

## **CURRICULUM VITAE**

### **Evelyn E. Gaiser**

Associate Professor  
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### **EDUCATION**

- Ph.D.** 1997 University of Georgia, Athens, Georgia, Institute of Ecology  
*Dissertation:* Paleolimnological reconstruction of Holocene environments in wetland ponds of the Upper Atlantic Coastal Plain using siliceous microfossils.  
*Advisor:* Barbara E. Taylor.
- M.S.** 1991 Iowa State University, Ames, Iowa, Department of Animal Ecology  
*Thesis:* An ecological and taxonomic analysis of epizoic diatoms on zooplankton.  
*Advisor:* Roger W. Bachmann.
- B.S.** 1989 Kent State University, Kent, Ohio, Department of Biology

### **RESEARCH INTERESTS**

Aquatic community ecology, algal biology, wetland ecology, diatom taxonomy, paleoecology, multivariate analysis. I am especially interested in studies that examine variation in algal community structure in lakes and wetlands over long temporal scales.

### **ACADEMIC AND PROFESSIONAL APPOINTMENTS**

- 2006** – Present. Associate Professor. Department of Biology, Florida International University, Miami, FL.
- 2006** – Present. Research Affiliate. Archbold Biological Station, Lake Placid, Florida.
- 2001** – **2006** Assistant Professor. Department of Biology, Florida International University, Miami, FL.
- 1997 - 2001** Assistant Research Scientist. Southeast Environmental Research Program, Florida International University, Miami, FL.
- 1991-97** Graduate Teaching and Research Assistant. Department of Zoology, University of Georgia, Athens, GA and Savannah River Ecology Laboratory, Aiken, SC.
- 1989-91** Graduate Teaching and Research Assistant. Department of Animal Ecology, Iowa State University, Ames, IA.
- 1987-88** Research Technician. Ohio Agricultural Research and Development Center, Ohio State University, Wooster, OH.

### **PUBLICATIONS**

#### **Refereed Publications:**

- Gaiser**, E. 2008. Periphyton as an indicator of restoration in the Everglades. *Ecological Indicators*. In Press.
- Frankovich, T. A., A. R. Armitage, A. H. Wachnicka, E. E. **Gaiser** and J. W. Fourqurean. 2008. Nutrient effects on seagrass epiphyte community structure in Florida Bay. *J. Phycology*. In Press.
- Gaiser**, E., R. Doren, P. McCormick, S. Newman, J. Richards and J. Trexler. 2008. Average standards fail to protect wetlands. *Environ. Sci. Technol.* 44: In Press.
- Liu, G., Y. Cai, P. Kalla, D. Scheidt, J. Richards, L. Scinto, E. **Gaiser** and C. Appleby. 2007. Mercury mass budget estimates and cycling seasonality in the Florida Everglades. *Environ. Sci. Technol.* 42: 1954-1960.
- Wachnicka, A. and E. E. **Gaiser**. 2007. Morphological characterization of *Amphora* and *Seminavis* (Bacillariophyceae) from South Florida, U.S.A. *Diatom Research* 22: 387-455.
- Tobias, F. A. and E. **Gaiser**. 2006. Taxonomy and distribution of taxa in the genus *Gomphonema* from the Florida Everglades, U.S.A. *Diatom Research* 21: 379-405.
- Trexler, J. C., E. E. **Gaiser** and D. L. Childers. 2006. Interaction of hydrology and nutrients in controlling ecosystem function in oligotrophic coastal environments of South Florida. *Hydrobiologia* 569: 1-2.
- Gottlieb, A. D., J. H. Richards and E. E. **Gaiser**. 2006. Comparative study of periphyton community structure in long and short hydroperiod Everglades marshes. *Hydrobiologia* 569: 195-207.
- Gaiser**, E. E., A. Zafiris, P. L. Ruiz, F. A. C. Tobias and M. S. Ross. 2006. Tracking rates of ecotone migration due to salt-water encroachment using fossil mollusks in coastal south Florida. *Hydrobiologia* 569: 237-257.
- Frankovich, T. A., E. E. **Gaiser**, J. C. Ziemann and A. H. Wachnicka. 2006. Spatial and temporal distributions of epiphytic diatoms growing on *Thalassia testudinum* Banks ex König: relationships to water quality. *Hydrobiologia* 569: 259-271.
- Dorn, N. J., J. C. Trexler and E. E. **Gaiser**. 2006. Exploring the role of large predators in marsh food webs: evidence for a behaviorally-mediated trophic cascade. *Hydrobiologia* 569: 375-386.
- Thomas, S. E., E. E. **Gaiser** and F. A. C. Tobias. 2006. Effects of shading on calcareous benthic periphyton in a short-hydroperiod oligotrophic alkaline wetland (Everglades, FL, U.S.A.). *Hydrobiologia* 569: 209-221.
- Ewe, S. M. L., E. E. **Gaiser**, D. L. Childers, V. H. Rivera-Monroy, D. Iwaniec, J. Fourqurean and R. R. Twilley. 2006. Spatial and temporal patterns of aboveground net primary productivity (ANPP) in the Florida Coastal Everglades LTER (2001-2004). *Hydrobiologia* 569: 459-474.
- Xu, Y., A. Wachnicka, E. **Gaiser** and R. Jaffé. 2006. Occurrence of C<sub>25</sub> highly branched isoprenoids in Florida Bay: Paleoenvironmental indicators of diatom-derived organic matter. *Organic Geochemistry*.
- Thomas, S., E. E. **Gaiser**, M. Gantar and L. J. Scinto. 2006. Quantifying the responses of calcareous periphyton crusts to rehydration: A microcosm study (Florida Everglades). *Aquatic Botany* 84: 317-323.
- Gaiser**, E. E., J. H. Richards, J. C. Trexler, R. D. Jones and D. L. Childers. 2006. Periphyton responses to eutrophication in the Florida Everglades: Cross-system patterns of structural and compositional change. *Limnology and Oceanography* 51: 617-630.

- Davis, S. M., E. E. **Gaiser**, W. F. Loftus and A. E. Huffman. 2005. Southern marl prairies conceptual ecological model. *Wetlands* 25: 821-831.
- Gaiser**, E. E., K. Rosenfeld, D. Ebert-May, E. P. Weber and A. McConney. 2005. Pathways to Scientific Teaching: Here today, not gone tomorrow? Understanding extinction. *Frontiers in Ecology and the Environment* 7: 452-453.
- Gottlieb, A., J. H. Richards and E. E. **Gaiser**. 2005. The effects of desiccation resistance and rewetting on the community structure of Everglades periphyton. *Aquatic Botany* 82: 99-112.
- Gaiser**, E. E., J. C. Trexler, J. H. Richards, D. L. Childers, D. Lee, A. L. Edwards, L. J. Scinto, K. Jayachandran, G. B. Noe and R. D. Jones. 2005. Cascading ecological effects of low-level phosphorus enrichment in the Florida Everglades. *Journal of Environmental Quality* 34: 717-723.
- Gaiser**, E. E., M. J. Brooks, W. Kenney, C. L. Schelske and B. E. Taylor. 2004. Interpreting the hydrologic history of a temporary pond using siliceous microfossils. *Journal of Paleolimnology* 31: 63-76.
- Donar, C. M., K. W. Condon, M. Gantar and E. E. **Gaiser**. 2004. A new technique for examining the physical structure of Everglades floating periphyton mat. *Nova Hedwigia* 78: 107-119.
- Gaiser**, E. E., L. J. Scinto, J. H. Richards, K. Jayachandran, D. L. Childers, J. D. Trexler and R. D. Jones. 2004. Phosphorus in periphyton mats provides best metric for detecting low-level P enrichment in an oligotrophic wetland. *Water Research* 38: 507-516.
- Thomas, S. E., E. E. **Gaiser**, M. Gantar, A. Pinowska, L. J. Scinto and R. D. Jones. 2002. Growth of calcareous epilithic mats in the margin of natural and polluted hydrosystems: phosphorus removal implications in the C-111 basin, Florida Everglades, USA. *Lake and Reservoir Management* 18: 323-329.
- Noe, G. B., D. L. Childers, A. L. Edwards, E. E. **Gaiser**, K. Jayachandran, D. Lee, J. Meeder, J. Richards, L. J. Scinto, J. C. Trexler and R. D. Jones. 2001. Short-term changes in phosphorus storage in an oligotrophic Everglades wetland ecosystem receiving experimental nutrient enrichment. *Biogeochemistry* 59: 239-267.
- Gaiser**, E. E., B. E. Taylor and M. J. Brooks. 2001. Establishment of wetlands on the southeastern Atlantic Coastal Plain: Paleolimnological evidence of a mid-Holocene hydrologic threshold from a South Carolina pond. *Journal of Paleolimnology* 26: 373-391.
- Gaiser**, E. E. and J. Johansen. 2000. Freshwater diatoms from Carolina bays and other isolated wetlands on the Atlantic Coastal Plain of South Carolina, U.S.A., with descriptions of seven taxa new to science. *Diatom Research* 15: 75-130.
- Gaiser**, E. E., T. E. Philippi and B. E. Taylor. 1998. Distribution of diatoms among intermittent ponds on the Atlantic Coastal Plain: development of a model to predict drought periodicity from surface sediment assemblages. *Journal of Paleolimnology* 20:71-90.
- Gaiser**, E. E. and K. L. Lang. 1998. Patterns of cladoceran zooplankton distribution among prairie pothole ponds of northwest Iowa. *Lake and Reservoir Management* 14: 37-51.
- Gaiser**, E. E. and R. W. Bachmann. 1994. Seasonality, substrate preference and attachment sites of epizoic diatoms on cladoceran zooplankton. *Journal of Plankton Research* 16: 53-68.
- Gaiser**, E. E. and R. W. Bachmann. 1993. The ecology and taxonomy of epizoic diatoms on Cladocera. *Limnology and Oceanography* 38: 628 - 637.

**Refereed Book Chapters:**

- Hall, R. O., S. E. Thomas and E. E. **Gaiser**. 2007. Measuring freshwater primary production and respiration. In T. Fahey and A. Knapp (Eds.) *Principles and Standards for Measuring Primary Production*. Oxford University Press, UK. pp. 175-203.
- Gaiser**, E. E., A. Wachnicka, P. Ruiz, F. A. Tobias and M. S. Ross. 2004. Diatom indicators of ecosystem change in coastal wetlands. In S. Bortone (Ed.) *Estuarine Indicators*. CRC Press, Boca Raton, FL. pp. 127-144.
- Ross, M. S., E. E. **Gaiser**, J. F. Meeder and M. T. Lewin. 2001. Multi-taxon analysis of the "white zone", a common ecotonal feature of South Florida coastal wetlands. In Porter, J. and K. Porter (Eds). *The Everglades, Florida Bay, and Coral Reefs of the Florida Keys*. CRC Press, Boca Raton, FL, USA. pp. 205-238.
- Childers, D. L., R. D. Jones, J. C. Trexler, C. Buzzelli, J. Boyer, A. L. Edwards, E. E. **Gaiser**, K. Jayachandaran, D. Lee, J. F. Meeder, J. Pechmann, J. H. Richards and L. J. Scinto. 2001. Quantifying the effects of low level phosphorus enrichment on unimpacted Everglades wetlands with in situ flumes and phosphorus dosing. In Porter, J. and K. Porter (Eds). *The Everglades, Florida Bay, and Coral Reefs of the Florida Keys*. CRC Press, Boca Raton, FL, USA. pp. 127-152.

**Edited Compilations:**

- Trexler, J. C., E. E. **Gaiser** and D. L. Childers. 2006. Interaction of hydrology and nutrients in controlling ecosystem function in oligotrophic coastal environments of South Florida. *Hydrobiologia*. Vol. 569.

**Book Reviews:**

- Gaiser**, E. E. 2000. Review: Stoermer, E. F. and J. P. Smol. 1999. *The Diatoms: Applications for the Environmental and Earth Sciences*. Cambridge University Press. *Limnology and Oceanography* 45: 860-863.

**PAPERS/PRESENTATIONS AT MEETINGS/CONFERENCES****Invited Seminars:**

- Gaiser, E. E., M. S. Ross, P. Ruiz, A. Wachnicka and A. Zafiris. 2008. Effects of gradient compression on the habitat mosaic of remnant coastal wetlands in a subtropical, urban landscape. Annual Meeting of the Society for Wetland Scientists. Washington, DC.
- Gaiser, E. E. 2008. Gradients of anthropogenic impact on periphyton abundance and composition in the Florida Coastal Everglades. American Society of Limnology and Oceanography Ocean Sciences Meeting. Orlando, FL.
- Gaiser, E. E., N. Deyrup, R. Bachmann, L. Battoe and H. Swain. 2007. A 23-year record of cascading limnological effects of a shifting light environment in a monomictic seepage lake in central Florida. Global Lakes Ecological Observatory Network meeting. Lammi Biological Station, Finland.
- Gaiser, E. E. 2006. Why is periphyton so abundant in the Everglades? Florida Ecology and Evolution Society Annual Meeting. Archbold Biological Station, FL.

- Gaiser, E. E. 2006. Ecological research in the FIU Department of Biology. FIU-Universidad Nacional Autónoma de México Marine Sciences Meeting. Merida, Yucatan, Mexico
- Gaiser, E. E., R. W. Bachmann, N. Deyrup, L. Battoe and H. Swain. 2006. A 20-year limnological dataset from Lake Annie, FL. Archbold Biological Station, Lake Placid, FL
- Gaiser, E. E. 2005. Cascading ecological effects of low-level phosphorus enrichment and abatement in the Florida Everglades. Illinois Natural History Survey, University of Illinois, Champaign, IL.
- Gaiser, E. E. 2004. Establishing a phosphorus criterion to protect the Everglades: cascading ecological imbalances suggest a critical minimum standard. Harvard Forest, Harvard University, Petersham, MA.
- Gaiser, E. E. 2004. Establishing a phosphorus criterion to protect the Everglades: cascading ecological imbalances suggest a critical minimum standard. University of Georgia, Athens, GA.
- Gaiser, E. E. 2003. Establishing a phosphorus criterion to protect the Everglades: cascading ecological imbalances suggest a critical minimum standard. Nova Southeastern University Oceanographic Institute, Delray Beach, FL.
- Gaiser, E. E. 2003. Establishing a phosphorus criterion to protect the Everglades: cascading ecological imbalances suggest a critical minimum standard. Department of Fisheries and Aquatic Sciences, University of Florida, Gainesville, FL.
- Gaiser, E. E. 2003. Establishing a phosphorus criterion to protect the Everglades: cascading ecological imbalances suggest a critical minimum standard. Department of Biology, Southern Illinois University, Carbondale, IL.
- Gaiser, E. E. 2002. Primary production at the Florida Coastal Everglades Long-Term Ecological Research sites. FCE-LTER All Scientists Meeting. Florida International University. Miami, FL.
- Gaiser, E. E. 2002. Periphyton of the Florida Everglades. South Florida Native Plant Society Meeting. Fairchild Tropical Gardens. Miami, FL.
- Gaiser, E. E. 2001. Periphyton in the Florida Everglades: effects of hydroperiod and nutrients on structural and functional dynamics. University of Miami, Department of Biology, Miami, FL.
- Gaiser, E. E. 1994. Development of a long-term limnological data base for lakes of Manitoulin Island, Ontario. Institute of Ecology Hydrobiology Symposium. Athens, GA.

### **Scientific Conferences:**

- Gaiser, E. E., J. LaHee, J. Trexler, C. Ruehl and W. Loftus. 2008. Factors governing composition and production of freshwater stromatolitic mats in subtropical calcareous wetlands of the Caribbean. Annual Meeting of the Ecological Society of America. Milwaukee, WI.
- Gaiser, E. E. and J. LaHee. 2008. Landscape-scale patterns of periphyton abundance and composition in the Florida Everglades. Greater Everglades Ecosystem Restoration Conference. Naples, FL.
- Gaiser, E. E. 2008. Landscape patterns of periphyton distribution in the Everglades. Greater Everglades Ecosystem Restoration Conference. Naples, FL.
- Gaiser, E. E., N. Deyrup, R. Bachmann, L. Battoe and H. Swain. 2008. Effects of changes in precipitation on transparency and thermal structure in subtropical, monomictic Lake

- Annie, Florida. Annual Meeting of the American Society of Limnology and Oceanography. St. John's, Newfoundland.
- Gaiser, E. E. and H. Swain. 2008. Deployment of continuous monitoring sensors on Lake Annie, FL. Global Lake Ecological Observatory Network meeting. Archbold Biological Station, FL.
- Gaiser, E. and J. LaHée. 2007. Taxonomic and morphological variability in diatoms endemic to modern stromatolitic microbial mats of Caribbean wetlands. North American Diatom Symposium. Pellston, MI.
- Gaiser, E. E., N. Deyrup, R. Bachmann, L. Battoe and H. Swain. 2007. Long-term shifts in water transparency alter thermal responses to climate change in a subtropical, monomictic seepage lake. 30<sup>th</sup> Congress of the International Association of Theoretical and Applied Limnology. Montreal, Quebec.
- Gaiser, E. E. 2007. Linking spatial and temporal patterns of benthic algal primary production to climate and water management drivers in the Florida Coastal Everglades Long-Term Ecological Research Program. North American Benthological Society Annual Meeting. Columbia, SC.
- Gaiser, E. E. and S. Thomas. 2007. Freshwater periphyton communities in the Greater Everglades: modeling responses to hydrology and water quality. National Conference on Ecosystem Restoration. Kansas City, MO.
- Gaiser, E. E. and D. L. Childers. 2007. State of the Program report. Florida Coastal Everglades Long-Term Ecological Research program Annual All Scientists Meeting. Miami, FL.
- Gaiser, E. E., J. Fourqurean, D. L. Childers, R. Monroy-Rivera and S. Davis. 2007. Primary production in the Florida Coastal Everglades Long-Term Ecological Research Program. Florida Coastal Everglades Long-Term Ecological Research program Annual All Scientists Meeting. Miami, FL.
- Gaiser, E. E. 2007. Patterns of periphyton production in the Florida Coastal Everglades Long-Term Ecological Research program. South Florida and Caribbean Cooperative Ecosystems Studies Unit Annual Meeting, Miami, FL.
- Gaiser, E. E., D. Iwaniec, T. Frankovich, S. Thomas and S. Ewe. 2006. Benthic algal productivity in the Florida Coastal Everglades. Long-Term Ecological Research Program All Scientists Meeting. Estes Park, CO.
- Gaiser, E. E., N. Deyrup, R. Bachmann, L. Battoe and H. Swain. 2006. A 23-year record of cascading limnological effects of a shifting light environment in a monomictic seepage lake in central Florida. Ecological Society of America. Annual Meeting. Memphis, TN.
- Gaiser, E. E. and S. E. Thomas. 2006. Freshwater periphyton communities of the Florida Everglades: An update on performance measures. Greater Everglades Ecosystem Restoration Science Annual Meeting. Orlando, FL.
- Gaiser, E. E., A. Zafiris, P. L. Ruiz, F. A. C. Tobias and M. S. Ross. 2006. Tracking rates of salt-water encroachment using fossil mollusks in coastal south Florida. Florida Bay and Adjacent Marine Systems Science Conference. Duck Key, FL.
- Gaiser, E. E. 2005. Marine benthic diatoms of Bocas Del Toro, Panama. 18<sup>th</sup> North American Diatom Symposium. Mobile, AL.
- Gaiser, E. E., A. Wachnicka, R. Jaffe, Y. Xu and J. W. Fourqurean. 2005. Paleoenvironmental history of Florida Bay: Interpretations of diatom trends and linkages to other ecological proxies. North American Benthological Society. Annual Meeting. New Orleans, LA.
- Gaiser, E. E. 2004. Cascading ecological effects of low-level phosphorus enrichment and abatement in the Florida Everglades. National Conference on Ecosystem Restoration. Orlando, FL.

- Gaiser, E. E., A. Zafiris and M. S. Ross. 2004. Using paleoecology to calculate rates of migration of coastal vegetation zones due to salt-water encroachment in South Florida. Ecological Society of America. Annual Meeting. Portland, OR.
- Gaiser, E. E., A. Wachnicka, A. Zafiris, P. Ruiz and M. S. Ross. 2003. Paleoecological determination of effects of saltwater encroachment on community migration in coastal South Florida wetlands. Ecological Society of America. Annual Meeting. Savannah, GA.
- Gaiser, E. E., A. L. Edwards, K. Jayachandran, R. D. Jones, D. Lee, T. E. Philippi, J. H. Richards, L. J. Scinto and J. C. Trexler. 2003. Experimental phosphorus enrichment in Everglades National Park: I. Approach and Methods. Greater Everglades Ecosystem Restoration Science Conference. Tampa Bay, FL.
- Gaiser, E. E., D. L. Childers, K. Jayachandran, R. D. Jones, D. Lee, G. B. Noe, T. E. Philippi, J. H. Richards, L. J. Scinto and J. C. Trexler. 2003. Experimental phosphorus enrichment in Everglades National Park: III. Application to large-scale pattern of enrichment in Everglades Marshes. Greater Everglades Ecosystem Restoration Science Conference. Tampa Bay, FL.
- Gaiser, E. E. and M. S. Ross. 2002. Water flow through coastal wetlands. Biscayne Bay Coastal Wetlands Science Meeting. Miami, FL.
- Gaiser, E. E. 2002. Using diatoms to create performance measures in Biscayne coastal wetlands. Biscayne Bay Coastal Wetlands Science Meeting. Miami, FL.
- Gaiser, E. E., D. L. Childers and R. D. Jones. 2002. Effects of hydrologic and nutrient alterations on periphyton biomass and composition across the Everglades landscape, Florida, USA. American Society of Limnology and Oceanography. Annual Meeting. Victoria, BC.
- Gaiser, E. E. 2001. *Gomphonema* of the Florida Everglades. National Water Quality Assessment Taxonomy Workshop. Academy of Natural Sciences, Philadelphia, PA.
- Gaiser, E. E. and R. D. Jones. 2001. Predicting phosphorus from diatom species composition in the Everglades: effects of unstable phosphorus optima. 16<sup>th</sup> North American Diatom Symposium. Ely, MN.
- Gaiser, E. E., M. J. Brooks, W. Kenney, C. L. Schelske and B. E. Taylor. 2001. Climatic interpretation of alternations between flooded and ponded states in the Holocene history of a temporary pond in South Carolina, USA. American Society of Limnology and Oceanography. Annual Meeting. Albuquerque, NM.
- Gaiser, E. E., L. J. Scinto, J. H. Richards, D. L. Childers, J. D. Trexler, K. Jayachandran and R. D. Jones. 2000. Nutrients sequestered in microbial mats reflect remote source water quality in Everglades National Park. Greater Everglades Ecosystem Restoration Science Conference. Naples, FL.
- Gaiser, E. E., R. D. Jones and J. Stober. 2000. Using diatoms for risk assessment in the Everglades. Greater Everglades Ecosystem Restoration Science Conference. Naples, FL.
- Gaiser, E. E., J. Boyer, D. L. Childers, J. W. Fourqurean, J. H. Richards, M. S. Ross, and R. Twilley. 2000. Trends in primary production at the Florida Coastal Everglades (FCE) LTER: Existing data and future plans. NSF Long Term Ecological Research Program All Scientists Meeting. Snowbird, UT.
- Gaiser, E. E. and M. S. Ross. 1999. Diatom indicators of salt-water encroachment in South Florida coastal mangrove wetlands. 15<sup>th</sup> North American Diatom Symposium. Pingree Park, CO.
- Gaiser, E. E., J. H. Richards and R. D. Jones. 1999. Effects of low-level phosphorus enrichment on Everglades periphyton. Ecological Society of America. Annual Meeting. Spokane, WA.

- Gaiser, E. E., M. S. Ross, J. Meeder and M. Lewin. 1999. Multi-taxon analysis of the "white zone", a common ecotonal feature of South Florida coastal wetlands. Florida Bay Ecosystem Science Conference. Key Largo, FL.
- Gaiser, E. E., S. DeCelles and J. H. Richards. 1999. Seasonality and succession of periphyton communities in Everglades National Park, Florida. American Society of Limnology and Oceanography. Annual Meeting. Santa Fe, NM.
- Gaiser, E. E. 1997. Paleolimnological Reconstruction of Holocene Environments in Wetland Ponds of the Upper Atlantic Coastal Plain using Siliceous Microfossils. 14<sup>th</sup> North American Diatom Symposium. Pellston, MI.
- Gaiser, E. E. 1997. Development of a diatom-based transfer function to infer pond permanence from fossil assemblages in intermittent ponds of South Carolina. American Society of Limnology and Oceanography. Annual Meeting. Santa Fe, NM
- Gaiser, E. E. and B. E. Taylor. 1996. Development of a model for inferring drought periodicity from diatoms in ephemeral ponds of the Atlantic Coastal Plain. Ecological Society of America. Annual Meeting. Providence, RI.
- Gaiser, E. E. and B. E. Taylor. 1996. Paleolimnological reconstruction of Holocene environments in Carolina Bays and upland wetland ponds of the Atlantic Coastal Plain. Association of Southeastern Biologists. Annual Meeting. Statesborough, GA.
- Gaiser, E. E. 1995. Distribution of diatoms along hydrologic gradients within and among Carolina bays of the Upper Atlantic Coastal Plain. 17<sup>th</sup> Southeastern Phycological Colloquy. Charleston, SC.
- Gaiser, E. E. and B. E. Taylor. 1995. Development of a diatom training set for the reconstruction of hydrologies in Carolina bays of the Upper Atlantic Coastal Plain. 13<sup>th</sup> North American Diatom Symposium. Milford, IA.
- Gaiser, E. E. and B. E. Taylor. 1995. Paleolimnological reconstruction of Holocene environments in wetland ponds of the Upper Atlantic Coastal Plain. Ecological Society of America. Annual Meeting. Snowbird, UT.
- Gaiser, E. E. and R. W. Bachmann. 1993. Seasonality and taxonomy of epizoic diatoms on planktonic cladocerans in three Iowa lakes. Ecological Society of America. Annual Meeting. Madison, WI.
- Gaiser, E. E. 1993. Holocene diatoms of Carolina Bay wetlands. American Society of Limnology and Oceanography and the Society of Wetland Scientists. Annual Meeting. Edmonton, Alberta, Canada.
- Gaiser, E. E. and R. W. Bachmann. 1991. The ecology and taxonomy of epizoic diatoms on Cladocera. Ecological Society of America. Annual Meeting. San Antonio, TX.

## RESEARCH GRANTS/CONTRACTS

- Gaiser, E.** (PI), R. Jaffe, M. Heithaus and R. Price. FCE II: Coastal Oligotrophic Ecosystems Research Supplement. National Science Foundation. \$103,764. August 2007 – August 2008.
- Oberbauer (PI), **E. Gaiser** and G. Starr. Response of carbon dioxide, water, and energy exchange of peat and marl wetlands in the Florida Everglades to changes in hydroperiod. DOE National Institute for Climatic Change Research. \$484,803. June 2007 – May 2010.
- Gaiser, E.** (PI), R. Jaffe, M. Heithaus and R. Price. FCE II: Coastal Oligotrophic Ecosystems Research. National Science Foundation. \$4,919,999. February 2007 – February 2013.

- Gaiser, E.** (PI) and J. Trexler. Comparing food web structure between Everglades and other calcareous wetlands of the Caribbean. National Science Foundation Long-Term Ecological Research program International Supplement. \$10,000. May 2006-May 2007.
- Gaiser, E.** (PI), J. Trexler, L. Scinto and D. Childers. Developing ecosystem response indicators to hydrologic and nutrient modifications in Northeast Shark River Slough, Everglades National Park. Department of the Interior, National Park Service. \$407,261. January 2006 – December 2008.
- Gaiser, E.** (PI), J. Trexler, L. Scinto and R. Price. Phosphorus retention and sub-surface movement through the S-332 detention basins on the eastern boundary of Everglades National Park. Department of the Interior, National Park Service. \$418,320. August 2005-July 2008.
- Richards, J. (PI), T. Philippi, J. Trexler, E. **Gaiser**, Y. Cai, L. Scinto, D. Childers. Monitoring, modeling and assessment of the Everglades ecosystem: R-EMAP Phase III. U.S. Environmental Protection Agency. \$90,536. October 2005-October 2008.
- Trexler, J. (PI), E. **Gaiser** and T. Philippi. Aquatic fauna and periphyton production data collection. South Florida Water Management District. \$1,100,000. October 2004-September 2008.
- Gaiser, E.** (PI). Analysis of algae of the Wekiva Spring drainage, FL. St. John's River Water Management District. \$11,725. August 2005 – December 2005.
- Gaiser, E.** (PI). Diatom-based water quality performance metrics for Biscayne Bay. Department of Interior the, National Park Service. \$43,000. September 2004 – September 2005.
- Anderson, W. (PI), E. **Gaiser**, and L. Scinto. Lake Harney sediment accumulation and past water quality. St. John's River Water Management District. \$98,000. July 2004 – October 2005.
- Gaiser, E.** (PI), J. Trexler and J. Richards. Linking hydrology to biological recovery after cessation of long-term phosphorus enrichment at the experimental dosing facility in Everglades National Park. Department of the Interior, National Park Service. \$67,000. September 2003 – September 2004.
- Gaiser, E.** (PI). Water quality in Biscayne Bay. Diatom Component. United States Geological Survey. \$12,000. September 2003 – September 2004.
- Gaiser, E.** (PI) and M. Ross. Water flow through coastal wetlands. Department of the Interior, National Park Service. \$15,000. September 2003 – September 2004.
- Anderson, W. (PI), E. **Gaiser** and L. Scinto. Lake Monroe sediment accumulation and past water quality. St. John's River Water Management District. \$131,610. July 2003 – October 2004.
- Gaiser, E.** (PI). Determine rates and biological consequences of salt-water encroachment in coastal wetlands in Biscayne National Park. Department of the Interior, National Park Service. \$86,766. June 2003 – June 2004.
- Gaiser, E.** (PI), J. Trexler and J. Richards. Numerical interpretation of Class III Nutrient Water Criteria for Everglades wetlands. Department of the Interior, National Park Service and the South Florida Water Management District \$560,000. May 2002 – September 2003.
- Gaiser, E.** (PI). Characterization of periphyton response to hydroperiod in marl prairie wetlands in the Everglades. Department of the Interior, National Park Service. \$295,130. September 2002- September 2005.
- Gaiser, E.** (PI) and M. Ross. Water flow through coastal wetlands. Department of the Interior, National Park Service. \$180,000. September 2001 – September 2003.

- Jones, R. (PI), E. **Gaiser**, M. Gantar and L. Scinto. Periphyton design and analysis for the C-51 (STA 1 – East) Project. U.S. Army Corps of Engineers. \$792,000. August 2001 – August 2003.
- Jones, R.(PI), E. **Gaiser**, M. Gantar and L. Scinto. Evaluation of the potential use of periphyton-dominated storm water treatment areas for phosphorus reduction in the southern Everglades. Department of the Interior, National Park Service. \$580,000. September 2000 – September 2002.
- Jones, R. (PI), E. **Gaiser**, M. Gantar and L. Scinto. Research integration of natural advanced treatment technologies. South Florida Water Management District. \$570,000. January 1999 - January 2001.
- Meeder, J. (PI), M. Ross and E. **Gaiser**. Southern Biscayne Bay watershed historical creek characterization. South Florida Water Management District. \$74,000. March 1999 - March 2001.
- Jones, R. (PI), D. Childers, J. Trexler, D. Lee, J. Richards, K. Jayachandran, E. **Gaiser** and L. Scinto. Numerical interpretation of Class III narrative nutrient water quality criteria for Everglades wetlands. Department of the Interior, National Park Service and the South Florida Water Management District. \$4,600,000. January 1996 -December 2002.
- Childers, D. (PI), C. Buzzelli, E. **Gaiser**, R. Jones, J. Richards, L. Scinto and J. Trexler. Using transect sampling to relate a phosphorus addition flume study to long-term water quality impacts in Everglades marshes. Department of the Interior, National Park Service. \$241,000. November 1998 - November 1999.
- Taylor, B. (PI) and E. **Gaiser**. Paleolimnological reconstruction of Holocene environments in wetland ponds of the Upper Atlantic Coastal Plain. National Science Foundation - Dissertation Improvement Grant. \$5,750. September 1995 – February 1997.
- Bachmann, R. (PI) and E. **Gaiser**. Diatoms living on cladocerans: An analysis of a new symbiosis discovered in Iowa lakes. Iowa Science Foundation. \$1,200. June 1990 - June 1991.

## **OTHER RESEARCH/SCHOLARSHIP/CREATIVE ACTIVITIES**

### **Professional Research Service:**

#### *Meetings Hosted:*

17<sup>th</sup> North American Diatom Symposium, Islamorada, FL, October, 2003  
FCE-LTER All Scientists Meeting, Miami, FL, March 19-20, 2007

#### *Scientific Advisor:*

Everglades Integrative Assessment Team, South Florida Water Management District, West Palm Beach, FL 2001-2005;

Environmental Regulatory Committee, Florida Department of Environmental Protection, Tallahassee, FL, 2001-2005

#### *Guest Editor:*

Special issue of *Hydrobiologia* featuring the Florida Coastal Everglades Long Term Ecological Research Program.

#### *Manuscript Reviewer:*

Limnology and Oceanography, Journal of Plankton Research, Journal of Environmental Quality, Journal of Paleolimnology, Diatom Research, Archiv für Hydrobiologie, Journal of Phycology, Phycologia, Estuaries, Journal of Applied Ecology, Oecologia

*External Proposal Reviewer:*

National Science Foundation  
U.S. Environmental Protection Agency

**Academic Supervision:**

*M.S. students supervised:*

Elaine Fontes, Admitted 2005 (co-supervising in Environmental Studies)  
Jay Munyon, Admitted 2006 (Biology)

*Ph.D. students supervised:*

Amanda Quillen, Admitted 2002 (Biology)  
Anna Wachnicka, Admitted 2002 (co-supervising in Earth Sciences)  
Pamela Bachman, Admitted 2002 (Biology)  
Josette LaHee, Admitted 2003 (Biology)

*Graduate student committees served:*

Andrew Gottlieb, Ph.D. Biology, graduated 2003  
Jeffrey Wozniak, Ph.D. Biology, graduated 2006  
Matthew Rogers, M.S. Biology, graduated 2006  
Sreepat Jain, Ph.D. Earth Sciences, graduated 2006  
Alison Stone, M.S. Environmental Studies, graduated 2005  
Charles Goss, M.S. Biology, graduated 2006  
Bryan P. Carroll, M.S. Earth Sciences, graduated 2006  
Clayton Williams, Ph.D. Biology, began 2003  
David Iwaniec, M.S. Biology, began 2003  
Clifton Ruehl, Ph.D. Biology, began 2004  
Theresa Meis, Ph.D. Biology, began 2004  
Kia Ruiz, Ph.D. Biology, began 2004  
Jie Cheng, Ph.D. Earth Sciences, began 2004  
Greg Koch, Ph.D., Biology, began 2005

*Postdoctoral associates supervised:*

Christopher Donar – 2000-2001  
Serge Thomas – 2001-2004

*Mentoring and Training:*

Mentor for National Science Foundation Undergraduate Mentoring in Environmental Biology Program  
Mentor for National Science Foundation Research Experience for Undergraduates Program  
Collaborator on National Science Foundation Faculty Initiatives for Reforming Science Teaching

**Awards and Scholarships:**

*Provost's Award for Excellence in Teaching*, Florida International University, 2006  
*Provost's Award for Excellence in Research*, Florida International University, 2005  
*Jessup and McHenry Fellowship*, Academy of Natural Sciences, Philadelphia, 1993, 1996  
*Outstanding Graduate Research Award*, Sigma Xi, SRA Chapter, 1995  
*Graduate Student Organization President*, Savannah River Ecology Laboratory, 1995  
*Best Student Publication*, Institute of Ecology, University of Georgia, 1993  
*Premium for Academic Excellence Scholarship*, Iowa State University, 1989-90  
*Graduate Student Organization President*, Animal Ecology, Iowa State University, 1990  
*Thomas H. MacBride Scholarship*, University of Iowa, 1990  
*Iowa Lakeside Laboratory Scholarship*, Iowa State University, 1989-90  
*Dexter Outstanding Undergraduate Student Award*, Kent State University, 1989