

Update on
Lumnitzera racemosa

A non-native mangrove
at Fairchild Tropical Botanic Garden
& Matheson Hammock Park

Jennifer Possley, Field Biologist
Center for Tropical Plant Conservation
Fairchild Tropical Botanic Garden
11935 Old Cutler Road
Coral Gables, FL 33156 USA
E-mail: jpossley@fairchildgarden.org

***Lumnitzera
racemosa***

Combretaceae

Native to Asia, Australia

Looks similar to white
mangrove (*Laguncularia
racemosa*, also
Combretaceae)



Laguncularia racemosa

Photo and © by Roger Hammer
Wildflowers of the Everglades



Flowers spring-summer
Leaves opposite
Leaves with petioles

Lumnitzera racemosa

By Dennis Giardina



Flowers summer-fall
Leaves alternate
Leaves sessile (no petioles)





***Lumnitzera racemosa* and Fairchild Tropical Botanic Garden**

1960s – plants collected
from a Taiwanese botanical
garden and unknown wild
origins in southeast Asia

1966-1971 – 14 planted at
Fairchild

2008 – Infestation
discovered



2008 – Infestation discovered



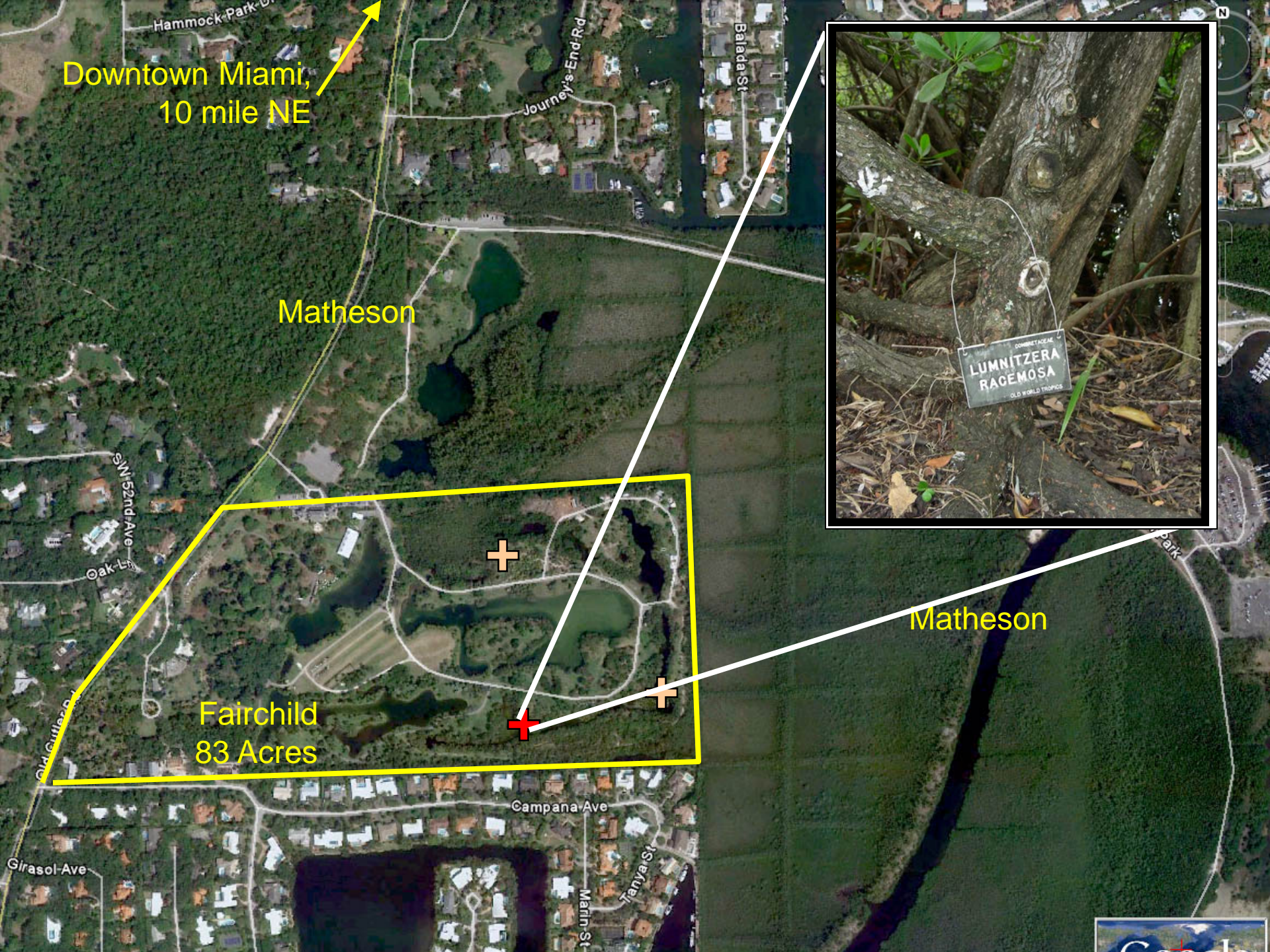
Fourqurean, J., T.J. Smith, J. Possley, T.M. Collins, D. Lee, and S. Namoff. 2010. Are mangroves in the tropical Atlantic ripe for invasion? Exotic mangrove trees in the forests of South Florida. *Biological Invasions* 12(8):2509-2522.

Downtown Miami,
10 mile NE

Matheson

Fairchild
83 Acres

Matheson





Hammock Park Blvd

Journey's End Rd

Balada St

Gallardo St

Old Cutler

DENSE

~19 Acres

SW 152nd Ave

Oak Ln

Old Cutler Pkwy

Matheson Park

Campana Ave

Marin St

Tanya St

Girasol Ave



ECISMA workdays



First Workday: **Feb 2009**



2nd Workday: **Jun 2009**





2009 ECISMA Workday Accomplishments:

- Removed most mature/fertile *Lumnitzera*
- Established extent of infestation
- Removed other species, too (*Jacquinia/Bonellia macrocarpa*, *Erythroxylon* sp., *Thespesia populnea*)
- Dozens of local biologists trained in ID
- Raised awareness of Fairchild staff



2009/2010 – Herbicide Trials





- 2 chemicals, 3 rates {0.5, 1, 2%} + mix .5/.5%
- All seven treatments resulted in a decrease in *Lumnitzera racemosa* stems.
- Renovate was more effective than Rodeo.
- Concentration did not have a significant difference.
- All native mangroves were susceptible to off-target damage, but at relatively low levels

2010 – Habitat Restoration Resources, Inc. for 5 weeks
~courtesy of FFWCC



2011 – One follow-up workday in March



FFWCC-IPMS Funds for 2011-2012

- Requested \$20,000
- Ranked 3rd (out of 16)

Project Goal:

This project will seek to retreat the infestation of *Lumnitzera racemosa*, from Fairchild Tropical Botanic Garden and Matheson Hammock County Park in Coral Gables, Florida.

Thanks!

- To all who have participated in workdays
- To FFWCC for funding
- Especially to Dennis and Tony for getting the ball rolling. . . Eradication is imminent!

