

Everglades Complex of Wildlife Management Areas, Pennsuco & East Coast Buffer Strip

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Florida Fish and Wildlife Conservation Commission

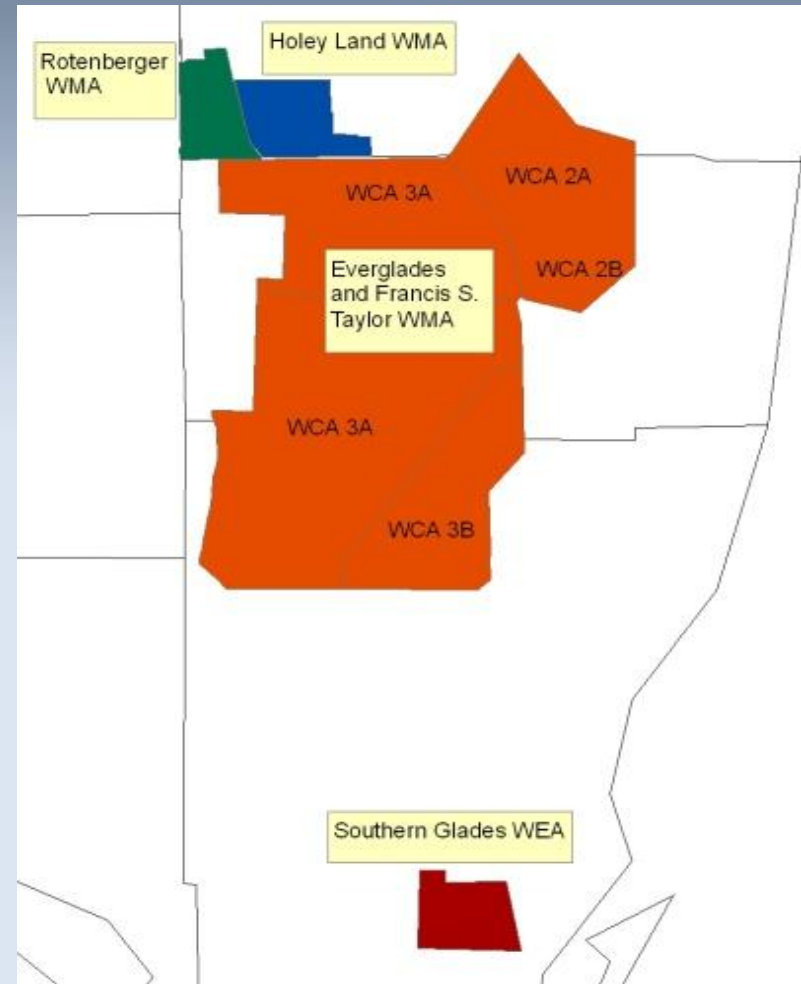
Ellen Donlan

South Florida Water Management District



Everglades Complex of WMAs

- Everglades and Francis S. Taylor WMA
671,831 acres
- Rotenberger WMA
28,760 acres
- Holey Land WMA
35,350 acres
- Southern Glades Wildlife and Environmental Area
30,080 acres



Invasive Species Programs

- SFWMD's objective is to manage invasive species of the WCAs and the ECB. Primary objectives include melaleuca, schinus and lygodium. The SFWMD program started with melaleuca almost 20 years ago.
- FWC shares these, with an emphasis on tree islands. Every year we contract exotic treatment, native tree and shrub planting, and maintenance of planted trees on hundreds of acres of tree islands.

Priority Plant Species

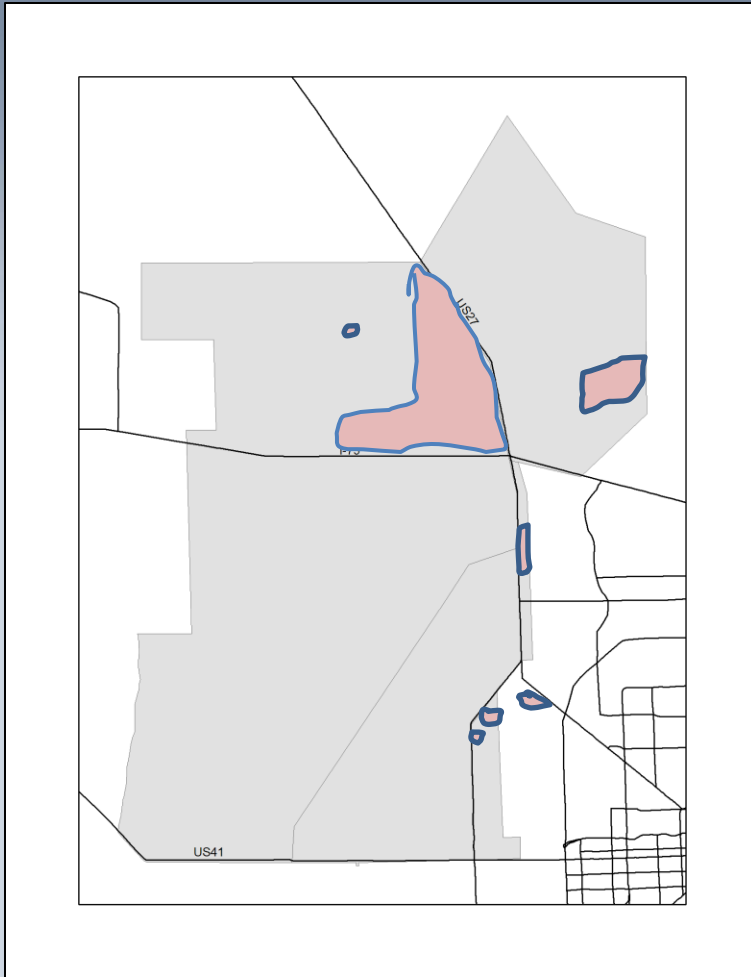
- **Priority Plants**
 - Melaleuca
 - Schinus
 - Lygodium
 - Torpedo grass
 - Cattail, Carolina willow, and primrose willow expansion
- **Keeping our eye out for Tropical American Water Grass aka Bodleweed**
- **Treating Javaplum, earleaf acacia, cestrum and others when encountered**

Priority Animal Species

- **Priority Animals**
 - Burmese and Northern African pythons
 - Purple swamphens (*Porphyrio porphyrio*)
- **Newly Detected Animal Species**
 - Banded Caracol (*Caracolus marginella*) snail found on WCA3B tree island this spring

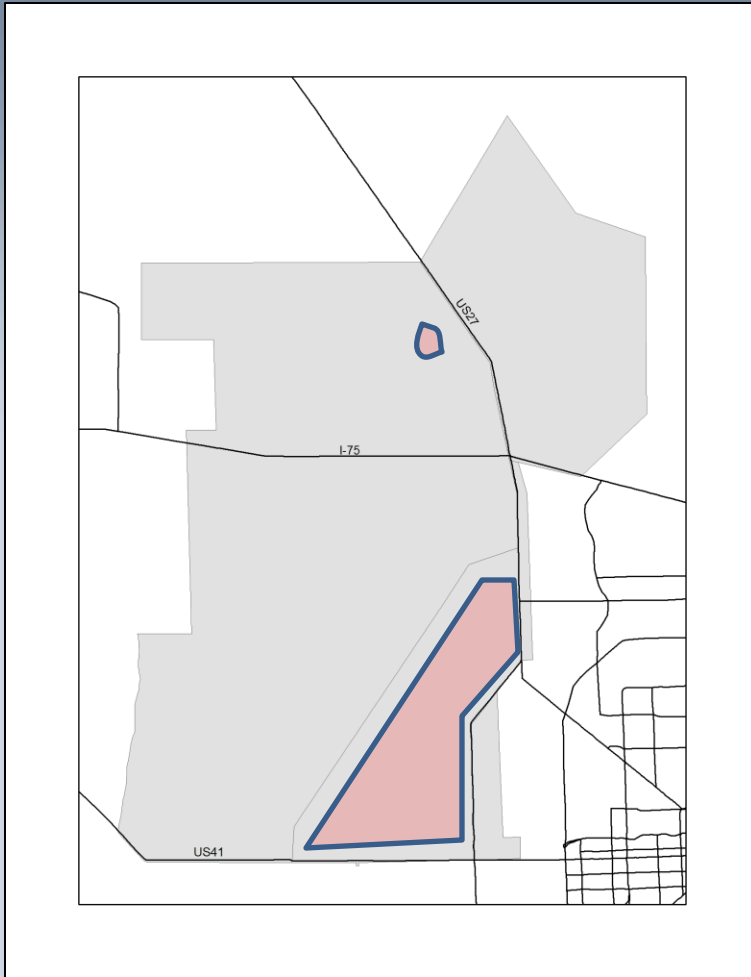
Fiscal Year Treatments: 2010

SFWMD (October- June)



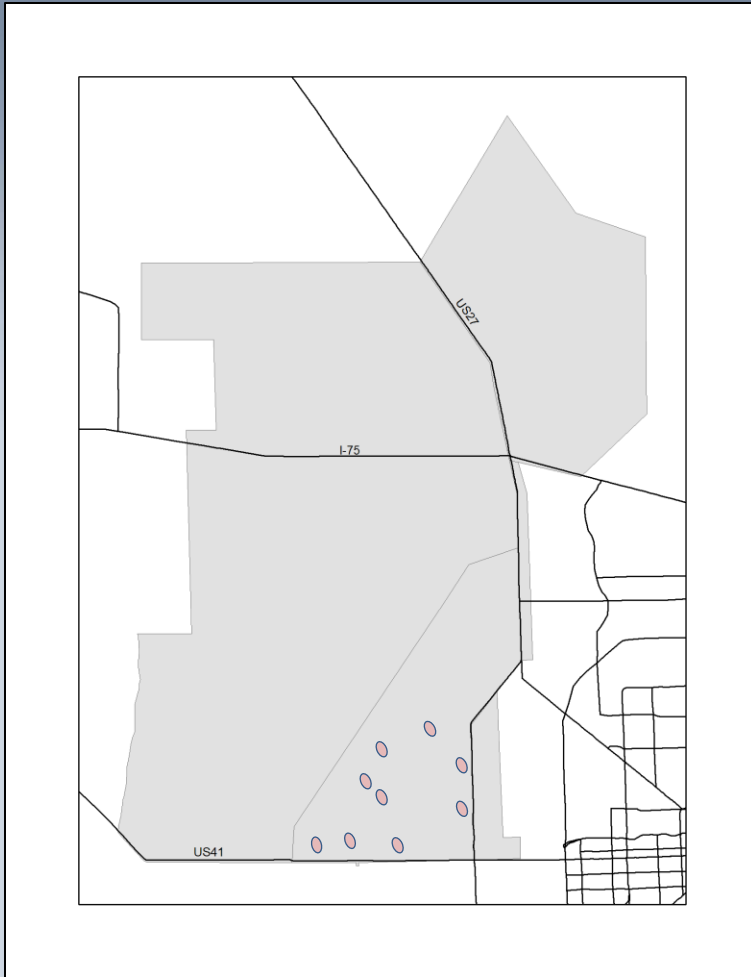
- Melaleuca
 - WCA2B
 - WCA3AN
 - East Coast Buffer
 - Pennsuco
 - Rotenberger WMA
 - Covered 52,900 acres
 - \$993,000

2010 Everglades Invasive Species Summit
Fiscal Year Treatments: 2010
SFWMD (October- June)



- Schinus
 - WCA3B islands
 - WCA3AN – deer islands
 - Levees
 - Covered 800 acres
 - \$74,715

2010 Everglades Invasive Species Summit
Fiscal Year Treatments: 2010
SFWMD (October- June)

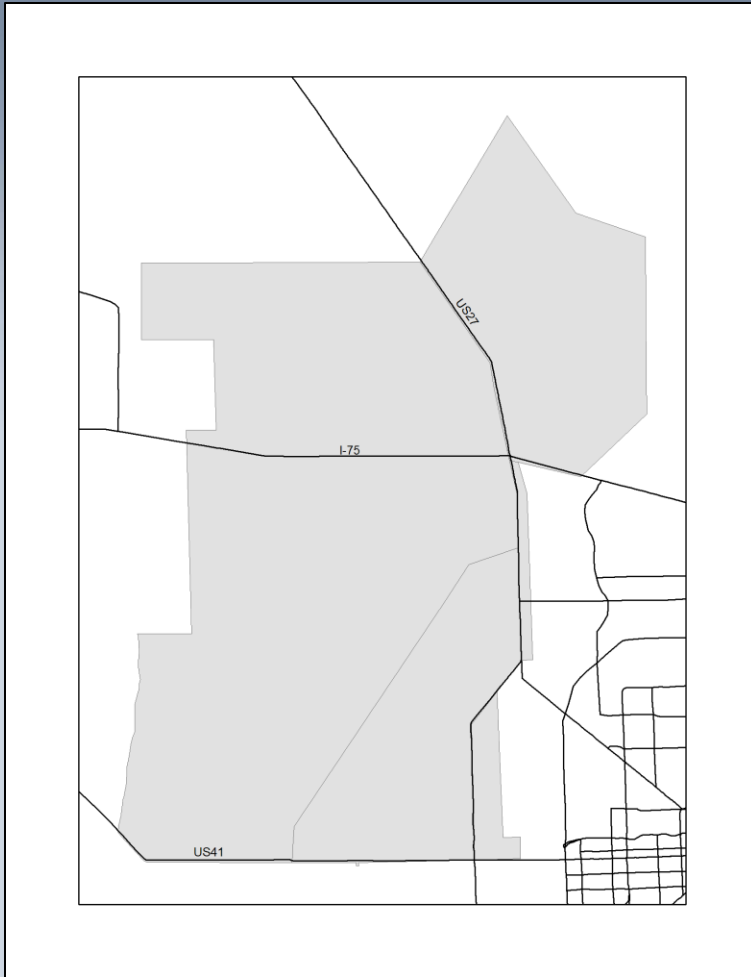


Lygodium

- WCA3b
 - Known locations on islands (not all islands)
 - Entire East Coast Buffer (beyond image)
- Treated if found when treating other species
- Covered 2000 acres
- \$212,300

Planned Treatments: 2011

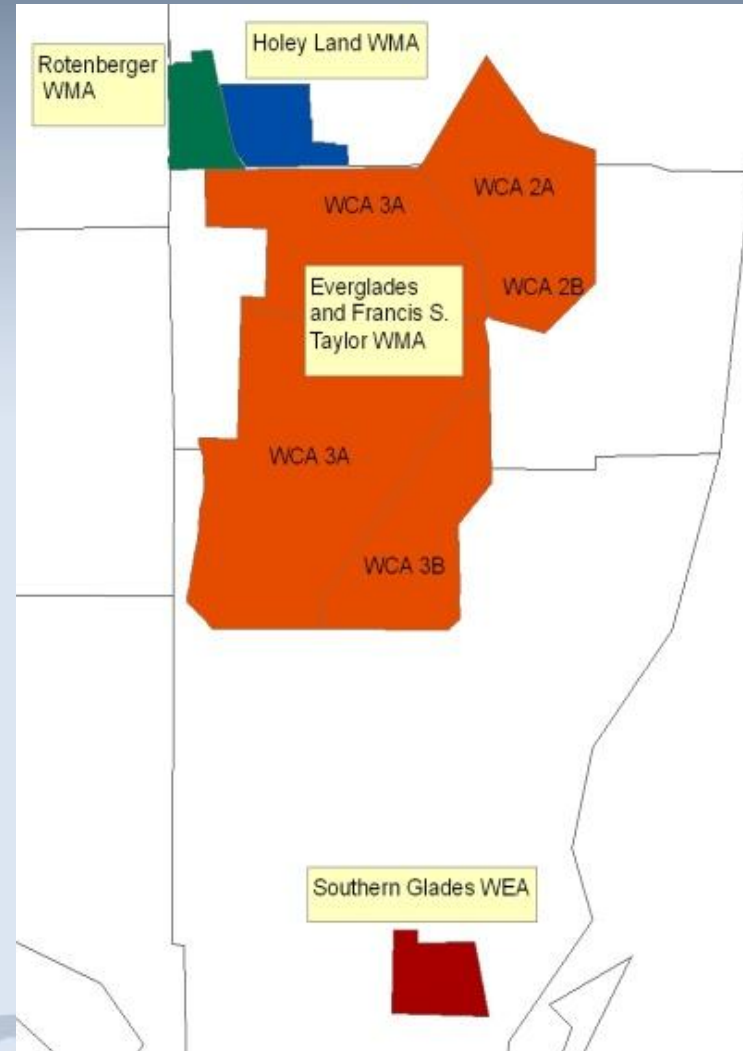
SFWMD



- Melaleuca
(maintenance control)
 - WCA 2A (north)
 - WCA 2B (fire area)
 - WCA 3AN (north)
- Lygodium
 - WCA 3B
 - WCA 3A

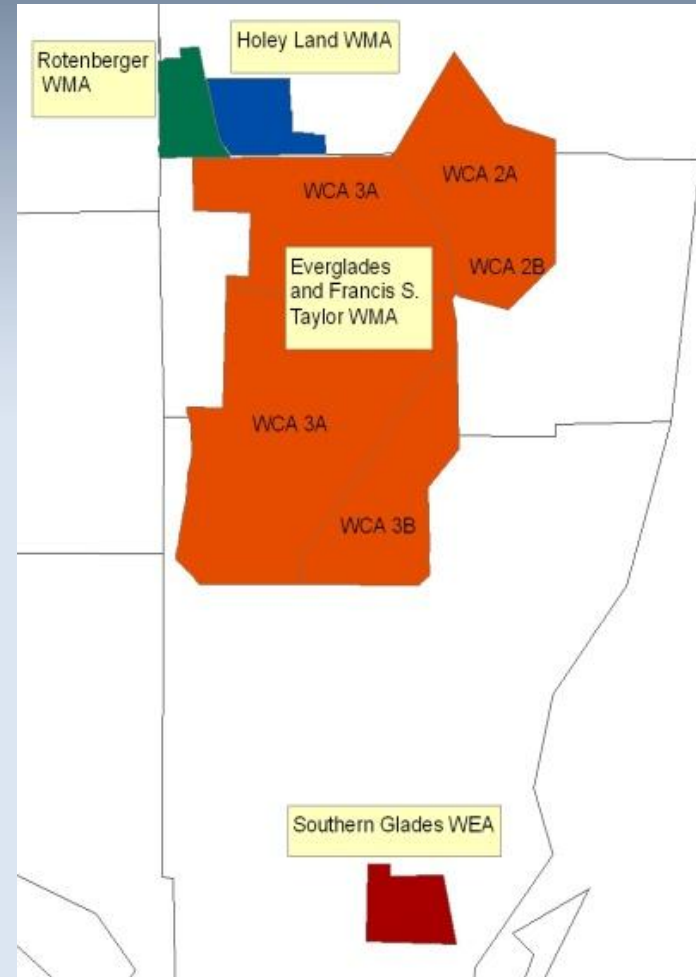
2010 Everglades Invasive Species Summit
Fiscal Year Treatments: 2010
FWC (July—June)

- Rotenberger WMA:
103.7 acres = \$24,981.33
3000 trees planted
- Holey Land WMA:
360.6 acres = \$65,448.90
- Everglades WMA:
353 acres = \$73,388.70
9,400 cages maintained =
\$70,622.20
- Southern Glades
Exotic treatment and
tree and shrub planting



2010 Everglades Invasive Species Summit
Planned Treatments: 2011
FWC

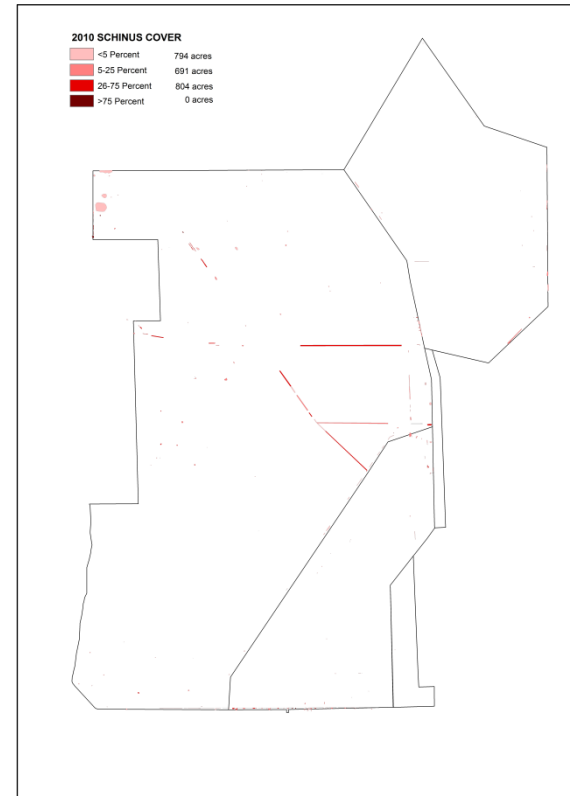
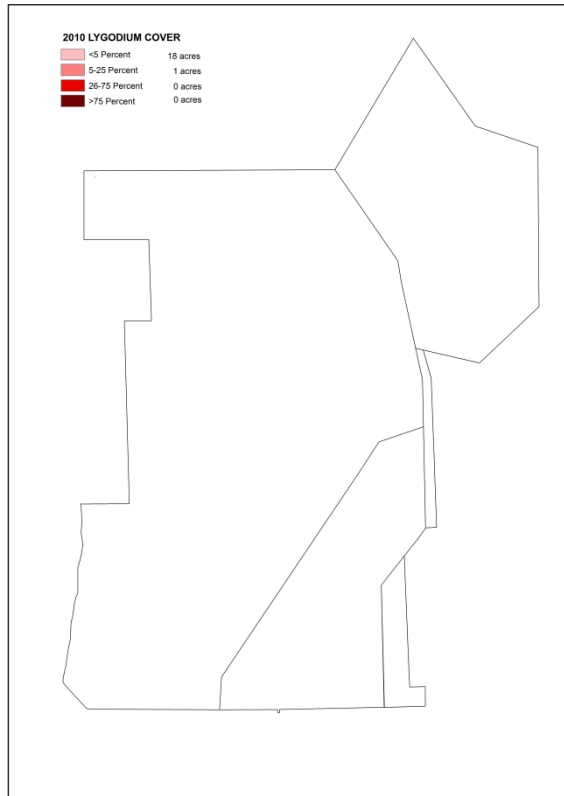
- Rotenberger WMA:
Exotic treatment on islands and levees
Cage maintenance
Tree and shrub planting
- Holey Land WMA
Exotic treatment on islands and levees
- Everglades WMA:
Exotic treatment on islands and levees
Cage maintenance
Tree and shrub planting
- Prescribed burning on all areas



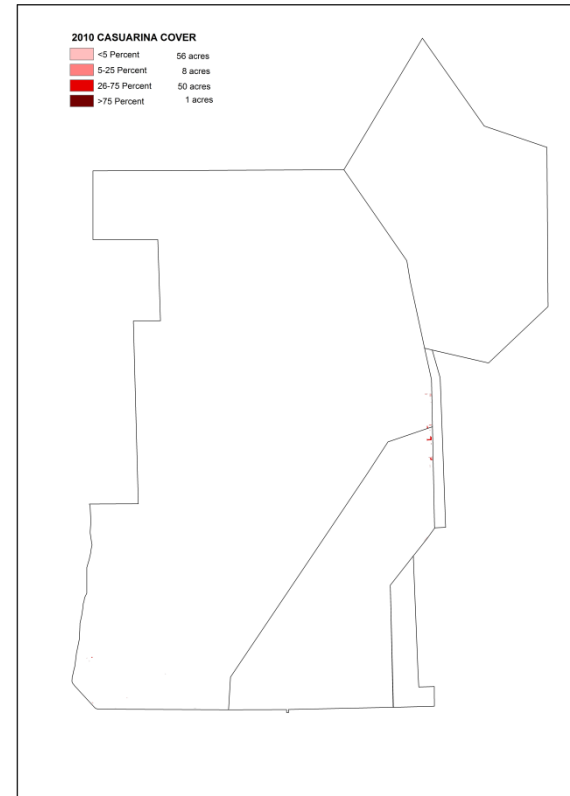
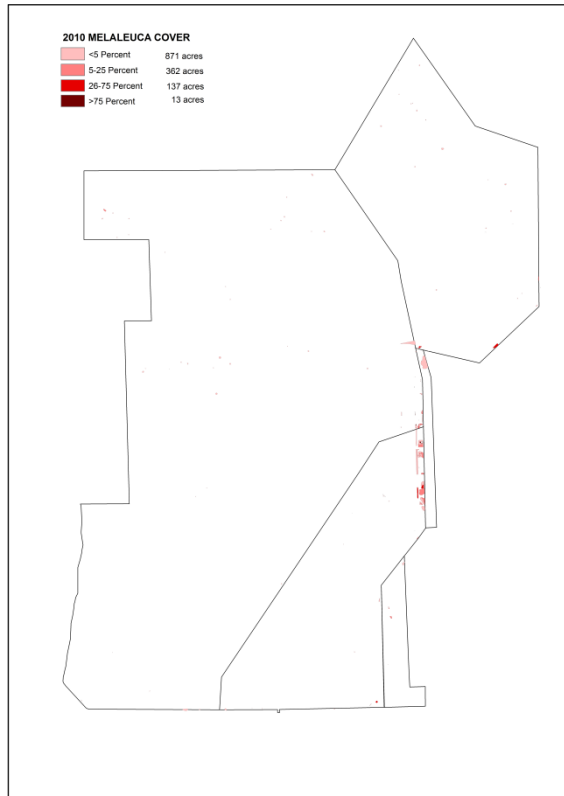
Monitoring

- ECISMA-wide Digital Aerial Sketch-mapping (DASM)
- Contract for tree island surveys, primarily for lygodium (not funded 2011)
- Cattail surveys in Holey Land & Rotenberger WMAs
- Tracking exotic treatment and other restoration activities in ArcView and spreadsheets
- Camera trapping to monitor wildlife utilization
- Photopoints to monitor changes in vegetation over time

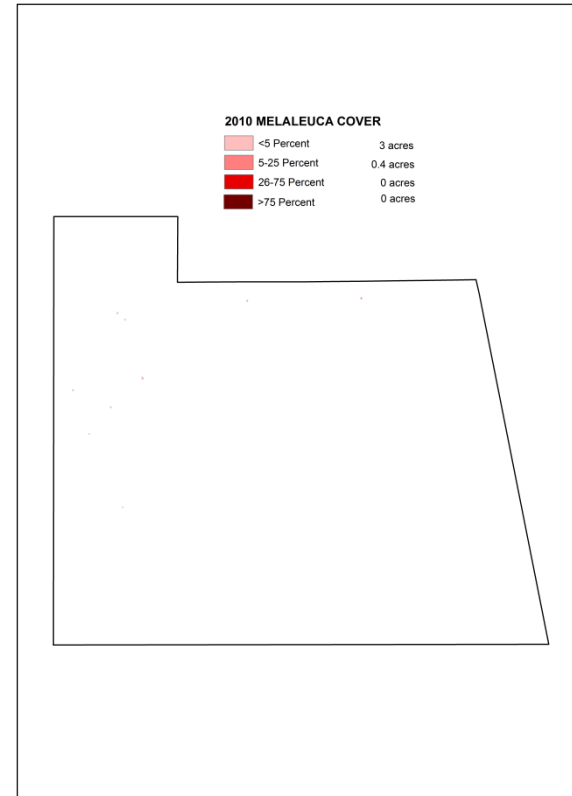
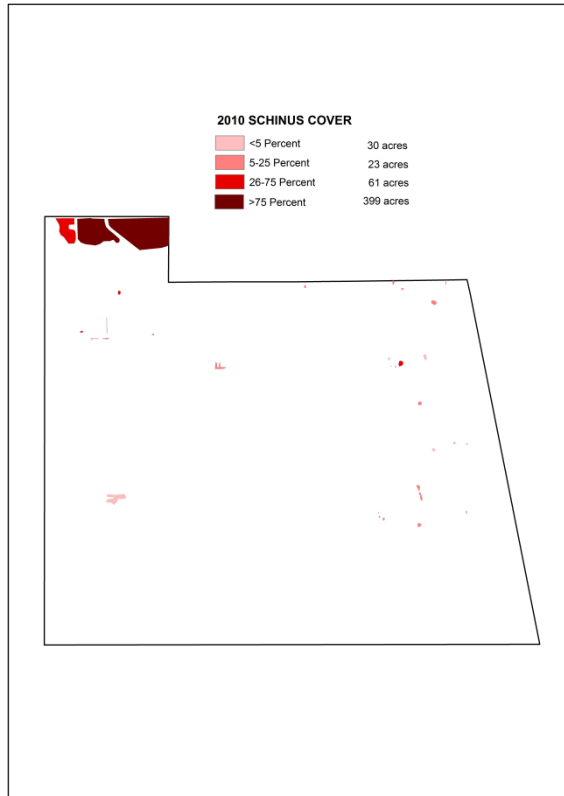
Digital Aerial Sketch Mapping



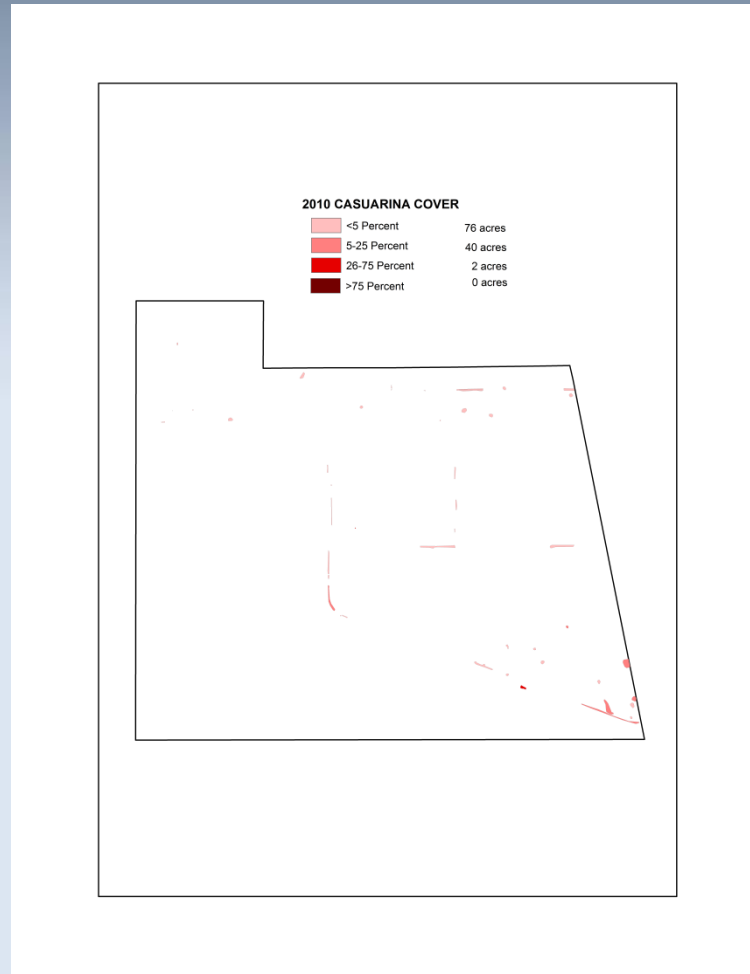
Digital Aerial Sketch Mapping



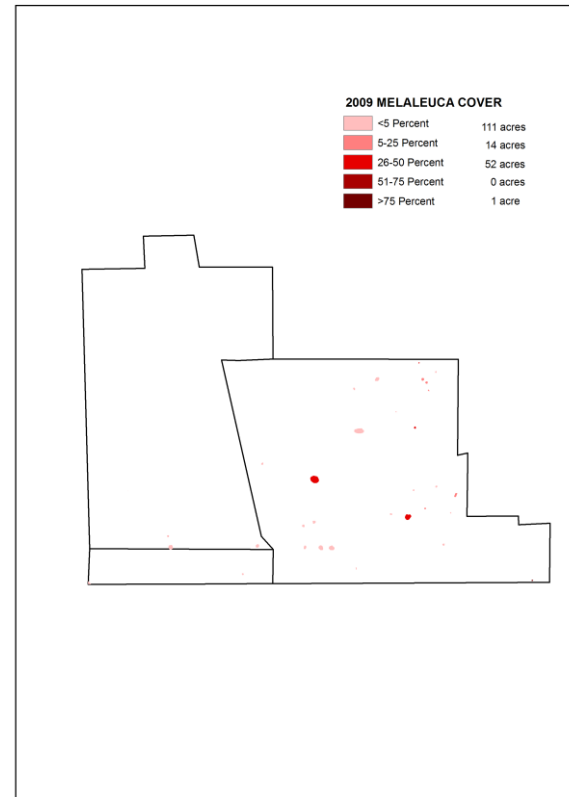
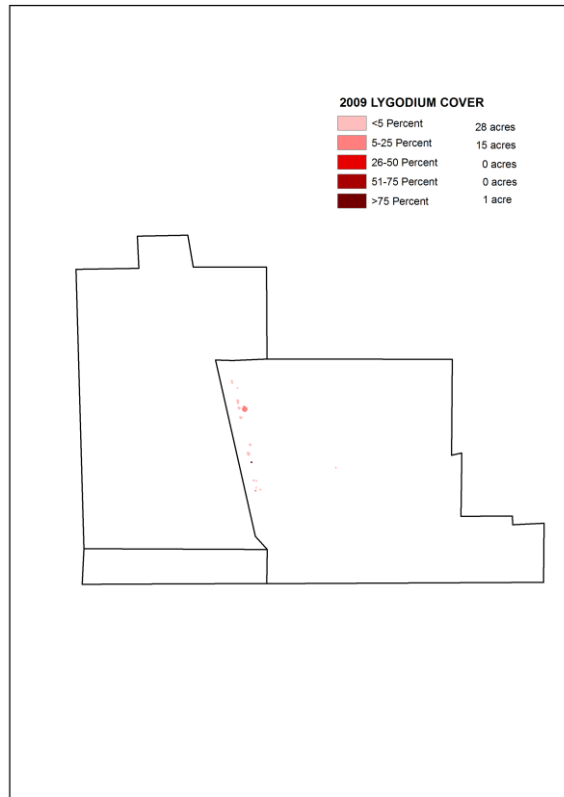
Digital Aerial Sketch Mapping



Digital Aerial Sketch Mapping



Digital Aerial Sketch Mapping



Monitoring Photopoints

Before



After



2010 Everglades Invasive Species Summit

Monitoring Photopoints/Databases

Before

After



Monitoring Photopoints 2.0



Monitoring Cattail Coverage in Holey Land WMA

Year	Estimated % coverage
2004	27.0
2005	22.2
2006	22.8
2007	19.4
2008	15.6
2009	17.2
2010	18.6

Innovations and Successes

Prescribed fire in WCA 2B



3000 acres burned



Innovations and successes

- Reptiles of Concern recently reclassified as conditional species
- Can no longer be acquired for personal possession
- Pet owners can surrender their conditional species with no penalty
- More species to be evaluated and added to ROC or conditional species lists soon
- Burmese python
- Northern & Southern African python
- Reticulated python
- Amethystine python
- Scrub python
- Green anaconda
- Nile monitor

Innovations and successes

- Python permit program began in 2009 to allow qualified Floridians to take ROCs/conditional species
- Hunters also allowed to take ROCS/conditional species during hunting seasons on these WMAs
- Owners of former ROCs are grandfathered in but must maintain ROC license and microchip their animals

Needs & Gaps

- Identify critical needs and gaps
 - Additional survey of islands for lygodium
 - Herbicide info for treating lygodium when water is high
 - More research on water level impacts on lygodium expansion
 - More surveys of tree island elevation—also critical to lygodium expansion

Questions?

