

CURRICULUM VITAE

Evelyn E. Gaiser

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EDUCATION

Ph.D. 1997 University of Georgia, Athens, Georgia, Institute of Ecology
M.S. 1991 Iowa State University, Ames, Iowa, Department of Animal Ecology
B.S. 1989 Kent State University, Kent, Ohio, Department of Biology

ACADEMIC AND PROFESSIONAL APPOINTMENTS

2006 – Present. Associate Professor. Department of Biology, Florida International University, Miami, FL.
2008 – Present. Research Associate. 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. E., J. M. La Hée, F. A. C. Tobias and A. H. Wachnicka. In Press. *Mastogloia smithii* Thwaites ex Wm. Smith: A structural engineer of calcareous mats in karstic subtropical wetlands. Proceedings of the Academy of Natural Sciences, Philadelphia.
Gaiser, E. E., P. V. McCormick and S. E. Hagerthey. In Press. Landscape patterns of periphyton in the Florida Everglades. Critical Reviews in Environmental Science and Technology.
Hagerthey, S. E., B. J. Bellinger, K. Wheeler, M. Gantar and E. **Gaiser**. In Press. Everglades periphyton: A biogeochemical perspective. Critical Reviews in Environmental Science and Technology.

- Wachnicka, A., E. **Gaiser**, L. Collins, T. Frankovich and J. Boyer. In Press. Distribution of diatoms and development of diatom-based inferences of environmental change in Florida Bay and adjacent coastal wetlands of South Florida. *Estuaries and Coasts*.
- Sargeant, B., J. Trexler and E. **Gaiser**. 2010. Biotic and abiotic determinants of intermediate-consumer trophic diversity in the Florida Everglades. *Marine and Freshwater Research*. In Press.
- Gaiser**, E., N. Deyrup, R. Bachmann, L. Battoe, and H. Swain. 2009. Multidecadal climate oscillations detected in a transparency record from a subtropical Florida lake. *Limnology and Oceanography*. 54: 2228–2232
- Gaiser**, E., R. Bachmann, L. Battoe, N. Deyrup and H. Swain. 2009. Effects of climate variability on transparency and thermal structure in subtropical, monomictic Lake Annie, Florida. *Fundamental and Applied Limnology*. 175: 217-230.
- Gaiser**, E. 2009. Periphyton as an indicator of restoration in the Everglades. *Ecological Indicators*. 9: S37-S45.
- Frankovich, T. A., A. R. Armitage, A. H. Wachnicka, E. E. **Gaiser** and J. W. Fourqurean. 2009. Nutrient effects on seagrass epiphyte community structure in Florida Bay. *J. Phycology*. 45: In Press.
- Gaiser**, E., R. Doren, P. McCormick, S. Newman, J. Richards and J. Trexler. 2008. Comment on “Estimating Ecological Thresholds for Phosphorus in the Everglades.” *Environ. Sci. Technol.* 42: 6770-6771.
- Liu, G., Y. Cai, P. Kalla, D. Scheidt, J. Richards, L. Scinto, E. **Gaiser** and C. Appleby. 2008. 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 C₂₅ 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:

- Cooper, S., E. **Gaiser** and A. Wachnicka. In Press. Estuarine paleoecological reconstructions using diatoms. In J. P. Smol and E. F. Stoermer, *The Diatoms: Applications in Environmental and Earth Sciences*. Cambridge.
- Gaiser**, E. E. and K. Rühland. In Press. Diatoms as Indicators of Environmental Change in Wetlands and Peatlands. J. P. Smol and E. F. Stoermer, *The Diatoms: Applications in Environmental and Earth Sciences*. Cambridge.
- 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. 2010. Pandora's box of paradox: expecting the unexpected in an upside-down estuary. University of Florida, Gainesville, Florida.
- Gaiser, E. 2009. Pandora's box of paradox: expecting the unexpected in an upside-down estuary. Ave Maria University. Ave Maria, Florida.
- Gaiser, E. E., V. Rivera-Monroy, S. E. Davis, V. Engle, J. Fuentes. 2009. Effects of hurricanes on state changes in the Florida Everglades. Caribbean Hurricane Research Network meeting. Merida, Mexico.
- Gaiser, E. E. 2009. Pandora's box of paradox: expecting the unexpected in an upside-down estuary. University of Georgia Odum School of Ecology Graduate Student Symposium Plenary Lecture. Athens, GA.
- Gaiser, E. E. and L. Ogden. 2009. Florida Coastal Everglades Long-Term Ecological Research program. LTER Network Graduate Education Course. Athens, GA.
- Gaiser, E. E. 2009. Method development on calculating water column stability from high resolution thermal data. Global Lake Ecological Observatory Network meeting. Hamilton, New Zealand.
- Gaiser, E. E. and H. M. Swain. 2008. Six months of high frequency limnological data from Lake Annie, Florida. Global Lake Ecological Observatory Network meeting. Norrtälje, Sweden.
- Gaiser, E. E., M. S. Ross, P. Ruiz, A. Wachnicka and A. Zafiridis. 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. 2009. *Mastogloia smithii* Thwaites ex Wm. Smith: A structural engineer of calcareous mats in karstic subtropical wetlands. North American Diatom Symposium. Milford, IA.
- Gaiser, E. E. 2009. Synchronized legacies of tropical storms on solute concentrations and primary production from uplands to coast in an expansive subtropical watershed. Biannual Meeting of the Coastal and Estuarine Research Foundation. Portland, OR.
- Gaiser, E. E. and J. Munyon. 2009. Effects of scale on the paradox of production in an oligotrophic wetland. Annual Meeting of the Ecological Society of America. Albuquerque, NM.
- 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. 30th 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. 18th 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. 16th 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. 15th 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. 14th 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. 17th 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. 13th 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

- Trexler, J. (PI) and E. **Gaiser**. Aquatic fauna and periphyton production data collection. South Florida Water Management District. \$1,100,000. October 2008-September 2012.

- Gaiser, E.** (PI), J. Trexler, J. Richards, L. Scinto. Effects of Tamiami Trail swale creation on ecosystem structure and nutrient delivery to Everglades National Park. \$314,000. June 2009 – June 2010.
- Gaiser, E.** (PI), R. Jaffe, M. Heithaus, L. Ogden and R. Price. FCE II: Coastal Oligotrophic Ecosystems Research Supplement. National Science Foundation. \$138,000. September 2009 – November 2010.
- Gaiser, E.** (PI), R. Jaffe, M. Heithaus, L. Ogden and R. Price. FCE II: Coastal Oligotrophic Ecosystems Research Supplement. National Science Foundation. \$108,000. September 2008 – November 2009.
- 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.
- 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:

Lead Principal Investigator: Florida Coastal Everglades Long-Term Ecological Research Program (fcelter.fiu.edu).

Meetings Hosted:

- Caribbean Hurricane Research Network Meeting, December, 2009, Miami, FL.
- 6th Global Lake Ecological Observatory Network meeting, February, 2008, Archbold Biological Station, FL.
- 17th North American Diatom Symposium, Islamorada, FL, October, 2003
- Annual FCE-LTER All Scientists Meeting, Miami, FL

Advisory Committees:

- 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
- Long Term Ecological Research Network 2009 All Scientists Meeting, Estes Park, CO.
- Florida Water Quality Standards Advisory Board, 2008
- Global Lake Ecological Observatory Network Steering Committee, 2009-2011
- National Ecological Observatory Network Southeastern Region Advisory Committee, 2009-2011

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, Ecology, Proceedings of the Academy of Natural Sciences, Philadelphia, Oikos, Wetlands, Estuaries and Coasts

External Proposal Reviewer and Panelist:

National Science Foundation
U.S. Environmental Protection Agency
Florida Department of Environmental Protection

Academic Supervision:

Completed Degrees:

Amanda Quillen, Ph.D., Biological Sciences, 2009
Anna Wachnicka, Ph.D., Earth Sciences, 2009
Pamela Bachman, Ph.D., Biological Sciences, 2009
Elaine Fontes, M.S., Environmental Studies, 2008

Completed committees served:

Jie Cheng, Ph.D. Earth Sciences, 2009

Clayton Williams, Ph.D. Biology, 2008
David Iwaniec, M.S. Biology, 2008
Bryan P. Carroll, M.S. Earth Sciences, 2006
Jeffrey Wozniak, Ph.D. Biology, 2006
Matthew Rogers, M.S. Biology, 2006
Sreepat Jain, Ph.D. Earth Sciences, 2006
Charles Goss, M.S. Biology, 2006
Alison Stone, M.S. Environmental Studies, 2005
Andrew Gottlieb, Ph.D. Biology, 2003

Post-doctoral advisees:

Christopher Donar, Post-doctoral Associate, 2000-2001
Serge Thomas, Post-doctoral Associate, 2001-2004
Andrew Bramburger, Post-doctoral Associate, 2009-
Ania Wachnicka, Post-doctoral Associate, 2009-

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 Faculty Scholarship, Florida International University, 2008
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