

CURRICULUM VITAE

TODD Z. OSBORNE

WETLAND BIOGEOCHEMISTRY LABORATORY

DEPARTMENT OF SOIL AND WATER SCIENCE

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EDUCATION

Doctor of Philosophy, Wetland and Aquatic Processes, Soil and Water Science Department, University of Florida, Gainesville, FL 32611 (May 2005) USDA National Needs Fellow

Master of Science, Environmental Engineering Sciences, University of Florida, Gainesville, FL 32611 (2000) Departmental Fellow

Bachelor of Science, Applied Biology and Biotechnology, School of Biology, Georgia Institute of Technology, Atlanta, GA 30308 (1997)

ACADEMIC/PROFESSIONAL EXPERIENCE

Assistant Research Scientist	<i>June 2006 - Present</i>
100 % research appointment. Conduct research and develop sponsored research program in areas of aquatic and soil biogeochemistry and ecology.	
Post Doctoral Associate	<i>May 2005- June 2006</i>
Project Coordinator	<i>Jan 2003 – Dec 2005</i>
Senior Environmental Scientist	<i>Feb. 1998-Jan 2003</i>

RESEARCH INTERESTS

- Biogeochemical cycling of organic carbon and other nutrients in wetland soils and aquatic ecosystems
- Role of organic matter as driver and modulator of wetland ecosystem functions
- Role of aquatic vegetation in DOM/POM/nutrient dynamics, soil accretion
- Fire ecology of wetlands and impacts to biogeochemical cycles and ecosystem responses, soil subsidence
- Coastal processes with respect to seagrass and mangrove productivity and organic matter cycling, sub-aqueous soil pedogenesis
- Soil biogeochemical processes associated with coastal forest retreat and development of salt marsh ecosystems
- Wetland soils as natural water quality treatment systems

PUBLICATIONS

Osborne, T.Z., Chapman, L., Chapman, C., Crisman, T., Prenger, J. (2001) Invertebrate Community Structure and Oxygen Availability in an Intermittent Stream / Wetland System of the Ugandan Highlands. **Arch. Fur Hydrobiologia Stuttgart**

Corstanje, R., S. Grunwald, K.R. Reddy, T.Z. Osborne and S. Newman (2006). Assessment of the spatial distribution of soil properties in a northern Everglades marsh. **Journal of Environmental Quality** 35(3) 938-949

Bruland, G.L., S. Grunwald, Todd Z. Osborne, K. R. Reddy, and S. Newman (2006). Spatial Distribution of Soil Properties in Water Conservation Area 3 of the Everglades. **Soil Science Society of America Journal** 70(5) 1662-1676

Bruland, G.L., T.Z. Osborne, K.R. Reddy, S. Grunwald, S. Newman, and W.F. DeBusk. Recent changes in soil total phosphorus in the Everglades: Water Conservation Area 3. (In Press **Journal of Environmental Quality**)

Osborne, T.Z., P.W. Inglett, and K.R. Reddy. Linkages between Dissolved Organic Matter and Vegetation in the Everglades, Florida. (In Press **Aquatic Botany**)

Crisman, T.L., L.J. Chapman, T.Z. Osborne. The role of the fingernail clam *Spaerium stahlmanni* in organic carbon cycling in a tropical African wetland. (In Press **Wetlands**)

Osborne, T.Z., T.L. Crisman & L.J. Chapman. Fine particulate and dissolved organic carbon dynamics in a tropical stream / wetland system. (Submitted **Freshwater Biology**)

Osborne, T.Z. and K. R. Reddy. Microbial utilization of macrophyte derived DOM in the Florida Everglades. (Submitted **Limnology and Oceanography**)

Rivero, R.G., S. Grunwald, K.R. Reddy, T.Z. Osborne and S. Newman. Spatial distribution of soil properties in Water Conservation Area 2A, Everglades, Florida. (Submitted **Ecological Engineering**)

Osborne, T.Z., and K. R. Reddy. Photolytic mineralization of macrophyte derived DOM in the Florida Everglades. (Submitted **Chemosphere**)

Osborne, T.Z., G. Bruland, K. R. Reddy, S. Newman, and S. Grunwald. Spatial distribution of soil biogeochemical properties in Everglades National Park. (In prep)

Wetzel, R. G., T.Z. Osborne, K. R. Reddy, and S. Newman. Photolytic decomposition of DOM with coupled nutrient release in the Florida Everglades (In prep)

Osborne, T., T.L. Crisman, L.J. Chapman, & C.A. Chapman. Organic carbon source selectivity by macroinvertebrates in a tropical African stream. (in prep)

Osborne, T.Z., K. R. Reddy, S. Newman, and L. Ellis. Dissolved organic matter source and export in the greater Everglades ecosystem. (in prep)