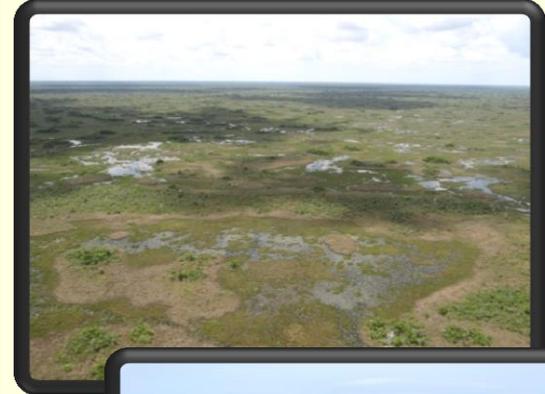
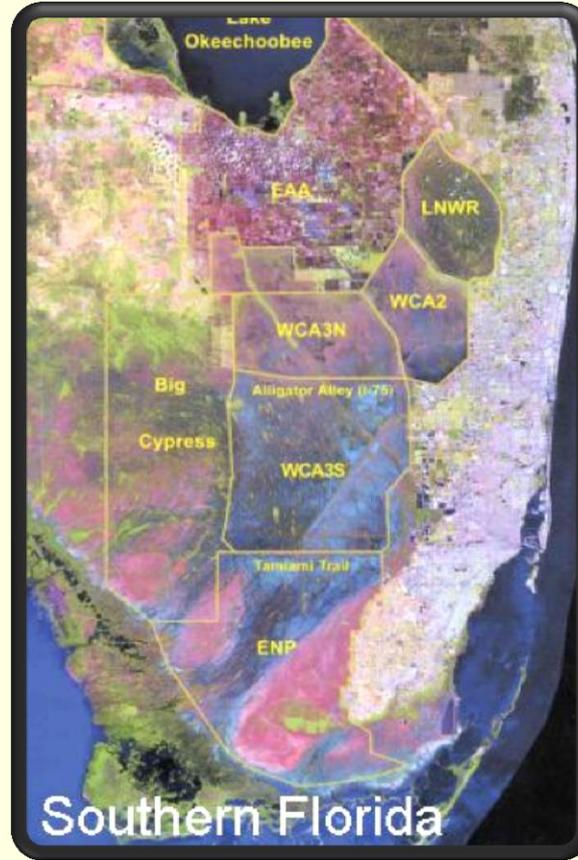


Exotic Species Management at A.R.M. Loxahatchee NWR

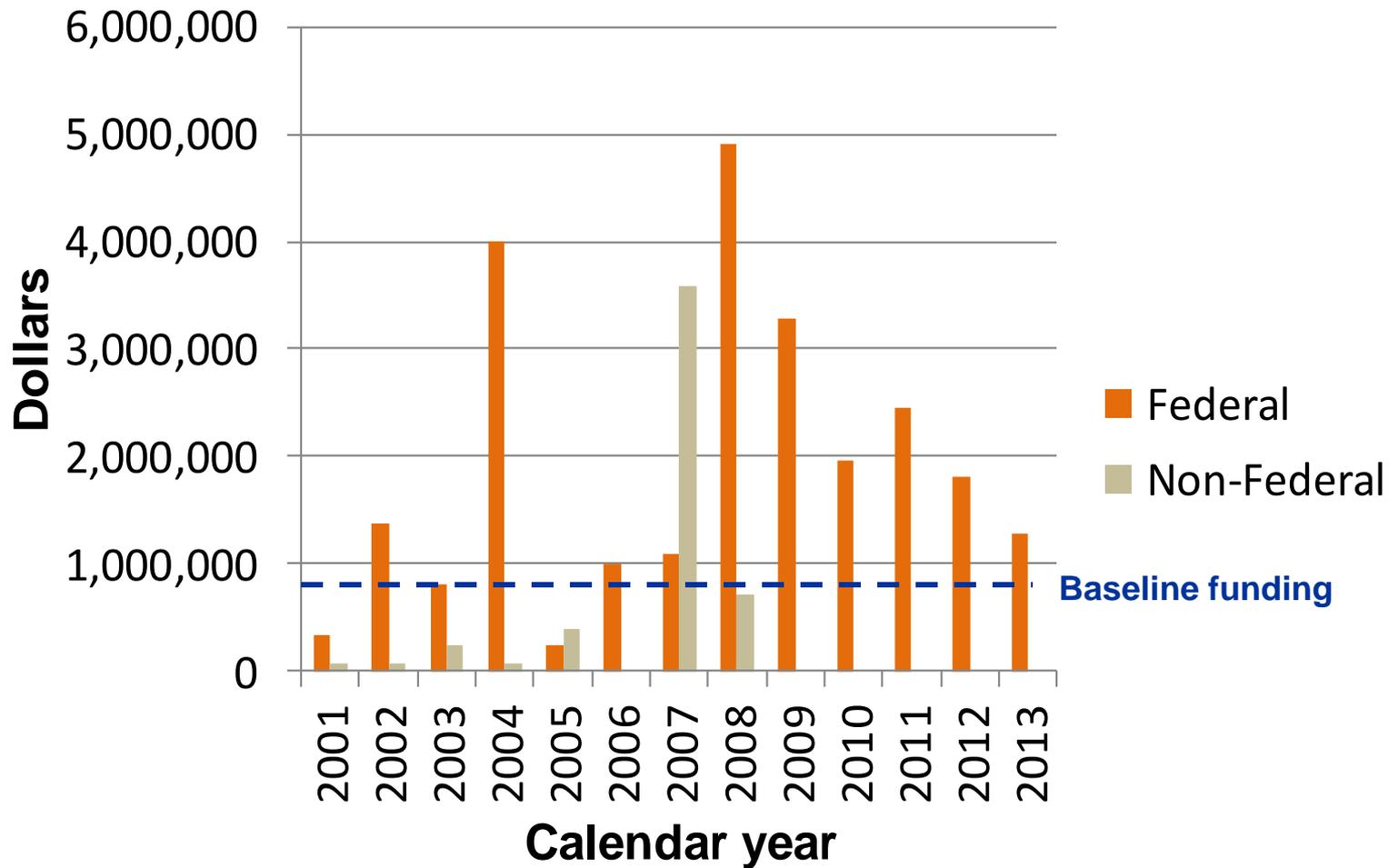


Rebekah Gibble, Ph.D.

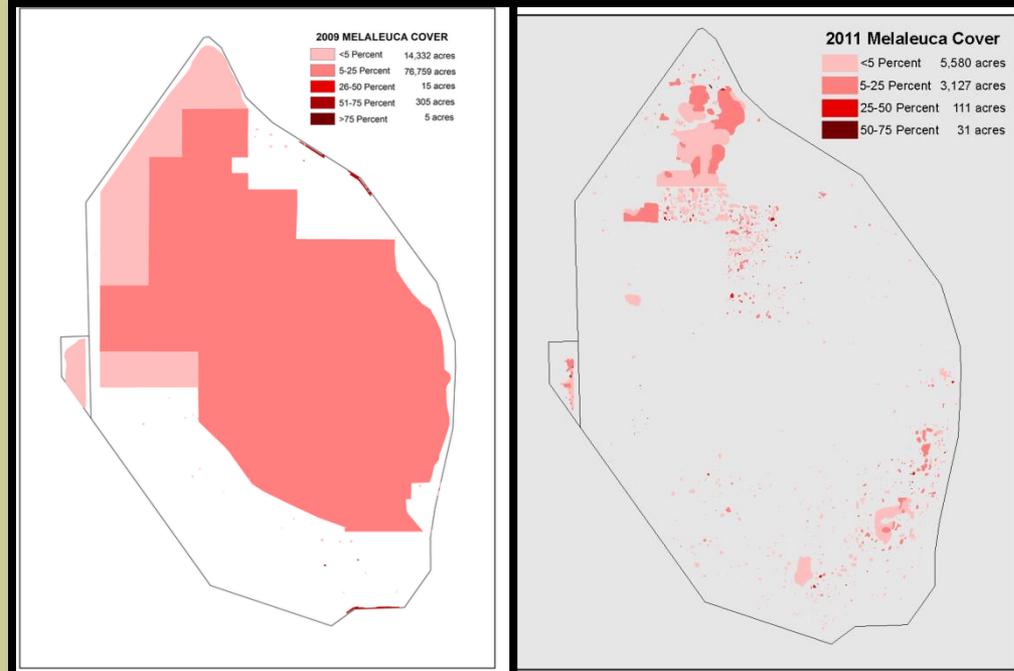
Invasive Exotics Strategic Action Network Meeting
March 3, 2014



\$\$ Spent Treating Exotics

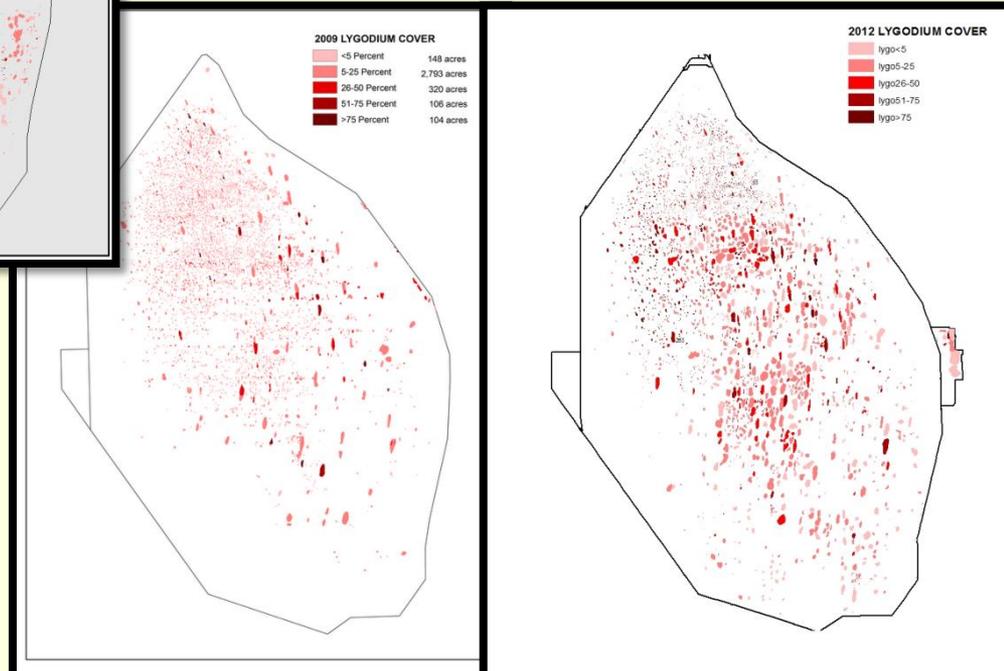


Invasive Exotic Plant Populations in the Refuge



Lygodium (below)

- Treat every year for 2 – 3 years; f.b. retreat every 2 – 3 years
- Treatment costs
 - \$150 - \$1,000/acre



Melaleuca (above)

- Treat every 2 – 3 years
- Treatment costs
 - \$100 - \$800/acre



Tools for Exotics Management



- **Biocontrols**
 - **Brown lygodium moth**
 - **Melaleuca psyllid, weevil, gall fly**
- **Ground crew contracts**
- **Aerial contracts**
- **Staff follow-up on treated areas**
- **Fire**

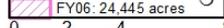
Challenges of Exotics Management in Loxahatchee

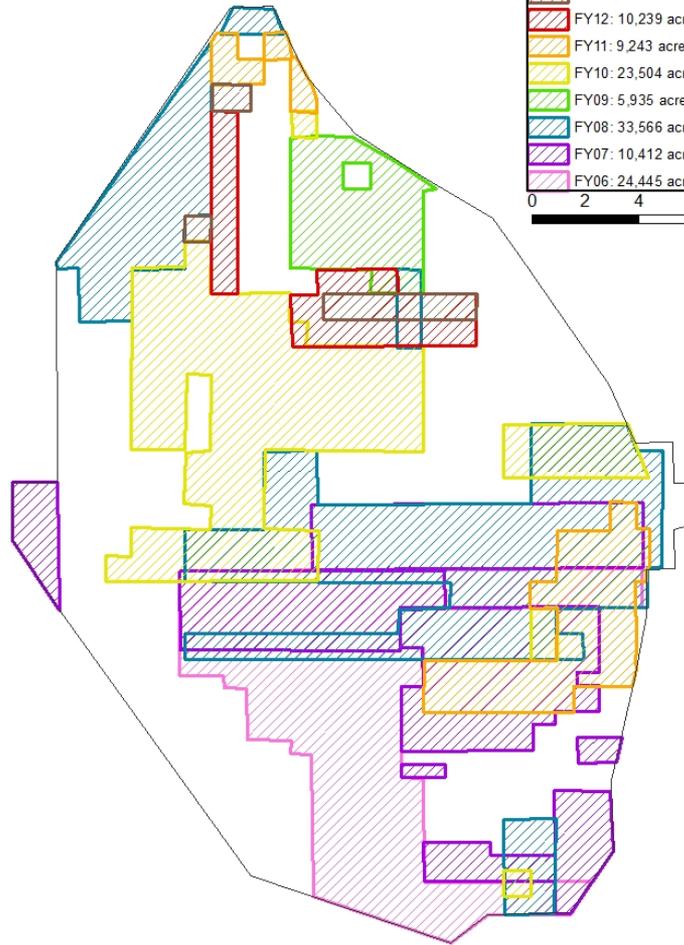
- Limited resources (\$\$)
- Access
- Minimizing ecological impacts while maximizing treatment efficiency
- Variable rates of expansion



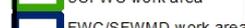


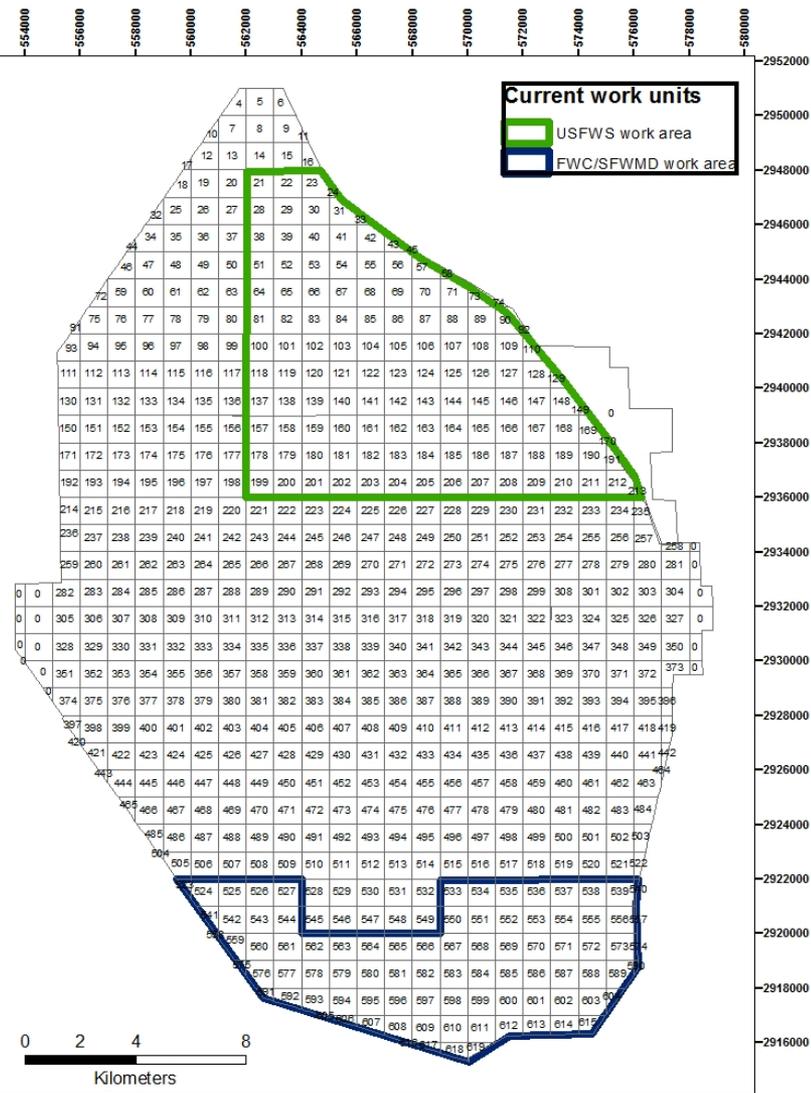
Completed work areas

-  FY13: 2,021 acres
-  FY12: 10,239 acres
-  FY11: 9,243 acres
-  FY10: 23,504 acres
-  FY09: 5,935 acres
-  FY08: 33,566 acres
-  FY07: 10,412 acres
-  FY06: 24,445 acres



Current work units

-  USFWS work area
-  FWC/SFWMDC work area



Funding needs

- **Melaleuca**
 - 5,000 acres – initial treatments
 - 30,000 acres – due for retreatment
- **Lygodium**
 - 13,000 acres – initial
 - 13,000 acres – retreatment
- **Estimate \$5 million/year * 5 years to reach maintenance control**
 - License agreement
- **Estimate \$2 million/year to maintain once maintenance control achieved**

