On the biology of *Magnolia virginiana* subsp. *oviedoae* in Cuba

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Main floristic relationships

- Western Cuba with Florida and Yucatán
- Central Cuba with Bahamas, Central America and South America
- Eastern Cuba with Greater Antilles and South America

Flora migration pathways

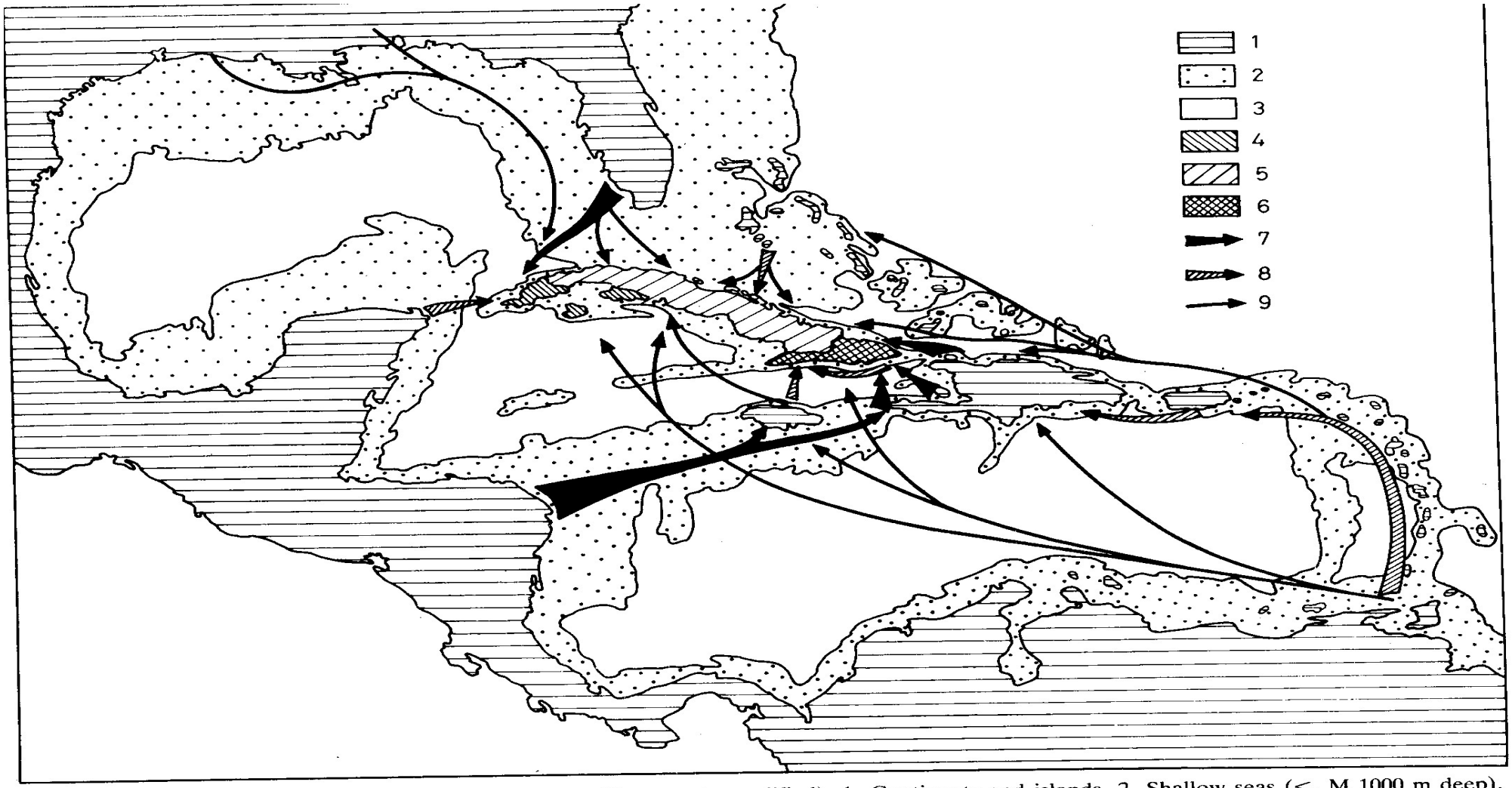

Fig. 123 Origins of the flora of Cuba. (Alain Liogier 1958, strongly modified). 1. Continents and islands, 2. Shallow seas (<, M 1000 m deep), 3. Deep seas (depth more than 1000 m), 4. West Cuban plant-geographical subprovince, 5. Middle Cuban plant-geographical subprovince, 6. East Cuban plant-geographical subprovince, 7. Main migration routes of the flora, strong floristic affinity, 8. Important migration routes of the flora, characteristic floristic relations, 9. Less important migration routes of the flora, clearly recognizable floristic effects

Magnolia virginiana subsp. *oviedoae*

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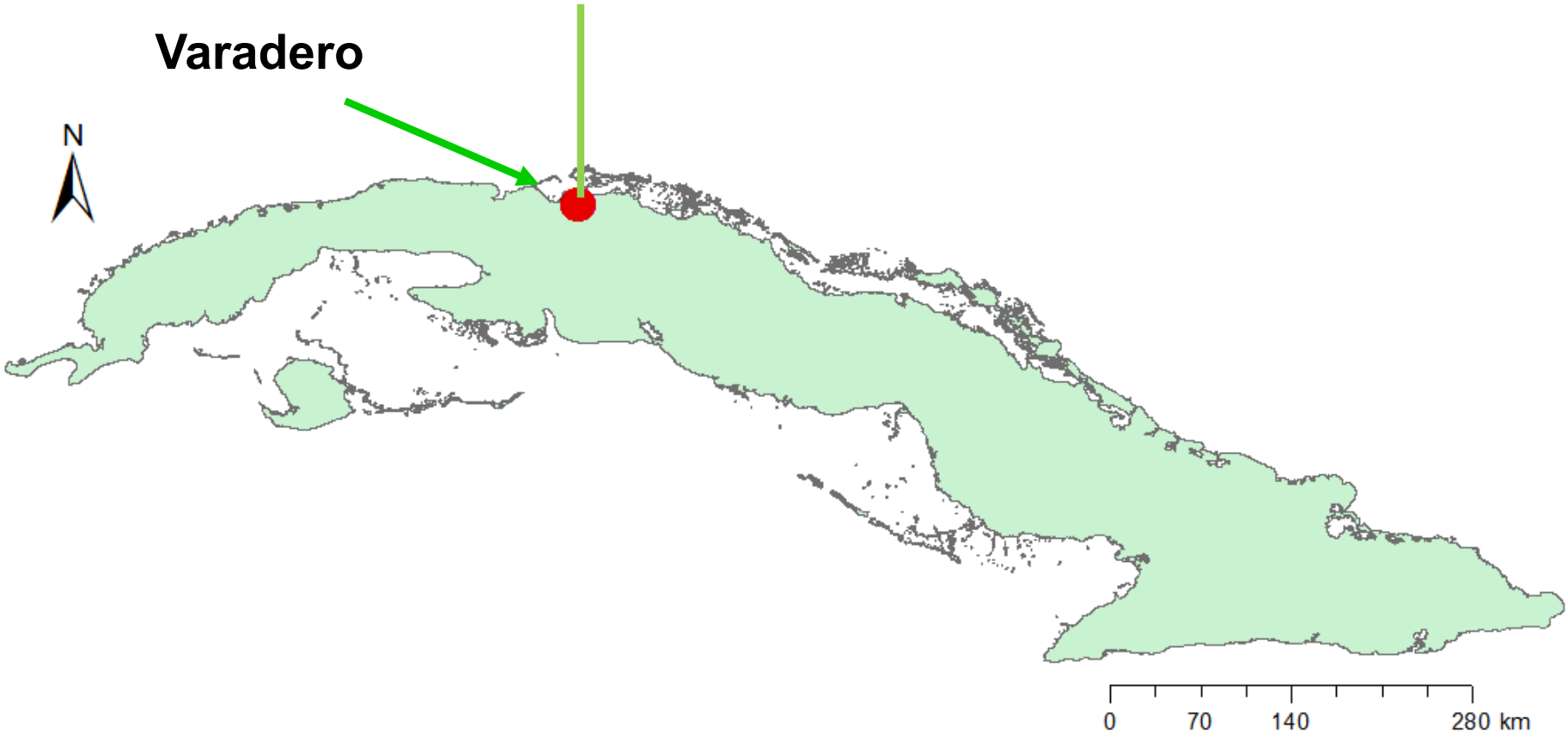
Majaguillar Swamp (Martí, Matanzas)



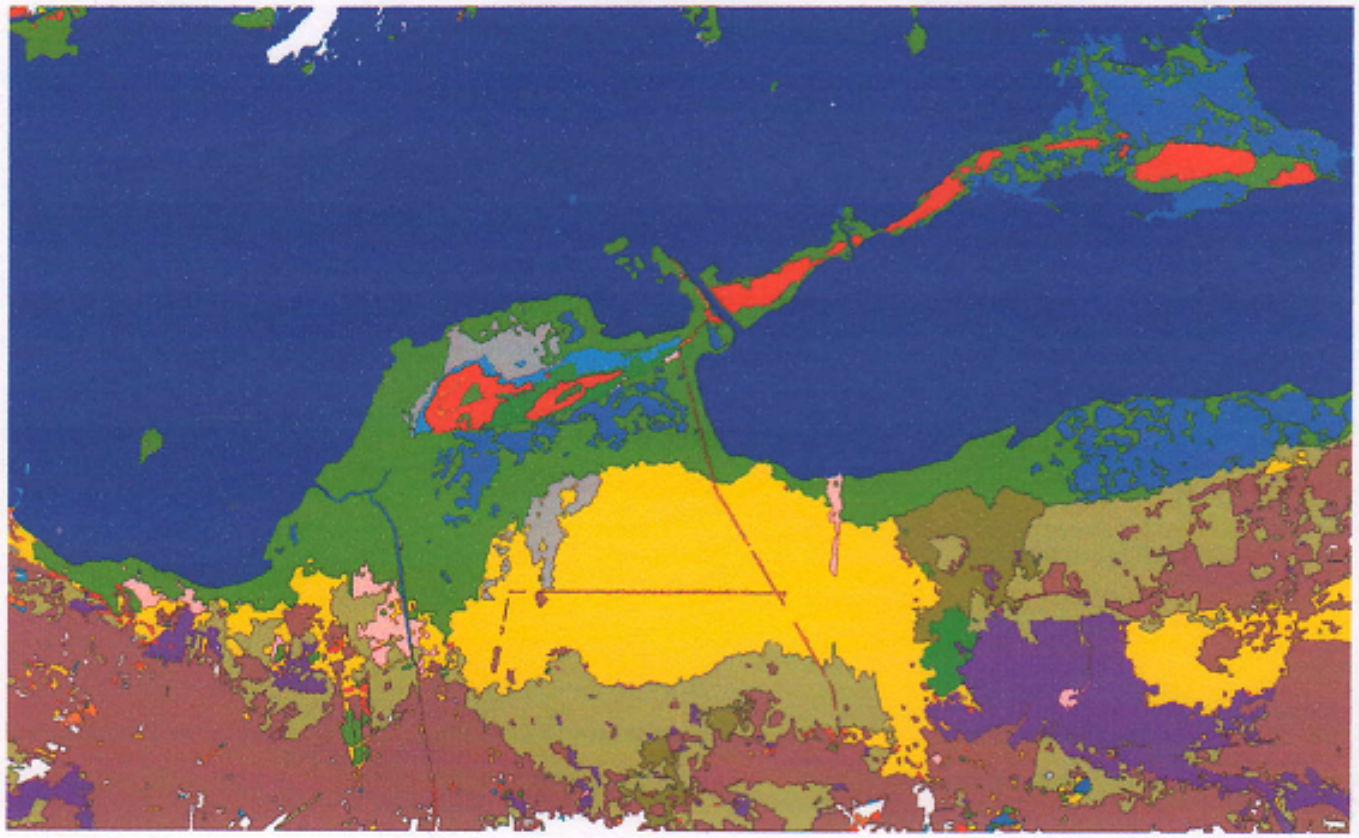
Important Ecosystems of Majaguillar Swamp (Martí)

(habitat of *Magnolia virginiana*)

- **Gallery forest**
- **Swamp forests and the ecotone**
- **Mangrove forest**
- **Microphyllous semideciduos forest**
- **Microphyllous evergreen forest**
- **Swamp grasland**
- **Savanna**
- **Intermittence lake, rivers and canals**

Important Ecosystems of Majaguillar Swamp (Martí)

(habitat of *Magnolia virginiana*)



LEYENDA:

- Bosque de ciénaga
- Bosque de ciénaga antropizado
- Bosque de galería
- Bosque de mangles
- Bosque semideciduo micrófilo
- Comunidades halófitas
- Ecotono
- Herbazal de ciénaga
- Infraestruturas antrópicas
- Lagunas interiores
- Macrolaguna
- Sabanas antropizadas
- Uso forestal y agropecuário
- Vegetación Degradada (muerta)

10 0 10 20 Kilometers

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Tutora: MSc. Ramona Oviedo Prieto.

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Microphyllous evergreen forest
(temporally flood and stronger saline incidence

Microphyllous evergreen forest (temporally flood and stronger saline incidence

Bucida spinosa (Combretaceae)

Randia acunae (Rubiaceae)

Catesbaea longispina (Rubiaceae)

Mangrove forest (***Avicennia germinans*, *Rizophora mangle*, *Laguncuaria racemosa Conocarpus erectus***)

Ecotone-mangrove-lakes

Coast vegetation

Microphyllous semideciduos forest

- ***Magnolia virginiana subsp. oviedoae*, endemic until 2006, as a endemic plant of the United States of America.**
- **Evergreen many-stemmed shrub about 4-7 m high, with a crown diameter of up to 10 m. Young branches and underside of leaves covered with ± sparse silvery hairs, usually persisting for a short time on fully grown branches and sometimes for nearly one year on the shoots.**

Leaf blade lanceolate or narrowly elliptic, 7.5-17 × 2.3-5 cm, medium green above, glaucous beneath; base narrowly cuneate, apex narrowly acute. Flower buds protected by pubescent bud scales. Flowers smallish, with 3 almost ribbon-shaped, greenish white sepals with a rounded tip and 7-8(-9) narrowly obovate petals; stamens numerous, flattened, acute, pollen pale or whitish; gynoecium and fruit (a polyfollicle: Fig. 2B) narrowly ellipsoidal or cylindrical.


Magnolia virginiana L. subsp. oviedoae

- **In Cuba *Magnolia virginiana* subsp. *oviedoae*, grow in small mounds within the swamp grassland and in the ecotone areas between swamp grassland and swamp forest**

- **In the swamp grassland the principal species who live with a *M. virginiana* subsp. *oviedoae* are: *Cladium jamaicensis*, *Erianthus giganteus*, *Ilex cassine*, *Oxypolis filiforme*, *Pluchea rosea*, *Bacharis halinifolia* var. *angustior*, *Bacharis glomeruliflora***

- **In the Swamp forest ecotone, live with: *Salix carolineana*, *Annona glabra*, *Tabebuia angustata* y *Fraxinus carolineana* subsp. *cubensis*, *Guettarda scabra*.**

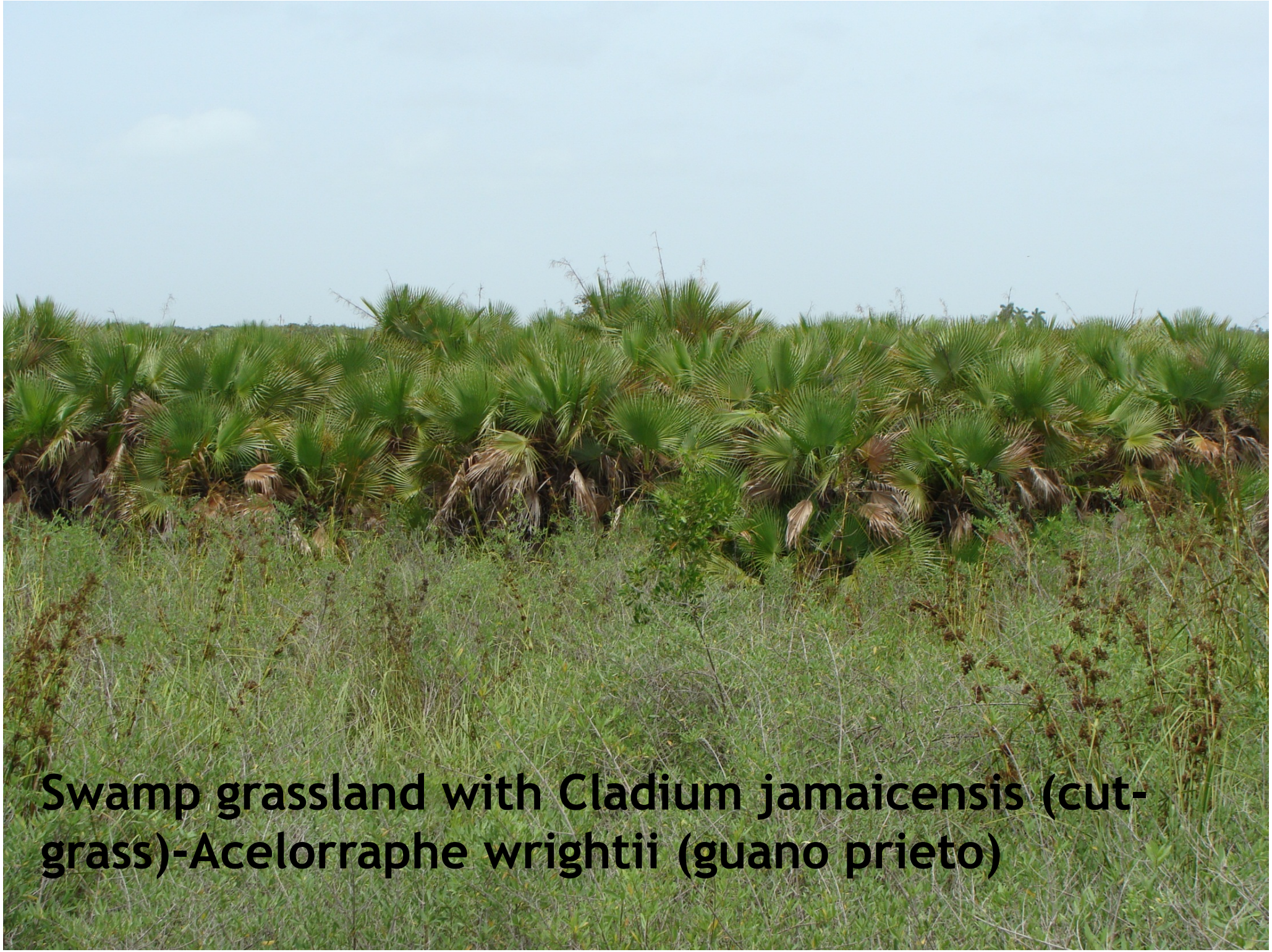
- **The hábitat of *Magnolia virginiana* subsp. *oviedoae* in Cuba, is very similar to the Habitata of Magnolia virginiana in the continet, in special with the Florida´s Everglades. The principals difference are the presence of species as Taxodium distichum and Persea borbonia, who are not presence in Cuba.**

Fraxinus carolineana subsp. cubensis, (bufano)

Salix carolineana (clavellina


Ilex casine (yanilla)


Swamp grassland with Cladium jamaicensis (cut-grass)-Oxypolis filiforme-Conocarpus erectus (yana)


Swamp grassland with Cladium jamaicensis (cut-grass)-Acelorraphe wrightii (guano prieto)

Threats

- ***Invasive species:*** **- invading the Majaguillar Swamp due to the inadequate reforestation programs (*Casuarina equisetifolia y Melaleuca quinquinervia*)**

Threats

- *Casuarina equisetifolia (*casuarina) - invading the Majaguillar Swamp due to the inadequate reforestation programs
- Fire
- Drought and other

The current conservation status of Magnolia virginiana en Cuba is critical. The main problems are: fragmentation, habitat lost, hábitat degradation, fires and the presence of invasive species.

- **Until 2005-2006, *M. virginiana* was considered as endemic species of USA.**

- **This Magnolia is the only species ofthe groups present in Cuba Western, and the only that grow at sea level.**


M. virginiana subsp.
oviedoae
Thanks


NYBG