Early Detection Rapid Response Effort: *Tamarix canariensis* and Other Species in Northeast Florida

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Aquatic Weed Control Short Course
Tamarix canariensis (salt cedar)

- Native to the Mediterranean
- Easily hybridizes with other introduced Tamarix species
- The genus Tamarix was introduced to the US in the 1800s
- It has invaded millions of acres in the U.S., displacing native vegetation
Identifying Characteristics

- Large woody shrub to small tree (most species are deciduous)
- Foliage is grey-green or bluish-green in color
- New stems are red, turning reddish brown with age
- Eventually, bark thickens & furrows
Identifying Characteristics

- Leaves are scale-like, similar to cedars
- Flowers are pink to pinkish-white
- Leaves are usually encrusted with a fine layer of salt

Close up of Tamarix leaves
Flowers and Seeds of Tamarix
Invasive Characteristics

- Prolific seed producer (can flower entire growing season)
- Reproduces vegetatively and by seed
- Grows quickly and can produce seed within first year
- Forms dense monocultures, altering native habitat
- Alters soil chemistry so native plants cannot survive

4 month old seedling with flowers
Habitat Requirements

- Require moist soils for 2-4 weeks after germination
- Produce a long tap root to access groundwater
- Grow in a variety of soil types (including sand, loam and clay)
- Need full sun
- Seedlings do not compete well
An exposed shoreline with slowly receding water is the perfect habitat for them to colonize.
A Brief History of Tamarix in NE Florida

- USACE has been treating *Tamarix canariensis* on our DMMAs since 2008
- Surveys have identified 14 locations where Tamarix has established along the St. Johns River and Intracoastal Waterway
- Initial populations have been treated at all but 1 location (Reed Island)
- 8 out of 14 locations have been Tamarix-free for over a year, the remaining sites continue to be monitored and treated
Continued Efforts

- Continue monitoring of treated areas and perform follow-up treatments as needed
- Survey for new Tamarix populations
- Report findings in EDDMapS
- Coordinate with partner agencies (Coastal GA CISMA) to treat populations in Georgia
Jessica Spencer – Co-Chair of First Coast Invasive Working Group
First Coast Invasive Working Group

- CISMA covering Baker, Clay, Duval, Nassau and St. Johns counties
- Federal, state and local partners
- Organizes “volunteer work days” to perform invasive species control and EDRR
Brazilian Pepper Distribution
Cradle Creek Preserve, Jax Beach

- Largest population of Brazilian pepper in Jacksonville
  - 100’s of mature shrubs
  - 1000’s of seedlings
- Reported to local CISMA by trail group in Dec. 2013
On January 7, 2014, temperatures in Jax Beach dropped to 25 degrees (F).

Some frost damage was observed, but it was not enough to kill the plants.
Old World Climbing Fern
(*Lygodium microphyllum*)
- Populations in Duval & St. Johns County have jumped significantly from the I-4 corridor.

- Closest known populations are in Volusia County (Tomoka State Park and Tiger Bay State Forest).

- Equestrian Park population was found in August 2012.

- SJ-14 population was found in October 2012.

- Vectors of dispersal???: Horses, heavy equipment, mowers, etc.
One plant appeared to have overwintered, even after the hard freeze on January 7, 2014.
Early Detection Rapid Response

- **Equestrian Park**
  - Discovered in August 2012
  - Initial treatment in September and October of 2012
  - Follow-up treatments continuing through 2014

- **SJ-14**
  - Discovered in October 2012
  - Initial treatment in late October of 2012
  - Follow-up treatments continuing through 2014
  - FIND has kept mowing equipment on site

Mowed-over OWCF on ditch bank at SJ-14
Questions

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