

A satellite map of the state of Florida, outlined in yellow. The map shows various geographical features, including the Gulf of Mexico to the west and the Atlantic Ocean to the east. Overlaid on the map are several data layers: a green layer covering most of the land, a blue layer along the coastlines, and a red/pink layer in the southern part of the state. The text "ECISMA Research Updates" is centered over the map in white.

# ECISMA Research Updates

Don Schmitz  
And  
Pam Fuller

# Water Hyacinth bio-control

- A new insect was released in March by United States Department of Agriculture's Agricultural Research Service (USDA-ARS) to control the South American water hyacinth (*Eichhornia crassipes*) in Florida. *Megamelus scutellaris* is a small plant hopper native to South America whose nymphs and adults feed on the sap of water hyacinth and their damage apparently creates a choke point between the leaf and petiole. (Phil Tipping, USDA-ARS)



UGA1624034

# Apple Snails and AVM



- Research was initiated to determine whether the suspect avian vacuolar myelinopathy (AVM) toxin could be transferred from aquatic vegetation to bald eagles (*Haliaeetus leucocephalus*) or snail kites (*Rostrhamus sociabilis*) in Florida. AVM suspect algae was documented throughout the digestive system of the Island apple snails and it was found present even after gut passage. In order to determine the potential for disease, toxins are being tested in the tissues of the experimental snails. These tissues will also be used in future feeding trials to investigate the potential for cyanotoxin transfer to predators. (Susan Wilde, UG)

# Climbing Fern Herbicide Absorption



- Absorption and Translocation of Glyphosate, Metsulfuron, and Triclopyr in Old World Climbing Fern
  - Based on autoradiographs, there was limited horizontal movement of any herbicide in the rhizomes of Old World climbing fern which could explain why re-sprouts are observed several weeks following treatment. (Jeff Hutchinson, UF)

# Paragrass Control



- Data indicates that excellent control of paragrass (*Brachiaria mutica*) can be obtained using 1.12 kg ai/ha glyphosate and 0.86 kg ai/ha imazapyr in combination with burning followed by flooding. (S. Chaudhari, UF)



# Phragmites Genetics

- Detecting cryptic invasions of *Phragmites australis* in Florida waterways using genetic markers
  - All of the sequenced individuals obtained were the Gulf haplotype. These results suggest that the invasive M haplotype has not yet reached Florida waterways or has a localized distribution and occurs in areas we did not sample. (Bill Overholt, UF)

# Python Mortality

- Nine of ten telemetered and 59 out of 99 non-telemetered Burmese python documented in January 2010 died due to the unusually cold temperatures in the Florida Everglades. (*Biological Invasions, Frank Mazzoti (University of Florida) and a team of co-authors including USGS biologists Dr. Kristen Hart and Dr. Robert Reed*)



# Python Mortality

- USDA (Gainesville) lost 7/9 snakes housed outdoors. Did not use thermal refugia provided (Mike Avery, USDA)

# More Pythons

- ENP and partners are:
  - Trying various trap designs at the Frog Pond
  - Studying diet
  - Studying mercury load
  - Looking at movement
    - (Skip Snow, ENP)
- USGS is looking at hatchling salinity tolerance (Kristin Hart)

- More detailed information about the above research results will be in the FWC July Invasive Plant Research Newsletter which will be sent out as a PDF.
- Contact [Don.schmitz@myfwc.com](mailto:Don.schmitz@myfwc.com) for a copy