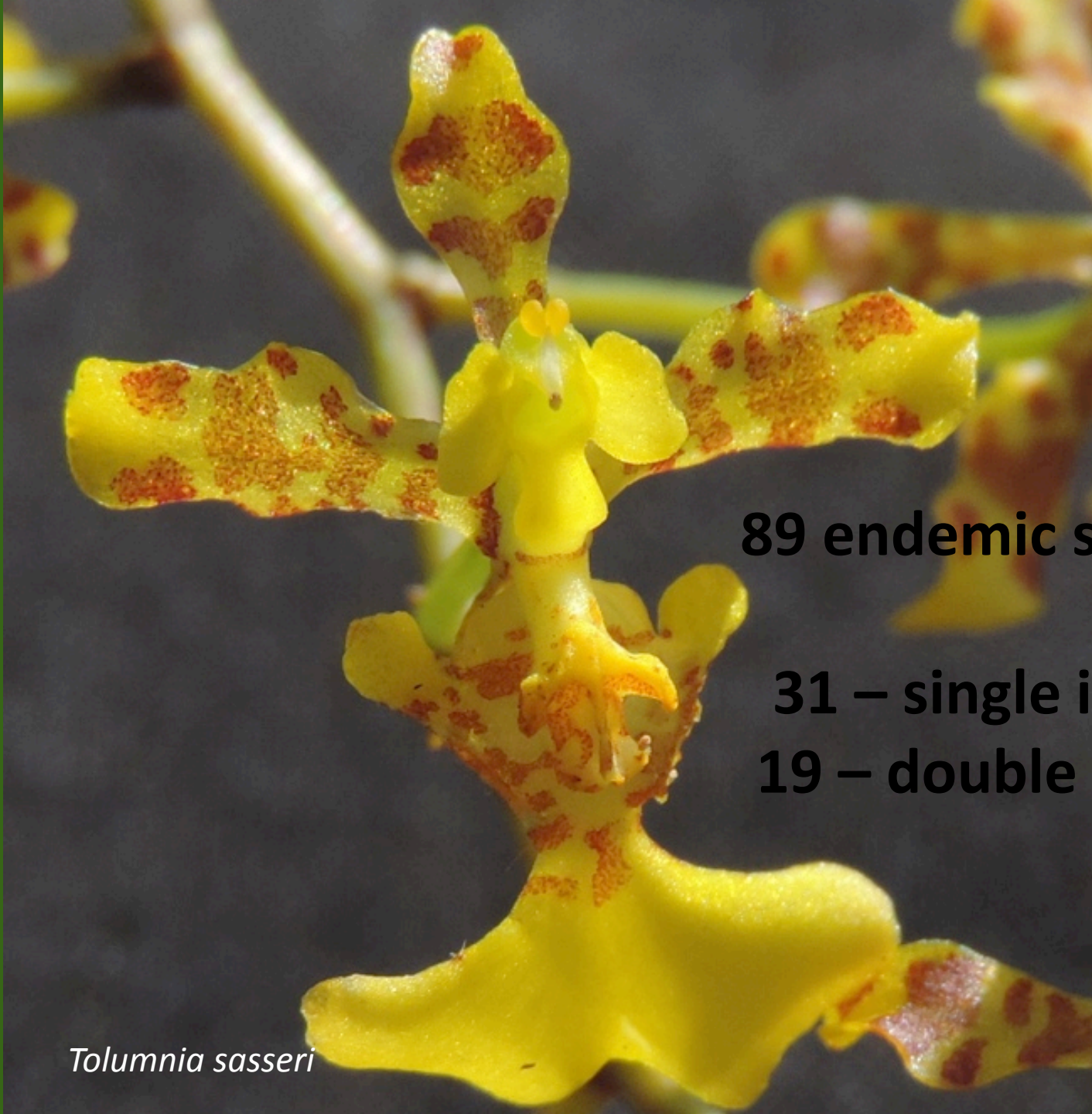
Lantana balsamifera

Endemic Seed Plants in the Bahamian Archipelago

Botanical Review (2014) 80:204–230



Wedelia bahamensis



89 endemic species

31 – single island

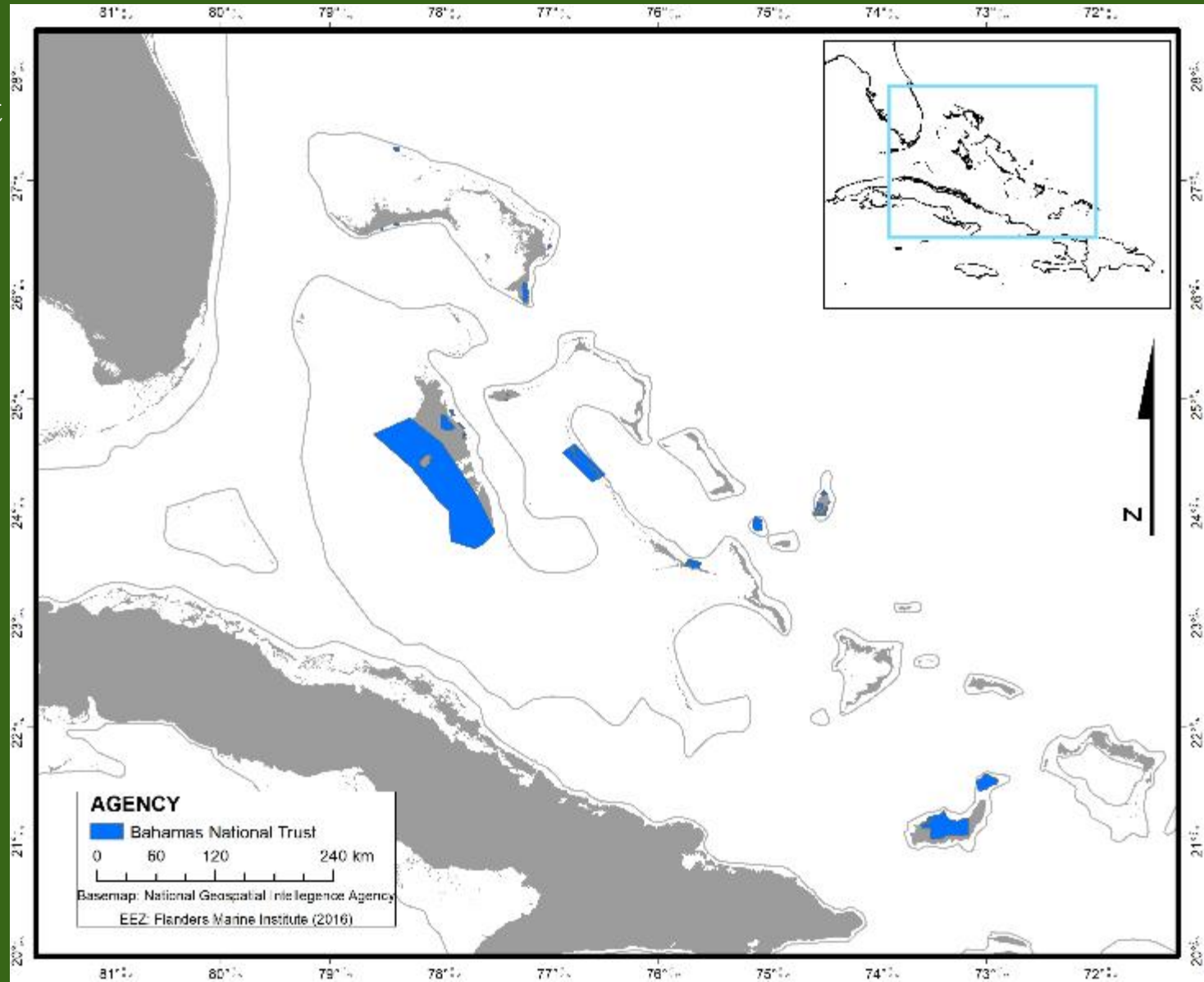
19 – double island

Tolumnia sasseri

Target 4

At least 15 per cent of each ecological region or vegetation type secured through effective management and/or restoration.

2020 goals. Caribbean Challenge – 20% of marine and near shore habitats protected



Target 5

At least 75 per cent of the most important areas for plant diversity of each ecological region protected with effective management in place for conserving plants and their genetic diversity.

	<u>National Parks/Protected Areas</u>	<u>Island/Group</u>	<u>Acres</u>	<u>PA Type</u>
1	Tilloo Cay Reserve	Abaco	11	Terrestrial
2	Fowl Cays National Park		3,200	Marine & Terrestrial
3	Abaco National Park		22,500	Terrestrial
4	Walker's Cay National Park		5,800	Marine
5	Black Sound Cay National Park		2	Marine and Terrestrial
6	Pelican Cays Land And Sea Park		2100	Marine & Terrestrial
7	Blue Holes National Park	Andros	40,000	Terrestrial with freshwater
8	Crab Replenishment Reserve		4,000	Marine & Terrestrial
9	Andros North Marine Park		5,000	Marine & Terrestrial
10	Andros South Marine Park		3,500	Marine
11	West Side National Park		1,500,000	Marine & Terrestrial
12	Conception Island National Park	Conception Island	30,000	Marine & Terrestrial
13	Marine Farm	Crooked Island	4.44	Terrestrial
14	Hope Great House		3.60	Terrestrial
15	Leon Levy Native Plant Preserve	Eleuthera	25	Terrestrial
16	Exuma Cays Land & Sea Park	Exuma	174,194	Marine and Terrestrial
17	Moriah Harbour Cay National Park		22,833	Marine and Terrestrial
18	Rand Nature Centre	Grand Bahama	100	Terrestrial
19	Lucayan National Park		1,937	Marine & Terrestrial
20	Peterson Cay National Park		1,090	Marine & Terrestrial
21	Little Inagua National Park		62,800	Marine & Terrestrial
22	Inagua National Park	Inagua	220,000	Marine & Terrestrial
23	Union Creek Reserve		6,150	Marine
24	The Retreat	New Providence	11	Terrestrial
25	Primeval Forest National Park		7.5	Terrestrial
26	Bonefish Pond National Park		1,235	Marine & Terrestrial
27	Harrold & Wilson's Ponds National Park		250	Terrestrial with freshwater
28	Graham's Harbour Iguana & Seabird National Park		5,723	Marine & Terrestrial
29	West Coast Marine Park	San Salvador	10,313	Marine
30	Pigeon Creek & Snow Bay National Park		5,060	Marine
31	Southern Great Lake National Park		4,068	Terrestrial with freshwater
32	Green's Bay National Park		586	Marine



Target 6

At least 75 per cent of production lands in each sector managed sustainably, consistent with the conservation of plant diversity.

Pinus caribea var. *bahamensis*

Target 7

At least 75 % of known
threatened plant species
conserved *in-situ*



Clematis plukenetii

In-Situ Conservation at LLNPP

- *Clematis plukenetii*
- *Spathelia bahamensis*
- *Thounia discolor*
- *Varronia bahamensis*
- *Waltheria bahamensis*

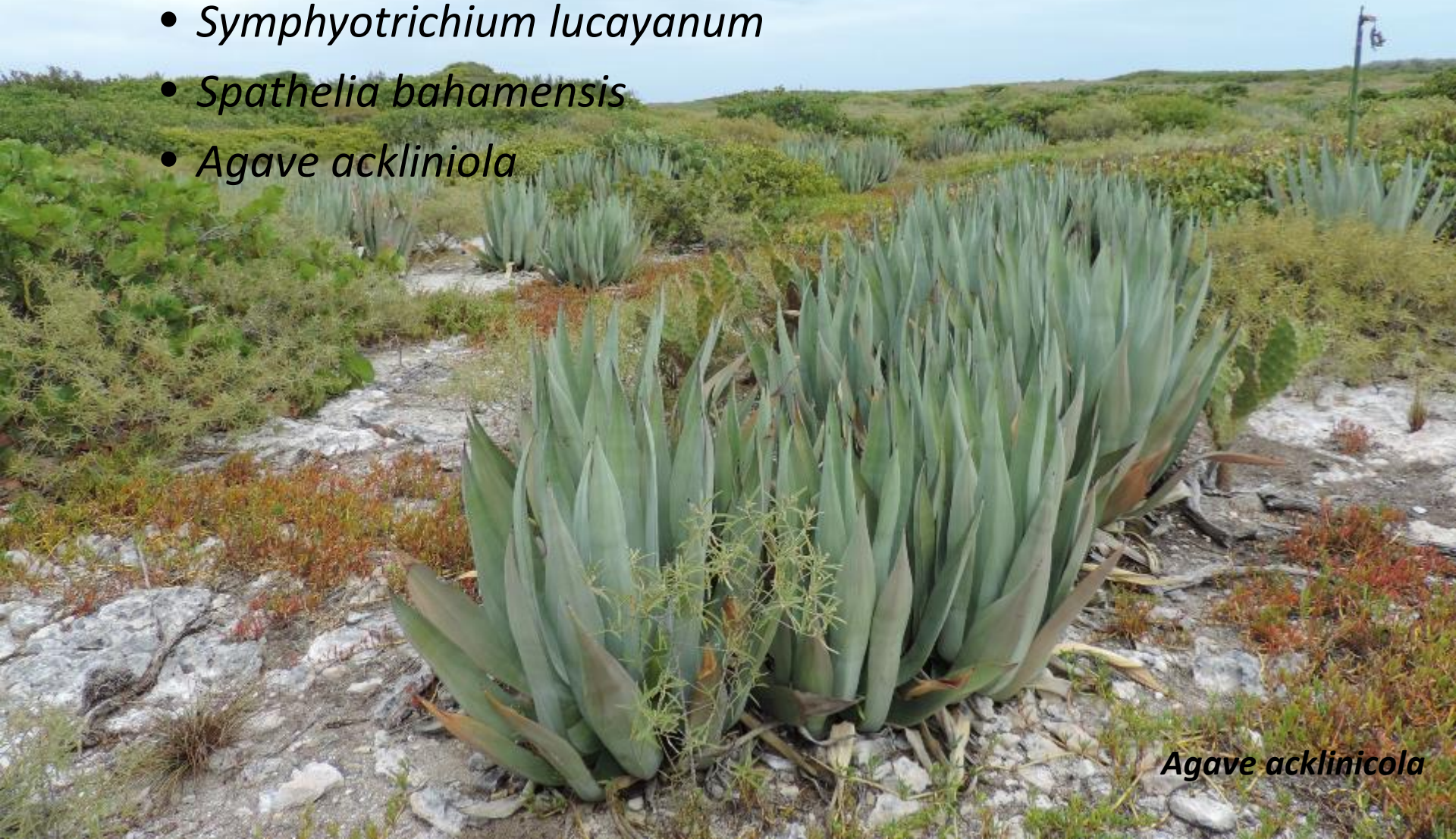
~ 6% of Bahamian endemics

Spathelia bahamensis

BNT Terrestrial Park System

– Known (19 species/~23% of total)

- *Symphyotrichum lucayanum*
- *Spathelia bahamensis*
- *Agave ackliniola*



Agave acklinicola

- *Chiococca stricta*
- *Cyperus correllii*
- *Euphorbia longinsulicola*
- *Harrisia brookii*
- *Spermacoce felis-insulae*
- *Zamia lucayana*



Target 8


At least 75 percent of threatened plant species in *ex-situ* collections, preferably in the country of origin, and at least 20 per cent available for recovery and restoration programmes



Harrisia brookii



Euphorbia longinsulicula



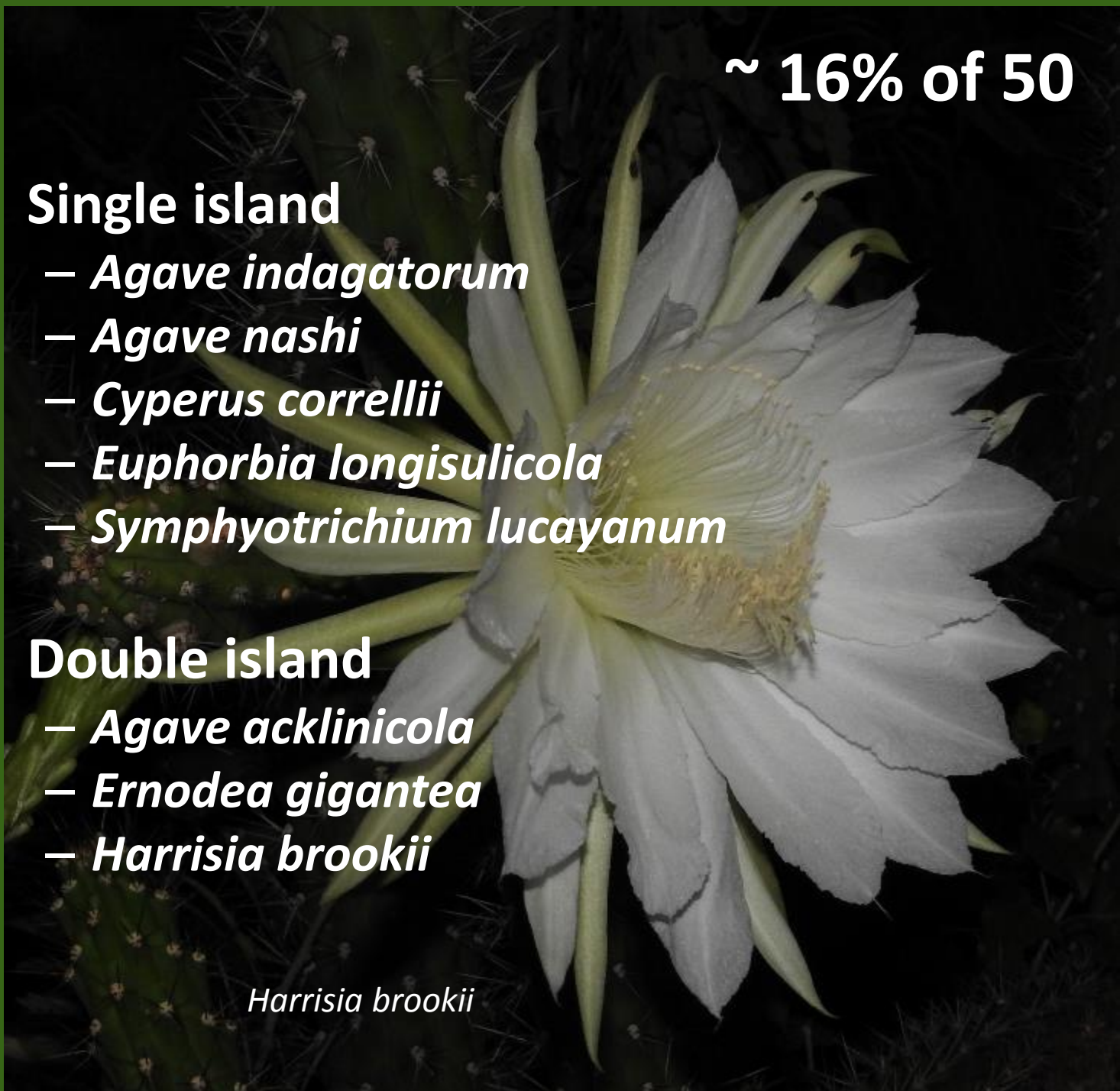
Living Collection – 46 (~52% of 89)
In Cultivation – 14 (~16% of 89)

Passiflora bahamensis

~ 16% of 50

- **Single island**
 - *Agave indagatorum*
 - *Agave nashi*
 - *Cyperus correllii*
 - *Euphorbia longisulicola*
 - *Symphyotrichium lucayanum*
- **Double island**
 - *Agave acklinicola*
 - *Ernodea gigantea*
 - *Harrisia brookii*

Harrisia brookii



A close-up photograph of the plant Galactia bahamensis. The image shows several bright purple flowers with yellow centers and green leaves. The flowers are arranged in a cluster, and the leaves are small and rounded. The background is a soft, out-of-focus green.

Targets 9, 11-12
Wild Crops

Galactia bahamensis



Croton eluteria



Target 10

Effective management plans in place to prevent new biological invasions and to manage important areas for plant diversity that are invaded

- NBSAP 1999
- Bahamas
National Invasive
Species Strategy
2013
- Dossier of
Invasive Species
– Bahamas 2017



Casuarina equisetifolia



Target 13

Indigenous and local knowledge, innovations, and practices associated with plant resources, maintained or increased, as appropriate to support customary use, sustainable livelihoods, local food security, and healthcare



Spathelia bahamensis

Ethnobotanical Studies



- Higgs, L. 1978. *Bush Medicine in the Bahamas*. 20 pages
- Randolph, L. 1994. *Ethnobiology of North Andros Island, Bahamas*. Doctoral Dissertation, Miami University, Oxford, Ohio
- Hanna-Smith, M. 2005. *Bush Medicine in the Bahamian Folk Tradition*. 66 pages.
- McCormack, J. H. et al. 2011. *Bush Medicine of the Bahamas: a cross cultural perspective from San Salvador Island*. 311 pages
- Richey-Abbey, Laurel Rhea. 2012. *Bush Medicine in the Family Islands: The Medical Ethnobotany of Cat Island and Long Island, Bahamas* Doctoral Dissertation, Miami University, Oxford, Ohio

LLNPP Medicinal Plant Displays



Pain
Cold/Flu
Ob-Gyn/Infant Care
Circulatory
Dermatological
Respiratory
Gastrointestinal
Strengthening Teas

LLNPP Edible History



48 species of
trees/shrubs/herbs

Target 14

The importance of plant diversity and the need for its conservation incorporated into communication, education and public awareness programmes

- **Education beautification program on Eleuthera with signature species for each school**
- **National Art Gallery of the Bahamas (NAGB) Sculpture Garden in Nassau, New Providence**

Waltheria bahamensis

55 species of trees and shrubs





Forest on a Pallet Project

National Art Gallery of the Bahamas Sculpture Garden



Target 15

The number of trained people working with appropriate facilities sufficient according to national needs, to achieve the targets of this strategy



Facilities

- Leon Levy Native Plant Preserve
 - Botanical garden
 - Bahamas National Herbarium
 - Research Laboratory

Encyclia correllii

Target 16

Institutions, networks, and partnerships for plant conservation established or strengthened at national, regional and international levels to achieve the targets of this Strategy



FAIRCHILD TROPICAL BOTANIC GARDEN
Exploring, Explaining and Conserving the World of Tropical Plants



GSPC Targets progress

	Objective 1 - Knowledge			Objective 2 - Conservation				
Progress	Target 1	Target 2	Target 3	Target 4	Target 5	Target 6	Target 7	Target 8
	Objective 2 - Conservation		Objective 3 – Sustainable use			Objective 4 Education	Objective 5 Capacity	
Progress	Target 9	Target 10	Target 11	Target 12	Target 13	Target 14	Target 15	Target 16

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Linum bahamense



www.bnt.bs

www.levypreserve.org

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Thounia discolor

QUESTIONS?



Cyperus correllii