

Improving mangrove management through a comprehensive extension education program

Southwest Florida and beyond

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Overview

- Situation
- Goal
- What we did
- Why it worked/did it work?
- Looking Forward

Situation

- Mangroves within this region are managed by public agencies and individual property owners.
 - Approximately 160,000 acres of mangroves are publicly owned*
 - Approximately 42,000 acres of mangroves are privately owned*
- Lack of understanding of mangrove best management practices and regulations has resulted in impaired mangrove fringes, extensive trimming, and violations.
- Lack of understanding of the ecological services that mangroves provide has resulted in a reduction of ecosystem services.



Goal

To create a comprehensive extension education program for our different stakeholders that:

- Teaches them to identify protected species
- Increases their knowledge regarding ecosystem services
- Helps them understand local and statewide regulations
- Teaches them trimming best practices - plant and site-specific



Methods: What we did



Interactive mangrove walks:

- Ecology/Importance of mangroves
- Identification of species
- Regulations

Methods: What we did



Individual visits to private homeowners and homeowners associations (HOAs):

- Ecology/Importance of mangroves
- Identification of species
- Identification and removal of invasive species
- Regulations

Methods: What we did



Individual mangrove related field trips for youth groups:

- Ecology/Importance of mangroves
- Identification of species

Methods: What we did



- Interactive in-person training, on site
 - Ecology/Importance of mangroves
 - Identification of species
 - Regulations/Permit Criteria
 - Arboricultural practices
- Real Life Application, Personal Anecdotes
- Handouts for ID and Regs

Results



Who attended

120 Individuals Representing 13 Public Agencies and 12 Professional Arboricultural Services
3 SW FL Counties: Manatee, Sarasota and Lee

What they learned

Knowledge gained, Ecosystem services, Regulatory Concerns etc.
Direct Observation of ID skills, 95% were able to correctly ID
Direct Observation of Pruning skills, 50% were observed correctly pruning

Application of knowledge

Follow up conversations with attendees on modified trimming practices
Site visits for in depth shoreline management

Why it worked

“They made it fun and informative”

“Great mix of knowledge and expertise!”

- Relationships with public agencies and professional arborists
 - Location
 - Resources
 - Practical Arboricultural Knowledge
- CEUs
- Hands-on demonstrations
 - Participants practice proper pruning methods
 - Learn where you work

Future
Applications/Looking
forward

“Excellent instructors
from multiple agencies-
very knowledgeable!”

“I would like to see this class provided in more locations”

- **Building relationships**
- Future climate migration considerations
- Different audiences:
 - Gov, public, prof
 - Can tailor the curriculum to meet the needs of different audiences
 - Other languages than English
 - Rookery Bay program et. al.

“I am still relatively new to this job, so I learned a ton. Thank you!”

Questions

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References

- https://www.fs.fed.us/pnw/pubs/pnw_gtr931/pnw_gtr931_111.pdf