

# ECISMA Research Update

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# New ECISMA Research database

The screenshot displays the website for the Florida Coastal Everglades Long Term Ecological Research (FCE LTER) program. The header includes the Everglades CISM logo and navigation links. The main content area is titled "Researcher Profiles" and features a profile for Jeremy Stalker. The profile includes the following information:

- Name:** Jeremy Stalker
- Profile:** FCE LTER Site Role(s): Ph.D. Student
- Advisor:** Rene Price
- FCE Working groups:** Hydrology
- Affiliations:** Florida International University - Department of Earth Sciences
- Research interests:** Groundwater discharge along coastlines
- Mailing address:** Department of Earth Sciences, Florida International University, University Park, PC 344, Miami, FL 33199
- Contact info:** E-mail: jstall01@fiu.edu, Phone: (305) 349-0281, Fax: (305) 349-3877

On the right side of the image, there is a text box that reads: "Research Committee has identified more than 80 researchers on invasive spp." Below this, another text box states: "ECISMA is adding a data base, similar to the one found at FCE, listing them".

We are in the process of listing researchers names, contact information, and their research interests for the ECISMA website similar to the style found at the Florida Coastal Everglades webpage that lists Everglades Researchers funded by the National Science Foundation.

# New ECISMA Research Database

The screenshot displays the website for the Florida Coastal Everglades Long Term Ecological Research (FCE LTER) project. At the top, the Everglades CISMA logo is visible, along with navigation links for Home, About, and Contact. The main header identifies the project as Florida Coastal Everglades Long Term Ecological Research. Below this, a navigation menu includes links for About us, Research, Data, Publications, Student Organization, Education & Outreach, and Intranet. The central focus is the 'FCE Publications' page, which contains a search form. The search form has a 'Keywords' section with checkboxes for Title, Keywords, and Abstract. It also includes fields for Author (Any author, First author), Last name, Initial, and 2nd initial. There are dropdown menus for Type of publication (Journal, etc.), Status, LTER or related?, and Year range. A 'Submit' button and a 'Reset form' link are at the bottom of the search form. Below the search form, there are several bullet points providing information about LTER publications, including a list of publications with authors and titles. On the left side of the page, there is a sidebar with a 'Report a sighting of an Invasive...' section and a 'Learn more about Invasive...' section with a 'Log In' form.

ECISMA is also adding a new searchable database that can be easily updated for research publications pertaining to invasive species, similar to the one found at FCE

And this searchable and easily updateable data base will include both plant and animal invasive species publications.

## Present Biocontrol Research

- Air potato (USDA)
- Australian pine (USDA)
- Brazilian pepper (USDA, UF)
- Bromeliad weevil (UF)
- Downy Rose myrtle (USDA)
- Hydrilla (USDA)
- hygrophila (UF)
- Melaleuca (USDA)
- Old World climbing fern (USDA)
- Skunkvine (USDA)
- Water hyacinth (USDA)
- Water lettuce (USDA)
- Wetland nightshade (UF)

13 species that impact ECISMA have been targeted for biocontrol research and most have multiple agency funding sources.

## Breaking FWC Funded Research News

- Consumption of hydrilla with **toxigenic algae species** was not lethal to the Island apple snails in lab, and the potential exists for the snails to concentrate and confer toxin to their predators, i.e., endangered Snail Kites – Wilde, UG
- Data suggests that a **single clone of hydrilla** was introduced into Florida ~50 years ago and spread throughout Florida and the southern United States – Overholt, UF
- *Megamelus scutellaris* was approved for release by the Technical Advisory Group for the Biological Control of Weeds - **waterhyacinth plants exposed** to two generations of feeding by *M. scutellaris* in the lab **experienced a 66.9% suppression of biomass** - Tipping, USDA-ARS

## Breaking FWC Funded Research News

- A petition requesting the release of the Thai sawfly, *Neostromboceros albicomus*, a new biocontrol agent targeting *Lygodium microphyllum*, will be submitted in late 2009 or early 2010 to TAG – Pemberton, USDA-ARS
- Combining herbicide treatment and fire did not eliminate *L. microphyllum* but did significantly change the structure and composition of tree islands. Do not use prescribed fire following herbicide application, unless the tree islands have no tree canopy and near complete cover of *L. microphyllum* – Hutchinson, UF

The use of herbicide and prescribed fire on Everglade's tree islands resulted in a complete change in the structure and composition, at least temporarily, of the islands. Prescribed fire resulted in the successful removal of dead Old World climbing fern rachis, but along with the large reduction in canopy cover created more open habitat for early successional and generalist species.

## Breaking FWC Funded Research News

- Lab results indicate **metsulfuron methyl impacted spore germination of *Lygodium microphyllum*** at a greater rate relative to the other herbicides tested, may explain why *L. microphyllum* treated with metsulfuron methyl results in less new growth 12 months following treatment compared to glyphosate – Hutchinson, UF
- **FWC ended funding long-term biocontrol research for hydrilla** – a lack of suitable candidates after years of searching in Africa and Asia is the reason – Schmitz, FWC