

Everglades Cooperative Invasive Species Management Area



Invasive Plant Operations Overview

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ECISMA Priority Plant Species

Long-term Management

- Air potato (*Dioscorea bulbifera*)
- Australian pine (*Casuarina* spp.)
- Brazilian pepper (*Schinus terebinthifolia*)
- Burma reed (*Neyraudia reynaudiana*)
- Cogongrass (*Imperata cylindrica*)
- Earleaf acacia (*Acacia auriculiformis*)
- Melaleuca (*Melaleuca quinquenervia*)
- Napiergrass (*Pennisetum purpureum*)
- Old World climbing fern (*Lygodium microphyllum*)
- Shoebuttan ardisia (*Ardisia elliptica*)
- Alligator weed (*Alternanthera philoxeroides*)
- American evergreen (*Syngonium podophyllum*)
- Arrowhead vine (*Syngonium podophyllum*)
- Asian sword fern (*Nephrolepis brownii*)
- Black sage (*Cordia curassavica*)
- Catclaw vine (*Dolichandra unguis-cati*)
- Common Reed (*Phragmites*)
- Day jessamine (*Cestrum diurnum*)

- Golden pothos (*Epipremnum pinnatum*)
- Hawaiian Half-flower (*Scaevola sericea*)
- Inch plant (*Tradescantia zebrina*)
- Japanese climbing fern (*Lygodium japonicum*)
- Jaragua (*Hyparrhenia rufa*)
- Jasmine (*Jasminum* spp.)
- Java plum (*Syzygium cumini*)
- Jeweled maiden fern (*Thelypteris opulenta*)
- Kalanchoe (*Kalanchoe* spp.)
- Latherleaf (*Colubrina asiatica*)
- Mother in-law's tongue (*Sansevieria trifasciata*)
- Oyster plant (*Tradescantia spathacea*)
- Paragrass (*Urochloa mutica*)
- Primrose willow (*Ludwigia peruviana*)
- Rosary pea (*Abrus precatorius*)
- Seaside Mahoe (*Thespesia populnea*)
- Sewer vine (*Paederia cruddasiana*)
- Surinam cherry (*Eugenia uniflora*)
- Thatching grass (*Hyparrhenia hirta*)

- Torpedo grass (*Panicum repens*)
- Tuberous sword fern (*Nephrolepis cordifolia*)
- Umbrella tree (*Schefflera actinophylla*)
- Winged yam (*Dioscorea alata*)

Containment

- Mile-a-minute vine (*Mikania micrantha*)
- Redwing (*Heteropterys brachiata*)
- West Indian marsh grass (*Hymenachne amplexicaulis*)
- Wright's nutrush (*Scleria lacustris*) – containment

Eradication (?)

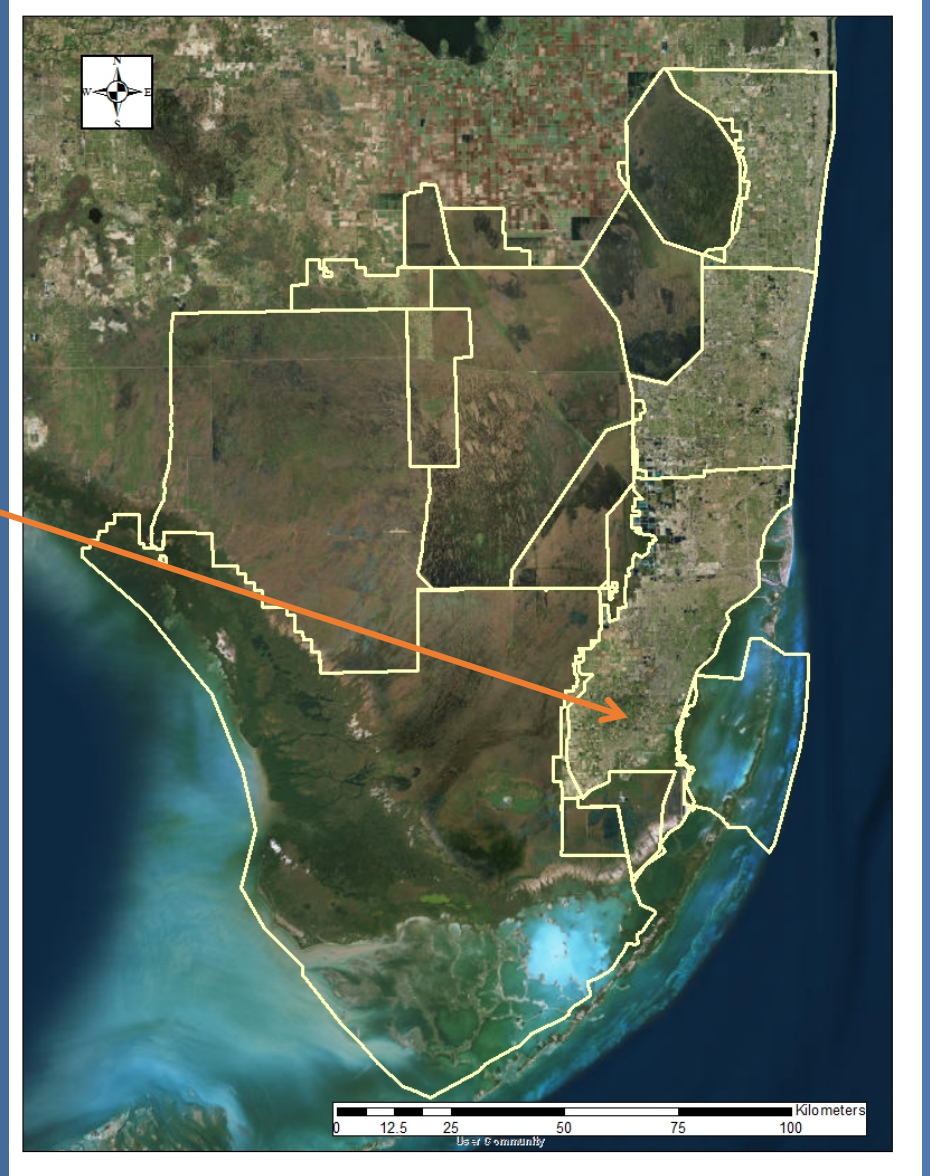
- Dalechampia (*Dalechampia scandens*)
- Exotic black mangrove (*Lumnitzera racemosa*)



2018/2019 Newly Detected Plant Species

Miami-Dade County

Rousselia humilis (Shineseed)
at Hattie Bauer Hammock





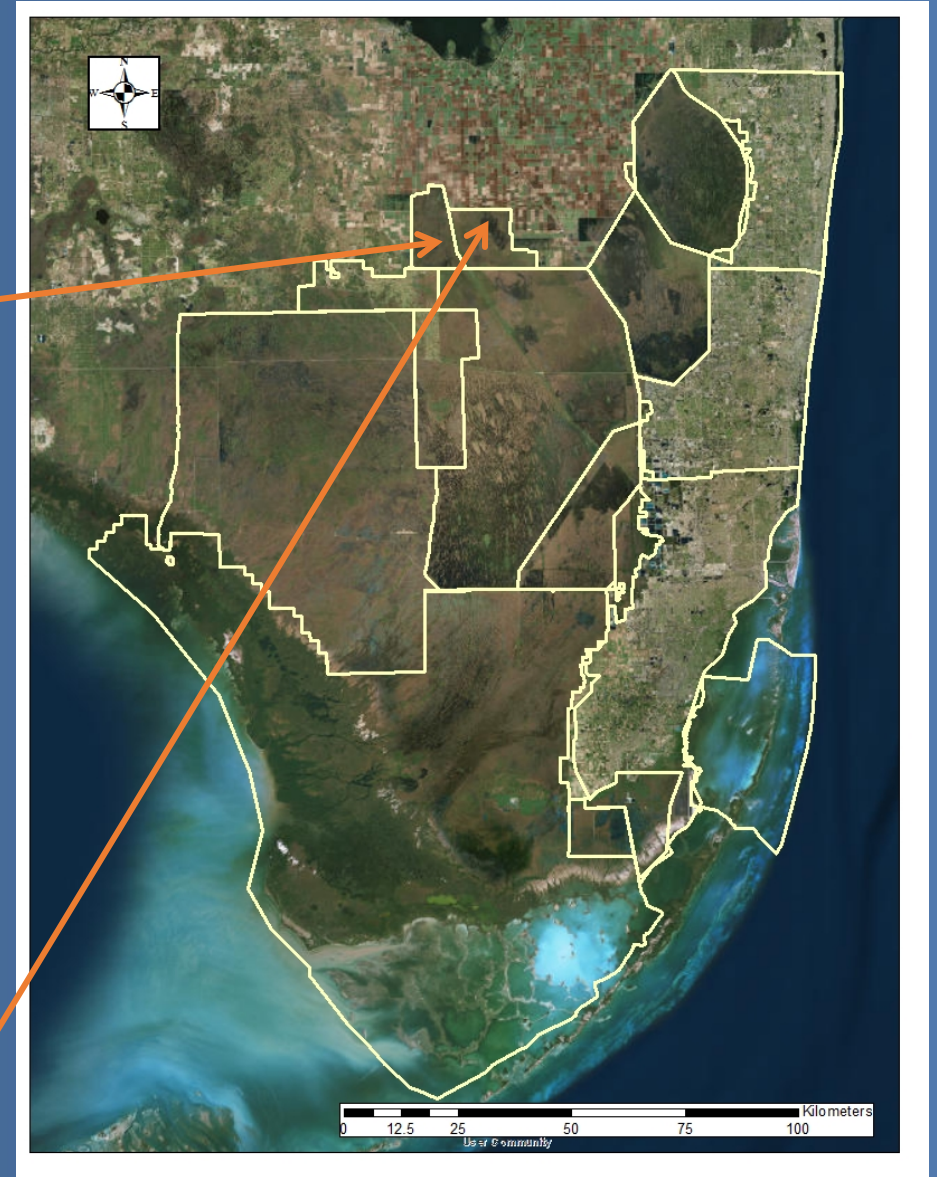
2018/2019 Newly Detected Plant Species

FWC

Oxycaryum cubense (Cuban bulrush)
in Rotenberger WMA



Ricinus communis (Castor bean)
in Holey Land WMA





2018/2019 Newly Detected Plant Species

Broward County

Artocarpus heterophyllus (Jackfruit)

Asystasia gangetica ssp. *Micrantha* (Ganges primrose, Chinese violet)

Barleria repens (Coral creeper)

Caesalpinia pulcherrima (Poinciana, Peacock flower)

Callisia repens (Turtle vine, Creeping inch plant)

Digitaria eriantha (Pangolagrass)

Digitaria longiflora (Indian crabgrass)

Dolichandrone spathacea (Tui, Mangrove trumpet tree)

Digitaria setigera (East Indian crabgrass)

Hyparrhenia rufa (Jaragua grass)

Luffa aegyptiaca (Sponge gourd, Loofah)

Opuntia cochellinifera (Cochineal Cactus)

Paspalum arundinaceum (Thick ditch crowngrass)

Paspalum eglume (Florida reimargrass)

Tournefortia bicolor (Niguita)

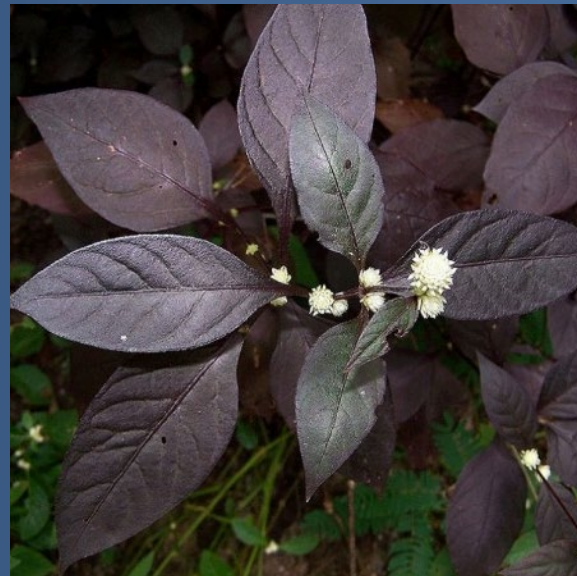




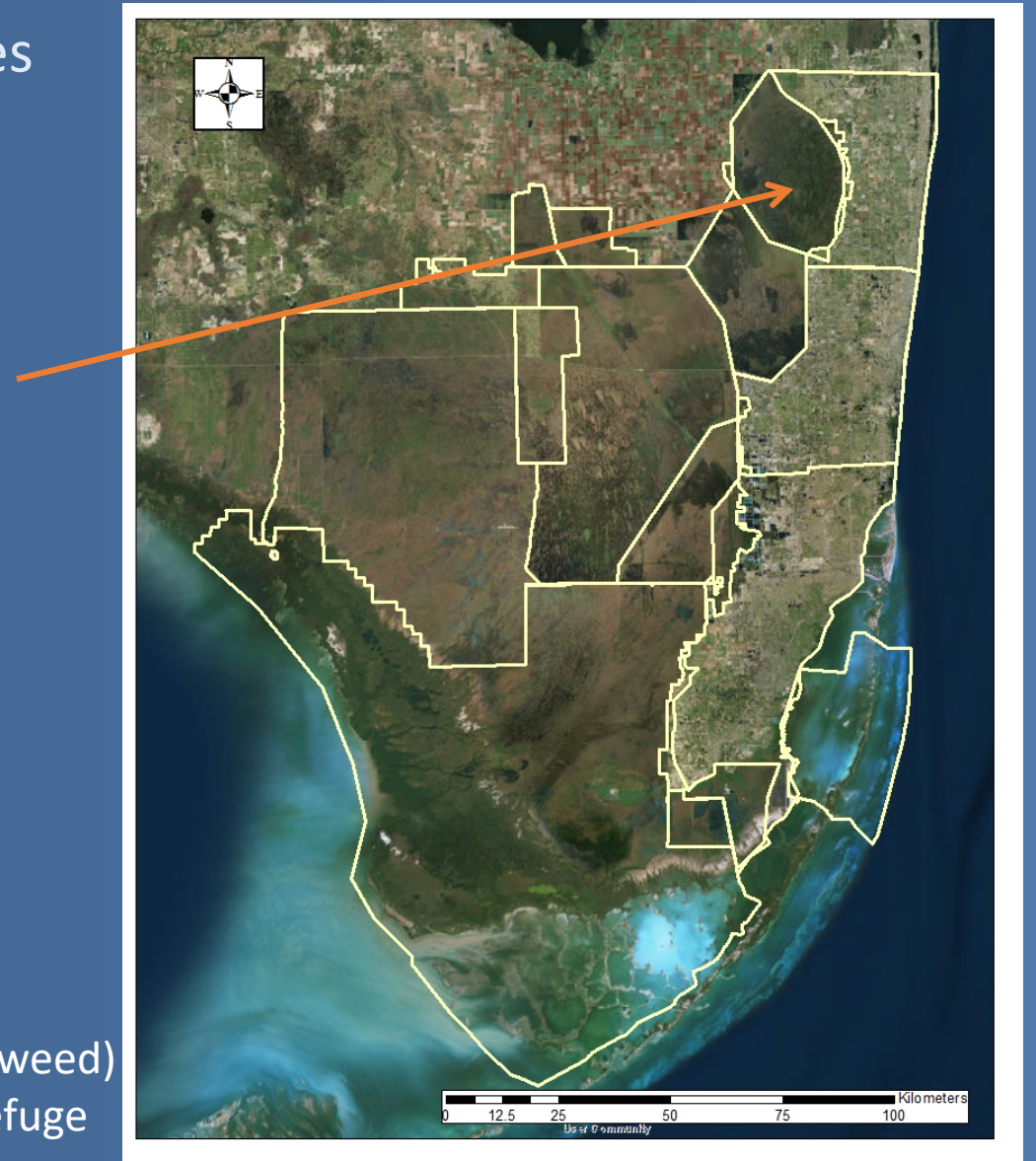
2018/2019 Newly Detected Plant Species

USFWS

Youngia japonica (Oriental false hawksbeard)
at Loxahatchee National Wildlife Refuge



Alternanthera brasiliana (Brazilian joyweed)
at Loxahatchee National Wildlife Refuge





2018/2019 Newly Detected Plant Species

Everglades National Park

Passiflora biflora (twin-flowered passion vine)

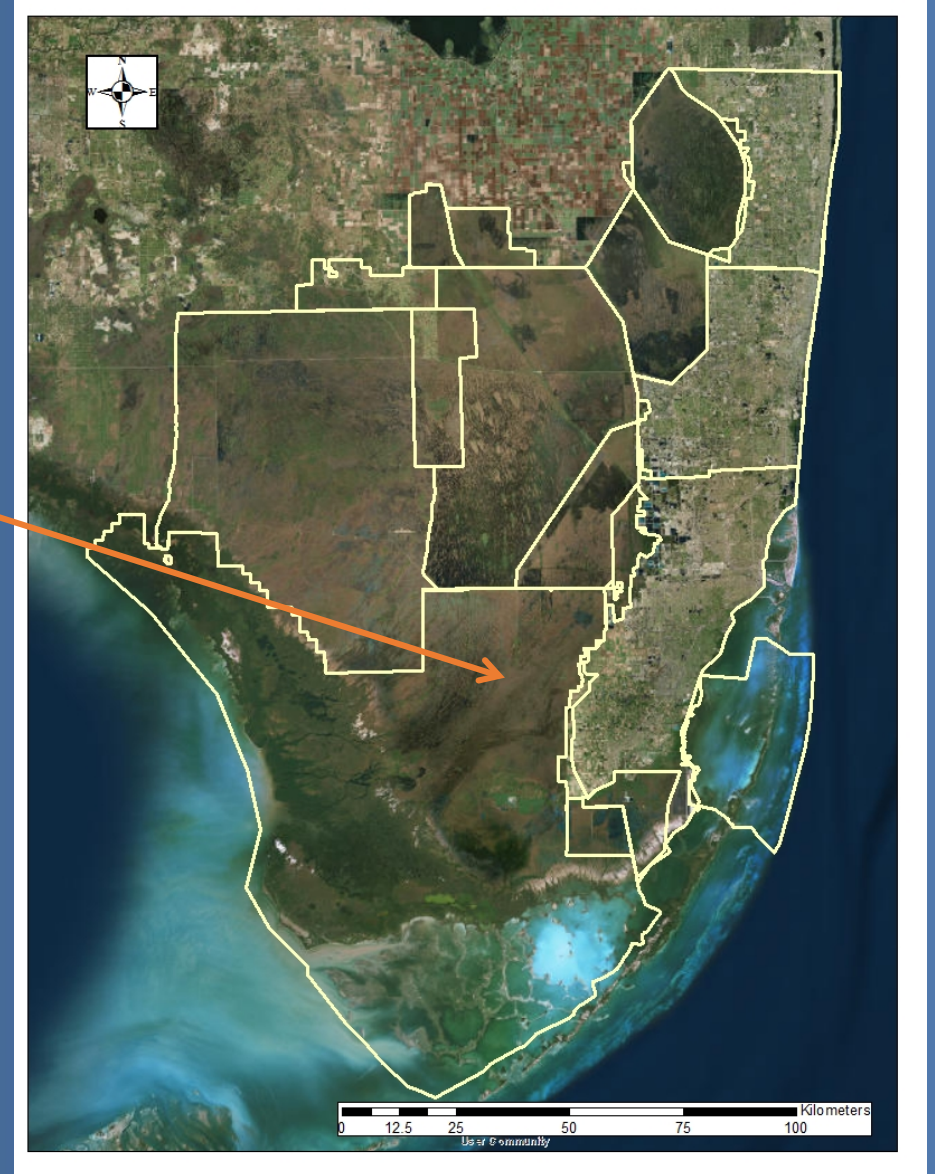
Salvia hispanica (Spanish sage)

Phyllanthus urinaria (chamber bitter)

Acacia auriculiformis (earleaf acacia)

Tamarindus indica (tamarind)

Eryngium foetidum (spiritweed)





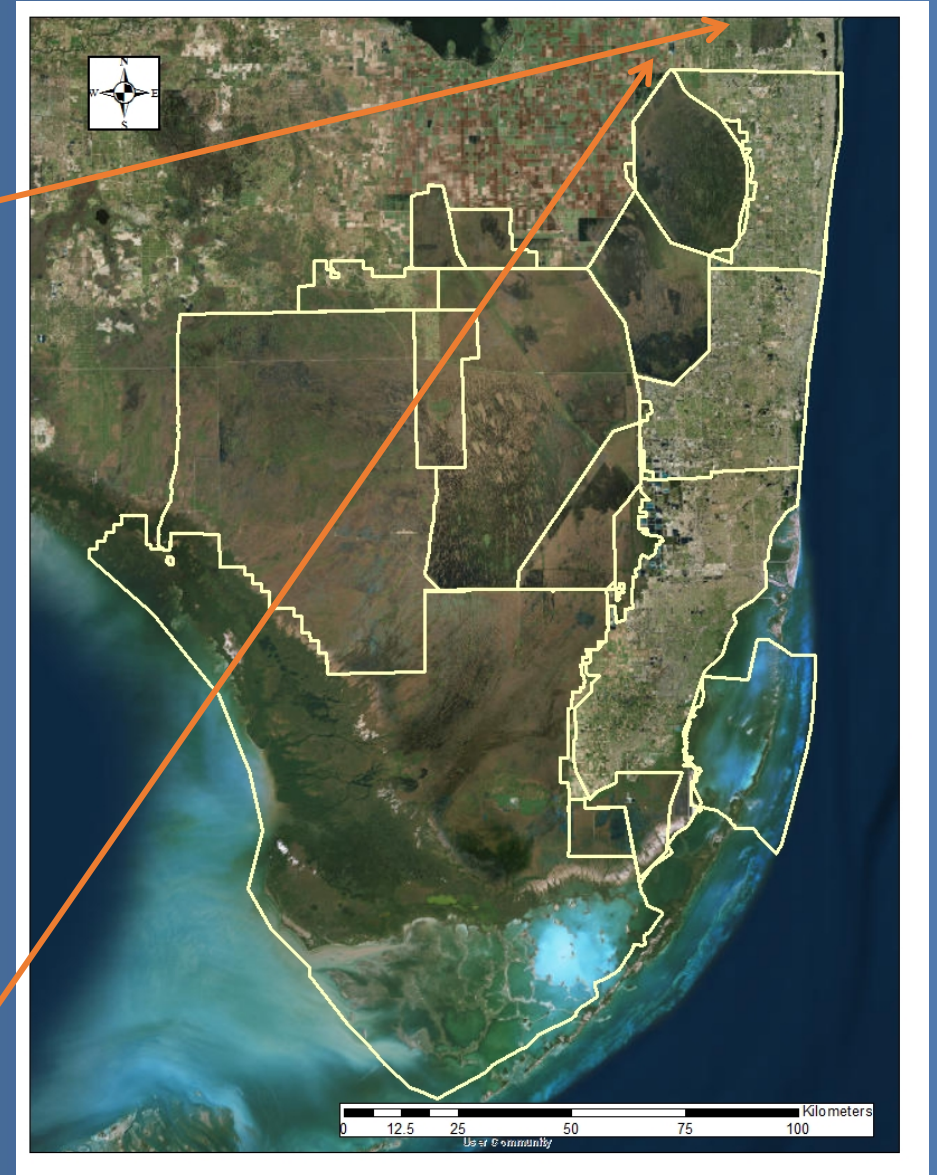
2018/2019 Newly Detected Plant Species

SFWMD

Scleria microcarpa (Tropical nutrush)
at Loxahatchee Slough



Cymbopogon jwarancusa (Iwarancusa grass)
on L-12





2018/2019 Newly Detected Plant Species

Nothing new to report

Florida Department of Transportation

Biscayne National Park

Big Cypress





2018/2019 Treatments: *Melaleuca*

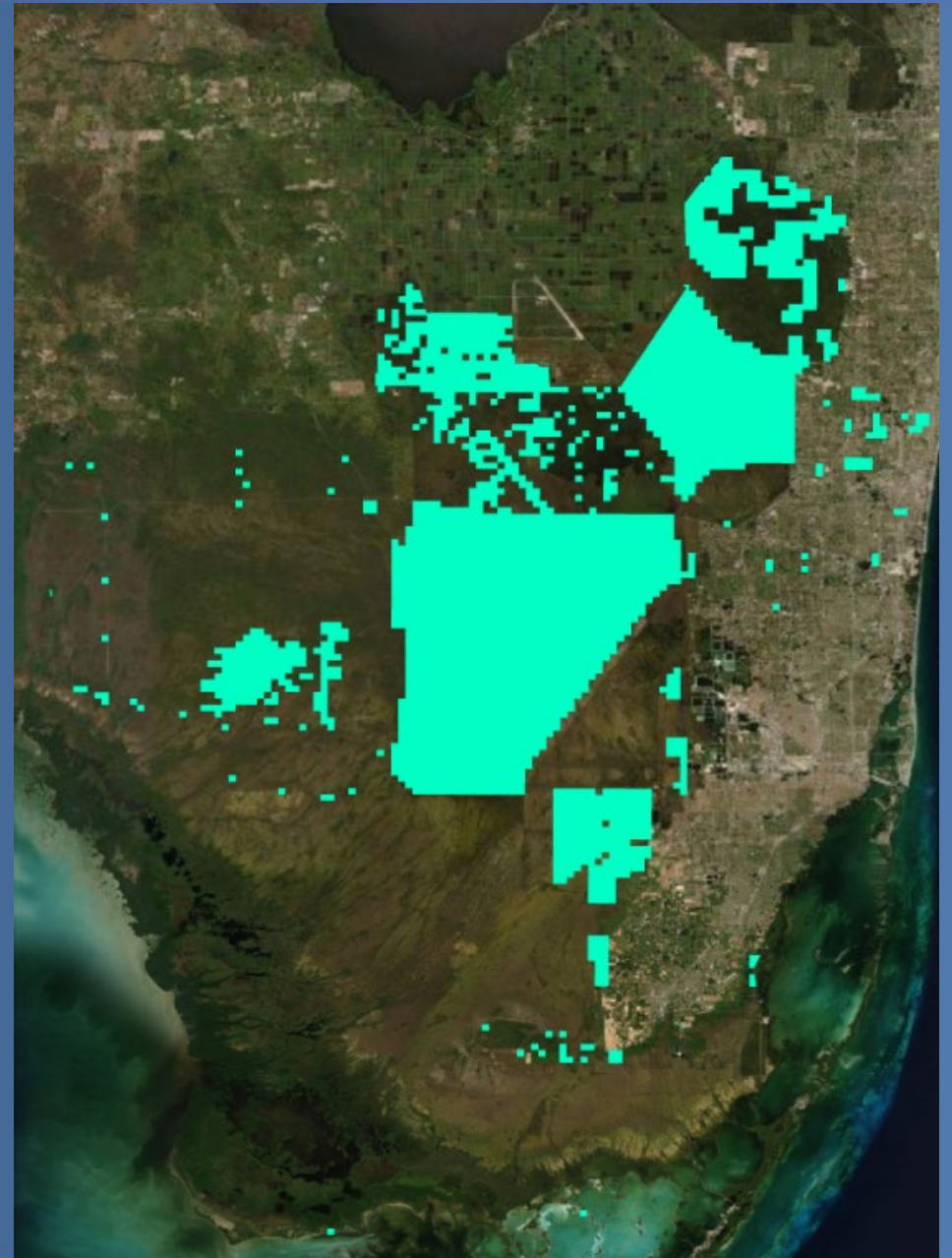
Melaleuca treatments

Predominantly re-treatment and maintenance control

Some initial treatment at:

Everglades NP

ARM Loxahatchee NWR





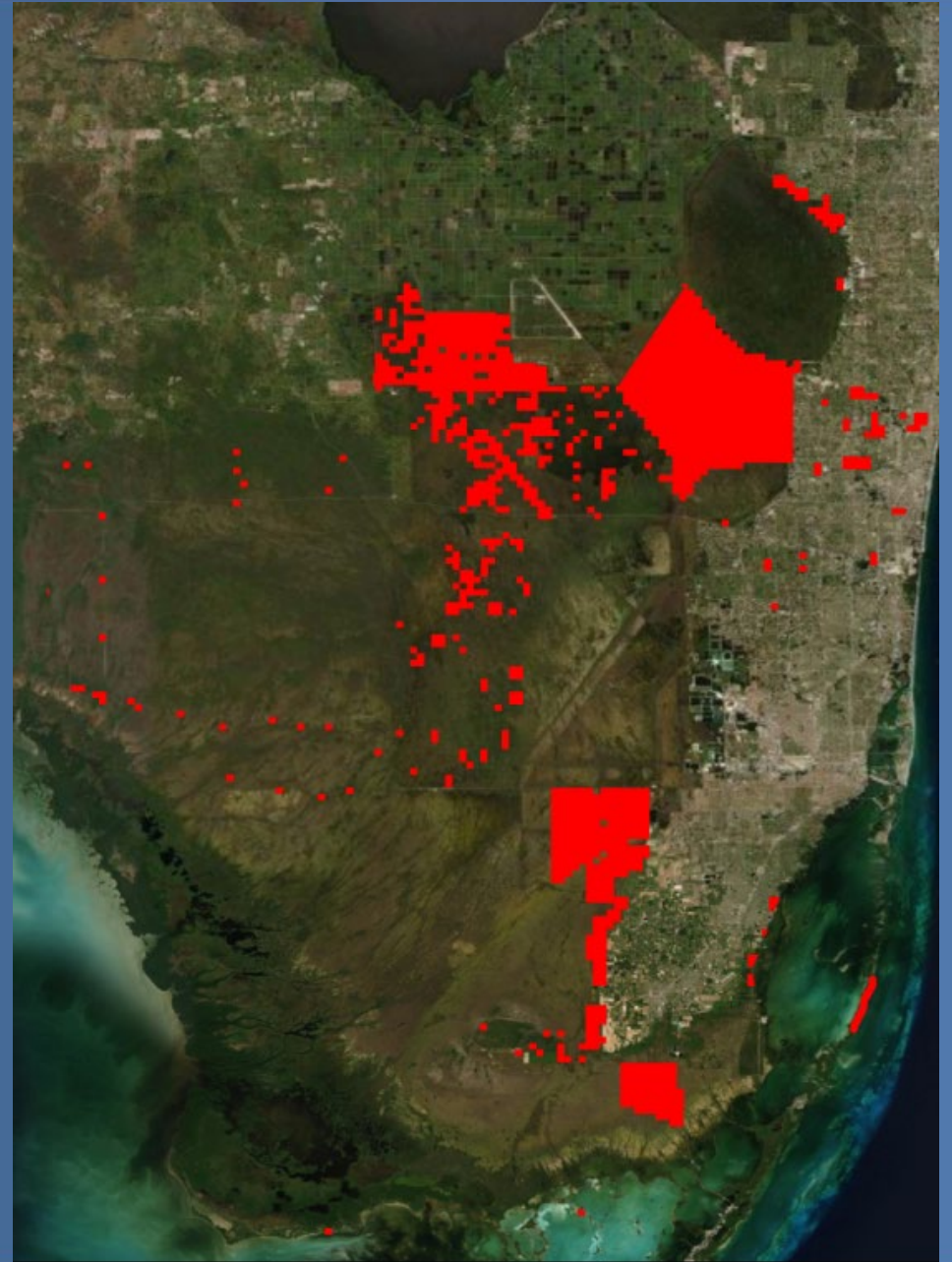
2018/2019 Treatments: Brazilian pepper

Brazilian Pepper Treatments

Most areas had some treatment

Majority of treatment in:

- Rotenberger
- Holey Land
- WCA2&3
- Everglades NP





2018/2019 Treatments: *Lygodium*

Old World Climbing Fern Treatments

Most areas had some treatment

Majority of treatment in:

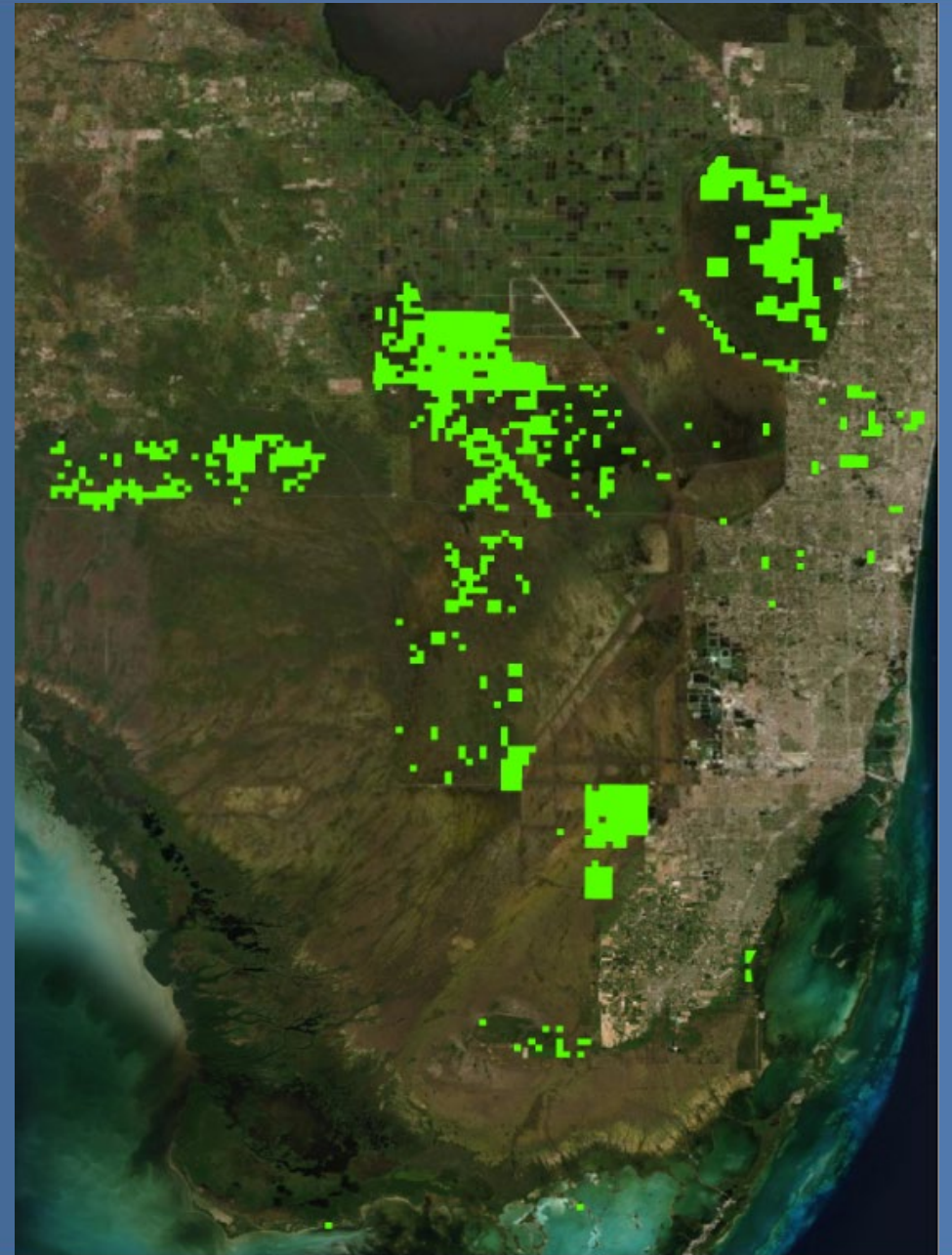
ARM Loxahatchee NWR

Big Cypress NP

Rotenberger

Holey Land

Everglades NP



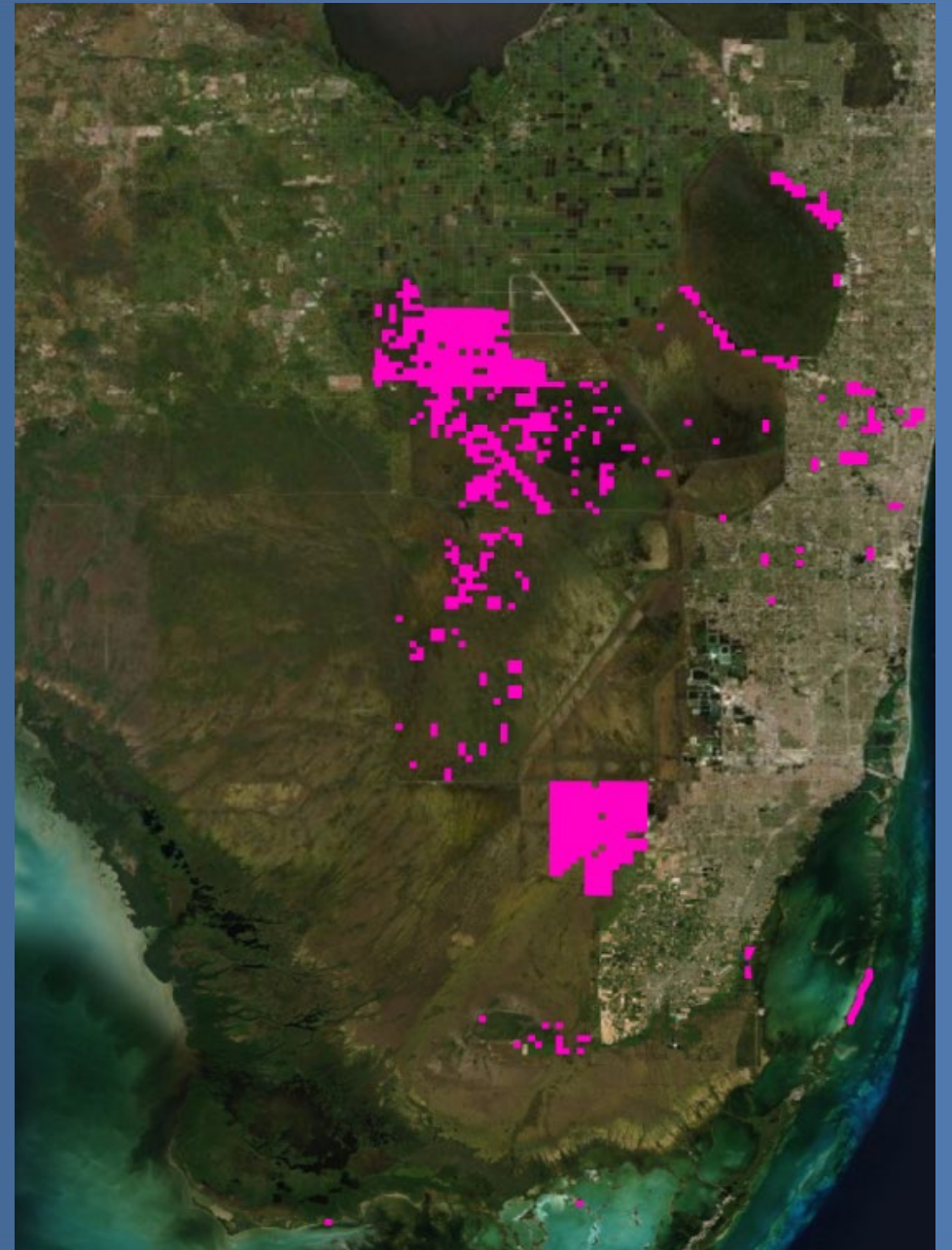


2018/2019 Treatments: Australian pine

Casuarina Treatments

Generally a minor component of
invasive plant communities

More common in northeastern
Everglades NP and urban natural areas





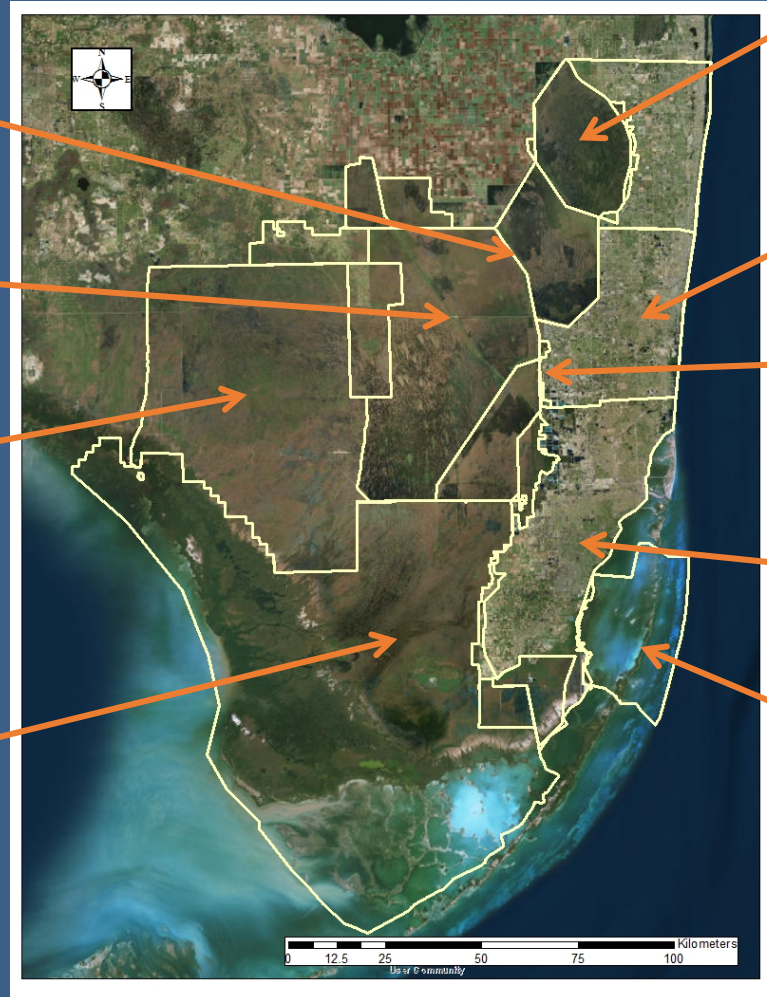
2018/2019 Treatments: Other plant species

FDOT-District One
Torpedograss

FWC
para grass, torpedo grass, west Indian
marsh grass, cuban bulrush

BICY NP
air potato
syngonium
earleaf acacia

EVER NP
shoebuttan ardisia
bishop wood



USFWS
shoebuttan ardisia, java plum, bishop wood, earleaf
acacia, climbing cassia, giant brake fern

Broward Co.
gold coast jessamine, laurel fig, spiral ginger,
seaside mahoe, kalanchoe, syngonium

SFWMD
Lead tree, lantana, day jessamine, guava, climbing
cassia, castorbean, laurel fig, papaya, elephant grass,
napier grass, carrotwood umbrella tree, bottlebrush

Miami-Dade Co.
shoebuttan ardisia, elephant grass, mile-a-minute,
jeweled maiden fern, exotic black mangrove,
red wing

BISC NP
seaside mahoe, latherleaf, scaevola

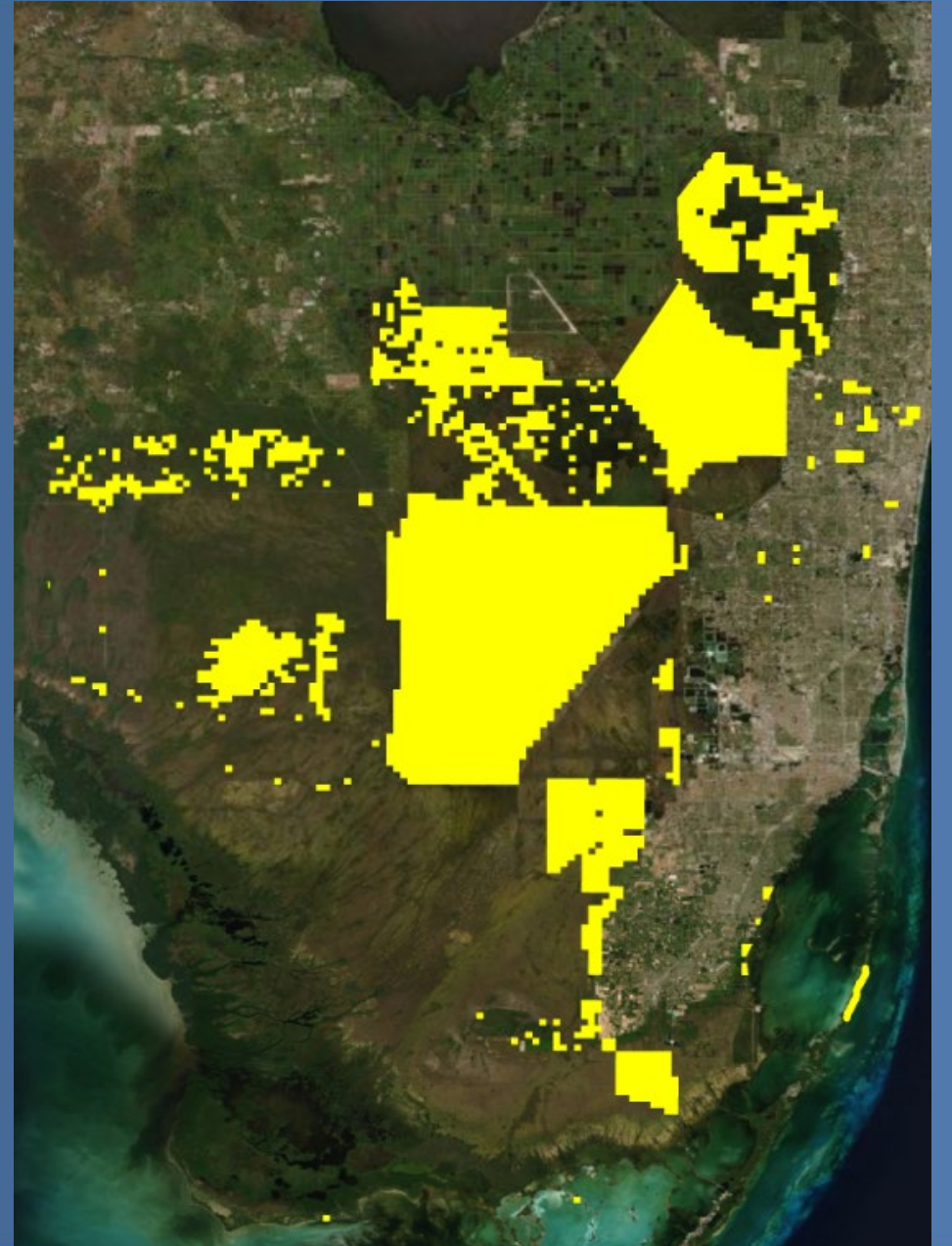


2018/2019 Treatments: Combined

ECISMA partners and cooperators swept well over 550,000 acres for invasive plant treatment between 1 July 2018 and 30 June 2019

Is that a record?

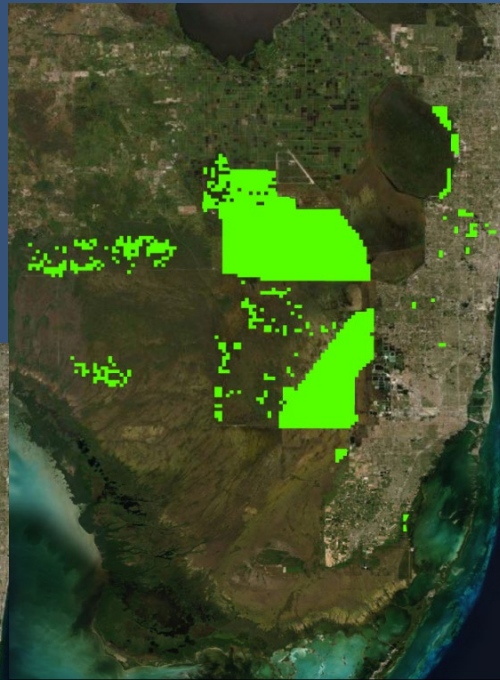
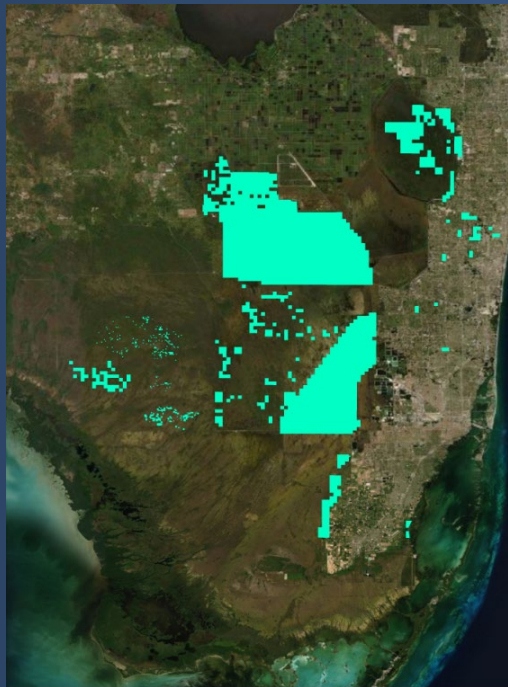
>\$15.4 Million was spent on exotic plant treatment





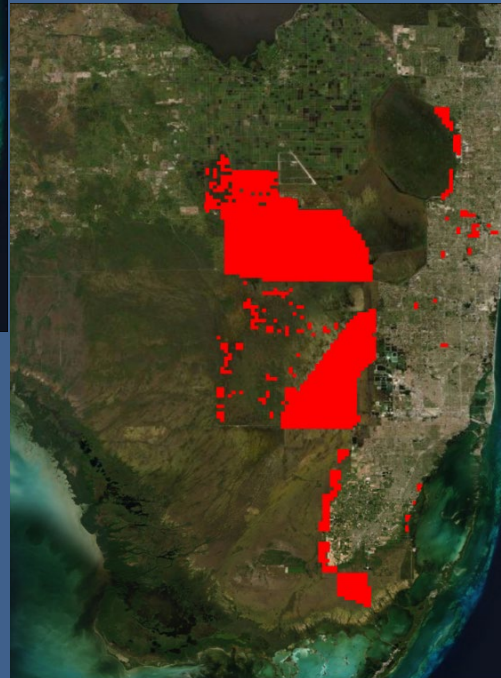
2019/2020 Planned Treatments

Melaleuca

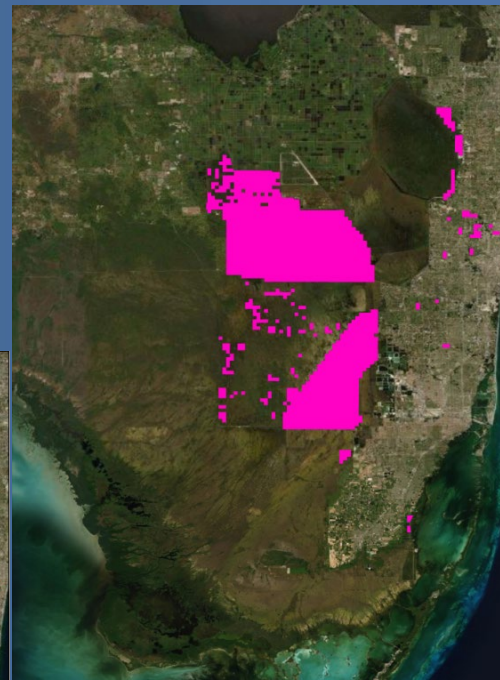


Lygodium

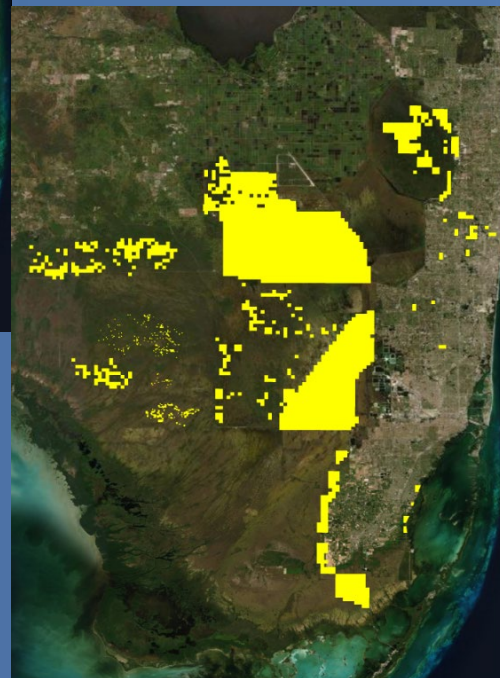
Brazilian pepper



Australian pine



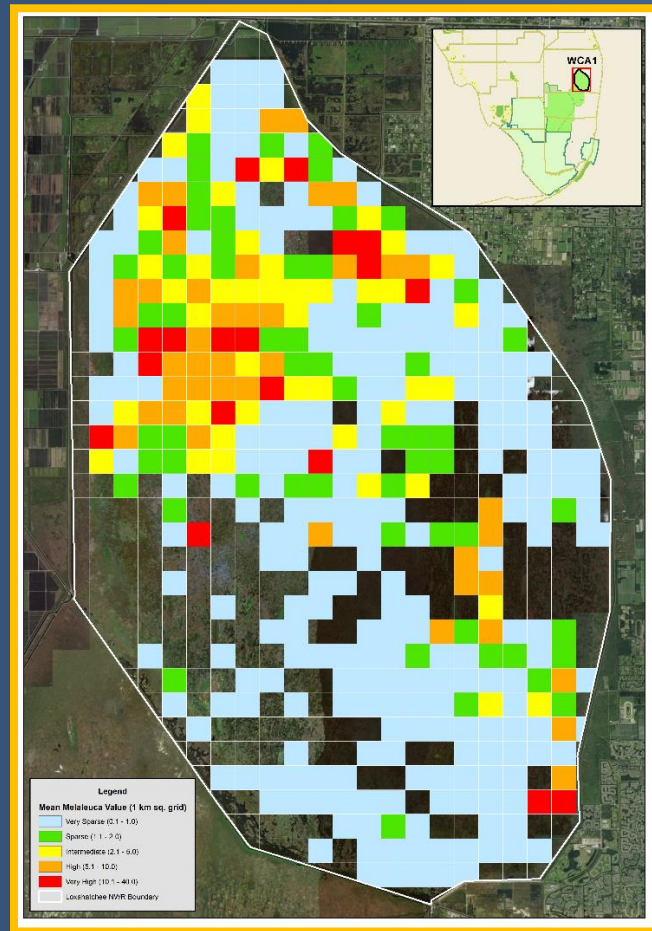
All species



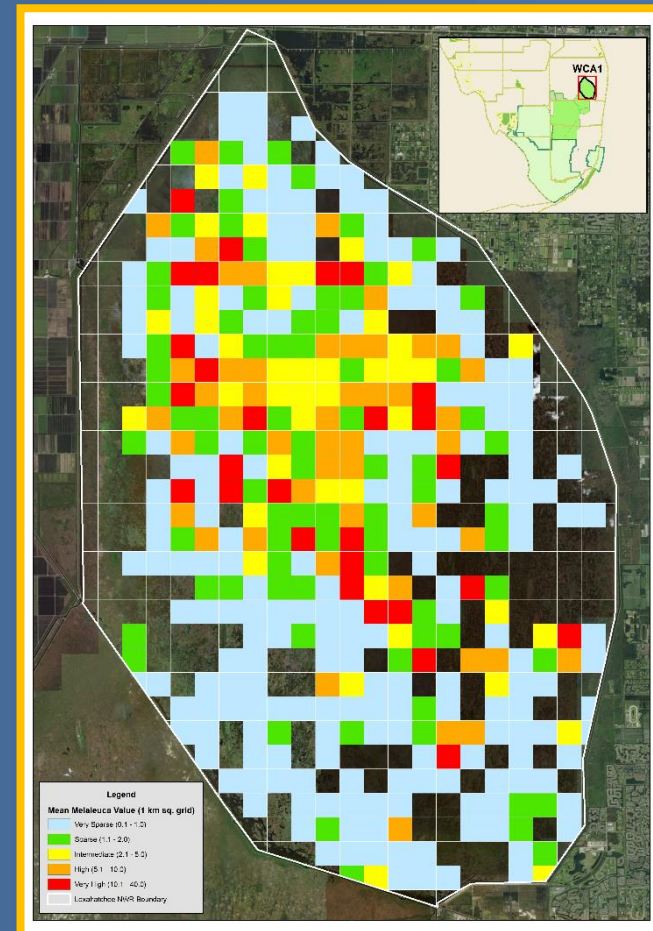


Systematic Reconnaissance Flights (4Km transects) – Loxahatchee NWR

Melaleuca



Lygodium



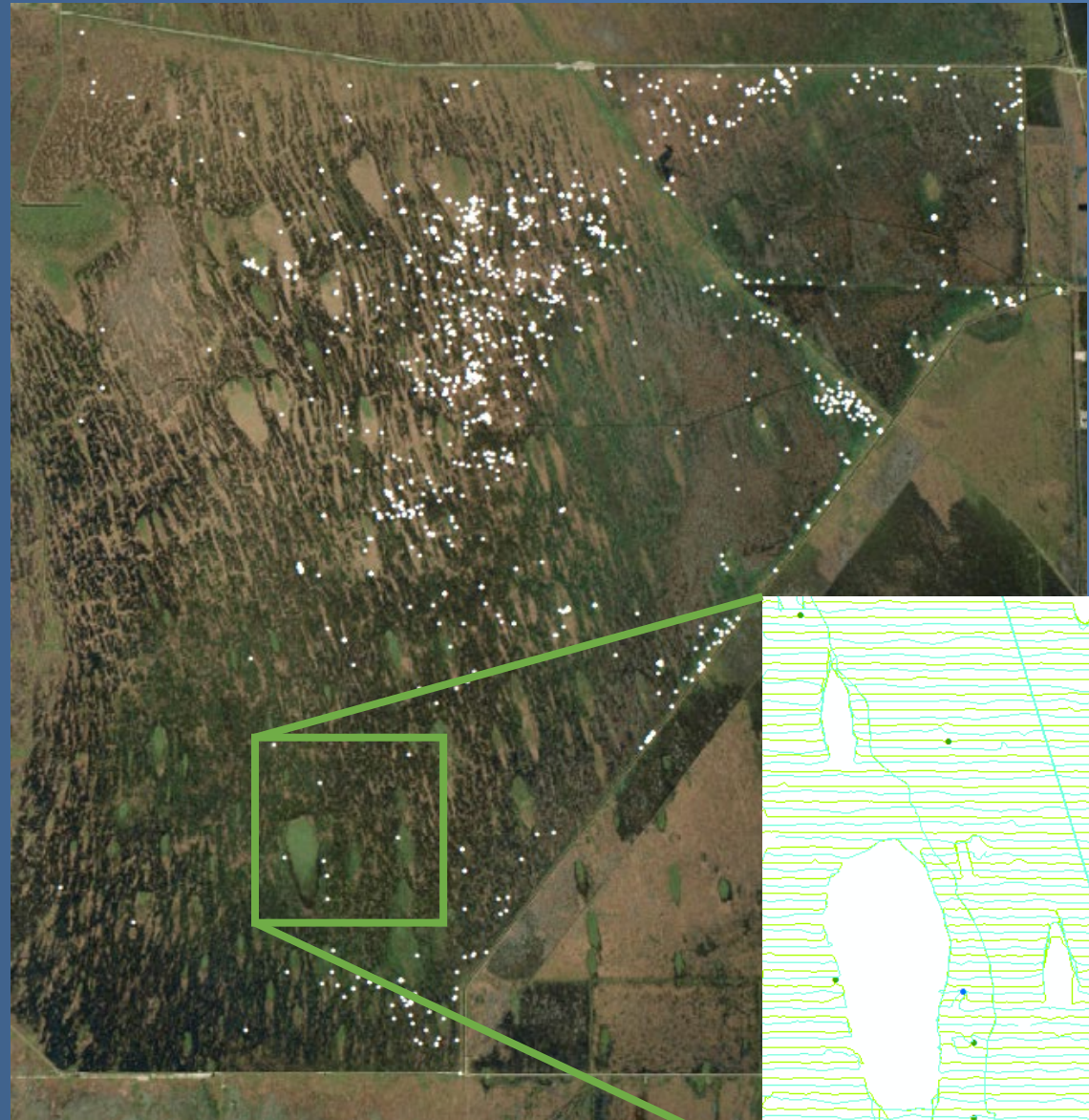


Highlights

Systematic *Melaleuca* maintenance treatments

WCA3AS

- 245,326 acres covered
- 100m grid spacing
- 5 months continuous work
- \$247,453 spent on contractual services
- \$1.01/ac





Highlights

Loxahatchee NWR
SFWMD directed treatments

- 5M/year budgeted for FY19 – FY23
from USFWS, FWC, SFWMD
- ~18,000ac treated in FY19
- 12 months continuous work
- Working with UF/USDA



