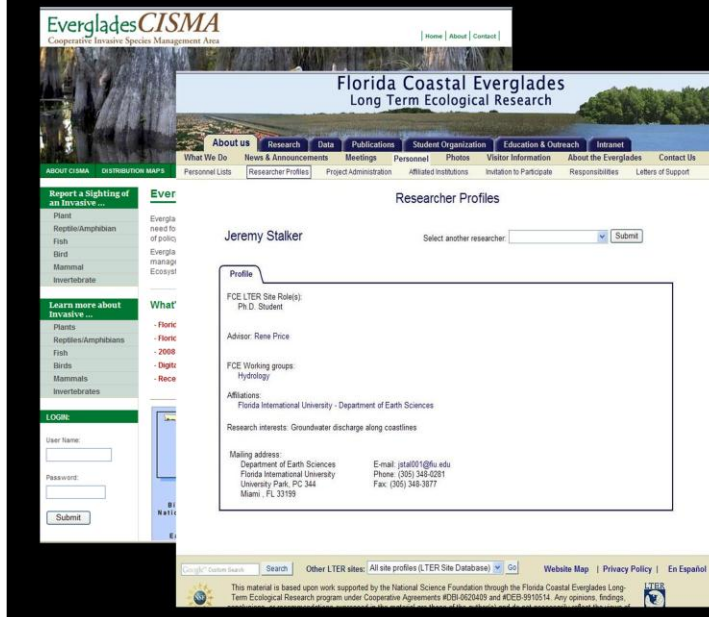


ECISMA Research Update

Don C. Schmitz and Pam Fuller

New ECISMA Research database



Research Committee has identified more than 80 researchers on invasive spp.

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

Everglades CISMA
Cooperative Invasive Species Management Area

Florida Coastal Everglades Long Term Ecological Research

FCE Publications

Search

Keywords: Search for keywords in the:
☐ Title
☐ Keywords
☐ Abstract

Author: ☐ Any author ☐ First author
 Last name: Initial: Initial:
 Status: LTER or related?
☐ All keywords (AND) ☐ One or more keywords (OR)

Type of publication:
 Journal:
 Year range: -
 Site (map):
☐ Hide report links

* LTER publications which directly cite FCE LTER support (see Acknowledging FCE LTER support).
 * Publications which do not cite FCE LTER support, but are pertinent to the Everglades and contributed by FCE LTER researchers.

Jump to: Books Book chapters Journal articles Master's theses Ph.D. dissertations Reports

Books [back to the top](#)
 * Busch, D.E., J.C. Twilley (eds.) 2003. Monitoring Ecosystems: Interdisciplinary Approaches for Evaluating Ecoregional Initiatives. Island Press, Washington, D.C. 447 pp.
 * Hollander, G. 2003. Raising Cane in the Glades: The Global Sugar Trade and the Transformation of Florida. The University of Chicago Press, Chicago.

Book chapters [back to the top](#)
 * Davis, S.E., D. Lirman, J. Vitzthum, (in Press). Nitrogen and phosphorus exchange between tropical coastal ecosystems. In: Nagelkerken, I. (ed.) Ecological Connectivity Among Tropical Coastal Ecosystems. Springer.
 * Dittmer, T., B. Koch, R. Jaffe. (in Press). Tools for studying biogeochemical connectivity among tropical coastal ecosystems. In: Nagelkerken, I. (ed.) Ecological interactions among tropical coastal ecosystems.
 * Hall, R.O., S.E. Thomas, E.E. Gaiser. 2007. Measuring primary production in freshwater ecosystems. Pages 175-203 In: Fahay, T.J., A.K. Knapp (eds.) Principles and Standards for Measuring Net Primary Production in Long-Term Ecological Studies. Oxford.

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