

# Florida Coastal Everglades Student Group

Yearly update  
ASM March 19-20, 2009

# Update






- No longer part of FIU system
- All events are student-sponsored
- Name change to FCE student group

Photo by *Amanda Quillen*

# 2008-2009

## Activities

- End of spring semester BBQ (BGSA) 
- Beginning of fall semester BBQ (BGSA, CGSA) 
- Movie night: Water's Journey-Everglades (SAGSA) 





# Discussion Group

- Held every Friday at 4pm in Ecotank.
- Jeremy Stalker
- Jim Fourqurean
- René Price
- John Chick



Brown Bag Seminars



Beginning of semester BBQ

# Awards received

- Jay Munyon: Everglades Foundation Fellowship \$10,000  
SERC Christina Menendez Fellowship \$5,000
- Clifton Ruehl: Everglades Foundation Fellowship \$17,000
- Pam Sullivan: Everglades Foundation Fellowship \$17,000
- Greg Koch: Everglades Foundation Fellowship \$20,000

# Meetings/Presentations

- **Koch, G.R.** et al., 2008. Preliminary metabolic estimates of an oligotrophic, subtropical pond.  
7<sup>th</sup> Global Lake Ecological Observatory Network meeting, Nortalje, Sweden.
- **Ruehl, C. B.**, 2008. Separating consumptive and non-consumptive predator effects in the presence of nutrient enrichment.  
Ecological Society of America, Wisconsin.
- **Wachnicka, A.** et al., 2008. Diatom-Based Inferences of Environmental Change in Florida Bay and Adjacent Coastal Wetlands of South Florida.  
Florida Bay and Adjacent Marine Systems Science Conference, Naples, Florida.
- **Williams, C.J.** et al., 2008. Spatial patterns in microbial fatty acid composition and carbon cycling in a seagrass estuary.  
Ocean Science Meeting, Orlando, Florida, USA, ASLO.
- **Castañeda-Moya, E.** et al., 2008. Hurricane Impacts on Mangrove Forests of Florida Coastal Everglades: The Importance of sediment deposition in the biogeochemistry and fertility of mangrove soils.  
GEER meeting (July 28- August 1).
- **Rosenblatt, A.** Greater Everglades Ecosystem Restoration Conference (GEER), 2008.
- **Garvoille, R.** 2008. Anthropology's Role in Trans-disciplinary Research: Investigating Multi-scaled Socioecological Transformation in the Southern Florida Everglades.  
A Roundtable on Graduate Student Collaborations and Engagements in Environmental Change Research American Anthropological Association conference.

# Papers in review

(Not in order of authorship)

- **Ruehl, C. B.** et al. Cage design and seasonality in wetland field experiments that measure biotic interactions. *Hydrobiologia*.
- **Koch, G.R.** et al. Assessment of grassland plant responses to fire and grazing disturbances using a functional trait-based approach. *Ecology*.
- **Koch, G.R.** et al. In prep. The best practice for determining whole lake metabolism using the diel dissolved oxygen technique. Intended submission to: *Limnology and Oceanography*.
- **Chen, M.** et al. Comparative study of dissolved organic matter from groundwater and surface water in Florida coastal Everglades using multi-dimensional spectrofluorometry combined with multivariate statistics . Intended submission to: *Water Research*.
- **Wachnicka, A.H.** et al. P enrichment of seagrass meadows causes changes in epiphyte community structure at division level and within diatom communities. *Journal of Phycology*.
- **Castañeda-Moya, E.** et al. Spatial patterns of sediment deposition in mangrove forests of the Florida Coastal Everglades after the passage of Hurricane Wilma. *Estuaries and Coasts*.
- **Castañeda-Moya, E.** et al. The role of the mangrove ecotone region in regulating nutrient cycling and wetland productivity in south Florida. *Critical Reviews in Environmental Science and Technology – special issue*.
- **Castañeda-Moya, E.** et al. Denitrification in coastal Louisiana: A spatial assessment and research needs. *Journal of Sea Research*.

# Papers in review cont.

- **Castañeda-Moya, E.** et al. Salinity and chlorophyll a as performance measures to rehabilitate a mangrove-dominated deltaic coastal region: The Ciénaga Grande de Santa Marta-Pajarales lagoon complex, Colombia. *Estuaries and Coasts*.
- **Wachnicka, A.** et al. Developing Diatom-Based Inferences of Environmental Change in Florida Bay and Adjacent Coastal Wetlands of South Florida. *Estuarine, Coastal and Shelf Science*
- **Wachnicka, A.** et al. Development of Diatom-Based Prediction Models For Assessment Of Salinity And Water Quality In Biscayne Bay, U.S.A. Quantitative Diatom-Based Prediction Of Salinity, Wtn, Wtp And Wtoc In Biscayne Bay, Florida, USA. *Estuaries and Coasts*
- **Wachnicka, A.** et al. Estuarine Environmental Reconstructions using Diatoms. Chapter in: *The Diatoms: Applications for the Environmental and Earth Sciences*. Second Edition. Stoermer, E. & J. Smol (Eds.).
- **Williams, C.J.** et al. The importance of seagrass as a carbon source for heterotrophic bacteria in a subtropical estuary (Florida Bay). *Estuarine Coastal and Shelf Science*
- **Williams, C.J.** et al. Water column nitrogen cycling in Florida Bay. *Contributions in Marine Science – Florida Bay Special Issue*



# Publications

- Bouillon, S., A.V. Borges, **E. Castañeda-Moya**, K. Diele, T. Dittmar, N.C. Duke, E. Kristensen, S.Y. Lee, C. Marchand, J.J. Middelburg, V.H. Rivera-Monroy, T.J. Smith III, and R.R. Twilley. 2008. Mangrove production and carbon sinks: a revision of global budget estimates. *Global Biogeochemistry Cycles* 22: GB2013.
- Simard, M., V.H. Rivera-Monroy, J.E. Mancera-Pineda, **E. Castañeda-Moya**, R.R. Twilley. 2008. A systematic method for 3D mapping of mangrove forests based on Shuttle Radar Topography Mission elevation data, ICESat/GLAS waveforms and field data: Application to Ciénaga Grande de Santa Marta, Colombia. *Remote Sensing of Environment* 112: 2131-2144.
- Simoneit, B.R.T., Xu, Y., Neto, R.R., **Cloutier, J.B.**, and Jaffé, R., 2009. Photochemical alteration of 3-oxygenated triterpenoids: Implications for the origin of 3,4-seco-triterpenoids in sediments. *Chemosphere*, 74, 543-550.
- **Williams, C.J.**, Lavrentyev, P.J., and Jochem, F.J., 2008. Bottom-up and top-down control of heterotrophic bacterioplankton growth in a phosphorus-deplete subtropical estuary (FloridaBay). *Marine Ecology Progress Series* 372:7-18.
- **Williams, C.J.**, Boyer, J.N., and Jochem, F.J., 2009. Microbial activity and carbon, nitrogen, and phosphorus content in a subtropical seagrass estuary (FloridaBay): Evidence for limited bacterial use of seagrass production. *Marine Biology* 156:341-353.

# Defenses

- **Clayton Williams**, (advisor: Dr.Frank Jochem)  
“Relative significance of pelagic, benthic, and allochthonous organic matter to microbial carbon cycling in a phosphorus-depleted subtropical estuary (Florida Bay)”
- **Jeremy Stalker** (advisor: Dr.René Price)  
“Hydrological dynamics between a coastal aquifer and the adjacent estuarine system, Biscayne Bay, South Florida”
- **Ania Wachnika**, (advisor: Dr.Evelyn Gaiser)  
“Quantitative Diatom-Based Reconstruction Of Paleoenvironmental Conditions In Florida Bay And Biscayne Bay, U.S.A.”
- **Amanda Quillen**, (advisor: Dr.Evelyn Gaiser)  
“Diatom-based paleolimnological reconstruction of quaternary environments in a Florida sinkhole lake”
- **David Iwaniec** (advisor: Dr.Dan Childers)  
“Investigating ecosystem regulation and organization using periphyton from the Florida Everglades, USA”

# 3<sup>rd</sup> Year Review T-shirts



- Sign-up sheet.
- Nalgene bottles

# Fifteenth Annual Florida Ecology and Evolution Symposium

June 19-21, 2009  
Archbold Biological Station  
Lake Placid, FL

- Night-time visual tour of the Milky Way Galaxy by astronomer Kye Ewing
- End-of-meeting social barbeque and Lake Annie swimming
- Virtual Tour of the Everglades and Overview of the FCE LTER program
- Complete Room and Board at Archbold Biological Station
- **Registration Form:**  
[http://fcelter.fiu.edu/students/Registration\\_2009.doc](http://fcelter.fiu.edu/students/Registration_2009.doc)  
(all participants) *Deadline: June 6, 2009*
- **Abstract Form:**  
[http://fcelter.fiu.edu/students/FECES\\_2009\\_Abstract\\_Submission.doc](http://fcelter.fiu.edu/students/FECES_2009_Abstract_Submission.doc)  
(presenters only) *Deadline: May 31, 2009*

*Registration cost is \$75 per person. Space is limited to 25 participants so please register quickly!*

Please contact **Greg Koch** ([gkoch001@fiu.edu](mailto:gkoch001@fiu.edu)) with any questions.



# THANK YOU!

